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Summer 2018 Kasagiminnis Lake Diamond Drill Program

Little Ochig Lake Area
Patricia Mining District
NW Ontario

NTS: 520/08



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Ardiden Limited

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1 Introduction

Between May 27th and July 11th, 2018 a diamond drill program was carried out on the Kasagiminnis Lake Property. Fifteen holes (Kas-18-01 to 15) totaling 1870 meters were drilled as part of a due diligence program to test and evaluate high grade historic gold intercepts and test mineralization extensions of key gold mineralization zones (the Kasagiminnis Gold Zone). These historic gold occurrences were previously drilled in 2011 by Manicouagan Minerals Inc.

Each of the fifteen holes during this program had reached its targeted depth successfully and encountered the Kasagiminnis Gold Zone. Gold mineralization in the Kasagiminnis Gold Zone occurs within a silicified zone containing disseminated sulphides (pyrite, pyrrhotite) alongside magnetite which was historically was called 'iron formation'.

The Kasagiminnis Lake Property consists of a contiguous block of 50 mineral claims totaling 9.91km² situated in the Little Ochig Lake Area (G-2114).

Portions of this report have been copied from the NI 43-101 Technical Report titled "Technical Report on Three Gold Exploration Properties Pickle Lake Area, Ontario, Canada for Manicouagan Minerals Inc." written by G.A. Harron & Associates Inc. and dated August 31st, 2009 and the Technical Report titled "Work Report of the 2011 Diamond Drilling Program, Kasagaminnis Lake Project Pickle Lake Area, Ontario" written by Bruce Mackie Geological Consulting Services and dated October 2011.

2 Terms of Reference

This Report was prepared at the request of Ardiden Limited for the purpose of filing assessment work as required under the Ontario Mining Act.

Map projections are in UTM, North American Datum 83, Zone 15 and all referenced UTM coordinates are in meters in this project unless stated otherwise. Contractions are "mm" = millimeter, "cm" = centimeter, "m" = meters, "km" = kilometers, "g" = gram, "kg" = kilogram, "in" = inch, "ft" = foot, "lb" = pound, "oz" = troy ounce, "oz/ton" = troy ounce per short ton, "g/T" is grams per metric tonne, and "ddh" = diamond drill hole.

3 Disclaimer

The writer disclaims responsibility for portions of the current report that rely on information from historic assessment files and government maps and reports which may not have been prepared in compliance with modern standards.

4 Property Location and Description

The Kasagiminnis Lake Property is located in the Patricia Mining District in Northwestern Ontario approximately 25 kilometres southwest of the town of Pickle Lake, and approximately 15 kilometres west of Mishkeegogamang First Nation Community of New Osnaburgh (see Figures 1 and 2). The geographic centre of the property is located at 681818mE, 5682970mN (UTM, Zone 15, NAD83). The project covers portions of National Topographic Sheet (NTS) 52O/08.

On August 2nd 2017, Ardiden Limited signed an option agreement with White Metal Resources Corporation (TSX-V: WHM) to acquire 100% of the Pickle Lake Gold Properties in Ontario, Canada. The proposed acquisition includes four separate gold properties the Dorothy-Dobie Lake Property, Kasagiminnis Lake Property, South Limb Property, and the Pickle Lake West Property.

As of the date of this report, the Kasagiminnis Lake Project consists of a contiguous block of 50 mining claims totaling 1,007 Ha. The Kasagiminnis Lake Property is part of a larger land package, the Pickle Lake Properties, held by Ardiden Limited totaling 364 mining claims and encompassing the West Pickle Lake, South Limb and Kasagiminnis Lake projects. The Kasagiminnis Lake Project requires \$20,000 per year in mineral exploration assessment work to keep the claims current, and the larger Pickle Lake Properties requires \$118,000 per year in mineral exploration assessment work to keep all claims current.

4.1 Ontario Mining Lands Administration System

On April 10, 2018, Ontario converted its manual system of ground and paper staking and maintaining unpatented mining claims to an online system. All active, unpatented claims were converted from their legally defined location by claim posts on the ground or by township survey to a cell-based provincial grid. Mining claims are now legally defined by their cell position on the grid and coordinate location in the MLAS Map Viewer (<https://www.mndm.gov.on.ca/en/mines-and-minerals/applications/mlas-map-viewer>).

In the new MLAS system, registering a mining claim is now completed by paying a single registration fee of \$50 per cell. Assessment work requirements are \$400 per cell claim and \$200 per boundary claim or any claim that is encumbered. Unlike some other jurisdictions, the MLAS does not introduce any other requirement such as an annual claim renewal fee, or a graduated system for fees and assessment work.



Figure 1 - Regional Location Map

5 Access Infrastructure and Resources

The Kasagiminnis Lake Property is located within the Mishkeegogamang First Nations traditional lands. The property falls within the taa shi kay win land use planning area.

This property is accessible by helicopter from Pickle Lake (25 km northeast). Kasagiminnis Lake is shallow with abundant shoals however there are locations where a fixed winged aircraft can land on floats. During the winter one can land a fixed wing aircraft equipped with skis. There is an old winter road which could be rehabilitated however some stream crossings are required and would need to be permitted. Access to the job site for the recent drill program required helicopter transport from Pickle Lake.

The villages of Pickle Lake and neighbouring Central Patricia are the centre of commercial activity in the area. Amenities available in these villages include groceries, fuel, telecommunications, hotel accommodation, and charter aircraft services. The core cutting and logging was completed at the Pickle Lake airport at the North Star Air Base in the 'Back 40' lot. The major population center in the area is Thunder Bay, 235 km southeast of Ignace. This city provides significant cultural, social, commercial, educational and medical facilities in northwestern Ontario. Goods and services relevant to minerals exploration and mine production are readily available in Thunder Bay.

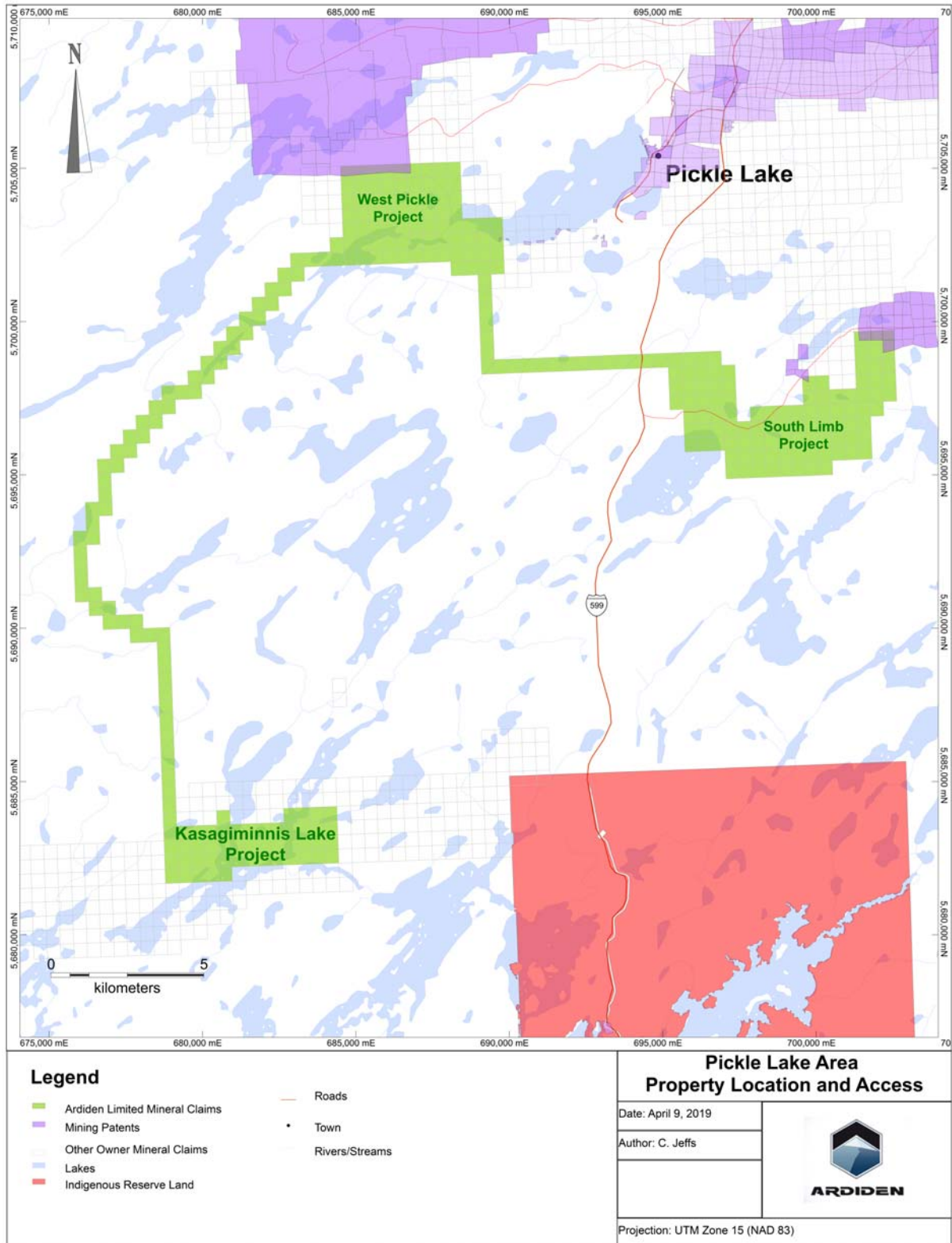


Figure 2 - Regional Location and Access

6 Climate and Physiography

Elevations on the Kasagiminnis Lake Project are generally within a 20m range from 390 to 410 m above sea level. The prevailing climatic conditions are typical of the northern Boreal forest, with cold winter months and warm summer months lasting from June through September. Weather conditions allow exploration activities such as diamond drilling and geophysical surveys to be conducted year-round.

7 Geological Setting

7.1 Regional Geology

The Kasagiminnis Lake Project is located in the western part of the Pickle Lake Greenstone Belt situated within the Uchi Domain which is located in the southern part of the North Caribou Terrane which in turn lies within the Uchi Subprovince of the Canadian Shield (see Figure 3).

The Uchi Domain represents an area where significant Neoproterozoic volcanism and tectonism resulted in the production of new continental crust both prior and synchronous to collision with the Winnipeg River Terrane to the south. As a result the Uchi Domain comprises Neoproterozoic volcanic-dominated supracrustal rock sequences, locally significant sedimentary rock accumulations and associated plutons that were built upon, or adjacent to the earlier Mesoproterozoic crust.

The “Pickle Lake Greenstone Belt” has been divided by previous workers in the past into a western portion; the Meen-Dempster Greenstone Belt (“M-DGB”) and an eastern portion; the Pickle Lake (“PLGB”) Greenstone Belt. This two- fold subdivision will be kept for the description below.

The Pickle Crow Assemblage is the oldest (>2860 Ma) lithologic sequence identified in the two greenstone belts. It is composed of mainly massive to pillowed basalt intercalated with thin laterally continuous banded iron formation and small discontinuous lenses of intermediate volcanic rocks. All of these lithologies are intruded by quartz-feldspar porphyry sills, and mafic to ultramafic intrusions. The Pickle Crow Assemblage is interpreted as being deposited in a back-arc to emergent arc setting prior to ~2860 Ma. The isotopically enriched tholeiitic lower sequence may represent deposition on or near a thinned or juvenile continental margin. The compositionally diverse rocks of the upper sequence are interpreted as originating in a transitional arc to back-arc setting.

Rocks of the overlying Kaminiskag Assemblage (2842-2836 Ma) have been identified along the northern margin of the M-DGB and along the southeastern margin of the PLGB. Similar to the Pickle Crow Assemblage massive to pillowed basalt lithologies dominate, and at least two interflow banded iron formations are also present. In the M-DGB the Kaminiskag Assemblage also includes a number of thin discontinuous units of dacite to rhyolitic tuff, whereas in the PLGB the felsic unit is thicker and continuous over 8 km.

The Kaminiskag Assemblage is characterized by LREE depleted tholeiitic basalt and calc-alkaline dacite to rhyolite with radiogenic Nd isotopic compositions. These petrochemical characteristics are typical of immature Archean arc related rocks that occur in younger convergent margin settings.

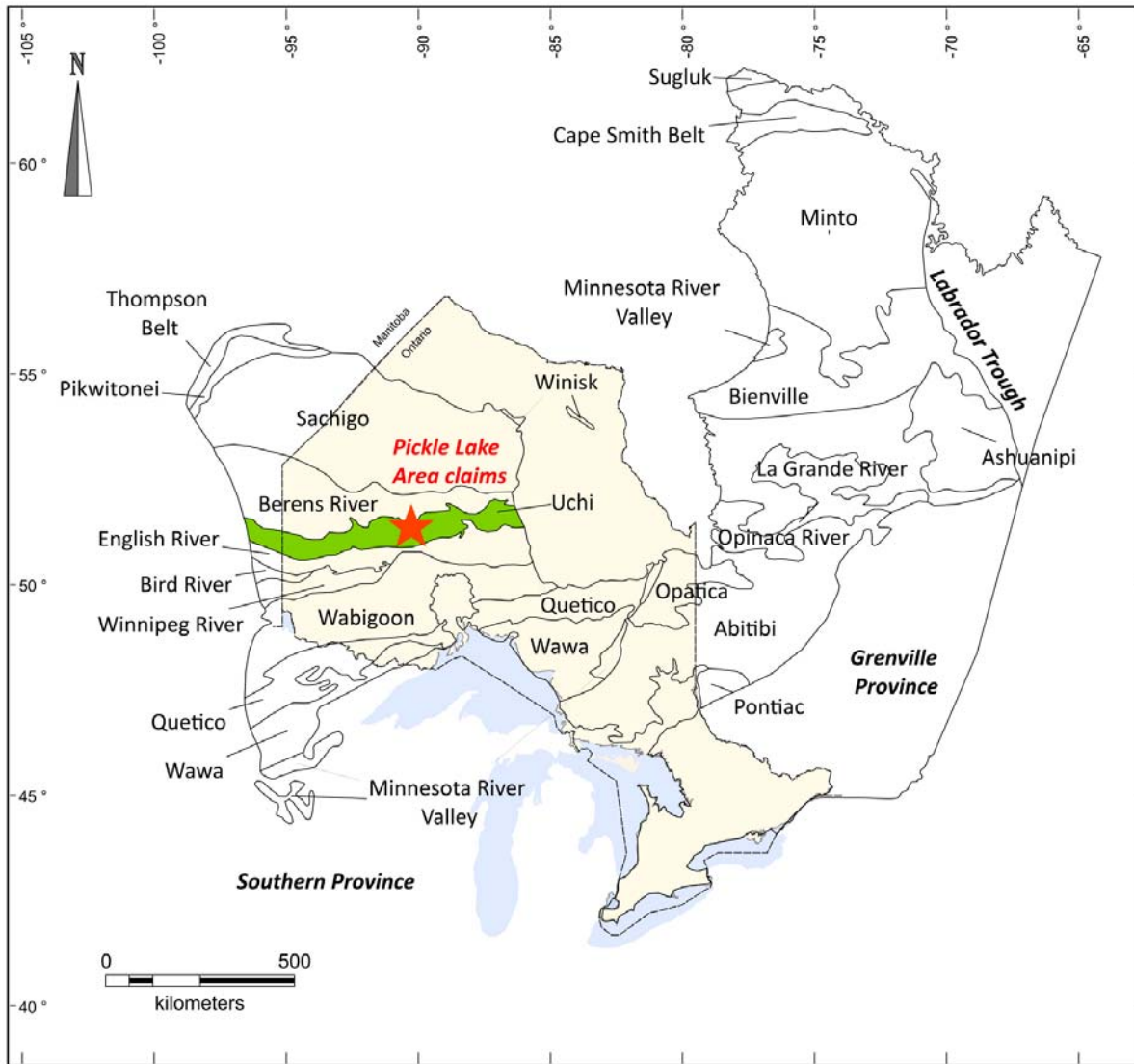


Figure 3 - Geological Subprovinces

The Meen Assemblage (2825 Ma) occurs exclusively in the M-DGB. This assemblage faces southwest, immediately overlying rocks of the Kaminiskag Assemblage and underlying a sequence of Confederation Assemblage rocks that are located to the southwest. The Meen Assemblage occurs as a tabular sheet with a 40 km strike length composes of monolithic pyroclastic rocks that are dominantly dacitic in composition with minor rhyolite. The upper portion of the assemblage locally contains sedimentary rocks (chert, marble, arenite and pyrite-graphite schist).

Confederation Assemblage rocks (2744-2730 Ma) are found in both the M-DGB and the PLGB. Most of the northeast portion of the Confederation Assemblage is composed of intercalated mafic and intermediate volcanic rocks, which are best exposed in the southeastern part of the PLGB, where the facing direction is to the southeast. In the eastern part of the PLGB the basal contact of the Confederation Assemblage with the underlying Pickle Crow assemblage is marked by abundant fragmental rocks. In the M-DGB the Confederation Assemblage consists of two bimodal volcanic cycles. Each cycle is composed of pillowed to massive volcanic flows overlain by dacitic pyroclastic rocks. One of these cycles can be correlated between the M-DGB and the PLGB.

