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**ASSESSMENT REPORT**

describing

**PROSPECTING AND GEOCHEMICAL SAMPLING**

at the

**GROUNDHOG PROPERTY**

CYR 1-34	YD07821-YD07854
CYRX 1-2	YD42085-YD42086
CYRX 3-63	YD143403-YD143463
SEA 1-104	YC72460-YD143463
SEA 105-108	YC73866-YD143463
SEA 109-120	YC98399-YC98410

NTS 105F/10

Latitude 61°37'N; Longitude 132°52'W

located in the

Watson Lake Mining District  
Yukon Territory

prepared by

Archer, Cathro & Associates (1981) Limited

for

**STRATEGIC METALS LTD.**

by

Ryan Burke, B.Sc., G.I.T.

December 2019

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## INTRODUCTION

The Groundhog property covers silver-lead ± zinc ± gold showings located in the Pelly Mountains of Yukon Territory. It is wholly owned by Strategic Metals Ltd.

This report describes an exploration program conducted by Archer, Cathro & Associates (1981) Limited on behalf of Strategic Metals between August 11 and August 16, 2019. A program of prospecting and geochemical sampling was carried out by a three person crew working from a tent camp on the property. The author interpreted all data in this report and his Statement of Qualifications appears in Appendix I. A Statement of Expenditures is located in Appendix II.

## PROPERTY LOCATION, CLAIM DATA AND ACCESS

The Groundhog property consists of 217 contiguous mineral claims located 50 km southwest of Ross River in southeastern Yukon, at latitude 61°36' north and longitude 132°52' west on NTS 105F/10 (Figure 1). The claims are registered in the Watson Lake Mining Recorder in the name of Archer Cathro, which holds them in trust for Strategic Metals. Claim data are listed below while the locations of individual claims are illustrated on Figure 2.

<u>Claim Name</u>	<u>Grant Number</u>	<u>Expiry Date*</u>
CYR 1-34	YD07821-YD07854	March 11, 2025
CYRX 1-2	YD42085-YD42086	March 11, 2025
CYRX 3-63	YD143403-YD143463	March 11, 2025
SEA 1-104	YC72460-YD143463	March 5, 2029
SEA 105-108	YC73866-YD143463	March 5, 2030
SEA 109-120	YC98399-YC98410	March 5, 2030

\*Expiry dates include assessment credits for 2019 work.

Work in 2019 was conducted from a tent camp located at an old exploration campsite alongside the Groundhog Creek access road, about two kilometres east of its junction with the South Canol Road. Previously constructed road systems and ATV trails were used to access most parts of the property. Minor road repairs were made using pick and shovel.

## HISTORY

Silver-lead-zinc mineralization was discovered in the region in 1956. Subsequent exploration has outlined two areas of silver-lead-zinc mineralization, one to the north, and the other to the south, of Groundhog Creek (collectively “the Groundhog Silver Camp”). In total, about 100 showings have been discovered, mostly by prospecting and bulldozer trenching. The showings located north of Groundhog Creek presently lie within a staking moratorium pending settlement of First Nation land claims. The Groundhog property covers most of the showings identified south of Groundhog Creek.

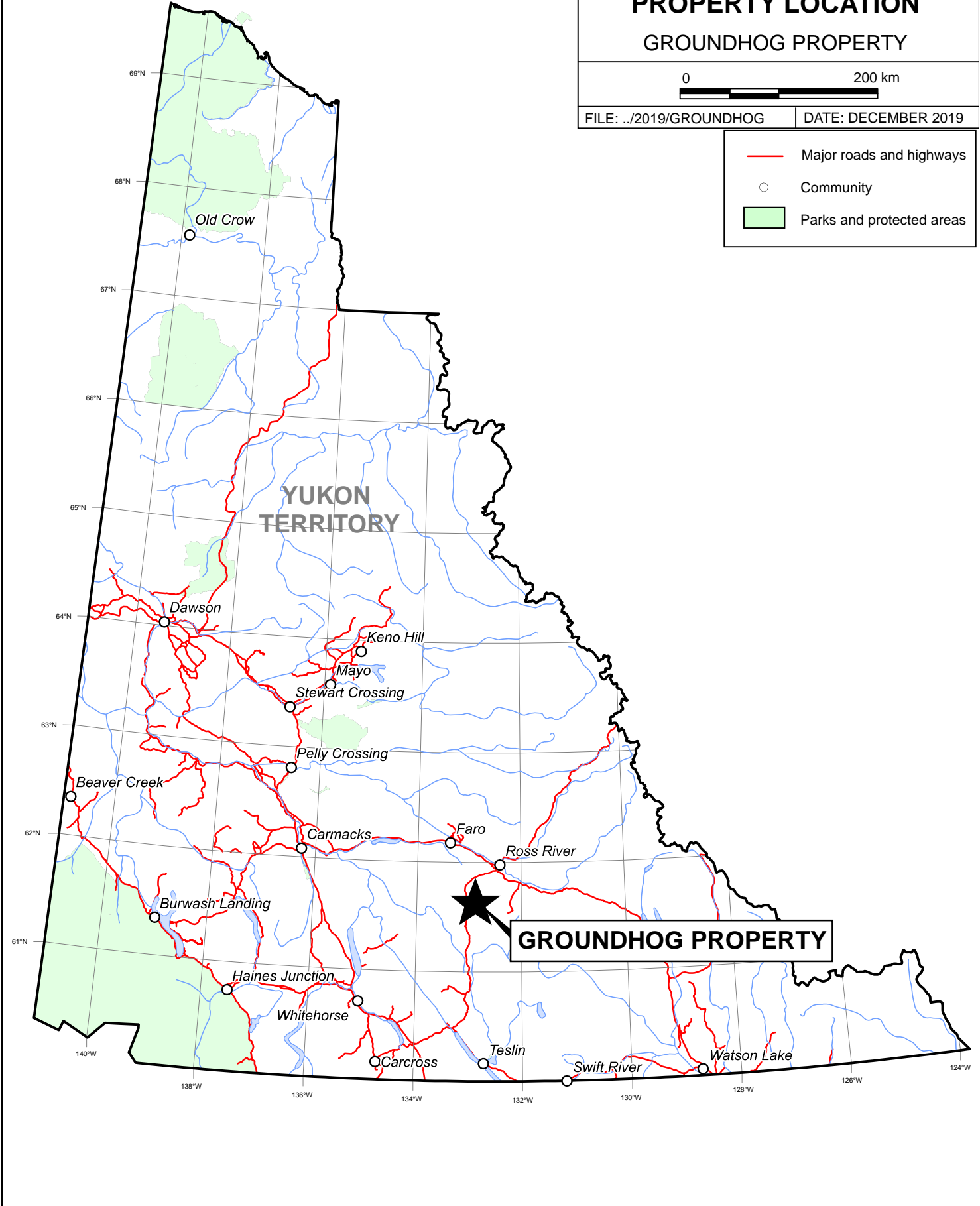
**STRATEGIC METALS LTD.**

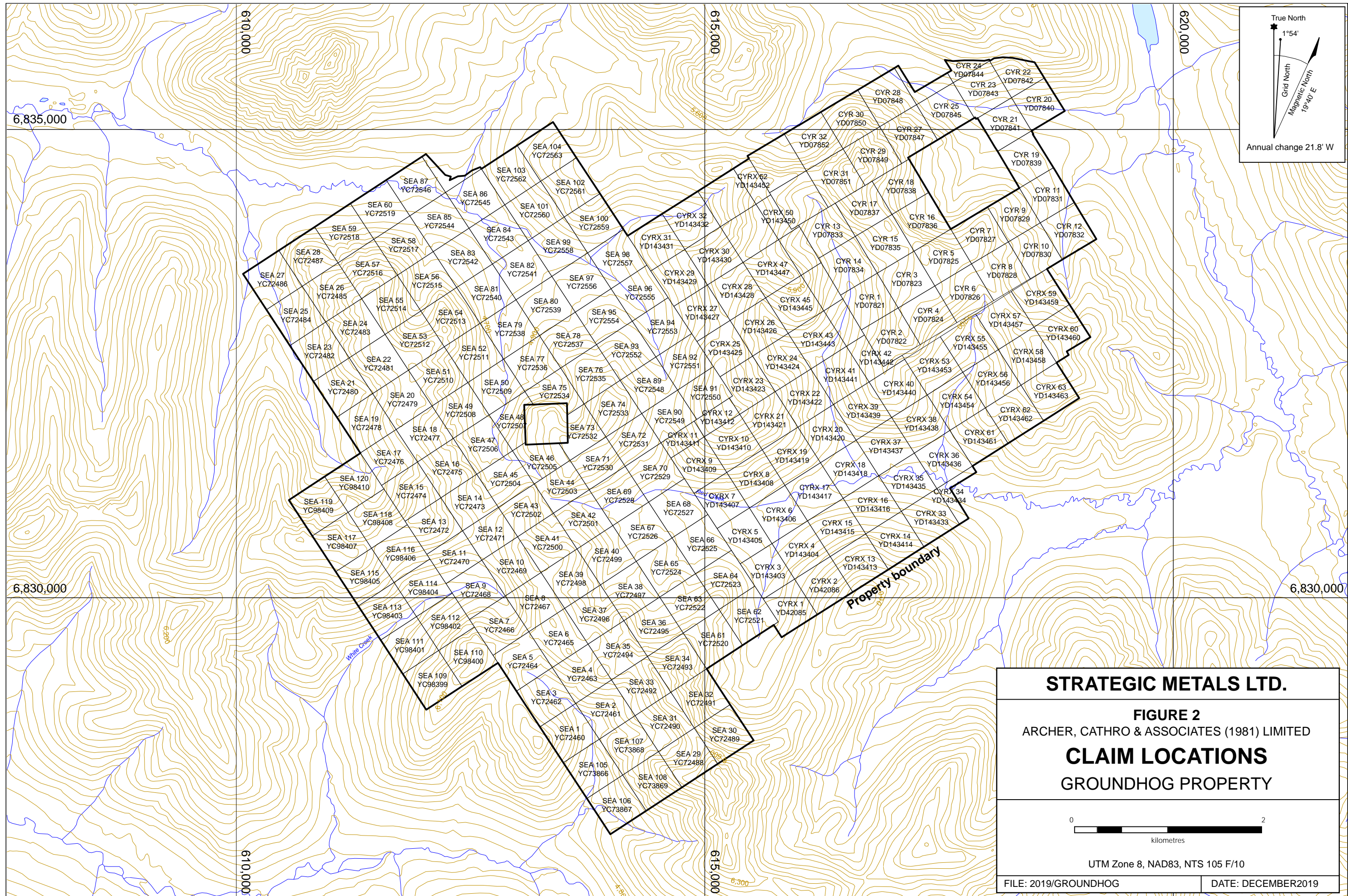
FIGURE 1  
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED  
**PROPERTY LOCATION**  
GROUNDHOG PROPERTY



FILE: ../2019/GROUNDHOG | DATE: DECEMBER 2019

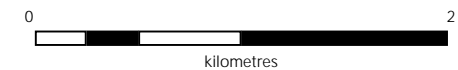
- Major roads and highways
- Community
- Parks and protected areas





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**FIGURE 2**  
 ARCHER, CATHRO & ASSOCIATES (1981) LIMITED  
**CLAIM LOCATIONS**  
 GROUNDHOG PROPERTY



UTM Zone 8, NAD83, NTS 105 F/10

FILE: 2019/GROUNDHOG

DATE: DECEMBER2019

Silver mineralization was first reported in the area now covered by the Groundhog property by prospectors H. and P. Versluc in 1979. They staked the Jeff claims and conducted limited prospecting and rock sampling. Soon afterward N. Hennel staked the Hi Grade claim on the east side of the Jeff claims and an unknown person staked the Jim claims directly to the south. There is no record of work having been done on either of those claim blocks. In 1981, the Seagull Joint Venture, comprised of Great Western Petroleum Corporation and Lornex Mining Corporation, staked the Lorne claims to the east of the Jeff claims. That joint venture performed a program of mapping and silt and soil geochemical sampling over its property. This work located scattered mineralized float, but it was all believed to have originated from the Jeff claims, except for a train of massive galena boulders that was followed to a snow covered area. That discovery was never further evaluated.

In 1986, Yukon Minerals Corporation staked 348 claims to cover all of the known showings in the Groundhog Silver Camp. In 1987 it added another 152 claims and formed a joint venture with Perrex Resources Inc. That joint venture carried out mapping and prospecting over the entire claim block, which resulted in the discovery of a number of new showings. Subsequently bulldozer and excavator trenching was done to evaluate various showings. One of the showings (PN) was tested by a 52.56 tonne bulk sample and 204 m of diamond drilling in 6 holes between 1988 and 1990.

McCrorry Holdings Ltd. conducted an eight day reconnaissance exploration program over its adjoining Pass Peak property in 1987 which lies in the southern portion of the present Groundhog property. Nine mineral occurrences were discovered and sampled. This property was optioned to Yukon Minerals in 1988. Detailed mapping and silt geochemistry sampling were completed in 1988 over this property.

The area was partially restaked by Whitehorse prospector R. Berdahl in 1990, and he continues to own one claim that covers old workings on the Lucky, PN and Jill veins.

The southern part of Groundhog Silver Camp was staked in late 2007 by Strategic Metals. Rockhaven Resources Ltd. bought the property from Strategic Metals in November 2007.

In summer 2008, Rockhaven contracted Geotech Inc. to complete a helicopter-borne versatile-time domain electromagnetic (VTEM) and magnetic survey over the property. The results from this survey were later used by a two-man crew that re-evaluated historical showings and collected silt samples. The Sea 105 to 108 claims were staked to cover the inferred strike extension of a newly discovered showing.

In 2009, Rockhaven carried out a month-long program that included prospecting, hand trenching and geochemical sampling. Prospecting and hand trenching identified several areas of significant mineralization including: chip samples that averaged 47.8 g/t Ag, 9.09% Pb, 15.70% Zn over 8.93 m and a float sample that assayed 2230 g/t Ag and 70.01% Pb at the Cirque target; and a grab sample from the Rob #1 target that graded 2440 g/t Ag, 58.57% Pb, 2.99 % Zn, 0.041 g/t Au. The program also identified the first significant gold value on the property from a float sample collected from the Aztec showing, which returned 486 g/t Ag, 14.9% Pb, 0.75% Zn and 1.805 g/t Au. Soil geochemistry outlined several areas where samples were strongly anomalous

in silver, lead and zinc. At the Aztek showing a 2000 m long up to 1400 m wide, gold-arsenic anomaly was identified near a mapped structure.

In 2011, the CYRX (63 claims) and CYR (34 claims) were staked by Rockhaven, on the east side of the Sea claims.

In 2015, Rockhaven entered an agreement with Strategic Metals, which resulted in the Groundhog project being transferred to Strategic Metals.

In 2018, a prospecting, hand pitting and geochemical sampling program was completed on behalf of Strategic Metals. During this program, a total of 663 soil samples were taken from two grids: an 800 m by 800 m grid over the Aztek showing, and a 1500 m by 1500 m grid over the JW showing. At the Aztek showing, results defined an 800 m by 350 m oval-shaped gold and arsenic anomaly, with values ranging from 20 to 1650 ppb Au and 100 to 2240 ppm arsenic. This area also returned anomalous values for silver, lead, and zinc. At the JW showing, strongly anomalous gold-in-soil values (up to 560 ppb) form a cluster in the centre of the grid.

Rock samples collected during the 2018 program included noteworthy results from a limestone breccia boulder found along the western edge of the property, which returned 577 g/t Ag, 19.75% Pb and 10.6% Zn.

### **GEOMORPHOLOGY**

The Groundhog property is located in the St. Cyr Range of the Pelly Mountains. All streams draining the property flow into Groundhog, Upper Sheep and Seagull creeks, which ultimately flow into the Bering Sea via the Pelly and Yukon rivers.

The claims overlie rugged topography with peaks rising to 2120 m from valley floors of 1200 m. Lower elevations are vegetated with spruce forests, thick buckbrush and slide alder surrounded by moss. Higher elevations exhibit talus slopes with intermittent grass and alpine heather. Outcrop is mostly restricted to ridges and very steep slopes. Treeline is at about 1575 m.

### **REGIONAL GEOLOGY**

The Groundhog property is located 30 km southwest of the Tintina fault in the Ketzá-Seagull District (Pelly Mountains ) of the Cassiar terrane (or platform), (Figure 3). The Cassiar terrane is a displaced parautochthonous fragment of the Laurentian margin offset by the Tintina fault, a northwest trending transcurrent fault with approximately 425 km of dextral strike-slip Tertiary motion (Gabrielse et al., 2006; Mortensen, 2004). In southeastern Yukon, this fault juxtaposes metamorphosed island arc assemblages of the Yukon-Tanana terrane to the northeast against the Cassiar terrane to the southwest (Figure 3).

Tempelman-Kluit (1977; 2012) carried out the first comprehensive bedrock mapping in the Pelly Mountains within NTS 105F (Quiet Lake) and 105G (Finlayson Lake) map sheets. He divided the rocks into four main stratigraphic groups, Ketzá, Kechika, Askin and Seagull, each comprised of several informal formations (Figure 4). Subsequently some of these rocks were re-

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FIGURE 3

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

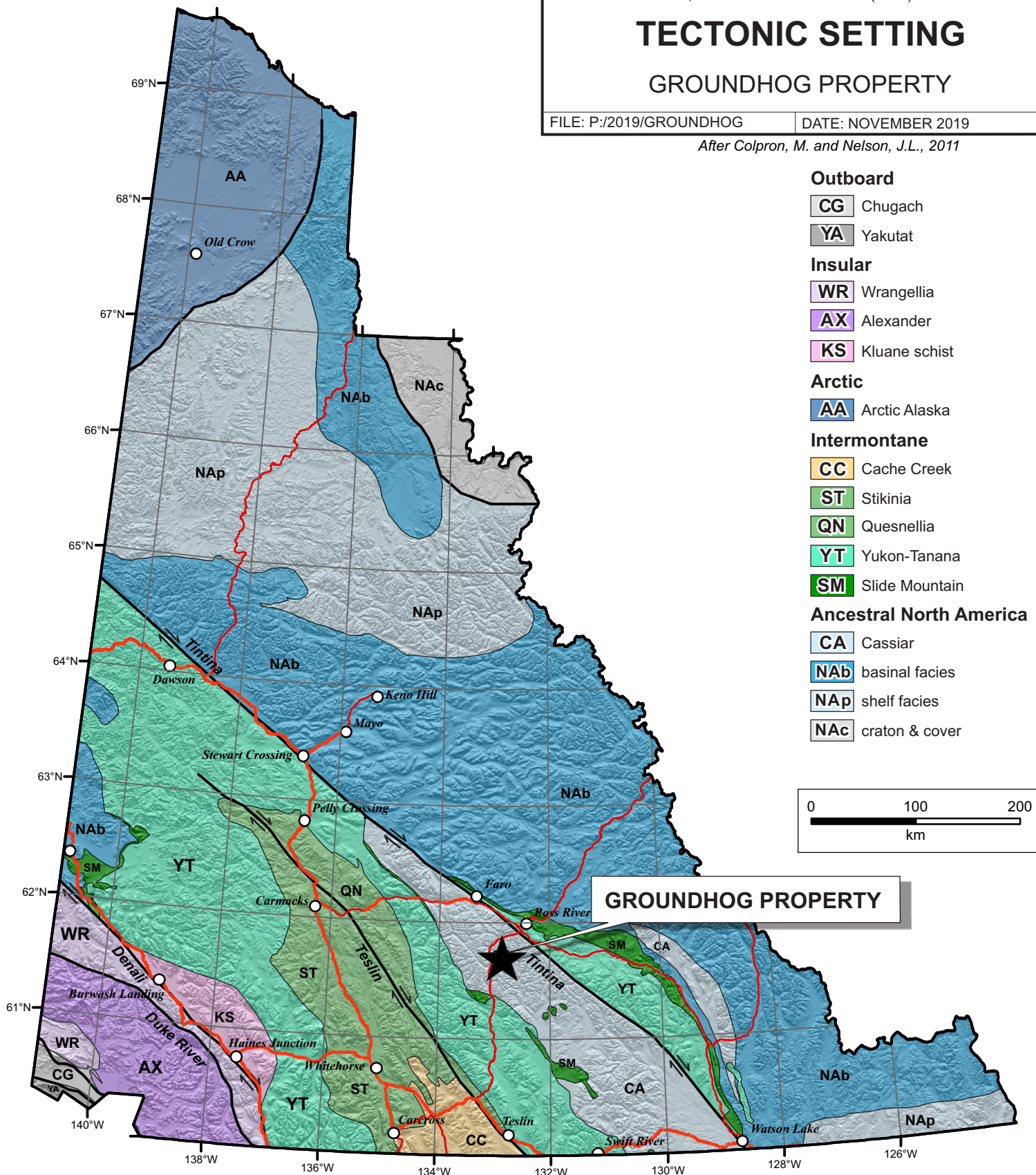
## TECTONIC SETTING

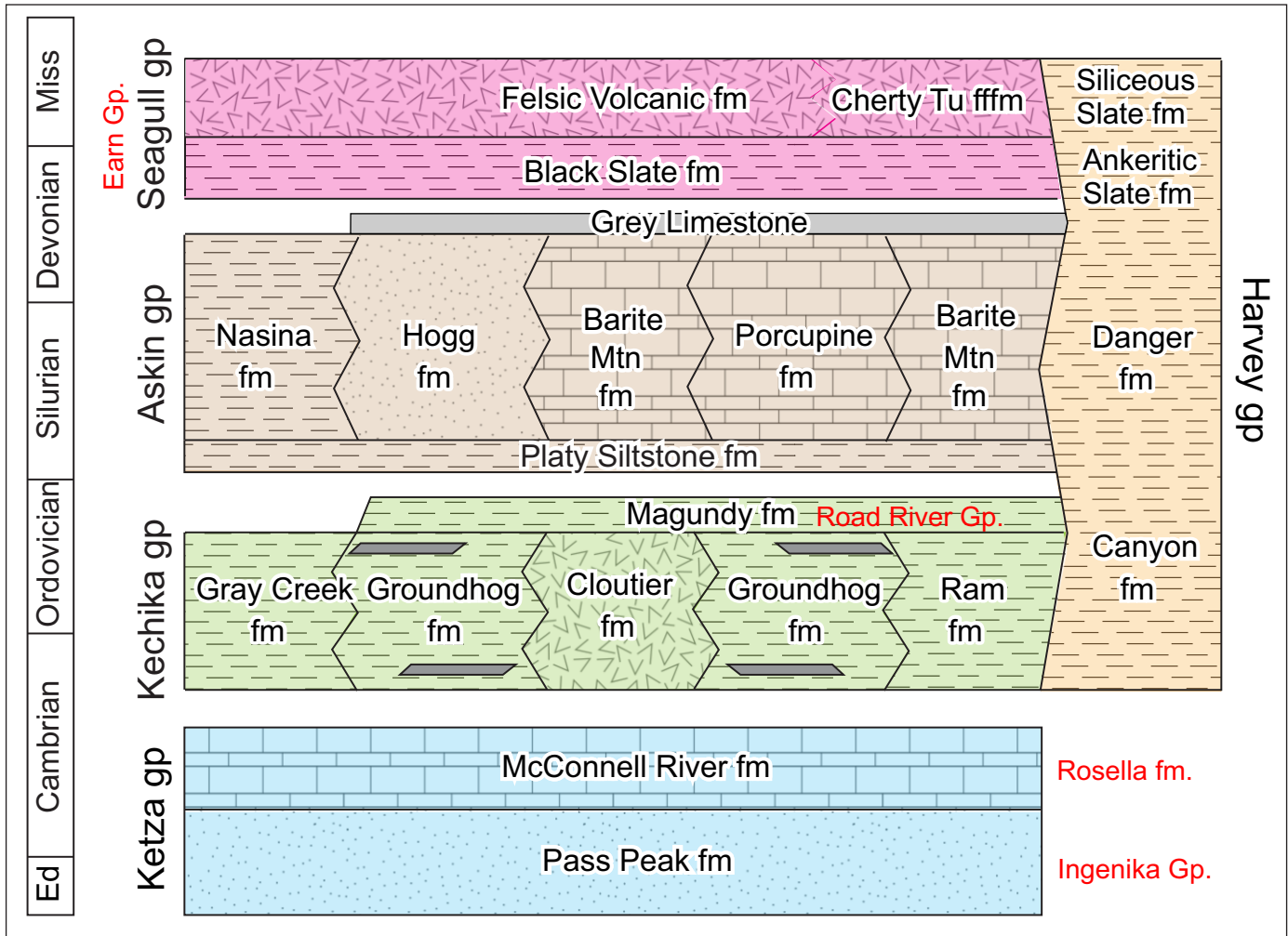
### GROUNDHOG PROPERTY

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DATE: NOVEMBER 2019

After Colpron, M. and Nelson, J.L., 2011





**FIGURE 4 - REGIONAL STRATIGRAPHY**

Paleozoic stratigraphy of the Pelly Mountains compiled by Tempelman-Kluit (1977, 2012), modified from Campbell and Beranek (2017). Red text is the reinterpreted stratigraphic assignment from Gordey and Makepeace (2001) and the Yukon Geological Survey (2019).

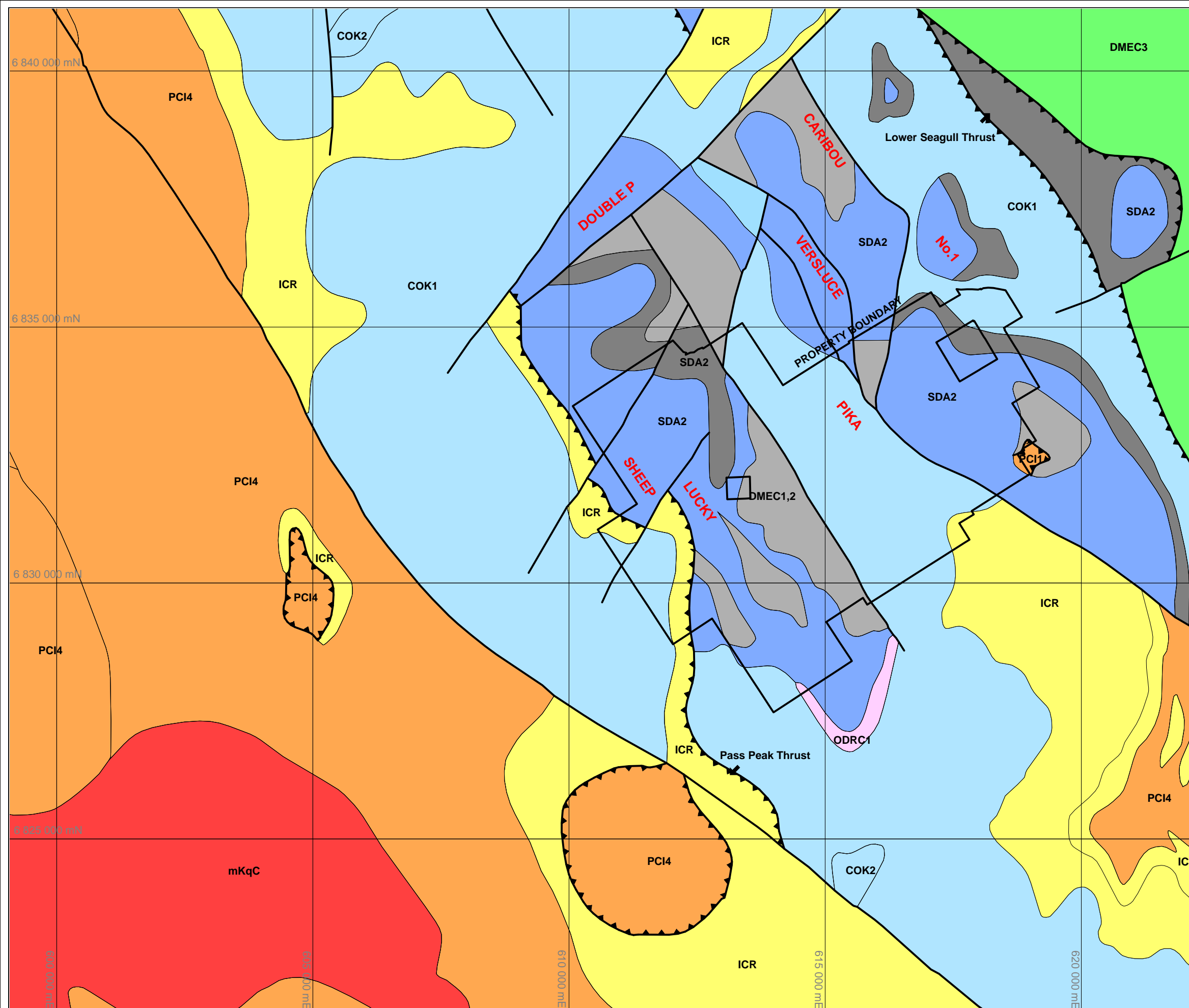
compiled into the updated Yukon bedrock geology map to better fit with the larger regional-scale geology of the Cassiar terrane (Gabrielse, 1963; Yukon Geological Survey, 2019).

The upper Neoproterozoic to Lower Cambrian Ingenika Group and Rosella formation are the oldest rocks in the region (Figure 5). Templeman-Kluit (1977; 2012) placed these rocks within what he called the Ketz Group, with the Ingenika Group and the Rosella formation represented by the Pass Peak and McConnell River formations respectively (Table I). The rocks of the Ingenika Group and the Rosella formation outcrop in the western portion of the Groundhog region, in the hanging wall of a northwest-striking thrust fault and within the exhumed areas of the Seagull and Ketz uplifts (Figure 5). The Ingenika Group consists of up to 200-700 m of green to tan coloured shale, siltstone and quartzite (Templeman-Kluit, 2012; Campbell and Beranek, 2017). These rocks are overlain by up to 800 m of calcareous mudstone and siltstone, archeocyathid bearing carbonate mounds, and black pyritic slate assigned to the Rosella formation. The upper contact between the Rosella formation and the overlying Kechika Group is not well-exposed; however, a mid-Cambrian fossil gap suggests an unconformity (Templeman-Kluit, 2012).

The Kechika Group consists of Upper Cambrian to Ordovician siliciclastic and volcanic rocks found in the central part of the Groundhog area (Figure 5; Table I). Kechika Group rocks are either structurally overlain by or unconformably overlying rocks of the Ingenika Group and Rosella formations in the western and central parts of the region. In other areas, the Kechika Group is conformably to disconformably overlain by the younger Askin Group or thrust over Devonian to Mississippian Earn Group. The Kechika Group consists of northwest striking belts of laterally interfingering strata characterized by calcareous slate and thin-bedded platy limestone, tuffaceous phyllite, greenstone and andesitic tuff, basalt flows and volcanoclastic rocks. These rocks appear to be capped by a thin discontinuous black slate that Templeman-Kluit (2012) assigned to the Magundy formation, but has since been correlated with the Road River Group (Yukon Geological Survey, 2019).

Conformably to disconformably overlying the Kechika Group is Silurian to Devonian shallow water, marine strata of the Askin Group. Rocks of the Askin Group form much of the larger mountains within the Groundhog region, due to the resistive nature of the stratigraphy. These rocks are unconformably overlain by Earn Group rocks in the central part of the Groundhog region and are faulted against rocks of the Ingenika Group, Rosella formation and Earn Group in the west (Figure 5). The Askin Group consists of a basal, platy, dolomitic siltstone 100 to 500 m thick, overlain by well-bedded, shallow water carbonate rocks and massive dolostone with varying amounts of quartz-sand and silt. Mafic to intermediate volcanic rocks are found locally within the lower platy siltstones. Rapid lateral variations in stratigraphy occur within the carbonate rocks and locally dolomitic, quartz, sandstone dominates. A blueish-grey coloured, thin-bedded limestone is found locally at the top of the Askin Group and overlies most stratigraphy within the group.

