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Assessment Report

On Geochemical Studies

Of the

Pick Lake Zn-Cu Property

Ontario, Canada

by

Paul Nielsen

March 31, 2017

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1.0 Introduction

A sampling program was undertaken to assess the applicability of alteration mapping on the Pick Lake Property using modern geochemical methods, and to determine whether soil geochemistry might be useful to detect glacial dispersion from blind VTEM conductors. The surveys were carried out between September 18 and 25, 2016 by contract geologists under the supervision of CSA Global Geosciences Canada Ltd for Ophialite Consultants Pty Ltd. the present owners of the property. A technical report on the property was prepared for Ophialite Consultants Pty Ltd by GSA Global in 2017 (Arne and Wetherup, 2017) and the 2016 work program was well documented. Portions of that report were used in the preparation of this report.

2.0 Property Location

The Pick Lake Property is located approximately 150 kilometers (km) east of the city of Thunder Bay in western Ontario (Figure 1). The center of the Property is located approximately at latitude 48º58'56"N and longitude 87º23'18"W on NTS map sheet 42D/14.

3.0 Property Description and Mineral Tenure

The Property consists of a single contiguous group of claims consisting of 8 unpatented claims consisting of 71 units covering 11.4 square kilometers (km^2) (Figure 2). A summary of the individual claims and annual expenditure requirements is presented in Table 1. All claims are 100% held by Ophialite Consultants Pty Ltd. (Ophialite) .

Table 1: Summary claim information for the Property

Claim no.	Area	Area (km^2)	Claim units	Recording date	Due date	Work required
30011231	Pays Plat Lake	1.2	7	09-Sep-2008	09-Sep-2017	$2,800
4244161	Pays Plat Lake	1.9	12	22-Jul-2008	22-Jul-2017	$4,800
4244162	Pays Plat Lake	1.9	12	22-Jul-2008	22-Jul-2017	$4,800
4244163	Pays Plat Lake	1	6	22-Jul-2008	22-Jul-2017	$2,400
4244571	Pays Plat Lake	2.6	16	09-Jun-2008	09-Jun-2017	$6,400
4274195	Pays Plat Lake	0.3	2	26-Sep-2016	26-Sep-2018	$800
4274196	Rope Lake	0.6	4	16-Sep-2016	16-Sep-2016	$1,600
4274197	Rope Lake	1.9	12	16-Sep-2016	16-Sep-2018	$4,800
Totals		**11.4**	**71**			**$28,400**

Figure 1: Location of the Pick Lake Property

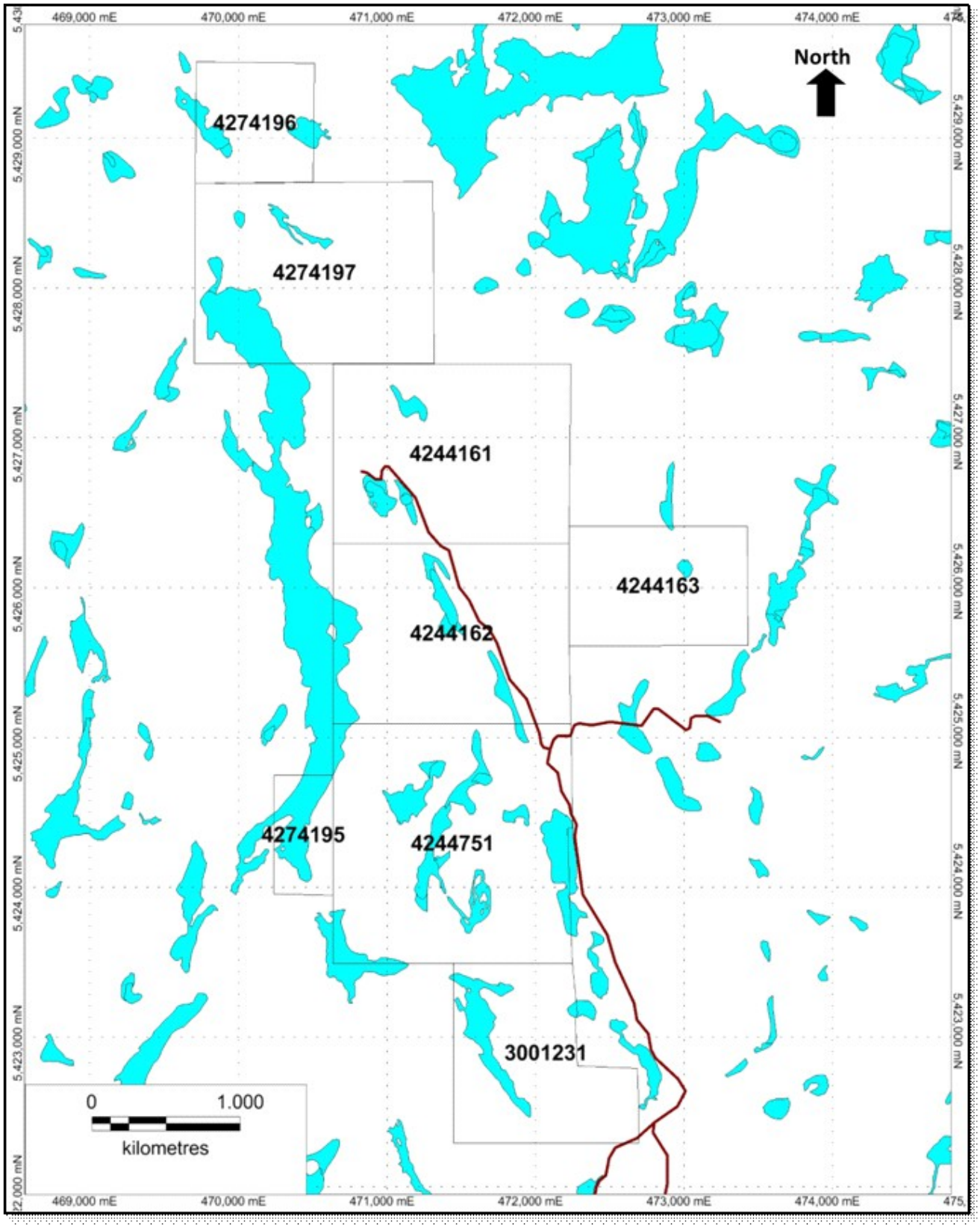

Figure 2: Pick Lake Property claim map

4.0 Property Access

Northwestern Ontario can be reached by motor vehicle along the TransCanada Highway or by regular passenger jet service to Thunder Bay with connections to regional towns. The Property is accessed via a well-made, seasonally maintained gravel road from a turn-off from Highway 17 approximately 10 km east of the town of Schreiber, which is located approximately 150 km east of Thunder Bay on Highway 17. This road leads north about 20 km to the now-abandoned Winston Lake Mine currently owned by First Quantum. Access through the Winston Lake Mine property is via a locked gate, but a key can be obtained from the First Quantum office in Schreiber. There are several all-terrain vehicle (ATV) tracks accessing the Property (Figure 2).

The history of the property was described in detail by Turcotte and Verscelden (2013) and much of the following sections is based on that source.

5.0 Property History

The Property has changed ownership many times over the past 116 years. Individual prospectors staked various parts of the Property prior to 1952. The Ciglen and Anderson showings were investigated by Zenmac Metal Mines Limited in the mid-1960s while they mined the Zenith deposit. The Property then underwent systematic exploration by Corporation Falconbridge Copper in the late 1970s to early 1980s, leading to the discovery of both the Winston Lake and Pick Lake deposits. Minnova Inc carried out mapping, drilling and geophysics in the late 1980s to early 1990s, as well as putting the Winston Lake deposit into production. Their interests were purchased by Metall Mining Corporation, who drifted across from the Winston Lake deposit to develop the Pick Lake deposit. The property then passed to Inmet Mining Corporation in 1995 through an amalgamation with Metall. Inmet let the claims covering the Property lapse after underground mining at Pick Lake ceased in late 1998. The main portion of the current Property was acquired by Orebot through staking open ground to the west of the Inmet Winston Lake property and was expanded through further staking of open ground by Ophialite in 2016. The Orebot claims were optioned to Silvore Fox in 2011 and that option lapsed in 2016, whereupon an option was acquired from Orebot by Ophialite.

Orebot acquired the optioned claims in 2008 through staking and commenced a program of soil sampling, data compilation, prospecting and petrographic work (Kivi, 2010). The Property was optioned to Silvore Fox in 2011 and they immediately undertook an airborne versatile time-domain electromagnetic (VTEM) and aeromagnetic survey (Figure 3) of the Property and the surrounding area. Line spacing over the Property was predominantly at 100 m. The VTEM survey led to the recognition of numerous EM conductors that were subsequently investigated at surface by Silvore Fox (Yang, 2012; Johnson *et al.,* 2012; Turcotte and Verscelden, 2013) and their successor company, Golden Share (Huss, 2014). Field investigations consisted primarily of the collection of rock samples for assay attempting to locate historical drill collars to assess historical drilling activity. Although the structural complexity of the Winston Lake Succession was recognized, there appears to have been no attempt to systematically collect and interpret structural data to interpret the electromagnetic conductors, nor were any geochemical alteration studies undertaken.

Dioron *et al.* (1997) presented a resource estimate of 1.2 million tonnes (Mt) at 15.9% Zn, 0.86% Cu, 38 g/t Ag and 0.46 g/t Au for the Pick Lake lower zone and 0.26 Mt at 11.21% Zn, 0.77% Cu, 31.5 g/t Ag and 0.65 g/t Au for the Pick Lake upper and middle zone. Published reserves (including 20% dilution) for Pick Lake by Inmet as at January 1996 were 124,800 tonnes (t) at 14% Zn and 0.9% Cu for the upper zone and 1,200,000 t at 19% Zn and 1.2% Cu for the lower zone. By the time mining ceased at the end of 1998, the Proven and Probable Reserves were reported as 598,000 t at 21.2% Zn,

1.0% Cu and the dilution had increased to 33%.

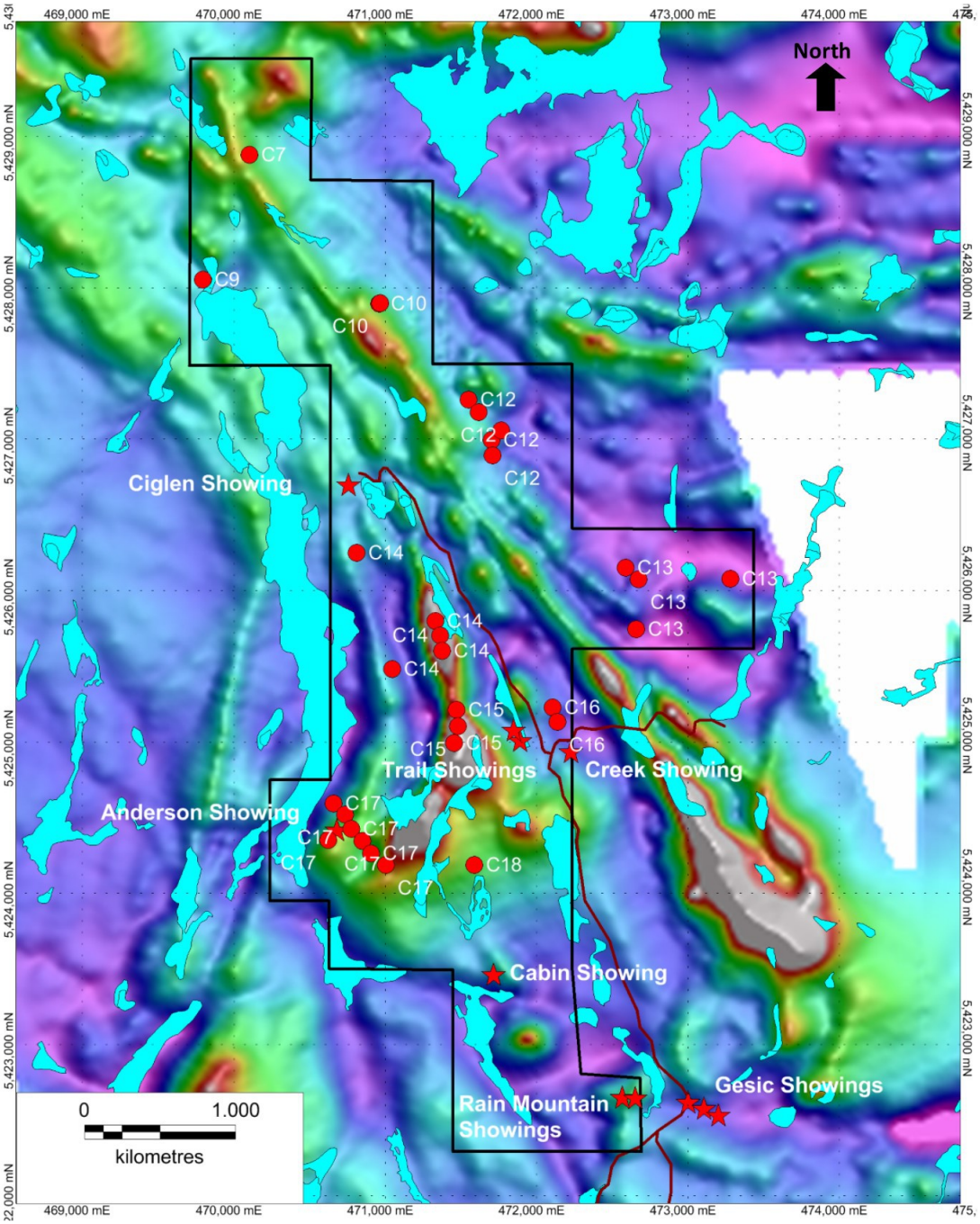

Figure 3: Total magnetic intensity (TMI) image of the 2011 aeromagnetic survey with VTEM anomalies (red dots) and main showings.

6.0 Geology

6.1 Regional Geology

The regional geology of the Winston Lake greenstone belt has recently been described by Lodge (2012) and Turcotte and Verscelden (2013). The Project occurs in Archean rocks of the southern Superior Province (Figure 4) which forms the core of the Canadian Precambrian Shield. It consists of a collage of Archean greenstone belts that coalesced between 2.72 and 2.68 Ga and were intruded by a complex system of granitoid rocks that were exhumed by approximately 2.48 Ga (Percival, 2007). The Superior Province is particularly well endowed with gold, copper-zinc and nickel deposits, as well as other commodities.

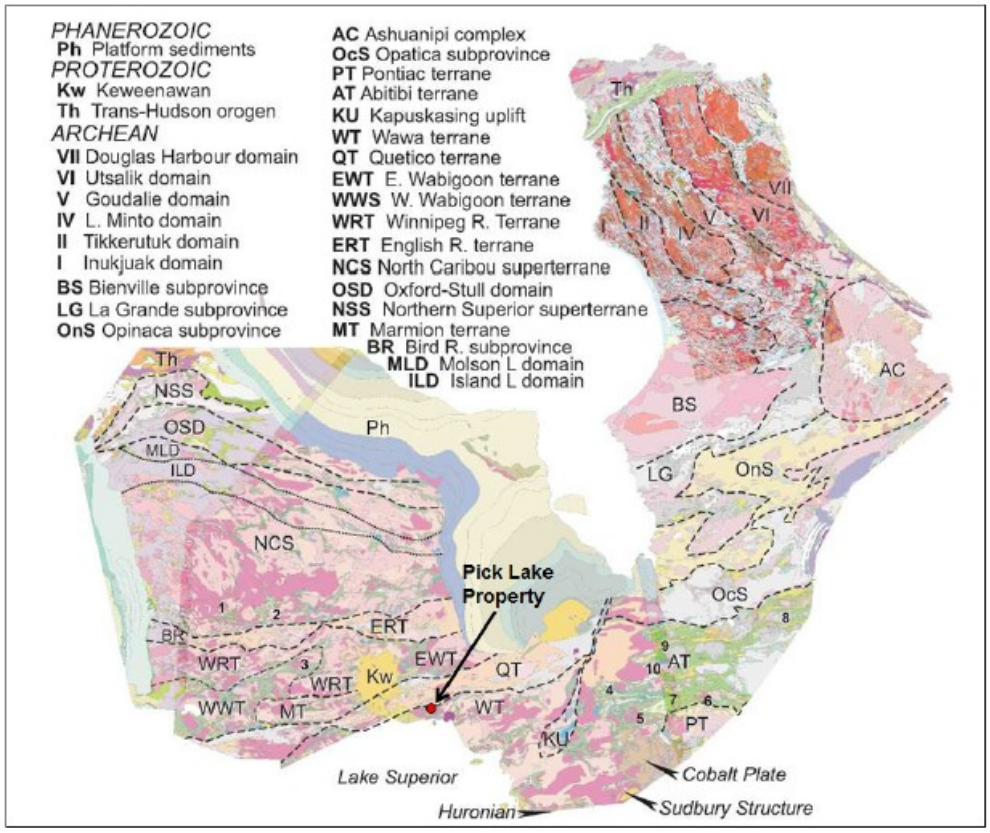

Figure 4: Regional geology of the Superior Province (from Percival, 2007)

in lesser amounts

Specifically, the Project occurs along the northern margin of the Wawa subprovince in the Wawa-Abitibi terrane near the margin with the Quetico subprovince. The Wawa subprovince contains a series of greenstone belts that formed at approximately the same time in the late Archean at a similar stratigraphic interval hosting gold, nickel and zinc deposits, including the Geco Zn-Cu deposit at Manitouwadge, (Figure 5) and which may correlate with the mineral deposit-prolific Abitibi subprovince (Percival, 2007).

The Wawa subprovince is a typical Archean greenstone-granite terrane consisting of primitive ultramafic to felsic volcanic rocks and associated metasedimentary rocks intruded and enclosed by granitoid rocks. It is interpreted to have formed in an accretionary belt during the Kenoran Orogeny (ca. 2.95 to 2.68 Ga), resulting in at least three distinct periods of deformation (Polat and Kerrich, 1999) and metamorphism of the belt.

The Wawa subprovince in this region is interpreted to have been affected by the structural juxtaposition of stratigraphic units and ubiquitous upright folding, resulting in conflicting younging directions, structural repetition of stratigraphic units and inhomogeneous deformation (Williams, 1989).

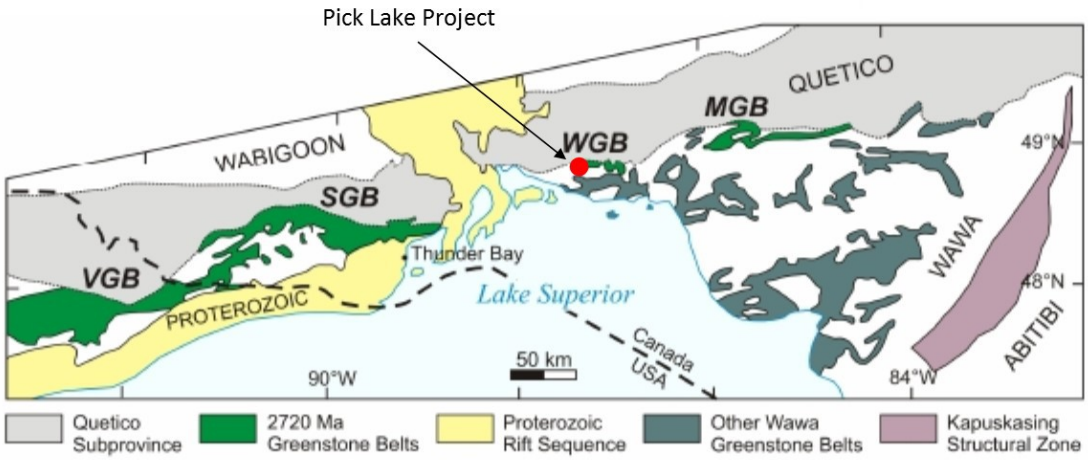

Figure 5: Regional geology of the Wawa subprovince (from Lodge, 2012).

Note: VGB – Vermillion greenstone belt; SGB – Shebandowan greenstone belt; WGB – Winston greenstone belt; MGB – Manitouwadge greenstone belt.

6.2 Local Geology

The Winston Lake Assemblage of the Winston Lake greenstone belt consists of a mixed felsic-sedimentary sequence with mafic flows (bimodal - felsic) generally striking in a north to northwest direction and dipping moderately to the east-northeast (Lodge *et al*., 2014) (Figure 6). The Winston Lake Assemblage is interpreted to be overlain by the Big Duck Lake Assemblage, a distinctive volcanic assemblage dominated by mafic volcanic rocks and containing gold mineralization. The volcanic sequence is considered to face (i.e. young) stratigraphically to the east and Lodge *et al*. (2014) report no obvious repetition of stratigraphic units due to folding or faulting, although dramatic lateral variations in volcanic units may conceal such repetitions.