7.2 Geology of the Pickle Lake Greenstone Belt

The PLGB is an approximately 70 km long by 25 km wide area of supracrustal rocks and internal granitoid plutons surrounded by large granitoid batholiths (Figures 4 & 5). The supracrustal rocks have been deformed and metamorphosed to greenschist facies with amphibolite facies occurring as thermal aureoles surrounding younger plutons. A recent revised interpretation of the regional geology forms the basis of the following description of the PLGB.

The PLGB is subdivided into three (tectono-stratigraphic) assemblages (Pickle Crow, > 2860 Ma; Kaminiskag, ~2836 Ma; Confederation ~2744 Ma). The northwest-facing Pickle Crow assemblage dominates the northwestern part of the PLGB. It comprises mainly massive to pillowed basalt flows intercalated with thin laterally continuous banded iron formation and small discontinuous lenses of intermediate volcanic rocks, all of which are intruded by semi-concordant quartz-feldspar porphyry dykes of various ages. On the basis of petrochemical characteristics the Pickle Crow assemblage can be subdivided into a lower and an upper sequence. The lower sequence consists of tholeiitic basalt and rare calc-alkaline andesite which is spatially associated with iron formation. The upper sequence also consists of tholeiitic basalt intercalated with rare lenses of calc-alkaline andesite to dacite, but is distinguished from the lower sequence by a centrally located alkaline basalt unit.

Rocks of the PLGB are affected by three episodes of folding and regional metamorphism.

The McCullah Creek-First Loon Lake area of the PLGB is underlain by supracrustal rocks of three distinct tectonostratigraphic assemblages (Pickle Crow, Confederation and Kaminiskag).

The northern portion of the PLGB is underlain by a northeast-striking sequence of supracrustal rocks defined as the Pickle Crow assemblage (Figure 5). This assemblage is dominated by massive and pillowed mafic volcanic flows with subordinate gabbroic sills. The mafic volcanic rocks are intercalated with thin laterally continuous banded iron formation and small discontinuous lenses of intermediate volcanic rocks. All lithologies are intruded by semi concordant feldspar porphyry dikes. Stratigraphy generally faces toward the northwest, except in areas of asymmetric folding. The minimum age of this assemblage is estimated to be 2860 Ma.

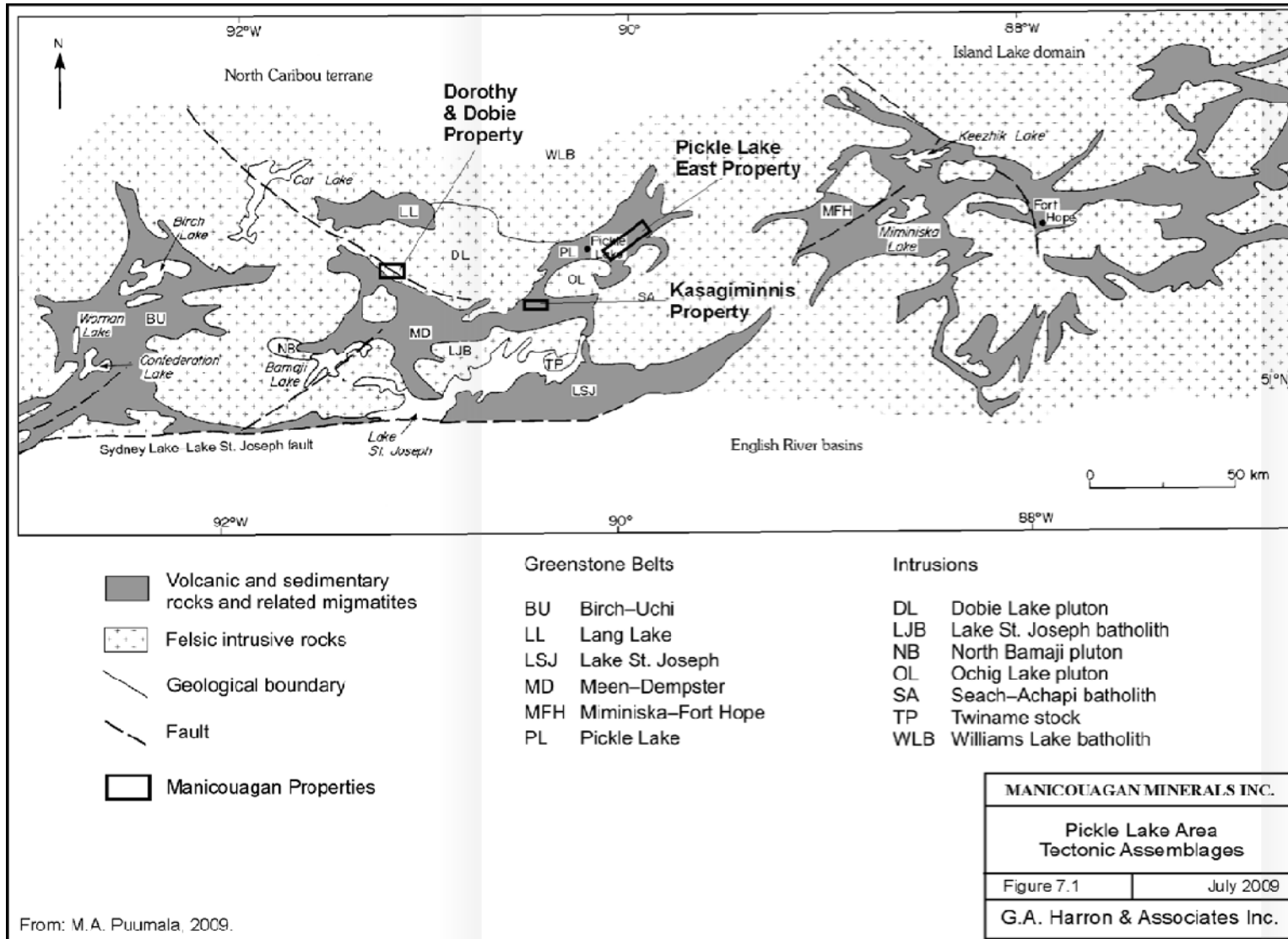


Figure 4 - Pickle Lake Area Tectonic Assemblages

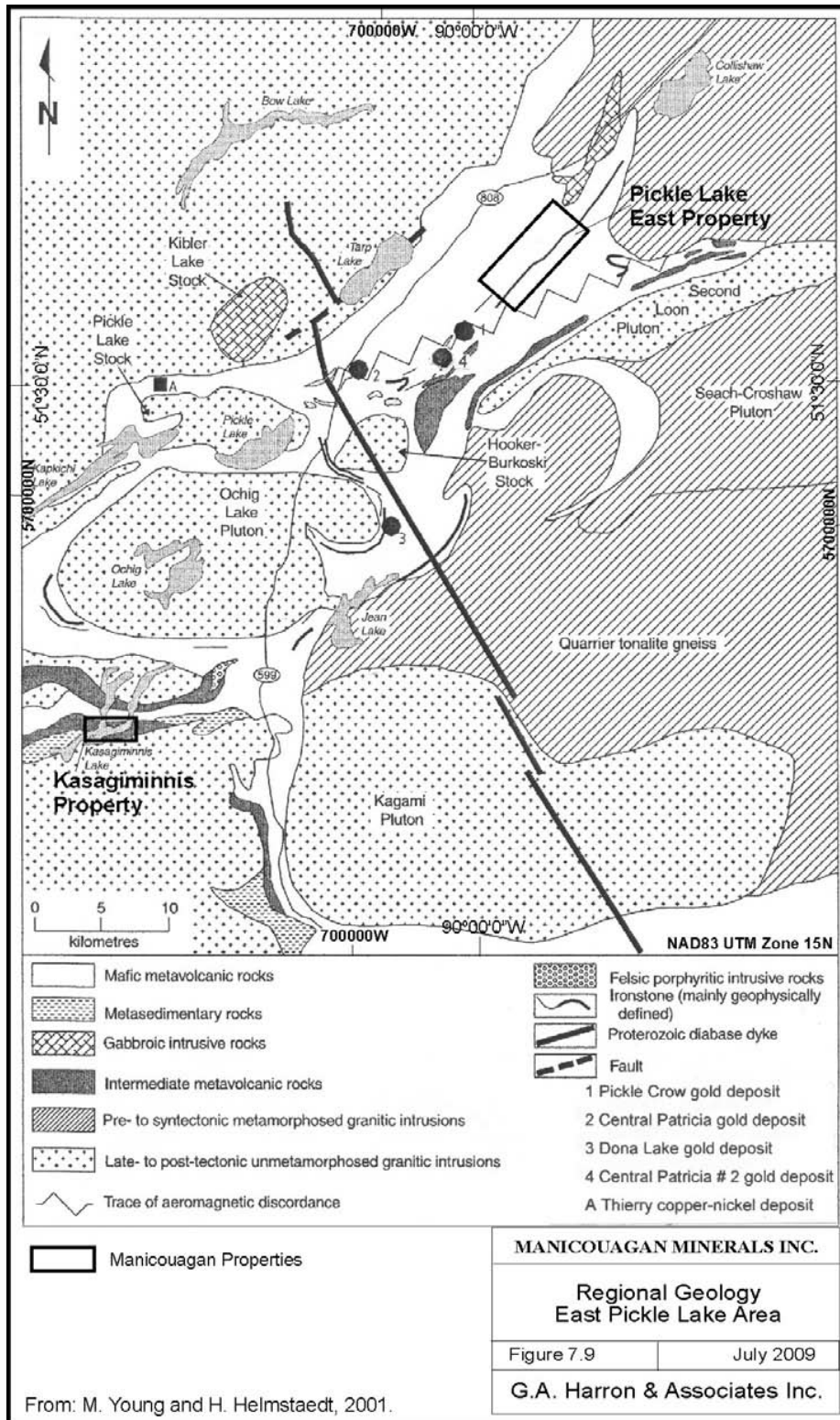


Figure 5 - Kasagiminnis Lake Area Geology

Rocks of the Kaminiskag assemblage (circa 2836 Ma) outcrop to the southeast of the Confederation assemblage. The Kaminiskag assemblage is dominated by mafic volcanic flows, with significant layers of felsic to intermediate volcanic ash flows. The mafic volcanic rocks are generally strongly foliated massive amphibolites, although minor amounts of ultramafic material have been reported. Minor amounts of banded iron formation are interbedded with the mafic volcanic rocks and thin layers of fine-grained clastic sediments are locally interbedded with the felsic to intermediate volcanic rocks. The main felsic to intermediate volcanic unit is a quartz-phyric dacite tuff that can be traced over a strike length of 8 km. This unit locally contains thin pyrrhotite rich massive sulphide lenses in chert.

The Kaminiskag assemblage is bounded to the southeast by granitic rocks of the Second Loon pluton, which imposes a contact strain and metamorphic aureole upon the adjacent supracrustal rocks. Generally, stratigraphy and foliation in the area are sub parallel, strike northeast and dip steeply to the northwest.

Strongly deformed rocks that exhibit extensive silica and carbonate alteration occur in the northwestern portion of the area, near the Kawinogans River. This deformation zone extends toward the southwest into the Pickle Crow Mine area. This deformation event may also be linked to the creation of the anticline-syncline pair in the Central Patricia and Pickle Crow areas. Axial surfaces strike southwest and dip steeply to the northwest, with moderate to steep northeast- plunging hinge lines.

The boundary between the Confederation (2744 Ma) and the Pickle Crow (2860 Ma) assemblages has been interpreted to occur northeast of First Loon Lake. A major structural discontinuity separates an "S" fold from a sequence of less deformed lithologies to the southeast, and south facing directions indicate Confederation assemblage lying unconformably on Pickle Crow assemblage rocks.

7.3 Kasagiminnis Lake Project Geology

The Kasagiminnis Lake property is located in the Dempster-Pickle Lakes greenstone belt which trends roughly east-west and joins the Pickle Lake belt to the east, and the Meen-Dempster Lakes belt to the west. The property is underlain by a complex sequence of southward younging mafic-to-intermediate flows, mafic-to-felsic pyroclastics, sediments and iron formation. This sequence has been intruded by numerous small gabbroic bodies, granite pegmatite dykes and minor felsite dykes. The portion of the belt exposed on the property has been compressed between two granitic bodies, the Kasagiminnis Lake and Carling Granite Plutons, on the north and south respectively, resulting in a narrowing of the belt to approximately one mile in width. High angle faults, interpreted from geological and geophysical data, crosscut the volcano-sedimentary sequence and trend northeast-south west and northwest-southeast. Pervasive shearing and small scale folding is probably related to a regional tectonic event.

7.4 Alteration and Mineralization

The following is a description of the setting of the gold mineralization indicated from the historical drill results on the Kasagiminnis Lake Project from G. Herron 2009.

"The hanging wall unit is identified as a fine-grained dacite to rhyodacite tuff. Silicification and sericitization make the unit appear rhyolitic. The mafic volcanic tuff and (or) amphibolite unit may be

a sill-like intrusion or a thin mafic tuff. It contains 1 to 3% fine, disseminated, acicular magnetite. The unit grades into the mineralized zone where it is interlayered with lean chert-magnetite iron formation. The unit is auriferous where the magnetite is replaced by pyrrhotite. Magnetite and pyrrhotite are mutually exclusive of one another.

The footwall quartz-carbonate veinlet zone usually occurs within mafic volcanics, but locally incorporates minor iron formation. The quartz-calcite veinlets are similar to those that carry gold in the mineralized zone.

The footwall zone contains minor, secondary pyrrhotite and subeconomic concentrations of gold. The footwall mafic metavolcanics are tuffs and (or) flows, which appear to be similar to the mafic volcanic tuffs and (or) amphibolites of the hanging wall rocks, are foliated with a fine-to medium-grained porphyroblastic texture, but are otherwise featureless. To date, 25 diamond-drill holes have intersected the mineralized zone.

The mineralized zone is a 10-13 m wide interval of mafic volcanic tuffs interlayered with lean iron formation. The zone is sheared, silicified and contains garnets as well as 1 to 5% pyrrhotite, and occasional concentrations up to 50%. Gold content appears to have a sympathetic relationship with pyrrhotite. In a few cases quartz-carbonate veinlets rimmed by amphibole and grunerite contain visible gold. Grunerite is common throughout the mineralized section. Hanging wall rocks to the mineralized zone are fine grained silicified and sericitized dacite and rhyodacite tuff, containing disseminated red biotite flakes and rarely sulphide minerals. The footwall to the mineralized zone is a sequence of felsic tuffs or flows similar to the mafic tuffs and amphibolites of the hanging wall (Seim, 1993).

The internal structures present in the bedrock are not well understood, due to a paucity of outcrop. Some faults interpreted from magnetic surveys have been supported by mylonites and fault breccias intersected in drill cores. Faults trending both northeast and northwest have been identified and may represent a conjugate fracture system developed in response to emplacement of surrounding granitoid plutons”

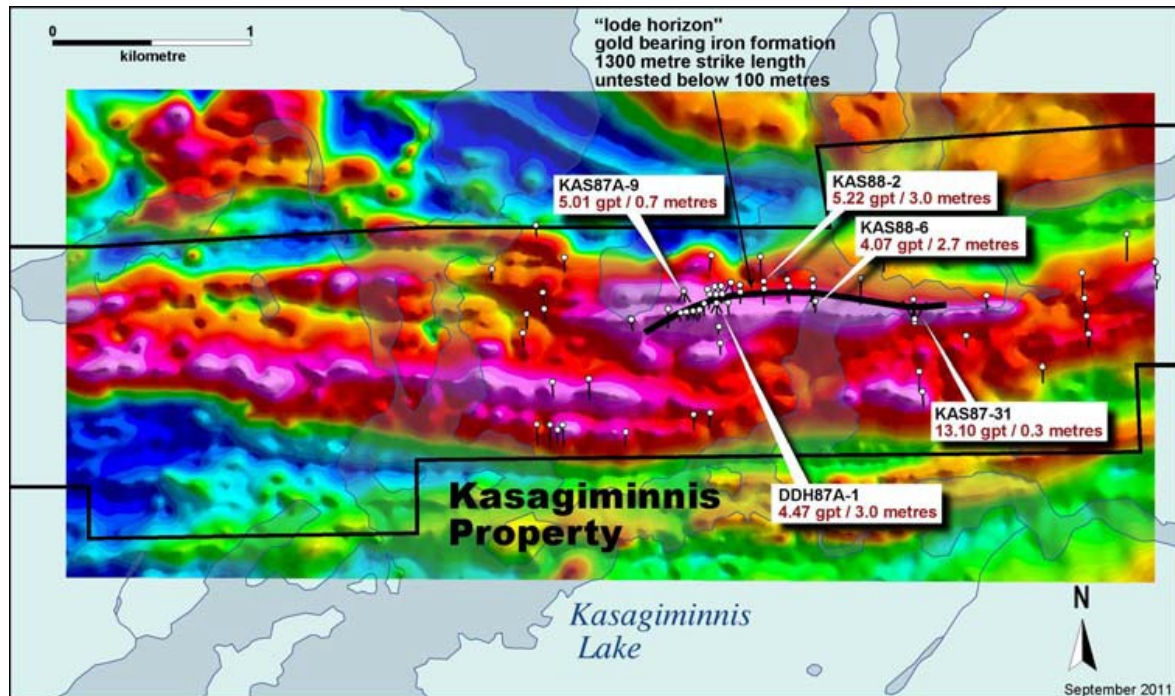


Figure 6 - Relationship between magnetite and gold mineralization (Herron, G.A. 2009)

8 History of Exploration on the Property

Exploration has been documented in the Kasagiminnis Lake area since the early 1970's as follows:

- 1970's UMEX completed regional airborne geophysics and subsequently drilled two anomalies in the Kasagiminnis Lake area. No assay results reported
- 1985 Moss Resources Ltd. Airborne VLF-EM and magnetic survey completed by Terraquest covering Kasagiminnis Lake property and some surrounding area
- 1986 Power Exploration completed geological mapping
- 1986-87 Power Exploration completed 39 drillholes totaling 12,424 feet. Drilling encountered significant gold mineralization including: 4.7' of 0.58 oz/t, 4.2' of 1.40 oz/t & 4.2' of 0.58 oz/t
- 1987 Power Exploration completed detailed geological mapping and ground geophysics with discovery of a mineralized vein 400 feet from previous drilling
- 1987-88 Power Exploration completed 49 drillholes totaling 19,971 feet and outlined a broad zone of gold mineralization over 3700 feet of strike extent
- 2004 McVicar Resources completed airborne magnetic survey

- 2007 Trillium North Resources mapped historic trenches found on the property
- 2009 Manicouagan Minerals completed an airborne magnetic survey.
- 2009 Manicouagan Minerals completed a small soil sampling program to test a geophysical anomaly and reported 41ppb au
- 2010 Manicouagan completed a B horizon soil sampling and mapping program.
- 2011 Manicouagan Minerals completed a drill program of 9 drillholes totaling 1,095 m. Significant results included; 7.9m of 7.24 g/t au and 1.9m of 12.7 g/t au

9 Current Program

Between May 27th and June 22nd, 2018 a diamond drill program was carried out on the Kasagiminnis Lake Project. Fifteen holes, Kas-18-01 to 15, totaling 1869 meters were drilled as part of a due diligence program to test and evaluate high grade historic gold intercepts and test mineralization extensions of key gold mineralization zones (the Kasagiminnis Gold Zone). These historic gold occurrences were previously drilled in 2011 by Manicouagan Minerals Inc. (KAS-11-08 and 09, KAS-11-04 and 05).