Siliciclastic and volcanic rocks of the Devonian to Mississippian Earn Group outcrop in the central to western parts of the Groundhog region. These rocks are conformable to discordantly overlying the Askin Group and are structurally overlain by rocks of the Kechika Group (Figure 5; Table I). Templeman-Kluit (1977; 2012) included these rocks in the Seagull Group, but they



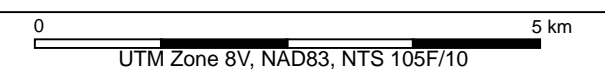
- Mid Cretaceous Cassiar Suite**  
**mKqC** Light grey weathering, homogenous porphyritic medium grained biotite quartz monzonite
- Upper Devonian to Lower Mississippian Earn Group**  
**DMEC1,2** Dark grey, recessive weathering, thin bedded, black siliceous slate with interbeds and members of quartz-chert greywacke, chert granule grit, and rusty orange weathering, resistant, apple-green and dark grey, thin bedded chert and cherty tuff  
**DMEC3** Heterogeneous, rusty, black-, white-, and orange-weathering rhyolite-trachyte to andesite flows, breccias and tuffs
- Silurian to Lower Devonian Askin Group**  
**SDA2** Resistant, thick bedded to massive, red weathering, coarsely sucrose dolomite; minor sandy dolomite  
**SDA2** Recessive weathering, thin bedded, dark grey dolomitic shale
- Ordovician to Devonian Road River Group**  
**ODRC1** Recessive, black, locally calcareous, fissile grapholitic shale
- Upper Cambrian to Lower Ordovician Kechika Group**  
**COK1** Basinal fine grained calcareous pelitic strata containing thin bedded, lustrous, calcareous, grey slate, phyllite, limestone, minor grey dolomite and dolomitic limestone; quartz- carbonate veins; minor sills and flows of basalt  
**COK2** Massive, dark green and marron amygdaloidal basalt flows and volcaniclastics
- Lower Cambrian Rosella Group**  
**ICR** Resistant, thick bedded to massive, limestone and argillaceous limestone with local archaeocyathid buildups, trilobite fragments, and oolites, pisolitic massive dolomite and limestone; marble, calc-silicate, calcareous phyllite and minor schist
- Upper Proterozoic to Lower Cambrian Ingenika Group**  
**PCI1** Calcareous sandstone, shale, quartz-eye grit, quartzite and minor grey limestone  
**PCI4** Buff weathering, resistant muscovite-biotite granodiorite gneiss and augen gneiss
- ▲▲▲ Thrust fault  
 — Normal fault  
 — Geological contact  
**SHEEP** Mineralized trend
- 39°  
 Grid north  
 23°52'  
 Magnetic north  
 Annual change decreasing 28'

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**FIGURE 5**

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

**REGIONAL GEOLOGY  
 GROUNDHOG PROPERTY**



have since been correlated with Earn Group strata (Yukon Geological Survey, 2019). Earn Group rocks in the Groundhog region consists of slate, greywacke and felsic volcanic rocks. The lower part of the Earn Group in this region is dominated by thin-bedded, black, fissile slate. Thin beds of greywacke composed of chert, feldspar and quartz grains are interbedded with the slate and locally form beds of granule to pebble conglomerate. Thin-bedded barite is found in the upper parts of the slate and can reach thicknesses of 200 m near the top of the unit. A grey to greenish cherty tuff unit overlies the black slate and consists of rusty orange weathered cap. Thin argillaceous layers, between one and ten centimetres thick, separate beds of the cherty tuff. The tuff is roughly 100 m thick and is overlain by a laterally and vertically heterogeneous unit of volcanic and volcanoclastic rocks. The volcanic and associated volcanoclastic rocks are up to 500 m thick and include a variety of light coloured tuff, volcanic breccias and flows, dykes sills and subvolcanic plugs of felsic to intermediate composition. Individual beds are difficult to follow laterally for any distance and also have rapid vertical facies changes.

Late Devonian plutonic rocks of the Pelly Mountains suite intrude into the Earn Group volcanic rocks and the Askin Group in the eastern part of the Groundhog region. These rocks are at least in part time-equivalent with the Earn Group volcanic rocks and are genetically related. Rocks of the Pelly Mountain suite consist of massive, medium to fine-grained, sub-volcanic syenite to trachyte. One U-Pb zircon age from this suite suggests an age of ca. 362 Ma (Mortensen and Gordey, unpublished data).

Early Cretaceous monzo-granite to granodiorite of the Cassiar suite outcrop in the extreme western part of the Groundhog area (Figure 5; Table I). The suite ranges in age from 117-104 Ma and includes large, regional batholiths such as the Nisutlin, Quiet Lake and Big Salmon batholiths. Smaller buried intrusions of the Cassiar suite are thought to underlay both the Ketz and Seagull uplifts and likely play a role in the mineralization found in both areas (Abbott, 1986).

**Table I - Regional Lithological Units (After YGS, 2019)**

Name	Age	Unit	Description
Cassiar Suite	Mid-Cretaceous	mKqC	Light grey weathering, homogenous, porphyritic medium-grained biotite quartz monzonite.
Earn Group (Seagull Gp)	Upper Devonian to Lower Mississippian	DMEC1	Dark grey, recessive weathering, thin bedded, black siliceous slate with chert pebble conglomerate and rare lenses of intermediate to felsic volcanoclastic rocks.
		DMEC2	Rusty orange weathering, resistant, apple-green and dark grey, thin bedded chert and cherty tuff; local nodular and bedded barite.
		DMEC3	Heterogeneous, rusty, black, white, and orange- weathering rhyolite-trachyte to andesite flows, breccias and tuffs.

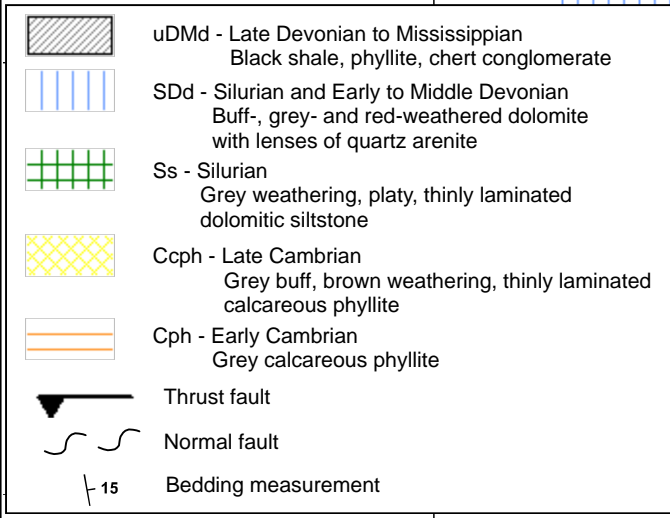
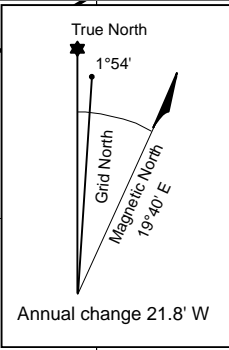
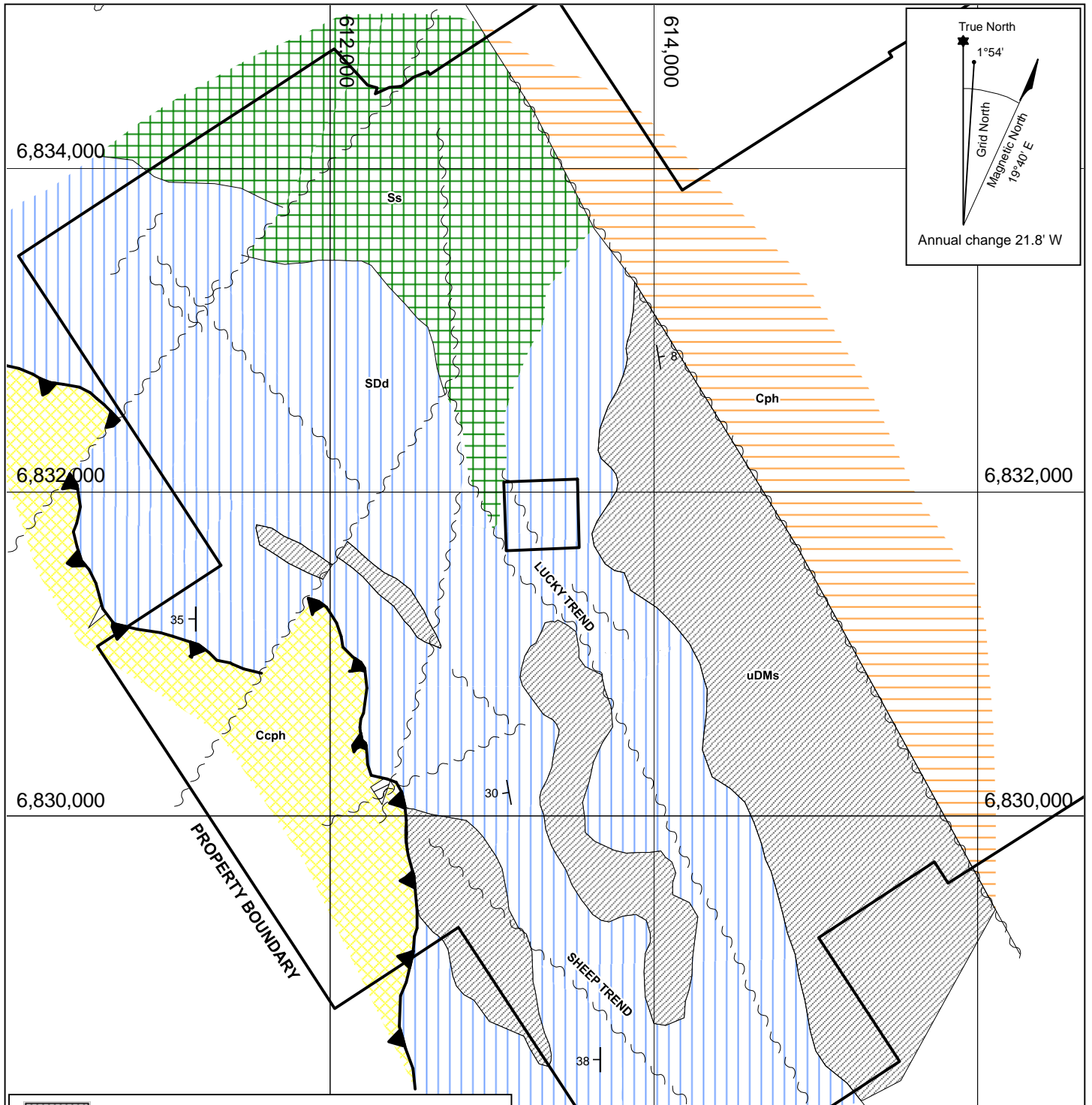
Askin Group	Middle Silurian to Middle Devonian	SDA2	Medium grey to buff weathering, medium-to-thick bedded dolomite, silty and sandy dolomite, limestone, and medium-to-thick bedded orthoquartzite.
Kechika Group	Upper Cambrian to Lower Ordovician	COK1, COK2	Basinal, fine grained, calcareous pelitic strata containing thin bedded, lustrous, calcareous grey slate, phyllite, limestone, minor grey dolomite and dolomitic limestone; quartz-carbonate veins; minor sills and flows of basalt (COK1); massive dark green and maroon amygdaloidal basalt flows and volcanoclastic rocks (COK2)
Rosella Group (Ketz Gp – McConnell River fm.)	Lower Cambrian	ICR	Resistant, thick bedded to massive, limestone and argillaceous limestone with local archaeocyathid buildups, trilobite fragments, and oolites; pisolitic massive dolomite and limestone; marble, calc-silicate, calcareous phyllite and minor schist.
Ingenica Group (Ketz Gp – Pass Peak fm.)	Upper Proterozoic to Lower Cambrian	PCI4	Buff weathering, resistant muscovite-biotite granodiorite gneiss and augen gneiss.

Structure across the district has a pronounced northwesterly trending fabric that is dominated by northeast verging thrusts and parallel to sub-parallel horsts and grabens related to normal faults. Thrust faults are associated with wide-spread mid-Cretaceous compression that affected the entire western margin of North America (Tempelman-Kluit, 2012; Nelson et al., 2013). The horst and graben structures have been attributed to uplift caused by doming above a large buried intrusion (Abbott, 1986). Two of these dome-like structures have been identified, the Ketz uplift centred around the Ketz mine and the Seagull uplift centred on the current project area (Figure 5). Abbott (1986) combined the two uplifted areas to encompass the Ketz-Seagull Arch, a regionally exhumed area containing hornfels and schists in the two core areas. It is suspected that there is a direct relationship between the two uplifted regions and the epigenetic vein hosted deposits and occurrences in this region (see below).

### **PROPERTY GEOLOGY**

Mapping in 1988 by Yukon Minerals identified six units on the property, which are correlated to the regional lithologies as shown in Table II. Mapping by Rockhaven in 2008 (Turner, 2009, Kammerer and Turner, 2010) was done at 1:10,000 scale, using the same units. No mapping was completed during the 2018 or 2019 field seasons. The property geology shown on Figure 6 is from Kammerer and Turner (2010).

The property is underlain by relatively thick successions (up to 400 m) of calcareous sedimentary rocks with lesser clastic sedimentary rocks, which range in age from Lower Cambrian to Late Devonian-Mississippian. Bedding orientations mostly show northerly strikes, with flat to



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**FIGURE 6**  
ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

**PROPERTY GEOLOGY**  
**GROUNDHOG PROPERTY**

0 2  
kilometres

UTM Zone 8, NAD83, NTS 105 F/10

FILE: 2019/GROUNDHOG	DATE: DECEMBER 2019
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moderate dips of 5° to 35°W in the western part of the property and 2° to 20°E in the east. These measurements indicate a broad anticlinal fold with a northerly trending axis.

**Table II - Correlation of Regional and Property Lithological Units**

<b>Regional unit</b>	<b>Property subunit</b>	<b>Description</b>
mKqC	KTqfp	Dark green, fine grained biotite-bearing dykes.
DMEC1	uDMS	Black, recessive weathering shale.
DMEC2	uDMc	Dark grey, resistant, thin bedded chert and local nodular and bedded barite.
SDA2	SDd	Buff-, grey-, and red-weathering dolomite with lenses of massive quartz arenite.
COK1	Ccph	Grey buff, brown weathering thinly laminated calcareous phyllite.
ICR	Cph	Grey calcareous phyllite.

Although there are no mapped exposures of intrusive bedrock on the property, some areas host numerous boulders of dark green, intermediate to mafic intrusive (KTqfp). Yukon Minerals mapped two dykes of this unit in outcrops about 400 m north of the property. These dykes range from 2 to 10 m in width and were traced over 600 m along strike.

The Pass Peak Thrust Fault is the only named fault on the property and represents the southern flank of the complexly faulted arch named the Seagull Uplift. The Lower Seagull Thrust, 5 km to the northeast of the property (Figure 5), represents the northern flank of the arch. Both of these thrust faults strike northerly and dip shallowly to the west.

Several normal faults and shear zones have also been mapped on the property. These structures strike northwesterly and northeasterly and dip steeply. They are interpreted to be horst and graben structures within the Seagull Uplift (Abbott, 1986). These high angle faults offset the thrust fault.

### **MINERALIZATION AND ROCK GEOCHEMISTRY**

Mineralization in the Ketzia-Seagull Arch is thought to be related to both syngenetic and epigenetic systems (Abbott, 1986). Volcanogenic massive sulphide mineralization is believed to be associated with Earn Group volcanic rocks; however, the main mineral occurrences are epigenetic vein, manto and skarn occurrences that are mainly clustered within and around both the Seagull and Ketzia uplifts. Veins of galena, sphalerite, quartz, and siderite +/- pyrite, pyrrhotite, arsenopyrite, chalcopyrite and tetrahedrite are found along well-formed faults with very minor offset (Abbott, 1986). These faults appear to have been active during mineralization and are considered to have provided the conduits for mineralizing fluids. Mantos are generally found near faults and form tube-like lenses along the contact between Lower Cambrian limestone and overlying shale (Abbott, 1986). At both the Ketzia and Seagull uplifts, mineralization appears to be zoned with gold-rich veins and mantos found within the core (especially in the Ketzia uplift), and galena and sphalerite-rich veins and mantos found around the flanks.

The Groundhog property is found within the Seagull Uplift and mineralization there appears to be associated with seven main structural trends, two of which, (the Sheep and Lucky trends) cross the property (Figure 6). These mineralized trends are oriented northwesterly and are individually traced up to 7 km along strike. They appear to lie along the flanks of grabens formed during uplift (Ramaekers, 1988) or along fluid conduits provided by thrust faults. Although the source of the mineralizing fluids is unknown, it has been postulated that the uplift and structural extension resulted from doming above an unexposed mid-Cretaceous intrusion, which may also have been the main heat source driving the fluid transfer (Abbott, 1986).

The majority of the showings on the property are fault-bounded quartz-carbonate veins and breccias hosted by the Askin Group carbonate sequence. Mineralization within the veins and breccias consists of disseminated to semi-massive, coarse grained galena, sphalerite, tetrahedrite, freibergite and pyrite. Malachite staining is common on carbonate minerals, with the copper remobilized from the weathering of tetrahedrite. Hydrozincite residue is also locally observed. Most of the showings occur near the top of the Askin Group, just below the contact with overlying Earn Group shales and fine grained clastics. This relatively incompetent and non-reactive unit appears to have acted as a physical and chemical barrier that localized mineral deposition in the underlying carbonate rocks (Fowler, 1988).

Four main types of mineralization have been discovered on the Groundhog property as generally described in the following paragraphs. Individual showings are described later in the section. Figure 7 shows 2019 rock sample locations. Figures 8 to 11 illustrate thematic data for gold, silver, lead and zinc, respectively.

**Vein and breccia zones** on the property are associated with northwest trending, steeply dipping structures, which mostly occur along the Lucky and Sheep trends, and east to northeast trending shear zones that cut obliquely across the primary structures. Movement along these structure features has helped produce dilatant zones that have enabled open space filling by veins.

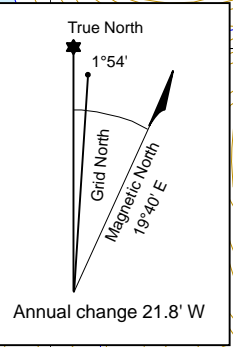
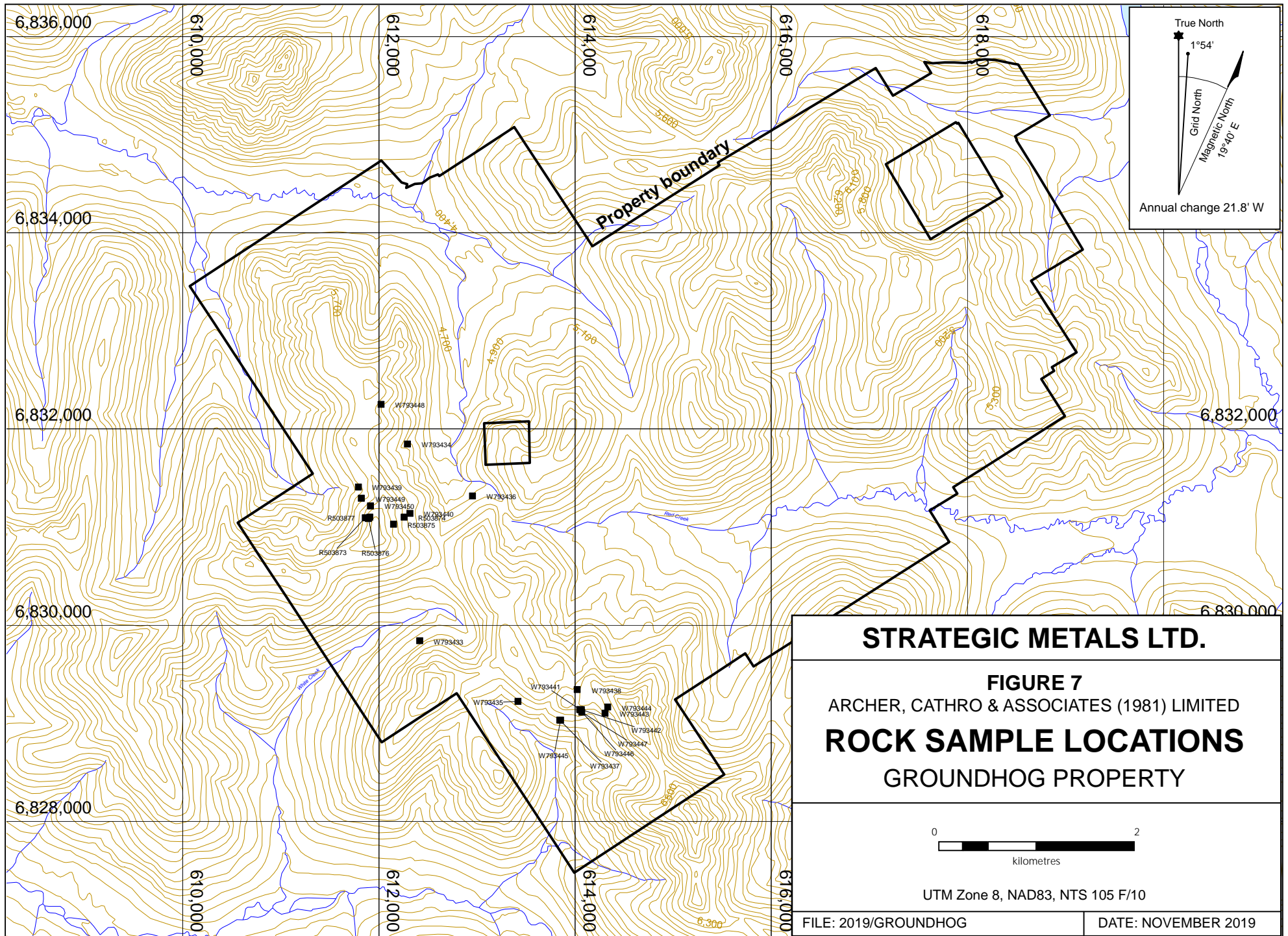
**Replacement mineralization** is locally developed where structures hosting vein and breccia zones cut carbonate wallrocks. Little effort was made by previous operators to assess potential for this type of mineralization. However, prospecting appears to have discovered replacement style zones (JW and Aztek Showings).

**Stratiform mineralization** occurs as finely banded galena, sphalerite and chalcopyrite in Cambrian-aged phyllites and tuffs in the western part of the property within the upper plate of the Pass Peak Thrust Fault. Two showings (Strat and Geo) exhibit this style of mineralization. They are located on opposite sides of a valley about 1500 m apart.

### **Aztek Showing**

The Aztek Showing was identified during the 2009 exploration program. It was loosely defined by widely spaced soil sampling, which yielded elevated gold and arsenic values from an area about 2000 m long and up to 1400 m across.

Analysis of the data from the 2008 VTEM survey shows a magnetic low that approximately



**STRATEGIC METALS LTD.**

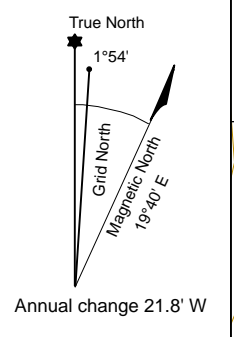
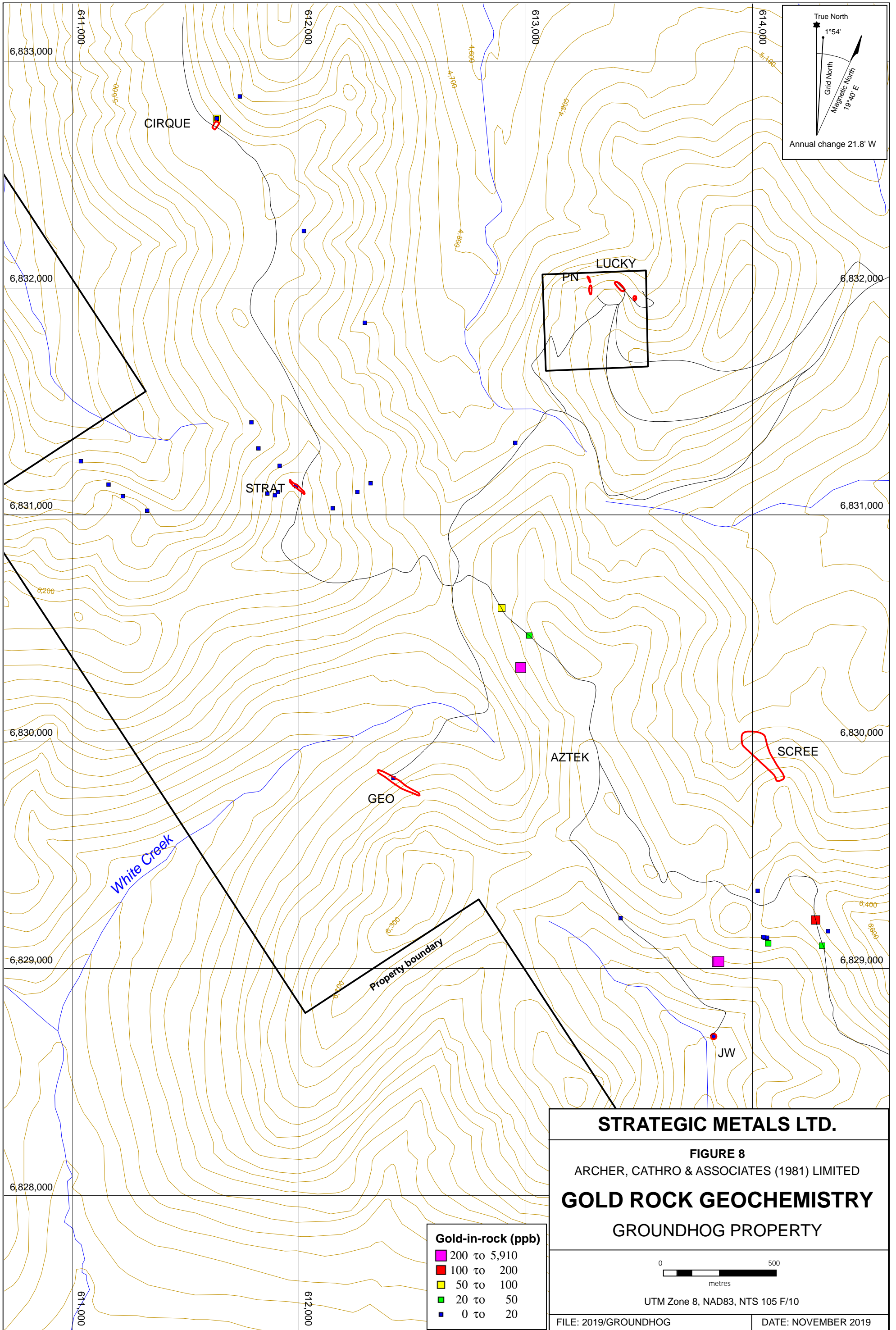
**FIGURE 7**  
 ARCHER, CATHRO & ASSOCIATES (1981) LIMITED  
**ROCK SAMPLE LOCATIONS**  
 GROUNDHOG PROPERTY



UTM Zone 8, NAD83, NTS 105 F/10

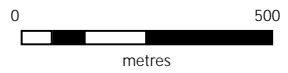
FILE: 2019/GROUNDHOG

DATE: NOVEMBER 2019



**Gold-in-rock (ppb)**

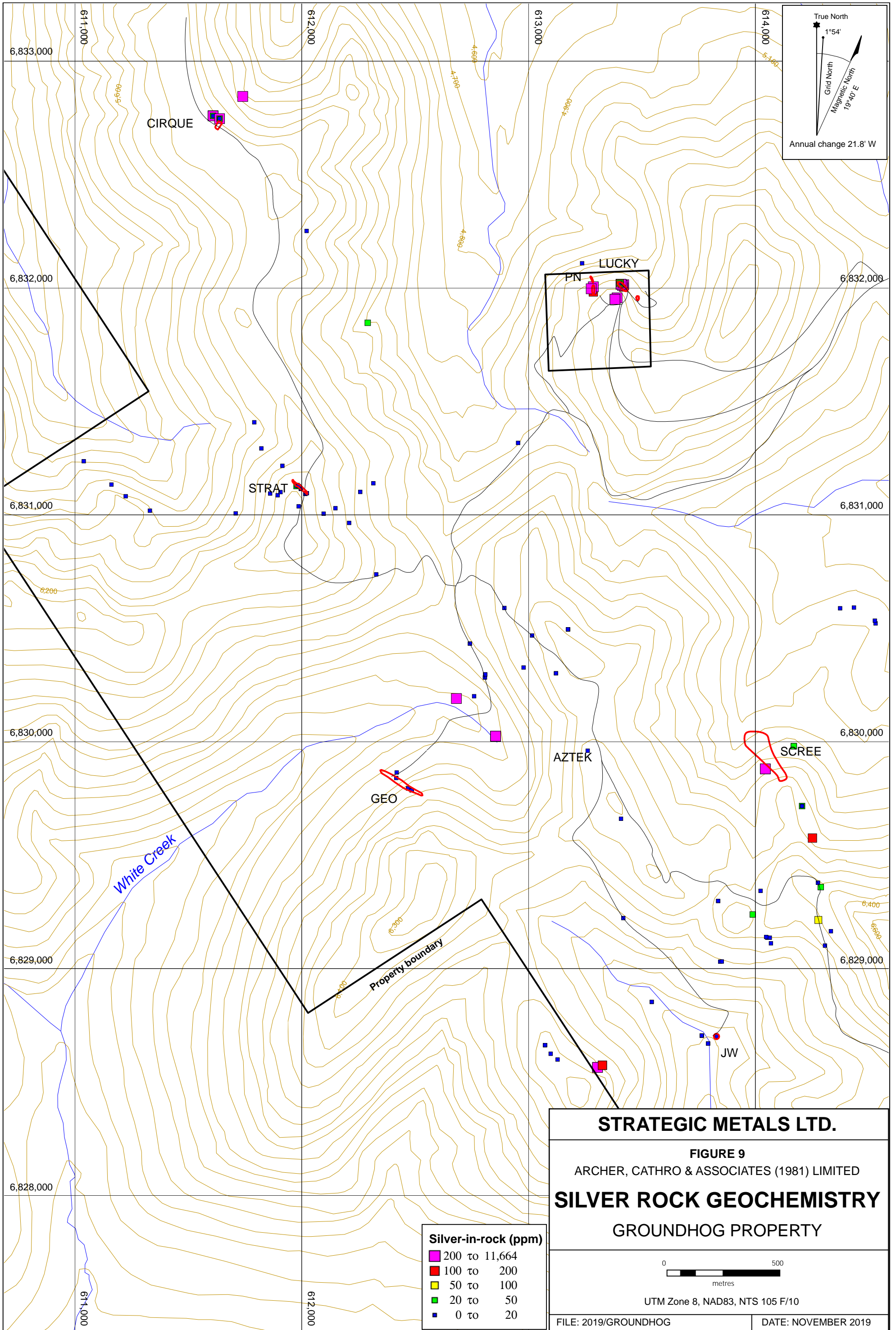
200 to 5,910
100 to 200
50 to 100
20 to 50
0 to 20

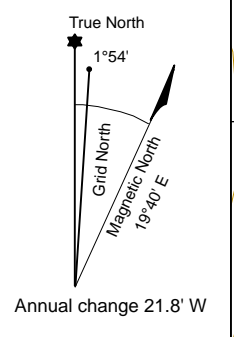
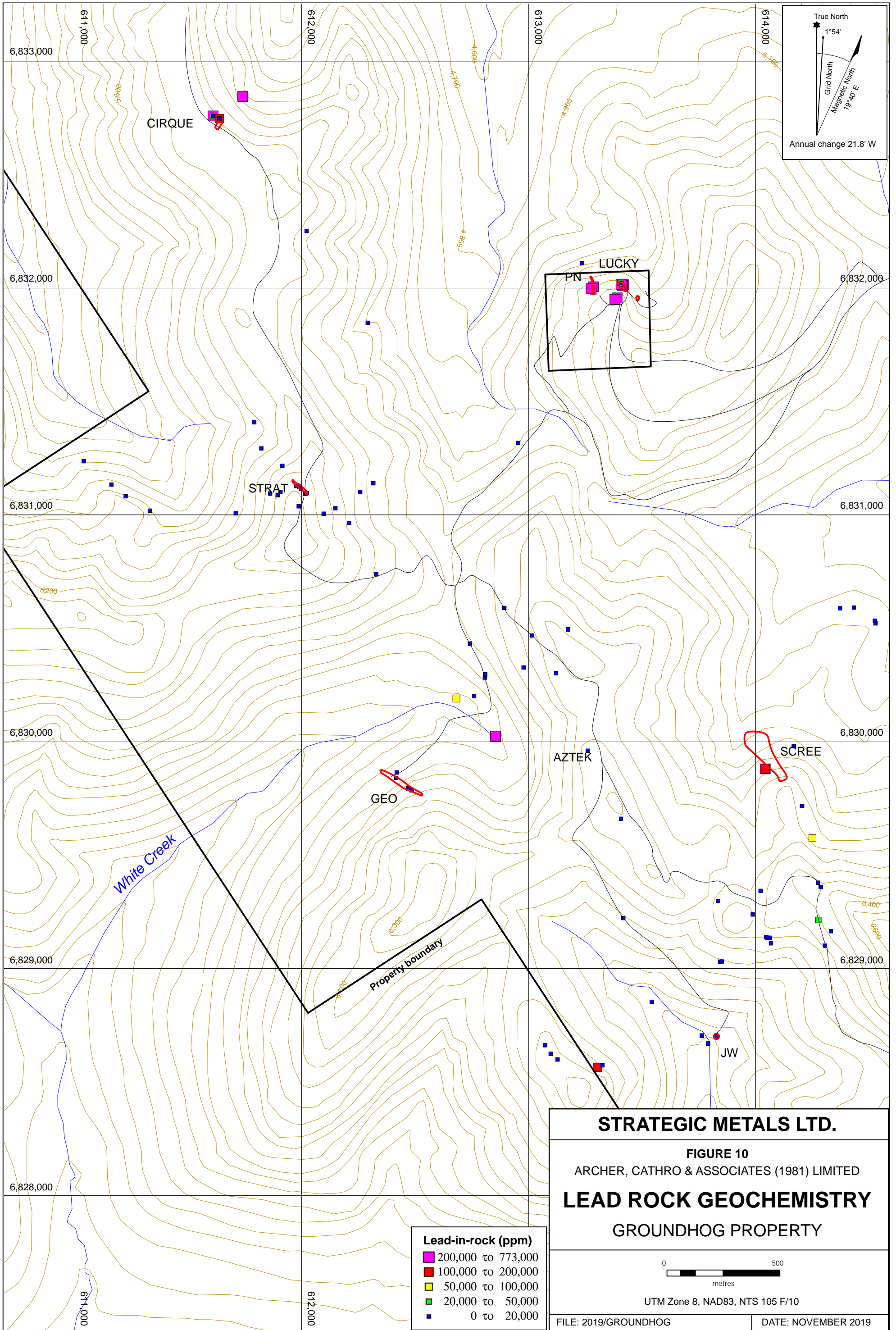