The “Lower Clastic Succession” hosts the Pick Lake deposit and the Ciglen prospect (Figure 7). It consists of quartz-feldspar-biotite schist and gneiss containing garnet, hornblende and muscovite where altered. The “Main Felsic Unit” consists of quartz- and feldspar-bearing felsic volcanic rocks (Figure 7). Hydrothermal alteration has resulted in metamorphic assemblages containing quartz, sillimanite, biotite, garnet and staurolite, giving the rock a “knotted” appearance. The “Camp Felsic Unit” is interpreted to consist mainly of volcaniclastic deposits that have been altered in a similar fashion as the “Main Felsic Unit”, but also includes zones of silicification. It forms the immediate footwall to the Winston Lake deposit.

The “Winston Lake Interval”, also informally referred to as the “Winston Lake Horizon”, forms the inferred top of the Winston Lake Assemblage. It consists of planar-bedded amphibole-rich and quartz-rich layers interpreted to represent alternating mafic and chemical sedimentary bands, respectively, along with the Winston Lake VMS deposit. This unit contains mafic flows and is intruded by mafic sills and dykes to the south of the Winston Lake deposit.

Several laterally extensive mafic volcanic units, including the Ladder Mafic Unit (Figure 7), also occur throughout the Winston Lake Assemblage (Figure 7). Unaltered rocks consist of a plagioclase-

amphibole mineral assemblage that contains cordierite, amphibole biotite and garnet where altered in the footwall of the Winston Lake deposit. Pillows indicative of submarine eruption are preserved within the mafic units and provide the main indicator of younging directions.

The stratigraphy of the rocks trends east-west in the southern portion of the Property, in an area referred to by Turcotte and Verschelden (2013) as the Rain Mountain-Gesic Block. This area consists of a series of mafic volcanic flows at the base of the succession conformably overlain by volcaniclastic rocks capped by the Rain Mountain-Gesic sulfide horizon. This sulfide horizon is interlayered with mafic volcanic rocks and varies in width from 2 m to 5 m, but may be as thick as 15 m where preserved against gabbroic rocks to the north. It is interpreted to represent an exhalative horizon associated with submarine hydrothermal activity, but no significant sulfides have yet been encountered by drilling (Turcotte and Verschelden, 2013).

The felsic volcanic and siliciclastic sedimentary units are thickest at the south end of the Pick Lake Property and thin north-northwestward. At the north end of the Property, the felsic volcanic and sedimentary units thin until they completely disappear and only the mafic volcanic rocks remain.

7.0 Mineralization

Pick Lake Deposit

The Pick Lake deposit varies in thickness from 1.5 m to 14 m (averaging between 2 m and 4 m), is between 100 m and 400 m wide, and has a down-plunge extent of approximately 1 km, beginning from a depth of around 500 m (Doiron *et al*., 1997; Lodge, 2012). It consists predominantly of massive fine to medium grained sphalerite and pyrrhotite with minor chalcopyrite and pyrite, and occurs in the "Lower Clastic Succession" (Figure 8), with which it is in sharp contact (Lodge *et al*., 2014). Doiron *et al*. (1997) noted the textural differences between the Winston Lake and Pick Lake deposits, and particularly the presence of *durchbewegung* textures at Pick Lake indicative of sheared sulfides incorporating clasts of wallrock material. The timing of this deformation post-dated the emplacement of granitic dykes presumably related to the intrusion of the granitoid complexes to the west and south of the Pick Lake deposit. Copper-rich, high-temperature feeder pipes have not been identified at either the Winston Lake or Pick Lake deposits, consistent with the massive sphalerite lenses having been structurally displaced from their original stratigraphic position.

Ciglen Showing

The Ciglen Zn showing also occurs within the "Lower Clastic Succession" (Figure 7) along the western boundary of the Property. The following description is taken from Turcotte and Verschelden (2013)

"It lies in and along the hanging-wall side of a narrow band of intimately interbedded garnet-biotite-quartz-feldspar gneiss and garnet-biotite-quartz schist; like these metasediments, it strikes N100W and dips 35° to 45°E. It is up to 17 feet (5.2 m) thick, and has been traced along-strike for 180 feet (54.9 m). The mineralization consists of pyrite and pyrrhotite, with some sphalerite and a little chalcopyrite. These sulphides compose 10% to 15% of the deposit, and occur as either disseminations in the host rock or thin lenses and layers oriented parallel to the foliation. Associated with the sulphides is considerable fine-grained to medium grained smoky quartz.

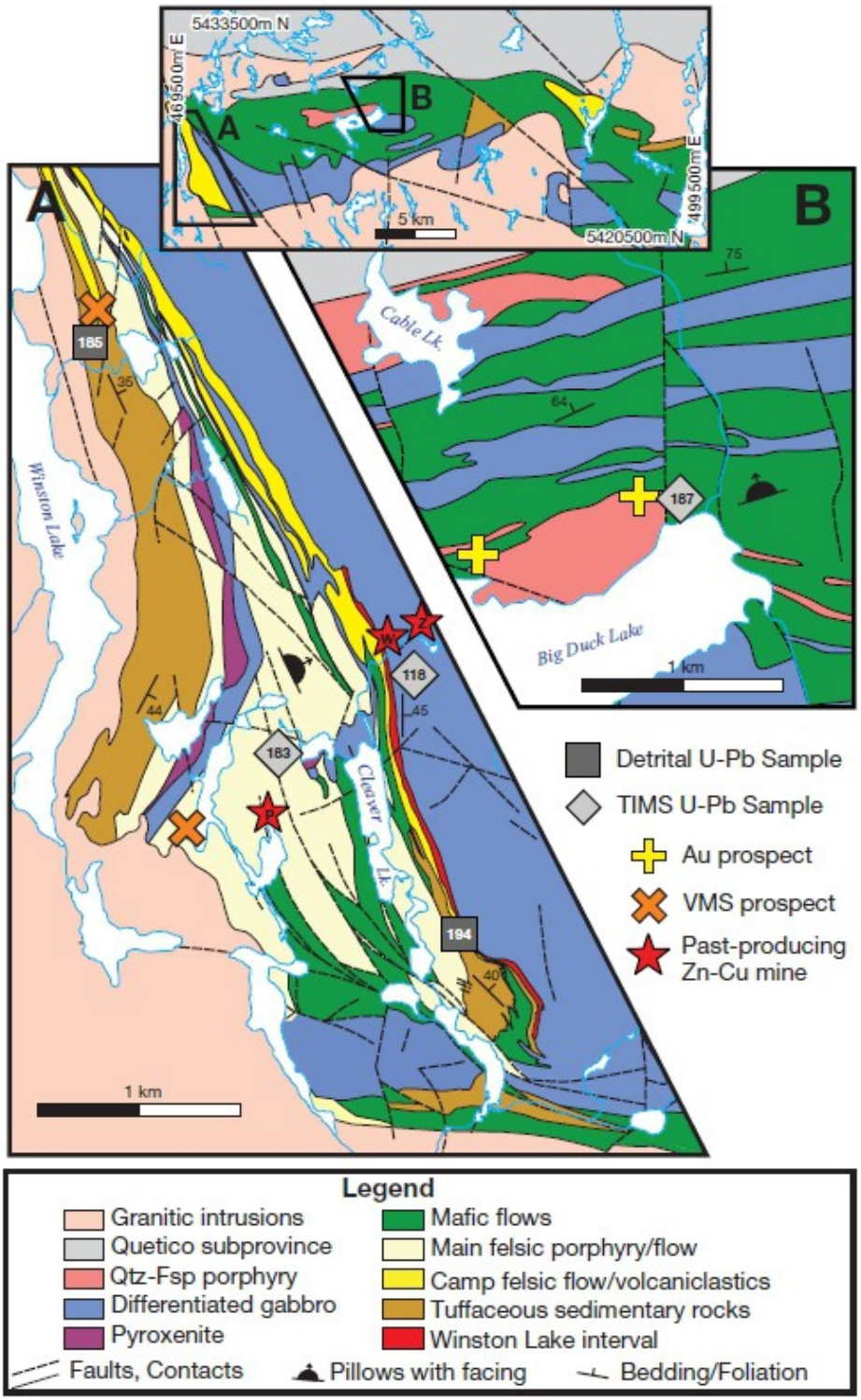

Figure 6: Geology of the Winston Lake greenstone belt

Note: P = Pick Lake deposit; W = Winston Lake deposit; Z = Zenith deposit

Source: Lodge et al., 2014

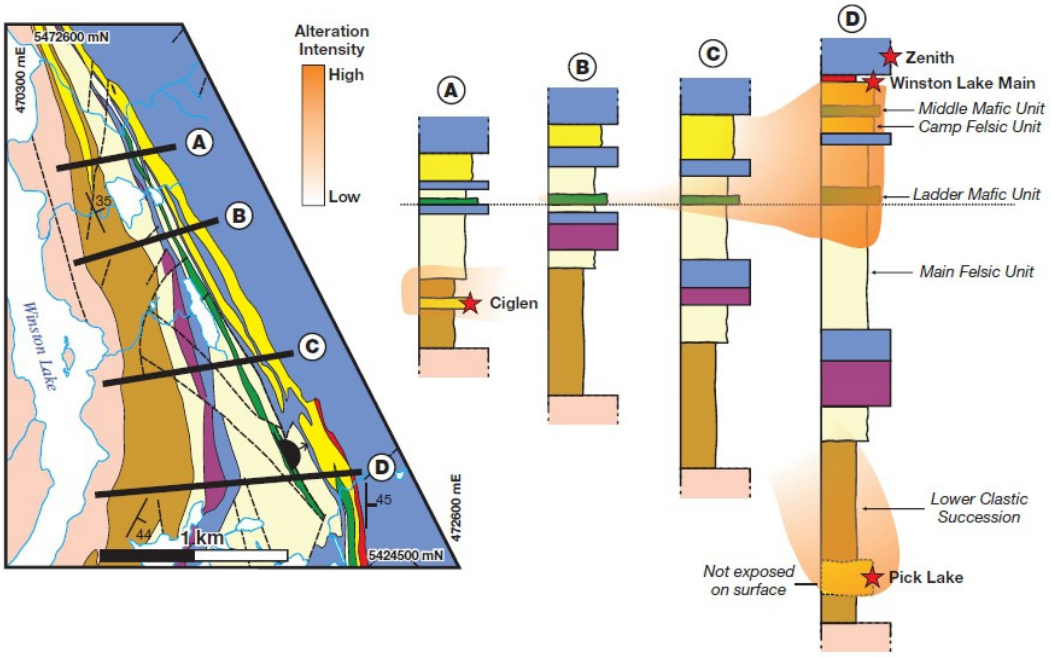

Figure 7: Geological map and stratigraphy of the northern Winston Lake assemblage

Source: Lodge et al., 2014

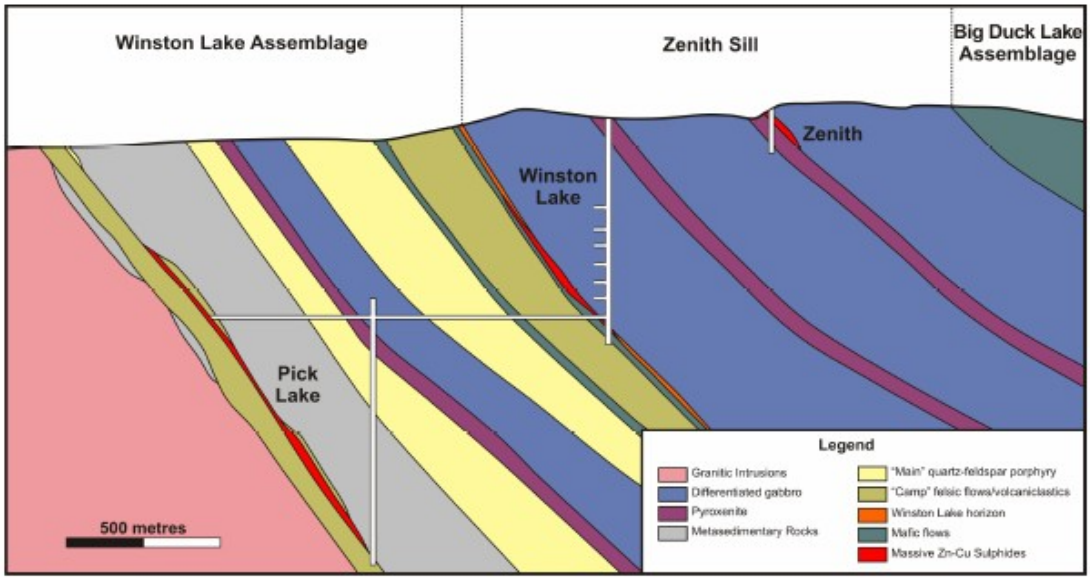

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Figure 8: Cross section through the Winston Lake Assemblage showing the positions of VMS mineralization Source: Lodge, 2012

Anderson Showing

The Anderson Cu-Zn showing is located along the southwestern margin of the property and is also hosted within the "Lower Clastic Succession". It is considered to represent the surface expression of the Pick Lake deposit by Lodge (2012) and has the strongest electromagnetic response on the Property (Johnson, 2016). The following description is taken from Turcotte and Verschelden (2013).

"From the drilling results in 1952, it is evident the Anderson occurrence lies within a narrow band of biotite gneiss, which is in part garnetiferous, in the granitic rocks in this locality. It strikes N150-200E and dips southeast. The deposit is a crudely tabular body of gneiss containing some disseminated pyrite and pyrrhotite, a little chalcopyrite, and very small amounts of sphalerite, and exhibiting an occasional stringer of quartz. It is about 40 feet (12.2 m) thick, and has been tested by the drill holes over a strike-length of 250 feet (76.2 m). The up-plunge and surface expression of the Pick Lake deposit was identified as the Anderson occurrence."

Trail Showing

The Trail showing occurs approximately 0.5 km west of the Winston Lake deposit. It is hosted at the contact between the "Main Felsic Unit" and the "Camp Felsic Unit"(Figure 8). The following description of the Trail Cu showing is taken directly from the Ontario Ministry of Northern Development and Mines Mineral Deposit Information (MDI) system.

"The Trail occurrence is classed as a VMS deposit. The area is underlain by altered and unaltered mafic metavolcanic rocks as well as minor interflow metasedimentary rocks. Severin and Balint (1984) describe the Trail occurrence as follows: a thin sequence of bedded felsic sediments occurs locally between the base of the Ladder Flow and the underlying quartz feldspar porphyry. In this case, this material is intensely altered to a quartz-cordierite-biotite-anthophyllite-garnet±sillimanite assemblage. The primary bedded nature of the material appears preserved. Anomalous sulphide content is common. The 0.15 m thick chalcopyrite mineralized siliceous horizon carries (up to) 6,230 ppm Cu. The Trail Copper occurrence represents a thin exhalative unit between a mafic metavolcanic flow and the underlying quartz porphyry. The material is siliceous to cherty in nature."

Creek Showing

The Creek Cu showing occurs along Selim Creek at the base of the Winston Lake Interval where it is in contact with clotted rhyolite of the Main Felsic Unit (Figure 3), approximately 200 m west of the surface expression of the Winston Lake deposit (Smyk and Schneiders, 1995). It consists of a gossan containing pyrite and chalcopyrite hosted by felsic rocks have been partially altered to biotite-cordierite-anthophyllite.

Cabin Showing

The Cabin showing occurs to the south of the Pick Lake deposit near the contact between the "Lower Clastic Succession" and mafic flows (Figure 3). According to Turcotte and Verschelden (2013) it consists of *"weakly anomalous base metal mineralization at the base of garnet-bearing synvolcanic felsic-derived sediments and/or tuffs and consists of an approximately 1-metre thick highly siliceous pyrrhotite-pyrite rich zone exposed intermittently over approximately 150 metres of strike length."*

Rain Mountain Showings

The Rain Mountain showings occur in the southernmost portion of the Property in the Rain Mountain-Gesic Block (Figure 3). Very little information is available regarding this horizon, but it is presumably enriched in Zn and other metals as it is interpreted to be an exhalative horizon associated with submarine hydrothermal activity (Turcotte and Verschelden, 2013).

8.0 Alteration

The recognition of metamorphosed hydrothermal alteration played an important role in the discovery of the Winston Lake deposit (Severin, Balint and Sim, 1991). Metamorphosed mafic volcanic rocks in contact with the Zenith Gabbro were observed to have unusual mineral assemblages, including the presence of anthophyllite, cordierite and garnet. These rocks were also found to be enriched in Zn, K, Mg and Fe, and depleted in Na and Ca, which defined a zone of hydrothermal alteration associated with a downhole pulse EM anomaly. Drilling of this EM anomaly led to the discovery of the Winston Lake deposit. Further detail on the hydrothermal alteration of rocks within the Winston Lake Assemblage was obtained by Osterberg, 1993)

9.0 2016 Field Program

CSA Global conducted preliminary exploration on the Property on behalf of Ophialite in September 2016 and has reviewed some of the most recent exploration work undertaken by others on the Property.

A total of 35 rock samples were collected in September 2016 for whole-rock geochemical analysis (Appendix1). Hand held portable GPS units were used for positional control and locations are documented in UTM NAD83 Zone 16 coordinates. Hydrothermal alteration is commonly associated with VMS deposits and has been well documented at the Winston Lake Assemblage.

A total of 22 soil samples of till were also collected during September, 2016 for geochemical analysis (Appendix 2). Hand held portable GPS units were used to document location of samples similar to the rock samples collected. These samples were from a single line located in a down-ice direction from VTEM conductors to test for glacial dispersal from the poorly exposed conductors.

Maps at a scale of 1:5000 are presented in Appendix 3 with sample numbers, Zn (ppm), Cu (ppm), Na2O and Ishikawa Alteration Index plotted.

The 2016 sampling program was undertaken to assess the applicability of alteration mapping on the Property using modern geochemical methods, and to determine whether soil geochemistry might be useful to detect glacial dispersion from blind VTEM conductors. Rock samples consisted of representative chip samples from exposed outcrop along traverse lines designed to detect the presence of hydrothermal alteration. Soil samples were collected from the B-horizon developed on till at 50 m spacing along an east-west traverse down-ice from the C12 series of VTEM conductor anomalies (Figure 3).

The whole rock samples define three broad lithological groups, consisting of alkali rhyolite, rhyolite/dacite and basalt using the classification scheme of Pearce (1996; Figure 9). The basalt and rhyolites represent a comagmatic bimodal volcanic suite in which the rhyolites are high temperature tholeiites with elevated Zr contents and flat REE profiles typical of Archean VMS districts (Piercey, 2010). Data from Lodge *et al*. (2014) also plot into similar groups (Figure 10).

Alkali molar ratio plots indicate that the samples have experienced variable loss of Na, consistent with the destruction of feldspars during hydrothermal alteration, as well as possible addition of Mg, Fe and K, compatible with the formation of chlorite and sericite prior to metamorphism of the volcanic sequence. The degree of alteration has been assessed using the alteration index (AI) of Ishikawa et al. (1976) designed to trace the effects of hydrothermal alteration in VHMS systems (Figure 9; Figure 10). There is also evidence in both datasets suggesting that some samples have experienced an increase in Na relative to the initial rock compositions. These samples may show alteration indicative of the more distal portions of a VMS hydrothermal system.

Both datasets indicate that the degree of hydrothermal alteration, as indicated by increasing AI values, is elevated in the areas of the Ciglen, Trail and Creek showings. Elevated AI values occur directly to the east of the Ciglen showing (Figure 3 and 11). It is therefore of interest that some of the highest AI values occur directly to the east of the most northern of the C14 group of VTEM anomalies (Figure 3). The two most westerly of these group of anomalies may be contiguous with the Anderson showing along the western boundary of the Property.

The conventional interpretation of the Winston Lake Assemblage is that the entire sequence is facing stratigraphically up to the east, with hydrothermal alteration developed in the footwall of the Winston Lake deposit and well developed in the hangingwall of the Pick Lake deposit. Although there is reference to numerous way-up indicators in the Winston Lake Assemblage, much of the interpretation appears to rest on the interpretation of stratigraphic facing in altered and metamorphosed pillow basalts in the immediate footwall to the Winston Lake deposit (Lodge *et al*., 2014). Based on this interpretation, the evidence for hydrothermal alteration obtained from geochemical analyses indicates that alteration is well developed in the hangingwall of the C14 group of VTEM anomalies. Regardless of the structural interpretation, the geochemical data indicate that hydrothermal alteration is well developed around some of the C14 VTEM picks and this observation supports the need for further investigation of some of these targets.