9.1 Personnel

Field operations were supervised by Caracle Creek International Consulting Inc. The drill program was supervised by Daniel Grabiec P.Geo and Justin Jonsson GIT. Exploration technician and labour was provided by Alex Pleson of Pleson Geosciences. The drill contractor for the drill program was Forage M3 Drilling Inc. from Hawkesbury, Ontario. The helicopter for the program was supplied by Forest Helicopters Ltd. from Kenora, Ontario. All these individuals and contractors satisfactorily carried out their respective duties. The program was based out of Pickle Lake, located approximately 20 kilometers northeast of the project area.

9.2 Diamond Drilling

Drill hole collars for this program were spotted next to historic holes as they were clearly marked with pickets and drill hole still intact from the 2011 drill programs. The drill was lined up using the Reflex Azimuth Pointing System (APS). Collar location coordinates were taken using the SXBlue Platinum DGPS with centimeter accuracy. The drillers used the point of intersection into the overburden as their zero metre mark. The DGPS points for this program were taken at the same zero metre mark as well where the casing first intersected the overburden. One hole, KAS-18-03 was originally abandoned due to difficult ground conditions but was completed later in the program. Only casing for KAS-18-10 and 12 were left in the ground, all other casing was pulled.

Azimuths for KAS-18-01-05, 07 & 08 were taken with the APS while the drill was being oriented on the drill pad. Azimuths for KAS-18-06,09-15 were taken with the APS attached to the rods while the rods were sitting on bottom at end of hole with the rod clamps disengaged. Due to the difficult overburden conditions the casing could deflect and could cause the drill azimuth to vary 0 to 1.5 degrees east or west from the original drill lineup. Taking the azimuth test on the rods at the end of hole with the clamps disengaged gave us a more accurate test.

Drillhole collar information can be found in Table 1 below and drill Logs describing these holes are appended to this report (**Appendix I**).

Table 1 - Drill Collar Table

HOLE-ID	Easting (m)	NORTH (m)	ELEV (m)	DEPTH (m)	AZIMUTH	DIP
KAS-18-01	682452	5683215	377.68	92.5	180.14	-62
KAS-18-02	682452	5683215	377.68	154	180.14	-78
KAS-18-03	682452	5683215	377.68	101.5	149.84	-50.6
KAS-18-04	682452	5683215	377.68	115	150.74	-62.2
KAS-18-05	682452	5683215	377.68	136	150.73	-70.6
KAS-18-06	682452	5683215	377.68	164.5	151.63	-77.5
KAS-18-07	682452	5683215	377.68	85	210.06	-48.3
KAS-18-08	682452	5683215	377.68	97	208.86	-61.2
KAS-18-09	682452	5683215	377.68	146.5	207.89	-69.4
KAS-18-10	682452	5683215	377.68	142	210.31	-77.9
KAS-18-11	682549	5683228	379.6	131.5	179.88	-54.4
KAS-18-12	682549	5683228	379.6	140.5	179.54	-74.1
KAS-18-13	682549	5683228	379.6	115	210.01	-51.2
KAS-18-14	682549	5683228	379.6	113.5	208.84	-61.8
KAS-18-15	682549	5683228	379.6	134.5	209.61	-70.6

10 Sampling and Analytical Methods

10.1 Diamond Drill Core Sampling Method and QA/QC

All core was transported from the drill site to a core shack in Pickle. Cores were then split by diamond saw in preparation for logging and sampling. A total of 879 samples were taken representing a total of 1015.7 meters of sampling. All samples were cut using a core saw. The core was cut along the top of the foliation of the rocks. The backside of the core remains in the box while the front side of the core was put into individual sample bags with the corresponding sample ticket. Starts and ends of sample intervals were cut perpendicular to core axis with the saw when not on a natural break. All sample intervals start with a sample ticket inserted and stapled at the beginning of the interval. Sample lengths range from 0.5 to 1.5 metres in length. The average sample length for the program was 1.16 meters. In general, one metre samples were taken in the main zone. Some variance occurred when trying to keep similarly mineralized zone rock together or not sampling over lithological boundaries. The largest sample intervals was kept to 1.5 meter intervals and were taken over what appeared to be waste rock. All individual sample bags were labeled and put into rice bags where they were transported to ActLabs in Thunder Bay via our own personnel or shipped on pallets via Manitoulin Transport.

There were 38 standards analyses within the sample stream for drillholes 18-01 to 18-15. Three standards were used, a high, medium, and low Au-bearing certified reference material from Oreas, Oreas 251, Oreas 209 and Oreas 216 .

There were 8 analyses of the high standard, and 6 analyses fell within 3 standard deviations of the certified value. One analysis failed quite low, while another failed high. All 24 analyses of the low and medium standards fell within 3 standard deviations of the certified value.

11% of the blank analyses returned Au values above detection, with values between 5 and 12 ppb Au, corresponding to between 3 and 6 times the detection limit.

Some of the duplicate analyses returned satisfactory results, while others did not.

The overall R2 value for the linear trendline forced through the origin determined on a scatter plot between duplicate analyses was 0.76.

10.2 Sample Preparation and Analytical Methods

The samples were first analyzed using standard fire assay procedures with an AA/ICP finish. Assay results greater than 2.50 gram per tonne were re-run using a gravimetric finish. In addition to the standard quality control of the laboratory, a series of blanks and standards are inserted in every shipment for quality control purposes. A total of 45 standards were inserted in series to the rock samples. One of three alternating standards were added to the series every 25 samples (1.58g/t Au, 6.66g/t Au, 0.505g/t). A total of 45 blanks of ¼" crushed silica was also added in series every 25 samples. A total of 22 quarter duplicates were also added every 50 samples. A quarter duplicate was taken by cutting the half core in half again and inserting them into their own sample bag in sequence after one another.

Specific gravity was measured on site by company geologists for all samples sent to the lab. Five samples from all rock types were measured by the lab as a check to the geologists work.

Sampling and analysis during the Winter 2007 Exploration Program was performed on diamond drill core from all fourteen holes completed.

11 Results

Fifteen diamond drill holes (KAS-18-01 to 15) totaling 1869 meters were drilled on mining claims 319583 and 186270. The holes were drilled in a north-south direction as the target horizon generally strikes east west and dips steeply to the north.

Due to the cost associated with a helicopter supported drill program, all drilling was completed from two drill pads and the drill was turned on the pad to target the mineralized zone at approximately 25 metre intervals. KAS-18-01 to 10 were drilled on three orientations (150, 180, and 210 azimuth) on the first drill pad which was the same collar location as KAS-11-08 and 09. Drillholes KAS-18-11 to 15 were drilled on two orientations (180, and 210 azimuth) on the second drill pad which was collared approximately 10m north of KAS-11-04 and 05. Overburden conditions, especially around Kasagiminnis Lake were difficult. Overburden depths ranged from 3 to 20 meters and often contained very large boulders mixed with sand, as a result KAS-18-03 was originally abandoned but was subsequently drilled after KAS-18-06.

Drilling was completed over a relatively small area and the geology observed in each hole was similar. The holes were collared into 15-30 meters of intermediate volcanics (historically called a

dacite). The presence of feldspar phenocrysts could indicate a volcanic tuff which gradually decreases in feldspar crystals down hole – indicating a possible younging direction down hole. The lower contact of this unit is very gradational and graduates into a mafic volcanic. Within this mafic volcanic, there is a consistent 0.5 to 1 meter wide, coarser grained mafic intrusive closer to the upper contact that is distinctively different than all other units and can be used as a stratigraphic marker. The lower contact of the Mafic Volcanic is generally silicified/bleached and occasionally mineralized for an area of 0.5 to 5 meters at the contact. Frequent zones of quartz flooding were intersected and rare shearing with the disseminated 1-2% pyrite/pyrrhotite. Following the mafic volcanic was a 10-20 meter wide, coarser grained mafic intrusive. Underlying the mafic intrusive is the target horizon, a strongly magnetic unit is the target horizon iron formation. This iron formation unit is not a typical banded magnetite chert unit and more closely resembles a lean iron formation with generally less than 5% visible magnetite. The iron formation begins with upwards of 15% red subhedral garnets. This unit notably had lesser amount of mineralization than iron formations without garnet. There was a fairly sharp drop off of garnets in the iron formation (15% to 0% garnets in less than 1-2 meter length).

The non-garnet iron formation ranged from 10-30m in length and was characterized by <10% magnetite crystals (<3mm subhedral; dark grey-black). This 10-30m area contains one or more areas that are 0.1 to 5 meters in length of mineralization. Mineralization includes quartz flooding with few significant (>1cm wide) quartz veins that contain sulphides. The quartz flooding typically introduces 1-5% finely disseminated pyrrhotite and pyrite and locally up to 10% semi-massive bands. The stronger the silicification, the higher the amount of sulphides can be observed.

Following the iron formation is another mafic intrusive, lithologically similar to the one directly above the garnetiferous iron formation however it is substantially more magnetic. The first 10-20m of this unit can have upwards of ten 0.1 to 1m wide iron formation units from the upper contact of this unit and gradually decreasing in width and occurrences down hole. The amount of magnetite in this unit is strongest near the upper contact and gradually lessens down hole. Notably KAS-18-10 has 0.1-1m wide coarse grained chlorite+biotite+magnetite+quartz ‘units’ throughout this mafic intrusive.

All drill holes during this program generally followed these stratigraphical units in this order and were subsequently shut down shortly after the end of the iron formation unit and into the mafic intrusive at the end of hole.

Table 2 - Current Program Significant Results

Hole ID	Length		Au g/t
	From (m)	To (m)	
KAS-18-01	71.2	83.2	2.27
KAS-18-01	79.2	84.4	1.32
KAS-18-01	84.4	85.4	27.60
KAS-18-02	90.8	96.3	2.68
KAS-18-02	99.0	100.8	2.86

Hole ID	From (m)	To (m)	Length (m)	Au g/t
KAS-18-02	105.9	106.9	1.0	2.90
KAS-18-03	58.0	65.0	7.0	2.33
KAS-18-03	66.2	71.6	5.4	2.46
KAS-18-04	85.0	103.6	18.6	4.52
KAS-18-05	94.0	99.3	5.3	3.74
KAS-18-06	95.1	97.6	2.5	2.43
KAS-18-06	113.5	126.2	12.7	2.09
KAS-18-08	78.4	91.0	12.6	3.87
KAS-18-09	78.8	83.0	4.2	2.20
KAS-18-09	89.7	94.2	4.5	7.39
KAS-18-10	94.3	100.3	6.0	2.18
KAS-18-10	102.5	104.5	2.0	16.60
KAS-18-10	113.4	120.2	6.8	5.68
KAS-18-11	73.9	78.9	5.0	11.54
KAS-18-12	116.4	119.3	2.9	3.13
KAS-18-13	83.0	85.0	2.0	3.54
KAS-18-14	100.8	109.5	8.7	2.51
KAS-18-15	123.1	133.7	10.6	1.39

12 Interpretations and Conclusions

The summer 2018 drill program on the Kasagiminnis Lake Project successfully intersected gold mineralization in every drill hole. Drilling clearly demonstrated the relationship between an iron rich horizon and mineralization while it was also noted the horizon was not definitively a classic banded iron formation of chert and magnetite but lean iron formation with identifiable horizons of more or less magnetite within the unit.

Additional work is warranted along the eastern extension of the Kasagiminnis Gold Zone underneath Kasagiminnis Lake where historical drilling returned values including 9.33 gpt over 1.1 metres. In addition, some deeper drilling should be conducted on the western strike extension of the gold bearing zone including below KAS-18-10.

13 Recommendations

Based on the results of the current exploration program, a further two-phase exploration program is warranted on the Kasagiminnis Lake Project

13.1 Exploration Phase I

Further exploration on the Kasagiminnis Lake Project should include a continuation of the Summer 2018 Drill Program to test depth extents of mineralization. Elsewhere in the Pickle Lake Greenstone belt, iron formation related gold has been mined successfully to depths of down to ~4,000 feet at the Central Pickle mine.

13.2 Exploration Phase II

Contingent on the results of Phase I, further diamond drilling program is recommended to follow up on results from Phase I, and to test additional historic targets along strike to develop a larger, potentially economic, deposit size.

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15 Statement of Qualifications

Daniel Grabiec P.GEO Certificate of Author

I, Daniel Grabiec, P. Geo., residing at 45A Elizabeth St, Thunder Bay, Ontario, P7A 4J4 do hereby certify that:

- 1) Caracle Creek International Consulting Inc. currently contracts me as a consultant geologist.
- 2) I graduated with an Honours Bachelor of Science degree from Lakehead University in 2011.
- 3) I am a member of the Association of Professional Geosciences of Ontario (APGO No. 2628)
- 4) I have worked as a geologist for a total of 7 years since obtaining my B.Sc. degree.
- 5) I am responsible for the preparation of this report titled "Work Report of the 2018 Diamond Drill Program, Kasagiminnis Lake Project, Pickle Lake Area, Ontario"
- 6) I have visited the Property and supervised the diamond drill program.
- 7) I have been involvement with the property that forms the subject of this report since drilling commenced in May, 2018.

Dated the 10th April, 2019
Daniel Grabiec P.Geo.

Caitlin L. Jeffs, B.Sc., P.Geol.

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CERTIFICATE OF THE AUTHOR

I, **Caitlin Jeffs**, do hereby certify that:

1. I am a Partner of Fladgate Exploration Consulting Corporation, the geological consulting firm tasked with this report.
2. I am a member in good standing of the Association of Professional Geoscientists of Ontario (APGO #1488).
3. I am a graduate of the University of British Columbia (Hons. B.Sc., 2002).
4. I have practiced geology for 17 years in a variety of settings, mostly in Northwestern Ontario, Canada, and Chile. I have specific experience in gold including managing multiple exploration programs in the Pickle Lake Greenstone belt over the past 12 years.
5. I have read the definition of "Qualified Person" as set out in the National Instrument 43-101 and certify that by reason of my education, affiliation with a professional association and past relevant work experience, I am a "Qualified Person" for the purposes of NI 43-101.