UTM Zone 8, NAD83, NTS 105 F/10

FILE: 2019/GROUNDHOG

DATE: NOVEMBER 2019





Lead-in-rock (ppm)	
■	200,000 to 773,000
■	100,000 to 200,000
■	50,000 to 100,000
■	20,000 to 50,000
■	0 to 20,000

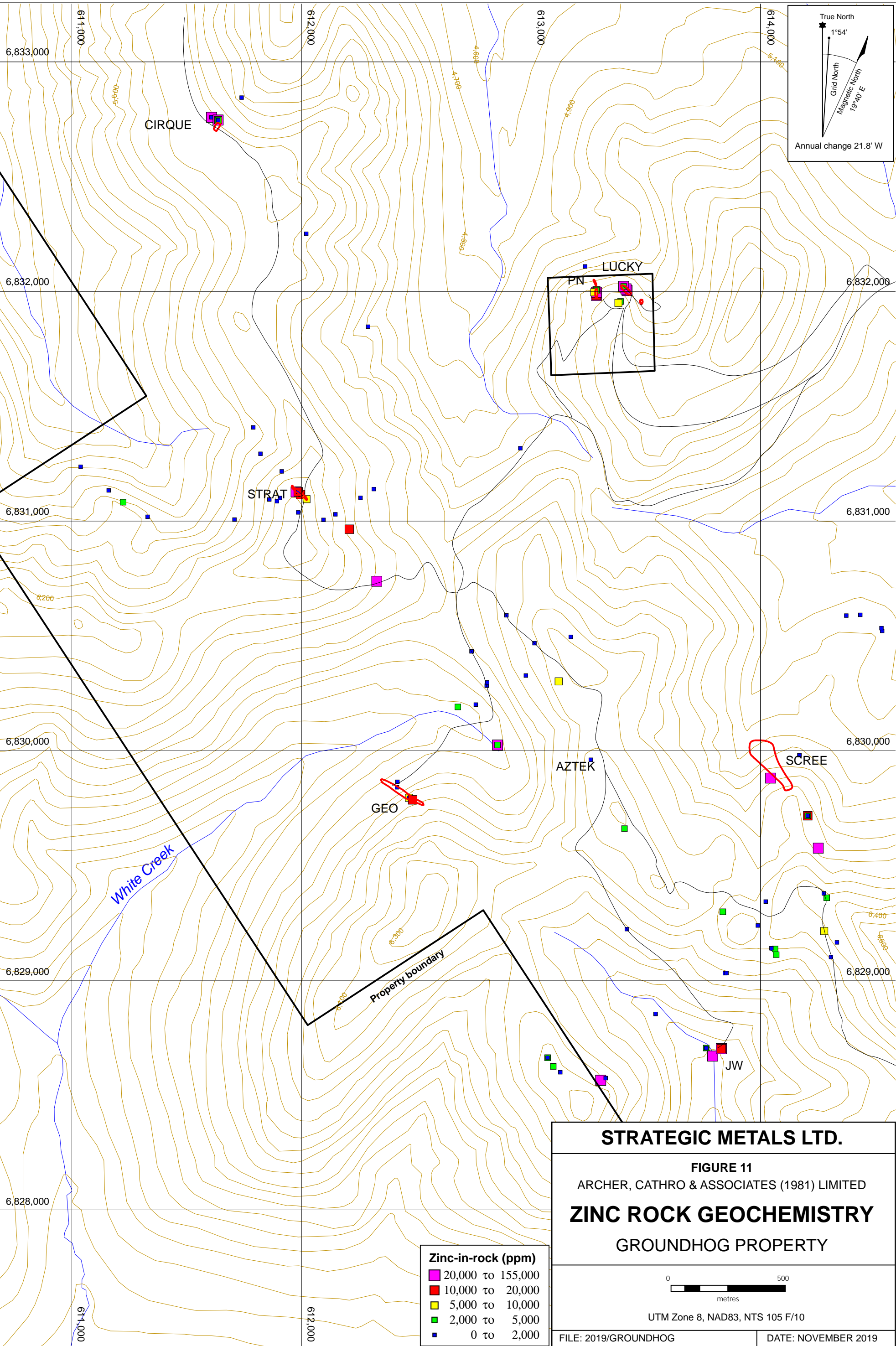
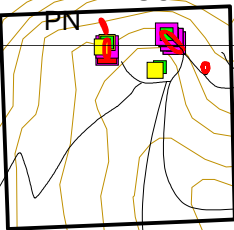
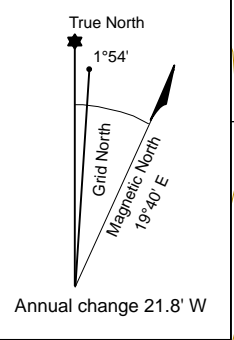
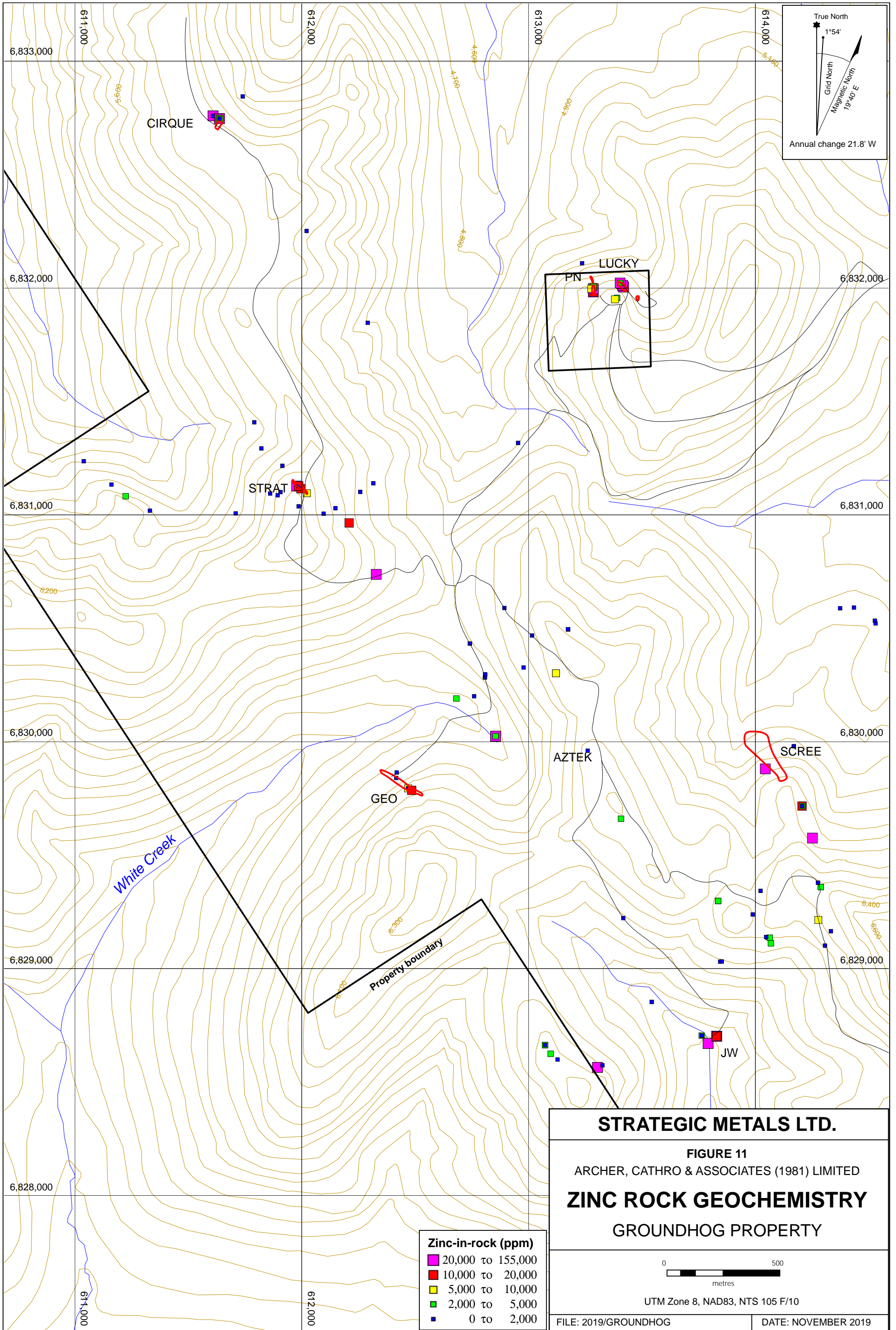
**STRATEGIC METALS LTD.**

**FIGURE 10**  
 ARCHER, CATHRO & ASSOCIATES (1981) LIMITED  
**LEAD ROCK GEOCHEMISTRY**  
 GROUNDHOG PROPERTY

0 500  
 metres

UTM Zone 8, NAD83, NTS 105 F/10

FILE: 2019/GROUNDHOG      DATE: NOVEMBER 2019



coincides with the geochemically anomalous area. A few rock samples of silicified dolomite were collected from float in road cuts and historical bulldozer trenches in 2009, and returned up to 1.81 g/t Au, 486 g/t Ag and 14.9% Pb.

### **JW Showing**

The JW Showing was discovered in 2008 and is associated with to a shear zone hosted in dolomite (SDd). The shear is exposed for a length of 40 m. An area of silicification in the southern part of the exposure is mineralized with pods and disseminations of honey sphalerite and minor galena, which exhibit open-space replacement textures. In 2009, two hand trenches were dug across the shear, 7 m apart. Chip samples from the northern trench (TR-GH-09-03) averaged 7.33% Zn over 6.9 m. The southern trench (TR-GH-09-04) exposed two bands of mineralization, the better of which returned 4.57% over 0.78 m. Both trenches ended in mineralization.

Limited prospecting in 2019 at the JW Showing was highly successful. A float sample of oxidized limonitic breccia returned the highest value of gold found to date on the property, assaying 5.91 g/t Au with 1.7 g/t Ag. Another float sample of unaltered calcareous breccia taken nearby returned 0.465 g/t Au with 2.9 g/t Ag. These samples exhibit a different geochemical signature than rocks collected elsewhere on the property, with enrichment in gold and arsenic and relative absence of lead, zinc, and silver.

### **Cirque Showing**

The Cirque Showing is located along the flat top of a prominent northwest trending ridge, which is underlain mainly by resistant weathering Askin Group dolomite (SDd). Access to the showing is by a cat road that extends southeast along the ridge top from the main access road at Jerry Pass (Figure 6). This showing is located toward the north end of the Sheep Trend.

Mineralization at the Cirque Showing consists of three parallel quartz-siderite veins and stockworks bearing galena, tetrahedrite, azurite, malachite and sphalerite. Limonite and manganese alteration are developed in wallrocks peripheral to the veins. The veins have been exposed in trenches over a length of 400 m length and are open along strike in both directions. The southern projection is covered by talus and felsenmeer and the northern projection is obscured by heavy vegetation and till in the Groundhog Creek valley.

In 2008, two rock samples were taken, which represented the strongest mineralization observed within the exposed veins. The better of them returned 11663.5 g/t Ag, 64.7% Pb and 3.7% Cu. A 1 m chip sample across strongly limonitic wallrocks directly adjacent to that vein returned 388 g/t Ag, 4.4% Pb and 7.8% Zn.

During the 2009 field program, an 8 m wide exposure across one of the veins was mapped and sampled. Chip samples returned mostly low values with the best results from three samples that included the vein and the adjacent hanging wall. These samples yielded a weighted average of 120 g/t Ag over 2.98 m. The sample from the vein returned 852 g/t Ag, 18.95% Pb and 9.64% Zn over 0.35 m.

### **Scree Showing**

The Scree Showing was discovered in 2008 while prospecting along a boulder talus slope. The showing is located approximately 350 m along strike of the SP Showing within the Lucky Trend. A large area containing sparse quartz vein and massive galena float was outlined in 2009. The distribution of the mineralized float was mapped, leading to a band of rusty cliffs.

Mineralization could not be found on the cliffs, suggesting that the source of the float has been eroded away, or that it is buried under talus at the base of the cliffs. The better of the two float samples taken in 2008 returned 983 g/t Ag and 45.77% Pb. Hand trenching or drilling is needed to assess this discovery.

### **Rob #1 Showing**

The Rob 1 Showing is a north-south trending limonite altered vein fault hosting localized galena pods and strong malachite staining. The showing is at the south end of the property on the western flank of Pass Peak. The area was discovered in 2008, but could not be followed up due to deep snow cover. A float sample taken in 2008 assayed 2000 g/t Ag, 77.21% Pb, and 1.3% Cu.

Prospecting in 2009 traced mineralized float about 200 m up hill from a small bedrock exposure developed where the float train crosses the access road. The most abundant float occurs in an area of shallow overburden on a ridge crest on the western flank of Pass Peak. No prospecting has been done south of the ridge crest. The orientation of the float train is consistent with the strike observed in the bedrock exposure. One chip sample and two float samples were collected across and immediately uphill of the bedrock exposure, and three grab samples were taken near the ridge crest. The chip sample returned 382.6 g/t Ag, 14.47% Pb, and 7.15% Zn over 0.5 m, while the better mineralized of the nearby grab samples assayed 2440 g/t Ag, 58.57% Pb, and 5.69% Zn. The best of the grab samples from the ridge crest yielded 1665 g/t Ag and 72.92% Pb. Hand trenching should be done on the ridge crest to further assess this showing.

### **Strat and Geo Showings**

The Strat and Geo Showings consist of laminated and disseminated galena, sphalerite and chalcopyrite in a Lower Cambrian unit comprised of tuffaceous phyllite and quartz-carbonate phyllite. These showings are located 1500 m apart on the opposite side of a broad valley. They lie within the same stratigraphic section, directly above the Pass Peak Thrust Fault. The Strat Showing has been traced for a length of approximately 100 m, with thicknesses ranging between 0.5 and 2 m. The Geo Showing has been traced for a length of over 200 m, and range between 1 and 2 m in width.

In 2009, chip samples were collected from three hand trenches that were dug at the Strat Showing within historical bulldozer trenches, and two chip samples were taken at the Geo Showing from outcrops. Most of these samples returned sub-economic values for silver, lead and zinc. The best samples from the Strat Showing returned 13.9 g/t Ag, 0.50% Pb and 1.47%

Zn over 0.78 m and 23.3 g/t Ag, 0.58% Pb and 2.19% Zn across 0.25 m. The best sample from the Geo Showing yielded 3.4 g/t Ag, 0.25% Pb and 0.28% Zn over 2.2 m.

### **SOIL GEOCHEMISTRY**

In 2019, 350 soil samples were taken from a 2100 m by 900 m grid that has a northeast-southwest orientation. Samples were taken at 50 m spacing, along lines spaced 100 m apart. This grid provides geochemical coverage over the Strat and Cirque showings, and along a previously unsampled portion of the Sheep Trend.

Sample Handling and Analytical Procedures used in 2019 are described in Appendix III, while Rock Sample Descriptions are located in Appendix IV and Certificates of Analysis are provided in Appendix V. Anomalous thresholds for soil values are listed in Tables III below. Figure 12 shows 2019 soil sample locations. Figures 13 to 17 illustrate thematic soil results for gold, arsenic, silver, lead and zinc, respectively. Rock samples that assayed greater than 1 g/t gold and/or 1000 g/t silver are also shown on in Figures 13 and 15, respectively.

**Table III- Anomalous Threshold Values for Soil Samples**

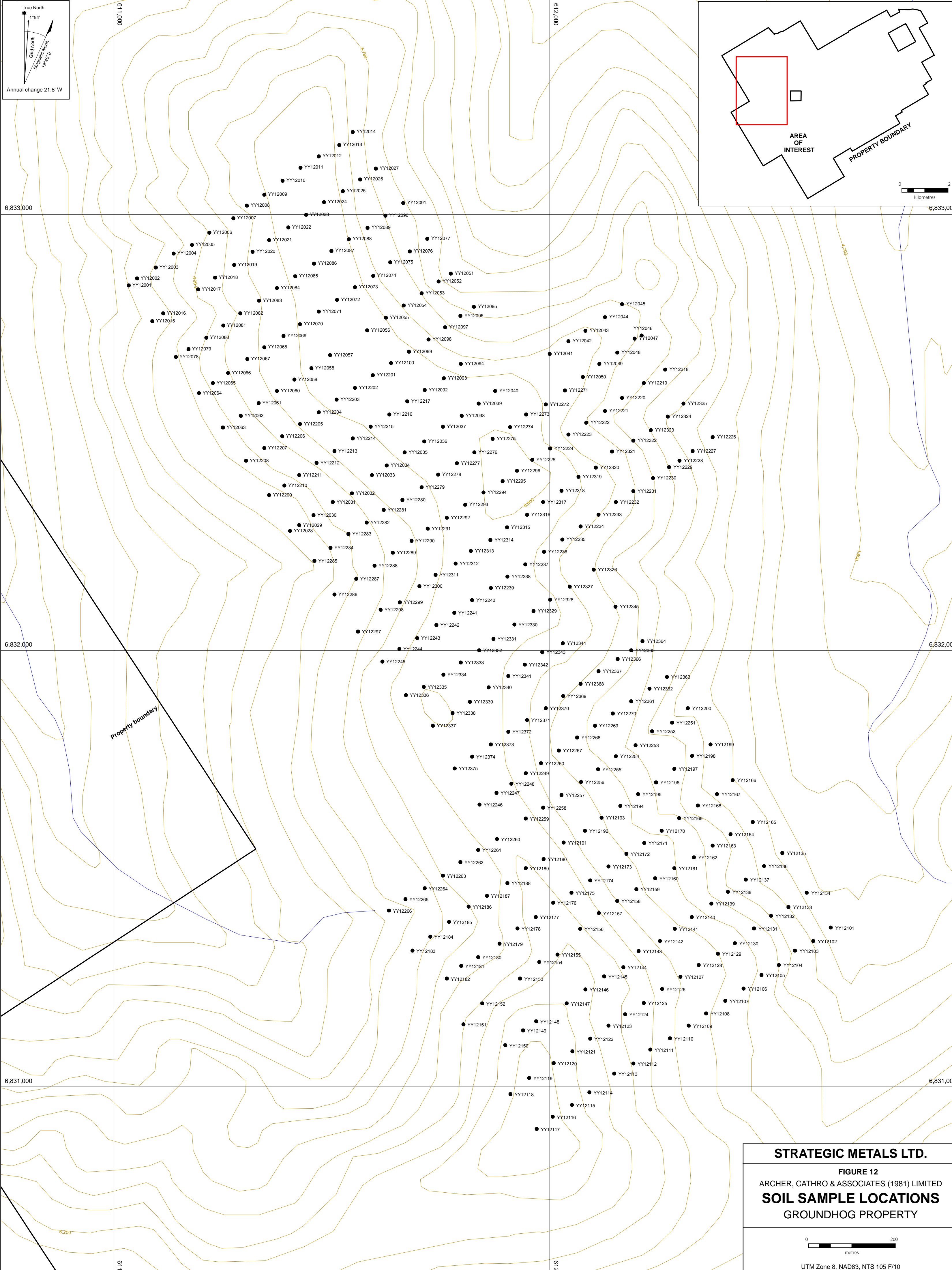
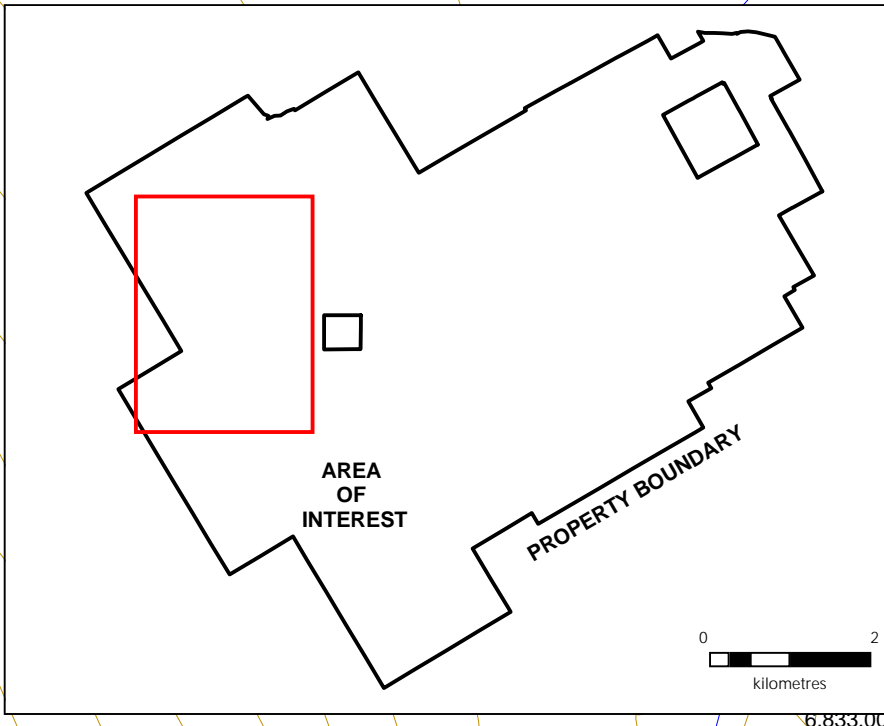
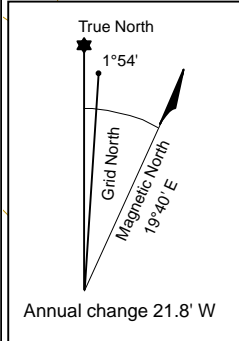
<b>Element</b>	<b>Weak</b>	<b>Moderate</b>	<b>Strong</b>	<b>2019 Peak</b>	<b>Historical Peak</b>
Silver (ppm)	>2 ≤5	>5 ≤10	>10	36.5	72.2
Lead (ppm)	>100 ≤200	>200 ≤500	>500	5,640	34,200
Zinc (ppm)	>200 ≤500	>500 ≤1000	>1000	3,320	13,900
Gold (ppb)	>20 ≤50	>50 ≤100	>100	1,650	327
Arsenic (ppm)	>50 ≤100	>75 ≤150	>150	2,240	1,940

#### **2019 Soil Geochemistry Results**

Results from the 2019 geochemical grid defined three separate zones of anomalous geochemistry that warrant follow-up work, as described below.

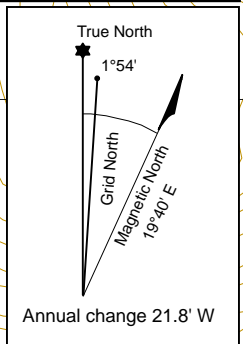
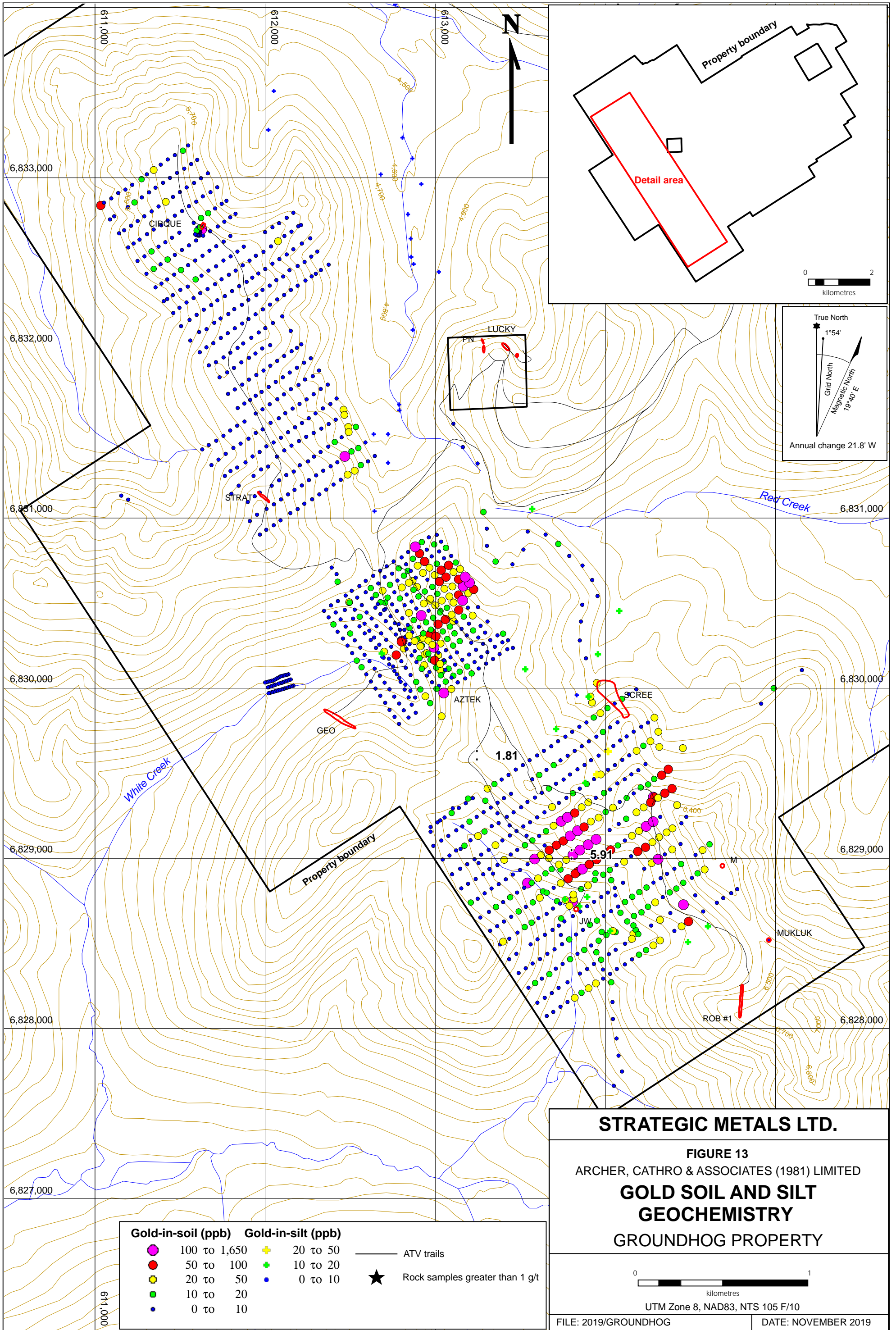
A 350 m by 150 m, north-south trending zone of weakly to strongly anomalous arsenic and gold is located in the southeastern corner of the grid. Individual samples returned up to 181 ppb Au and 443 ppm As. These anomalous gold and arsenic values generally do not correspond to anomalous lead, zinc or silver values; however, the northern edge of this zone overlaps a 50 m by 50 m area of strongly anomalous lead, zinc, and silver values, with up to 1070 ppm Pb, 1180 ppm Zn and 8.7 ppm Ag. The gold-arsenic zone is open to the south and north (Figure 18).

Moderate to strong lead, zinc and silver values in the northwestern portion of the geochemical grid define a 700 m by 150 m oval with a north-south trending axis. Values up to 21.2 ppm Ag, 2390 ppm Pb and 3490 ppm Zn are present in this zone. Within the broader lead, zinc, and silver anomaly is a 500 m by 150 m north-south trending, weak to moderate gold and arsenic anomaly, with values up to 99 ppb Au and 125 ppm As. This trend is centred approximately 250 m west of the Cirque Showing (Figure 18).