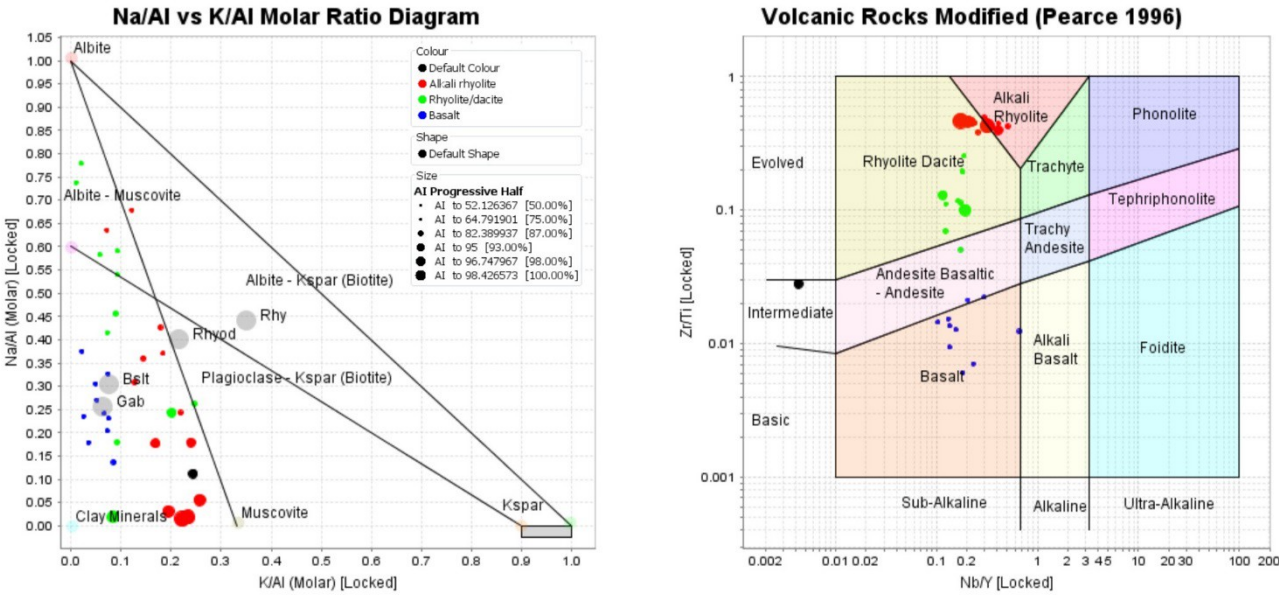

Figure 9: Whole-rock geochemical data for rock samples collected in 2016

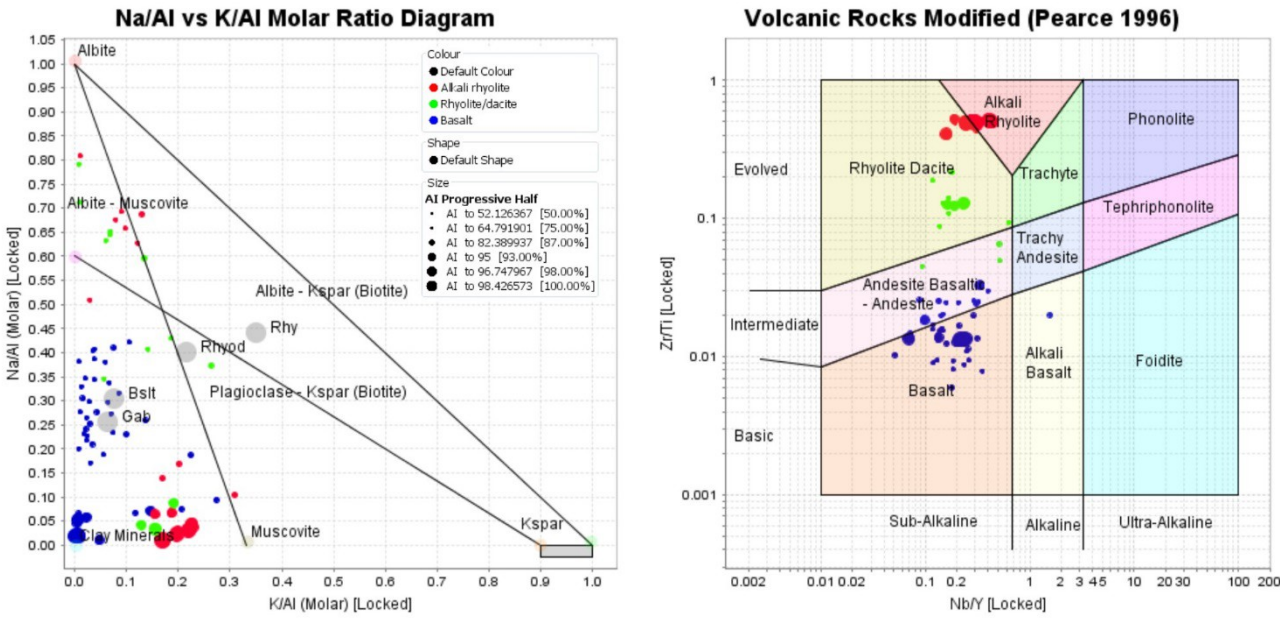

Figure 10: Whole-rock data for historical samples

Source: Lodge et al., 2014

Zinc values for the soil samples collected in 2016 are all below 30 ppm and therefore show no readily obvious anomalies. However, principal component analysis of the data indicates that there is a Zn-As-Mo-Cu-Pb association that is probably indicative of weak metal enrichment associated with VMS mineralization. The location of the highest values down ice from the C12 VTEM anomaly cluster are consistent with ice flow in the direction of 205° to 220° (Kivi, 2010). A less well developed anomaly in the middle of the traverse would also be consistent with an older ice flow direction of around 165°. These data suggest that there may be sub-cropping base metal mineralization in bedrock below a thin veneer of till near the C12 VTEM anomaly cluster. Rock samples collected from the area all analyzed less than 230 ppm Zn.

10.0 Sample Preparation and Analyses

Rock samples were collected in the field by CSA Global contractors. A contractor employed by Ophialite collected the soil samples under the supervision of CSA Global personnel. All samples were transported to Thunder Bay where they were stored temporarily by Stares Contracting Corp. until ready for laboratory submission.

Rock chip samples were submitted to ALS Geochemistry (ALS) in Thunder Bay, Ontario. The samples were crushed to a nominal 70% passing -2mm, followed by pulverization of a 250g split to a nominal 85% passing 75 microns (PREP-31). Master pulp splits were shipped to ALS in North Vancouver where the samples were analyzed using the complete geochemical characterization package (ALS method code CCP-PKG01). This package involves analysis of major and selected trace elements by a total lithium borate fusion, analysis of transition metals by multi-acid digestion, analysis of volatile

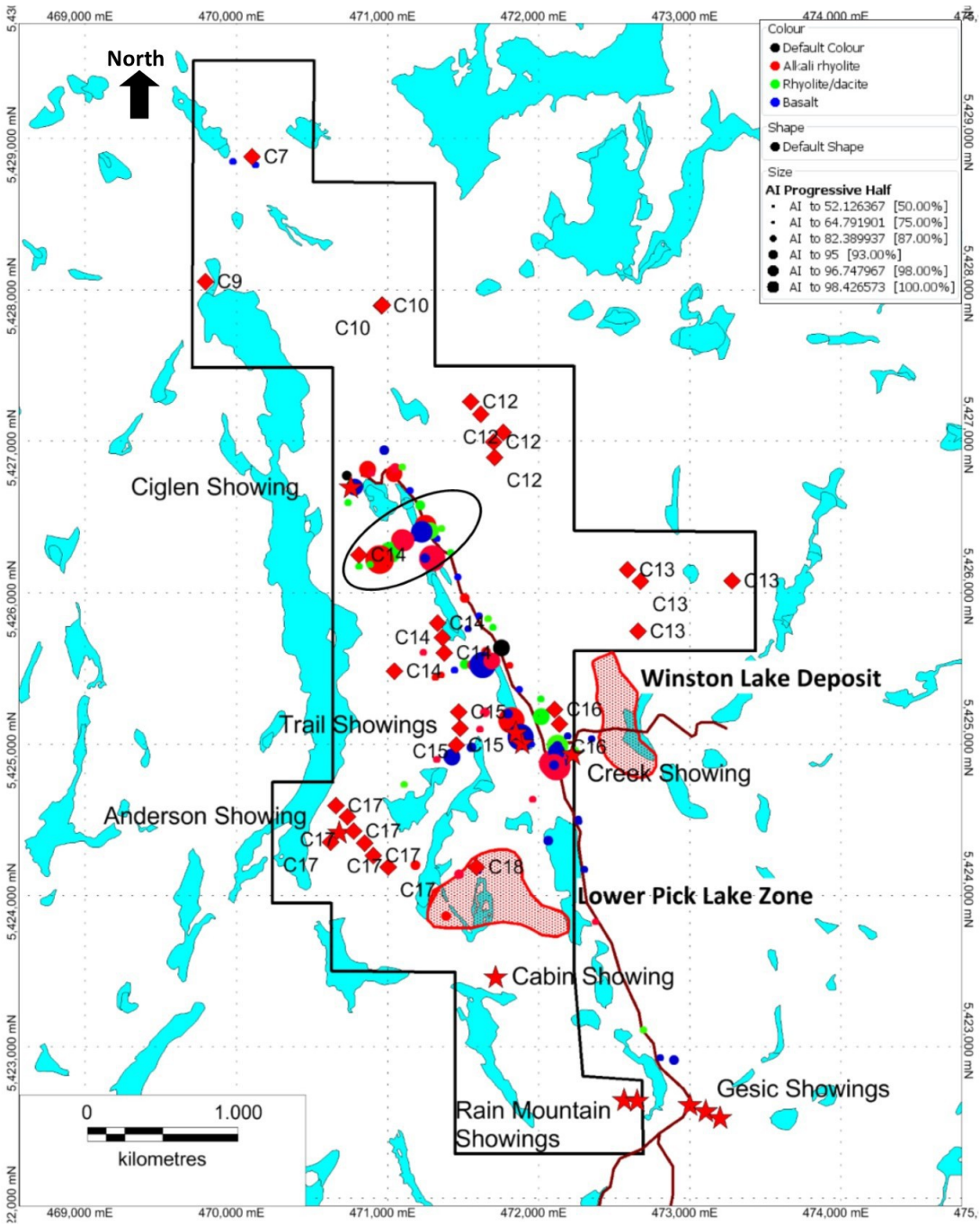

Figure 11: Summary of alteration indices (AI) for rock samples from Pick Lake

Note: Also shown are VTEM anomalies (red diamonds), known showings (red stars) and deposits (red patterned areas)

elements (e.g. Hg, Sb, As, Te) using an aqua regia digestion, and analysis of total C and S by combustion furnace. The variable digestion methods used ensure that total values are reported for all elements. All sample preparation work was undertaken at ALS in Thunder Bay and all analytical work was performed at the ALS laboratory in North Vancouver, British Columbia.

Soil samples were also submitted to ALS in Thunder Bay where they were sieved to -80 mesh (<177 microns). All analyses were undertaken at ALS in Vancouver, where the sieved material was digested by aqua regia prior to analysis by inductively-coupled plasma spectrometry (ICP-AES/MS).

ALS in North Vancouver is ISO 9001:2008 accredited and has been accredited by the Standards Council of Canada to ISO/IEC 17025:2005 for most of the individual analytical methods used. The Thunder Bay facility is accredited for sample preparation under the ALS Scope of Accreditation.

Certified reference materials (CRMs) were submitted with both the rock and soil samples. The CRMs used were Ore Research and Exploration Oreas 13b, and CDN Resource Laboratories Ltd CM-27 and BL-10 (granite blank). The results are acceptable for the elements Cu, Zn and Ag with the exception of Zn for Oreas 13b, which under-reported compared to the recommended value because the acid digestion used (aqua regia) was a partial, rather than near-total digestion. A single soil field duplicate sample showed good reproducibility. Assay certificates are presented in Appendix 6.

11.0 Conclusions

The Pick Lake Zn-Cu and the nearby Winston Lake and Zenith Zn-Cu deposits are Zn-rich Archean VMS deposits hosted within the Winston Lake Assemblage in the northern part of the Wawa subprovince of the Superior Province. The Wawa subprovince is interpreted to have formed in an accretionary belt during the Kenoran Orogeny and to have undergone multiple phases of deformation (Williams, 1989). The Winston Lake Assemblage consists of a sequence of rocks that varies from dominantly clastic sedimentary rocks in the west, through a felsic-dominated volcanic sequence, through to the Winston Lake Interval in the east consisting of mafic volcanic rocks interlayered with quartz-rich sedimentary layers intruded by mafic to ultramafic sills and dykes. Primitive mafic volcanic rocks of the Big Duck Lake Assemblage occur further to the east.

Field observations by CSA Global indicate that the Winston Lake Assemblage has been isoclinally folded and then refolded by at least two further phases of deformation. Much of the hydrothermal alteration mapped in the sequence occurs in the hangingwall of the Pick Lake deposit and the Ciglen showing, raising the possibility that the Winston Lake Assemblage may in part face stratigraphically up to the west, opposite of what has generally been reported (e.g. Lodge *et al.*, 2014), but consistent with the regional stratigraphic relationship between the Big Duck Lake and Winston Lake Assemblages.

The Pick Lake deposit was previously mined contemporaneously with the nearby Winston Lake deposit, but differs from the Winston Lake deposit in having textures indicative of shearing and possible structural emplacement into its present position. The influence of structural deformation on the distribution of base metal mineralization in the Winston Lake Assemblage has not previously been documented and provides a new opportunity to re-interpret the geology of the belt and controls on the distribution of base metal mineralization. Of note is the absence of a well documented Cu-rich feeder zone to the Zn-rich Pick Lake and Winston Lake deposits, which are interpreted to have formed distal to the main submarine hydrothermal vents.

The Property was the subject of an aerial VTEM and aeromagnetic survey in 2011 by Silvore Fox that identified numerous EM conductors, none of which have been tested by ground geophysics or drilling.

More recent whole-rock lithogeochemical work carried out by CSA Global, coupled with previous data, indicates that there is evidence for hydrothermal alteration characteristic of VMS mineralization associated with several of these EM conductors. Recognition of hydrothermal alteration patterns associated with subtle EM conductors was previously used to discover the Winston Lake deposit and is an important tool in VMS exploration.

CSA Global concludes that the Property has the potential to host previously undiscovered VMS mineralization at shallow depths (<300m) and that further exploration is warranted given recognition of possible structural controls on the distribution of base metal sulphides in the Winston Lake Assemblage, as well as the presence of untested EM conductors associated with evidence for hydrothermal alteration. The use of modern geophysical and geochemical tools, coupled with further structural mapping of the Property, has the potential to generate and test new near-surface exploration targets.

12.0 Recommendations

The Pick Lake Property is considered to be an advanced stage of exploration with NI 43-101 non-compliant historical Mineral Resources and Mineral Reserves at depth. An initial phase of near-surface exploration on the Property is warranted considering new structural insights, including further geological mapping with an emphasis on structural interpretation, further lithogeochemical sampling to define alteration patterns, ground geophysics to verify the location, depth and attitude of EM conductors, and shallow drilling to test for the presence of near-surface VMS mineralization. A second, or possibly concurrent phase of work could verify and update the historical Mineral Resources at depth in the Pick Lake Lower Zone. This second phase is not necessarily contingent of the results of the initial phase, but the discovery of new mineralization near the surface on the Property will have economic implications for the redevelopment of the Pick Lake deposit.

Respectfully submitted

Paul E Nielsen

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13.0 References

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Appendix 1

Rock Sample Analyses Results with Ishikawa Alteration Index and Interpreted Rock Type

Rock Sample Analyses

				ME-XRF26	ME-XRF26	ME-XRF26	ME-XRF26	ME-XRF26	ME-XRF26	ME-XRF26	ME-XRF26	ME-XRF26	ME-XRF26	ME-XRF26	ME-XRF26	ME-XRF26	OA-GRA05x	ME-XRF26
				Al2O3	BaO	CaO	Cr2O3	Fe2O3	K2O	MgO	MnO	Na2O	P2O5	SiO2	SrO	TiO2	LOI 1000	Total
Station	**NAD83 N**	**NAD83 E**	**Sample Number**	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
sww16_045	5428843	469979	87551	15.74	0.02	8	0.02	13.06	1.06	8.02	0.2	3.12	0.08	47.78	0.02	0.85	1.92	100.15
sww16_050	5428823	470128	87552	15.69	0.02	9.8	0.04	10.86	1.08	9.19	0.17	2.21	0.08	48.51	0.02	0.71	1.42	99.95
sww16_056	5426591	470742	87553	11.9	0.01	1.62	<0.01	4.05	0.11	1.22	0.05	5.34	0.11	75.16	0.01	0.43	0.3	100.4
sww16_058	5426714	470763	87554	9.7	0.01	1.14	0.01	19.14	0.82	1.96	0.12	1.06	0.15	65.27	<0.01	0.42	-0.28	100.1
sww16_059	5424996	471952	87555	15.22	0.01	9.64	0.04	10.74	0.34	7.2	0.27	2.17	0.07	52.3	0.01	0.67	0.87	99.67
sww16_064	5425155	471819	87556	9.72	0.03	0.05	<0.01	5.76	2.09	2.67	0.04	0.11	0.01	78.09	<0.01	0.13	1.09	99.94
sww16_069	5424198	471185	87557	10.54	0.02	0.41	<0.01	3.21	1.73	2.26	0.05	2.73	0.01	77.76	<0.01	0.14	1.12	100.05
sww16_074	5423863	471387	87558	11.05	0.03	0.74	<0.01	4.21	2.23	1.28	0.27	1.63	0.01	77.12	0.01	0.14	1.25	100.25
Standard			1237700	11.65	0.07	3.15	0.01	6.61	1.12	2.09	0.13	2.85	0.14	69.14	0.03	0.54	1.72	102.15
1237701	5425181	472018	1237701	11.38	0.03	0.64	<0.01	4.83	2.11	5.46	0.02	1.68	0.04	71.64	0.01	0.38	1.58	99.94
1237702	5425293	472015	1237702	13.56	0.01	1.17	<0.01	2.61	1.16	4.27	0.02	4.87	0.07	70.19	0.02	0.5	1.46	99.97
1237703	5425357	471874	1237703	16.87	0.01	9.75	0.08	10.23	0.53	11.25	0.14	1.83	0.05	46.67	0.02	0.55	1.65	99.86
1237704	5425515	471810	1237704	10.6	0.02	1.55	<0.01	2.24	1.8	2.49	0.02	2.39	0.02	77.31	0.03	0.13	0.95	99.63
1237705	5425635	471756	1237705	10.89	0.06	0.66	0.01	8.84	2.45	4.1	0.03	0.74	0.53	68.05	0.01	0.47	1.63	99.08
1237706	5425766	471699	1237706	12.68	0.03	1.26	<0.01	1.34	1.08	2.51	0.01	4.16	0.06	75.7	0.01	0.5	0.94	100.35
1237707	5425844	471606	1237707	16.64	0.03	5.37	<0.01	9.1	0.74	5.17	0.09	3.09	0.3	54.19	0.07	0.84	3.57	99.67
1237708	5425963	471513	1237708	10.83	0.07	1.26	<0.01	3.51	1.44	2.73	0.02	2.37	0.01	75.84	0.02	0.14	0.99	99.28
1237709	5426099	471469	1237709	15.05	0.01	6	<0.01	10.82	0.29	3.19	0.13	3.43	0.37	57.95	0.03	1.6	0.99	100.35
1237710	5426262	471420	1237710	12.28	0.01	1.75	<0.01	3.22	0.22	1.48	0.03	5.82	0.05	74.25	0.01	0.45	0.34	100
1237711	5426355	471329	1237711	14.93	0.01	9.56	0.03	13.92	0.9	8.28	0.16	2.19	0.28	46.66	0.03	1.66	1.21	100.05
1237712	5426440	471251	1237712	10.36	0.11	0.04	<0.01	2.06	2.46	0.9	0.01	0.35	0.01	81.28	<0.01	0.13	1.68	99.46
1237713	5426575	471217	1237713	13.95	0.01	0.87	<0.01	2.67	1.14	4.45	0.02	3.87	0.06	69.81	0.01	0.54	1.99	99.45
1237714	5426672	471151	1237714	14.46	0.02	8.72	0.02	13.85	0.68	7.72	0.17	2.37	0.32	47.09	0.04	1.96	1.81	99.89
1237715	5426786	471047	1237715	11.21	0.05	0.44	<0.01	3.03	2.48	2.58	0.02	1.22	0.01	76.7	0.01	0.15	1.56	99.51
1237716	5426814	470872	1237716	9.93	0.03	0.31	<0.01	4.54	1.54	2.24	0.03	1.07	0.01	77.28	<0.01	0.15	1.91	99.09
1237717	5426369	471176	1237717	16.84	0.03	9.03	0.1	9.87	1.32	12.55	0.15	1.4	0.04	45.35	0.01	0.42	2.68	99.9
1237718	5426343	471095	1237718	10.7	0.06	0.06	<0.01	6.83	1.92	3.02	0.04	0.2	0.01	74.94	<0.01	0.18	1.53	99.54
1237719	5426261	471018	1237719	11.88	0.02	0.44	<0.01	17.13	0.91	3	0.19	0.14	0.16	65.16	<0.01	0.77	0.25	100.15
1237720	5426217	470950	1237720	9.26	0.05	0.01	<0.01	4.19	1.9	3.73	0.03	0.08	0.02	77.58	<0.01	0.21	2.18	99.32
1237721	5426184	470886	1237721	11.49	0.02	2.17	<0.01	4.48	0.77	3.61	0.07	2.9	0.17	73.03	0.02	0.53	0.75	100.1
1237722	5426171	470814	1237722	11.54	0.02	1.63	<0.01	6.2	0.61	2.46	0.06	4.09	0.13	71.38	0.01	0.51	0.86	99.6
1237723	5425609	471653	1237723	10.28	0.02	1.2	<0.01	4.42	1.2	4.56	0.03	1.93	0.02	73.98	0.01	0.15	1.63	99.5
1237724	5425525	471513	1237724	12.96	0.03	1.94	0.01	10.32	2.96	3.48	0.09	2.06	0.19	62.5	0.02	1.08	1.62	99.71
1237725	5425484	471446	1237725	15.36	0.02	9.15	0.09	10.98	1.02	10.85	0.16	1.91	0.05	46.93	0.02	0.55	1.9	99.11
1237726	5425453	471357	1237726	10.92	0.02	0.7	<0.01	4.48	0.72	1.26	0.03	4.22	0.01	76.9	0.02	0.14	0.73	100.25
1237727	5425436	471319	1237727	10.88	0.02	0.34	<0.01	4.14	1.22	1.24	0.02	4.49	0.01	76.22	0.01	0.15	0.4	99.2
Standard			1237751	13.76	<0.01	6.72	<0.01	15.2	0.24	7.18	0.24	3.41	0.12	50.79	0.02	1.34	0.5	99.92