Dated April 10th, 2019

"Caitlin Jeffs"

Caitlin Jeffs BSc P. Geo

Vice President

Fladgate Exploration Consulting Corporation

Appendix I Diamond Drill Hole Logs

Project:	Pickle Lake		
Prospect:	Kas Lake		
Claim #:	319583 (legacy claim 4207794)		
Hole ID:	KAS-18-01		
Start Date:	27/May/2018		
End Date:	29/May/2018		
EOH Depth:	92.5		
	Datum/Proj:	Nad83	Zone 15
	UTM North:	5683214.613	m
	UTM East:	682451.834	m
	Elevation:	377.68	m
	Dip:	-62	at setup
	Az:	182.18TN	at setup
	Collar Survey Method:	APS	
	Surveyed by:	D.G.	
Drill Co:	M3 Drilling		
Drill Rig:	JKS300		
m From	m To	Hole Size	Drill Type
0	6	BW	Casing
0	92.5	BTW	Rods
Drill comments (issues, casing, gear in hole): Casing was removed after drilling. Difficulty with overburden. Sandy with boulders. APS taken while orienting drill.			
Geology comments: Intersected Mineralized Iron Formation as expected			

GEOLOGICAL CORE LOG

Hole ID: KAS-18-01 EOH called by: Daniel Grabiec

Date Logged: 28/May/11 EOH Reason: Hit barren footwall mafic intrusive unit

Geologist: Justin Jonsson

From (m)	To (m)	Int (m)	Lithology 1	Vein Type	Vein Pct	Pyrite %	Pyrrhotite %	Comments
0.00	5.70	5.70	OB					Overburden
5.70	23.40	17.70	IV	QZCC	1	0.10		Brownish-grey strongly foliated/banded Intermediate Volcanic. 55% subhedral FS (1-5mm; white; weakly boudinaged by foliation) 20% BT (brown; aphanitic to 1 mm; strongly foliated; 1-2mm wide bands; wrap around FS/QZ grains) 15% aph groundmass (could be BT/HB/CH) 7% QZ (1-2mm; clear; weakly boudinaged by fol) 2% CH bands (1cm wide; in proximity to BT) 1% QZ/CB and QZ/CB veining (<1cm wide; 50% of veins have 1-2cm SER halo). Trace disseminated and vein-hosted PY; 10% of rock is weakly magnetic
23.40	26.30	2.90	MV	QZCC	2	0.10		Brownish-green strongly foliated/banded Mafic Volcanic. Alternating BT-rich and CH-rich bands (0.5-7.0 cm). 33% BT (brown; 1-2 mm; strongly foliated), 25% CH (aphanitic to 1 mm; strongly foliated) 25% aphanitic mafic groundmass (could be BT/HB) 15% FS (0.5-2 mm; white; subhedral) 2% QZ/CB veining (both crosscutting and along fol; SER haloes 1 -10 mm) Trace disseminated and vein-hosted PY; 10% of rock is weakly magnetic
26.30	26.80	0.50	MP				2.00	Dark grey moderately foliated non-banded Mafic Intrusive. 30% BT (black; 1-3 mm; mod fol) 30% CH (aph to 1 mm; mod fol) 30% aph groundmass (black/green; could be BT/CH/HB) 10% FS (0.5-2 mm; white) 2% PO (disseminated blebs). Very weakly magnetic.
26.80	30.70	3.90	MV	QZCC	0.1	0.10		60% Green-grey strongly foliated/banded Mafic Volcanic with 40% grey Intermediate Volcanic bands (1-40cm wide), distinguished via FS content (10% vs 40% respectively). Overall 35% BT (1-2 mm; strongly fol; wrap around QZ/FS) 30% aph mafic groundmass (green/black; could be BT/CH/HB) 25% FS (0.5-5 mm; white; anhedral; boudinaged by foliation) 5% CH (in groundmass and in bands) 5% QZ (0.5-2 mm; clear). Tr QZ/CB veins. 2 mm PY vein at 27.5 m
30.70	40.50	9.80	MV	QZ	5	0.50	0.50	Grey-green strongly foliated/banded Mafic Volcanic. Finer grained than above units. 60% aph mafic groundmass (green/black; some is CH, could also be BT/HB) 20% BT (brown; 0.5-1 mm; strongly fol) 10% FS (0.2-1.0 mm; white) 5% QZ veins (veins contain up to 25% SER; BT haloes; no CB). Tr GT. Tr vein-hosted PY
40.50	48.20	7.70	MV	QZ	10	0.10	0.10	Dark grey-green strongly foliated/banded Mafic Volcanic. Gradational contact with above unit. Same as above unit but with weak to moderate silicification and sericitization (becoming stronger through unit); more QZ and QZ/CB veins; more BT bands than above. 30% BT (brown; 0.5-4 mm; mod to strong fol) 30% aph mafic groundmass (green/black; could be CH/BT/HB) 25% CH (green; 0.5-2 mm; mod to strong fol; occurs in matrix and as veins) 10% QZ and QZ/CB veins (most have SER/BT haloes; no CB) 10% FS (0.2-1.0 mm; white). Tr dis PY/PO
48.20	62.70	14.50	MIG	QZCC	3	0.10	0.50	Green moderately foliated Mafic Intrusive. Stronger & more pervasive alteration than above units; weakly foliated with mottled texture that grades to strong foliation toward end of unit. 50% aph mafic groundmass (green/black; some CH; could also be BT/HB) 25% CH (0.5-3 mm; platy; not foliated) 15% BT (0.5-2 mm; brown; foliated) 10% FS (0.2-1.0 mm; white) 3% QZ/CB veins (0.5-2cm; 5 cm vein at 59.2 m). 0.5% PO/PY (disseminated in matrix throughout unit; some vein-hosted; locally up to 5%)
62.70	64.00	1.30	MIG	QZCC	3	5.00		Same Mafic Intrusive as above unit but with strong silicification; more QZ/CB veining. 40% aph mafic groundmass (green/black; some CH; could also be BT/HB) 20% qz veining/silicification (0.5-2 cm; minor CB); 15% CH (0.5-3 mm; platy; not foliated) 10% BT (0.5-2 mm; brown; foliated) 10% FS (0.2-1.0 mm; white). 3% QZ/CB veins. 5% PY (abrupt onset; disseminated blebs and vein-hosted)
64.00	66.50	2.50	SBm	QZCC	1	0.10		Dark grey strongly foliated Banded Iron Formation. 70% of unit is strongly magnetic. 70% aph mafic minerals (including MT) 15% GT (0.5-6.0 mm; red; subhedral) 10% CH (aph to 1 mm; green; foliated) 5% FS (.2-1mm; white) 1% QZ/CB veins (1-2 mm wide). Trace PY

GEOLOGICAL CORE LOG

Hole ID: KAS-18-01 EOH called by: Daniel Grabiec

Date Logged: 28/May/11 EOH Reason: Hit barren footwall mafic intrusive unit

Geologist: Justin Jonsson

From (m)	To (m)	Int (m)	Lithology 1	Vein Type	Vein Pct	Pyrite %	Pyrrhotite %	Comments
66.50	70.40	3.90	SB\$\$	QZCC	10	2.00	2.00	Dark grey strongly foliated Banded Iron Formation with weak-mod silicification. 90% of unit moderately to strongly magnetic. 70% aph mafic minerals (including MT). 10% QZ (appears to be chert). 10% QZ/CB veining (1-2 mm wide; some up to 5 cm; weak CB) 4% sulfides (disseminated PO/PY; massive PY at 69.5-69.6) 2% GT (0.5-6.0 mm; red)
70.40	73.80	3.40	SBm	QZCC	3	0.10	0.10	Dark grey strongly foliated Banded Iron Formation. 50% of unit moderately to strongly magnetic. 50% QZ (appears to be chert) 45% aph mafic minerals (including MT) 3% QZ/CB veining (1-2 mm wide). Trace PY/PO Trace GT (subhedral; >1-2mm;red)
73.80	80.10	6.30	SBm	QZCC	5	0.10		Dark grey strongly foliated Banded Iron Formation. Less MT bands than BIF units above; 30% of the unit moderately to strongly magnetic. 50% FS (0.2-2 mm; mottled with CH) 45% CH (aph to 0.5 mm) 5% QZ/CB veining (1-15 mm; thicker than in above BIF units on average) 5% MT bands (dark grey; 0.1-0.5 mm). Trace PY
80.10	84.40	4.30	MIG	QZCC	2	0.10		Dark grey moderately foliated Mafic Intrusive. Moderately magnetic. 40% FS (0.5-2 mm; white) 30% CH (aph to 2 mm; platy; wrap around FS ;green) 15% BT (aph to 1 mm; platy; wrap around FS; brown) 13% MT (equant; aph to 1 mm; black) 2% QZ/CB veining (1-10 mm wide; 20% w/ SER halos). Tr disseminated and vein-hosted PY
84.40	86.40	2.00	SCm	QZCC	10	0.10		Dark grey strongly foliated Banded Iron Formation. 70% of unit is moderately to strongly magnetic. 50% CH (aph to 2 mm). 30% FS (0.2-1.0 mm; white; weakly boudinaged by foliation) 10% MT (equant; aph to 1 mm; 1-5mm bands) 10% QZ/CB veins (0.1 - 3.0 cm; 85.2-85.5 m strong ch alteration halos). Tr disseminated and vein-hosted PY; up to 2% at 85.2-85.5 m.
86.40	92.50	6.10	MIG	QZCC	2	0.10		Dark grey moderately foliated Mafic Intrusive. Moderately magnetic; finer-grained and more mafic than intrusive at 80.1-84.4 m. 40% CH (aph to 2 mm; platy; wrap around FS). 30% FS (0.5-2 mm;white) 15% MT (equant; aph to 0.5 mm) 15% BT (aph to 1 mm; platy; wrap around FS) 2% QZ/CB veining (1-10 mm wide; weak SER halos). Tr disseminated PY
92.5	EOH							

STRUCTURAL CORE LOG

Hole ID: KAS-18-01

Date Logged: 05/May/18

Geologist: JJ

Core Data

From (m)	To (m)	Interval (m)	Rock Type	Structure Type	Foliation (TCA)	Other (TCA)	Struc. Intensity
0.00	5.50	5.50	OB				
7.00	8.00	1.00	IV	Fol	30		S
12.00	13.00	1.00	IV	Fol	42		S
16.36	16.38	0.02	IV	Vn		46	W
20.90	21.90	1.00	IV	Fol	38		S
26.00	26.17	0.17	MV	Stw		45	M
26.30	26.80	0.50	MP	Fol	41		S
31.00	32.00	1.00	MV	Fol	38		S
36.43	36.63	0.20	MV	Bx			M
41.00	42.00	1.00	MV	Fol	55		S
45.00	46.00	1.00	MV	Vn		44	W
51.00	52.00	1.00	MV	Fol	55		M
56.00	57.00	1.00	MV	Vn		46	M
61.00	62.00	1.00	MV	Fol	50		S
66.00	67.00	1.00	SB\$\$	Fol	46		S
71.00	72.00	1.00	SB\$\$	Fol	47		S
76.00	77.00	1.00	SBm	Fol	51		S
81.00	82.00	1.00	SBm	Fol	49		S
85.00	86.00	1.00	SCm	Fol	56		S
89.00	90.00	1.00	MIG	Fol	33		M

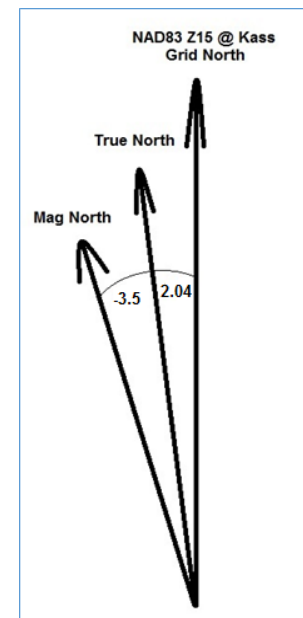
SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-18	Sampled by: JJ			DATE:	31/May/18					
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
789601			0.00		Blank						
789602	25.30	26.30	1.00	0.005	Shoulder	MV	1	1148	1784	2.805	
789603			0.00		Blank						
789604	26.30	26.80	0.50	0.011	Mafic dike with 2% dis po	MP	0.5	528	832	2.7368	
789605			0.00	6.66 g/t	Standard						
789606	26.80	27.80	1.00	0.002	Shoulder	MV	1.00	1126	1802	2.6657	
789607	52.00	53.00	1.00	0.001	Trace dis py in host	MIG	1.00	1366	2068	2.9459	
789608	53.00	54.00	1.00	0.004	Trace dis py/po in host	MIG	1.00	1322	2014	2.9104	
789609	54.00	55.00	1.00	0.021	1% po/py vein-hosted and dis in host	MIG	1.00	698	1048	2.9943	
789610	54.00	55.00	1.00	Dup of 789609	1% po/py vein-hosted (qz w ch halo) and dis in host	MIG	1.00	530	800	2.963	
789611	55.00	56.00	1.00	0.017	Trace dis py/po in host; 5% qz and qz/cb veins	MIG	1.00	1026	1660	2.6183	
789612	56.00	57.00	1.00	0.001	Trace dis py/po in host; 5% qz and qz/cb veins	MIG	1.00	1176	1888	2.6517	
789613	57.00	58.00	1.00	0.006	Trace dis py/po in host; 5% qz/cb veins	MIG	1.00	1250	2042	2.5783	
789614	58.00	59.00	1.00	0.018	Trace dis py/po in host; 5% qz/cb veins	MIG	1.00	1274	2040	2.6632	
789615	59.00	60.00	1.00	0.065	3% po in host; 10% qz/cb veins	MIG	1.00	1370	2160	2.7342	
789616	60.00	61.00	1.00	0.367	0.5% py in host; 0.5% po in host; 2% qz/cb veins	MIG	1.00	1136	1814	2.6755	
789617	61.00	62.00	1.00	0.031	4% dis po in host; 1% dis py in host; 1% qz/cb veins	MIG	1.00	1316	2084	2.7135	
789618	62.00	62.70	0.70	1.05	3% dis py in host; 2% dis po in host; 1% qz/cb veins	MIG	0.70	852	1412	2.5214	
789619			0.00		Blank		0.00				
789620	62.70	63.50	0.80	6.01	8% dis py in host; tr dis po in host; 3% qz/cb veins	MIG	0.80	772	1230	2.6856	

SAMPLE & SPECIFIC GRAVITY LOGS										
Hole ID:	KAS-18-18		Sampled by:	JJ		DATE:	31/May/18			
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)				
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG
789621	63.50	64.00	0.50	1.55	4% dis py in host; tr dis po in host; 5% qz/cb veins	MIG	0.50	682	1044	2.884
789622	64.00	64.90	0.90	0.25	Tr dis py in host; 2% qz veins	SBm	0.90	1274	1934	2.9303
789623	64.90	65.70	0.80	0.001	Tr dis py in host	SBm	0.80	1176	1740	3.0851
789624	65.70	66.50	0.80	0.001	Tr dis py/po in host; 1% qz/cb veins	SBm	0.80	924	1376	3.0442
789625	66.50	67.50	1.00	1.31	1.5% dis po in host; 1% dis py in host; 3% qz/cb veins	SB\$\$	1.00	1576	2284	3.226
789626					Blank		0.00			
789627	67.50	68.40	0.90	6.02	3% dis po in host; 2% dis py in host; 7% qz/cb veins	SB\$\$	0.90	1292	1946	2.9755
789628	68.40	69.40	1.00	7.1	3% dis po in host; 0.5% dis py in host; 5% qz/cb veins	SB\$\$	1.00	1356	2054	2.9427
789629	69.40	70.40	1.00	4.72	7% massive/vein-hosted/dis py; 3% dis po in host; 5% qz and qz/cb veins	SB\$\$	1.00	1356	2032	3.0059
789630				0.505 g/t	Standard					
789631	70.40	71.20	0.80	1.26	0.5% dis po in host	SBm	0.80	1084	1622	3.0149
789632	71.20	72.00	0.80	0.862	Tr dis py in host; 1% qz/cb veins	SBm	0.80	1174	1772	2.9632
789633	72.00	72.90	0.90	0.002	1% qz/cb veins	SBm	0.90	1242	1870	2.9777
789634	72.90	73.80	0.90	0.005	Tr dis py in host; 3% qz and qz/cb veins	SBm	0.90	1230	1850	2.9839
789635	73.80	74.90	1.10	0.101	0.5% dis py in host; tr dis po in host; 1% qz/cb veins	SBm	1.10	1688	2518	3.0337
789636	74.90	76.00	1.10	4.23	1% dis po in host; 1% dis and vein-hosted py; 5% qz and qz/cb veins	SBm	1.10	1660	2462	3.0698
789637	76.00	77.00	1.00	0.989	1% dis py in host; tr po in host; 5% qz and qz/cb veins	SBm	1.00	1540	2280	3.0811
789638	77.00	78.20	1.20	0.206	0.5% dis py in host; tr po in host; 1% qz and qz/cb veins	SBm	1.20	1762	2600	3.1026

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-18	Sampled by: JJ			DATE:	31/May/18					
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
789639	78.20	79.20	1.00	0.171	0.5 % dis po in host; 0.5% dis py in host; 7% qz and qz/cb veins	SBm	1.00	1468	2200	3.0055	
789640	79.20	80.10	0.90	0.895	0.5 % dis po in host; 0.5% dis py in host; 0.5% qz and qz/cb veins	SBm	0.90	996	1474	3.0837	
789641	80.10	81.20	1.10	0.012	Tr dis py in host; 0.5% qz/cb veins	MIG	1.10	1536	2272	3.087	
789642	81.20	82.30	1.10	0.007	0.5% qz/cb veining	MIG	1.10	1660	2462	3.0698	
789643	82.30	83.40	1.10	0.014	0.5% qz/cb veining w ser haloes	MIG	1.10	1582	2338	3.0926	
789644	83.40	84.40	1.00	0.011	Tr po in host; 0.5% qz/cb veins	MIG	1.00	1422	2098	3.1036	
789645	84.40	85.40	1.00	27.6	2% vein-hosted and dis py; tr dis po in host; 4% qz and qz/cb veins	SCm	1.00	1230	1844	3.0033	
789646	85.40	86.40	1.00	0.029	Tr po in host; tr py in host; 7% qz and qz/cb veins (some w ser haloes)	SCm	1.00	1322	1970	3.0401	
789647	86.40	87.50	1.10	0.026	Tr po in host; tr py in host; 2% qz and qz/cb veins (some w ser haloes)	MIG	1.10	1110	1624	3.1595	
789648	87.50	88.50	1.00	0.007	Tr po in host; tr py in host; 1% qz and qz/cb veins (some w ser haloes)	MIG	1.00	1550	2252	3.208	
789649	88.50	89.50	1.00	0.011	Tr dis py in host; 0.5 qz/cb veins	MIG	1.00	1478	2180	3.1054	
789650	89.50	90.50	1.00	0.013	Tr vein-hosted py; 0.5% qz and qz/cb veins (ch and ser haloes)	MIG	1.00	1400	2044	3.1739	
789651					Blank						