**STRATEGIC METALS LTD.**  
**FIGURE 12**  
 ARCHER, CATHRO & ASSOCIATES (1981) LIMITED  
**SOIL SAMPLE LOCATIONS**  
 GROUNDHOG PROPERTY

0 200  
metres  
UTM Zone 8, NAD83, NTS 105 F/10



**STRATEGIC METALS LTD.**

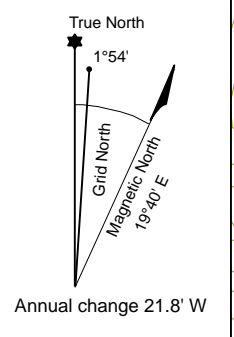
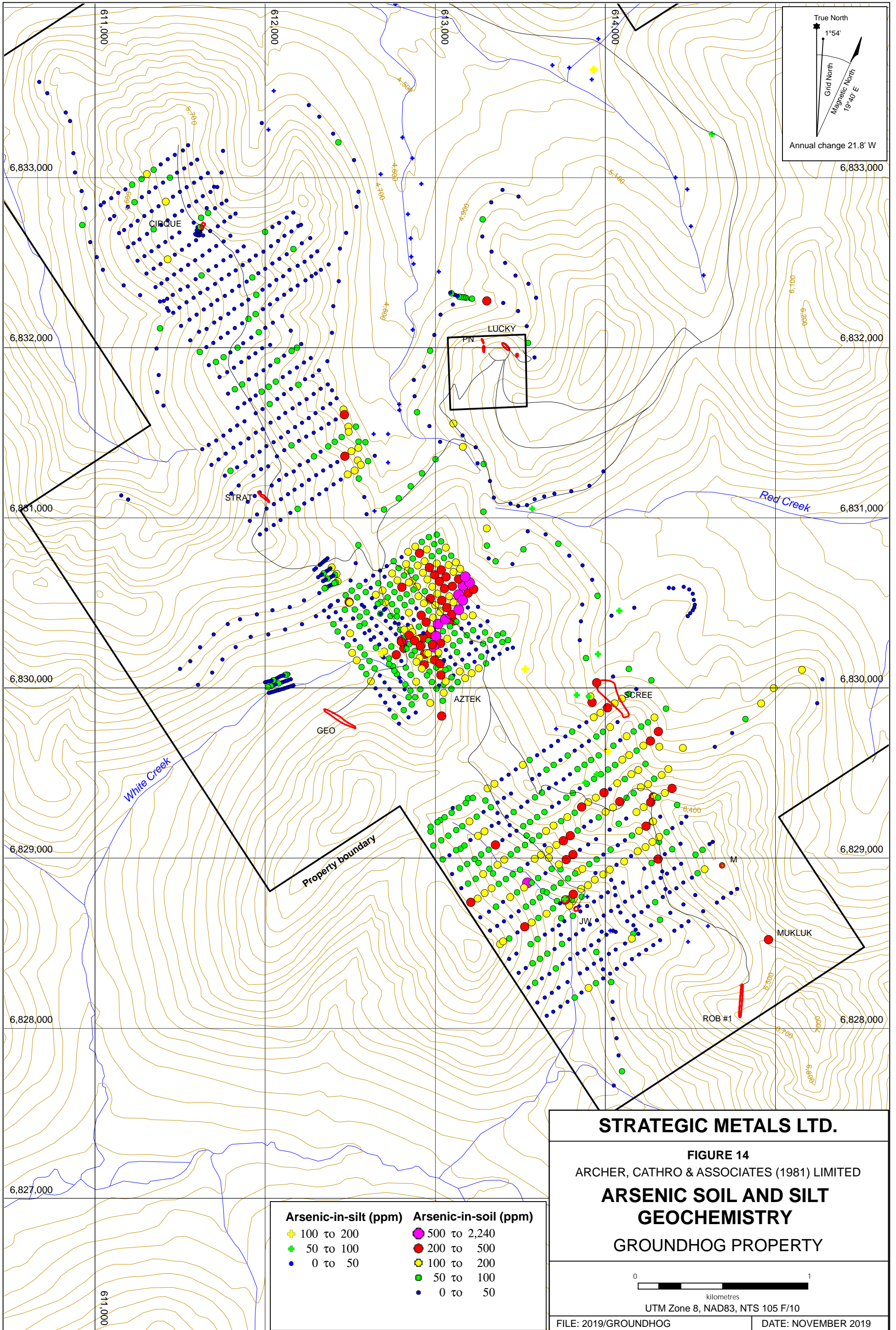
**FIGURE 13**  
 ARCHER, CATHRO & ASSOCIATES (1981) LIMITED  
**GOLD SOIL AND SILT  
 GEOCHEMISTRY**  
 GROUNDHOG PROPERTY

0 1  
kilometres

UTM Zone 8, NAD83, NTS 105 F/10

FILE: 2019/GROUNDHOG      DATE: NOVEMBER 2019

Gold-in-soil (ppb)		Gold-in-silt (ppb)		
<span style="color: magenta;">●</span>	100 to 1,650	<span style="color: yellow;">+</span>	20 to 50	— ATV trails
<span style="color: red;">●</span>	50 to 100	<span style="color: green;">+</span>	10 to 20	★ Rock samples greater than 1 g/t
<span style="color: orange;">●</span>	20 to 50	<span style="color: blue;">●</span>	0 to 10	
<span style="color: green;">●</span>	10 to 20			
<span style="color: blue;">●</span>	0 to 10			



Arsenic-in-silt (ppm)		Arsenic-in-soil (ppm)	
+	100 to 200	●	500 to 2,240
+	50 to 100	●	200 to 500
●	0 to 50	●	100 to 200
		●	50 to 100
		●	0 to 50

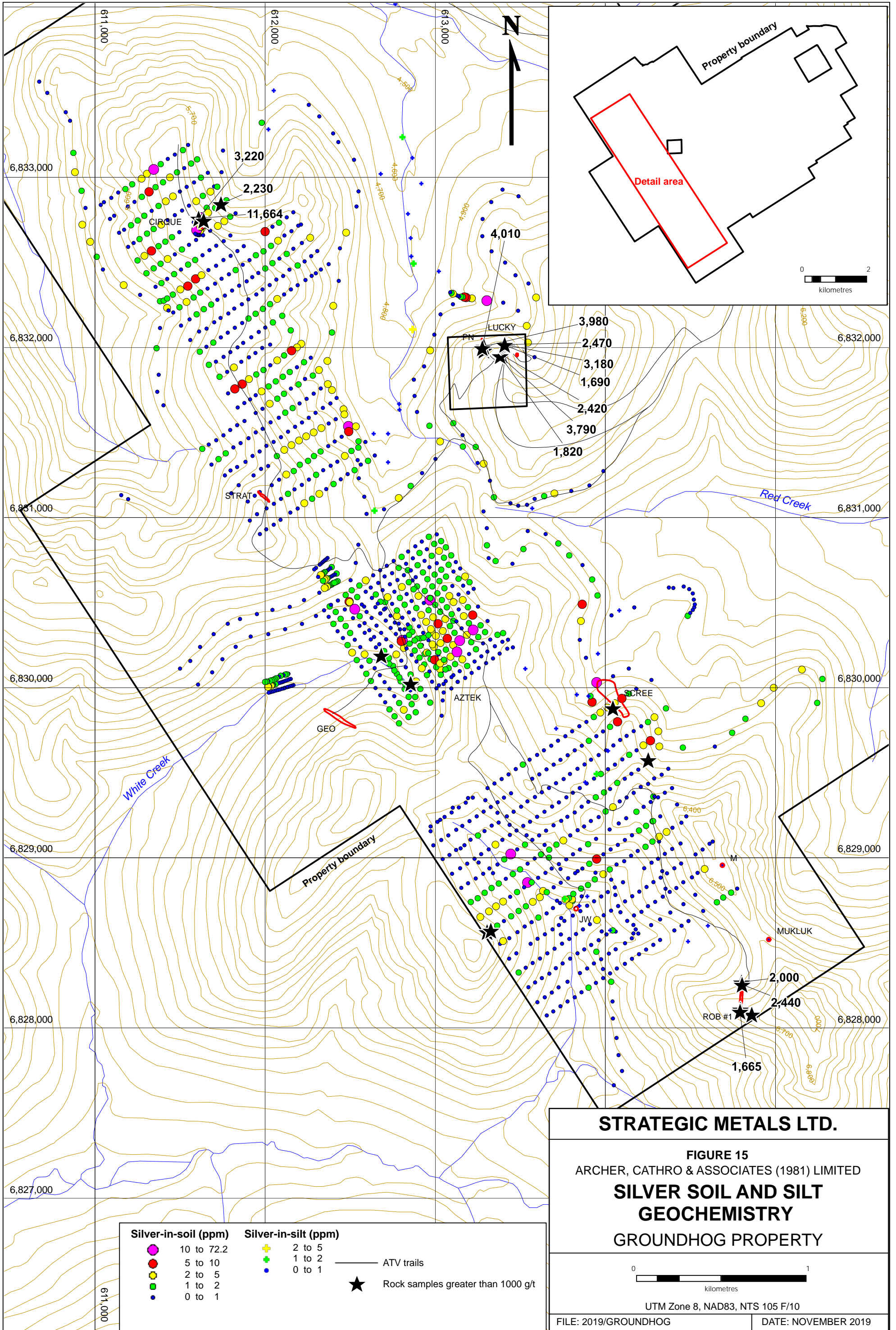
**STRATEGIC METALS LTD.**

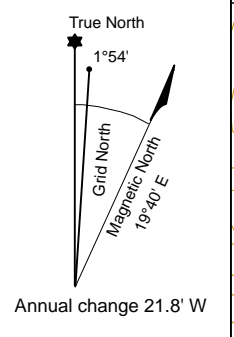
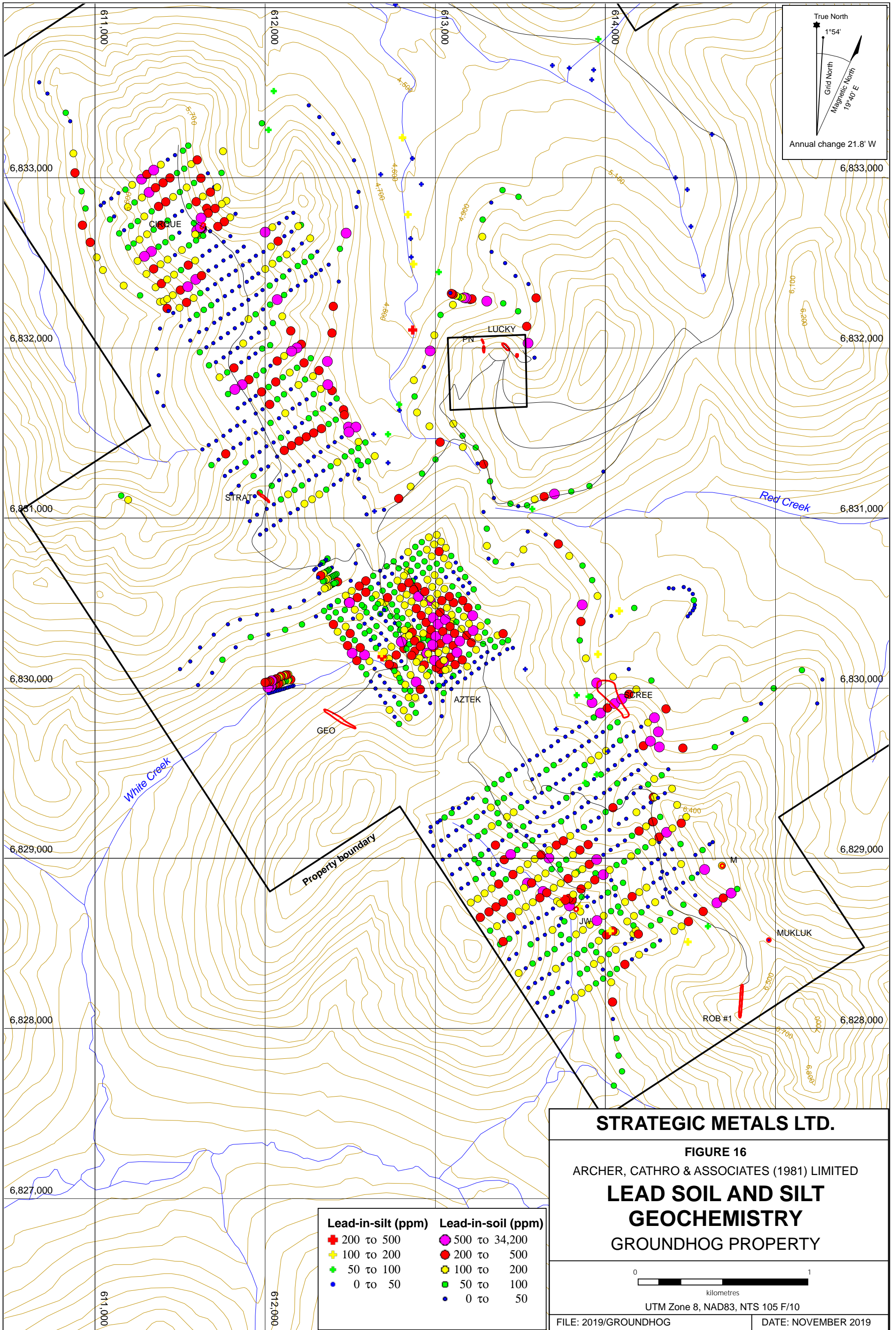
**FIGURE 14**  
 ARCHER, CATHRO & ASSOCIATES (1981) LIMITED  
**ARSENIC SOIL AND SILT  
 GEOCHEMISTRY**  
 GROUNDHOG PROPERTY

0 1  
 kilometres

UTM Zone 8, NAD83, NTS 105 F/10

FILE: 2019/GROUNDHOG      DATE: NOVEMBER 2019





Lead-in-silt (ppm)		Lead-in-soil (ppm)	
+	200 to 500	●	500 to 34,200
+	100 to 200	●	200 to 500
+	50 to 100	●	100 to 200
●	0 to 50	●	50 to 100
●	0 to 50	●	0 to 50

**STRATEGIC METALS LTD.**

**FIGURE 16**

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

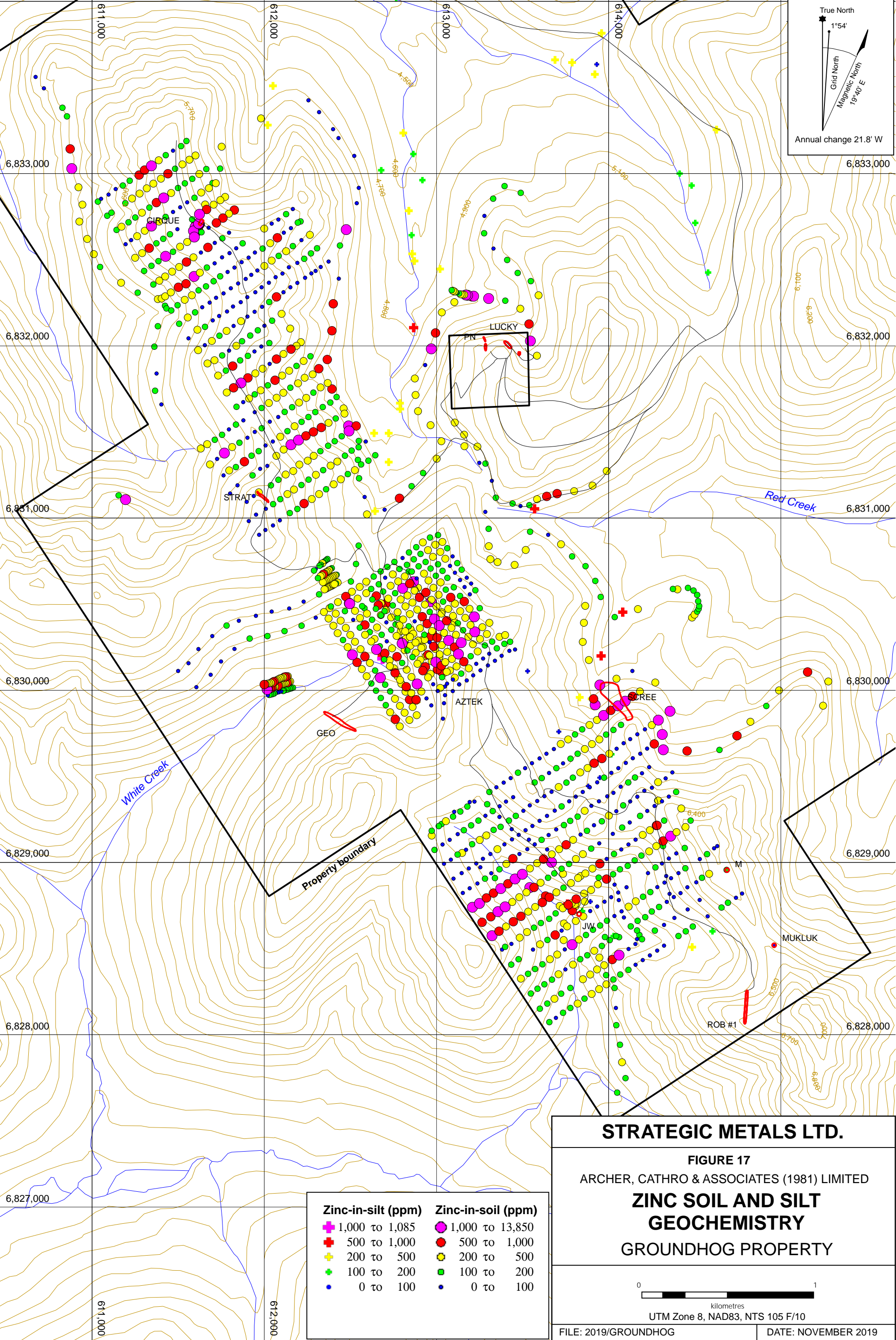
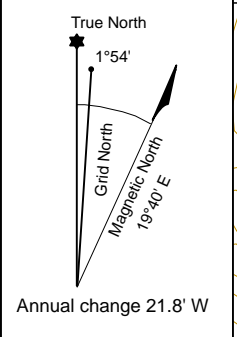
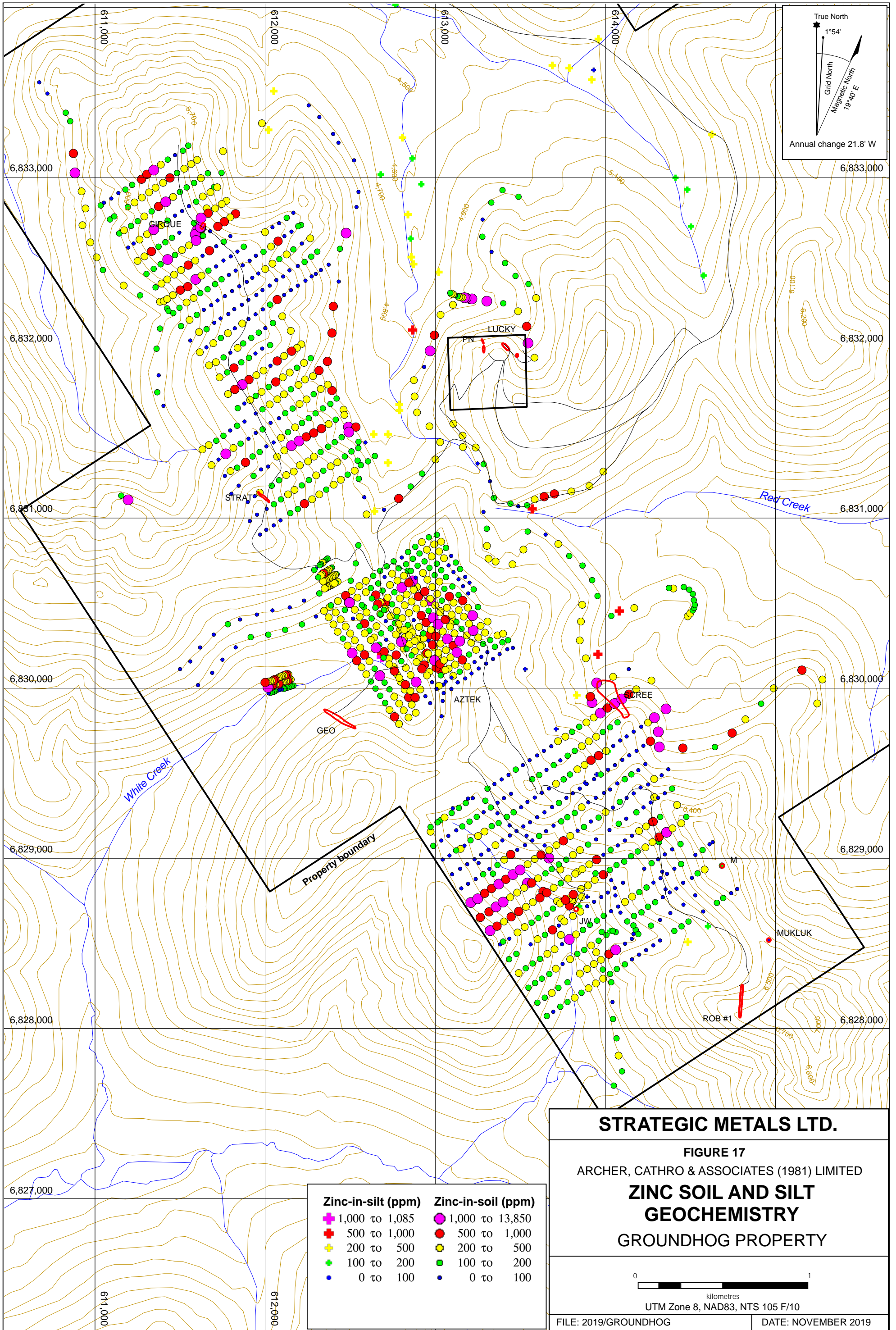
**LEAD SOIL AND SILT  
GEOCHEMISTRY**

**GROUNDHOG PROPERTY**

0 ————— 1  
kilometres

UTM Zone 8, NAD83, NTS 105 F/10

FILE: 2019/GROUNDHOG      DATE: NOVEMBER 2019



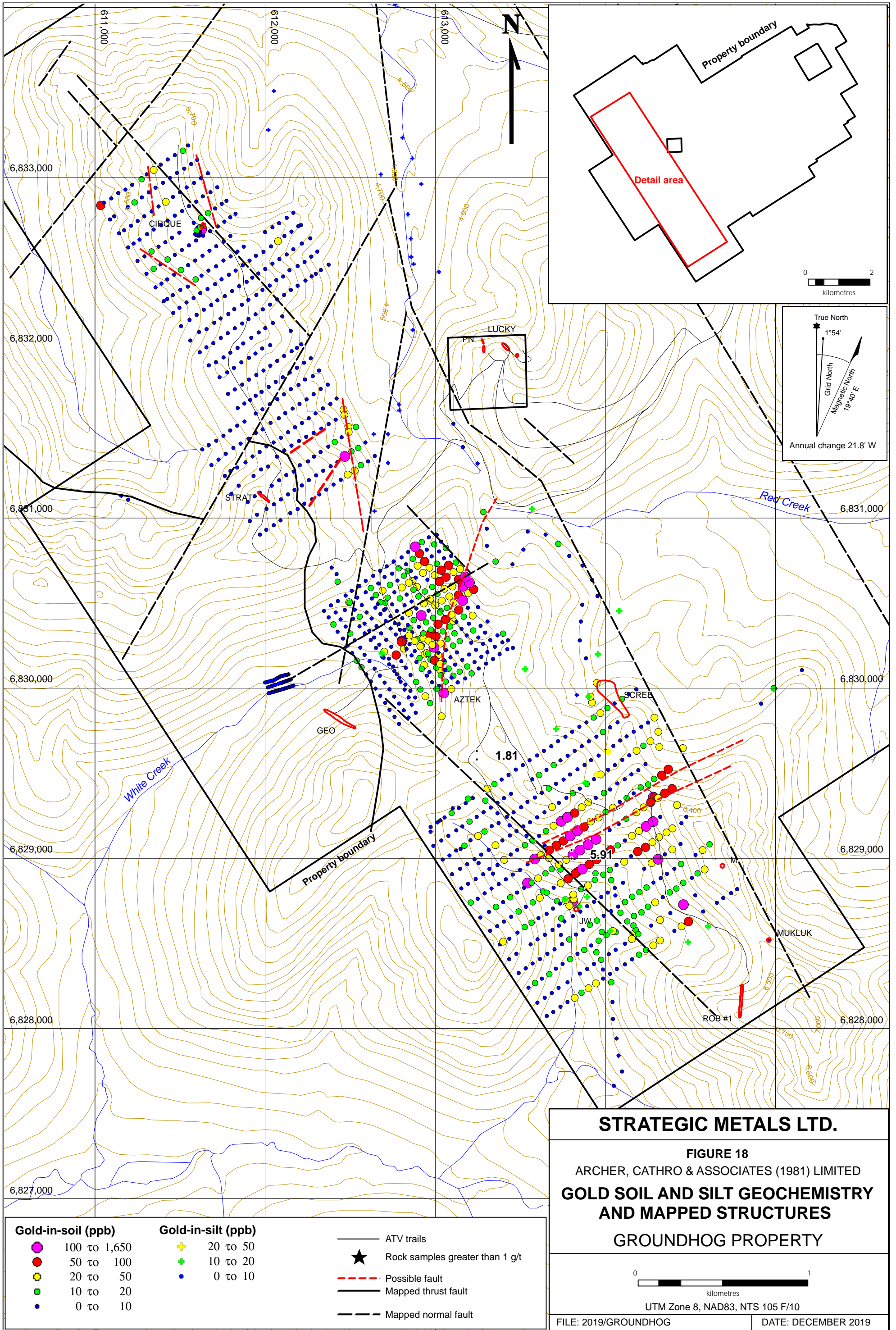
Zinc-in-silt (ppm)		Zinc-in-soil (ppm)	
+	1,000 to 1,085	●	1,000 to 13,850
+	500 to 1,000	●	500 to 1,000
+	200 to 500	●	200 to 500
+	100 to 200	●	100 to 200
●	0 to 100	●	0 to 100

**STRATEGIC METALS LTD.**

**FIGURE 17**  
 ARCHER, CATHRO & ASSOCIATES (1981) LIMITED  
**ZINC SOIL AND SILT  
 GEOCHEMISTRY**  
 GROUNDHOG PROPERTY

0 1  
 kilometres  
 UTM Zone 8, NAD83, NTS 105 F/10

FILE: 2019/GROUNDHOG      DATE: NOVEMBER 2019



Gold-in-soil (ppb)		Gold-in-silt (ppb)	
<span style="color: magenta;">●</span>	100 to 1,650	<span style="color: yellow;">+</span>	20 to 50
<span style="color: red;">●</span>	50 to 100	<span style="color: green;">+</span>	10 to 20
<span style="color: orange;">●</span>	20 to 50	<span style="color: blue;">●</span>	0 to 10
<span style="color: green;">●</span>	10 to 20		
<span style="color: blue;">●</span>	0 to 10		

- ATV trails
- ★ Rock samples greater than 1 g/t
- - - Possible fault
- Mapped thrust fault
- - - Mapped normal fault

**STRATEGIC METALS LTD.**

**FIGURE 18**  
 ARCHER, CATHRO & ASSOCIATES (1981) LIMITED  
**GOLD SOIL AND SILT GEOCHEMISTRY**  
**AND MAPPED STRUCTURES**  
 GROUNDHOG PROPERTY

0  1  
kilometres

UTM Zone 8, NAD83, NTS 105 F/10

FILE: 2019/GROUNDHOG	DATE: DECEMBER 2019
----------------------	---------------------

In the south-central part of the 2019 geochemical grid, there are two separate 400 m by 50 m north-easterly elongated anomalies, spaced 450 m apart. These anomalies contain moderately to strongly elevated zinc, lead and silver values up to 1320 ppm Zn, 987 ppm Pb, and 9.9 ppm Ag. The elevated geochemical values are in close proximity to previously mapped faults in the area, including the Pass Peak thrust fault and a northeast trending normal fault (Figure 19).

### DISCUSSION AND CONCLUSIONS

The Groundhog property hosts numerous silver-lead±zinc±gold showings, most of which occur near fault structures that lie along two main mineralized trends. Mineralization is mainly found in vein, breccia and replacement zones within Silurian-age carbonate rocks. High-grade silver-lead veins and manto-type gold and/or silver-lead-zinc deposits are known to occur in the district and these deposit types are very attractive exploration targets. Widespread lead and silver anomalies and more localized gold and arsenic highs, which surround the known showings on the Groundhog property, warrant priority follow-up.

The JW and Aztek showings and their respective soil geochemical anomalies core a much larger area of lead-zinc-silver showings and anomalies. These showings also partially overlap with a localized magnetic low and areas of silicification and silica replacement features, which are not observed elsewhere on the property and are typically associated with hotter parts of manto systems. The presence of a gold-rich core supports the elemental zonation model suggested by Abbott (1986).

The relative close proximity to the Ketzka gold-bearing manto deposit and Tay LP gold-bearing skarn/breccia showings is encouraging. The various silver ± lead ± zinc showings that occur peripheral to the Aztek and JW Showings are analogous to veins, breccias and replacement zones developed peripheral to replacement style gold showings in other parts of Yukon (Ketzka, Tay LP and the Rau deposit near Mayo).

Additional trenching and soil sampling should be done around the Aztek, JW, and Cirque showings. The trenching should focus on the strongly anomalous soils zones and be completed such that good outcrop exposures are obtained. Detailed structural and lithographical mapping should also be done at each of these showings.

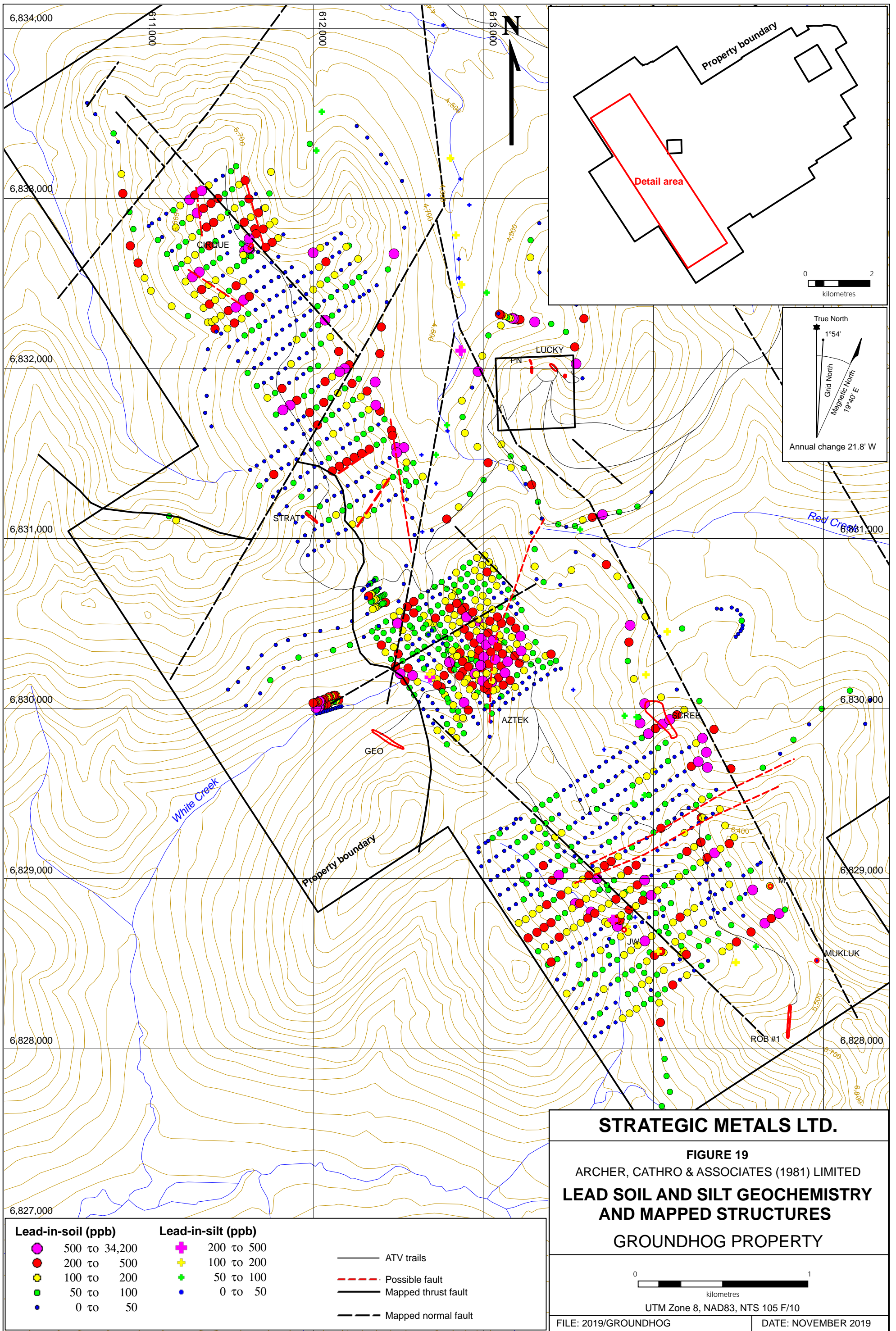
Past exploration work has been largely confined to the southwestern part of the claim block. Property-scale mapping and prospecting is recommended over the remainder of the property, in conjunction with reconnaissance scale soil sampling.

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED



Ryan Burke, B.Sc., G.I.T.



Lead-in-soil (ppb)		Lead-in-silt (ppb)		
<span style="color: magenta;">●</span>	500 to 34,200	<span style="color: magenta;">+</span>	200 to 500	— ATV trails
<span style="color: red;">●</span>	200 to 500	<span style="color: yellow;">+</span>	100 to 200	- - - Possible fault
<span style="color: yellow;">●</span>	100 to 200	<span style="color: green;">+</span>	50 to 100	— Mapped thrust fault
<span style="color: green;">●</span>	50 to 100	<span style="color: blue;">●</span>	0 to 50	- - - Mapped normal fault
<span style="color: blue;">●</span>	0 to 50			

**STRATEGIC METALS LTD.**

**FIGURE 19**  
 ARCHER, CATHRO & ASSOCIATES (1981) LIMITED  
**LEAD SOIL AND SILT GEOCHEMISTRY  
 AND MAPPED STRUCTURES**  
 GROUNDHOG PROPERTY

0 1  
kilometres

UTM Zone 8, NAD83, NTS 105 F/10

FILE: 2019/GROUNDHOG      DATE: NOVEMBER 2019

## REFERENCES

- Abbott, J.G.  
1986 Epigenetic mineral deposits of the Ketzka-Seagull district, Yukon; in Yukon Geology, Vol.1, DIAND, pp. 56-66.
- Campbell, R.W. and Beranek, L.P.  
2017 Volcanic stratigraphy of the Cambrian-Ordovician Kechika group, Pelly Mountains, south-central Yukon. In: Yukon Exploration and Geology 2016, K.E. MacFarlane and L.H. Weston (eds.), Yukon Geological Survey, p. 25-45.
- Colpron, M. and Nelson, J. L.  
2011 A digital atlas of terranes for the Northern Cordillera; Yukon Geological Survey and BC Geology Survey, BCGS GeoFile 2011-11  
[http://www.geology.gov.yk.ca/pdf/CanCord\\_terranes\\_2011.pdf](http://www.geology.gov.yk.ca/pdf/CanCord_terranes_2011.pdf)
- Fowler, B.P.  
1988 Summary for Yukon Exploration 1988 on the MPR Claims, Yukon; Assessment Report 092539
- Gabrielse, H., Murphy, D.C. and Mortensen, J.K.  
2006 Cretaceous and Cenozoic dextral orogen-parallel displacements, magmastim, and paleogeography, north-central Canadian Cordillera. In: Paleogeography of the North American Cordillera: evidence for and against large-scale displacements, J.W. Haggart, R.J. Enkin and J.W.H Monger (eds.), Geological Association of Canada, Special Paper 46, p. 255-278.
- Kammerer, M., and Turner, M.  
2010 Assessment report describing geological mapping, prospecting, hand trenching and geochemical sampling at the Groundhog property: Assessment Report for Rockhaven Resources Ltd.
- Mortensen, J.K.  
2004 The Northern Canadian Cordillera-A Synthesis of New Geological and Geophysical Results for the Yukon and Surrounding Areas;  
<http://www.lithoprobe.ca/Contributed%20Abstracts/Oral%20Presentation/Mortensen%20Lithoprobe%20abstract.pdf>.
- Nelson, J.L., Colpron, M. and Israel, S.  
2013 The Cordillera of British Columbia, Yukon and Alaska: Tectonics and Metallogeny. Tectonics, Metallogeny and Discovery: The North American Cordillera and Similar Accretionary Settings: Society of Economic Geologists Special Publication, 17, p. 53-109.
- Ramaekers, P.  
1988 Ketzka Project 1988 Regional Program, Yukon; Assessment Report 093042.

Tempelmen-Kluit, D.J.

1977 Geology of Quiet Lake and Finlayson Lake map areas, Yukon; Geological Survey of Canada, Open File 486.

2012 Geology of Quiet Lake and Finlayson Lake map areas, south-central Yukon – An early interpretation of bedrock stratigraphy and structure: Geological Survey of Canada, Open File 5487.

Turner, M.

2009 Geological Mapping, Prospecting, Geochemical Sampling and Geophysical Surveys at the Groundhog Property, Yukon; Assessment Report for Rockhaven Resources Ltd.