Rock Sample Analyses

				ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81
				Ba	Ce	Cr	Cs	Dy	Er	Eu	Ga	Gd	Ge	Hf	Ho	La	Lu	Nb
Station	**NAD83 N**	**NAD83 E**	**Sample Numb**	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
sww16_045	5428843	469979	87551	159	10.9	150	1.22	3.3	1.9	0.86	16.2	3.1	<5	1.7	0.75	4.5	0.32	2.6
sww16_050	5428823	470128	87552	113.5	11	330	1.47	3.75	2.33	0.76	16.2	2.97	<5	1.8	0.7	4.3	0.33	2.6
sww16_056	5426591	470742	87553	32.5	79.8	10	0.53	27.1	19.15	3.88	29.5	19.8	<5	18.3	6.11	29.2	2.82	30.3
sww16_058	5426714	470763	87554	113.5	50.2	110	1.28	7.86	4.95	3.85	37.9	7.52	<5	4.8	1.67	20.7	0.76	5.4
sww16_059	5424996	471952	87555	29	11.4	280	1.07	3.05	2.39	0.62	14.3	2.41	<5	1.6	0.69	4.6	0.36	2.2
sww16_064	5425155	471819	87556	279	41.3	10	0.99	16.25	15.85	0.62	30.2	8.86	<5	13.6	4.82	15.6	3.29	41.9
sww16_069	5424198	471185	87557	215	62.9	10	1.62	26.8	18.2	4.28	30.4	18.15	<5	15.3	6.44	24.7	3.07	44.6
sww16_074	5423863	471387	87558	248	139.5	10	1.1	24.7	20.6	4.18	31.3	20.5	<5	14.9	6.43	55.6	3.96	47.3
Standard			1237700	734	243	60	1.05	3.69	1.86	2.46	12.7	6.71	<5	2.4	0.69	158.5	0.31	6.9
1237701	5425181	472018	1237701	372	155	10	0.86	20.1	11.2	1.89	26.4	21.9	<5	9.1	4.24	66	1.78	13.5
1237702	5425293	472015	1237702	88	234	20	0.45	32.7	17.3	2.97	22.9	35.1	<5	9.4	6.15	93.4	2.22	17.8
1237703	5425357	471874	1237703	64.2	8.3	570	3.15	2.68	1.71	0.61	14.9	2.26	<5	1.3	0.62	3.2	0.26	2
1237704	5425515	471810	1237704	211	11.2	10	1.5	33.7	22.2	0.51	24.9	16.1	<5	15.7	7.84	3.7	3.54	43.5
1237705	5425635	471756	1237705	525	4000	80	3.99	146.5	57.4	25.4	48.9	296	6	2.3	25	1470	6.8	3.7
1237706	5425766	471699	1237706	220	114	20	1.3	15.9	9.55	2.02	26.4	17.4	<5	8.9	3.5	47.7	1.4	17.3
1237707	5425844	471606	1237707	322	76.4	40	1.48	3.7	1.77	1.5	21.2	5.22	<5	2.9	0.74	33.6	0.25	3.6
1237708	5425963	471513	1237708	632	13	10	1.31	18.95	12.7	0.45	26.4	11.6	<5	15.3	4.28	2.2	2.17	46.9
1237709	5426099	471469	1237709	80.3	36.6	20	0.81	6.57	3.63	1.73	23.5	6.23	<5	5.5	1.38	14.9	0.52	9.8
1237710	5426262	471420	1237710	40.7	60.3	10	0.76	15.2	10.45	0.92	18.7	11.35	<5	9.6	3.63	24.4	1.65	16.1
1237711	5426355	471329	1237711	96.3	37.9	200	0.6	2.77	1.61	1.44	17.7	3.9	<5	1.7	0.61	14.8	0.3	2.7
1237712	5426440	471251	1237712	1105	4.3	10	1.06	23.9	16.35	0.39	29.6	13.95	<5	13.8	5.77	1.2	2.57	45
1237713	5426575	471217	1237713	112.5	76.6	10	1.16	18.45	12.1	1.92	25.3	15.65	<5	10.6	4.11	30.1	1.74	18.2
1237714	5426672	471151	1237714	155.5	52.4	120	0.9	2.76	1.83	1.64	19.2	4.41	<5	2.2	0.65	21.2	0.25	3.6
1237715	5426786	471047	1237715	475	53.5	10	2.64	19.6	15.6	0.53	33.8	14.15	<5	15.2	5.03	17.9	3.17	48.5
1237716	5426814	470872	1237716	278	143.5	10	1.6	33.4	21	6.08	29.6	34.3	<5	14.9	7.38	63.5	3.31	41.2
1237717	5426369	471176	1237717	287	7.7	710	3.32	1.91	1.3	0.49	14.6	1.92	<5	1	0.47	2.8	0.19	7.4
1237718	5426343	471095	1237718	618	158.5	10	1.97	39.6	24.8	4.01	31.8	35.8	<5	18.3	8.8	62	3.65	44.1
1237719	5426261	471018	1237719	266	78.1	10	2.3	19.2	11.3	4.15	31.9	17.85	<5	13	4.06	31.1	1.99	19.6
1237720	5426217	470950	1237720	439	15.4	10	2.91	26.6	19.5	0.79	22.9	13.3	<5	17.2	6.71	4	2.98	30
1237721	5426184	470886	1237721	203	87.3	10	3.86	28.4	18.8	4.09	31.4	24.5	<5	18.3	6.47	34.2	2.7	29.9
1237722	5426171	470814	1237722	215	109.5	10	1.55	29.7	20.2	4.13	34.5	25.2	<5	18.3	7.12	43.3	2.92	31
1237723	5425609	471653	1237723	163	81.5	10	3.72	26.2	18.75	1.32	25.8	19.6	<5	14.6	6.24	32.9	3	40.4
1237724	5425525	471513	1237724	315	81.8	40	3.53	23.9	17.6	4.47	34.1	18.65	<5	10.4	5.89	32.6	2.73	26
1237725	5425484	471446	1237725	192.5	8.7	600	2.64	2.73	1.66	0.79	16.8	2.3	<5	1.3	0.59	3	0.23	2.3
1237726	5425453	471357	1237726	161.5	77.5	10	1.01	23.8	15.8	2.89	36.5	16.3	<5	15.7	5.43	27.8	2.35	51.3
1237727	5425436	471319	1237727	225	75.3	10	4.21	24.6	18	3.8	35.6	18.5	<5	15.5	5.88	30.8	3.06	45.9
Standard			1237751	52.1	18.3	10	0.39	7.64	4.34	1.17	18	6.47	<5	3.8	1.6	6.4	0.73	6.2

Rock Sample Analyses

				ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81	ME-MS81
				Nd	Pr	Rb	Sm	Sn	Sr	Ta	Tb	Th	Tm	U	V	W	Y	Yb
Station	**NAD83 N**	**NAD83 E**	**Sample Numb**	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
sww16_045	5428843	469979	87551	7.8	1.6	38	2.31	1	230	0.2	0.53	0.32	0.32	0.1	203	<1	19.3	2.23
sww16_050	5428823	470128	87552	8.1	1.73	43.7	2.46	<1	191	0.1	0.53	0.38	0.31	0.11	197	<1	19.9	2.02
sww16_056	5426591	470742	87553	52.4	11.35	4.4	14.45	1	79.1	2	3.86	3.55	2.87	1.08	<5	<1	162	18.15
sww16_058	5426714	470763	87554	31	6.87	15.7	7.8	84	49.9	0.4	1.22	1.7	0.72	0.41	94	<1	44.2	4.93
sww16_059	5424996	471952	87555	7.7	1.59	7.8	1.81	2	115.5	0.1	0.48	0.47	0.32	0.12	237	<1	21.5	2.39
sww16_064	5425155	471819	87556	29.5	6.11	35.2	7.5	7	5.5	2.7	1.93	5.08	2.81	1.22	<5	2	131.5	20.3
sww16_069	5424198	471185	87557	42.3	9.05	33.9	13.7	7	17.4	2.9	3.72	5.82	2.93	1.35	<5	1	150.5	21.2
sww16_074	5423863	471387	87558	92.7	20.8	43.9	22.5	9	90.1	3.2	3.61	6.43	3.55	1.58	<5	1	165.5	25.5
Standard			1237700	82.3	24.2	23.3	12.35	2	274	0.3	0.73	6.53	0.26	1.87	101	9	17.8	1.87
1237701	5425181	472018	1237701	95.8	22.1	36.8	23.4	5	52.3	1.1	3.42	4.46	1.85	1.17	13	2	117.5	12.05
1237702	5425293	472015	1237702	151.5	32.8	28.3	37.8	3	114	1.1	5.5	4.46	2.38	1.34	31	1	144	14.8
1237703	5425357	471874	1237703	6.5	1.2	16.1	1.82	1	152.5	0.2	0.39	0.23	0.24	0.08	151	<1	14.9	1.81
1237704	5425515	471810	1237704	8.1	1.47	41.2	5.57	1	237	2.9	4.28	6.16	3.33	1.68	38	1	180.5	23.6
1237705	5425635	471756	1237705	2560	577	43.3	453	4	68.4	0.2	31.8	1.14	7.62	0.81	97	<1	866	48.6
1237706	5425766	471699	1237706	68.5	15.5	27.1	16.75	2	115	1.1	2.61	3.56	1.46	0.71	27	2	87.2	9.39
1237707	5425844	471606	1237707	41.5	9.82	17.2	6.87	1	669	0.2	0.64	2.4	0.25	0.45	195	1	17.6	1.83
1237708	5425963	471513	1237708	11.2	1.56	23	7.24	2	144	3.2	2.69	6.55	1.97	1.52	7	2	93.1	13.8
1237709	5426099	471469	1237709	23.1	4.97	7.1	5.8	4	198.5	0.7	1.05	1.45	0.51	0.36	208	<1	33.2	3.47
1237710	5426262	471420	1237710	33.7	7.86	11.4	9.15	2	81.7	4.6	2.19	3.45	1.62	0.95	19	1	98.6	10.35
1237711	5426355	471329	1237711	23.1	5.32	20.2	4.5	2	247	0.2	0.51	0.99	0.22	0.23	316	<1	14.9	1.6
1237712	5426440	471251	1237712	5.5	0.74	33.3	5.35	11	12.2	3.1	3.44	6.46	2.51	1.26	<5	4	137.5	16.65
1237713	5426575	471217	1237713	46.2	10.1	26	12.5	5	63.2	1.3	2.76	4.21	1.79	1.01	39	1	105	11.3
1237714	5426672	471151	1237714	31	7.07	11.1	5.24	2	334	0.2	0.53	1.41	0.19	0.33	336	<1	15.5	1.44
1237715	5426786	471047	1237715	38.5	7.85	46.1	12.7	5	36.9	3.2	2.76	6.03	2.6	1.35	<5	3	119	18.8
1237716	5426814	470872	1237716	112	23.1	31	30.6	3	20.9	2.6	5.34	5.27	3.07	1.22	<5	1	185.5	20.9
1237717	5426369	471176	1237717	5.5	1.08	46.1	1.37	1	105.5	0.1	0.29	0.24	0.16	0.06	123	<1	11.1	1.27
1237718	5426343	471095	1237718	111.5	23.4	32.9	30.9	3	8.2	2.5	6.01	5.29	3.69	1.29	<5	1	215	24.4
1237719	5426261	471018	1237719	56.5	11.45	24.6	16.45	6	7.1	1.2	2.92	2.45	1.72	0.66	<5	<1	102.5	11.5
1237720	5426217	470950	1237720	8.7	1.63	46.3	4.49	4	2.5	1.9	3.4	3.56	3.04	1.02	<5	<1	173	20.2
1237721	5426184	470886	1237721	63.8	12.65	25.1	19.7	2	135.5	1.9	4.3	3.65	2.86	0.96	10	<1	163.5	19
1237722	5426171	470814	1237722	77.2	16	20.3	21.1	2	77.3	1.9	4.41	3.92	2.9	1.06	<5	<1	172.5	19.65
1237723	5425609	471653	1237723	54.8	11.3	32.8	16.45	4	100.5	2.9	3.72	7.03	2.85	1.69	9	1	157.5	19.5
1237724	5425525	471513	1237724	56	11.7	82	15.35	18	115	1.6	3.5	2.72	2.72	0.87	142	1	150	17.45
1237725	5425484	471446	1237725	7.1	1.36	31.2	2.02	1	178	0.1	0.39	0.21	0.25	0.09	172	<1	14.8	1.61
1237726	5425453	471357	1237726	47.5	10.4	15.6	14.6	4	107	3.2	3.35	5.31	2.22	1.29	<5	7	125	15.8
1237727	5425436	471319	1237727	54.6	11.6	45.8	15.8	5	47.8	3	3.49	4.56	2.89	1.28	<5	<1	143.5	20.5
Standard			1237751	14.6	2.88	4.5	5.04	1	134.5	0.4	1.11	0.68	0.69	0.19	347	1	40.2	4.65

Rock Sample Analyses

				ME-MS81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-4ACD81	ME-MS42	ME-MS42	ME-MS42	ME-MS42
				Zr	Ag	Cd	Co	Cu	Li	Mo	Ni	Pb	Sc	Zn	As	Bi	Hg	In
Station	**NAD83 N**	**NAD83 E**	**Sample Numb**	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
sww16_045	5428843	469979	87551	48	<0.5	0.5	53	26	20	<1	220	<2	23	72	0.1	0.02	<0.005	0.017
sww16_050	5428823	470128	87552	65	<0.5	<0.5	49	39	20	<1	155	<2	28	80	<0.1	0.03	<0.005	0.007
sww16_056	5426591	470742	87553	660	<0.5	<0.5	2	3	<10	2	<1	2	5	28	0.3	0.05	0.005	0.019
sww16_058	5426714	470763	87554	176	<0.5	1.9	6	10	10	<1	30	<2	11	1885	0.1	0.06	0.015	2.17
sww16_059	5424996	471952	87555	58	<0.5	0.7	40	1	<10	<1	49	<2	44	254	<0.1	0.06	0.011	0.016
sww16_064	5425155	471819	87556	333	<0.5	<0.5	1	220	10	4	<1	2	1	158	0.2	0.86	0.009	1.445
sww16_069	5424198	471185	87557	413	<0.5	<0.5	<1	1	30	1	<1	2	1	87	0.4	0.02	0.008	0.09
sww16_074	5423863	471387	87558	366	<0.5	0.7	1	15	30	5	<1	12	1	159	0.6	0.07	0.012	0.175
Standard			1237700	80	1.2	0.5	15	6090	10	488	41	50	13	123	14.7	0.59	0.082	0.073
1237701	5425181	472018	1237701	295	<0.5	<0.5	18	103	10	2	5	3	6	78	<0.1	0.07	0.007	0.031
1237702	5425293	472015	1237702	333	<0.5	0.5	8	2	10	1	10	2	7	88	0.2	0.01	0.009	0.013
1237703	5425357	471874	1237703	45	<0.5	<0.5	57	58	10	1	315	<2	20	86	<0.1	0.1	0.01	0.013
1237704	5425515	471810	1237704	351	<0.5	<0.5	8	2	10	1	13	<2	4	20	0.4	<0.01	0.008	0.01
1237705	5425635	471756	1237705	79	<0.5	<0.5	17	135	30	4	120	15	9	31	0.5	0.19	<0.005	0.041
1237706	5425766	471699	1237706	294	<0.5	<0.5	4	55	10	1	14	<2	4	11	0.1	0.01	<0.005	<0.005
1237707	5425844	471606	1237707	107	<0.5	<0.5	31	76	20	<1	26	2	19	48	0.2	0.2	0.005	0.031
1237708	5425963	471513	1237708	355	<0.5	<0.5	8	1	10	1	3	<2	2	23	0.2	0.01	<0.005	0.013
1237709	5426099	471469	1237709	213	<0.5	<0.5	23	67	10	<1	29	<2	20	54	0.2	0.08	<0.005	0.044
1237710	5426262	471420	1237710	318	<0.5	<0.5	6	4	<10	1	1	<2	6	16	1.2	0.08	<0.005	0.01
1237711	5426355	471329	1237711	60	<0.5	<0.5	45	23	10	<1	116	<2	33	66	0.1	0.04	<0.005	0.035
1237712	5426440	471251	1237712	334	<0.5	<0.5	2	21	10	2	<1	<2	1	8	0.3	0.02	0.005	0.008
1237713	5426575	471217	1237713	366	<0.5	<0.5	7	1	10	1	8	<2	7	17	0.4	0.01	<0.005	0.005
1237714	5426672	471151	1237714	83	<0.5	<0.5	56	212	10	<1	113	<2	34	70	0.8	0.1	0.01	0.031
1237715	5426786	471047	1237715	357	<0.5	<0.5	7	21	10	1	<1	<2	2	15	0.5	0.05	0.019	0.033
1237716	5426814	470872	1237716	409	<0.5	<0.5	2	1	20	2	2	3	1	25	0.5	0.01	0.008	0.073
1237717	5426369	471176	1237717	31	<0.5	0.5	59	11	20	<1	387	<2	14	81	0.1	0.16	0.016	0.01
1237718	5426343	471095	1237718	500	<0.5	<0.5	3	1	50	2	2	2	1	22	0.6	0.06	0.01	0.167
1237719	5426261	471018	1237719	463	<0.5	<0.5	4	1	20	1	2	<2	22	130	0.5	0.03	0.007	0.227
1237720	5426217	470950	1237720	589	<0.5	<0.5	3	1	40	<1	1	<2	2	49	0.2	0.02	0.018	0.064
1237721	5426184	470886	1237721	612	<0.5	<0.5	3	1	40	2	10	<2	8	47	0.4	0.03	0.024	0.032
1237722	5426171	470814	1237722	603	<0.5	<0.5	5	2	20	<1	2	2	7	37	0.1	0.05	0.025	0.046
1237723	5425609	471653	1237723	345	<0.5	<0.5	3	1	10	<1	2	<2	3	99	0.6	0.09	0.016	0.067
1237724	5425525	471513	1237724	329	<0.5	<0.5	16	455	20	<1	46	<2	12	63	0.8	0.1	0.017	0.209
1237725	5425484	471446	1237725	42	<0.5	<0.5	55	38	20	1	273	<2	22	101	0.3	0.04	0.015	0.016
1237726	5425453	471357	1237726	374	<0.5	<0.5	7	11	20	6	5	6	1	34	0.8	0.02	0.018	0.065
1237727	5425436	471319	1237727	391	<0.5	<0.5	2	2	30	<1	2	<2	1	40	0.6	0.03	0.021	0.133
Standard			1237751	134	<0.5	<0.5	47	76	10	<1	46	<2	42	143	<0.1	0.09	0.022	0.024