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID: KAS-18-18		Sampled by: JJ			DATE: 31/May/18						
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
789652	90.50	91.50	1.00	0.003	Tr dis and vein-hosted py; 2% qz and qz/cb veins (ch and ser haloes)	MIG	1.00	1436	2112	3.1243	
789653	91.50	92.50	1.00	0.001	Tr dis py; 0.5% qz/cb veins w ch haloes	MIG	1.00	1348	1950	3.2392	

LOGGED BY: JJ	Magnetic Declination:		5.54	West	Equipment:	Reflex			
BHID	Depth (m)	Dip (neg.)	Az (TN)	Az (Mag)	Az (NAD83)	Az (NAD83 Used)	Mag Sus (nT)	DDH Ref	Geo/Driller Comments
KAS-18-01	0	-62.0	182.18		180.14	180.14		APS	Casing at 7.5 m
KAS-18-01	17.5	-61.4		191.5	186.0	180.6	57265.00	Reflex	Az affected by mag
KAS-18-01	47.5	-60.4		191.9	186.4	181.3	56329.00	Reflex	Az affected by mag
KAS-18-01	77.5	-59.8		197.2	191.7	182.1	58247.00	Reflex	Az affected by mag
KAS-18-01	90	-56.6		189.6	184.1	182.4	63579.00	Reflex	Az affected by mag



Project:	Pickle Lake		
Prospect:	Kas Lake		
Claim #:	319583 (legacy claim 4207794)		
Hole ID:	KAS-18-02		
Start Date:	30/May/18		
End Date:	01/June/18		
EOH Depth:	154 m		
	Datum/Proj:	Nad83	Zone 15
	UTM North:	5683214.613	m
	UTM East:	682451.834	m
	Elevation:	377.68	m
	Dip:	-78	at setup
	Az:	182.18TN	at setup
	Collar Survey Method:	APS	
	Surveyed by:	DG	
Drill Co:	M3 Drilling		
Drill Rig:	JKS300		
m From	m To	Hole Size	Drill Type
0	7.5	BW	Casing
6	154	BTW	Rods
Drill comments (issues, casing, gear in hole): Casing was removed after drilling. APS taken while orienting drill.			
Geology comments: Intersected Mineralized Banded Iron Formation.			

GEOLOGICAL CORE LOG

Hole ID: KAS-18-02

EOH called by: Dan Grabiec

Date Logged: 01/June/18

EOH Reason: Drilled past Banded Iron Formation into Mafic Intrusive.

Geologist: Justin Jonsson

From (m)	To (m)	Int (m)	Lithology 1	Vn Type	Vn Pct	Mineral 4	Pyrite %	Pyrrhotite %	Comments
0.00	4.00	4.00	OB						
4.00	30.00	26.00	IV	QZCC	1	CH	0.10		Brownish-grey strongly foliated/banded Intermediate Volcanic. 45% subhedral FS (1-5mm; white; weakly boudinaged by foliation) 25% aph mafic groundmass (could be BT/CH/HB) 20% BT (brown; aphanitic to 1 mm; strongly foliated; 1-2mm wide bands; wrap around FS/QZ grains) 5% QZ (1-2mm; clear; weakly boudinaged by fol) 2% CH bands (1-5 cm wide; proximal to BT & PY) 1% QZ & QZ/CB veining (<1cm wide; 25% of veins have 1-5 cm SER halo; HM haloes at 22-25 m; few veins crosscut fol). Trace dis and vein-hosted PY; 5% of rock is weakly magnetic (mostly at ch veins)
30.00	36.30	6.30	MV	QZCC	1	QZ	0.10		75% Green-grey strongly foliated/banded Mafic Volcanic with 25% grey Intermediate Volcanic bands (1-40cm wide), distinguished via FS content (10% vs 35% respectively). Overall 45% aph mafic groundmass (green/black; could be BT/CH/HB) 20% BT (aph to 2 mm; strongly fol; wrap around qz/fs) 15% FS (0.5-3 mm; white; anhedral; boudinaged by foliation) 15% CH (aph to 2 mm; strongly fol; mostly in bands alternating with BT-rich zones in MV) 3% QZ (0.5-2 mm; clear). 1% QZ and QZ/CB veins (0.5-3 cm; 50% of veins have SER haloes; HM haloes at 33.4-33.7 m; few veins crosscut fol) Tr dis and vein-hosted PY throughout (mostly assc w CH bands). Not magnetic.
36.30	37.10	0.80	MP			PO		2.00	Dark grey moderately foliated non-banded Mafic Intrusive. 35% aphanitic groundmass (black/green; could be bt/ch/hb) 25% BT (black; 1-3 mm; mod fol; wrap around FS) 25% CH (aph to 1 mm; mod fol) 15% FS (white; 0.5-2 mm) 1% disseminated PO. Not magnetic.
37.10	45.30	8.20	MV	QZCC	0.5	QZ	0.10	0.10	Same as unit before mafic dike but thicker intermediate layers. 65% Green-grey strongly foliated/banded Mafic Volcanic with 35% grey Intermediate Volcanic bands (1-50cm wide), distinguished via FS content (10% vs 35% respectively). Overall 40% aph mafic groundmass (green/black; could be BT/CH/HB) 20% BT (aph to 2 mm; strongly fol; wrap around QZ/FS) 20% FS (0.5-3 mm; white; anhedral; rotated and boudinaged by foliation) 15% CH (aph to 2 mm; strongly fol; mostly in bands alternating with BT-rich zones in MV) 3% QZ (0.5-2 mm; clear). 0.5% QZ and QZ/CB veins (BT/SER/CH haloes; HM halo at 49.5). Tr PY dis/vein-hosted throughout (mostly assc w CH veins); Tr dis PO. Not magnetic. Brecciated host rock in 3-5 cm CH veins at 42.9-43.4 m.
45.30	68.20	22.90	MV	QZ	3	QZ	0.10	0.10	Grey-green strongly foliated/banded Mafic Volcanic. 60% aph mafic groundmass (green/black; some is CH; could also be BT/HB) 25% BT (brown; 0.5-1 mm; strongly fol) 10% FS (0.2-1.0 mm; white) 3% QZ veins (veins contain up to 25% ser; BT haloes; no CB; few veins crosscut fol). Tr GT; tr dis/vein-hosted PY/PO. 5% of rock is weakly magnetic. Fault gouges at 46.3 m, 68.1 m
68.20	71.50	3.30	MV	QZCC	0.5	PO	0.10	0.10	Dark grey-green strongly foliated/banded Mafic Volcanic. Gradational contact with above and below units. Same as above unit but with weak to moderate silicification and sericitization. 45% aph mafic groundmass (green/black; could be CH/BT/HB) 20% BT (brown; 0.5-2 mm; mod to strong fol) 20% FS (0.2-1.0 mm; white) 15% CH (green; 0.5-2 mm; mod to strong fol). 0.5% QZ/CB veins (0.5-1 mm; SER haloes) Tr dis PY/PO (4% PO at 69.4-69.6; dis blebs)

GEOLOGICAL CORE LOG

Hole ID: KAS-18-02

EOH called by: Dan Grabiec

Date Logged: 01/June/18

EOH Reason: Drilled past Banded Iron Formation into Mafic Intrusive.

Geologist: Justin Jonsson

From (m)	To (m)	Int (m)	Lithology 1	Vn Type	Vn Pct	Mineral 4	Pyrite %	Pyrrhotite %	Comments
71.50	80.00	8.50	MIG	QZCC	5		0.20	0.10	Green moderately foliated Mafic Intrusive. Stronger & more pervasive alteration than above units; weakly to moderately foliated; coarser grained than above; mottled texture. 30% aph mafic groundmass (green/black; some CH; could also be BT/HB) 25% CH (0.5-4 mm; platy; weakly foliated) 25% BT (0.5-4 mm; brown; weakly foliated) 10 QZ% (<0.5 mm; likely amygdules; grains rimmed by thin white qz/cb haloes strongly following fol) 5% QZ/CB (1-3 cm veins; <0.5 mm haloes around QZ) 5% FS (0.2-1.0 mm; white) 0.3% PO/PY (disseminated in matrix throughout unit)
80.00	86.40	6.40	SBm	QZCC	5	CH	0.10		Dark grey strongly foliated Banded Iron Formation. 30% of rock weak to mod magnetic. 40% aph mafic mins (including MT) 35% QZ (appears to be chert) 15% BT (aph to 2 mm; brown; strongly fol) 5% QZ/CB veins (0.1-3.0 cm; 30% have SER haloes) 5% CH (0.5-2 mm; green; mod fol) Tr dis PY.
86.40	89.70	3.30	SBm	QZ	1	BT	0.10	0.10	Dark grey strongly foliated Banded Iron Formation. 90% of rock mod to strongly magnetic. 40% aph mafic mins (including MT) 15% CH (0.5-2.0 mm) 15% GT (0.5-5 mm; red) 10% QZ (chert and/or flooding) 10% BT (0.5-1.0 mm; brown) 5% FS (0.2-1 mm; white) 5% MT (0.1-0.5 mm; more in aph matrix) 1% QZ and QZ/CB veins (0.1-5.0 cm). Pervasive SER alteration 87.1-87.5 m. TR dis PO/PY (locally up to 3% PY)
89.70	99.00	9.30	SB\$\$	QZ	4	GT	0.20	0.30	Dark grey strongly foliated Banded Iron Formation. Weakly to mod silicified; 70% of unit moderately to strongly magnetic. 55% aph mafic minerals (including MT). 30% QZ (appears to be chert) 5% FS (0.2-1.0 mm; white) 1% GT (0.5-1 mm; red) 4% QZ/CB veining (1-2 mm wide; few SER haloes) 0.5% sulfides (disseminated PO/PY; locally up to 5%)
99.00	106.40	7.40	SBm	QZ	3	BT	0.10	0.10	Dark grey strongly foliated Banded Iron Formation. 60% of unit moderately to strongly magnetic. 45% QZ (appears to be chert) 25% aph mafic minerals (including MT) 10% CH (aph to 2 mm; green; strongly fol) 10% BT (aph to 2 mm; brown; strongly fol) 5% FS (0.2-1.0 mm; white) 3% QZ and QZ/CB veining (0.1-8 cm wide). 2% GT (subhedral; 0.5-3 mm; red) Tr PY/PO (mostly dis; some massive PY; locally up to 5%)
106.40	114.10	7.70	SBm	QZCC	1	CH			Dark grey strongly foliated Banded Iron Formation (75%) intercalated with Mafic Intrusive (25%). 70% of unit mod to strongly magnetic. Overall 40% QZ (appears to be chert) 30% aph mafic minerals (including MT) 10% BT (aph to 1 mm; brown; strong fol) 10% FS (1-3 mm; white) 5% CH (aph to 1 mm; green; strong fol) 1% QZ/CB veining (1-10 mm)
114.10	143.30	29.20	MIG	QZCC	1	MT	0.10	0.10	Dark grey moderately foliated Mafic Intrusive. Moderately magnetic throughout. 35% FS (0.5-2 mm; white) 25% CH (aph to 2 mm; platy; wrap around FS; green) 20% BT (aph to 1 mm; platy; wrap around FS; brown) 15% aph mafic mins (inc MT; could be BT/HB/CH) 5% MT (equant; aph to 1 mm; black) 1% QZ/CB veins (1-10 mm; 3% veins from 114.1-122.5 m). Light green pervasive/halo alteration at 127.2-129.8 m (possible grunerite; could be sericite). Tr dis PY/PO (up to 1% locally). Thin BIF zones at 135.9-136.0 and and 136.8-137.0 m

GEOLOGICAL CORE LOG

Hole ID: KAS-18-02 EOH called by: Dan Grabiec

Date Logged: 01/June/18 EOH Reason: Drilled past Banded Iron Formation into Mafic Intrusive.

Geologist: Justin Jonsson

From (m)	To (m)	Int (m)	Lithology 1	Vn Type	Vn Pct	Mineral 4	Pyrite %	Pyrrhotite %	Comments
143.30	145.40	2.10	SB\$\$	QZCC	10	TM		3.00	Dark grey weakly to moderately foliated Banded Iron Formation. Strongly magnetic. 40% FS (0.2-1.0 mm; white) 25% aph mafic groundmass (inc MT) 10% MT (0.5 to 3 mm; equant) 10% QZ/CB veining (along foliation and stockwork; disseminated TM assc w sulfides) 10% CH (0.5-3 mm; platy; strong fol; occurs in bands) 3% PO (disseminated blebs/vein-hosted) 0.5% PY (disseminated blebs)
145.40	154.00	8.60	MIG	QZCC	1	MT	0.10	0.10	Same Mafic Intrusive as 114.1-143.2 (95%) intercalated with BIF similar to 143.2-145.4 (5%). Intrusive is 30% FS (0.5-2 mm; white) 25% CH (aph to 2 mm; platy; wrap around FS ;green) 20% BT (aph to 1 mm; platy; wrap around FS; brown) 20% aph mafic mins (inc MT; could be BT/HB/CH) 5% MT (equant; aph to 1 mm; black) 1% QZ/CB veins. BIFs at 147.5-147.6; 149.2-150.2 (strongly magnetic; 40% coarse MT; 2% dis blebs PO; 0.5% dis blebs PY)
154	EOH								

STRUCTURAL CORE LOG

Hole ID: KAS-18-02

Date Logged: 02/June/18

Geologist: JJ

Core Data

From (m)	To (m)	Interval (m)	Rock Type	Structure Type	Foliation (TCA)	Other (TCA)	Struc. Intensity
0.00	4.00	4.00	OB				
10.00	10.10	0.10	IV	Fol	26		S
15.00	15.10	0.10	IV	Fol	31		S
19.90	20.00	0.10	IV	Fol	24		S
23.60	23.70	0.10	IV	Vn		33	W
29.90	30.00	0.10	IV	Fol	32		S
35.00	35.10	0.10	MV	Fol	32		S
37.50	37.60	0.10	MV	Vn		69	W
40.70	40.80	0.10	MV	Fol	32		S
45.00	45.10	0.10	IV	Fol	28		S
49.90	50.00	0.10	MV	Fol	26		S
52.40	52.50	0.10	MV	Vn		74	W
54.80	54.90	0.10	MV	Fol	28		S
60.20	60.30	0.10	MV	Fol	28		S
64.90	65.00	0.10	MV	Fol	28		S
69.00	69.10	0.10	MV	Fol	24		S
79.00	79.10	0.10	MV	Fol	30		S
83.00	83.10	0.10	SBm	Fol	38		S
86.00	86.10	0.10	SBm	Fol	40		S
92.50	92.60	0.10	SB\$\$	Fol	38		S
97.00	97.10	0.10	SB\$\$	Fol	35		S
104.00	104.10	0.10	SBm	Fol	30		S
110.00	110.10	0.10	SBm	Fol	30		S
113.40	113.50	0.10	SBm	Fol	36		S
117.00	117.10	0.10	MIG	Fol	30		S
121.80	121.90	0.10	MIG	Fol	39		S
129.00	129.10	0.10	MIG	Fol	34		S
134.50	134.60	0.10	MIG	Fol	39		S
140.50	140.60	0.10	MIG	Fol	30		S

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-02	Sampled by:			JJ	DATE	03/June/18				
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
789654	35.30	36.30	1.00	0.005	Shoulder; 2% qz/cb veins w ser haloes	MV		1342	2092	2.7893	
789655			0.00	1.58 g/t	Standard		0.00				
789656	36.30	37.10	0.80	0.01	Mafic dike w 1% dis po; 1% qz/cb veins w ser haloes	MP	0.80	1012	1564	2.8333	
789657	37.10	38.10	1.00	0.012	Shoulder; 1% qz/cb veins w ser haloes	MV	1.00	1294	2020	2.7824	
789658	67.20	68.20	1.00	0.008	Shoulder	MV	1.00	1222	1942	2.6972	
789659	68.20	69.30	1.10	0.003	Tr dis po/py in host	MV	1.10	546	862	2.7278	
789660	68.20	69.30	1.10	Dup of 789659	Tr dis po/py in host	MV	1.10	546	862	2.7278	
789661					Blank		0.00				
789662	69.30	69.80	0.50	0.013	2% dis po in host	MV	0.50	620	972	2.7614	
789663	69.80	70.30	0.50	0.018	3% qz/cb veins w ser haloes	MV	0.50	726	1148	2.7204	
789664	70.30	71.50	1.20	0.018	Tr vein-hosted py; 1% qz veins w ch halo	MV	1.20	1336	2092	2.7672	
789665	71.50	72.50	1.00	0.005	Tr dis py in host	MIG	1.00	1358	2012	3.0765	
789666	72.50	74.00	1.50	0.002	Tr dis py/po in host; 1% qz/cb veins	MIG	1.50	2262	3322	3.134	
789667	74.00	75.50	1.50	0.001	Tr dis py/po in host	MIG	1.50	2218	3298	3.0537	
789668	75.50	77.00	1.50	0.001	Tr dis py/po in host; 1% qz/cb veins	MIG	1.50	2140	3170	3.0777	
789669	77.00	78.00	1.00	0.023	Tr dis py/po in host	MIG	1.00	1538	2234	3.2098	
789670	78.00	79.00	1.00	0.012	Tr dis py/po in host; 3% qz/cb veins	MIG	1.00	1404	2098	3.0231	
789671	79.00	80.10	1.10	0.003	0.5% po (dis blebs & vein-hosted); tr dis py in host; 5% qz/cb veins w ser haloes	MIG	1.10	1690	2476	3.1501	