Yukon Geological Survey

2019 <http://mapservices.gov.yk.ca/YGS/Load.htm>

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

## **STATEMENT OF QUALIFICATIONS**

I, Ryan Buke, geologist in training, with business addresses in Vancouver and Squamish, British Columbia and Whitehorse, Yukon Territory and residential address in Whitehorse, Yukon, do hereby certify that:

1. I graduated in 2018 from Memorial University of Newfoundland and Labrador with a B.Sc. (Hons.) in Geological Sciences.
2. I am currently registered as a Geoscientist In Training (G.I.T.) with Professional Engineers & Geoscientists Newfoundland & Labrador (PEGNL).
3. I have worked every summer since 2010 in a role related to the mineral exploration industry within the Yukon.
4. I have personally interpreted all data resulting from this work.



Ryan Burke, B.Sc., G.I.T.

**APPENDIX II**  
**STATEMENT OF EXPENDITURES**



**APPENDIX III**  
**SAMPLE HANDLING AND ANALYTICAL PROCEDURES**

## SAMPLE HANDLING AND ANALYTICAL PROCEDURES

All rock and soil samples collected during the 2019 program were sorted into rice bags and sealed with a plastic zap strap on the Groundhog property. Samples were brought to Whitehorse by Archer Cathro personnel.

Sample bags were temporarily stored at the Archer Cathro office prior to shipment. All samples were delivered by truck to ALS Laboratories in Whitehorse, Yukon.

### Rock Geochemical Samples

All rock sample sites in 2019 were marked with orange flagging tape labelled with the sample number. The location of each sample was determined using a handheld GPS unit. All samples sent for shipment were double bagged with an individually pre-numbered sample tag placed in each bag.

The rock samples were processed and prepared at ALS in Whitehorse, Yukon where they were dried and fine crushed to -2 mm. A 250 g split was then pulverized to 75 micron, and then shipped to ALS Labs in Vancouver, British Columbia. A portion of this material was digested in aqua regia before being analyzed for 35 elements by the inductively coupled plasma-atomic emission spectroscopy technique (ME-ICP41). Gold analysis was done using AU-ICP21. Overlimit samples for silver were analyzed using Ag-OG46.

### Soil Geochemical Samples

All soil geochemical samples collected on the property were located by means of handheld GPS units. Sample locations were marked with orange flagging tape and labelled with sample number. Soil samples were and were placed into individual pre-numbered kraft paper bags.

The soil samples were sent to ALS, where they were dried and screened to minus 180 microns. A 50 g split of the screened fraction was dissolved in aqua regia and analyzed by ME-ICP41. Gold was analyzed by AU-ICP21.

**APPENDIX IV**  
**ROCK SAMPLE DESCRIPTIONS**

---

**Rock Sample Descriptions**

---

Property: Groundhog

Sample Number: R503873 Date Collected: 2019-08-13 UTM: 611861 mE Nad83, Zone 8  
Elevation: 1857 m Sampler: Jessie Gladish UTM: 6831094 mN

Comments: near STRAT. Siderite, linear/filled in inclusions, heavy, pitted. Photos and rep

---

Sample Number: R503874 Date Collected: 2019-08-12 UTM: 612258 mE Nad83, Zone 8  
Elevation: 1790 m Sampler: Jessie Gladish UTM: 6831101 mN

Comments: opposite side of the ridge from previous samples related to STRAT. Grey, layered, heavy. Photos and rep

---

Sample Number: R503875 Date Collected: 2019-08-12 UTM: 612149 mE Nad83, Zone 8  
Elevation: 1845 m Sampler: Jessie Gladish UTM: 6831029 mN

Comments: heavy dense dark rock, siderite. Near strat showing

---

Sample Number: R503876 Date Collected: 2019-08-13 UTM: 611894 mE Nad83, Zone 8  
Elevation: 1879 m Sampler: Jessie Gladish UTM: 6831086 mN

Comments: STRAT showing rock

---

Sample Number: R503877 Date Collected: 2019-08-13 UTM: 611907 mE Nad83, Zone 8  
Elevation: 1883 m Sampler: Jessie Gladish UTM: 6831100 mN

Comments: STRAT showing rock

---

Sample Number: W793433 Date Collected: 2019-08-15 UTM: 612417 mE Nad83, Zone 8  
Elevation: 1691 m Sampler: Jessie Gladish UTM: 6829840 mN

Comments: at geo showing. Siderite/sulphides. Heavy (dense). Photo in GH folder. Drk rock. Different from what was sampled previously at GEO. Very steep cliffs above the access road.

---

Sample Number: W793434 Date Collected: 2019-08-13 UTM: 612291 mE Nad83, Zone 8  
Elevation: 1636 m Sampler: Jessie Gladish UTM: 6831846 mN

Comments: qtz boulder, float, galena xls, photo in GH folder. Found on grid east slope

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---

**Rock Sample Descriptions**Property: Groundhog

---

Sample Number: W793435 Date Collected: 2019-08-15 UTM: 613418 mE Nad83, Zone 8  
Elevation: 1731 m Sampler: Jessie Gladish UTM: 6829222 mN

Comments: road float. Tan/very light color. Siderite. No rep..too small of a piece. Photo in GH folder

---

Sample Number: W793436 Date Collected: 2019-08-15 UTM: 612954 mE Nad83, Zone 8  
Elevation: 1595 m Sampler: Jessie Gladish UTM: 6831317 mN

Comments: hand pit/float. Oxidized sulphides in a rock previously unsampled. Near the new grid, between the gris and the lower road in the valley.pyrite.

---

Sample Number: W793437 Date Collected: 2019-08-15 UTM: 613845 mE Nad83, Zone 8  
Elevation: 1743 m Sampler: Jessie Gladish UTM: 6829030 mN

Comments: tan/rusty breccia. Orange limonite. Photo in GH folder. JW zone prospecting

---

Sample Number: W793438 Date Collected: 2019-08-15 UTM: 614023 mE Nad83, Zone 8  
Elevation: 1837 m Sampler: Jessie Gladish UTM: 6829342 mN

Comments: float in blk sahel-y sooty carbon soil. Qtz inclusion but the main draw is the black carbon.

---

Sample Number: W793439 Date Collected: 2019-08-13 UTM: 611791 mE Nad83, Zone 8  
Elevation: 1726 m Sampler: Jessie Gladish UTM: 6831408 mN

Comments: pitted, oxidized qtz. Black and orange. Photo in groundhog folder

---

Sample Number: W793440 Date Collected: 2019-08-12 UTM: 612316 mE Nad83, Zone 8  
Elevation: 1761 m Sampler: Jessie Gladish UTM: 6831139 mN

Comments: pitted, dark brn limonite. Small sample. Potatoe-y texture on outside. Photo in GH folder

---

Sample Number: W793441 Date Collected: 2019-08-15 UTM: 614053 mE Nad83, Zone 8  
Elevation: 1801 m Sampler: Jessie Gladish UTM: 6829136 mN

Comments: tan and oxidized breccia. Very pitted. Lit matrix and light fragments. Yellowy pinkish. Photo in GH folder.

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**Rock Sample Descriptions**

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Property: Groundhog

Sample Number: W793442 Date Collected: 2019-08-15 UTM: 614064 mE Nad83, Zone 8  
Elevation: 1800 m Sampler: Jessie Gladish UTM: 6829136 mN

Comments: rusty orange/drk blueish blk breccia. Very pitted. Orange limonite weathering. Photo in GH folder

---

Sample Number: W793443 Date Collected: 2019-08-15 UTM: 614307 mE Nad83, Zone 8  
Elevation: 1822 m Sampler: Jessie Gladish UTM: 6829101 mN

Comments: lit tan/orange breccia. Qtz/siderite?

---

Sample Number: W793444 Date Collected: 2019-08-15 UTM: 614333 mE Nad83, Zone 8  
Elevation: 1862 m Sampler: Jessie Gladish UTM: 6829164 mN

Comments: grey breccia

---

Sample Number: W793445 Date Collected: 2019-08-15 UTM: 613852 mE Nad83, Zone 8  
Elevation: 1739 m Sampler: Jessie Gladish UTM: 6829031 mN

Comments: super pitted lit grey/white breccia like. Very weathered. Photo in GH folder

---

Sample Number: W793446 Date Collected: 2019-08-15 UTM: 614048 mE Nad83, Zone 8  
Elevation: 1802 m Sampler: Jessie Gladish UTM: 6829139 mN

Comments: super pitted, very small holes, vesicular. Lit tan/green and orange.

---

Sample Number: W793447 Date Collected: 2019-08-15 UTM: 614069 mE Nad83, Zone 8  
Elevation: 1787 m Sampler: Jessie Gladish UTM: 6829111 mN

Comments: float train of several same pieces. Sampled as composite. Super drk breccia. Pitted, oxidized. Previously sampled rock found upslope of float train. Nothing on the ridge, just below it. No outcrop found. Other side of the ridge is very different rock (blk sooty carbon/shale)

---

Sample Number: W793448 Date Collected: 2019-08-15 UTM: 612022 mE Nad83, Zone 8  
Elevation: 720 m Sampler: Thomas Rozypalek UTM: 6832251 mN

Comments: qtz w galena

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**Rock Sample Descriptions**Property: Groundhog

---

Sample Number: W793449      Date Collected: 2019-08-14      UTM: 611822 mE      Nad83, Zone 8  
Elevation: 1781 m      Sampler: Jessie Gladish      UTM: 6831293 mN

Comments: downslope from STRAT showing. Siderite, limonite, dense, some lineation/veins w qtz, whiter and green minerals inside. Rep and photos

---

Sample Number: W793450      Date Collected: 2019-08-13      UTM: 611915 mE      Nad83, Zone 8  
Elevation: 1860 m      Sampler: Jessie Gladish      UTM: 6831216 mN

Comments: outcrop near STRAT (100m or so). Dense, siderite, some pitting inside, greenish tinge mineral, drk brnsh/red weathering

---

**APPENDIX V**  
**CERTIFICATES OF ANALYSIS**



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**CERTIFICATE WH19204213**

Project: Groundhog

This report is for 200 Soil samples submitted to our lab in Whitehorse, YT, Canada on 17-AUG-2019.

The following have access to data associated with this certificate:

HEATHER BURRELL JACK MORTON	ANDREW CARNE SCOTT NEWMAN	STEVE ISREAL
--------------------------------	------------------------------	--------------

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
SCR-41	Screen to -180um and save both

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
Au-ICP21	Au 30g FA ICP-AES Finish	ICP-AES
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES

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

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

Signature:   
 Colin Ramshaw, Vancouver Laboratory Manager



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CERTIFICATE OF ANALYSIS WH19204213
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Sample Description	Method Analyte Units LOD	WEI-21	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
	Recvd Wt.	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga
	kg	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm
	0.02	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01	10
YY12001	0.42	0.3	0.80	11	<10	130	<0.5	<2	1.63	0.8	6	12	16	3.05	<10
YY12002	0.57	0.5	0.79	16	<10	110	<0.5	<2	4.93	<0.5	9	17	18	3.42	<10
YY12003	0.54	0.5	0.74	14	<10	100	<0.5	<2	5.19	<0.5	7	18	21	3.35	<10
YY12004	0.46	0.4	0.68	19	<10	110	<0.5	<2	6.04	0.6	8	16	30	3.51	<10
YY12005	0.49	1.0	0.54	32	<10	110	<0.5	<2	9.6	0.7	6	13	16	3.34	<10
YY12006	0.58	1.3	0.26	57	<10	130	<0.5	<2	15.0	0.8	5	5	16	4.34	<10
YY12007	0.56	4.4	0.28	85	<10	100	<0.5	<2	11.3	3.8	10	7	29	3.23	<10
YY12008	0.52	2.3	0.38	186	<10	130	<0.5	<2	6.55	3.7	15	5	29	2.95	<10
YY12009	0.55	21.2	0.24	94	<10	80	<0.5	<2	15.4	10.7	6	6	55	3.60	<10
YY12010	0.44	1.3	0.59	33	<10	160	<0.5	<2	9.4	1.7	8	13	20	4.72	<10
YY12011	0.51	0.4	0.95	15	<10	140	<0.5	<2	4.45	0.6	9	21	18	3.16	<10
YY12012	0.50	0.4	1.00	10	<10	150	<0.5	<2	2.68	0.5	8	24	16	3.07	<10
YY12013	0.47	1.2	0.50	24	<10	130	<0.5	<2	7.14	1.2	9	13	25	4.94	<10
YY12014	0.46	0.5	0.64	13	<10	140	<0.5	<2	8.8	0.8	5	10	16	4.00	<10
YY12015	0.43	0.4	0.58	27	<10	130	<0.5	<2	9.6	0.8	11	11	21	7.02	<10
YY12016	0.53	0.9	0.43	25	<10	140	<0.5	<2	11.7	0.7	11	8	19	4.87	<10
YY12017	0.50	0.9	0.50	45	10	160	<0.5	<2	10.8	1.1	6	9	14	3.16	<10
YY12018	0.63	0.8	0.39	52	<10	130	<0.5	<2	12.0	1.6	6	10	14	3.24	<10
YY12019	0.60	1.3	0.28	25	<10	110	<0.5	<2	16.1	1.2	4	5	14	2.55	<10
YY12020	0.45	6.4	0.50	27	<10	130	<0.5	<2	10.8	1.9	6	11	25	3.09	<10
YY12021	0.60	1.3	0.71	17	<10	140	<0.5	<2	6.70	1.4	7	17	17	3.09	<10
YY12022	0.59	1.5	0.70	18	<10	120	<0.5	<2	5.82	2.9	7	19	17	2.93	<10
YY12023	0.62	2.9	0.47	60	<10	110	<0.5	<2	11.8	2.5	8	11	26	3.30	<10
YY12024	0.32	1.0	0.85	21	<10	120	<0.5	<2	8.2	0.7	8	17	22	3.05	<10
YY12025	0.32	0.6	0.64	20	<10	150	<0.5	<2	9.8	2.3	6	10	20	4.86	<10
YY12026	0.41	1.0	0.98	22	<10	220	<0.5	<2	5.68	2.6	7	13	24	6.68	<10
YY12027	0.27	1.3	0.70	20	<10	160	<0.5	<2	10.4	2.7	6	10	21	4.90	<10
YY12028	0.45	1.2	0.67	30	<10	240	<0.5	<2	5.40	2.5	7	14	22	5.42	<10
YY12029	0.42	1.6	0.79	27	<10	240	<0.5	<2	1.64	1.7	6	14	23	5.34	<10
YY12030	0.43	1.2	0.75	25	<10	190	<0.5	<2	1.91	1.4	6	13	23	3.70	<10
YY12031	0.50	2.4	0.67	22	<10	180	<0.5	<2	6.49	3.6	6	16	19	3.33	<10
YY12032	0.42	7.3	0.67	32	<10	290	<0.5	<2	5.87	5.2	6	13	22	4.39	<10
YY12033	0.46	8.9	0.30	36	<10	200	<0.5	<2	10.9	7.9	4	7	27	2.83	<10
YY12034	0.44	3.6	0.64	58	<10	480	<0.5	<2	3.70	2.1	9	16	37	3.62	<10
YY12035	0.40	0.4	0.63	18	<10	280	<0.5	<2	6.08	<0.5	6	12	21	3.42	<10
YY12036	0.43	0.3	0.49	13	<10	300	<0.5	<2	4.27	<0.5	7	13	15	3.01	<10
YY12037	0.46	0.2	0.72	19	<10	160	<0.5	<2	2.84	<0.5	7	17	15	3.49	<10
YY12038	0.51	0.2	0.99	11	<10	130	<0.5	<2	4.53	<0.5	7	23	17	2.82	<10
YY12039	0.49	0.2	0.97	10	<10	140	<0.5	<2	4.42	<0.5	7	22	20	3.24	<10
YY12040	0.49	0.3	0.84	24	<10	180	<0.5	<2	5.53	1.5	8	19	35	4.88	<10



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Project: Groundhog

**CERTIFICATE OF ANALYSIS WH19204213**

Sample Description	Method Analyte Units LOD	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
		Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Th ppm
		1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1	20
YY12001		<1	0.03	10	0.76	1145	2	0.03	15	670	22	0.06	<2	1	18	<20
YY12002		1	0.04	10	2.57	981	2	0.02	24	810	19	0.06	3	2	34	<20
YY12003		1	0.04	10	2.84	797	2	0.02	25	500	11	0.08	4	2	35	<20
YY12004		<1	0.04	10	3.47	1175	2	0.02	23	740	36	0.08	2	1	36	<20
YY12005		<1	0.02	10	5.67	1110	2	0.02	22	510	86	0.03	2	1	57	<20
YY12006		<1	0.02	<10	8.49	1545	4	0.02	20	300	104	0.02	4	1	73	<20
YY12007		<1	0.05	10	6.26	1240	3	0.02	22	610	587	0.08	17	3	76	<20
YY12008		<1	0.09	20	2.33	1170	2	0.01	16	890	332	0.12	15	5	59	<20
YY12009		<1	0.01	<10	8.74	1680	4	0.02	27	350	1965	0.14	36	1	110	<20
YY12010		<1	0.02	10	5.38	1760	5	0.02	38	710	117	0.07	6	1	81	<20
YY12011		<1	0.04	10	2.78	892	2	0.02	32	570	32	0.04	<2	2	44	<20
YY12012		<1	0.03	10	1.73	925	1	0.02	30	550	33	0.04	<2	2	30	<20
YY12013		<1	0.02	10	4.35	1600	3	0.02	37	460	87	0.03	9	2	58	<20
YY12014		<1	0.02	10	5.06	1765	2	0.03	16	700	53	0.06	2	1	39	<20
YY12015		<1	0.02	10	5.43	2280	4	0.02	32	800	52	0.04	4	2	38	<20
YY12016		<1	0.03	10	6.54	1455	3	0.02	30	740	41	0.04	5	2	55	<20
YY12017		<1	0.04	10	5.86	1590	2	0.02	20	800	133	0.09	3	1	74	<20
YY12018		<1	0.02	10	6.89	1310	3	0.02	24	460	98	0.04	3	1	101	<20
YY12019		<1	0.02	<10	9.28	1320	3	0.02	15	400	147	0.03	3	1	86	<20
YY12020		<1	0.03	10	6.12	1315	3	0.02	23	820	755	0.08	11	1	71	<20
YY12021		1	0.03	10	4.05	1065	3	0.02	25	770	223	0.07	3	1	54	<20
YY12022		<1	0.03	10	3.55	944	2	0.02	25	560	396	0.05	4	1	47	<20
YY12023		<1	0.02	10	6.83	1020	6	0.02	38	380	394	0.03	14	1	80	<20
YY12024		<1	0.04	10	4.98	851	5	0.02	27	450	81	0.04	4	2	57	<20
YY12025		<1	0.03	10	5.67	2370	2	0.03	20	700	74	0.04	3	1	51	<20
YY12026		<1	0.04	10	3.42	3340	4	0.03	22	990	169	0.05	7	1	35	<20
YY12027		<1	0.03	10	6.06	2280	3	0.03	18	670	200	0.03	5	1	45	<20
YY12028		<1	0.03	10	3.10	1895	4	0.02	26	970	189	0.06	3	1	37	<20
YY12029		<1	0.04	10	0.77	1675	6	0.02	28	1190	159	0.09	6	1	24	<20
YY12030		<1	0.04	10	0.92	931	6	0.02	24	1000	124	0.08	5	1	22	<20
YY12031		<1	0.04	10	3.97	1135	2	0.02	23	660	368	0.03	6	1	46	<20
YY12032		<1	0.03	10	3.10	1650	2	0.02	18	1300	1000	0.11	8	1	42	<20
YY12033		1	0.02	10	6.12	1110	2	0.02	16	640	1135	0.07	12	1	70	<20
YY12034		<1	0.04	10	2.11	1050	3	0.02	36	850	205	0.04	21	2	31	<20
YY12035		<1	0.02	10	3.45	1280	3	0.02	21	1050	42	0.09	6	1	39	<20
YY12036		<1	0.03	10	2.47	992	2	0.01	24	720	15	0.02	3	2	30	<20
YY12037		<1	0.03	10	1.57	1040	2	0.01	25	890	18	0.05	3	2	19	<20
YY12038		<1	0.04	10	2.80	740	1	0.02	25	680	13	0.03	<2	2	25	<20
YY12039		<1	0.04	10	2.65	966	1	0.02	27	730	13	0.03	2	2	28	<20
YY12040		<1	0.04	10	3.28	1695	4	0.02	45	710	22	0.04	2	2	37	<20



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Sample Description	Method Analyte Units LOD	ME-ICP41 Ti %	ME-ICP41 Tl ppm	ME-ICP41 U ppm	ME-ICP41 V ppm	ME-ICP41 W ppm	ME-ICP41 Zn ppm	Au-ICP21 Au ppm
YY12001		0.02	<10	<10	23	<10	122	0.099
YY12002		0.02	<10	<10	26	<10	74	0.001
YY12003		0.03	<10	<10	27	<10	53	0.001
YY12004		0.02	<10	<10	23	<10	69	0.003
YY12005		0.02	<10	<10	21	<10	114	0.004
YY12006		0.01	<10	<10	11	<10	170	0.004
YY12007		0.01	<10	<10	15	<10	791	0.013
YY12008		<0.01	<10	<10	19	<10	853	0.008
YY12009		0.01	<10	<10	11	<10	2500	0.022
YY12010		0.02	<10	<10	27	<10	367	0.006
YY12011		0.04	<10	<10	34	<10	108	0.003
YY12012		0.04	<10	<10	34	<10	94	0.002
YY12013		0.02	<10	<10	22	<10	177	0.013
YY12014		0.02	<10	<10	20	<10	130	0.003
YY12015		0.02	<10	<10	24	<10	122	0.004
YY12016		0.02	<10	<10	18	<10	100	0.006
YY12017		0.01	<10	<10	15	<10	178	0.005
YY12018		0.02	<10	<10	16	<10	308	0.013
YY12019		0.01	<10	<10	9	<10	229	0.005
YY12020		0.01	<10	<10	19	<10	355	0.005
YY12021		0.03	<10	<10	27	<10	211	0.003
YY12022		0.04	<10	<10	31	<10	437	0.004
YY12023		0.02	<10	<10	20	<10	673	0.008
YY12024		0.04	<10	<10	28	<10	120	0.003
YY12025		0.02	<10	<10	23	<10	356	0.003
YY12026		0.03	<10	<10	30	<10	410	0.003
YY12027		0.03	<10	<10	21	<10	415	0.002
YY12028		0.02	<10	<10	26	<10	419	0.005
YY12029		0.02	<10	<10	30	<10	320	0.004
YY12030		0.02	<10	<10	25	<10	270	0.003
YY12031		0.03	<10	<10	25	<10	689	0.005
YY12032		0.01	<10	<10	22	<10	612	0.004
YY12033		0.01	<10	<10	13	<10	1220	0.011
YY12034		0.02	<10	<10	27	<10	397	0.007
YY12035		0.01	<10	<10	24	<10	120	0.002
YY12036		0.02	<10	<10	22	<10	45	0.007
YY12037		0.02	<10	<10	28	<10	49	0.001
YY12038		0.04	<10	<10	36	<10	54	0.002
YY12039		0.04	<10	<10	34	<10	55	0.004
YY12040		0.03	<10	<10	37	<10	140	0.007



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Sample Description	Method	WEI-21	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Recvd Wt.	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga
Units		kg	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm
LOD		0.02	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01	10
YY12041		0.51	5.3	0.28	80	<10	90	<0.5	<2	14.9	2.2	6	6	47	4.82	<10
YY12042		0.43	0.6	0.44	15	<10	120	<0.5	<2	12.4	0.5	5	8	16	4.60	<10
YY12043		0.41	1.1	0.48	18	<10	140	<0.5	<2	13.0	0.8	6	10	21	4.57	<10
YY12044		0.49	0.7	0.74	17	<10	110	<0.5	<2	10.2	0.9	7	14	20	3.22	<10
YY12045		0.44	0.7	0.74	15	<10	240	<0.5	<2	10.5	0.8	5	12	15	6.15	<10
YY12046		0.39	0.7	0.53	29	<10	140	<0.5	<2	10.6	0.6	11	10	15	4.72	<10
YY12047		0.42	0.8	0.90	20	<10	290	<0.5	<2	7.8	0.8	11	13	13	7.41	<10
YY12048		0.45	0.5	0.72	18	<10	140	<0.5	<2	9.6	0.5	8	13	14	4.47	<10
YY12049		0.45	0.5	0.69	15	<10	130	<0.5	<2	8.1	0.6	6	14	17	3.16	<10
YY12050		0.48	3.0	0.61	41	<10	170	<0.5	<2	6.00	2.8	11	14	35	4.94	<10
YY12051		0.24	1.3	0.26	34	<10	90	<0.5	<2	14.4	1.2	6	6	22	4.12	<10
YY12052		0.23	1.6	0.41	27	<10	100	<0.5	<2	11.6	1.5	6	6	21	3.80	<10
YY12053		0.30	1.7	0.31	27	<10	100	<0.5	<2	14.8	2.2	6	7	18	3.96	<10
YY12054		0.31	3.3	0.25	50	<10	110	<0.5	<2	16.4	6.6	5	6	45	4.56	<10
YY12055		0.42	10.0	0.13	97	<10	100	<0.5	<2	16.8	12.3	6	5	77	3.84	<10
YY12056		0.31	0.5	1.08	12	<10	160	<0.5	<2	1.03	1.1	8	28	18	2.76	<10
YY12057		0.24	0.5	1.02	12	<10	190	<0.5	<2	4.20	0.8	7	19	19	3.15	<10
YY12058		0.27	1.1	0.79	23	<10	160	<0.5	<2	5.54	0.8	8	19	25	3.33	<10
YY12059		0.30	1.1	0.80	23	<10	140	<0.5	<2	5.07	0.9	9	21	22	3.53	<10
YY12060		0.29	1.0	0.69	24	<10	140	<0.5	<2	8.0	0.9	8	17	18	3.44	<10
YY12061		0.25	5.1	0.55	37	<10	130	<0.5	<2	8.8	4.6	9	13	24	3.02	<10
YY12062		0.31	3.8	0.40	34	<10	100	<0.5	<2	11.2	2.9	6	11	23	2.89	<10
YY12063		0.28	1.6	0.52	25	<10	120	<0.5	<2	10.4	1.6	8	15	18	3.07	<10
YY12064		0.34	0.7	0.63	15	<10	170	<0.5	<2	8.5	0.9	6	16	14	2.78	<10
YY12065		0.32	0.6	0.62	15	<10	180	<0.5	<2	8.8	0.9	6	16	13	2.70	<10
YY12066		0.32	1.2	0.39	23	<10	270	<0.5	<2	13.3	3.0	5	9	17	3.34	<10
YY12067		0.37	1.5	0.76	38	<10	340	<0.5	<2	8.3	2.2	15	15	42	4.91	<10
YY12068		0.26	1.2	1.91	86	10	280	1.5	<2	8.8	4.8	41	19	205	7.43	<10
YY12069		0.35	2.2	0.79	17	<10	150	<0.5	<2	5.27	1.5	7	19	19	3.13	<10
YY12070		0.30	0.7	0.92	17	<10	170	<0.5	<2	4.50	1.0	9	21	21	3.82	<10
YY12071		0.25	0.3	0.92	9	<10	150	<0.5	<2	4.58	0.5	7	20	16	2.93	<10
YY12072		0.44	0.6	0.42	12	<10	610	<0.5	<2	14.1	0.6	6	8	16	2.60	<10
YY12073		0.30	0.6	0.61	24	<10	130	<0.5	<2	12.4	0.5	6	12	15	3.14	<10
YY12074		0.34	2.1	0.39	19	<10	110	<0.5	<2	15.4	0.9	5	8	15	3.42	<10
YY12075		0.27	1.1	0.60	22	<10	140	<0.5	<2	11.2	1.6	6	11	20	4.44	<10
YY12076		0.24	2.3	0.62	22	<10	120	<0.5	<2	8.5	2.9	7	11	28	4.48	<10
YY12077		0.42	1.5	0.68	42	<10	140	<0.5	<2	8.6	2.4	10	14	27	5.62	<10
YY12078		0.29	0.8	0.66	20	<10	140	<0.5	<2	9.9	1.1	7	13	14	3.40	<10
YY12079		0.30	0.8	0.54	23	<10	220	<0.5	<2	9.9	1.6	9	11	16	4.44	<10
YY12080		0.37	1.0	0.34	25	<10	170	<0.5	<2	14.4	1.1	6	8	15	3.58	<10



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Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr	Th
Units		ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
LOD		1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1	20
YY12041		<1	0.02	<10	8.30	1890	7	0.02	23	590	576	0.06	25	1	97	<20
YY12042		1	0.02	10	6.79	1935	2	0.03	16	710	102	0.05	4	1	56	<20
YY12043		<1	0.02	10	7.32	2040	1	0.02	18	680	45	0.04	8	1	54	<20
YY12044		<1	0.03	10	6.01	1230	3	0.02	25	620	38	0.03	3	2	44	<20
YY12045		<1	0.03	10	5.81	6150	2	0.02	17	800	38	0.06	4	1	55	<20
YY12046		<1	0.03	10	5.81	1960	4	0.02	23	1520	55	0.07	4	1	46	<20
YY12047		<1	0.03	20	4.07	3950	2	0.02	21	1750	131	0.10	4	1	44	<20
YY12048		<1	0.03	10	5.41	2130	3	0.02	21	740	24	0.07	4	1	50	<20
YY12049		<1	0.03	10	4.51	1325	3	0.03	21	1030	36	0.07	3	1	45	<20
YY12050		<1	0.04	10	3.29	1450	13	0.02	45	1320	359	0.08	12	2	35	<20
YY12051		<1	0.02	10	8.19	1475	5	0.02	28	370	108	<0.01	6	1	71	<20
YY12052		<1	0.02	10	6.63	1395	3	0.03	23	450	155	0.02	4	1	55	<20
YY12053		<1	0.02	10	8.41	1550	3	0.03	21	400	213	0.01	7	1	84	<20
YY12054		1	0.01	<10	9.22	1715	3	0.03	19	480	460	0.03	14	1	95	<20
YY12055		<1	0.01	<10	9.52	1355	7	0.02	29	460	2390	0.15	41	1	141	<20
YY12056		<1	0.05	10	0.65	736	1	0.02	27	700	55	0.04	<2	3	22	<20
YY12057		1	0.04	10	2.36	1150	2	0.03	23	1280	48	0.08	3	1	35	<20
YY12058		<1	0.04	10	3.37	993	3	0.02	31	690	98	0.03	6	2	53	<20
YY12059		<1	0.04	10	3.11	1345	4	0.02	32	600	76	0.04	5	2	36	<20
YY12060		<1	0.04	10	4.69	1455	4	0.02	29	530	77	0.04	3	2	54	<20
YY12061		<1	0.03	10	4.89	1215	3	0.02	26	1060	755	0.09	15	1	64	<20
YY12062		<1	0.03	10	6.30	1050	3	0.02	23	630	573	0.05	10	1	79	<20
YY12063		<1	0.03	10	6.07	935	4	0.02	28	700	156	0.03	5	1	76	<20
YY12064		<1	0.03	10	4.91	935	1	0.02	20	670	62	0.04	<2	1	52	<20
YY12065		1	0.03	10	5.18	842	2	0.02	21	610	81	0.03	2	1	57	<20
YY12066		1	0.03	10	7.49	1215	3	0.02	22	620	183	0.04	3	1	82	<20
YY12067		<1	0.03	10	4.67	1695	8	0.02	73	1080	106	0.07	8	1	60	<20
YY12068		<1	0.02	10	4.89	1915	13	0.02	364	1390	52	0.04	17	5	64	<20
YY12069		<1	0.03	10	3.18	1080	1	0.02	26	670	333	0.05	3	1	45	<20
YY12070		<1	0.04	10	2.56	1310	2	0.02	28	1020	51	0.07	3	1	37	<20
YY12071		<1	0.04	10	2.69	988	1	0.02	22	790	18	0.05	<2	2	34	<20
YY12072		<1	0.02	10	7.94	951	1	0.02	18	510	36	0.01	3	1	104	<20
YY12073		<1	0.04	10	7.18	1425	1	0.03	18	400	57	0.02	2	1	93	<20
YY12074		<1	0.02	10	8.79	1490	2	0.03	15	410	284	0.01	6	1	108	<20
YY12075		<1	0.03	10	6.52	1820	3	0.03	25	560	103	0.02	4	2	55	<20
YY12076		<1	0.03	10	4.92	1730	3	0.02	25	530	371	0.04	6	1	46	<20
YY12077		<1	0.03	10	4.95	2160	4	0.02	33	660	179	0.03	6	2	52	<20
YY12078		<1	0.03	10	5.48	1410	2	0.02	19	990	55	0.07	3	1	58	<20
YY12079		<1	0.03	10	5.49	1720	3	0.02	32	890	38	0.06	5	1	54	<20
YY12080		<1	0.02	10	8.17	1145	3	0.03	22	440	61	<0.01	4	1	94	<20