Rock Sample Analyses

Station	NAD83 N	NAD83 E	Sample Number	ME-MS42	ME-MS42	ME-MS42	ME-MS42	ME-MS42	ME-MS42	S-IR08	C-IR07	AI*	Rock Type	*	*	*	*
				Re	Sb	Sc	Se	Te	Tl	S	C						
				ppm	ppm	ppm	ppm	ppm	ppm	%	%						
sww16_045	5428843	469979	87551	<0.001	<0.05	5.8	0.4	0.01	0.02	0.05	0.13	44.95	Basalt				
sww16_050	5428823	470128	87552	0.001	<0.05	4.2	0.3	0.01	0.03	0.02	0.05	46.10	Basalt				
sww16_056	5426591	470742	87553	<0.001	<0.05	1.5	0.3	0.03	0.02	<0.01	0.11	16.04	Rhyolite/dacite				
sww16_058	5426714	470763	87554	<0.001	<0.05	3.8	0.4	0.02	0.08	0.09	0.04	55.82	Rhyolite/dacite				
sww16_059	5424996	471952	87555	<0.001	<0.05	8.3	0.2	<0.01	<0.02	0.01	0.06	38.97	Basalt				
sww16_064	5425155	471819	87556	<0.001	<0.05	0.6	0.4	0.31	0.1	0.03	0.1	96.75	Alkali rhyolite				
sww16_069	5424198	471185	87557	0.001	<0.05	0.4	<0.2	<0.01	0.07	<0.01	0.1	55.96	Alkali rhyolite				
sww16_074	5423863	471387	87558	0.001	<0.05	0.3	<0.2	0.03	0.07	0.09	0.06	59.69	Alkali rhyolite				
Standard			1237700	0.203	3.1	5.6	1.3	0.14	0.14	0.75	0.13	34.85	QAQC - CDN-CM-27				
1237701	5425181	472018	1237701	0.001	<0.05	6.2	1	0.24	0.11	0.03	0.12	76.54	Rhyolite/dacite				
1237702	5425293	472015	1237702	<0.001	<0.05	6.6	0.2	<0.01	0.05	<0.01	0.12	47.34	Rhyolite/dacite				
1237703	5425357	471874	1237703	<0.001	<0.05	3.4	0.4	0.03	0.02	0.03	0.14	50.43	Basalt				
1237704	5425515	471810	1237704	0.001	<0.05	4.4	0.3	<0.01	0.05	<0.01	0.08	52.13	Alkali rhyolite				
1237705	5425635	471756	1237705	0.003	<0.05	10.4	0.7	0.74	0.16	0.21	0.1	82.39	?				
1237706	5425766	471699	1237706	<0.001	<0.05	3.9	<0.2	<0.01	0.04	<0.01	0.07	39.84	Rhyolite/dacite				
1237707	5425844	471606	1237707	0.001	<0.05	18.4	0.4	0.09	0.06	0.15	0.45	41.13	Basalt				
1237708	5425963	471513	1237708	0.001	<0.05	1.9	0.3	<0.01	0.04	<0.01	0.07	53.46	Alkali rhyolite				
1237709	5426099	471469	1237709	0.001	<0.05	8.3	0.4	0.13	0.02	0.14	0.17	26.96	Basalt				
1237710	5426262	471420	1237710	0.001	0.17	1.9	0.3	0.01	0.02	0.01	0.06	18.34	Rhyolite/dacite				
1237711	5426355	471329	1237711	<0.001	0.07	7.8	0.4	0.01	<0.02	0.04	0.08	43.86	Basalt				
1237712	5426440	471251	1237712	<0.001	0.06	0.2	0.3	<0.01	0.02	<0.01	0.12	89.60	Alkali rhyolite				
1237713	5426575	471217	1237713	0.002	0.06	4.2	0.4	<0.01	0.03	<0.01	0.04	54.11	Rhyolite/dacite				
1237714	5426672	471151	1237714	0.001	0.07	7.4	0.7	0.13	<0.02	0.18	0.31	43.10	Basalt				
1237715	5426786	471047	1237715	0.001	0.06	0.7	0.3	<0.01	0.06	<0.01	0.12	75.30	Alkali rhyolite				
1237716	5426814	470872	1237716	0.001	0.06	0.5	0.2	<0.01	0.02	<0.01	0.08	73.26	Alkali rhyolite				
1237717	5426369	471176	1237717	<0.001	0.24	2.3	0.4	0.01	0.04	<0.01	0.13	57.08	Basalt				
1237718	5426343	471095	1237718	0.001	0.09	1.1	<0.2	<0.01	0.09	<0.01	0.11	95.00	Alkali rhyolite				
1237719	5426261	471018	1237719	0.001	0.06	6	0.2	<0.01	0.06	<0.01	0.07	87.08	Rhyolite/dacite				
1237720	5426217	470950	1237720	<0.001	<0.05	1.2	0.2	<0.01	0.05	<0.01	0.08	98.43	Alkali rhyolite				
1237721	5426184	470886	1237721	<0.001	0.05	3.9	0.4	<0.01	0.1	<0.01	0.12	46.35	Rhyolite/dacite				
1237722	5426171	470814	1237722	<0.001	0.05	3.5	0.4	<0.01	0.06	0.01	0.15	34.93	Rhyolite/dacite				
1237723	5425609	471653	1237723	0.001	0.05	2.9	0.6	0.03	0.2	<0.01	0.1	64.79	Alkali rhyolite				
1237724	5425525	471513	1237724	0.001	0.05	6.8	0.7	0.31	0.23	0.12	0.1	61.69	Rhyolite/dacite				
1237725	5425484	471446	1237725	<0.001	0.06	3.6	0.4	0.01	0.03	0.01	0.12	51.77	Basalt				
1237726	5425453	471357	1237726	<0.001	<0.05	0.4	0.5	<0.01	0.05	0.01	0.08	28.70	Alkali rhyolite				
1237727	5425436	471319	1237727	0.001	0.05	0.6	<0.2	<0.01	0.27	<0.01	0.09	33.74	Alkali rhyolite				
Standard			1237751	<0.001	0.09	8.9	0.4	<0.01	0.03	0.1	0.03	42.28	QA/QC-Standard				
	* AI= 100(K2O+MgO)/(K2O+MgO+Na2O+CaO)																

Appendix 2

Soil Sample Analyses

Soil Sample Analyses

SAMPLE	ELEVATION	NAD83 Eastin	NAD83 North	SAMPLE	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41
					Ag	Al	As	Au	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs
					ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
S-000	Oreas13b			S-000	0.91	1.78	58.7	0.2	10	140	0.43	1.68	1.37	0.09	35.6	44.3	239	4.29
S-001	427.396881	471353.02	5426605.984	S-001	0.03	0.4	1.9	<0.2	<10	20	0.05	0.2	0.06	0.1	15.55	0.6	8	0.39
S-002	470.534088	471405.89	5426601.376	S-002	0.07	0.76	0.6	<0.2	<10	40	0.12	0.15	0.05	0.05	20	1.9	8	1.46
S-003	493.029236	471447.78	5426611.054	S-003	0.03	1.34	5	<0.2	<10	40	0.13	0.29	0.08	0.16	16.5	2.8	25	1.16
S-004	497.822449	471509.31	5426611.072	S-004	0.05	0.52	1.8	<0.2	<10	30	0.08	0.28	0.04	0.25	16.35	0.7	8	0.86
S-005	494.445312	471554.50	5426608.172	S-005	0.03	0.22	0.5	<0.2	<10	20	<0.05	0.09	0.02	0.03	21.6	0.7	5	0.37
S-006	506.432312	471609.27	5426602.889	S-006	0.03	1.86	5.8	<0.2	<10	20	0.27	0.19	0.07	0.17	20.8	3.1	31	0.87
S-007	507.865417	471655.52	5426605.543	S-007	0.05	1.31	3.4	<0.2	<10	30	0.17	0.21	0.08	0.13	18.9	3.5	26	1.85
S-008	503.264862	471702.78	5426605.858	S-008	0.04	1.44	1.6	<0.2	<10	20	0.19	0.2	0.03	0.09	22.4	1.2	18	0.42
S-009	504.951447	471753.35	5426609.158	S-009	0.17	1.03	1.4	<0.2	<10	70	0.51	0.09	0.23	0.43	25.4	1.4	10	0.33
S-010	504.749390	471800.43	5426603.472	S-010	0.02	0.17	0.3	<0.2	<10	20	<0.05	0.04	0.02	0.07	15.3	0.3	4	0.15
S-011	508.477936	471851.47	5426612.440	S-011	0.09	0.43	2.3	<0.2	<10	20	0.07	0.19	0.05	0.11	17.2	1.2	10	0.68
S-012	513.505127	471903.36	5426602.728	S-012	0.09	0.98	2.4	<0.2	<10	30	0.1	0.25	0.05	0.09	15.5	4.2	41	1.71
S-013	513.891113	471952.27	5426610.485	S-013	0.03	2.08	2.9	<0.2	<10	20	0.33	0.12	0.07	0.15	26.9	4.4	34	1.23
S-014	510.916718	472005.72	5426605.324	S-014	0.06	1.23	1.8	<0.2	<10	30	0.14	0.14	0.05	0.12	17.1	1.4	17	0.55
S-015	510.365631	472060.96	5426606.491	S-015	0.03	0.42	1.5	<0.2	<10	20	0.05	0.15	0.03	0.06	19.8	0.8	8	0.51
S-016	509.302460	472112.69	5426608.121	S-016	0.06	1.4	1.8	<0.2	<10	10	0.2	0.07	0.06	0.09	26.3	3.2	16	0.57
S-017	511.277283	472152.27	5426609.034	S-017	0.04	0.43	1.4	<0.2	<10	20	0.06	0.17	0.03	0.07	16.95	0.8	7	0.64
S-018	504.706757	472208.89	5426608.083	S-018	0.04	0.36	0.8	<0.2	<10	20	<0.05	0.16	0.04	0.04	18.55	0.7	7	0.73
S-019	504.377441	472258.26	5426607.169	S-019	0.08	2.18	3.1	<0.2	<10	20	0.31	0.19	0.05	0.14	18.8	2.5	36	0.76
S-020	502.570526	472308.01	5426606.810	S-020	0.02	0.99	1	<0.2	<10	20	0.18	0.11	0.1	0.04	17.95	5.5	87	0.92
S-021	502.190887	472354.66	5426602.242	S-021	0.02	1.01	1.5	<0.2	<10	20	0.16	0.1	0.06	0.14	14.8	1.8	21	0.41
S-020 DUP		472308.01	5426606.758	S-020 DUP1	0.02	1.35	1.4	<0.2	<10	20	0.22	0.12	0.11	0.04	22.8	4.5	35	0.98
S-022	CDN-BL10			S-022	0.09	1.23	0.7	<0.2	<10	110	0.06	0.04	0.68	0.04	13.8	7.4	14	0.33

Soil Sample Analyses

SAMPLE	ELEVATION	NAD83 Eastin	NAD83 North	SAMPLE	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41
					Cu	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na
					ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%
S-000	Oreas13b			S-000	2230	3.22	6.16	0.11	0.2	0.02	0.21	0.4	17	7.3	0.51	200	8.86	0.33
S-001	427.396881	471353.02	5426605.984	S-001	4.8	0.35	4.51	<0.05	<0.02	0.03	0.01	0.02	8.1	1	0.03	22	0.46	0.01
S-002	470.534088	471405.89	5426601.376	S-002	9.8	0.47	4.52	<0.05	<0.02	0.03	0.012	0.03	10.5	5.6	0.07	33	0.66	0.01
S-003	493.029236	471447.78	5426611.054	S-003	19.8	3.07	13.65	<0.05	0.02	0.07	0.025	0.04	8.6	9	0.17	68	3.36	0.01
S-004	497.822449	471509.31	5426611.072	S-004	18.7	0.31	6.48	<0.05	<0.02	0.07	0.014	0.03	8.5	1	0.04	18	0.59	0.01
S-005	494.445312	471554.50	5426608.172	S-005	2.1	0.3	2.76	<0.05	<0.02	0.02	0.006	0.01	11.1	0.3	0.01	17	0.2	0.01
S-006	506.432312	471609.27	5426602.889	S-006	15	1.7	5.55	<0.05	0.03	0.13	0.029	0.03	11.7	10.5	0.19	61	0.95	0.01
S-007	507.865417	471655.52	5426605.543	S-007	11.9	1.78	9.51	<0.05	0.02	0.1	0.019	0.04	9.7	14.5	0.22	73	0.97	0.01
S-008	503.264862	471702.78	5426605.858	S-008	9.1	1.29	8.16	<0.05	0.02	0.11	0.012	0.02	11.7	8.1	0.06	21	1.27	0.01
S-009	504.951447	471753.35	5426609.158	S-009	17	0.25	2.11	0.05	<0.02	0.29	0.025	0.03	14.5	0.7	0.04	15	0.73	0.02
S-010	504.749390	471800.43	5426603.472	S-010	1.1	0.18	1.54	<0.05	<0.02	0.04	0.005	0.01	8	0.3	0.01	10	0.22	0.01
S-011	508.477936	471851.47	5426612.440	S-011	5.5	0.62	5.72	<0.05	<0.02	0.06	0.009	0.02	8.9	2.2	0.04	22	0.67	0.01
S-012	513.505127	471903.36	5426602.728	S-012	15.1	0.95	6.64	<0.05	<0.02	0.09	0.015	0.04	8.3	4.9	0.32	51	1.26	0.01
S-013	513.891113	471952.27	5426610.485	S-013	9.8	1.77	5.26	<0.05	0.04	0.1	0.022	0.03	10.3	14.2	0.21	77	0.61	0.01
S-014	510.916718	472005.72	5426605.324	S-014	4.9	1.42	6.61	<0.05	0.03	0.08	0.015	0.02	8.9	4.2	0.07	29	0.76	0.01
S-015	510.365631	472060.96	5426606.491	S-015	5.7	0.55	5.15	<0.05	<0.02	0.05	0.013	0.02	10.1	2.2	0.05	24	0.47	0.01
S-016	509.302460	472112.69	5426608.121	S-016	15.8	1.06	2.95	0.05	0.03	0.07	0.016	0.02	11.5	7.5	0.12	43	0.43	0.01
S-017	511.277283	472152.27	5426609.034	S-017	4.2	0.66	6.09	<0.05	0.02	0.03	0.009	0.02	8.8	1.4	0.05	28	0.44	0.01
S-018	504.706757	472208.89	5426608.083	S-018	2.5	0.31	3.91	<0.05	<0.02	0.02	0.009	0.02	9.5	1.8	0.05	27	0.39	0.01
S-019	504.377441	472258.26	5426607.169	S-019	5.5	3.28	11.3	<0.05	0.05	0.07	0.024	0.03	8.8	10.2	0.15	57	0.78	0.01
S-020	502.570526	472308.01	5426606.810	S-020	26	1.33	5.39	<0.05	0.09	0.03	0.01	0.04	8.1	13	0.43	99	0.28	0.01
S-021	502.190887	472354.66	5426602.242	S-021	4.5	1.26	4.51	<0.05	0.03	0.04	0.011	0.01	6.4	4.9	0.09	49	0.51	0.01
S-020 DUP		472308.01	5426606.758	S-020 DUP1	23.3	1.24	4.97	<0.05	0.04	0.03	0.013	0.03	10.6	11.6	0.27	81	0.93	0.01
S-022	CDN-BL10			S-022	58.1	2.5	3.99	0.06	0.08	0.01	0.008	0.19	6.5	4.7	0.54	303	2.33	0.14

Soil Dample Analyses

SAMPLE	ELEVATION	NAD83 Eastin	NAD83 North	SAMPLE	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41
					Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te
					ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
S-000	Oreas13b			S-000	0.25	2130	1750	15	49.3	0.002	1.15	1.81	3.6	2.7	4.2	114.5	<0.01	0.31
S-001	427.396881	471353.02	5426605.984	S-001	0.91	1.8	100	12.1	2.2	<0.001	0.02	0.13	0.6	<0.2	0.8	4.6	<0.01	0.01
S-002	470.534088	471405.89	5426601.376	S-002	0.93	5.1	130	8.3	4.9	<0.001	0.02	0.06	0.8	<0.2	0.6	6.5	<0.01	<0.01
S-003	493.029236	471447.78	5426611.054	S-003	2.59	8.7	270	15.8	5.5	<0.001	0.04	0.35	1.7	1.3	1.1	5.4	<0.01	0.06
S-004	497.822449	471509.31	5426611.072	S-004	0.53	2.2	270	19.4	3.3	<0.001	0.04	0.18	0.3	0.3	1	4.3	<0.01	0.01
S-005	494.445312	471554.50	5426608.172	S-005	0.52	1.1	60	3.1	1.3	<0.001	0.01	0.06	0.3	0.4	0.5	2.9	<0.01	<0.01
S-006	506.432312	471609.27	5426602.889	S-006	1.92	8.9	370	13	4.2	<0.001	0.05	0.2	2	1.3	0.8	4.5	0.02	0.03
S-007	507.865417	471655.52	5426605.543	S-007	2.68	10.1	210	11.5	7.2	<0.001	0.03	0.14	2	0.7	0.8	7.3	<0.01	0.01
S-008	503.264862	471702.78	5426605.858	S-008	2.22	2.7	200	10.4	2	<0.001	0.04	0.08	1.4	0.9	0.8	3.6	0.01	0.01
S-009	504.951447	471753.35	5426609.158	S-009	0.36	7.7	1730	11.2	1.3	0.001	0.23	0.18	0.2	1.6	0.3	16.8	<0.01	0.02
S-010	504.749390	471800.43	5426603.472	S-010	0.32	1.6	60	2.7	0.9	<0.001	0.02	0.07	0.3	0.2	0.3	3.3	<0.01	<0.01
S-011	508.477936	471851.47	5426612.440	S-011	1.28	5.6	150	10.3	4.1	<0.001	0.02	0.13	0.6	0.4	0.8	5	<0.01	0.01
S-012	513.505127	471903.36	5426602.728	S-012	1.13	32.4	280	19.2	6.8	0.001	0.04	0.13	1	0.6	0.8	5.2	<0.01	0.01
S-013	513.891113	471952.27	5426610.485	S-013	2.06	12.1	340	7.9	5.6	<0.001	0.03	0.11	2.6	1	0.5	5.3	0.03	0.01
S-014	510.916718	472005.72	5426605.324	S-014	1.67	4	190	8	2.6	<0.001	0.03	0.1	1.1	0.6	0.6	5.1	0.02	0.01
S-015	510.365631	472060.96	5426606.491	S-015	1.01	2.7	80	10.5	2.6	<0.001	0.01	0.11	0.7	0.2	0.6	3.5	<0.01	<0.01
S-016	509.302460	472112.69	5426608.121	S-016	1.25	7.2	180	5	2.2	<0.001	0.04	0.07	1.9	0.8	0.3	3.8	0.02	<0.01
S-017	511.277283	472152.27	5426609.034	S-017	1.19	1.9	120	8.3	3.8	<0.001	0.01	0.09	0.7	0.3	0.8	3.6	<0.01	<0.01
S-018	504.706757	472208.89	5426608.083	S-018	1.24	1.3	90	12.4	3	<0.001	0.01	0.1	0.6	0.3	0.6	4.5	<0.01	<0.01
S-019	504.377441	472258.26	5426607.169	S-019	3.5	7.3	260	9.7	4	<0.001	0.04	0.12	2.4	0.9	0.7	4.3	0.04	0.01
S-020	502.570526	472308.01	5426606.810	S-020	1.56	22.4	70	4.7	4.3	<0.001	0.01	0.05	1.6	0.5	0.4	6.4	<0.01	<0.01
S-021	502.190887	472354.66	5426602.242	S-021	1.41	5.8	150	5.9	2	<0.001	0.02	0.08	1.2	0.3	0.4	4	0.02	0.01
S-020 DUP		472308.01	5426606.758	S-020 DUP1	1.68	17.5	230	9	4.6	0.001	0.02	0.06	2	0.6	0.4	5.4	0.02	0.01
S-022	CDN-BL10			S-022	0.19	6.7	670	3.5	7.4	0.001	0.01	0.09	1.7	0.2	0.2	54.7	<0.01	0.01