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-02	Sampled by:			JJ	DATE	03/June/18				
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
789672	80.10	81.10	1.00	0.001	Tr dis/vein-hosted py/po; 10% qz/cb veins	SBm	1.00	1406	2100	3.0259	
789673	81.10	82.10	1.00	0.074	2% qz/cb veins	SBm	1.00	1486	2208	3.0582	
789674	82.10	83.10	1.00	0.024	Tr dis py/po in host; 2% qz/cb veins	SBm	1.00	1564	2308	3.1022	
789675	83.10	84.10	1.00	0.141	0.3% sulfides (dis py/po); 5% qz/cb veins w ser halo	SBm	1.00	1590	2354	3.0812	
789676					Blank		0.00				
789677	84.10	85.10	1.00	0.015	Tr dis py in host; 2% qz/cb veins	SBm	1.00	1622	2398	3.0902	
789678	85.10	86.40	1.30	0.117	5% qz/cb veins	SBm	1.30	1654	2460	3.0521	
789679	86.40	87.40	1.00	1.16	2% qz/cb veins	SBm	1.00	1626	2434	3.0124	
789680			0.00	6.66 g/t	Standard		0.00				
789681	87.40	88.40	1.00	1.18	0.2% sulfides (py/po; dis/vein-hosted)	SBm	1.00	1384	2060	3.0473	
789682	88.40	89.70	1.30	0.257	0.2% dis/vein-hosted py; tr dis po; 0.5% qz/cb veins	SBm	1.30	1792	2698	2.9779	
789683			0.00		Blank		0.00				
789684	89.70	90.80	1.10	6.48	3% po (dis blebs/vein- hosted); tr dis py; 5% qz and qz/cb veins)	SB\$\$	1.10	1420	2174	2.8833	
789685	90.80	91.90	1.10	4.5	2% po (dis blebs/vein hosted); 2% py (dis blebs/vein-hosted); 10% qz and qz/cb veins	SB\$\$	1.10	1542	2350	2.9084	
789686	91.90	93.00	1.10	0.433	0.2% dis po in host; 1% qz/cb veins	SB\$\$	1.10	1604	2410	2.9901	
789687	93.00	94.50	1.50	0.003	Tr dis po in host; 0.5% qz/cb veins	SB\$\$	1.50	2152	3258	2.9458	
789688	94.50	96.00	1.50	0.015	0.5% qz/cb veins	SB\$\$	1.50	2186	3280	2.9982	

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-02	Sampled by:			JJ	DATE	03/June/18				
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
789689	96.00	97.50	1.50	0.004	Tr dis py in host; 0.5% qz/cb veins	SB\$\$	1.50	2080	3126	2.9885	
789690	97.50	98.20	0.70	0.501	0.2% dis po/py in host;	SB\$\$	0.70	1088	1626	3.0223	
789691	98.20	99.00	0.80	3.31	2% dis/vein-hosted po; 1% vein-hosted py; 15% qz/cb vein w ser halo	SB\$\$	0.80	1212	1818	3	
789692	99.00	100.00	1.00	3.12	1.5% dis/vein-hosted po; tr vein-hosted py; 10% qz/cb veins w ser halo	SBm	1.00	1522	2238	3.1257	
789693	100.00	101.00	1.00	0.008	0.5% qz/cb veins w ser halo	SBm	1.00	1634	2436	3.0374	
789694	101.00	102.00	1.00	0.135	Tr dis py/po; 2% qz/cb veins w ser halo	SBm	1.00	1268	1906	2.9875	
789695	102.00	103.00	1.00	0.034	7% qz/cb veins w ser halo	SBm	1.00	1424	2130	3.017	
789696	103.00	104.00	1.00	0.052	Tr dis po in host; 1% qz/cb veins w ser halo	SBm	1.00	1428	2138	3.0113	
789697	104.00	105.40	1.40	0.156	Tr py/po (dis/vein-hosted); 0.5% qz/cb veins w ser alt	SBm	1.40	1960	2920	3.0417	
789698	105.40	105.90	0.50	1.61	2% po (dis blebs/vein hosted); 2% py (dis blebs/vein-hosted)	SBm	0.50	656	984	3	
789699	105.90	106.40	0.50	3.98	3% py (dis/vein-hosted/semi-massive); tr dis po; 15% qz/cb veins	SBm	0.50	754	1108	3.1299	
789700	106.40	107.40	1.00	0.794	0.2% dis py in host; 1% qz/cb veins w ser alt	SBm	1.00	1388	2042	3.1223	
789701					Blank		0.00				
789702	107.40	108.40	1.00	0.008	1% qz/cb veins w ser alt	SBm	1.00	1642	2442	3.0525	
789703	108.40	109.40	1.00	0.006	Tr qz/cb veins	SBm	1.00	1454	2152	3.0831	
789704	109.40	110.40	1.00	0.004	0.5% qz/cb veins w ser haloes	SBm	1.00	1520	2246	3.0937	

SAMPLE & SPECIFIC GRAVITY LOGS										
Hole ID:	KAS-18-02	Sampled by:	JJ	DATE	03/June/18					
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)				
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG
789705				0.505 g/t	STANDARD		0.00			
789706	110.40	111.40	1.00	0.036	Tr scattered py	SBm	1.00	1682	2494	3.0714
789707	111.40	112.30	0.90	0.489	1% dis/vein-hosted py; 0.5% dis po; 0.5% qz/cb veins w ser halo	SBm	0.90	1222	1806	3.0925
789708	112.30	113.20	0.90	0.204	1% dis/vein-hosted py; 1% dis po; 5% qz/cb veins w ser halo	SBm	0.90	1416	2102	3.0641
789709	113.20	114.10	0.90	0.114	Tr dis py/po; 3% qz/cb veins	SBm	0.90	712	1034	3.2112
789710	113.20	114.10		789709	Duplicate of 789709	SBm	0.00	602	876	3.1971
789711	114.10	115.50	1.40	0.197	Tr vein-hosted py; 1% qz/cb veins	MIG	1.40	2688	3942	3.1435
789712	115.50	117.00	1.50	0.011	Tr vein-hosted py; 2% qz/cb veins w ser halo	MIG	1.50	1808	2640	3.1731
789713	117.00	118.30	1.30	0.049	Tr dis py in host; 3% qz/cb veins w ser halo	MIG	1.30	1788	2656	3.0599
789714	118.30	119.30	1.00	0.319	0.2% dis po in host; 0.2% dis py in host; 4% qz/cb veins w ser halo	MIG	1.00	1476	2152	3.1834
789715	119.30	119.90	0.60	0.366	1.5% dis py in host; 0.5% dis po in host; 10% qz/cb vein w ser halo	MIG	0.60	1004	1484	3.0917
789716	119.90	120.90	1.00	0.042	Tr dis py in host; 1% qz/cb veins	MIG	1.00	1518	2222	3.1563
789717	120.90	121.90	1.00	0.066	Tr dis py in host; 1% qz/cb veins	MIG	1.00	1318	1918	3.1967
789718	121.90	122.60	0.70	0.918	1.5% dis/vein-hosted py; 1% dis/vein-hosted po; 30% qz/cb veins w ser halo	MIG	0.70	1194	1772	3.0657

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-02	Sampled by:			JJ	DATE	03/June/18				
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
789719	122.60	124.00	1.40	0.004	Tr dis/vein-hosted py/po; 1% qz/cb veins	MIG	1.40	2148	3148	3.148	
789720	124.00	125.00	1.00	0.001	Tr dis py/po; 1% qz/cb veins w ser halo	MIG	1.00	1512	2230	3.1058	
789721	125.00	126.00	1.00	0.003	Tr qz/cb veins w ser halo	MIG	1.00	1406	2080	3.0861	
789722	126.00	127.20	1.20	0.001	Tr dis/vein-hosted py; tr qz/cb veins w ser halo	MIG	1.20	1714	2542	3.07	
789723	127.20	128.20	1.00	0.001	Tr vein-hosted py; 5% qz/cb veins w ser alt	MIG	1.00	1402	2108	2.9858	
789724	128.20	129.20	1.00	0.003	Tr dis py in host; 8% qz/cb veins w ser alt	MIG	1.00	1434	2128	3.0663	
789725	129.20	129.90	0.70	0.001	Tr dis py in host; 3% qz/cb veins w ser halo	MIG	0.70	1168	1720	3.1159	
789726					BLANK	MIG	0.00				
789727	129.90	131.00	1.10	0.008	Tr dis/vein-hosted py; 2% qz/cb veins w ser halo	MIG	1.10	1594	2348	3.1141	
789728	131.00	132.00	1.00	0.007	Tr dis py/po in host; tr qz/cb veins	MIG	1.00	1568	2296	3.1538	
789729	132.00	133.50	1.50	0.015	Tr dis/vein-hosted py; 0.5% qz/cb veins with ser alt	MIG	1.50	2276	3320	3.1801	
789730				1.58 g/t	STANDARD	MIG	0.00				
789731	133.50	135.00	1.50	0.006	Tr dis py/po in host; 0.5% qz/cb veins	MIG	1.50	2154	3176	3.1076	
789732	135.00	135.80	0.80	0.006	0.3% sulfides (dis py/po); tr qz/cb veins	MIG	0.80	1340	1926	3.2867	
789733	135.80	136.40	0.60	0.011	0.5% dis/vein-hosted py; tr dis po in host; 3% qz/cb veins w serhalo; 30 cm IF	MIG	0.60	896	1336	3.0364	
789734	136.40	137.10	0.70	0.013	Tr dis/vein-hosted py; tr qz/cb veins w ser halo	MIG	0.70	996	1484	3.041	

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-02	Sampled by:			JJ	DATE	03/June/18				
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
789735	137.10	138.00	0.90	0.01	0.2% sulfides (py/po; dis/vein-hosted); 0.5% qz/cb veins	MIG	0.90	1442	2098	3.1982	
789736	138.00	139.10	1.10	0.009	Tr dis/vein-hosted py; 2% qz/cb veins w ser halo	MIG	1.10	1764	2588	3.1408	
789737	139.10	140.10	1.00	0.009	0.5% dis po; 0.5% dis/vein-hosted py; 2% qz/cb veins	MIG	1.00	1508	2220	3.118	
789738	140.10	140.60	0.50	0.08	3% vein-hosted/dis po; 2% vein-hosted/dis py; 5% qz/cb veins; 6 cm qz-tourmaline vein	MIG	0.50	724	1060	3.1548	
789739	140.60	141.50	0.90	0.051	Tr dis py/po in host; tr qz/cb veins	MIG	0.90	1396	2056	3.1152	
789740	141.50	142.30	0.80	0.022	Tr dis py in host; tr qz/cb veins	MIG	0.80	1112	1640	3.1061	
789741	142.30	143.30	1.00	0.023	0.2% dis po in host; 0.2% dis py in host; 2% qz/cb veins (5 cm qz/tourmaline vein)	MIG	1.00	1370	2022	3.1012	
789742	143.30	144.40	1.10	0.077	4% dis/blebby/vein-hosted po; 1% dis/vein-hosted py; 7% qz and qz/cb veins w dis tourmaline	SB\$\$	1.10	1738	2538	3.1725	
789743	144.40	145.40	1.00	0.03	3% dis/blebby/vein-hosted po; tr dis/vein-hosted py; 3% qz/cb/tourmaline veins	SB\$\$	1.00	1438	2092	3.1988	
789744	145.40	146.50	1.10	0.021	0.3% dis/vein-hosted po; 0.2% dis/vein-hosted py; tr qz/cb/tourmaline vein	MIG	1.10	1776	2574	3.2256	
789745	146.50	147.40	0.90	0.006	0.2% vein-hosted py; tr dis/vein-hosted po; 2% qz/cb veins	MIG	0.90	1580	2302	3.1884	

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-02	Sampled by:			JJ	DATE	03/June/18				
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
789746	147.40	148.40	1.00	0.098	1% dis/vein-hosted po; 0.5% vein-hosted py; 2% qz/cb vein (5 cm qz/tourmaline vein)	MIG	1.00	1284	1884	3.14	
789747	148.40	149.10	0.70	0.01	Tr dis/vein-hosted py; tr dis po; 4% qz/cb vein	MIG	0.70	1032	1524	3.0976	
789748	149.10	150.10	1.00	0.022	1.5% vein-hosted/dis po; 0.2% vein-hosted py; 5% qz/cb/tourmaline vein	MIG	1.00	1510	2220	3.1268	
789749	150.10	151.00	0.90	0.003	0.2% dis po in host; 0.2% dis py in host; tr qz/cb veins	MIG	0.90	1354	2000	3.096	
789750	151.00	152.00	1.00	0.07	0.2% dis po in host; 0.2% dis py in host; tr qz/cb veins	MIG	1.00	1382	2050	3.0689	
789751					BLANK						
789752	152.00	153.00	1.00	0.03	0.2% dis po in host; tr dis/vein-hosted py; 2% qz/cb veins w ser halo	MIG	1.00	1414	2106	3.0434	
789753	153.00	154.00	1.00	0.01	Tr dis py/po in host; tr qz/cb veins w ser alt	MIG	1.00	1382	2032	3.1262	

LOGGED BY:	JJ	Magnetic Declination:		5.54	West		Equipment:	Reflex	
BHID	Depth (m)	Dip (neg.)	Az (TN)	Az (Mag)	Az (NAD83)	Az (NAD83) Used	Mag Sus (nT)	DDH Ref	Geo/Driller Comments
KAS-18-02	0	-78	182.18		180.14	180.14		APS	
KAS-18-02	14.5	-77.8		186.4	180.9	180.5	59081.00	Reflex	Az affected by mag
KAS-18-02	44.5	-77.2		188.7	183.2	181.3	57825.00	Reflex	Az affected by mag
KAS-18-02	74.5	-76.7		189.3	183.8	182.0	58308.00	Reflex	Az affected by mag
KAS-18-02	104.5	-76.0		194.9	189.4	182.8	59992.00	Reflex	Changed from 189.4 GN
KAS-18-02	140.5	-75.4		192.7	187.2	183.7	57746.00	Reflex	Changed from 187.2 GN
KAS-18-02	154	-75.1		181.7	176.2	184.0	57846.00	Reflex	Changed from 181.7 GN

Project:	Pickle Lake		
Prospect:	Kas Lake		
Claim #:	319583 (legacy claim 4207794)		
Hole ID:	KAS-18-03	Datum/Proj:	Nad83 Zone 15
Start Date:	07/June/18	UTM North:	5683214.613 m
End Date:	08/June/18	UTM East:	682451.834 m
EOH Depth:	101.5	Elevation:	377.68 m
		Dip:	-50 at setup
		Az:	151.88TN at setup
		Collar Survey Method:	APS
		Surveyed by:	DG
Drill Co:	M3 Drilling		
Drill Rig:	JKS300		
m From	m To	Hole Size	Drill Type
0	6	BW	Casing
6	101.5	BTW	Rods
<p>Drill comments (issues, casing, gear in hole): Casing was removed after drilling. APS taken while orienting drill. This hole was first drilled after Kas-18-02; however, difficult overburden caused equipment failure and as a result 6m of rods/casing and a core tube were abandoned in the hole. We abandoned this hole originally, but decided to try again after Kas-18-06 with success.</p>			
<p>Geology comments: Intersected mineralized Iron Formation as expected</p>			

GEOLOGICAL CORE LOG

Hole ID: KAS-18-03 EOH called by: Dan Grabiec

Date Logged: 10/June/18 EOH Reason: Drilled past mineralized Banded Iron Formation into barren Mafic Intrusive.