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Sample Description	Method Analyte Units LOD	ME-ICP41 Ti %	ME-ICP41 Ti ppm	ME-ICP41 U ppm	ME-ICP41 V ppm	ME-ICP41 W ppm	ME-ICP41 Zn ppm	Au-ICP21 Au ppm
	0.01	10	10	1	10	2	0.001	
YY12041		0.01	<10	<10	12	<10	320	0.007
YY12042		0.01	<10	<10	15	<10	72	0.004
YY12043		0.02	<10	<10	17	<10	99	0.005
YY12044		0.03	<10	<10	23	<10	101	0.005
YY12045		0.02	<10	<10	20	<10	98	0.003
YY12046		0.01	<10	<10	17	<10	111	0.003
YY12047		0.01	<10	<10	24	<10	139	0.002
YY12048		0.02	<10	<10	21	<10	81	0.002
YY12049		0.02	<10	<10	23	<10	80	0.005
YY12050		0.02	<10	<10	21	<10	543	0.021
YY12051		0.01	<10	<10	11	<10	248	0.004
YY12052		0.01	<10	<10	13	<10	278	0.003
YY12053		0.01	<10	<10	12	<10	333	0.005
YY12054		0.01	<10	<10	12	<10	809	0.011
YY12055		<0.01	<10	<10	8	<10	3490	0.011
YY12056		0.04	<10	<10	37	<10	150	0.003
YY12057		0.02	<10	<10	34	<10	96	0.001
YY12058		0.03	<10	<10	32	<10	124	0.002
YY12059		0.04	<10	<10	35	<10	134	0.004
YY12060		0.03	<10	<10	30	<10	114	0.004
YY12061		0.01	<10	<10	21	<10	756	0.010
YY12062		0.02	<10	<10	20	<10	440	0.007
YY12063		0.03	<10	<10	23	<10	252	0.003
YY12064		0.03	<10	<10	25	<10	98	0.008
YY12065		0.03	<10	<10	25	<10	87	0.003
YY12066		0.01	<10	<10	16	<10	268	0.005
YY12067		0.02	<10	<10	28	<10	272	0.004
YY12068		0.01	<10	<10	37	<10	1035	0.008
YY12069		0.03	<10	<10	32	<10	242	0.005
YY12070		0.03	<10	<10	34	<10	155	0.003
YY12071		0.04	<10	<10	32	<10	70	0.001
YY12072		0.02	<10	<10	17	<10	96	0.001
YY12073		0.03	<10	<10	21	<10	88	0.004
YY12074		0.02	<10	<10	15	<10	140	0.003
YY12075		0.03	<10	<10	22	<10	238	0.006
YY12076		0.02	<10	<10	21	<10	409	0.004
YY12077		0.02	<10	<10	20	<10	330	0.006
YY12078		0.02	<10	<10	21	<10	134	0.003
YY12079		0.01	<10	<10	20	<10	259	0.007
YY12080		0.02	<10	<10	17	<10	156	0.006



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**CERTIFICATE OF ANALYSIS WH19204213**

Sample Description	Method	WEI-21	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Recvd Wt.	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga
Units		kg	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm
LOD		0.02	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01	10
YY12081		0.35	1.0	0.48	22	<10	290	<0.5	<2	10.5	1.2	11	9	24	3.89	<10
YY12082		0.31	1.3	0.59	33	<10	160	<0.5	<2	8.3	1.4	7	8	22	3.68	<10
YY12083		0.32	0.6	0.50	14	<10	160	<0.5	<2	12.4	1.1	5	11	13	3.12	<10
YY12084		0.37	1.9	0.56	31	<10	490	<0.5	<2	11.0	3.1	9	11	28	4.87	<10
YY12085		0.46	2.5	0.59	125	<10	50	<0.5	<2	19.1	3.0	9	3	21	3.77	<10
YY12086		0.31	2.0	0.65	24	<10	110	<0.5	<2	9.0	1.5	8	17	23	3.04	<10
YY12087		0.41	0.8	0.46	20	<10	110	<0.5	<2	14.0	0.7	7	9	15	3.22	<10
YY12088		0.35	0.7	0.58	16	<10	220	<0.5	<2	11.6	0.8	6	12	15	3.33	<10
YY12089		0.35	0.5	0.52	9	<10	120	<0.5	<2	12.0	1.1	4	8	14	4.14	<10
YY12090		0.27	1.1	0.96	22	<10	170	<0.5	<2	5.79	1.9	7	14	28	6.10	<10
YY12091		0.26	0.5	0.43	15	<10	80	<0.5	<2	5.26	0.6	5	6	17	2.85	<10
YY12092		0.44	0.2	0.89	13	<10	170	<0.5	<2	2.88	0.6	8	21	25	3.43	<10
YY12093		0.35	0.2	0.67	12	<10	160	<0.5	<2	6.31	0.8	6	16	15	3.21	<10
YY12094		0.34	0.4	0.32	25	<10	170	<0.5	<2	14.0	0.5	7	7	47	6.19	<10
YY12095		0.31	0.9	0.38	42	<10	240	<0.5	<2	13.5	2.0	7	6	20	4.25	<10
YY12096		0.31	1.4	0.39	29	<10	170	<0.5	<2	12.4	3.1	7	6	33	5.76	<10
YY12097		0.32	2.0	0.29	35	<10	120	<0.5	<2	13.4	3.4	7	4	31	4.27	<10
YY12098		0.40	2.1	0.40	37	<10	130	<0.5	<2	13.3	4.0	8	7	49	3.94	<10
YY12099		0.37	0.3	0.88	19	<10	170	<0.5	<2	3.10	0.5	7	19	49	3.02	<10
YY12100		0.48	0.5	0.94	13	<10	160	<0.5	<2	5.22	1.0	7	20	17	2.69	<10
YY12101		0.52	0.8	0.44	47	<10	90	<0.5	<2	6.27	1.3	10	9	24	3.06	<10
YY12102		0.38	1.0	0.53	74	<10	110	<0.5	<2	5.49	0.8	11	10	22	4.15	<10
YY12103		0.40	0.9	0.50	106	<10	140	<0.5	<2	6.05	0.7	11	10	26	4.01	<10
YY12104		0.41	1.0	0.41	174	<10	110	<0.5	<2	6.83	1.2	13	10	29	3.87	<10
YY12105		0.43	0.9	0.48	170	<10	150	<0.5	<2	5.37	0.6	15	11	29	4.45	<10
YY12106		0.40	0.9	0.35	46	<10	140	<0.5	<2	2.34	1.3	8	9	53	2.64	<10
YY12107		0.40	1.3	0.45	46	<10	80	0.6	<2	4.33	2.4	7	12	46	2.06	<10
YY12108		0.45	0.6	0.20	13	<10	20	<0.5	<2	6.14	0.8	7	7	16	2.00	<10
YY12109		0.45	2.0	0.32	21	<10	40	<0.5	<2	6.34	2.3	7	9	25	2.43	<10
YY12110		0.46	1.1	0.54	30	<10	60	<0.5	<2	5.03	1.3	12	12	27	3.11	<10
YY12111		0.41	2.5	0.56	34	<10	40	0.5	<2	6.13	2.6	11	14	32	2.96	<10
YY12112		0.42	0.7	0.60	60	<10	50	0.5	<2	6.14	0.8	13	13	29	3.63	<10
YY12113		0.41	0.3	1.32	17	<10	50	0.6	<2	2.70	<0.5	23	19	53	4.15	<10
YY12114		0.52	0.2	1.30	6	<10	30	0.5	<2	7.6	<0.5	20	17	34	3.59	<10
YY12115		0.39	0.2	1.20	3	<10	30	0.5	<2	10.0	<0.5	16	14	27	3.12	<10
YY12116		0.46	0.3	1.79	8	<10	90	0.8	<2	2.60	<0.5	22	23	50	4.00	10
YY12117		0.40	<0.2	1.77	4	<10	70	0.5	<2	0.23	<0.5	14	28	20	3.26	10
YY12118		0.48	0.2	1.68	12	<10	40	0.6	<2	0.30	<0.5	29	22	44	3.44	<10
YY12119		0.34	<0.2	1.79	2	<10	60	0.6	<2	4.58	<0.5	21	21	33	3.91	<10
YY12120		0.42	<0.2	1.05	6	<10	60	0.5	<2	1.95	<0.5	16	12	31	3.36	<10



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Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	
	Analyte	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr	Th
Units		ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
LOD		1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1	20
YY12081		<1	0.03	10	6.04	1155	3	0.03	33	830	77	0.03	6	2	70	<20
YY12082		<1	0.03	10	4.71	1360	4	0.04	29	730	115	0.03	6	1	60	<20
YY12083		<1	0.02	10	7.11	1290	2	0.02	19	610	75	0.03	2	1	64	<20
YY12084		<1	0.02	10	6.20	1840	4	0.02	35	790	314	0.04	10	1	94	<20
YY12085		<1	<0.01	<10	10.80	1110	8	0.03	54	140	371	0.08	12	<1	43	<20
YY12086		<1	0.03	10	5.36	896	2	0.02	30	410	183	0.02	5	2	68	<20
YY12087		<1	0.02	10	8.10	1290	2	0.02	25	300	56	0.01	2	1	113	<20
YY12088		<1	0.03	10	6.75	1185	1	0.02	20	550	112	0.02	3	1	76	<20
YY12089		<1	0.02	10	6.88	1870	1	0.03	16	510	69	0.02	2	1	55	<20
YY12090		<1	0.03	10	3.60	2700	3	0.02	29	700	207	0.04	6	2	33	<20
YY12091		1	0.03	10	3.00	834	1	0.03	18	410	41	0.04	2	1	31	<20
YY12092		<1	0.04	10	1.61	994	2	0.02	30	860	14	0.05	3	2	24	<20
YY12093		<1	0.03	10	3.73	1080	2	0.02	28	710	17	0.04	2	2	38	<20
YY12094		<1	0.02	<10	7.70	2160	2	0.03	23	460	14	0.02	5	1	53	<20
YY12095		<1	0.02	10	7.66	1705	4	0.03	25	670	40	0.02	7	1	71	<20
YY12096		<1	0.02	10	6.96	2470	4	0.03	28	490	175	0.05	8	1	83	<20
YY12097		<1	0.01	<10	7.50	1575	4	0.03	25	380	203	0.03	8	1	77	<20
YY12098		<1	0.02	<10	7.49	1370	3	0.02	42	480	210	0.04	13	1	110	<20
YY12099		<1	0.03	10	1.84	628	3	0.02	34	970	19	0.03	<2	2	40	<20
YY12100		<1	0.04	10	3.29	747	1	0.02	25	660	80	0.01	<2	2	50	<20
YY12101		<1	0.03	10	3.75	802	3	0.02	34	1020	106	0.02	6	2	46	<20
YY12102		<1	0.03	10	3.15	1390	4	0.02	34	1300	92	0.04	7	2	40	<20
YY12103		1	0.03	10	3.35	1380	5	0.01	36	1380	61	0.06	8	2	56	<20
YY12104		<1	0.03	10	3.83	1135	5	0.01	35	1430	46	0.06	6	2	68	<20
YY12105		<1	0.04	10	2.96	1000	4	0.01	42	1400	37	0.10	5	2	76	<20
YY12106		<1	0.05	20	1.11	291	8	0.01	58	1950	30	0.04	10	1	136	<20
YY12107		<1	0.07	20	2.04	473	8	0.01	63	3390	35	0.05	23	2	384	<20
YY12108		<1	0.02	10	3.74	308	6	0.01	36	520	53	<0.01	8	2	97	<20
YY12109		<1	0.03	10	3.93	389	6	0.01	38	500	173	0.01	28	2	103	<20
YY12110		<1	0.03	20	3.15	573	7	0.01	44	710	100	0.01	13	2	91	<20
YY12111		<1	0.03	20	3.80	447	8	0.01	46	1030	131	0.02	29	2	181	<20
YY12112		1	0.03	20	3.55	813	7	0.01	49	850	47	0.02	6	2	123	<20
YY12113		<1	0.03	50	0.83	439	1	0.01	43	670	21	0.05	<2	3	85	20
YY12114		<1	0.02	50	1.13	474	<1	0.01	35	500	11	0.03	<2	3	252	20
YY12115		<1	0.02	40	1.41	440	1	0.01	30	380	15	0.02	<2	3	332	<20
YY12116		1	0.03	30	1.33	478	5	0.01	42	710	33	0.06	<2	2	91	<20
YY12117		<1	0.03	30	0.84	733	1	0.01	24	1170	18	0.07	<2	2	16	<20
YY12118		1	0.02	60	1.07	653	1	0.01	38	620	27	0.08	<2	2	18	20
YY12119		1	0.03	60	1.47	487	<1	0.01	36	610	23	0.05	<2	3	167	<20
YY12120		<1	0.02	40	0.63	612	<1	0.02	29	550	10	0.03	<2	3	61	<20



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Sample Description	Method Analyte Units LOD	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	Au-ICP21
		Ti %	Ti ppm	U ppm	V ppm	W ppm	Zn ppm	Au ppm
		0.01	10	10	1	10	2	0.001
YY12081		0.02	<10	<10	21	<10	173	0.004
YY12082		0.02	<10	<10	22	<10	243	0.009
YY12083		0.02	<10	<10	23	<10	147	0.003
YY12084		0.02	<10	<10	25	<10	700	0.006
YY12085		<0.01	<10	<10	6	<10	1225	0.021
YY12086		0.04	<10	<10	27	<10	256	0.006
YY12087		0.02	<10	<10	18	<10	124	0.002
YY12088		0.03	<10	<10	23	<10	138	0.006
YY12089		0.02	<10	<10	19	<10	157	0.002
YY12090		0.03	<10	<10	28	<10	267	0.005
YY12091		0.02	<10	<10	11	<10	105	0.004
YY12092		0.03	<10	<10	34	<10	79	0.002
YY12093		0.02	<10	<10	30	<10	147	0.002
YY12094		0.01	<10	<10	16	<10	37	0.005
YY12095		0.01	<10	<10	11	<10	638	0.007
YY12096		0.01	<10	<10	14	<10	434	0.003
YY12097		0.01	<10	<10	12	<10	755	0.004
YY12098		0.01	<10	<10	16	<10	593	0.006
YY12099		0.03	<10	<10	32	<10	69	0.003
YY12100		0.04	<10	<10	32	<10	170	0.003
YY12101		0.01	<10	<10	18	<10	194	0.004
YY12102		0.01	<10	<10	21	<10	137	0.008
YY12103		0.01	<10	<10	23	<10	160	0.015
YY12104		0.01	<10	<10	22	<10	304	0.043
YY12105		0.01	<10	<10	24	<10	116	0.022
YY12106		<0.01	<10	<10	28	<10	220	0.004
YY12107		0.01	<10	<10	43	<10	291	0.002
YY12108		<0.01	<10	<10	10	<10	119	0.001
YY12109		<0.01	<10	<10	13	<10	441	0.002
YY12110		<0.01	<10	<10	15	<10	297	0.003
YY12111		<0.01	<10	<10	18	<10	508	0.003
YY12112		<0.01	<10	<10	20	<10	169	0.002
YY12113		<0.01	<10	<10	10	<10	103	0.002
YY12114		<0.01	<10	<10	9	<10	52	0.002
YY12115		<0.01	<10	<10	8	<10	53	0.002
YY12116		<0.01	<10	<10	20	<10	72	0.003
YY12117		0.02	<10	<10	25	<10	48	0.004
YY12118		<0.01	<10	<10	12	<10	53	0.004
YY12119		<0.01	<10	<10	11	<10	77	0.001
YY12120		0.01	<10	<10	9	<10	45	<0.001



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Method Analyte Units LOD	WEI-21 Recvd Wt. kg	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 %	ME-ICP41 Ga ppm
Sample Description	0.02	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01	10
YY12121	0.46	0.3	1.35	18	<10	50	0.5	<2	2.45	<0.5	23	21	52	4.11	<10
YY12122	0.39	0.7	0.79	20	<10	60	0.5	<2	4.17	0.8	13	16	26	3.40	<10
YY12123	0.41	1.1	0.49	27	<10	80	0.5	<2	6.07	1.3	9	11	22	3.35	<10
YY12124	0.43	0.8	0.38	17	<10	70	<0.5	<2	4.59	1.2	8	9	19	2.59	<10
YY12125	0.43	0.6	0.14	15	<10	20	<0.5	<2	6.21	1.0	8	6	20	2.36	<10
YY12126	0.33	0.9	0.23	22	<10	40	<0.5	<2	2.71	1.4	7	7	30	1.81	<10
YY12127	0.40	1.5	0.22	46	<10	40	0.7	<2	8.8	2.9	7	9	45	1.89	<10
YY12128	0.46	0.8	0.16	39	<10	100	<0.5	<2	0.65	0.7	12	4	71	3.18	<10
YY12129	0.41	0.7	0.58	39	<10	120	<0.5	<2	3.97	1.0	11	15	28	3.47	<10
YY12130	0.35	0.8	0.68	41	<10	110	0.6	<2	1.14	1.1	10	16	24	3.79	<10
YY12131	0.54	2.1	0.26	443	<10	90	<0.5	<2	11.0	0.6	12	3	19	3.67	<10
YY12132	0.38	1.5	0.29	152	<10	120	<0.5	<2	11.0	0.7	11	5	21	3.79	<10
YY12133	0.44	1.6	0.65	116	<10	140	<0.5	<2	3.63	0.8	10	8	28	4.24	<10
YY12134	0.36	0.8	0.31	75	<10	80	<0.5	<2	6.30	0.6	8	6	15	3.80	<10
YY12135	0.34	4.5	0.54	82	<10	80	<0.5	<2	2.94	3.8	8	12	47	3.16	<10
YY12136	0.37	8.7	0.31	104	<10	80	<0.5	<2	5.82	7.0	5	6	58	2.73	<10
YY12137	0.48	0.7	0.42	78	<10	130	<0.5	<2	1.59	0.8	10	7	39	3.18	<10
YY12138	0.48	0.7	0.27	87	<10	160	<0.5	<2	1.92	0.9	12	6	48	3.15	<10
YY12139	0.53	0.8	0.20	68	<10	100	<0.5	<2	1.53	1.4	11	5	63	3.01	<10
YY12140	0.45	1.0	0.22	38	<10	80	<0.5	<2	2.08	1.5	10	6	56	2.71	<10
YY12141	0.44	1.2	0.30	66	<10	70	0.6	<2	5.78	2.4	9	7	38	2.22	<10
YY12142	0.48	1.5	0.32	39	10	60	0.7	<2	6.07	2.0	7	9	50	1.84	<10
YY12143	0.44	1.4	0.29	29	10	60	0.6	<2	5.70	2.4	7	9	61	1.91	<10
YY12144	0.40	1.6	0.37	34	<10	80	0.6	<2	5.13	2.0	7	13	77	1.96	<10
YY12145	0.47	2.8	0.25	45	<10	50	0.6	<2	5.73	4.5	10	8	111	2.31	<10
YY12146	0.51	0.5	0.27	16	<10	20	<0.5	<2	2.53	1.0	8	6	25	2.31	<10
YY12147	0.51	0.5	0.28	15	<10	30	0.5	<2	5.16	1.0	10	6	22	3.06	<10
YY12148	0.48	0.5	0.51	47	<10	130	<0.5	2	3.42	1.6	18	10	54	4.07	<10
YY12149	0.31	<0.2	1.36	5	<10	40	0.5	<2	2.05	<0.5	17	41	44	3.35	<10
YY12150	0.45	<0.2	1.13	10	<10	40	0.5	<2	5.97	<0.5	20	14	32	3.78	<10
YY12151	0.45	<0.2	1.50	6	<10	50	0.5	<2	6.38	<0.5	21	19	42	3.68	<10
YY12152	0.48	<0.2	1.57	10	<10	50	0.5	<2	5.98	0.6	23	21	34	3.88	<10
YY12153	0.46	0.8	0.34	37	<10	90	<0.5	<2	6.44	1.0	13	6	30	3.42	<10
YY12154	0.49	0.2	0.13	12	<10	20	<0.5	<2	4.29	0.8	8	5	20	2.25	<10
YY12155	0.43	<0.2	0.06	16	<10	10	<0.5	<2	5.59	<0.5	8	3	20	2.29	<10
YY12156	0.37	1.7	0.24	36	<10	50	0.5	<2	5.72	3.4	10	7	76	2.60	<10
YY12157	0.37	3.0	0.18	25	<10	20	<0.5	<2	2.85	3.4	8	5	43	2.17	<10
YY12158	0.38	3.5	0.21	59	<10	30	0.5	<2	8.3	6.0	7	7	70	2.23	<10
YY12159	0.38	3.9	0.38	35	<10	60	0.6	<2	3.55	6.6	7	8	62	2.27	<10
YY12160	0.32	3.2	0.28	33	<10	30	0.5	<2	4.36	7.2	8	7	46	2.11	<10



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**CERTIFICATE OF ANALYSIS WH19204213**

Sample Description	Method Analyte Units LOD	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	
		Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Th ppm
		1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1	20
YY12121		1	0.03	40	1.13	572	3	0.01	46	1260	26	0.03	3	3	70	<20
YY12122		1	0.03	10	2.16	625	3	0.01	35	920	60	0.06	7	2	85	<20
YY12123		<1	0.03	10	3.63	679	5	0.01	40	780	100	0.04	10	2	124	<20
YY12124		<1	0.03	10	2.83	287	7	0.01	42	510	69	0.02	10	2	108	<20
YY12125		<1	0.03	10	3.78	310	10	0.01	50	530	63	<0.01	13	2	103	<20
YY12126		<1	0.05	20	1.16	140	10	0.01	54	1160	25	0.01	9	2	98	<20
YY12127		<1	0.06	10	4.77	235	15	0.01	71	2170	31	0.02	21	2	532	<20
YY12128		<1	0.05	20	0.21	131	8	0.01	63	1430	29	0.03	7	2	52	<20
YY12129		<1	0.04	10	2.26	834	5	0.01	47	1070	60	0.04	7	2	45	<20
YY12130		<1	0.04	20	0.42	786	5	0.01	44	1290	115	0.07	6	1	17	<20
YY12131		<1	0.02	<10	6.01	1395	3	0.02	30	1370	83	0.05	8	2	73	<20
YY12132		<1	0.03	10	6.14	1160	5	0.02	38	1120	58	0.02	10	1	71	<20
YY12133		1	0.03	10	1.87	1005	5	0.02	38	1080	81	0.06	12	2	30	<20
YY12134		<1	0.02	10	3.65	905	3	0.02	30	660	50	0.03	6	1	36	<20
YY12135		<1	0.03	10	1.54	571	4	0.01	35	900	506	0.05	25	2	24	<20
YY12136		<1	0.03	10	3.33	474	4	0.01	27	840	1070	0.04	54	1	50	<20
YY12137		<1	0.04	20	0.70	568	5	0.01	40	1650	29	0.04	10	2	32	<20
YY12138		<1	0.05	20	0.86	299	6	0.01	51	1870	27	0.04	13	2	50	<20
YY12139		<1	0.04	20	0.70	222	7	0.01	62	1500	29	0.03	11	2	77	<20
YY12140		1	0.04	20	1.04	214	8	0.01	66	1520	33	0.03	10	2	92	<20
YY12141		<1	0.06	20	3.21	365	15	0.01	68	1650	41	0.03	18	2	206	<20
YY12142		<1	0.10	20	2.80	179	16	0.01	84	3900	36	0.04	26	2	320	<20
YY12143		<1	0.09	20	2.75	196	15	0.01	86	3510	41	0.04	19	1	423	<20
YY12144		<1	0.12	20	2.13	202	11	0.01	106	5230	29	0.05	23	2	609	<20
YY12145		<1	0.11	20	2.80	190	39	0.01	139	2450	39	0.03	24	2	457	<20
YY12146		<1	0.03	20	1.42	268	8	0.01	48	640	36	0.02	9	2	86	<20
YY12147		<1	0.02	20	3.13	382	11	0.01	55	450	52	0.04	11	2	125	<20
YY12148		<1	0.04	20	1.37	660	10	0.01	65	1630	53	0.07	6	2	83	<20
YY12149		<1	0.02	20	1.00	575	1	0.02	32	780	13	0.10	<2	3	70	<20
YY12150		<1	0.02	40	0.85	600	1	0.01	35	500	10	0.06	3	3	166	20
YY12151		<1	0.03	60	1.07	439	<1	0.01	38	500	12	0.02	<2	2	182	20
YY12152		<1	0.03	60	1.36	440	1	0.01	40	580	15	0.04	2	2	166	20
YY12153		<1	0.03	20	3.52	608	15	0.01	64	1050	66	0.04	11	2	141	<20
YY12154		<1	0.02	10	2.35	178	11	0.01	50	410	37	0.02	6	2	91	<20
YY12155		<1	0.02	10	1.29	74	14	0.01	52	350	25	0.01	6	1	109	<20
YY12156		<1	0.10	20	2.16	145	28	0.01	119	3410	39	0.03	18	2	582	<20
YY12157		<1	0.04	20	1.46	192	13	0.01	60	1220	202	0.02	76	2	169	<20
YY12158		1	0.07	20	4.29	390	15	0.01	72	2690	338	0.02	118	2	390	<20
YY12159		1	0.06	20	1.79	293	12	0.01	67	1900	291	0.03	109	2	150	<20
YY12160		<1	0.06	20	2.19	316	12	0.01	63	2120	287	0.02	107	2	178	<20



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**CERTIFICATE OF ANALYSIS WH19204213**

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	Au-ICP21
	Analyte	Ti	Ti	U	V	W	Zn	Au
Units		%	ppm	ppm	ppm	ppm	ppm	ppm
LOD		0.01	10	10	1	10	2	0.001
YY12121		<0.01	<10	<10	12	<10	102	0.002
YY12122		<0.01	<10	<10	16	<10	169	0.004
YY12123		<0.01	<10	<10	20	<10	265	0.003
YY12124		<0.01	<10	<10	11	<10	267	0.001
YY12125		<0.01	<10	<10	9	<10	130	<0.001
YY12126		<0.01	<10	<10	17	<10	123	0.002
YY12127		<0.01	<10	<10	42	<10	343	0.003
YY12128		<0.01	<10	<10	13	<10	108	0.006
YY12129		0.01	<10	<10	32	<10	210	0.002
YY12130		0.01	<10	<10	36	<10	215	0.004
YY12131		<0.01	<10	<10	11	<10	102	0.181
YY12132		0.01	<10	<10	13	<10	134	0.018
YY12133		0.01	<10	<10	17	<10	132	0.018
YY12134		0.01	<10	<10	12	<10	76	0.006
YY12135		0.01	<10	<10	22	<10	800	0.010
YY12136		0.01	<10	<10	13	<10	1180	0.020
YY12137		0.01	<10	<10	20	<10	128	0.009
YY12138		<0.01	<10	<10	19	<10	145	0.013
YY12139		<0.01	<10	<10	17	<10	198	0.009
YY12140		<0.01	<10	<10	21	<10	181	0.005
YY12141		<0.01	<10	<10	38	<10	282	0.004
YY12142		<0.01	<10	<10	46	<10	285	0.003
YY12143		<0.01	<10	<10	46	<10	288	0.002
YY12144		<0.01	<10	<10	45	<10	311	0.001
YY12145		<0.01	<10	<10	79	<10	319	0.002
YY12146		0.01	<10	<10	11	<10	116	<0.001
YY12147		<0.01	<10	<10	8	<10	106	0.001
YY12148		<0.01	<10	<10	21	<10	320	0.001
YY12149		0.01	<10	<10	31	<10	51	<0.001
YY12150		<0.01	<10	<10	9	<10	54	0.001
YY12151		<0.01	<10	<10	8	<10	57	0.003
YY12152		<0.01	<10	<10	9	<10	94	0.001
YY12153		<0.01	<10	<10	17	<10	193	0.006
YY12154		<0.01	<10	<10	7	<10	77	0.006
YY12155		<0.01	<10	<10	3	<10	28	0.003
YY12156		<0.01	<10	<10	43	<10	319	0.003
YY12157		<0.01	<10	<10	15	<10	394	0.003
YY12158		<0.01	<10	<10	39	<10	1030	0.005
YY12159		0.01	<10	<10	39	<10	1180	0.004
YY12160		<0.01	<10	<10	33	<10	906	0.005



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Sample Description	Method Analyte Units LOD	WEI-21	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	
		Recvd Wt. kg	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm
		0.02	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01	10
YY12161		0.31	3.0	0.31	24	<10	50	<0.5	<2	3.05	3.9	5	6	43	1.56	<10
YY12162		0.37	3.1	0.42	38	<10	70	0.5	<2	2.19	3.5	7	9	55	2.41	<10
YY12163		0.38	0.8	0.65	43	<10	110	<0.5	<2	0.77	1.6	11	16	47	3.43	<10
YY12164		0.39	0.3	0.85	35	<10	80	0.5	<2	0.65	1.0	9	16	19	3.49	<10
YY12165		0.45	2.2	0.20	202	<10	50	<0.5	<2	10.5	2.6	15	4	35	2.72	<10
YY12166		0.37	0.6	0.67	34	<10	70	<0.5	<2	2.99	1.0	14	7	27	3.24	<10
YY12167		0.40	0.4	0.61	28	<10	60	<0.5	<2	4.58	0.7	9	7	20	2.45	<10
YY12168		0.41	0.8	0.54	41	<10	100	<0.5	<2	1.41	1.2	8	11	35	2.79	<10
YY12169		0.43	0.6	0.59	30	<10	110	<0.5	<2	0.51	0.7	7	11	32	2.14	<10
YY12170		0.37	0.7	0.61	38	<10	140	<0.5	<2	0.68	0.5	5	14	26	2.50	<10
YY12171		0.36	0.9	0.30	22	<10	50	<0.5	<2	1.84	1.2	6	6	31	1.99	<10
YY12172		0.40	0.8	0.25	21	<10	50	<0.5	<2	3.38	1.9	7	6	35	2.03	<10
YY12173		0.33	0.9	0.30	20	<10	60	<0.5	<2	1.93	1.4	7	8	33	2.02	<10
YY12174		0.36	0.9	0.24	16	<10	50	<0.5	<2	2.03	2.6	7	6	29	2.03	<10
YY12175		0.32	0.6	0.18	13	<10	40	<0.5	<2	3.05	0.9	8	5	22	2.09	<10
YY12176		0.38	0.5	0.14	14	<10	30	<0.5	<2	6.48	0.8	7	4	18	1.78	<10
YY12177		0.35	0.5	0.13	15	<10	20	<0.5	<2	3.22	1.4	8	4	30	2.04	<10
YY12178		0.36	0.7	0.20	16	<10	40	<0.5	<2	4.61	1.6	7	4	38	2.07	<10
YY12179		0.44	0.8	0.39	28	<10	60	<0.5	<2	4.81	1.6	15	7	39	3.13	<10
YY12180		0.39	0.7	0.74	19	<10	110	<0.5	<2	0.44	0.6	13	13	37	3.14	<10
YY12181		0.47	0.6	1.04	59	<10	60	<0.5	<2	3.14	0.9	20	16	39	3.75	<10
YY12182		0.44	<0.2	1.24	6	<10	60	0.7	<2	4.33	<0.5	28	15	34	3.69	<10
YY12183		0.46	0.8	0.80	36	<10	90	<0.5	<2	2.27	1.0	20	14	47	3.88	<10
YY12184		0.47	1.3	0.33	47	<10	80	<0.5	<2	1.52	0.5	16	7	56	3.69	<10
YY12185		0.45	1.5	0.31	27	<10	410	<0.5	<2	0.27	3.5	9	5	49	2.88	<10
YY12186		0.44	0.7	0.22	19	<10	40	<0.5	<2	4.33	1.7	8	6	30	2.44	<10
YY12187		0.37	0.8	0.12	22	<10	20	0.6	<2	6.99	3.2	9	5	45	2.59	<10
YY12188		0.43	0.3	0.10	12	<10	20	0.5	<2	6.87	0.8	9	4	18	2.37	<10
YY12189		0.41	0.3	0.22	15	<10	30	0.6	<2	4.31	<0.5	12	6	22	2.90	<10
YY12190		0.39	0.5	0.76	32	<10	80	<0.5	<2	1.70	1.0	16	19	31	3.47	<10
YY12191		0.58	0.4	0.14	18	<10	30	0.6	<2	5.35	0.5	10	5	20	2.79	<10
YY12192		0.47	0.4	0.09	12	<10	20	<0.5	<2	6.40	<0.5	5	4	11	1.61	<10
YY12193		0.45	1.9	0.22	33	<10	40	0.5	<2	4.32	0.9	8	6	19	2.21	<10
YY12194		0.48	1.2	0.53	36	<10	70	<0.5	<2	2.69	1.2	12	10	47	3.95	<10
YY12195		0.39	0.6	0.41	36	<10	100	<0.5	<2	0.32	0.9	9	8	45	3.02	<10
YY12196		0.38	0.3	0.85	34	<10	110	<0.5	<2	0.30	0.9	8	17	25	3.40	<10
YY12197		0.33	0.6	1.17	37	<10	170	0.5	<2	2.55	1.4	11	29	29	4.19	<10
YY12198		0.35	0.8	0.97	32	<10	70	0.5	<2	0.99	1.3	10	16	24	3.58	<10
YY12199		0.27	2.7	0.88	27	<10	70	0.6	<2	2.27	1.9	10	16	19	3.73	<10
YY12200		0.41	2.2	0.68	18	<10	60	<0.5	<2	9.9	2.5	5	10	18	2.34	<10