Soil Sample Analyses

SAMPLE	ELEVATION	NAD83 Eastin	NAD83 North	SAMPLE	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	*	*	*	*	*
					Th	Ti	Tl	U	V	W	Y	Zn	Zr					
					ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm					
S-000	Oreas13b			S-000	10.3	0.162	0.89	2.22	167	1.19	8.65	49	6.5					
S-001	427.396881	471353.02	5426605.984	S-001	1.1	0.06	0.04	0.27	20	0.19	1.08	10	<0.5					
S-002	470.534088	471405.89	5426601.376	S-002	0.7	0.041	0.07	0.36	15	0.08	1.52	15	<0.5					
S-003	493.029236	471447.78	5426611.054	S-003	1.8	0.11	0.1	0.38	110	0.34	1.55	26	1					
S-004	497.822449	471509.31	5426611.072	S-004	<0.2	0.039	0.06	0.36	20	0.05	1.29	10	<0.5					
S-005	494.445312	471554.50	5426608.172	S-005	2.4	0.036	0.07	0.34	16	<0.05	1.13	3	0.5					
S-006	506.432312	471609.27	5426602.889	S-006	2.2	0.072	0.06	0.58	38	0.23	2.9	17	1.2					
S-007	507.865417	471655.52	5426605.543	S-007	2.5	0.1	0.11	0.51	44	0.19	1.8	23	1					
S-008	503.264862	471702.78	5426605.858	S-008	2	0.083	0.07	0.59	44	0.14	2.17	6	0.8					
S-009	504.951447	471753.35	5426609.158	S-009	<0.2	0.007	0.04	1.13	8	0.06	5.55	14	<0.5					
S-010	504.749390	471800.43	5426603.472	S-010	1.6	0.016	0.04	0.27	7	<0.05	0.89	3	<0.5					
S-011	508.477936	471851.47	5426612.440	S-011	1.2	0.063	0.06	0.31	26	0.12	1.19	13	<0.5					
S-012	513.505127	471903.36	5426602.728	S-012	0.4	0.055	0.08	0.41	31	0.18	1.46	28	<0.5					
S-013	513.891113	471952.27	5426610.485	S-013	3.9	0.085	0.07	0.62	36	0.21	2.77	28	1.2					
S-014	510.916718	472005.72	5426605.324	S-014	2	0.067	0.05	0.41	36	0.16	1.42	10	1.2					
S-015	510.365631	472060.96	5426606.491	S-015	2.2	0.063	0.04	0.35	24	0.07	1.34	8	0.6					
S-016	509.302460	472112.69	5426608.121	S-016	2.3	0.049	0.05	0.47	22	0.22	3.39	9	1					
S-017	511.277283	472152.27	5426609.034	S-017	1.9	0.067	0.04	0.27	34	0.07	1.19	11	0.7					
S-018	504.706757	472208.89	5426608.083	S-018	1.8	0.088	0.04	0.33	19	0.07	1.22	12	0.6					
S-019	504.377441	472258.26	5426607.169	S-019	2.6	0.142	0.05	0.49	72	0.22	2.16	21	2.1					
S-020	502.570526	472308.01	5426606.810	S-020	2.3	0.12	0.06	0.46	31	0.1	2.08	20	4.7					
S-021	502.190887	472354.66	5426602.242	S-021	1.6	0.078	0.04	0.33	33	0.09	1.26	12	1.2					
S-020 DUP		472308.01	5426606.758	S-020 DUP1	2.3	0.085	0.07	0.52	28	0.14	2.54	20	1.4					
S-022	CDN-BL10			S-022	2.3	0.095	0.05	0.64	104	5.49	4.06	33	1.3					

Appendix 3

Maps

469500 mE | 470000 mE | 470500 mE | 471000 mE | 471500 mE | 472000 mE | 472500 mE | 473000 mE

5428500 mN | 5428000 mN | 5427500 mN | 5427000 mN | 5426500 mN | 5426000 mN | 5425500 mN | 5425000 mN | 5424500 mN | 5424000 mN

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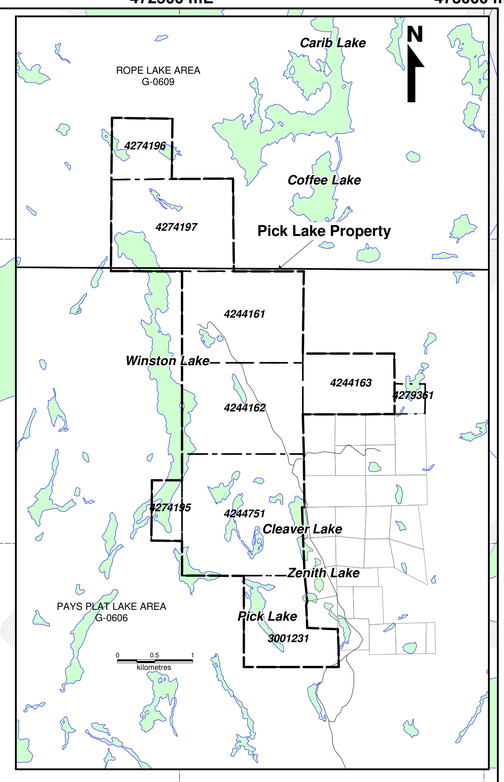
Claim 4244161
Claim 4244162
Claim 4244163
Claim 4274195
Claim 4244751
Winston Lake
North Cleaver Lake
Cleaver Lake
S-001 S-002 S-003 S-004 S-005 S-006 S-007 S-008 S-009 S-010 S-011 S-012 S-013 S-014 S-015 S-016 S-017 S-018 S-019 S-020 S-021



LEGEND

★ 2016 Soil Sample Location

● 2016 Lithogeochem Sample Location

Ophialite Consultants Pty Ltd.

Pick Lake Property
Lithogeochem Rock Sample and Soil Sample Locations

Date:30/3/2017
Author: PN
Office: Thunder Bay
Drawing:
Scale: 1:5000
Projection: UTM NAD83 Zone 16

50 0 50 100
metres

469500 mE | 470000 mE | 470500 mE | 471000 mE | 471500 mE | 472000 mE | 472500 mE | 473000 mE

5428500 mN | 5428000 mN | 5427500 mN | 5427000 mN | 5426500 mN | 5426000 mN | 5425500 mN | 5425000 mN | 5424500 mN | 5424000 mN

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W E
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Claim 4274196

Claim 4274197

Claim 4244161

Claim 4244163

Claim 4244162

Claim 4274195

Claim 4244751

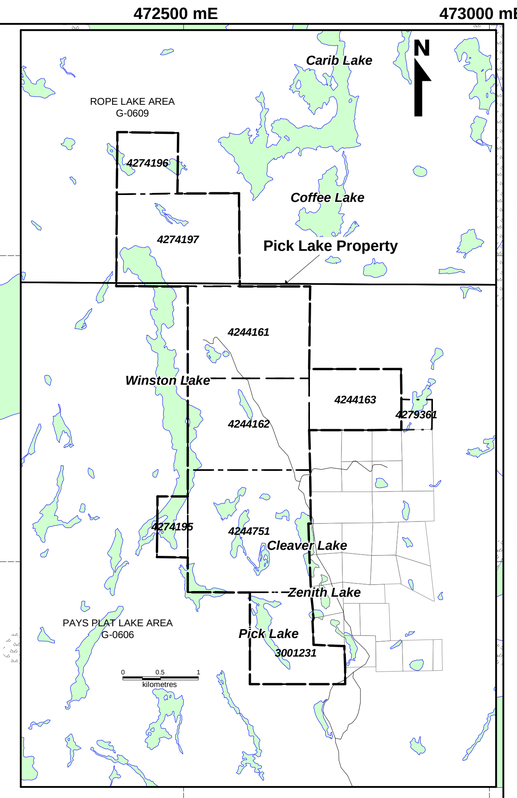
Winston Lake

North Cleaver Lake

Cleaver Lake

72 80 25 15 1,885 70 28 17 8 81 22 66 130 16 49 47 37 54 23 48 11 31 99 63 20 34 101 40 86 88 78 158 254 87 159

10 26 15 3 10 23 17 14 6 13 3 28 28 8 10 11 9 21 12 12 20



LEGEND

2016 Soil Sample Location

2016 Lithogeochem Sample Location

Ophialite Consultants Pty Ltd.

Pick Lake Property
Lithogeochem Rock Sample and Soil Sample Results
Zn (ppm)

Date:30/3/2017
Author: PN
Office: Thunder Bay
Drawing:
Scale: 1:5000
Projection: UTM NAD83 Zone 16

50 0 50 100
metres

469500 mE | 470000 mE | 470500 mE | 471000 mE | 471500 mE | 472000 mE | 472500 mE | 473000 mE

5428500 mN | 5428000 mN | 5427500 mN | 5427000 mN | 5426500 mN | 5426000 mN | 5425500 mN | 5425000 mN | 5424500 mN | 5424000 mN

N W E S

Claim 4274196

Claim 4274197

Claim 4244161

Claim 4244162

Claim 4244163

Claim 4274195

Claim 4244751

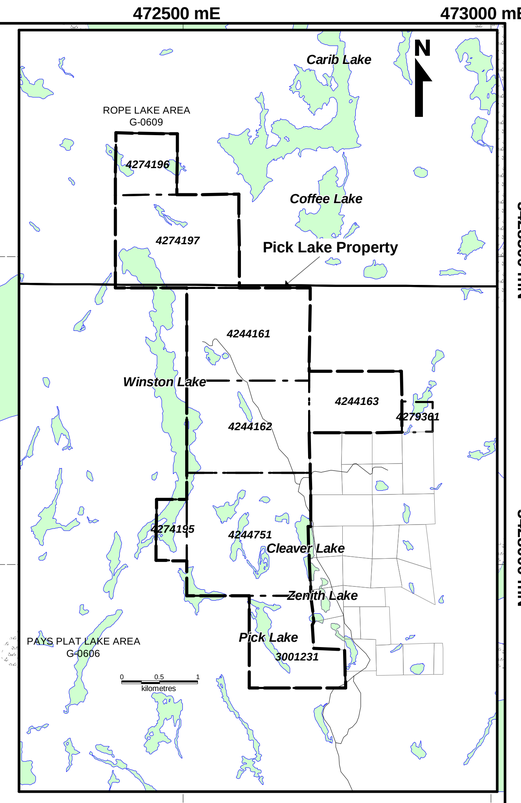
Winston Lake

North Cleaver Lake

Cleaver Lake

26 39 1 21 10 212 3 1 21 11 23 1 4 1 1 2 1 67 1 76 55 135 1 455 11 38 2 2 58 2 103 220 1 15

4.8 9.8 19.8 18.7 2.1 15 11.9 9.1 17 1.1 5.5 15.1 9.8 4.9 5.7 15.8 4.2 2.5 5.5 26 4.5



LEGEND

2016 Soil Sample Location

2016 Lithogeochem Sample Location

Ophialite Consultants Pty Ltd.

Pick Lake Property
Lithogeochem Rock Sample and Soil Sample Results
Cu (ppm)

Date:30/3/2017
Author: PN
Office: Thunder Bay
Drawing:
Scale: 1:5000
Projection: UTM NAD83 Zone 16

50 0 50 100
metres

469500 mE | 470000 mE | 470500 mE | 471000 mE | 471500 mE | 472000 mE | 472500 mE | 473000 mE

5428500 mN | 5428000 mN | 5427500 mN | 5427000 mN | 5426500 mN | 5426000 mN | 5425500 mN | 5425000 mN | 5424500 mN | 5424000 mN

N W E S

3.12
2.21
Claim 4274196
Claim 4274197
Claim 4244161
Claim 4244162
Claim 4244163
Claim 4274195
Claim 4244751
Winston Lake
North Cleaver Lake
Cleaver Lake
1.07
1.22
1.06
2.37
5.34
3.87
0.35
1.4
2.19
0.2
0.14
5.82
0.08
4.09
2.9
3.43
2.37
3.09
4.16
0.74
1.93
2.06
2.39
4.22
1.91
4.49
1.83
4.87
1.68
0.11
2.17
2.73
1.63

ROPE LAKE AREA G-0609
PAYS PLAT LAKE AREA G-0606
Carib Lake
Coffee Lake
Pick Lake Property
Winston Lake
Cleaver Lake
Zenith Lake
Pick Lake
4274196
4274197
4244161
4244163
4279361
4244162
4274195
4244751
3001231
0 0.5 1 kilometres

LEGEND
2016 Soil Sample Location
2016 Lithogeochem Sample Location

Ophialite Consultants Pty Ltd.

Pick Lake Property
Lithogeochem Rock Samples
Na2O %

Date:30/3/2017
Author: PN
Office: Thunder Bay
Drawing:
Scale: 1:5000
Projection: UTM NAD83 Zone 16

50 0 50 100 metres

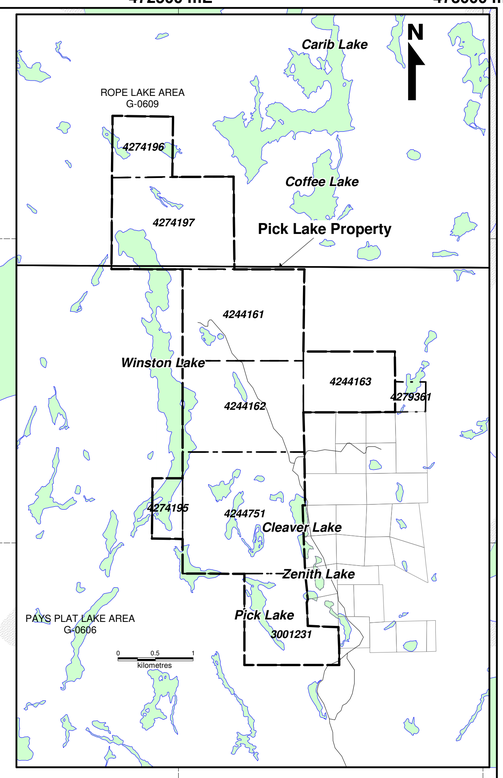
469500 mE | 470000 mE | 470500 mE | 471000 mE | 471500 mE | 472000 mE | 472500 mE | 473000 mE

5428500 mN | 5428000 mN | 5427500 mN | 5427000 mN | 5426500 mN | 5426000 mN | 5425500 mN | 5425000 mN | 5424500 mN | 5424000 mN

N W E S

44.95
46.1
Claim 4274196
Claim 4274197
Claim 4244161
Claim 4244162
Claim 4244163
Claim 4274195
Claim 4244751
Winston Lake
North Cleaver Lake
Cleaver Lake

73.26
75.3
55.82
43.1
☆ 16.04
54.11
89.6
57.08
95.0
43.86
87.08
98.43
☆ 34.93
46.35
☆ 18.34
☆ 26.96
53.46
41.13
39.84
82.39
64.79
61.69
52.13
51.77
☆ 28.7
☆ 33.74
50.43
47.34
76.54
96.75
☆ 38.97
55.96
59.69



Alteration Index
Ranges
- 76.5 to 98.5
- 56 to 76.5
- 47.3 to 56
- 39 to 47.3
- ☆ 0 to 39

Ophialite Consultants Pty Ltd.

Date:30/3/2017	**Pick Lake Property Lithogeochem Rock Sample Ishikawa Alteration Index**
Author: PN	
Office: Thunder Bay	
Drawing:	
Scale: 1:5000	Projection: UTM NAD83 Zone 16

50 0 50 100
metres

Appendix 4

Assay Certificates (ALS Chemex)

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com

To: CSA GLOBAL PTY LTD
610- 1155 WEST PENDER STREET
VANCOUVER BC V6E 2P4

Finalized Date: 6- NOV- 2016
This copy reported on
16- NOV- 2016
Account: CSAGCG

CERTIFICATE TB16177984

Project: Pick Lake

This report is for 37 Rock samples submitted to our lab in Thunder Bay, ON, Canada on 17- OCT- 2016.

The following have access to data associated with this certificate:

DENNIS ARNE

SAMPLE PREPARATION

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

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
OA- GRA05x	LOI for XRF	WST- SEQ
ME- MS42	Up to 34 elements by ICP- MS	ICP- MS
S- IR08	Total Sulphur (Leco)	LECO
C- IR07	Total Carbon (Leco)	LECO
ME- MS81	Lithium Borate Fusion ICP- MS	ICP- MS
ME- 4ACD81	Base Metals by 4- acid dig.	ICP- AES
ME- XRF26	Whole Rock By Fusion/XRF	XRF

To: CSA GLOBAL PTY LTD
ATTN: DENNIS ARNE
610- 1155 WEST PENDER STREET
VANCOUVER BC V6E 2P4

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

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: + 1 (604) 984 0221 Fax: + 1 (604) 984 0218
www.alsglobal.com

To: CSA GLOBAL PTY LTD
610- 1155 WEST PENDER STREET
VANCOUVER BC V6E 2P4

Finalized Date: 6- NOV- 2016
Account: CSAGCG

Project: Pick Lake

CERTIFICATE OF ANALYSIS TB16177984

Sample Description	Method Analyte Units LOR	WEI- 21 Recvd Wt. kg 0.02	ME- XRF26 Al2O3 % 0.01	ME- XRF26 BaO % 0.01	ME- XRF26 CaO % 0.01	ME- XRF26 Cr2O3 % 0.01	ME- XRF26 Fe2O3 % 0.01	ME- XRF26 K2O % 0.01	ME- XRF26 MgO % 0.01	ME- XRF26 MnO % 0.01	ME- XRF26 Na2O % 0.01	ME- XRF26 P2O5 % 0.01	ME- XRF26 SiO2 % 0.01	ME- XRF26 SrO % 0.01	ME- XRF26 TiO2 % 0.01	OA- GRA05x LOI 1000 % 0.01
87551		1.25	15.74	0.02	8.00	0.02	13.06	1.06	8.02	0.20	3.12	0.08	47.78	0.02	0.85	1.92
87552		1.83	15.69	0.02	9.80	0.04	10.86	1.08	9.19	0.17	2.21	0.08	48.51	0.02	0.71	1.42
87553		1.15	11.90	0.01	1.62	<0.01	4.05	0.11	1.22	0.05	5.34	0.11	75.16	0.01	0.43	0.30
87554		1.36	9.70	0.01	1.14	0.01	19.14	0.82	1.96	0.12	1.06	0.15	65.27	<0.01	0.42	-0.28
87555		1.89	15.22	0.01	9.64	0.04	10.74	0.34	7.20	0.27	2.17	0.07	52.30	0.01	0.67	0.87
87556		1.35	9.72	0.03	0.05	<0.01	5.76	2.09	2.67	0.04	0.11	0.01	78.09	<0.01	0.13	1.09
87557		0.99	10.54	0.02	0.41	<0.01	3.21	1.73	2.26	0.05	2.73	0.01	77.76	<0.01	0.14	1.12
87558		1.59	11.05	0.03	0.74	<0.01	4.21	2.23	1.28	0.27	1.63	0.01	77.12	0.01	0.14	1.25
1237700		0.11	11.65	0.07	3.15	0.01	6.61	1.12	2.09	0.13	2.85	0.14	69.14	0.03	0.54	1.72
1237701		1.33	11.38	0.03	0.64	<0.01	4.83	2.11	5.46	0.02	1.68	0.04	71.64	0.01	0.38	1.58
1237702		1.63	13.56	0.01	1.17	<0.01	2.61	1.16	4.27	0.02	4.87	0.07	70.19	0.02	0.50	1.46
1237703		1.20	16.87	0.01	9.75	0.08	10.23	0.53	11.25	0.14	1.83	0.05	46.67	0.02	0.55	1.65
1237704		1.65	10.60	0.02	1.55	<0.01	2.24	1.80	2.49	0.02	2.39	0.02	77.31	0.03	0.13	0.95
1237705		2.02	10.89	0.06	0.66	0.01	8.84	2.45	4.10	0.03	0.74	0.53	68.05	0.01	0.47	1.63
1237706		1.39	12.68	0.03	1.26	<0.01	1.34	1.08	2.51	0.01	4.16	0.06	75.70	0.01	0.50	0.94
1237707		1.08	16.64	0.03	5.37	<0.01	9.10	0.74	5.17	0.09	3.09	0.30	54.19	0.07	0.84	3.57
1237708		1.13	10.83	0.07	1.26	<0.01	3.51	1.44	2.73	0.02	2.37	0.01	75.84	0.02	0.14	0.99
1237709		1.49	15.05	0.01	6.00	<0.01	10.82	0.29	3.19	0.13	3.43	0.37	57.95	0.03	1.60	0.99
1237710		1.02	12.28	0.01	1.75	<0.01	3.22	0.22	1.48	0.03	5.82	0.05	74.25	0.01	0.45	0.34
1237711		1.29	14.93	0.01	9.56	0.03	13.92	0.90	8.28	0.16	2.19	0.28	46.66	0.03	1.66	1.21
1237712		0.90	10.36	0.11	0.04	<0.01	2.06	2.46	0.90	0.01	0.35	0.01	81.28	<0.01	0.13	1.68
1237713		1.34	13.95	0.01	0.87	<0.01	2.67	1.14	4.45	0.02	3.87	0.06	69.81	0.01	0.54	1.99
1237714		1.70	14.46	0.02	8.72	0.02	13.85	0.68	7.72	0.17	2.37	0.32	47.09	0.04	1.96	1.81
1237715		0.73	11.21	0.05	0.44	<0.01	3.03	2.48	2.58	0.02	1.22	0.01	76.70	0.01	0.15	1.56
1237716		1.37	9.93	0.03	0.31	<0.01	4.54	1.54	2.24	0.03	1.07	0.01	77.28	<0.01	0.15	1.91
1237717		1.12	16.84	0.03	9.03	0.10	9.87	1.32	12.55	0.15	1.40	0.04	45.35	0.01	0.42	2.68
1237718		1.07	10.70	0.06	0.06	<0.01	6.83	1.92	3.02	0.04	0.20	0.01	74.94	<0.01	0.18	1.53
1237719		1.33	11.88	0.02	0.44	<0.01	17.13	0.91	3.00	0.19	0.14	0.16	65.16	<0.01	0.77	0.25
1237720		1.27	9.26	0.05	0.01	<0.01	4.19	1.90	3.73	0.03	0.08	0.02	77.58	<0.01	0.21	2.18
1237721		0.68	11.49	0.02	2.17	<0.01	4.48	0.77	3.61	0.07	2.90	0.17	73.03	0.02	0.53	0.75
1237722		0.65	11.54	0.02	1.63	<0.01	6.20	0.61	2.46	0.06	4.09	0.13	71.38	0.01	0.51	0.86
1237723		0.55	10.28	0.02	1.20	<0.01	4.42	1.20	4.56	0.03	1.93	0.02	73.98	0.01	0.15	1.63
1237724		0.92	12.96	0.03	1.94	0.01	10.32	2.96	3.48	0.09	2.06	0.19	62.50	0.02	1.08	1.62
1237725		1.07	15.36	0.02	9.15	0.09	10.98	1.02	10.85	0.16	1.91	0.05	46.93	0.02	0.55	1.90
1237726		1.11	10.92	0.02	0.70	<0.01	4.48	0.72	1.26	0.03	4.22	0.01	76.90	0.02	0.14	0.73
1237727		0.84	10.88	0.02	0.34	<0.01	4.14	1.22	1.24	0.02	4.49	0.01	76.22	0.01	0.15	0.40
1237751		1.01	13.76	<0.01	6.72	<0.01	15.20	0.24	7.18	0.24	3.41	0.12	50.79	0.02	1.34	0.50