Geologist: JJ

From (m)	To (m)	Int (m)	Lithology 1	Vn Type	Vn Pct	Pyrite %	Pyrrhotite %	Comments
0.00	6.10	6.10	OB					
6.10	16.50	10.40	IV	QZCC	1	0.10		Brownish-grey strongly foliated/banded Intermediate Volcanic. 10% of rock is weakly magnetic 40% subhedral FS (1-5mm; white; weakly boudinaged by foliation) 25% BT (brown; aphanitic to 1 mm; strongly foliated; 1-2mm wide bands; wrap around FS/QZ grains) 20% aph mafic groundmass (could be BT/CH/HB) 10% QZ (1-2mm; clear; weakly boudinaged by fol) 2% CH bands (1-5 cm wide) 1% QZ & QZ/CB veining (<1cm wide; 50% of veins have 1-4 cm SER halo; few have orange HM haloes; few have CH in vein). Trace dis PY
16.50	22.40	5.90	MV	QZCC	1	0.10		80% Green-grey strongly foliated/banded Mafic Volcanic with 20% grey Intermediate Volcanic bands (1-30cm wide), distinguished via FS content (10% vs 35% respectively). Overall 35% BT (aph to 2 mm; strongly fol; wrap around qz/fs) 30% aph mafic groundmass (green/black; could be BT/CH/HB) 20% CH (aph to 2 mm; strongly fol; mostly in bands alternating with BT-rich zones in MV) 15% FS (0.5-3 mm; white; anhedral; boudinaged by foliation) 1% QZ and QZ/CB veins (0.5-3 cm; 50% of veins have SER haloes; QZ/CB/SER stockwork at 19.6-20.7 m) Tr dis and vein-hosted PY throughout
22.40	22.90	0.50	MP				0.10	Dark grey/green moderately foliated non-banded Mafic Intrusive. Bottom contact crosscuts foliation. 30% BT (black; 1-7 mm; mod fol; wrap around FS) 30% CH (aph to 1 mm; mod fol) 25% aph groundmass (black/green; could be bt/ch/hb) 15% FS (white; 0.5-2 mm) Tr disseminated PO. Not magnetic.
22.90	39.90	17.00	MV	QZCC	5	0.10		Grey-green strongly foliated/banded Mafic Volcanic. 30% aph mafic groundmass (green/black; some is CH; could also be BT/HB) 30% CH (green; 0.2-1 mm; 0.1-1.0 cm bands; strongly fol) 20% BT (brown; 0.5-1 mm; 0.1-1cm bands; strongly fol) 10% FS (0.2-1.0 mm; white) 5% QZ (clear; discontinuous bands along foliation) 5% QZ/CB/TM veins (1-50cm wide; contain up to 25% massive TM). Tr dis/vein-hosted PY. 5% of rock is weakly magnetic. Fault gouge at 31.9-32.0 m.
39.90	43.60	3.70	MV	QZCC	10			Light grey-green strongly foliated/banded silicified/sericitized Mafic Volcanic. 40% aph mafic groundmass (green/black; could be CH/BT/HB) 20% BT (brown; 0.5-2 mm; mod to strong fol) 15% FS (0.2-1.0 mm; white) 15% CH (green; 0.5-2 mm; mod to strong fol). 10% QZ/CB veins (0.5-10 cm; TM in vein and as haloes; SER haloes)
43.60	56.70	13.10	MIG	QZCC	1	0.10	0.10	Green moderately foliated Mafic Intrusive. Stronger/more pervasive alteration than above units; coarser grained than above; mottled texture that grades to strong foliation toward end of unit. 40% CH (0.5-4 mm; platy; weakly to strongly foliated) 20% BT (0.5-4 mm; brown; weakly foliated) 20% aph mafic groundmass (green/black; some CH; could also be BT/HB) 15% QZ (flooding/mm-size veins rimmed by <0.2 mm qz/cb haloes) 5% FS (0.2-1.0 mm; white) 1% QZ/CB (0.2-10 cm veins; <0.5 mm haloes around QZ) Tr PO/PY (disseminated in matrix throughout unit; some vein-hosted)
56.70	62.90	6.20	SBm	QZCC	1	0.10	0.10	Dark grey strongly foliated Banded Iron Formation. 75% of rock mod to strongly magnetic. 45% aph mafic mins (including MT) 20% CH (0.5-2.0 mm) 10% GT (0.5-5 mm; red) 10% QZ (chert and/or veins/flooding) 5% BT (0.5-1.0 mm; brown) 5% FS (0.2-1 mm; white) 5% MT (0.1-0.5 mm; more in aph matrix) 1% QZ and QZ/CB veins (0.1-2.0 cm). TR dis/vein-hosted PY/PO

GEOLOGICAL CORE LOG

Hole ID: KAS-18-03 EOH called by: Dan Grabiec

Date Logged: 10/June/18 EOH Reason: Drilled past mineralized Banded Iron Formation into barren Mafic Intrusive.

Geologist: JJ

From (m)	To (m)	Int (m)	Lithology 1	Vn Type	Vn Pct	Pyrite %	Pyrrhotite %	Comments
62.90	66.20	3.30	SBm	QZCC	3	1.00	0.20	Dark grey mod to strongly foliated Banded Iron Formation. Weakly to mod silicified; 70% of unit moderately to strongly magnetic. 50% aph mafic minerals (including MT). 25% QZ (appears to be chert) 15% CH (0.5-1 mm; green; foliated) 5% FS (0.2-1.0 mm; white) 3% QZ and QZ/CB veining (0.2-15 cm wide) 1% MT (<0.5 mm; equant/acicular). 1% PY (dis/vein-hosted); 0.2% dis/vein-hosted PO. Small fault gouge at 64.1 m
66.20	68.60	2.40	SB\$\$	QZCC	5	0.10	0.10	Dark grey mod to strongly foliated Banded Iron Formation. Similar to above unit but with less sulfides. Weakly to mod silicified; 90% of unit moderately to strongly magnetic. 50% aph mafic minerals (including MT). 25% QZ (appears to be chert) 15% CH (0.5-1 mm; green; foliated) 5% FS (0.2-1.0 mm; white) 5% QZ and QZ/CB veining (0.2-2 cm wide) 1% MT (<0.5 mm; equant/acicular). Tr vein-hosted/dis PY/PO
68.60	79.30	10.70	SBm	QZCC	1	0.10		Dark grey strongly foliated Mafic Intrusive (80%) intercalated with Banded Iron Formation (20%). BIF zones 5-55 cm; amount of BIF decreases toward end of unit. 70% of unit mod to strongly magnetic. 55% aph mafic minerals (including MT) 20% QZ (appears to be chert) 10% CH (aph to 1 mm; green) 10% FS (1-3 mm; white) 5% BT (aph to 1 mm; brown; strong fol) 1% QZ and QZ/CB veining (1-10 mm). Tr dis/vein-hosted PY
79.30	93.20	13.90	MIG	QZCC	1	0.10	0.10	Dark grey moderately foliated Mafic Intrusive. Moderately magnetic throughout. 30% aph mafic mins (inc MT; could be BT/HB/CH) 30% FS (0.5-2 mm; white) 25% CH (aph to 2 mm; platy; green) 10% BT (aph to 1 mm; platy; brown) 3% MT (equant; aph to 1 mm; black) 1% QZ and QZ/CB veins. Tr dis/vein-hosted PY/PO
93.20	94.10	0.90	Vq	QZ	90	0.50		QZ vein (no CB). 5% TM (as halo and within vein); 2% CH halo; 0.5% GT (small thin zones within vein); 0.5% PY (small thin zones within vein; assc w CH and GT)
94.10	101.50	7.40	MIG	QZ	3	0.10	0.10	Same as unit above quartz vein. Dark grey moderately foliated Mafic Intrusive. Moderately magnetic throughout. 30% aph mafic mins (inc MT; could be BT/HB/CH) 30% FS (0.5-2 mm; white) 25% CH (aph to 2 mm; platy; green) 10% BT (aph to 1 mm; platy; brown) 3% MT (equant; aph to 1 mm; black) 3% QZ and QZ/CB veins w SER haloes. Tr dis/vein-hosted PY/PO
101.5	EOH							

STRUCTURAL CORE LOG

Hole ID: KAS-18-03

Date Logged: 11/June/18

Geologist: JJ

Core Data							
From (m)	To (m)	Interval (m)	Rock Type	Structure Type	Foliation (TCA)	Other (TCA)	Struc. Intensity
10.00	10.10	0.10	IV	Fol	51		S
16.00	16.10	0.10	IV	Fol	52		S
22.00	22.10	0.10	MV	Fol	52		S
22.40	22.40	0.00	MV/MP	Ct		51	S
22.90	22.90	0.00	MP/MV	Ct		80	S
26.40	26.50	0.10	MV	Fol	51		S
33.00	33.10	0.10	MV	Fol	52		S
36.00	36.10	0.10	MV	Fol	53		S
41.00	41.10	0.10	MV	Fol	70		S
43.60	43.60	0.00	MV/MIG	Ct		53	DS
49.00	49.10	0.10	MIG	Fol	53		M
50.00	50.10	0.10	MIG	Fol	43		M
55.00	55.10	0.10	MIG	Fol	53		S
56.90	57.00	0.10	SBm	Fol	53		S
59.90	60.00	0.10	SBm	Fol	42		S
62.90	62.90	0.00	SBm	Ct		53	S
65.50	65.60	0.10	SBm	Fol	53		S
71.00	71.10	0.10	SBm	Fol	63		S
75.00	75.10	0.10	SBm	Fol	54		S
82.00	82.10	0.10	SBm	Fol	53		S
87.80	88.00	0.20	SBm	Fol	53		S
93.20	93.20	0.00	MIG	Ct		54	S
94.10	94.10	0.00	MIG	Ct		62	S
95.00	95.10	0.10	MIG	Fol	55		S
97.00	97.10	0.10	MIG	Fol	62		S

SAMPLE & SPECIFIC GRAVITY LOGS										
Hole ID:	KAS-18-03		Sampled by:		JJ		DATE:	11/June/18		
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)				
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG
789818	28.70	29.70	1.00	0.004	Shoulder	MV	0.50	678	1062	2.76563
789819	29.7	30.2	0.50	0.003	QZ/TM/CH vein; tr vein-hosted PY	MV	0.90	860	1356	2.73387
789820	30.20	31.10	0.90	0.001	Shoulder	MV	1.00	692	1094	2.72139
789821	38.90	39.90	1.00	0.016	Shoulder	MV	0.80	978	1512	2.83146
789822	39.90	40.70	0.80	0.004	5% qz/cb/tm veins w ser alt	MV	1.00	1180	1870	2.71014
789823	40.70	41.70	1.00	0.001	25% qz/cb/tm veins	MV	1.00	1094	1714	2.76452
789824	41.70	42.70	1.00	0.002	Tr dis py in host; 15% qz/cb/tm veins	MV	0.90	822	1300	2.71967
789825	42.70	43.60	0.90	0.006	20% qz/cb/tm veins w ser alt					
789826					Blank	MIG	0.90	1240	1854	3.01954
789827	43.60	44.50	0.90	0.023	5% qz/cb/tm veins	MIG	1.50	1930	2876	3.04017
789828	44.50	46.00	1.50	0.001	Tr dis/vein-hosted py/po; 3% qz/cb veins (some w tm; some w ser alt)	MIG	1.50	1832	2754	2.98698
789829	46.00	47.50	1.50	0.002	5% qz/cb veins (some ser alt)					
789830				6.66 g/t		MIG	1.50	1956	2918	3.03326
789831	47.50	49.00	1.50	0.003	Tr dis py/po in host; 3% qz and qz/cb veins	MIG	1.50	2006	3010	2.99801
789832	49.00	50.50	1.50	0.003	Tr dis py/po in host; 1% qz/cb veins w ser alt	MIG	1.50	2058	3058	3.058
789833	50.50	52.00	1.50	0.001	Tr dis py/po in host; 0.5% qz/cb veins w ser alt	MIG	1.50	1734	2582	3.04481
789834	52.00	53.50	1.50	1.22	Tr dis py/po in host; 2% qz/cb veins w ser alt	MIG	1.50	1950	2940	2.9697
789835	53.50	55.00	1.50	0.231	Tr dis py/po in host; 2% qz/cb veins w ser alt	MIG	0.90	1134	1706	2.98252

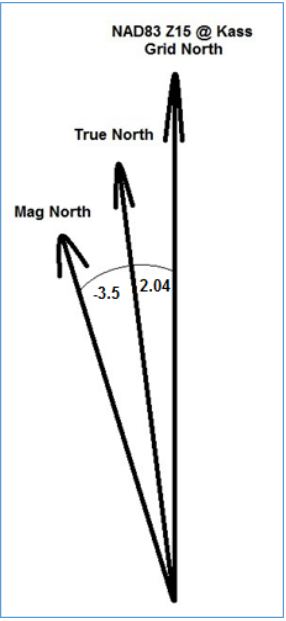
SAMPLE & SPECIFIC GRAVITY LOGS										
Hole ID:	KAS-18-03		Sampled by: JJ		DATE: 11/June/18					
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)				
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG
789836	55.00	55.90	0.90	3.09	1% dis/vein-hosted py; tr dis po in host; 5% qz/cb veins	MIG	0.80	910	1328	3.17703
789837	55.90	56.70	0.80	6.02	1% dis/vein-hosted py; tr dis po in host; 3% qz and qz/cb veins w ser alt	SBm	1.30	1770	2676	2.95364
789838	56.70	58.00	1.30	1.5	Tr dis/vein-hosted py; tr dis po in host; 1% qz and qz/cb veins	SBm	1.00	1218	1828	2.99672
789839	58.00	59.00	1.00	4.61	0.2% dis/vein-hosted py/po; 5% qz and qz/cb veins w ser alt	SBm	1.00	1198	1800	2.99003
789840	59.00	60.00	1.00	0.026	Tr dis py in host; 1% qz and qz/cb veins	SBm	1.00	1124	1672	3.05109
789841	60.00	61.00	1.00	0.012	Tr dis py in host; tr qz/cb veins	SBm	1.00	1118	1664	3.04762
789842	61.00	62.00	1.00	0.09	Tr dis py in host; tr qz/cb veins	SBm	0.90	1224	1832	3.01316
789843	62.00	62.90	0.90	1.08	0.2% dis po in host; tr py in host; 0.5% qz/cb veins					
789844					Blank	SBm	1.00	1118	1716	2.86957
789845	62.90	63.90	1.00	5.06	2% vein-hosted/dis py; 0.3% dis po; 2% qz and qz/cb veins w ser alt	SBm	1.00	1266	1894	3.01592
789846	63.90	64.90	1.00	2.44	0.3% dis po in host; 0.2% dis py in host; 2% qz and qz/cb veins w ser alt	SBm	1.30	1804	2694	3.02697
789847	64.90	66.20	1.30	3.35	0.5% vein-hosted/dis py; tr dis po in host; 1% qz/cb veins	SB\$\$	1.20	1662	2456	3.0932

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-03	Sampled by: JJ			DATE: 11/June/18						
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
789848	66.20	67.40	1.20	0.376	Tr dis po in host; 2% qz/cb veins	SB\$\$	1.20	1664	2480	3.03922	
789849	67.40	68.60	1.20	0.115	0.2% vein-hosted/dis py; tr dis po in host; 2% qz and qz/cb veins	SBm	1.40	1870	2770	3.07778	
789850	68.60	70.00	1.40	0.004	Tr dis py in host; 1% qz/cb veins w ser alt						
789851					Blank	SBm	1.50	1982	2946	3.05602	
789852	70.00	71.50	1.50	0.003	Tr dis py in host; 2% qz/cb veins w ser alt	SBm	1.50	1936	2858	3.09978	
789853	71.50	73.00	1.50	0.06	0.5% qz/cb veins w ser alt	SBm	1.00	1468	2174	3.07932	
789854	73.00	74.00	1.00	0.576	0.5% dis po; 0.5% dis/blebby py; 15% qz and qz/cb veins						
789855				0.505 g/t	Standard	SBm	1.10	1190	1766	3.06597	
789856	74.00	75.10	1.10	0.035	0.5% dis/blebby py; tr dis po in host; 0.5% qz/cb veins	SBm	1.20	1402	2058	3.1372	
789857	75.10	76.30	1.20	0.032	Tr dis py in host; 1% qz/cb veins	SBm	1.50	2048	3026	3.09407	
789858	76.30	77.80	1.50	0.009	Tr dis py in host; tr qz/cb veins	SBm	1.50	702	1030	3.14024	
789859	77.80	79.30	1.50	0.02	Tr dis/vein-hosted py; 2% qz and qz/cb veins	SBm	1.50	810	1192	3.12042	
789860	77.80	79.30	1.50	Duplicate	Duplicate of 789859	SBm	1.20	1764	2592	3.13043	
789861	79.30	80.50	1.20	0.023	Tr dis/vein-hosted py; tr qz/cb veins	SBm	1.50	2286	3360	3.12849	
789862	80.50	82.00	1.50	0.008	Tr dis/vein-hosted py; tr qz/cb veins w ser	SBm	1.50	2058	3002	3.18008	

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-03	Sampled by:			JJ	DATE:	11/June/18				
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
789863	82.00	83.50	1.50	0.01	Tr dis py/po in host; 2% qz/cb veins w ser alt	SBm	1.50	2140	3100	3.22917	
789864	83.50	85.00	1.50	0.004	Tr dis/vein-hosted py; tr qz/cb veins	SBm	1.50	2046	2950	3.26327	
789865	85.00	86.50	1.50	0.002	0.2% dis/vein-hosted py; 0.5% qz/cb veins	SBm	1.50	2140	3100	3.22917	
789866	86.50	88.00	1.50	0.001	Tr dis/vein-hosted py; tr qz/cb veins	SBm	1.50	2496	3614	3.23256	
789867	88.00	89.50	1.50	0.001	Tr dis py in host; tr qz/cb veins	SBm	1.50	2074	3012	3.21109	
789868	89.50	91.00	1.50	0.004	Tr dis py in host; 1% qz/cb veins	SBm	1.10	1244	1800	3.23741	
789869	91.00	92.10	1.10	0.009	2% dis/vein-hosted py; 1% qz/cb veins	SBm	1.10	1424	2082	3.16413	
789870	92.10	93.20	1.10	0.008	0.2% dis py in host; tr qz/cb veins	MIG	0.90	1020	1610	2.72881	
789871	93.20	94.10	0.90	0.004	0.5% vein-hosted py; 95% qz vein w tm/ch	MIG	1.40	1650	2426	3.12629	
789872	94.10	95.50	1.40	0.028	0.5% dis/vein-hosted py; 0.5% qz/cb veins w ser alt	MIG	1.50	1886	2788	3.09091	
789873	95.50	97.00	1.50	0.036	Tr dis/vein-hosted py; tr vein-hosted po; 0.5% qz/cb veins w ser alt	MIG	1.50	1830	2714	3.07014	
789874	97.00	98.50	1.50	0.053	0.2% dis/vein-hosted py; qz and qz/cb veins w ser alt	MIG	1.50	1554	2334	2.99231	
789875	98.50	100.00	1.50	0.025	Tr dis py in host; 2% qz and qz/cb veins w ser alt						
789876					Blank	MIG	1.50	1862	2788	3.0108	

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-03	Sampled by: JJ			DATE: 11/June/18						
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
789877	100.00	101.50	1.50	0.037	Tr dis py in host; 1% qz and qz/cb veins w ser alt						

LOGGED BY: J.J.		Magnetic Declination:		5.54 West			Equipment:	Reflex	
BHID	Depth (m)	Dip (neg.)	Az (TN)	Az (Mag)	Az (NAD83)	Az (NAD83) Used	Mag Sus (nT)	DDH Ref	Geo/Driller Comments
KAS-18-03	0	-50.6	151.88		149.84	149.8		APS	Dip Estimated
KAS-18-03	16	-50.0		159.0	153.5	150.2	57545.00	Reflex	AZ affected by mag.
KAS-18-03	46	-49.4		161.6	156.1	151.0	56520.00	Reflex	AZ affected by mag.
KAS-18-03	76	-49.0		162.0	156.5	151.7	60139.00	Reflex	AZ affected by mag.
KAS-18-03	101	-48.3		162.6	157.1	152.4	57124.00	Reflex	AZ affected by mag.