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Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr	Th
	Units LOD	ppm 1	% 0.01	ppm 10	% 0.01	ppm 5	ppm 1	% 0.01	ppm 1	ppm 10	ppm 2	% 0.01	ppm 2	ppm 1	ppm 1	ppm 20
YY12161	<1	0.05	20	1.43	138	7	0.02	44	1610	254	0.03	87	1	125	<20	
YY12162	<1	0.06	20	1.02	219	9	0.01	55	1950	282	0.03	89	2	80	<20	
YY12163	<1	0.04	20	0.45	526	7	0.01	57	1280	86	0.03	10	2	25	<20	
YY12164	<1	0.04	20	0.51	838	4	0.01	33	810	79	0.04	5	2	14	<20	
YY12165	<1	0.03	10	6.05	465	1	0.01	25	1040	358	0.07	35	2	65	<20	
YY12166	<1	0.03	20	1.78	553	3	0.01	27	1710	66	0.06	8	3	34	<20	
YY12167	<1	0.03	10	2.82	376	2	0.02	23	1210	43	0.02	8	2	37	<20	
YY12168	<1	0.04	20	0.73	320	5	0.01	42	1270	53	0.03	12	2	36	<20	
YY12169	<1	0.03	20	0.25	282	5	0.01	36	1220	52	0.03	9	1	23	<20	
YY12170	<1	0.03	20	0.25	256	5	0.01	35	1140	60	0.05	12	2	29	<20	
YY12171	<1	0.05	20	0.76	160	8	0.01	50	1600	34	0.02	9	2	80	<20	
YY12172	<1	0.06	20	1.47	188	10	0.01	55	2000	37	0.01	10	2	155	<20	
YY12173	<1	0.05	20	0.66	161	9	0.01	54	1570	41	0.02	9	2	87	<20	
YY12174	<1	0.05	20	0.76	211	8	0.01	51	1260	94	0.02	9	2	38	<20	
YY12175	<1	0.05	20	1.10	155	8	0.01	46	950	47	0.02	10	2	44	<20	
YY12176	<1	0.04	20	1.25	122	9	0.01	43	630	29	0.02	9	1	107	<20	
YY12177	<1	0.04	20	1.11	133	12	0.01	60	860	29	0.02	7	2	134	<20	
YY12178	<1	0.04	20	1.70	132	13	0.01	68	1270	31	0.03	5	1	155	<20	
YY12179	<1	0.03	20	2.62	495	12	0.01	57	1360	69	0.05	11	2	149	<20	
YY12180	<1	0.03	30	0.47	510	6	0.01	39	850	49	0.04	6	2	19	<20	
YY12181	<1	0.03	30	1.44	483	6	0.01	50	1080	48	0.08	6	2	81	<20	
YY12182	<1	0.04	70	1.26	530	1	0.01	33	720	21	0.10	<2	2	79	20	
YY12183	<1	0.03	30	1.21	556	8	0.01	54	1390	70	0.06	5	3	65	<20	
YY12184	<1	0.04	30	0.56	477	14	0.01	65	1710	45	0.04	14	2	40	<20	
YY12185	<1	0.03	20	0.11	245	37	0.01	76	800	268	0.03	18	2	21	<20	
YY12186	1	0.03	20	2.30	248	14	0.01	60	880	46	0.02	10	2	90	<20	
YY12187	<1	0.04	10	3.91	235	20	0.01	83	1040	45	0.02	10	2	163	<20	
YY12188	<1	0.03	10	3.81	169	12	0.01	56	390	42	0.02	6	2	99	<20	
YY12189	<1	0.03	10	2.36	221	11	0.01	59	460	49	0.03	7	2	43	<20	
YY12190	<1	0.03	20	1.14	847	4	0.01	49	550	42	0.04	4	3	23	<20	
YY12191	<1	0.02	10	3.13	309	11	0.01	59	370	53	0.01	8	2	47	<20	
YY12192	<1	0.02	10	3.82	263	6	0.01	33	300	32	0.01	8	2	52	<20	
YY12193	<1	0.03	20	2.41	263	7	0.01	42	550	110	0.02	12	2	39	<20	
YY12194	<1	0.03	20	1.59	859	4	0.01	51	1270	34	0.02	8	3	30	<20	
YY12195	<1	0.03	20	0.16	211	5	0.01	50	1080	27	0.02	9	2	17	<20	
YY12196	<1	0.04	20	0.31	634	4	0.01	35	1280	48	0.04	5	2	12	<20	
YY12197	1	0.04	20	1.74	1335	5	0.01	47	1180	57	0.04	5	3	26	<20	
YY12198	<1	0.04	20	0.94	589	6	0.01	38	790	101	0.03	5	3	13	<20	
YY12199	<1	0.03	20	1.45	1155	3	0.01	30	750	526	0.05	7	2	17	<20	
YY12200	<1	0.02	10	6.01	580	1	0.02	19	640	361	0.04	4	1	59	<20	



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**CERTIFICATE OF ANALYSIS WH19204213**

Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	Au-ICP21
	Analyte	Ti	Ti	U	V	W	Zn	Au
Units		%	ppm	ppm	ppm	ppm	ppm	ppm
LOD		0.01	10	10	1	10	2	0.001
YY12161		0.01	<10	<10	27	<10	652	0.004
YY12162		0.01	<10	<10	36	<10	569	0.004
YY12163		0.01	<10	<10	35	<10	271	0.003
YY12164		0.01	<10	<10	36	<10	158	0.001
YY12165		<0.01	<10	<10	10	<10	395	0.025
YY12166		0.01	<10	<10	26	<10	139	0.002
YY12167		0.01	<10	<10	23	<10	119	0.002
YY12168		0.01	<10	<10	25	<10	197	0.006
YY12169		0.01	<10	<10	25	<10	139	0.002
YY12170		0.01	<10	<10	26	<10	139	0.002
YY12171		<0.01	<10	<10	20	<10	170	0.001
YY12172		<0.01	<10	<10	21	<10	209	0.002
YY12173		<0.01	<10	<10	17	<10	163	0.002
YY12174		<0.01	<10	<10	12	<10	249	0.001
YY12175		<0.01	<10	<10	7	<10	94	0.002
YY12176		<0.01	<10	<10	5	<10	64	0.001
YY12177		<0.01	<10	<10	10	<10	129	0.001
YY12178		<0.01	<10	<10	14	<10	192	0.001
YY12179		<0.01	<10	<10	17	<10	625	0.002
YY12180		0.01	<10	<10	26	<10	152	0.001
YY12181		<0.01	<10	<10	17	<10	203	0.003
YY12182		<0.01	<10	<10	7	<10	58	0.001
YY12183		<0.01	<10	<10	22	<10	241	0.002
YY12184		<0.01	<10	<10	39	<10	98	0.001
YY12185		<0.01	<10	<10	38	<10	1110	0.002
YY12186		0.01	<10	<10	16	<10	263	0.001
YY12187		<0.01	<10	<10	19	<10	186	0.002
YY12188		<0.01	<10	<10	5	<10	84	0.001
YY12189		<0.01	<10	<10	9	<10	33	<0.001
YY12190		0.02	<10	<10	29	<10	121	0.002
YY12191		<0.01	<10	<10	7	<10	37	<0.001
YY12192		<0.01	<10	<10	5	<10	31	<0.001
YY12193		<0.01	<10	<10	11	<10	162	0.001
YY12194		0.02	<10	<10	23	<10	173	0.004
YY12195		<0.01	<10	<10	17	<10	213	0.004
YY12196		0.01	<10	<10	28	<10	200	0.001
YY12197		0.03	<10	<10	41	<10	193	0.002
YY12198		0.02	<10	<10	33	<10	265	0.001
YY12199		0.01	<10	<10	36	<10	343	<0.001
YY12200		0.02	<10	<10	22	<10	546	0.003



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Project: Groundhog

**CERTIFICATE OF ANALYSIS WH19204213**

<b>CERTIFICATE COMMENTS</b>	
	<b>LABORATORY ADDRESSES</b>
Applies to Method:	Processed at ALS Whitehorse located at 78 Mt. Sima Rd, Whitehorse, YT, Canada. LOG-22 SCR-41 WEI-21
Applies to Method:	Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada. Au-ICP21 ME-ICP41



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**CERTIFICATE WH19204215**

Project: Groundhog

This report is for 150 Soil samples submitted to our lab in Whitehorse, YT, Canada on 17-AUG-2019.

The following have access to data associated with this certificate:

HEATHER BURRELL JACK MORTON	ANDREW CARNE SCOTT NEWMAN	STEVE ISREAL
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SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
SCR-41	Screen to -180um and save both

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
Au-ICP21	Au 30g FA ICP-AES Finish	ICP-AES
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES

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

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

Signature:   
 Colin Ramshaw, Vancouver Laboratory Manager



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**CERTIFICATE OF ANALYSIS WH19204215**

Sample Description	Method	WEI-21	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Recvd Wt.	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga
Units		kg	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm
LOD		0.02	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01	10
YY12201		0.52	0.7	0.91	17	<10	140	<0.5	<2	4.47	8.0	6	20	17	2.78	<10
YY12202		0.39	0.5	0.97	13	<10	130	<0.5	<2	2.83	2.2	7	22	18	3.09	<10
YY12203		0.37	1.3	0.84	20	<10	120	<0.5	<2	3.29	1.9	8	20	20	3.59	<10
YY12204		0.39	0.7	0.69	14	<10	110	<0.5	<2	5.99	0.9	7	17	15	2.95	<10
YY12205		0.48	3.0	0.39	138	<10	160	<0.5	<2	8.5	11.2	27	11	61	5.53	<10
YY12206		0.31	1.5	0.51	18	<10	140	<0.5	<2	8.2	1.1	6	12	16	3.05	<10
YY12207		0.39	1.6	0.57	16	<10	160	<0.5	<2	8.5	1.2	6	13	15	3.05	<10
YY12208		0.35	1.2	0.47	15	<10	130	<0.5	<2	10.7	1.1	5	12	12	3.42	<10
YY12209		0.43	0.9	0.56	16	<10	110	<0.5	<2	8.0	1.0	6	13	14	3.30	<10
YY12210		0.42	1.3	0.66	15	<10	120	<0.5	<2	4.41	2.5	5	13	16	3.35	<10
YY12211		0.39	0.9	0.63	17	<10	160	<0.5	<2	6.16	2.7	6	15	16	3.23	<10
YY12212		0.36	1.0	0.59	19	<10	120	<0.5	<2	6.19	1.6	8	13	19	3.04	<10
YY12213		0.33	0.8	0.44	16	10	190	<0.5	<2	9.4	2.2	5	9	15	3.52	<10
YY12214		0.40	1.7	0.36	44	<10	160	<0.5	<2	10.0	4.6	9	8	21	4.08	<10
YY12215		0.31	1.0	0.35	40	<10	190	<0.5	<2	10.9	1.7	5	8	21	4.08	<10
YY12216		0.42	0.3	0.88	17	<10	550	<0.5	<2	0.74	<0.5	6	17	26	3.08	<10
YY12217		0.49	0.4	0.88	11	<10	2400	<0.5	<2	2.16	1.7	6	19	14	3.55	<10
YY12218		0.35	2.9	0.27	48	<10	50	<0.5	<2	5.30	0.9	11	10	31	5.06	<10
YY12219		0.33	0.6	0.38	12	<10	140	<0.5	<2	13.0	0.5	3	7	10	3.58	<10
YY12220		0.33	0.7	0.37	52	<10	200	<0.5	<2	7.6	0.8	21	8	35	5.15	<10
YY12221		0.34	1.6	0.68	34	<10	110	<0.5	<2	6.49	1.9	10	13	26	4.60	<10
YY12222		0.31	0.7	0.50	26	<10	100	<0.5	<2	5.00	1.1	6	8	17	3.14	<10
YY12223		0.40	1.1	0.42	33	<10	90	<0.5	<2	10.4	2.3	6	7	21	3.75	<10
YY12224		0.50	1.0	0.35	32	<10	90	<0.5	<2	9.4	1.9	6	10	15	2.75	<10
YY12225		0.54	0.2	0.83	14	<10	110	<0.5	<2	4.30	<0.5	6	20	16	2.95	<10
YY12226		0.31	0.3	0.44	9	<10	40	<0.5	<2	9.1	0.5	5	9	12	2.56	<10
YY12227		0.33	0.4	0.47	9	<10	50	<0.5	<2	7.8	<0.5	5	9	11	2.78	<10
YY12228		0.37	0.3	0.29	9	<10	40	<0.5	<2	10.7	<0.5	4	6	8	2.41	<10
YY12229		0.39	0.2	0.22	9	<10	40	<0.5	<2	9.2	<0.5	4	6	7	2.22	<10
YY12230		0.40	0.3	0.16	7	<10	30	<0.5	<2	8.1	<0.5	5	5	8	2.50	<10
YY12231		0.38	0.4	0.24	7	<10	80	<0.5	<2	16.3	<0.5	3	5	7	2.25	<10
YY12232		0.36	0.4	0.33	13	<10	80	<0.5	<2	14.1	<0.5	4	8	10	2.21	<10
YY12233		0.39	0.8	0.36	16	<10	140	<0.5	<2	13.1	0.6	6	7	15	3.50	<10
YY12234		0.36	3.6	0.47	47	<10	110	<0.5	<2	9.1	3.7	8	10	26	3.54	<10
YY12235		0.53	1.1	0.40	43	<10	190	<0.5	<2	9.0	1.1	10	10	47	4.68	<10
YY12236		0.38	1.1	1.06	46	<10	300	0.7	<2	3.65	1.0	10	19	109	4.86	<10
YY12237		0.34	1.0	0.70	71	<10	500	<0.5	<2	0.11	<0.5	7	16	31	4.97	<10
YY12238		0.38	1.5	0.53	73	<10	250	<0.5	<2	0.19	<0.5	8	12	38	4.30	<10
YY12239		0.35	0.4	0.16	29	<10	70	<0.5	<2	0.02	<0.5	8	5	53	2.83	<10
YY12240		0.39	0.8	0.17	25	<10	100	<0.5	<2	0.15	<0.5	10	3	61	2.56	<10



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Sample Description	Method Analyte Units LOD	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
		Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Th ppm
YY12201		<1	0.03	10	2.84	827	1	0.02	25	650	86	0.02	4	2	43	<20
YY12202		1	0.03	10	1.75	763	2	0.02	26	670	60	0.01	2	2	22	<20
YY12203		1	0.03	10	2.04	1120	3	0.02	32	690	147	0.01	4	2	27	<20
YY12204		<1	0.04	10	3.63	990	2	0.02	23	600	43	0.03	2	1	37	<20
YY12205		1	0.03	10	4.63	1320	8	0.02	46	1640	186	0.15	21	4	94	<20
YY12206		1	0.03	10	4.35	1080	4	0.02	22	930	198	0.08	2	1	59	<20
YY12207		1	0.03	10	4.69	1075	3	0.02	22	960	202	0.05	2	1	58	<20
YY12208		<1	0.03	10	6.17	1300	2	0.02	20	630	135	0.01	<2	1	75	<20
YY12209		1	0.03	10	4.55	1140	3	0.02	21	800	103	0.02	<2	1	51	<20
YY12210		<1	0.03	10	2.41	1270	2	0.03	17	1030	222	0.04	4	1	31	<20
YY12211		<1	0.03	10	3.38	1160	2	0.02	23	1120	108	0.06	<2	1	44	<20
YY12212		<1	0.03	10	3.51	918	3	0.02	26	1020	130	0.05	4	1	44	<20
YY12213		<1	0.02	10	5.01	1560	3	0.02	21	1090	78	0.08	3	1	55	<20
YY12214		<1	0.02	10	5.52	1670	3	0.02	30	940	240	0.06	9	1	76	<20
YY12215		1	0.02	10	6.27	1580	5	0.02	26	670	139	0.02	3	1	65	<20
YY12216		<1	0.03	10	0.33	750	4	0.02	31	1220	30	0.06	4	2	17	<20
YY12217		1	0.02	10	1.31	990	2	0.01	23	660	48	0.02	6	2	22	<20
YY12218		1	0.03	10	3.07	586	5	0.01	33	560	167	0.02	15	2	31	<20
YY12219		1	0.02	10	7.46	2030	2	0.03	16	770	19	0.02	2	1	50	<20
YY12220		<1	0.03	10	4.17	1610	3	0.01	38	1510	36	0.08	6	2	41	<20
YY12221		<1	0.03	10	3.91	1535	3	0.02	31	1140	169	0.05	6	2	32	<20
YY12222		<1	0.02	10	2.93	1065	4	0.02	24	640	74	0.04	5	1	24	<20
YY12223		<1	0.02	10	6.03	1525	5	0.02	29	470	156	0.02	5	2	47	<20
YY12224		<1	0.02	10	5.44	769	5	0.02	31	510	138	0.02	8	2	45	<20
YY12225		<1	0.04	10	2.68	761	2	0.02	24	550	15	0.03	2	2	27	<20
YY12226		<1	0.02	10	5.43	707	1	0.02	15	520	24	0.02	<2	1	39	<20
YY12227		<1	0.02	10	4.63	594	1	0.02	17	470	24	0.02	2	1	30	<20
YY12228		<1	0.02	10	6.29	549	1	0.02	14	320	18	0.01	4	1	36	<20
YY12229		<1	0.05	10	5.40	518	1	0.02	13	280	17	0.08	<2	1	30	<20
YY12230		<1	0.03	10	4.73	421	1	0.01	18	240	24	0.04	2	1	24	<20
YY12231		<1	0.02	<10	9.36	1215	1	0.02	10	440	10	0.02	<2	<1	51	<20
YY12232		<1	0.02	10	8.17	938	2	0.02	14	430	27	0.02	3	1	60	<20
YY12233		<1	0.03	10	7.38	1700	2	0.02	22	520	66	0.06	4	1	71	<20
YY12234		<1	0.03	10	5.02	1355	4	0.02	36	920	535	0.10	11	1	59	<20
YY12235		<1	0.03	10	5.17	976	5	0.01	55	750	96	0.03	10	2	53	<20
YY12236		<1	0.04	10	2.08	1125	10	0.01	72	1550	42	0.07	10	3	69	<20
YY12237		<1	0.16	20	0.10	441	43	0.01	37	1310	76	0.31	21	1	37	<20
YY12238		<1	0.06	20	0.11	537	18	0.01	55	970	111	0.09	17	2	23	<20
YY12239		<1	0.03	10	0.02	136	8	0.01	52	930	21	0.03	6	1	14	<20
YY12240		<1	0.03	20	0.03	149	7	0.01	54	920	32	0.01	5	1	15	<20



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Sample Description	Method Analyte Units LOD	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	Au-ICP21
		Ti %	Ti ppm	U ppm	V ppm	W ppm	Zn ppm	Au ppm
		0.01	10	10	1	10	2	0.001
YY12201		0.03	<10	<10	31	<10	2140	0.003
YY12202		0.03	<10	<10	35	<10	312	0.009
YY12203		0.03	<10	<10	35	<10	311	0.005
YY12204		0.03	<10	<10	27	<10	137	0.003
YY12205		0.01	<10	<10	24	<10	1520	0.013
YY12206		0.01	<10	<10	20	<10	160	0.004
YY12207		0.02	<10	<10	21	<10	165	0.013
YY12208		0.02	<10	<10	20	<10	149	0.003
YY12209		0.02	<10	<10	22	<10	138	0.004
YY12210		0.02	<10	<10	23	<10	258	0.005
YY12211		0.02	<10	<10	23	<10	298	0.009
YY12212		0.01	<10	<10	21	<10	238	0.005
YY12213		0.01	<10	<10	17	<10	345	0.013
YY12214		0.01	<10	<10	19	<10	814	0.007
YY12215		0.01	<10	<10	17	<10	270	0.006
YY12216		0.02	<10	<10	30	<10	75	0.001
YY12217		0.03	<10	<10	33	<10	854	0.003
YY12218		0.01	<10	<10	18	<10	277	0.008
YY12219		0.01	<10	<10	12	<10	83	0.003
YY12220		0.01	<10	<10	14	<10	129	0.003
YY12221		0.02	<10	<10	23	<10	335	0.003
YY12222		0.02	<10	<10	18	<10	172	0.002
YY12223		0.02	<10	<10	18	<10	366	0.003
YY12224		0.02	<10	<10	16	<10	205	0.003
YY12225		0.04	<10	<10	30	<10	46	0.001
YY12226		0.02	<10	<10	21	<10	68	<0.001
YY12227		0.01	<10	<10	16	<10	51	<0.001
YY12228		0.01	<10	<10	11	<10	43	<0.001
YY12229		0.01	<10	<10	9	<10	29	<0.001
YY12230		<0.01	<10	<10	7	<10	20	<0.001
YY12231		0.01	<10	<10	8	<10	40	<0.001
YY12232		0.02	<10	<10	14	<10	53	0.004
YY12233		0.01	<10	<10	13	<10	83	0.003
YY12234		0.01	<10	<10	17	<10	554	0.009
YY12235		0.01	<10	<10	24	<10	180	0.005
YY12236		0.02	<10	<10	52	<10	91	0.004
YY12237		0.02	<10	<10	44	<10	52	0.009
YY12238		0.01	<10	<10	33	<10	94	0.006
YY12239		<0.01	<10	<10	12	<10	231	0.002
YY12240		<0.01	<10	<10	9	<10	20	0.003



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Sample Description	Method	WEI-21	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Recvd Wt.	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga
	Units	kg	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm
	LOD	0.02	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01	10
YY12241		0.42	0.8	0.27	25	<10	80	<0.5	<2	0.14	1.4	19	5	71	4.15	<10
YY12242		0.45	0.8	0.27	17	<10	90	<0.5	<2	0.21	0.9	7	7	52	2.17	<10
YY12243		0.40	1.0	0.20	27	<10	80	<0.5	<2	0.24	1.3	13	4	72	3.27	<10
YY12244		0.42	0.8	0.50	30	<10	90	<0.5	<2	0.29	<0.5	10	11	38	2.23	<10
YY12245		0.40	1.3	0.24	64	<10	130	<0.5	<2	13.0	1.2	5	5	21	2.72	<10
YY12246		0.47	0.4	0.31	29	<10	60	0.5	<2	3.96	0.9	8	8	40	2.16	<10
YY12247		0.37	0.3	0.20	11	<10	40	<0.5	<2	3.67	0.5	9	6	16	2.53	<10
YY12248		0.40	0.6	0.10	26	<10	20	<0.5	<2	4.82	3.5	4	4	19	1.85	<10
YY12249		0.46	0.5	0.16	16	<10	30	<0.5	<2	3.63	1.1	4	5	14	1.43	<10
YY12250		0.53	2.8	0.34	82	<10	70	<0.5	<2	2.06	3.0	9	7	37	2.52	<10
YY12251		0.39	1.3	0.91	30	<10	80	<0.5	<2	2.16	2.1	9	15	23	2.85	<10
YY12252		0.41	0.9	0.79	41	<10	110	<0.5	<2	4.34	1.1	9	13	22	4.07	<10
YY12253		0.37	1.1	0.78	64	<10	120	<0.5	<2	3.45	2.1	10	13	30	5.35	<10
YY12254		0.39	0.7	0.56	21	<10	100	<0.5	<2	0.36	0.6	8	7	32	2.45	<10
YY12255		0.47	1.1	0.35	30	<10	60	<0.5	<2	1.38	1.2	9	6	37	2.53	<10
YY12256		0.49	1.4	0.27	41	<10	60	<0.5	<2	3.17	1.7	13	6	41	3.13	<10
YY12257		0.53	2.9	0.22	61	<10	50	<0.5	<2	5.52	1.9	9	6	29	2.39	<10
YY12258		0.42	0.5	0.18	38	<10	40	0.7	<2	5.86	0.5	11	6	20	2.63	<10
YY12259		0.35	0.2	0.28	16	<10	50	0.5	<2	5.79	<0.5	8	7	17	2.19	<10
YY12260		0.45	0.4	0.30	9	<10	50	0.5	<2	4.66	0.5	6	7	14	1.76	<10
YY12261		0.47	0.5	0.18	15	<10	40	0.6	<2	7.5	0.5	10	6	32	2.49	<10
YY12262		0.37	0.6	0.23	11	<10	40	0.5	<2	4.60	<0.5	7	5	21	2.02	<10
YY12263		0.39	0.5	0.21	13	<10	40	0.5	<2	5.20	0.7	8	6	20	2.10	<10
YY12264		0.32	0.4	0.70	12	<10	110	0.6	<2	1.53	<0.5	5	12	17	1.98	<10
YY12265		0.43	0.6	0.36	18	<10	110	<0.5	<2	2.87	1.1	8	8	31	2.21	<10
YY12266		0.56	1.1	0.62	25	<10	200	0.5	<2	2.81	1.8	8	12	38	3.55	<10
YY12267		0.55	1.3	0.40	71	<10	90	<0.5	<2	0.54	1.1	13	9	46	3.18	<10
YY12268		0.34	1.5	1.53	93	<10	390	0.6	<2	2.22	4.9	17	20	28	5.27	<10
YY12269		0.34	1.0	1.00	28	<10	130	<0.5	<2	0.30	0.5	7	15	25	2.93	<10
YY12270		0.31	1.5	0.66	44	<10	340	<0.5	<2	3.12	1.1	8	11	35	5.70	<10
YY12271		0.43	1.5	0.44	33	<10	130	<0.5	<2	9.6	2.4	6	10	31	4.96	<10
YY12272		0.38	1.1	1.16	43	<10	170	0.8	<2	3.97	1.4	16	17	86	5.72	<10
YY12273		0.43	1.1	0.80	47	<10	180	0.5	<2	8.0	0.9	8	13	111	5.29	<10
YY12274		0.40	0.4	0.92	11	<10	130	<0.5	<2	4.75	<0.5	6	20	19	3.38	<10
YY12275		0.48	0.4	0.91	14	<10	120	<0.5	<2	6.27	<0.5	7	21	18	3.46	<10
YY12276		0.47	1.1	0.86	35	<10	150	<0.5	<2	5.13	<0.5	8	19	39	4.31	<10
YY12277		0.42	0.4	1.20	20	<10	160	0.5	<2	0.44	<0.5	8	29	23	5.31	<10
YY12278		0.44	0.4	0.84	25	<10	210	<0.5	<2	0.66	0.5	9	21	33	5.68	<10
YY12279		0.36	0.4	0.69	11	10	320	<0.5	<2	2.76	0.8	6	14	26	3.85	<10
YY12280		0.36	0.7	0.92	35	10	940	0.5	<2	2.80	0.8	13	19	39	6.09	<10



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Sample Description	Method Analyte Units LOD	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	
		Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Th ppm
		1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1	20
YY12241		<1	0.04	30	0.08	313	6	0.01	69	1240	30	0.06	4	2	24	<20
YY12242		<1	0.04	30	0.07	209	3	0.01	35	1350	19	0.02	3	1	44	<20
YY12243		<1	0.04	30	0.04	240	4	0.01	58	1410	25	0.03	7	2	31	<20
YY12244		<1	0.04	20	0.13	313	3	0.01	51	1870	19	0.02	8	1	40	<20
YY12245		<1	0.03	10	7.41	1130	5	0.02	32	730	82	0.01	12	1	122	<20
YY12246		<1	0.10	20	1.54	198	10	0.01	59	4430	29	0.02	9	2	169	<20
YY12247		<1	0.04	20	1.53	335	8	0.01	51	480	39	0.03	6	2	76	<20
YY12248		<1	0.03	10	2.85	203	8	0.01	38	430	36	0.01	9	1	183	<20
YY12249		<1	0.03	10	2.11	233	5	0.01	26	440	39	0.01	8	1	120	<20
YY12250		<1	0.04	20	1.19	498	7	0.01	48	1010	283	0.01	21	2	55	<20
YY12251		<1	0.04	20	1.57	614	3	0.01	30	700	151	0.02	5	2	20	<20
YY12252		<1	0.03	10	2.68	1050	3	0.02	32	1190	56	0.03	5	2	34	<20
YY12253		<1	0.03	20	2.14	2010	4	0.02	35	1210	107	0.04	4	2	33	<20
YY12254		<1	0.04	20	0.15	197	4	0.01	38	880	48	0.02	8	2	13	<20
YY12255		<1	0.03	20	0.68	329	6	0.01	44	920	82	0.01	12	2	21	<20
YY12256		1	0.04	20	1.74	432	9	0.01	56	850	92	0.02	14	2	36	<20
YY12257		1	0.04	20	3.04	454	10	0.01	46	920	221	0.01	38	2	58	<20
YY12258		1	0.05	20	2.75	204	14	0.01	65	490	47	0.01	20	3	63	<20
YY12259		<1	0.04	10	2.80	296	8	0.01	41	600	28	0.04	5	1	68	<20
YY12260		<1	0.05	20	2.50	186	6	0.02	36	420	24	0.03	3	2	48	<20
YY12261		1	0.08	20	3.45	223	13	0.01	68	1440	35	0.02	6	2	287	<20
YY12262		1	0.05	20	2.50	199	10	0.01	48	700	30	0.02	6	2	116	<20
YY12263		<1	0.05	20	2.86	234	11	0.01	49	750	31	0.01	6	2	144	<20
YY12264		1	0.04	20	0.65	293	4	0.01	27	1090	36	0.07	6	2	31	<20
YY12265		1	0.05	20	1.24	259	8	0.01	46	1070	34	0.02	3	2	59	<20
YY12266		<1	0.06	20	1.60	485	14	0.02	53	740	49	0.03	10	2	28	<20
YY12267		<1	0.08	30	0.14	348	7	0.01	58	2240	61	0.03	16	3	44	<20
YY12268		1	0.06	20	1.54	3160	2	0.02	32	1360	374	0.12	4	2	23	<20
YY12269		<1	0.05	20	0.34	339	4	0.02	28	1170	78	0.04	2	2	14	<20
YY12270		1	0.04	20	1.83	2990	6	0.02	47	870	138	0.05	9	2	29	<20
YY12271		1	0.03	10	5.42	2450	3	0.02	28	520	179	0.11	6	1	50	<20
YY12272		<1	0.05	20	2.35	1610	7	0.02	88	790	32	0.05	6	3	31	<20
YY12273		1	0.05	10	4.42	1245	10	0.02	64	740	22	0.07	9	2	78	<20
YY12274		<1	0.04	10	2.89	974	2	0.02	26	530	10	0.03	3	2	28	<20
YY12275		1	0.04	10	3.84	893	2	0.03	27	660	9	0.02	<2	2	32	<20
YY12276		1	0.04	20	3.13	821	5	0.02	39	730	16	0.02	6	3	44	<20
YY12277		<1	0.04	20	0.39	1285	3	0.02	33	860	18	0.05	<2	3	16	<20
YY12278		<1	0.04	20	0.34	1730	5	0.02	40	1050	23	0.08	6	2	16	<20
YY12279		1	0.03	10	0.63	1755	3	0.02	23	1830	15	0.21	3	1	27	<20
YY12280		<1	0.05	20	1.51	1740	7	0.03	53	1180	45	0.07	7	2	28	<20



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Sample Description	Method Analyte Units LOD	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	Au-ICP21
		Ti %	Ti ppm	U ppm	V ppm	W ppm	Zn ppm	Au ppm
		0.01	10	10	1	10	2	0.001
YY12241		<0.01	<10	<10	17	<10	285	0.004
YY12242		<0.01	<10	<10	12	<10	136	0.003
YY12243		<0.01	<10	<10	12	<10	309	0.004
YY12244		0.02	<10	<10	23	<10	95	0.001
YY12245		0.01	<10	<10	14	<10	208	0.001
YY12246		<0.01	<10	<10	14	<10	189	<0.001
YY12247		<0.01	<10	<10	6	<10	69	<0.001
YY12248		<0.01	<10	<10	10	<10	409	<0.001
YY12249		<0.01	<10	<10	11	<10	102	<0.001
YY12250		0.01	<10	<10	24	<10	458	0.003
YY12251		0.02	<10	<10	28	<10	481	<0.001
YY12252		0.02	<10	<10	24	<10	237	0.003
YY12253		0.02	<10	<10	27	<10	410	0.005
YY12254		0.01	<10	<10	16	<10	171	0.001
YY12255		0.01	<10	<10	13	<10	221	0.001
YY12256		0.01	<10	<10	15	<10	296	0.002
YY12257		0.01	<10	<10	14	<10	304	<0.001
YY12258		<0.01	<10	<10	10	<10	125	<0.001
YY12259		0.01	<10	<10	11	<10	62	<0.001
YY12260		<0.01	<10	<10	9	<10	68	<0.001
YY12261		<0.01	<10	<10	11	<10	126	<0.001
YY12262		<0.01	<10	<10	11	<10	92	<0.001
YY12263		<0.01	<10	<10	11	<10	127	<0.001
YY12264		0.01	<10	<10	22	<10	119	<0.001
YY12265		0.01	<10	<10	19	<10	276	0.001
YY12266		0.01	<10	<10	35	<10	471	<0.001
YY12267		0.01	<10	<10	29	<10	183	0.002
YY12268		0.02	<10	<10	31	<10	550	0.001
YY12269		0.02	<10	<10	28	<10	231	<0.001
YY12270		0.02	<10	<10	26	<10	207	0.004
YY12271		0.02	<10	<10	21	<10	344	0.004
YY12272		0.03	<10	<10	34	<10	180	0.002
YY12273		0.02	<10	<10	32	<10	96	0.003
YY12274		0.04	<10	<10	35	<10	51	0.001
YY12275		0.04	<10	<10	35	<10	52	0.002
YY12276		0.04	<10	<10	36	<10	53	0.002
YY12277		0.04	<10	<10	49	<10	96	0.003
YY12278		0.02	<10	<10	40	<10	103	0.001
YY12279		0.01	<10	<10	25	<10	101	0.001
YY12280		0.02	<10	<10	37	<10	169	0.004