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

ALS Canada Ltd
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To: CSA GLOBAL PTY LTD
610- 1155 WEST PENDER STREET
VANCOUVER BC V6E 2P4

Finalized Date: 6- NOV- 2016
Account: CSAGCG

Project: Pick Lake

CERTIFICATE OF ANALYSIS TB16177984

Sample Description	Method	ME- XRF26	ME- MS81	ME- MS81	ME- MS81	ME- MS81	ME- MS81	ME- MS81	ME- MS81	ME- MS81	ME- MS81	ME- MS81	ME- MS81	ME- MS81	ME- MS81	ME- MS81
	Analyte	Total	Ba	Ce	Cr	Cs	Dy	Er	Eu	Ga	Gd	Ge	Hf	Ho	La	Lu
	Units	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	LOR	0.01	0.5	0.5	10	0.01	0.05	0.03	0.03	0.1	0.05	5	0.2	0.01	0.5	0.01
87551		100.15	159.0	10.9	150	1.22	3.30	1.90	0.86	16.2	3.10	<5	1.7	0.75	4.5	0.32
87552		99.95	113.5	11.0	330	1.47	3.75	2.33	0.76	16.2	2.97	<5	1.8	0.70	4.3	0.33
87553		100.40	32.5	79.8	10	0.53	27.1	19.15	3.88	29.5	19.80	<5	18.3	6.11	29.2	2.82
87554		100.10	113.5	50.2	110	1.28	7.86	4.95	3.85	37.9	7.52	<5	4.8	1.67	20.7	0.76
87555		99.67	29.0	11.4	280	1.07	3.05	2.39	0.62	14.3	2.41	<5	1.6	0.69	4.6	0.36
87556		99.94	279	41.3	10	0.99	16.25	15.85	0.62	30.2	8.86	<5	13.6	4.82	15.6	3.29
87557		100.05	215	62.9	10	1.62	26.8	18.20	4.28	30.4	18.15	<5	15.3	6.44	24.7	3.07
87558		100.25	248	139.5	10	1.10	24.7	20.6	4.18	31.3	20.5	<5	14.9	6.43	55.6	3.96
1237700		102.15	734	243	60	1.05	3.69	1.86	2.46	12.7	6.71	<5	2.4	0.69	158.5	0.31
1237701		99.94	372	155.0	10	0.86	20.1	11.20	1.89	26.4	21.9	<5	9.1	4.24	66.0	1.78
1237702		99.97	88.0	234	20	0.45	32.7	17.30	2.97	22.9	35.1	<5	9.4	6.15	93.4	2.22
1237703		99.86	64.2	8.3	570	3.15	2.68	1.71	0.61	14.9	2.26	<5	1.3	0.62	3.2	0.26
1237704		99.63	211	11.2	10	1.50	33.7	22.2	0.51	24.9	16.10	<5	15.7	7.84	3.7	3.54
1237705		99.08	525	4000	80	3.99	146.5	57.4	25.4	48.9	296	6	2.3	25.0	1470	6.80
1237706		100.35	220	114.0	20	1.30	15.90	9.55	2.02	26.4	17.40	<5	8.9	3.50	47.7	1.40
1237707		99.67	322	76.4	40	1.48	3.70	1.77	1.50	21.2	5.22	<5	2.9	0.74	33.6	0.25
1237708		99.28	632	13.0	10	1.31	18.95	12.70	0.45	26.4	11.60	<5	15.3	4.28	2.2	2.17
1237709		100.35	80.3	36.6	20	0.81	6.57	3.63	1.73	23.5	6.23	<5	5.5	1.38	14.9	0.52
1237710		100.00	40.7	60.3	10	0.76	15.20	10.45	0.92	18.7	11.35	<5	9.6	3.63	24.4	1.65
1237711		100.05	96.3	37.9	200	0.60	2.77	1.61	1.44	17.7	3.90	<5	1.7	0.61	14.8	0.30
1237712		99.46	1105	4.3	10	1.06	23.9	16.35	0.39	29.6	13.95	<5	13.8	5.77	1.2	2.57
1237713		99.45	112.5	76.6	10	1.16	18.45	12.10	1.92	25.3	15.65	<5	10.6	4.11	30.1	1.74
1237714		99.89	155.5	52.4	120	0.90	2.76	1.83	1.64	19.2	4.41	<5	2.2	0.65	21.2	0.25
1237715		99.51	475	53.5	10	2.64	19.60	15.60	0.53	33.8	14.15	<5	15.2	5.03	17.9	3.17
1237716		99.09	278	143.5	10	1.60	33.4	21.0	6.08	29.6	34.3	<5	14.9	7.38	63.5	3.31
1237717		99.90	287	7.7	710	3.32	1.91	1.30	0.49	14.6	1.92	<5	1.0	0.47	2.8	0.19
1237718		99.54	618	158.5	10	1.97	39.6	24.8	4.01	31.8	35.8	<5	18.3	8.80	62.0	3.65
1237719		100.15	266	78.1	10	2.30	19.20	11.30	4.15	31.9	17.85	<5	13.0	4.06	31.1	1.99
1237720		99.32	439	15.4	10	2.91	26.6	19.50	0.79	22.9	13.30	<5	17.2	6.71	4.0	2.98
1237721		100.10	203	87.3	10	3.86	28.4	18.80	4.09	31.4	24.5	<5	18.3	6.47	34.2	2.70
1237722		99.60	215	109.5	10	1.55	29.7	20.2	4.13	34.5	25.2	<5	18.3	7.12	43.3	2.92
1237723		99.50	163.0	81.5	10	3.72	26.2	18.75	1.32	25.8	19.60	<5	14.6	6.24	32.9	3.00
1237724		99.71	315	81.8	40	3.53	23.9	17.60	4.47	34.1	18.65	<5	10.4	5.89	32.6	2.73
1237725		99.11	192.5	8.7	600	2.64	2.73	1.66	0.79	16.8	2.30	<5	1.3	0.59	3.0	0.23
1237726		100.25	161.5	77.5	10	1.01	23.8	15.80	2.89	36.5	16.30	<5	15.7	5.43	27.8	2.35
1237727		99.20	225	75.3	10	4.21	24.6	18.00	3.80	35.6	18.50	<5	15.5	5.88	30.8	3.06
1237751		99.92	52.1	18.3	10	0.39	7.64	4.34	1.17	18.0	6.47	<5	3.8	1.60	6.4	0.73

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

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To: CSA GLOBAL PTY LTD
610- 1155 WEST PENDER STREET
VANCOUVER BC V6E 2P4

Finalized Date: 6- NOV- 2016
Account: CSAGCG

Project: Pick Lake

CERTIFICATE OF ANALYSIS TB16177984

Sample Description	Method	ME- MS81	ME- MS81	ME- MS81	ME- MS81	ME- MS81	ME- MS81	ME- MS81	ME- MS81	ME- MS81	ME- MS81	ME- MS81	ME- MS81	ME- MS81	ME- MS81	ME- MS81
	Analyte	Nb	Nd	Pr	Rb	Sm	Sn	Sr	Ta	Tb	Th	Tm	U	V	W	Y
	Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	LOR	0.2	0.1	0.03	0.2	0.03	1	0.1	0.1	0.01	0.05	0.01	0.05	5	1	0.5
87551		2.6	7.8	1.60	38.0	2.31	1	230	0.2	0.53	0.32	0.32	0.10	203	<1	19.3
87552		2.6	8.1	1.73	43.7	2.46	<1	191.0	0.1	0.53	0.38	0.31	0.11	197	<1	19.9
87553		30.3	52.4	11.35	4.4	14.45	1	79.1	2.0	3.86	3.55	2.87	1.08	<5	<1	162.0
87554		5.4	31.0	6.87	15.7	7.80	84	49.9	0.4	1.22	1.70	0.72	0.41	94	<1	44.2
87555		2.2	7.7	1.59	7.8	1.81	2	115.5	0.1	0.48	0.47	0.32	0.12	237	<1	21.5
87556		41.9	29.5	6.11	35.2	7.50	7	5.5	2.7	1.93	5.08	2.81	1.22	<5	2	131.5
87557		44.6	42.3	9.05	33.9	13.70	7	17.4	2.9	3.72	5.82	2.93	1.35	<5	1	150.5
87558		47.3	92.7	20.8	43.9	22.5	9	90.1	3.2	3.61	6.43	3.55	1.58	<5	1	165.5
1237700		6.9	82.3	24.2	23.3	12.35	2	274	0.3	0.73	6.53	0.26	1.87	101	9	17.8
1237701		13.5	95.8	22.1	36.8	23.4	5	52.3	1.1	3.42	4.46	1.85	1.17	13	2	117.5
1237702		17.8	151.5	32.8	28.3	37.8	3	114.0	1.1	5.50	4.46	2.38	1.34	31	1	144.0
1237703		2.0	6.5	1.20	16.1	1.82	1	152.5	0.2	0.39	0.23	0.24	0.08	151	<1	14.9
1237704		43.5	8.1	1.47	41.2	5.57	1	237	2.9	4.28	6.16	3.33	1.68	38	1	180.5
1237705		3.7	2560	577	43.3	453	4	68.4	0.2	31.8	1.14	7.62	0.81	97	<1	866
1237706		17.3	68.5	15.50	27.1	16.75	2	115.0	1.1	2.61	3.56	1.46	0.71	27	2	87.2
1237707		3.6	41.5	9.82	17.2	6.87	1	669	0.2	0.64	2.40	0.25	0.45	195	1	17.6
1237708		46.9	11.2	1.56	23.0	7.24	2	144.0	3.2	2.69	6.55	1.97	1.52	7	2	93.1
1237709		9.8	23.1	4.97	7.1	5.80	4	198.5	0.7	1.05	1.45	0.51	0.36	208	<1	33.2
1237710		16.1	33.7	7.86	11.4	9.15	2	81.7	4.6	2.19	3.45	1.62	0.95	19	1	98.6
1237711		2.7	23.1	5.32	20.2	4.50	2	247	0.2	0.51	0.99	0.22	0.23	316	<1	14.9
1237712		45.0	5.5	0.74	33.3	5.35	11	12.2	3.1	3.44	6.46	2.51	1.26	<5	4	137.5
1237713		18.2	46.2	10.10	26.0	12.50	5	63.2	1.3	2.76	4.21	1.79	1.01	39	1	105.0
1237714		3.6	31.0	7.07	11.1	5.24	2	334	0.2	0.53	1.41	0.19	0.33	336	<1	15.5
1237715		48.5	38.5	7.85	46.1	12.70	5	36.9	3.2	2.76	6.03	2.60	1.35	<5	3	119.0
1237716		41.2	112.0	23.1	31.0	30.6	3	20.9	2.6	5.34	5.27	3.07	1.22	<5	1	185.5
1237717		7.4	5.5	1.08	46.1	1.37	1	105.5	0.1	0.29	0.24	0.16	0.06	123	<1	11.1
1237718		44.1	111.5	23.4	32.9	30.9	3	8.2	2.5	6.01	5.29	3.69	1.29	<5	1	215
1237719		19.6	56.5	11.45	24.6	16.45	6	7.1	1.2	2.92	2.45	1.72	0.66	<5	<1	102.5
1237720		30.0	8.7	1.63	46.3	4.49	4	2.5	1.9	3.40	3.56	3.04	1.02	<5	<1	173.0
1237721		29.9	63.8	12.65	25.1	19.70	2	135.5	1.9	4.30	3.65	2.86	0.96	10	<1	163.5
1237722		31.0	77.2	16.00	20.3	21.1	2	77.3	1.9	4.41	3.92	2.90	1.06	<5	<1	172.5
1237723		40.4	54.8	11.30	32.8	16.45	4	100.5	2.9	3.72	7.03	2.85	1.69	9	1	157.5
1237724		26.0	56.0	11.70	82.0	15.35	18	115.0	1.6	3.50	2.72	2.72	0.87	142	1	150.0
1237725		2.3	7.1	1.36	31.2	2.02	1	178.0	0.1	0.39	0.21	0.25	0.09	172	<1	14.8
1237726		51.3	47.5	10.40	15.6	14.60	4	107.0	3.2	3.35	5.31	2.22	1.29	<5	7	125.0
1237727		45.9	54.6	11.60	45.8	15.80	5	47.8	3.0	3.49	4.56	2.89	1.28	<5	<1	143.5
1237751		6.2	14.6	2.88	4.5	5.04	1	134.5	0.4	1.11	0.68	0.69	0.19	347	1	40.2

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

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: + 1 (604) 984 0221 Fax: + 1 (604) 984 0218
www.alsglobal.com

To: CSA GLOBAL PTY LTD
610- 1155 WEST PENDER STREET
VANCOUVER BC V6E 2P4

Finalized Date: 6- NOV- 2016
Account: CSAGCG

Project: Pick Lake

CERTIFICATE OF ANALYSIS TB16177984

Sample Description	Method	ME- MS81	ME- MS81	ME- 4ACD81	ME- 4ACD81	ME- 4ACD81	ME- 4ACD81	ME- 4ACD81	ME- 4ACD81	ME- 4ACD81	ME- 4ACD81	ME- 4ACD81	ME- 4ACD81	ME- MS42	ME- MS42	ME- MS42
	Analyte	Yb	Zr	Ag	Cd	Co	Cu	Li	Mo	Ni	Pb	Sc	Zn	As	Bi	Hg
	Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	LOR	0.03	2	0.5	0.5	1	1	10	1	1	2	1	2	0.1	0.01	0.005
87551		2.23	48	<0.5	0.5	53	26	20	<1	220	<2	23	72	0.1	0.02	<0.005
87552		2.02	65	<0.5	<0.5	49	39	20	<1	155	<2	28	80	<0.1	0.03	<0.005
87553		18.15	660	<0.5	<0.5	2	3	<10	2	<1	2	5	28	0.3	0.05	0.005
87554		4.93	176	<0.5	1.9	6	10	10	<1	30	<2	11	1885	0.1	0.06	0.015
87555		2.39	58	<0.5	0.7	40	1	<10	<1	49	<2	44	254	<0.1	0.06	0.011
87556		20.3	333	<0.5	<0.5	1	220	10	4	<1	2	1	158	0.2	0.86	0.009
87557		21.2	413	<0.5	<0.5	<1	1	30	1	<1	2	1	87	0.4	0.02	0.008
87558		25.5	366	<0.5	0.7	1	15	30	5	<1	12	1	159	0.6	0.07	0.012
1237700		1.87	80	1.2	0.5	15	6090	10	488	41	50	13	123	14.7	0.59	0.082
1237701		12.05	295	<0.5	<0.5	18	103	10	2	5	3	6	78	<0.1	0.07	0.007
1237702		14.80	333	<0.5	0.5	8	2	10	1	10	2	7	88	0.2	0.01	0.009
1237703		1.81	45	<0.5	<0.5	57	58	10	1	315	<2	20	86	<0.1	0.10	0.010
1237704		23.6	351	<0.5	<0.5	8	2	10	1	13	<2	4	20	0.4	<0.01	0.008
1237705		48.6	79	<0.5	<0.5	17	135	30	4	120	15	9	31	0.5	0.19	<0.005
1237706		9.39	294	<0.5	<0.5	4	55	10	1	14	<2	4	11	0.1	0.01	<0.005
1237707		1.83	107	<0.5	<0.5	31	76	20	<1	26	2	19	48	0.2	0.20	0.005
1237708		13.80	355	<0.5	<0.5	8	1	10	1	3	<2	2	23	0.2	0.01	<0.005
1237709		3.47	213	<0.5	<0.5	23	67	10	<1	29	<2	20	54	0.2	0.08	<0.005
1237710		10.35	318	<0.5	<0.5	6	4	<10	1	1	<2	6	16	1.2	0.08	<0.005
1237711		1.60	60	<0.5	<0.5	45	23	10	<1	116	<2	33	66	0.1	0.04	<0.005
1237712		16.65	334	<0.5	<0.5	2	21	10	2	<1	<2	1	8	0.3	0.02	0.005
1237713		11.30	366	<0.5	<0.5	7	1	10	1	8	<2	7	17	0.4	0.01	<0.005
1237714		1.44	83	<0.5	<0.5	56	212	10	<1	113	<2	34	70	0.8	0.10	0.010
1237715		18.80	357	<0.5	<0.5	7	21	10	1	<1	<2	2	15	0.5	0.05	0.019
1237716		20.9	409	<0.5	<0.5	2	1	20	2	2	3	1	25	0.5	0.01	0.008
1237717		1.27	31	<0.5	0.5	59	11	20	<1	387	<2	14	81	0.1	0.16	0.016
1237718		24.4	500	<0.5	<0.5	3	1	50	2	2	2	1	22	0.6	0.06	0.010
1237719		11.50	463	<0.5	<0.5	4	1	20	1	2	<2	22	130	0.5	0.03	0.007
1237720		20.2	589	<0.5	<0.5	3	1	40	<1	1	<2	2	49	0.2	0.02	0.018
1237721		19.00	612	<0.5	<0.5	3	1	40	2	10	<2	8	47	0.4	0.03	0.024
1237722		19.65	603	<0.5	<0.5	5	2	20	<1	2	2	7	37	0.1	0.05	0.025
1237723		19.50	345	<0.5	<0.5	3	1	10	<1	2	<2	3	99	0.6	0.09	0.016
1237724		17.45	329	<0.5	<0.5	16	455	20	<1	46	<2	12	63	0.8	0.10	0.017
1237725		1.61	42	<0.5	<0.5	55	38	20	1	273	<2	22	101	0.3	0.04	0.015
1237726		15.80	374	<0.5	<0.5	7	11	20	6	5	6	1	34	0.8	0.02	0.018
1237727		20.5	391	<0.5	<0.5	2	2	30	<1	2	<2	1	40	0.6	0.03	0.021
1237751		4.65	134	<0.5	<0.5	47	76	10	<1	46	<2	42	143	<0.1	0.09	0.022

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

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North Vancouver BC V7H 0A7
Phone: + 1 (604) 984 0221 Fax: + 1 (604) 984 0218
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To: CSA GLOBAL PTY LTD
610- 1155 WEST PENDER STREET
VANCOUVER BC V6E 2P4

Finalized Date: 6- NOV- 2016
Account: CSAGCG

Project: Pick Lake

CERTIFICATE OF ANALYSIS TB16177984

Sample Description	Method	ME- MS42	ME- MS42	ME- MS42	ME- MS42	ME- MS42	ME- MS42	ME- MS42	S- IR08	C- IR07
	Analyte	In	Re	Sb	Sc	Se	Te	Tl	S	C
	Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
	LOR	0.005	0.001	0.05	0.1	0.2	0.01	0.02	0.01	0.01
87551		0.017	<0.001	<0.05	5.8	0.4	0.01	0.02	0.05	0.13
87552		0.007	0.001	<0.05	4.2	0.3	0.01	0.03	0.02	0.05
87553		0.019	<0.001	<0.05	1.5	0.3	0.03	0.02	<0.01	0.11
87554		2.17	<0.001	<0.05	3.8	0.4	0.02	0.08	0.09	0.04
87555		0.016	<0.001	<0.05	8.3	0.2	<0.01	<0.02	0.01	0.06
87556		1.445	<0.001	<0.05	0.6	0.4	0.31	0.10	0.03	0.10
87557		0.090	0.001	<0.05	0.4	<0.2	<0.01	0.07	<0.01	0.10
87558		0.175	0.001	<0.05	0.3	<0.2	0.03	0.07	0.09	0.06
1237700		0.073	0.203	3.10	5.6	1.3	0.14	0.14	0.75	0.13
1237701		0.031	0.001	<0.05	6.2	1.0	0.24	0.11	0.03	0.12
1237702		0.013	<0.001	<0.05	6.6	0.2	<0.01	0.05	<0.01	0.12
1237703		0.013	<0.001	<0.05	3.4	0.4	0.03	0.02	0.03	0.14
1237704		0.010	0.001	<0.05	4.4	0.3	<0.01	0.05	<0.01	0.08
1237705		0.041	0.003	<0.05	10.4	0.7	0.74	0.16	0.21	0.10
1237706		<0.005	<0.001	<0.05	3.9	<0.2	<0.01	0.04	<0.01	0.07
1237707		0.031	0.001	<0.05	18.4	0.4	0.09	0.06	0.15	0.45
1237708		0.013	0.001	<0.05	1.9	0.3	<0.01	0.04	<0.01	0.07
1237709		0.044	0.001	<0.05	8.3	0.4	0.13	0.02	0.14	0.17
1237710		0.010	0.001	0.17	1.9	0.3	0.01	0.02	0.01	0.06
1237711		0.035	<0.001	0.07	7.8	0.4	0.01	<0.02	0.04	0.08
1237712		0.008	<0.001	0.06	0.2	0.3	<0.01	0.02	<0.01	0.12
1237713		0.005	0.002	0.06	4.2	0.4	<0.01	0.03	<0.01	0.04
1237714		0.031	0.001	0.07	7.4	0.7	0.13	<0.02	0.18	0.31
1237715		0.033	0.001	0.06	0.7	0.3	<0.01	0.06	<0.01	0.12
1237716		0.073	0.001	0.06	0.5	0.2	<0.01	0.02	<0.01	0.08
1237717		0.010	<0.001	0.24	2.3	0.4	0.01	0.04	<0.01	0.13
1237718		0.167	0.001	0.09	1.1	<0.2	<0.01	0.09	<0.01	0.11
1237719		0.227	0.001	0.06	6.0	0.2	<0.01	0.06	<0.01	0.07
1237720		0.064	<0.001	<0.05	1.2	0.2	<0.01	0.05	<0.01	0.08
1237721		0.032	<0.001	0.05	3.9	0.4	<0.01	0.10	<0.01	0.12
1237722		0.046	<0.001	0.05	3.5	0.4	<0.01	0.06	0.01	0.15
1237723		0.067	0.001	0.05	2.9	0.6	0.03	0.20	<0.01	0.10
1237724		0.209	0.001	0.05	6.8	0.7	0.31	0.23	0.12	0.10
1237725		0.016	<0.001	0.06	3.6	0.4	0.01	0.03	0.01	0.12
1237726		0.065	<0.001	<0.05	0.4	0.5	<0.01	0.05	0.01	0.08
1237727		0.133	0.001	0.05	0.6	<0.2	<0.01	0.27	<0.01	0.09
1237751		0.024	<0.001	0.09	8.9	0.4	<0.01	0.03	0.10	0.03

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ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com

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Page: Appendix 1
Total # Appendix Pages: 1
Finalized Date: 6- NOV- 2016
Account: CSAGCG

Project: Pick Lake

CERTIFICATE OF ANALYSIS TB16177984

CERTIFICATE COMMENTS

LABORATORY ADDRESSES

Processed at ALS Thunder Bay located at 645 Norah Crescent, Thunder Bay, ON, Canada

Applies to Method:				
	CRU- 31	CRU- QC	LOG- 22	LOG- 24
	PUL- 31	PUL- QC	SPL- 21	WEI- 21

Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.

Applies to Method:				
	C- IR07	ME- 4ACD81	ME- MS42	ME- MS81
	ME- XRF26	OA- GRA05x	S- IR08	

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2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com

To: CSA GLOBAL PTY LTD
610- 1155 WEST PENDER STREET
VANCOUVER BC V6E 2P4

Finalized Date: 8- NOV- 2016
This copy reported on
16- NOV- 2016
Account: CSAGCG

CERTIFICATE TB16177987

Project: Pick Lake

This report is for 24 Soil samples submitted to our lab in Thunder Bay, ON, Canada on 17- OCT- 2016.

The following have access to data associated with this certificate:

DENNIS ARNE		

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LOG- 24	Pulp Login - Rcd w/o Barcode
LOG- 22	Sample login - Rcd w/o BarCode
SCR- 41	Screen to - 180um and save both

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION
ME- MS41	Ultra Trace Aqua Regia ICP- MS

To: CSA GLOBAL PTY LTD
ATTN: DENNIS ARNE
610- 1155 WEST PENDER STREET
VANCOUVER BC V6E 2P4

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

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
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Finalized Date: 8- NOV- 2016
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CERTIFICATE OF ANALYSIS TB16177987

Sample Description	Method	WEI- 21	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
	Analyte	Recvd Wt.	Ag	Al	As	Au	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs
	Units	kg	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
	LOR	0.02	0.01	0.01	0.1	0.2	10	10	0.05	0.01	0.01	0.01	0.02	0.1	1	0.05
S- 000		0.07	0.91	1.78	58.7	0.2	10	140	0.43	1.68	1.37	0.09	35.6	44.3	239	4.29
S- 001		0.26	0.03	0.40	1.9	<0.2	<10	20	0.05	0.20	0.06	0.10	15.55	0.6	8	0.39
S- 002		0.21	0.07	0.76	0.6	<0.2	<10	40	0.12	0.15	0.05	0.05	20.0	1.9	8	1.46
S- 003		0.18	0.03	1.34	5.0	<0.2	<10	40	0.13	0.29	0.08	0.16	16.50	2.8	25	1.16
S- 004		0.18	0.05	0.52	1.8	<0.2	<10	30	0.08	0.28	0.04	0.25	16.35	0.7	8	0.86
S- 005		0.28	0.03	0.22	0.5	<0.2	<10	20	<0.05	0.09	0.02	0.03	21.6	0.7	5	0.37
S- 006		0.23	0.03	1.86	5.8	<0.2	<10	20	0.27	0.19	0.07	0.17	20.8	3.1	31	0.87
S- 007		0.22	0.05	1.31	3.4	<0.2	<10	30	0.17	0.21	0.08	0.13	18.90	3.5	26	1.85
S- 008		0.23	0.04	1.44	1.6	<0.2	<10	20	0.19	0.20	0.03	0.09	22.4	1.2	18	0.42
S- 009		0.11	0.17	1.03	1.4	<0.2	<10	70	0.51	0.09	0.23	0.43	25.4	1.4	10	0.33
S- 010		0.26	0.02	0.17	0.3	<0.2	<10	20	<0.05	0.04	0.02	0.07	15.30	0.3	4	0.15
S- 011		0.27	0.09	0.43	2.3	<0.2	<10	20	0.07	0.19	0.05	0.11	17.20	1.2	10	0.68
S- 012		0.19	0.09	0.98	2.4	<0.2	<10	30	0.10	0.25	0.05	0.09	15.50	4.2	41	1.71
S- 013		0.25	0.03	2.08	2.9	<0.2	<10	20	0.33	0.12	0.07	0.15	26.9	4.4	34	1.23
S- 014		0.19	0.06	1.23	1.8	<0.2	<10	30	0.14	0.14	0.05	0.12	17.10	1.4	17	0.55
S- 015		0.26	0.03	0.42	1.5	<0.2	<10	20	0.05	0.15	0.03	0.06	19.80	0.8	8	0.51
S- 016		0.30	0.06	1.40	1.8	<0.2	<10	10	0.20	0.07	0.06	0.09	26.3	3.2	16	0.57
S- 017		0.34	0.04	0.43	1.4	<0.2	<10	20	0.06	0.17	0.03	0.07	16.95	0.8	7	0.64
S- 018		0.20	0.04	0.36	0.8	<0.2	<10	20	<0.05	0.16	0.04	0.04	18.55	0.7	7	0.73
S- 019		0.23	0.08	2.18	3.1	<0.2	<10	20	0.31	0.19	0.05	0.14	18.80	2.5	36	0.76
S- 020		0.34	0.02	0.99	1.0	<0.2	<10	20	0.18	0.11	0.10	0.04	17.95	5.5	87	0.92
S- 020 DUP1		0.41	0.02	1.35	1.4	<0.2	<10	20	0.22	0.12	0.11	0.04	22.8	4.5	35	0.98
S- 021		0.23	0.02	1.01	1.5	<0.2	<10	20	0.16	0.10	0.06	0.14	14.80	1.8	21	0.41
S- 022		0.11	0.09	1.23	0.7	<0.2	<10	110	0.06	0.04	0.68	0.04	13.80	7.4	14	0.33

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ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com

To: CSA GLOBAL PTY LTD
610- 1155 WEST PENDER STREET
VANCOUVER BC V6E 2P4

Finalized Date: 8- NOV- 2016
Account: CSAGCG

Project: Pick Lake

CERTIFICATE OF ANALYSIS TB16177987

Sample Description	Method	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
	Analyte	Cu	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb
	Units	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
	LOR	0.2	0.01	0.05	0.05	0.02	0.01	0.005	0.01	0.2	0.1	0.01	5	0.05	0.01	0.05
S- 000		2230	3.22	6.16	0.11	0.20	0.02	0.210	0.40	17.0	7.3	0.51	200	8.86	0.33	0.25
S- 001		4.8	0.35	4.51	<0.05	<0.02	0.03	0.010	0.02	8.1	1.0	0.03	22	0.46	0.01	0.91
S- 002		9.8	0.47	4.52	<0.05	<0.02	0.03	0.012	0.03	10.5	5.6	0.07	33	0.66	0.01	0.93
S- 003		19.8	3.07	13.65	<0.05	0.02	0.07	0.025	0.04	8.6	9.0	0.17	68	3.36	0.01	2.59
S- 004		18.7	0.31	6.48	<0.05	<0.02	0.07	0.014	0.03	8.5	1.0	0.04	18	0.59	0.01	0.53
S- 005		2.1	0.30	2.76	<0.05	<0.02	0.02	0.006	0.01	11.1	0.3	0.01	17	0.20	0.01	0.52
S- 006		15.0	1.70	5.55	<0.05	0.03	0.13	0.029	0.03	11.7	10.5	0.19	61	0.95	0.01	1.92
S- 007		11.9	1.78	9.51	<0.05	0.02	0.10	0.019	0.04	9.7	14.5	0.22	73	0.97	0.01	2.68
S- 008		9.1	1.29	8.16	<0.05	0.02	0.11	0.012	0.02	11.7	8.1	0.06	21	1.27	0.01	2.22
S- 009		17.0	0.25	2.11	0.05	<0.02	0.29	0.025	0.03	14.5	0.7	0.04	15	0.73	0.02	0.36
S- 010		1.1	0.18	1.54	<0.05	<0.02	0.04	0.005	0.01	8.0	0.3	0.01	10	0.22	0.01	0.32
S- 011		5.5	0.62	5.72	<0.05	<0.02	0.06	0.009	0.02	8.9	2.2	0.04	22	0.67	0.01	1.28
S- 012		15.1	0.95	6.64	<0.05	<0.02	0.09	0.015	0.04	8.3	4.9	0.32	51	1.26	0.01	1.13
S- 013		9.8	1.77	5.26	<0.05	0.04	0.10	0.022	0.03	10.3	14.2	0.21	77	0.61	0.01	2.06
S- 014		4.9	1.42	6.61	<0.05	0.03	0.08	0.015	0.02	8.9	4.2	0.07	29	0.76	0.01	1.67
S- 015		5.7	0.55	5.15	<0.05	<0.02	0.05	0.013	0.02	10.1	2.2	0.05	24	0.47	0.01	1.01
S- 016		15.8	1.06	2.95	0.05	0.03	0.07	0.016	0.02	11.5	7.5	0.12	43	0.43	0.01	1.25
S- 017		4.2	0.66	6.09	<0.05	0.02	0.03	0.009	0.02	8.8	1.4	0.05	28	0.44	0.01	1.19
S- 018		2.5	0.31	3.91	<0.05	<0.02	0.02	0.009	0.02	9.5	1.8	0.05	27	0.39	0.01	1.24
S- 019		5.5	3.28	11.30	<0.05	0.05	0.07	0.024	0.03	8.8	10.2	0.15	57	0.78	0.01	3.50
S- 020		26.0	1.33	5.39	<0.05	0.09	0.03	0.010	0.04	8.1	13.0	0.43	99	0.28	0.01	1.56
S- 020 DUP1		23.3	1.24	4.97	<0.05	0.04	0.03	0.013	0.03	10.6	11.6	0.27	81	0.93	0.01	1.68
S- 021		4.5	1.26	4.51	<0.05	0.03	0.04	0.011	0.01	6.4	4.9	0.09	49	0.51	0.01	1.41
S- 022		58.1	2.50	3.99	0.06	0.08	0.01	0.008	0.19	6.5	4.7	0.54	303	2.33	0.14	0.19

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ALS Canada Ltd
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: + 1 (604) 984 0221 Fax: + 1 (604) 984 0218
www.alsglobal.com

To: CSA GLOBAL PTY LTD
610- 1155 WEST PENDER STREET
VANCOUVER BC V6E 2P4

Finalized Date: 8- NOV- 2016
Account: CSAGCG

Project: Pick Lake

CERTIFICATE OF ANALYSIS TB16177987

Sample Description	Method	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41	ME- MS41
	Analyte	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th	Ti
	Units	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	LOR	0.2	10	0.2	0.1	0.001	0.01	0.05	0.1	0.2	0.2	0.2	0.01	0.01	0.2	0.005
S- 000		2130	1750	15.0	49.3	0.002	1.15	1.81	3.6	2.7	4.2	114.5	<0.01	0.31	10.3	0.162
S- 001		1.8	100	12.1	2.2	<0.001	0.02	0.13	0.6	<0.2	0.8	4.6	<0.01	0.01	1.1	0.060
S- 002		5.1	130	8.3	4.9	<0.001	0.02	0.06	0.8	<0.2	0.6	6.5	<0.01	<0.01	0.7	0.041
S- 003		8.7	270	15.8	5.5	<0.001	0.04	0.35	1.7	1.3	1.1	5.4	<0.01	0.06	1.8	0.110
S- 004		2.2	270	19.4	3.3	<0.001	0.04	0.18	0.3	0.3	1.0	4.3	<0.01	0.01	<0.2	0.039
S- 005		1.1	60	3.1	1.3	<0.001	0.01	0.06	0.3	0.4	0.5	2.9	<0.01	<0.01	2.4	0.036
S- 006		8.9	370	13.0	4.2	<0.001	0.05	0.20	2.0	1.3	0.8	4.5	0.02	0.03	2.2	0.072
S- 007		10.1	210	11.5	7.2	<0.001	0.03	0.14	2.0	0.7	0.8	7.3	<0.01	0.01	2.5	0.100
S- 008		2.7	200	10.4	2.0	<0.001	0.04	0.08	1.4	0.9	0.8	3.6	0.01	0.01	2.0	0.083
S- 009		7.7	1730	11.2	1.3	0.001	0.23	0.18	0.2	1.6	0.3	16.8	<0.01	0.02	<0.2	0.007
S- 010		1.6	60	2.7	0.9	<0.001	0.02	0.07	0.3	0.2	0.3	3.3	<0.01	<0.01	1.6	0.016
S- 011		5.6	150	10.3	4.1	<0.001	0.02	0.13	0.6	0.4	0.8	5.0	<0.01	0.01	1.2	0.063
S- 012		32.4	280	19.2	6.8	0.001	0.04	0.13	1.0	0.6	0.8	5.2	<0.01	0.01	0.4	0.055
S- 013		12.1	340	7.9	5.6	<0.001	0.03	0.11	2.6	1.0	0.5	5.3	0.03	0.01	3.9	0.085
S- 014		4.0	190	8.0	2.6	<0.001	0.03	0.10	1.1	0.6	0.6	5.1	0.02	0.01	2.0	0.067
S- 015		2.7	80	10.5	2.6	<0.001	0.01	0.11	0.7	0.2	0.6	3.5	<0.01	<0.01	2.2	0.063
S- 016		7.2	180	5.0	2.2	<0.001	0.04	0.07	1.9	0.8	0.3	3.8	0.02	<0.01	2.3	0.049
S- 017		1.9	120	8.3	3.8	<0.001	0.01	0.09	0.7	0.3	0.8	3.6	<0.01	<0.01	1.9	0.067
S- 018		1.3	90	12.4	3.0	<0.001	0.01	0.10	0.6	0.3	0.6	4.5	<0.01	<0.01	1.8	0.088
S- 019		7.3	260	9.7	4.0	<0.001	0.04	0.12	2.4	0.9	0.7	4.3	0.04	0.01	2.6	0.142
S- 020		22.4	70	4.7	4.3	<0.001	0.01	0.05	1.6	0.5	0.4	6.4	<0.01	<0.01	2.3	0.120
S- 020 DUP1		17.5	230	9.0	4.6	0.001	0.02	0.06	2.0	0.6	0.4	5.4	0.02	0.01	2.3	0.085
S- 021		5.8	150	5.9	2.0	<0.001	0.02	0.08	1.2	0.3	0.4	4.0	0.02	0.01	1.6	0.078
S- 022		6.7	670	3.5	7.4	0.001	0.01	0.09	1.7	0.2	0.2	54.7	<0.01	0.01	2.3	0.095

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2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com

To: CSA GLOBAL PTY LTD
610- 1155 WEST PENDER STREET
VANCOUVER BC V6E 2P4

Finalized Date: 8- NOV- 2016
Account: CSAGCG

Project: Pick Lake

CERTIFICATE OF ANALYSIS TB16177987

Sample Description	Method Analyte Units LOR	ME- MS41 Tl ppm 0.02	ME- MS41 U ppm 0.05	ME- MS41 V ppm 1	ME- MS41 W ppm 0.05	ME- MS41 Y ppm 0.05	ME- MS41 Zn ppm 2	ME- MS41 Zr ppm 0.5
S- 000		0.89	2.22	167	1.19	8.65	49	6.5
S- 001		0.04	0.27	20	0.19	1.08	10	<0.5
S- 002		0.07	0.36	15	0.08	1.52	15	<0.5
S- 003		0.10	0.38	110	0.34	1.55	26	1.0
S- 004		0.06	0.36	20	0.05	1.29	10	<0.5
S- 005		0.07	0.34	16	<0.05	1.13	3	0.5
S- 006		0.06	0.58	38	0.23	2.90	17	1.2
S- 007		0.11	0.51	44	0.19	1.80	23	1.0
S- 008		0.07	0.59	44	0.14	2.17	6	0.8
S- 009		0.04	1.13	8	0.06	5.55	14	<0.5
S- 010		0.04	0.27	7	<0.05	0.89	3	<0.5
S- 011		0.06	0.31	26	0.12	1.19	13	<0.5
S- 012		0.08	0.41	31	0.18	1.46	28	<0.5
S- 013		0.07	0.62	36	0.21	2.77	28	1.2
S- 014		0.05	0.41	36	0.16	1.42	10	1.2
S- 015		0.04	0.35	24	0.07	1.34	8	0.6
S- 016		0.05	0.47	22	0.22	3.39	9	1.0
S- 017		0.04	0.27	34	0.07	1.19	11	0.7
S- 018		0.04	0.33	19	0.07	1.22	12	0.6
S- 019		0.05	0.49	72	0.22	2.16	21	2.1
S- 020		0.06	0.46	31	0.10	2.08	20	4.7
S- 020 DUP1		0.07	0.52	28	0.14	2.54	20	1.4
S- 021		0.04	0.33	33	0.09	1.26	12	1.2
S- 022		0.05	0.64	104	5.49	4.06	33	1.3

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North Vancouver BC V7H 0A7
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CERTIFICATE OF ANALYSIS TB16177987

CERTIFICATE COMMENTS

ANALYTICAL COMMENTS

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

LABORATORY ADDRESSES

Applies to Method: Processed at ALS Thunder Bay located at 645 Norah Crescent, Thunder Bay, ON, Canada
LOG- 22 LOG- 24 SCR- 41 WEI- 21

Applies to Method: Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.
ME- MS41