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Sample Description	Method	WEI-21	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Recvd Wt.	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga
Units		kg	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm
LOD		0.02	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01	10
YY12281		0.44	1.1	0.44	22	<10	400	<0.5	<2	7.0	0.9	5	10	18	3.70	<10
YY12282		0.39	1.6	0.81	35	<10	290	<0.5	<2	3.42	0.9	9	17	25	7.73	<10
YY12283		0.43	3.3	0.58	36	<10	220	<0.5	<2	3.86	1.3	6	12	28	5.07	<10
YY12284		0.41	1.0	0.69	26	<10	230	<0.5	<2	4.30	0.7	9	12	23	5.34	<10
YY12285		0.51	0.6	0.72	29	<10	390	<0.5	<2	2.40	0.6	8	15	34	3.72	<10
YY12286		0.56	0.6	0.31	40	<10	200	<0.5	<2	0.22	0.5	8	6	43	2.55	<10
YY12287		0.46	0.6	0.42	18	<10	230	<0.5	<2	0.15	0.8	10	8	52	3.05	<10
YY12288		0.37	1.1	0.66	32	<10	480	<0.5	<2	1.81	0.5	10	10	39	4.38	<10
YY12289		0.41	1.0	0.56	32	<10	410	<0.5	<2	1.60	<0.5	10	12	30	4.44	<10
YY12290		0.41	1.3	0.34	37	<10	130	<0.5	<2	9.8	0.5	8	8	31	3.51	<10
YY12291		0.44	0.4	0.34	21	<10	160	<0.5	<2	9.8	0.5	6	8	18	3.54	<10
YY12292		0.41	0.3	0.78	19	<10	180	<0.5	<2	1.70	<0.5	7	15	25	5.21	<10
YY12293		0.44	0.3	0.56	14	<10	130	<0.5	<2	8.2	0.5	6	12	19	4.87	<10
YY12294		0.41	0.3	0.81	11	<10	110	<0.5	<2	5.31	<0.5	7	18	17	3.97	<10
YY12295		0.49	0.3	0.91	16	<10	120	<0.5	<2	3.72	<0.5	10	19	28	3.57	<10
YY12296		0.48	0.3	0.88	94	<10	180	<0.5	<2	0.18	<0.5	19	22	39	3.71	<10
YY12297		0.44	0.2	0.41	20	<10	50	<0.5	<2	0.14	<0.5	4	5	18	1.23	<10
YY12298		0.48	0.9	0.26	30	<10	140	<0.5	<2	0.21	1.0	11	6	57	3.20	<10
YY12299		0.40	0.5	0.36	8	<10	100	<0.5	<2	0.08	0.5	6	4	28	1.75	<10
YY12300		0.40	0.6	0.47	42	<10	210	<0.5	<2	0.24	<0.5	19	16	55	3.92	<10
YY12311		0.44	0.8	0.30	17	<10	130	<0.5	<2	8.0	<0.5	8	9	22	2.98	<10
YY12312		0.40	0.6	0.46	32	<10	270	<0.5	<2	0.28	<0.5	11	14	42	3.24	<10
YY12313		0.39	0.3	0.30	14	<10	150	<0.5	<2	0.10	<0.5	3	5	11	1.19	<10
YY12314		0.43	0.7	0.61	22	<10	310	<0.5	<2	3.66	<0.5	6	15	18	3.35	<10
YY12315		0.52	0.4	0.88	16	<10	140	<0.5	<2	4.17	<0.5	8	21	23	4.12	<10
YY12316		0.44	0.8	0.70	62	<10	140	<0.5	<2	6.02	0.5	12	15	28	5.67	<10
YY12317		0.47	0.4	0.87	31	<10	140	<0.5	<2	1.93	<0.5	8	20	22	3.72	<10
YY12318		0.45	0.8	0.65	19	<10	160	<0.5	<2	7.1	0.8	6	15	18	4.08	<10
YY12319		0.40	0.5	0.78	15	<10	150	<0.5	<2	5.61	0.7	7	16	16	3.75	<10
YY12320		0.45	0.9	0.45	19	<10	100	<0.5	<2	12.6	0.5	5	9	14	3.95	<10
YY12321		0.40	0.5	0.46	8	<10	70	<0.5	<2	3.27	<0.5	3	6	15	2.37	<10
YY12322		0.37	1.0	0.58	27	<10	100	<0.5	<2	8.7	0.5	6	9	21	4.47	<10
YY12323		0.36	0.7	0.72	25	<10	130	<0.5	<2	3.67	0.8	7	10	21	4.24	<10
YY12324		0.31	0.4	0.79	8	<10	80	<0.5	<2	2.56	1.1	5	8	14	2.31	<10
YY12325		0.34	0.3	0.73	7	<10	80	<0.5	<2	1.44	0.9	4	9	12	2.19	<10
YY12326		0.40	1.8	0.85	39	<10	140	<0.5	<2	5.06	1.4	11	14	26	5.80	<10
YY12327		0.40	1.0	0.36	17	<10	100	<0.5	<2	13.0	0.8	4	6	21	2.91	<10
YY12328		0.42	0.7	0.50	20	<10	120	<0.5	<2	6.32	0.6	6	12	13	4.06	<10
YY12329		0.40	0.8	0.58	76	<10	400	<0.5	<2	0.31	0.5	7	10	61	3.94	<10
YY12330		0.43	0.3	0.24	27	<10	90	<0.5	<2	0.03	<0.5	5	5	26	1.90	<10



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Sample Description	Method Analyte Units LOD	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	
		Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm	Th ppm
YY12281		1	0.04	10	3.87	1165	5	0.02	26	670	80	0.06	5	1	47	<20
YY12282		1	0.03	20	1.86	2340	7	0.02	40	1230	107	0.07	7	2	33	<20
YY12283		<1	0.04	10	2.05	1570	7	0.02	33	950	402	0.09	13	1	34	<20
YY12284		1	0.03	10	2.28	2030	5	0.03	30	1330	124	0.09	6	2	35	<20
YY12285		1	0.04	20	1.41	944	5	0.02	44	940	37	0.03	11	1	34	<20
YY12286		1	0.06	40	0.06	136	4	0.01	42	1330	23	0.02	3	1	35	<20
YY12287		<1	0.05	40	0.09	253	4	0.02	48	1200	27	0.02	4	1	30	<20
YY12288		1	0.04	10	0.71	952	6	0.03	54	1230	51	0.09	7	1	25	<20
YY12289		<1	0.05	10	0.58	1340	8	0.02	45	1360	67	0.13	6	1	27	<20
YY12290		<1	0.03	10	5.63	936	5	0.02	34	540	60	0.03	9	1	69	<20
YY12291		<1	0.03	10	5.59	985	4	0.01	29	500	20	0.03	2	1	46	<20
YY12292		<1	0.03	10	0.87	1230	3	0.01	26	930	24	0.07	3	1	17	<20
YY12293		<1	0.02	10	4.52	1785	3	0.01	24	920	16	0.06	2	1	40	<20
YY12294		<1	0.03	10	3.26	1220	2	0.01	27	710	15	0.03	<2	2	31	<20
YY12295		<1	0.03	10	2.34	729	6	0.01	37	930	15	0.02	3	3	31	<20
YY12296		<1	0.06	20	0.27	515	13	0.01	65	920	21	0.08	9	2	22	<20
YY12297		<1	0.02	10	0.05	145	2	0.02	19	1100	11	0.03	3	<1	20	<20
YY12298		<1	0.03	30	0.07	206	4	<0.01	56	1280	24	0.02	5	1	30	<20
YY12299		<1	0.03	10	0.04	129	2	0.02	24	1120	14	0.05	2	<1	18	<20
YY12300		<1	0.04	10	0.18	328	8	0.01	65	1170	25	0.05	8	2	27	<20
YY12311		<1	0.03	10	4.57	619	4	0.01	44	630	37	0.04	7	1	36	<20
YY12312		<1	0.04	10	0.15	267	12	<0.01	44	970	45	0.06	9	2	58	<20
YY12313		<1	0.03	10	0.04	144	7	0.01	12	820	23	0.05	4	<1	14	<20
YY12314		<1	0.04	10	2.12	716	6	0.01	25	970	40	0.05	6	2	35	<20
YY12315		<1	0.03	10	2.53	1220	4	0.01	32	1010	16	0.03	2	2	36	<20
YY12316		<1	0.03	10	3.60	1825	9	0.01	60	820	36	0.05	9	2	44	<20
YY12317		<1	0.03	10	1.18	795	4	0.01	30	740	19	0.04	4	2	26	<20
YY12318		<1	0.03	10	3.95	1520	1	0.01	22	780	60	0.07	4	1	34	<20
YY12319		<1	0.03	10	3.35	1365	2	0.02	22	740	31	0.06	<2	1	39	<20
YY12320		<1	0.02	10	7.23	1695	3	0.02	18	510	54	0.04	4	1	52	<20
YY12321		<1	0.03	<10	1.84	1070	1	0.03	9	530	29	0.03	<2	1	19	<20
YY12322		<1	0.02	10	5.16	1805	3	0.02	25	570	58	0.02	3	1	33	<20
YY12323		<1	0.03	10	2.13	2020	2	0.03	23	680	52	0.05	4	1	21	<20
YY12324		<1	0.03	10	1.43	1070	1	0.03	11	720	99	0.06	3	1	19	<20
YY12325		<1	0.03	10	0.72	814	1	0.03	10	760	46	0.06	<2	1	15	<20
YY12326		<1	0.03	10	3.08	1865	3	0.02	38	1080	198	0.07	7	1	30	<20
YY12327		<1	0.02	<10	7.67	1090	1	0.02	23	520	55	0.01	9	1	71	<20
YY12328		<1	0.02	10	3.80	1385	2	0.01	32	510	48	0.04	5	1	24	<20
YY12329		<1	0.03	10	0.18	932	18	<0.01	68	790	41	0.05	19	1	29	<20
YY12330		<1	0.04	20	0.04	106	6	0.01	32	550	29	0.04	4	<1	9	<20



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Sample Description	Method Analyte Units LOD	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	Au-ICP21 Au ppm 0.001
YY12281		0.01	<10	<10	23	<10	150	0.003
YY12282		0.02	<10	<10	38	<10	250	0.004
YY12283		0.01	<10	<10	26	<10	265	0.004
YY12284		0.01	<10	<10	28	<10	153	0.001
YY12285		0.02	<10	<10	31	<10	109	0.003
YY12286		<0.01	<10	<10	19	<10	172	0.003
YY12287		0.01	<10	<10	20	<10	217	0.003
YY12288		0.01	<10	<10	26	<10	111	0.002
YY12289		0.01	<10	<10	28	<10	88	0.001
YY12290		0.01	<10	<10	19	<10	64	0.004
YY12291		0.01	<10	<10	20	<10	44	0.001
YY12292		0.02	<10	<10	36	<10	71	<0.001
YY12293		0.01	<10	<10	27	<10	64	0.001
YY12294		0.03	<10	<10	32	<10	54	0.001
YY12295		0.03	<10	<10	36	<10	53	0.002
YY12296		0.03	<10	<10	37	<10	61	0.004
YY12297		0.01	<10	<10	14	<10	37	<0.001
YY12298		<0.01	<10	<10	16	<10	253	0.004
YY12299		0.01	<10	<10	13	<10	110	0.002
YY12300		<0.01	<10	<10	19	<10	52	0.003
YY12311		0.01	<10	<10	17	<10	63	0.002
YY12312		0.01	<10	<10	22	<10	83	0.003
YY12313		0.01	<10	<10	23	<10	25	0.002
YY12314		0.02	<10	<10	35	<10	39	0.002
YY12315		0.03	<10	<10	40	<10	56	0.002
YY12316		0.01	<10	<10	32	<10	99	0.003
YY12317		0.03	<10	<10	38	<10	66	0.003
YY12318		0.02	<10	<10	26	<10	83	0.003
YY12319		0.03	<10	<10	28	<10	82	0.002
YY12320		0.02	<10	<10	17	<10	81	0.002
YY12321		0.02	<10	<10	17	<10	48	0.001
YY12322		0.02	<10	<10	18	<10	92	0.004
YY12323		0.02	<10	<10	18	<10	125	0.003
YY12324		0.02	<10	<10	21	<10	155	<0.001
YY12325		0.02	<10	<10	20	<10	129	0.001
YY12326		0.02	<10	<10	24	<10	271	0.007
YY12327		0.02	<10	<10	14	<10	145	0.002
YY12328		0.01	<10	<10	23	<10	69	0.007
YY12329		0.01	<10	<10	29	<10	107	0.007
YY12330		0.01	<10	<10	15	<10	119	0.001



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Method Analyte Units LOD	WEI-21 Recvd Wt. kg	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 %	ME-ICP41 Ga ppm
Sample Description	0.02	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01	10
YY12331	0.36	0.8	0.77	29	<10	150	<0.5	<2	0.12	<0.5	11	14	41	4.06	<10
YY12332	0.44	0.6	0.37	81	<10	140	<0.5	<2	0.16	1.1	14	10	67	3.61	<10
YY12333	0.49	0.5	0.31	19	<10	90	<0.5	<2	0.11	<0.5	4	5	19	1.17	<10
YY12334	0.50	0.9	0.47	74	<10	150	0.6	<2	3.03	0.8	10	11	38	2.56	<10
YY12335	0.45	0.8	0.31	56	<10	80	0.6	<2	15.4	1.8	11	10	34	3.11	<10
YY12336	0.44	1.1	0.36	31	10	120	0.6	<2	11.5	0.7	8	14	25	2.81	<10
YY12337	0.42	1.9	0.78	26	<10	110	0.5	<2	4.86	1.7	7	18	21	2.58	<10
YY12338	0.54	0.9	0.79	26	<10	130	0.5	<2	3.61	0.6	8	19	23	2.82	<10
YY12339	0.50	2.4	0.71	36	<10	170	0.5	<2	5.55	3.2	8	14	23	3.64	<10
YY12340	0.37	0.6	0.69	17	<10	230	<0.5	<2	0.76	<0.5	5	8	28	1.76	<10
YY12341	0.45	0.5	0.66	42	<10	100	<0.5	<2	0.22	0.5	9	12	40	2.82	<10
YY12342	0.41	0.6	0.31	31	<10	210	<0.5	<2	0.12	<0.5	7	5	48	2.58	<10
YY12343	0.41	0.7	0.34	28	<10	360	<0.5	<2	0.33	<0.5	3	7	24	2.34	<10
YY12344	0.36	0.7	1.35	43	<10	950	0.5	<2	2.05	1.0	11	19	24	3.85	<10
YY12345	0.39	1.5	0.68	16	<10	130	<0.5	<2	8.8	0.9	10	7	18	5.36	<10
YY12361	0.30	0.8	0.65	31	<10	180	<0.5	<2	10.9	1.2	7	9	17	4.60	<10
YY12362	0.48	1.3	1.33	34	<10	120	0.6	<2	3.48	2.8	11	17	19	4.54	<10
YY12363	0.26	0.7	0.30	17	<10	70	<0.5	<2	3.70	0.9	4	5	13	1.61	<10
YY12364	0.29	3.3	0.56	26	<10	100	<0.5	<2	8.0	1.7	6	8	30	3.52	<10
YY12365	0.27	4.1	0.70	53	<10	140	<0.5	<2	8.0	2.2	9	12	34	5.04	<10
YY12366	0.35	7.0	0.55	52	<10	110	<0.5	<2	11.0	3.7	7	10	36	3.81	<10
YY12367	0.35	1.2	0.53	24	<10	160	<0.5	<2	10.9	2.1	5	7	17	3.98	<10
YY12368	0.37	3.7	0.48	61	<10	100	<0.5	<2	0.26	2.5	7	16	35	2.61	<10
YY12369	0.40	0.4	0.26	33	<10	150	<0.5	<2	0.06	<0.5	4	5	39	2.00	<10
YY12370	0.43	1.2	0.61	33	<10	140	<0.5	<2	0.45	1.1	6	11	37	2.86	<10
YY12371	0.32	1.0	0.78	24	<10	110	<0.5	<2	0.34	0.9	5	8	20	1.86	<10
YY12372	0.38	4.5	0.41	39	<10	100	<0.5	<2	4.65	3.3	14	10	59	2.79	<10
YY12373	0.46	7.3	0.73	60	<10	90	0.6	<2	3.94	6.7	8	18	40	2.67	<10
YY12374	0.42	9.9	0.50	90	<10	90	0.7	<2	0.73	3.1	9	11	42	2.94	<10
YY12375	0.33	0.9	0.86	44	<10	110	0.7	<2	1.55	1.7	12	20	30	3.23	<10



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Sample Description	Method	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	
	Analyte	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Sr	Th
Units		ppm	%	ppm	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
LOD		1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1	20
YY12331		<1	0.03	10	0.17	723	4	0.01	42	1680	101	0.07	7	1	12	<20
YY12332		<1	0.04	40	0.09	188	5	<0.01	66	1160	40	0.03	7	2	27	<20
YY12333		<1	0.02	10	0.03	73	2	0.02	18	980	14	0.02	4	<1	28	<20
YY12334		<1	0.06	20	1.42	388	11	0.01	68	1690	37	0.04	10	2	55	<20
YY12335		<1	0.08	10	1.11	486	32	0.01	134	3390	42	0.01	23	2	473	<20
YY12336		1	0.10	20	6.04	530	12	0.02	81	3480	64	0.03	17	2	281	<20
YY12337		<1	0.05	20	2.88	625	4	0.02	36	1110	160	0.07	12	1	49	<20
YY12338		<1	0.05	20	2.13	676	4	0.02	39	840	80	0.04	7	2	37	<20
YY12339		1	0.04	20	3.49	1575	4	0.02	38	900	330	0.03	9	2	68	<20
YY12340		1	0.05	10	0.16	266	2	0.03	29	970	27	0.07	4	1	23	<20
YY12341		<1	0.05	20	0.16	343	4	0.01	42	1550	41	0.03	6	1	14	<20
YY12342		<1	0.04	20	0.05	261	6	0.01	34	1000	37	0.03	6	1	14	<20
YY12343		<1	0.05	30	0.19	409	8	0.02	27	510	51	0.05	9	1	11	<20
YY12344		1	0.05	20	1.60	1405	2	0.03	31	980	87	0.09	3	2	26	<20
YY12345		<1	0.03	10	4.81	2380	2	0.03	16	1130	221	0.07	7	1	40	<20
YY12361		<1	0.03	20	6.48	3190	3	0.02	30	530	73	0.02	4	2	45	<20
YY12362		1	0.05	20	2.74	2100	2	0.02	28	710	232	0.04	6	2	19	<20
YY12363		<1	0.02	10	2.10	431	1	0.02	13	470	83	0.04	5	1	26	<20
YY12364		<1	0.03	10	4.54	1380	2	0.03	18	700	394	0.05	12	1	43	<20
YY12365		<1	0.03	10	4.51	2170	4	0.02	32	1130	511	0.09	17	1	46	<20
YY12366		<1	0.03	10	6.42	1440	3	0.02	29	520	1525	0.11	27	1	68	<20
YY12367		<1	0.03	10	6.12	1835	1	0.03	20	610	157	0.06	7	1	43	<20
YY12368		<1	0.06	30	0.17	309	5	0.01	41	960	267	0.02	19	2	15	<20
YY12369		<1	0.04	20	0.05	145	6	0.01	23	770	27	0.02	7	1	12	<20
YY12370		<1	0.05	20	0.16	277	3	0.02	40	1320	77	0.03	6	2	17	<20
YY12371		<1	0.04	10	0.14	191	2	0.04	22	1010	92	0.03	5	1	16	<20
YY12372		<1	0.05	20	2.56	873	6	0.01	62	1800	240	0.02	35	2	83	<20
YY12373		1	0.04	20	2.35	1230	8	0.02	44	960	655	0.04	53	2	79	<20
YY12374		1	0.05	30	0.33	395	10	0.01	57	740	987	0.04	50	3	17	<20
YY12375		<1	0.05	20	0.89	642	11	0.02	60	1190	70	0.06	30	2	57	<20



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Sample Description	Method Analyte Units LOD	ME-ICP41 Ti % 0.01	ME-ICP41 Tl ppm 10	ME-ICP41 U ppm 10	ME-ICP41 V ppm 1	ME-ICP41 W ppm 10	ME-ICP41 Zn ppm 2	Au-ICP21 Au ppm 0.001
YY12331		0.01	<10	<10	25	<10	110	0.002
YY12332		0.01	<10	<10	21	<10	289	0.005
YY12333		0.01	<10	<10	15	<10	28	<0.001
YY12334		0.01	<10	<10	40	<10	176	0.004
YY12335		0.01	<10	<10	32	<10	304	0.002
YY12336		0.01	<10	<10	30	<10	220	0.002
YY12337		0.02	<10	<10	35	<10	356	0.002
YY12338		0.02	<10	<10	41	<10	178	0.003
YY12339		0.02	<10	<10	29	<10	640	0.004
YY12340		0.01	<10	<10	19	<10	136	0.002
YY12341		0.01	<10	<10	25	<10	109	0.002
YY12342		<0.01	<10	<10	14	<10	58	0.003
YY12343		0.01	<10	<10	20	<10	65	0.006
YY12344		0.03	<10	<10	29	<10	156	0.001
YY12345		0.02	<10	<10	17	<10	226	0.004
YY12361		0.01	<10	<10	19	<10	183	0.001
YY12362		0.02	<10	<10	26	<10	445	0.005
YY12363		0.01	<10	<10	8	<10	187	0.003
YY12364		0.02	<10	<10	21	<10	342	0.003
YY12365		0.01	<10	<10	22	<10	454	0.008
YY12366		0.02	<10	<10	17	<10	707	0.008
YY12367		0.01	<10	<10	11	<10	399	0.002
YY12368		0.01	<10	<10	22	<10	575	0.003
YY12369		<0.01	<10	<10	13	<10	54	0.004
YY12370		0.01	<10	<10	23	<10	367	0.002
YY12371		0.02	<10	<10	22	<10	332	0.001
YY12372		0.01	<10	<10	22	<10	763	0.004
YY12373		0.02	<10	<10	38	<10	1320	0.003
YY12374		<0.01	<10	<10	19	<10	976	0.002
YY12375		0.02	<10	<10	39	<10	366	0.002



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**CERTIFICATE OF ANALYSIS WH19204215**

**CERTIFICATE COMMENTS**

**LABORATORY ADDRESSES**

Applies to Method: Processed at ALS Whitehorse located at 78 Mt. Sima Rd, Whitehorse, YT, Canada.  
LOG-22 SCR-41 WEI-21

Applies to Method: Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.  
Au-ICP21 ME-ICP41



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**CERTIFICATE WH19206796**

Project: Groundhog

This report is for 26 Rock samples submitted to our lab in Whitehorse, YT, Canada on 20-AUG-2019.

The following have access to data associated with this certificate:

HEATHER BURRELL JACK MORTON	ANDREW CARNE SCOTT NEWMAN	STEVE ISREAL
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SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-21	Sample logging - ClientBarCode
CRU-QC	Crushing QC Test
PUL-QC	Pulverizing QC Test
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
Au-ICP21	Au 30g FA ICP-AES Finish	ICP-AES
ME-ICP41	35 Element Aqua Regia ICP-AES	ICP-AES
Ag-OG46	Ore Grade Ag - Aqua Regia	
ME-OG46	Ore Grade Elements - AquaRegia	ICP-AES

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

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

Signature:   
 Colin Ramshaw, Vancouver Laboratory Manager



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**CERTIFICATE OF ANALYSIS WH19206796**

Sample Description	Method	WEI-21	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41
	Analyte	Recvd Wt.	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga
	Units	kg	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm
	LOD	0.02	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01	10
W793431		0.83	73.4	<0.01	139	<10	<10	<0.5	3	0.01	3.2	<1	13	1465	0.32	<10
W793432		1.67	>100	0.01	119	<10	20	<0.5	<2	1.86	1.3	<1	15	1100	0.47	<10
W793433		3.41	0.6	2.14	<2	<10	10	<0.5	<2	1.08	<0.5	13	15	259	29.1	10
W793434		2.28	24.4	0.03	2	<10	40	<0.5	<2	1.12	<0.5	<1	12	7	0.38	<10
W793435		0.26	0.4	0.09	4	<10	<10	<0.5	<2	13.2	0.9	<1	5	19	2.19	<10
W793436		1.35	0.3	4.39	<2	<10	20	<0.5	<2	2.14	<0.5	32	6	73	10.55	20
W793437		1.04	1.7	0.15	2520	<10	30	<0.5	<2	0.21	<0.5	6	13	53	3.08	<10
W793438		0.55	<0.2	0.12	65	<10	40	<0.5	<2	0.03	<0.5	1	14	18	1.08	<10
W793439		0.73	8.6	0.05	13	<10	610	<0.5	<2	0.04	1.6	2	17	118	1.32	<10
W793440		0.23	9.7	0.06	79	<10	30	<0.5	7	0.14	<0.5	32	2	94	>50	<10
W793441		0.42	6.4	0.03	47	<10	10	<0.5	<2	2.48	0.7	2	8	37	1.09	<10
W793442		1.00	1.1	0.24	1110	<10	10	4.0	<2	0.11	2.6	52	6	100	22.4	<10
W793443		1.01	1.2	0.04	246	<10	10	<0.5	<2	0.05	<0.5	1	17	58	1.66	<10
W793444		0.68	0.2	0.04	33	<10	30	<0.5	<2	18.8	<0.5	<1	3	3	1.83	<10
W793445		0.97	2.9	0.05	196	<10	10	<0.5	<2	8.8	<0.5	<1	5	8	0.51	<10
W793446		0.50	0.7	0.04	43	<10	10	<0.5	<2	7.9	1.1	1	4	27	0.74	<10
W793447		2.43	0.8	0.51	1595	<10	40	5.6	2	0.33	3.2	86	3	239	37.0	<10
W793448		0.52	<0.2	0.01	10	<10	20	<0.5	<2	3.79	<0.5	<1	10	2	0.69	<10
W793449		0.45	0.3	0.66	<2	<10	<10	<0.5	<2	2.93	<0.5	5	1	51	31.9	<10
W793450		1.31	0.6	2.20	<2	<10	10	<0.5	2	0.27	<0.5	12	21	735	39.5	10
R503873		0.71	0.4	0.38	<2	<10	10	<0.5	5	0.57	<0.5	4	1	18	44.9	<10
R503874		1.00	0.7	3.87	51	<10	190	0.5	<2	0.58	<0.5	19	124	52	10.55	10
R503875		0.77	<0.2	1.43	6	<10	10	<0.5	3	0.30	<0.5	18	9	17	37.2	<10
R503876		0.35	<0.2	1.60	<2	<10	10	<0.5	2	1.15	<0.5	6	9	16	38.8	<10
R503877		1.20	<0.2	4.97	12	<10	20	<0.5	<2	5.38	<0.5	19	33	151	16.05	10
R503878		1.22	1.0	3.64	2	<10	20	<0.5	2	4.03	<0.5	15	36	1945	26.0	10



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Sample Description	Method Analyte Units LOD	ME-ICP41 Hg ppm	ME-ICP41 K %	ME-ICP41 La ppm	ME-ICP41 Mg %	ME-ICP41 Mn ppm	ME-ICP41 Mo ppm	ME-ICP41 Na %	ME-ICP41 Ni ppm	ME-ICP41 P ppm	ME-ICP41 Pb ppm	ME-ICP41 S %	ME-ICP41 Sb ppm	ME-ICP41 Sc ppm	ME-ICP41 Sr ppm	ME-ICP41 Th ppm
		1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1	20
W793431		<1	<0.01	<10	<0.01	35	<1	0.01	1	<10	5980	0.11	1345	<1	1	<20
W793432		1	<0.01	<10	1.00	138	1	0.01	1	<10	3890	0.06	1035	<1	24	<20
W793433		1	<0.01	10	0.89	8290	1	0.01	48	130	16	0.97	2	3	36	<20
W793434		<1	0.01	<10	0.57	132	<1	0.01	1	130	5640	0.08	24	<1	18	<20
W793435		<1	<0.01	<10	7.40	740	1	0.01	11	60	65	0.02	2	5	120	<20
W793436		1	0.01	10	3.54	419	2	0.04	11	5090	15	1.40	<2	11	87	<20
W793437		<1	0.03	<10	0.07	93	1	0.01	12	80	16	0.05	17	1	5	<20
W793438		<1	0.05	<10	0.02	60	6	0.01	12	660	14	0.04	3	1	47	<20
W793439		2	<0.01	<10	0.02	90	3	0.02	3	60	2300	0.04	135	<1	30	<20
W793440		2	0.02	<10	0.25	582	4	0.01	185	100	888	0.09	37	1	4	<20
W793441		<1	<0.01	<10	1.39	131	2	0.01	31	30	25	0.01	11	<1	7	<20
W793442		1	0.01	10	0.06	409	11	0.01	655	140	274	0.02	373	<1	1	<20
W793443		<1	0.01	<10	0.01	51	4	0.01	8	170	23	0.02	14	<1	2	<20
W793444		1	0.02	<10	9.88	1175	1	0.02	12	60	4	0.01	3	1	75	<20
W793445		<1	0.03	<10	5.23	198	1	0.01	5	10	141	0.02	21	1	33	<20
W793446		<1	0.01	<10	4.58	278	2	0.01	28	60	20	0.01	33	<1	25	<20
W793447		<1	0.04	10	0.17	506	15	0.01	1020	270	334	0.04	355	<1	2	<20
W793448		<1	<0.01	<10	2.22	331	<1	0.01	8	30	5	0.01	2	1	79	<20
W793449		1	<0.01	<10	0.93	9800	1	0.01	33	90	3	0.21	<2	2	65	<20
W793450		1	<0.01	10	1.17	10300	2	0.01	55	140	3	0.19	3	3	5	<20
R503873		1	<0.01	<10	0.99	12700	1	0.01	14	20	<2	0.02	<2	4	24	<20
R503874		1	0.06	20	1.96	640	11	0.01	87	2870	48	0.09	6	6	53	<20
R503875		<1	0.01	10	0.97	10950	<1	0.01	48	30	7	0.09	<2	3	11	<20
R503876		<1	<0.01	10	1.06	11250	<1	0.01	22	60	3	0.19	<2	14	33	<20
R503877		1	0.07	30	1.97	2670	<1	0.01	45	230	5	1.69	<2	7	188	<20
R503878		<1	0.03	10	1.49	6200	<1	0.01	44	700	8	0.18	<2	6	172	<20



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Sample Description	Method Analyte Units LOD	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	ME-ICP41	Ag-OG46	Au-ICP21
		Ti %	Ti ppm	U ppm	V ppm	W ppm	Zn ppm	Ag ppm	Au ppm
		0.01	10	10	1	10	2	1	0.001
W793431		<0.01	<10	<10	1	<10	96		<0.001
W793432		<0.01	<10	<10	1	<10	42	100	<0.001
W793433		0.01	<10	<10	18	<10	15		<0.001
W793434		<0.01	<10	<10	<1	<10	23		<0.001
W793435		<0.01	<10	<10	3	<10	34		0.005
W793436		0.01	<10	<10	162	<10	173		<0.001
W793437		<0.01	<10	<10	13	<10	66		5.91
W793438		<0.01	<10	<10	21	<10	15		0.007
W793439		0.01	<10	<10	27	<10	863		0.019
W793440		<0.01	<10	<10	14	<10	151		0.011
W793441		<0.01	<10	<10	2	<10	94		0.005
W793442		<0.01	<10	10	3	<10	2500		0.005
W793443		<0.01	<10	<10	3	<10	25		0.032
W793444		<0.01	<10	<10	7	<10	112		0.006
W793445		<0.01	<10	<10	4	<10	28		0.465
W793446		<0.01	<10	<10	3	<10	85		0.003
W793447		<0.01	<10	20	8	<10	4190		0.021
W793448		<0.01	<10	<10	1	<10	40		<0.001
W793449		<0.01	<10	<10	7	<10	20		<0.001
W793450		0.01	<10	<10	31	<10	16		<0.001
R503873		<0.01	<10	<10	9	<10	5		<0.001
R503874		0.01	<10	10	328	<10	248		0.001
R503875		<0.01	<10	<10	17	<10	6		<0.001
R503876		<0.01	<10	<10	21	<10	8		<0.001
R503877		0.01	<10	<10	31	<10	45		0.001
R503878		0.01	<10	<10	63	<10	37		<0.001