Project:	Pickle Lake		
Prospect:	Kas Lake		
Claim #:	319583 (legacy claim 4207794)		
Hole ID:	KAS-18-04	Datum/Proj:	Nad83 Zone 15
Start Date:	03/June/18	UTM North:	5683214.613 m
End Date:	04/June/18	UTM East:	682451.834 m
EOH Depth:	115 m	Elevation:	377.68 m
		Dip:	-62 at setup
		Az:	151.88TN at setup
		Collar Survey Method:	APS
		Surveyed by:	DG
Drill Co:	M3 Drilling		
Drill Rig:	JKS300		
m From	m To	Hole Size	Drill Type
0	6	BW	Casing
6	115	BTW	Rods
Drill comments (issues, casing, gear in hole): Casing was removed after drilling. APS taken while orienting Drill.			
Geology comments: Intersected Banded Iron Formation.			

GEOLOGICAL CORE LOG

Hole ID: KAS-18-04 EOH called by: Daniel Grabiec

Date Logged: 07/June/18 EOH Reason: Drilled past mineralized Banded Iron Formation into Mafic Intrusive.

Geologist: JJ

From (m)	To (m)	Int (m)	Lithology 1	Major Vn Type	Vn Pct	Pyrite %	Pyrrhotite %	Comments
0.00	4.70	4.70	OB					Overburden
4.70	23.80	19.10	IV	QZCC	2	0.10		Brownish-grey strongly foliated/banded Intermediate Volcanic. 45% subhedral FS (1-5mm; white; weakly boudinaged by foliation) 25% aph mafic groundmass (could be BT/CH/HB) 20% BT (brown; aphanitic to 1 mm; strongly foliated; 1-2mm wide bands; wrap around FS/QZ grains) 5% QZ (1-2mm; clear; weakly boudinaged by fol) 2% CH bands (1-5 cm wide; proximal to BT & PY) 2% QZ & QZ/CB veining (<1cm wide; 10% of veins have 1-4 cm SER halo; few veins crosscut fol). Trace dis and vein-hosted PY; 10% of rock is weakly magnetic (mostly at ch veins)
23.80	27.20	3.40	MV	QZCC	1	0.10		80% Green-grey strongly foliated/banded Mafic Volcanic with 20% grey Intermediate Volcanic bands (1-8cm wide), distinguished via FS content (10% vs 35% respectively). Overall 45% aph mafic groundmass (green/black; could be BT/CH/HB) 20% BT (aph to 2 mm; strongly fol; wrap around qz/fs) 15% FS (0.5-3 mm; white; anhedral; boudinaged by foliation) 15% CH (aph to 2 mm; strongly fol; mostly in bands alternating with BT-rich zones in MV) 3% QZ (0.5-2 mm; clear). 1% QZ and QZ/CB veins (0.5-1 cm; 10% of veins have SER haloes; few veins crosscut fol) Tr dis and vein-hosted PY throughout (mostly assc w CH bands). Not magnetic.
27.20	27.70	0.50	MP				0.50	Dark grey/green moderately foliated non-banded Mafic Intrusive. 35% aphanitic groundmass (black/green; could be bt/ch/hb) 25% BT (black; 1-3 mm; mod fol; wrap around FS) 25% CH (aph to 1 mm; mod fol) 15% FS (white; 0.5-2 mm) 0.5% disseminated PO. Not magnetic.
27.70	31.50	3.80	MV	QZCC	1	0.10	0.10	85% Green-grey strongly foliated/banded Mafic Volcanic with 15% grey Intermediate Volcanic bands (1-5cm wide), distinguished via FS content (10% vs 35% respectively). Overall 40% aph mafic groundmass (green/black; could be BT/CH/HB) 20% BT (aph to 2 mm; strongly fol; wrap around QZ/FS) 20% FS (0.5-3 mm; white; anhedral; rotated and boudinaged by foliation) 15% CH (aph to 2 mm; strongly fol; mostly in bands alternating with BT-rich zones in MV) 3% QZ (0.5-2 mm; clear). 1% QZ/CB veins (BT/SER/CH haloes). Tr PY dis/vein-hosted throughout (mostly assc w CH veins); Tr dis PO. Not magnetic. Brecciated host rock in 3-5 cm CH veins at 29.8-30m. Fault gouges at 24.4 m and 25.0 m
31.50	47.30	15.80	MV	QZCC	5	0.10	0.10	Grey-green strongly foliated/banded Mafic Volcanic. 65% aph mafic groundmass (green/black; some is CH; could also be BT/HB) 20% BT (brown; 0.5-1 mm; .1-1cm bands; strongly fol) 10% FS (0.2-1.0 mm; white) 5% QZ (discontinuous bands along foliation) 5% QZ and QZ/CB veins (1-10cm wide; contain up to 25% tourmaline (massive; black; fractured; CH haloes; weak CB); Tr dis/vein-hosted PY/PO. 5% of rock is weakly magnetic.
47.30	49.40	2.10	MV	QZ	60			Shear zone with strong foliation with broken/whispy alteration banding. 60% quartz veining/flooding (<1-20cm wide; cause of broken/whispy alt banding) 20% aph mafic groundmass (indistiguisable; light colored; alt'd; strongly foliated; broken and whispy texture; <1-2cm wide bands; originally Mafic Volcanic as above?) 15% CH alteration halos (haloing aph groundmass; <1-1.5cm; pure CH in broken whispy <1-2cm clasts in QZ veining) 5% BT (aph to 1mm; strong fol; assc w/ CH halos; <1-4mm wide; black) No significant mineralization. Non magnetic. Sharp contacts parallel to general foliation.

GEOLOGICAL CORE LOG

Hole ID: KAS-18-04 EOH called by: Daniel Grabiec

Date Logged: 07/June/18 EOH Reason: Drilled past mineralized Banded Iron Formation into Mafic Intrusive.

Geologist: JJ

From (m)	To (m)	Int (m)	Lithology 1	Major Vn Type	Vn Pct	Pyrite %	Pyrrhotite %	Comments
49.40	52.30	2.90	MV	QZCC	0.5	0.10	0.10	Light grey-green strongly foliated/banded silicified Mafic Volcanic. 45% aph mafic groundmass (green/black; could be CH/BT/HB) 20% BT (brown; 0.5-2 mm; mod to strong fol) 20% FS (0.2-1.0 mm; white) 15% CH (green; 0.5-2 mm; mod to strong fol). 0.5% QZ/CB veins (0.5-1 mm; SER haloes) Tr dis PY/PO
52.30	67.90	15.60	MIG	QZCC	5	0.10	0.10	Green moderately foliated Mafic Intrusive. Stronger/more pervasive alteration than above units; coarser grained than above; weakly foliated with mottled texture that grades to strong foliation toward end of unit. 35% CH (0.5-4 mm; platy; weakly to strongly foliated) 20% BT (0.5-4 mm; brown; weakly foliated) 20% aph mafic groundmass (green/black; some CH; could also be BT/HB) 15% QZ (mostly after 57.7 m; flooding/mm-size veins rimmed by <0.2 mm qz/cb haloes) 5% QZ/CB (0.2-8 cm veins; <0.5 mm haloes around QZ) 5% FS (0.2-1.0 mm; white) Tr PO/PY (disseminated in matrix throughout unit; some vein-hosted)
67.90	75.00	7.10	SBm	QZ	1	0.10	0.10	Dark grey strongly foliated Banded Iron Formation. 90% of rock mod to strongly magnetic. 35% aph mafic mins (including MT) 20% CH (0.5-2.0 mm) 15% QZ (chert and/or veins/flooding) 10% GT (0.5-5 mm; red) 10% BT (0.5-1.0 mm; brown) 5% FS (0.2-1 mm; white) 5% MT (0.1-0.5 mm; more in aph matrix) 1% QZ and QZ/CB veins (0.1-5.0 cm). TR dis PO and dis/vein-hosted PY
75.00	79.80	4.80	SB\$\$	QZ	3	2.00	0.10	Dark grey mod to strongly foliated Banded Iron Formation. Weakly to mod silicified; 50% of unit moderately to strongly magnetic. 6 cm fault gouge at 76.5 m. 50% aph mafic minerals (including MT). 35% QZ (appears to be chert) 5% CH (0.5-1 mm; green; foliated) 5% FS (0.2-1.0 mm; white) 3% QZ and QZ/CB veining (0.2-15 cm wide). 2% PY (dis/vein-hosted/semi-massive); Tr dis PO (locally up to 3%)
79.80	83.70	3.90	MIG	QZCC	2	0.10		Dark grey strongly foliated Mafic Intrusive intercalated with Banded Iron Formation. 50% of unit mod to strongly magnetic. 50% aph mafic minerals (including MT) 30% QZ (appears to be chert) 10% CH (aph to 1 mm; green) 5% FS (1-3 mm; white) 5% BT (aph to 1 mm; brown; strong fol) 2% QZ/CB veining (1-10 mm). Tr dis/vein-hosted PY (locally up to 5%)
83.70	115.00	31.30	MIG	QZCC	1	0.10	0.10	Dark grey moderately foliated Mafic Intrusive. Moderately magnetic throughout. 40% FS (0.5-2 mm; white) 30% aph mafic mins (inc MT; could be BT/HB/CH) 15% CH (aph to 2 mm; platy; green) 10% BT (aph to 1 mm; platy; brown) 3% MT (equant; aph to 1 mm; black) 1% QZ and QZ/CB veins (1-10 mm; some w ser haloes). Tr dis/vein-hosted PY/PO (up to 1% locally). Heavily fractured "rubble zone" at 83.9-88.0 m (86.3-87.4 heavily silicified; stockwork qz/cb veins w ser alt). Thin BIF zones at 89.3-89.6 m and 90.0-90.1 m.
115	EOH							

STRUCTURAL CORE LOG

Hole ID: KAS-18-04

Date Logged: 08/June/18

Geologist: JJ

Core Data

From (m)	To (m)	Interval (m)	Rock Type	Structure Type	Foliation (TCA)	Other (TCA)	Struc. Intensity
5.50	5.60	0.10	IV	Fol	40		
10.00	11.00	1.00	IV	Fol	38		
19.00	20.00	1.00	IV	Fol	38		
23.00	24.00	1.00	IV	Fol	40		
27.20	27.20	0.00	MV/MP	Ct		40	
27.70	27.70	0.00	MV/MP	Ct		40	
35.40	35.50	0.10	MV	Fol	40		
40.00	41.00	1.00	MV	Fol	40		
46.00	47.00	1.00	MV	Fol	40		
47.30	47.30	0.00	MV	Ct		28	
48.20	48.30	0.10	MV	Fol	47		
48.60	48.70	0.10	MV	Fol	28		
49.20	49.30	0.10	MV	Fol	32		
49.40	49.40	0.00	MV	Ct		55	
51.40	51.50	0.10	MV	Bx	36		
52.30	52.30	0.00	MV/MIG	Ct		30	
53.00	53.10	0.10	MIG	Fol	35		
58.00	58.10	0.10	MIG	Fol	43		
64.00	64.10	0.10	MIG	Fol	32		
67.90	67.90	0.00	MIG/SBm	Ct		39	
69.00	69.10	0.10	SBm	Fol	39		
71.50	71.60	0.10	SBm	Fol	40		
75.00	75.00	0.00	SBm/SB\$\$	Ct		55	
76.50	76.55	0.05	SB\$\$	FLT		54	
79.90	80.00	0.10	SB\$\$	Fol	37		
83.70	83.70	0.00	SB\$\$/MIG	Ct		48	
89.90	90.00	0.10	MIG	Fol	43		
95.10	95.20	0.10	MIG	Fol	46		
99.90	100.00	0.10	MIG	Fol	32		
105.60	105.60	0.00	MIG	Vn		67	
107.10	107.10	0.00	MIG	Vn		58	
110.00	110.10	0.10	MIG	Fol	47		

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID: KAS-18-04		Sampled by: JJ			DATE: 08/June/18						
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
789754			0.00		Blank						
789755			0.00	6.66 g/t	Standard						
789756	26.20	27.20	1.00	0.003	Tr dis py in host; 5% qz/cb vein/stockwork w ser halo)	MV	1.00	1248	1960	2.75281	
789757	27.20	27.70	0.50	0.012	Tr dis po in host; tr qz/cb stockwork w ser	MP	0.50	654	1022	2.77717	
789758	27.70	28.70	1.00	0.004	Tr dis py in host; 2% qz/cb vein/stockwork w ser halo)	MV	1.00	1100	1734	2.73502	
789759	46.30	47.30	1.00	0.003	Tr dis py in host	MV	1.00	362	570	2.74038	
789760	46.30	47.30	1.00	Duplicate of 789759	Tr dis py in host	MV	1.00	448	698	2.792	
789761	47.30	48.30	1.00	0.001	Tr vein-hosted py; 30% qz veins w ch alt	MV	1.00	1166	1802	2.83333	
789762	48.30	49.40	1.10	0.001	Tr vein-hosted py; 40% qz veins w ch alt	MV	1.10	1334	2100	2.74151	
789763	49.40	50.90	1.50	0.015	Tr vein-hosted py; 10% qz veins (ch alt; minor qz/cb haloes)	MV	1.50	1636	2586	2.72211	
789764	50.90	52.30	1.40	0.001	Tr dis py in host; Prv strongly silicified	MV	1.40	1554	2334	2.99231	
789765	52.30	53.50	1.20	0.001	Tr dis py in host; 1% qz/cb veins	MIG	1.20	1554	2334	2.99231	
789766	53.50	55.00	1.50	0.003	Tr dis/vein-hosted py; 2% qz/cb veins	MIG	1.50	1810	2710	3.01111	
789767	55.00	56.50	1.50	0.001	Tr dis/vein-hosted py; 2% qz/cb veins. One 0.5 cm qz/cb/tm vein	MIG	1.50	2244	3350	3.02893	
789768	56.50	58.00	1.50	0.001	Tr dis/vein-hosted py; 1% qz/cb veins (some with tm)	MIG	1.50	2024	3010	3.05274	

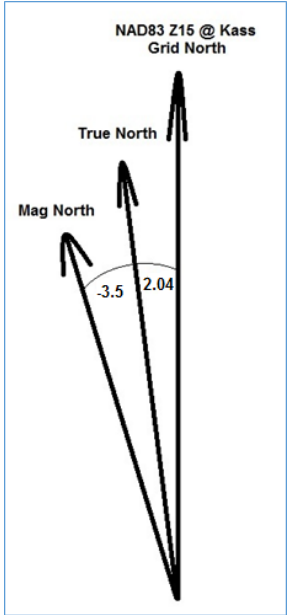
SAMPLE & SPECIFIC GRAVITY LOGS										
Hole ID: KAS-18-04		Sampled by: JJ			DATE: 08/June/18					
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)				
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG
789754			0.00		Blank					
789769	58.00	59.50	1.50	0.02	Tr dis py/po in host; 5% qz and qz/cb veins	MIG	1.50	1856	2786	2.9957
789770	59.50	61.00	1.50	0.018	Tr dis py/po in host; 3% qz and qz/cb veins	MIG	1.50	1612	2440	2.94686
789771	61.00	62.50	1.50	0.001	Tr dis py/po in host; 2% qz and qz/cb veins	MIG	1.50	2074	3116	2.9904
789772	62.50	64.00	1.50	0.001	0.2% dis py/po in host; 0.5% qz/cb veins	MIG	1.50	1782	2668	3.01129
789773	64.00	65.50	1.50	0.082	Tr dis py/po in host; tr qz/cb veins	MIG	1.50	2047	3052	3.03682
789774	65.50	67.00	1.50	0.017	Tr dis py/po in host; 2% qz and qz/cb veins	MIG	1.50	1910	2850	3.03191
789775	67.00	67.90	0.90	0.208	0.3% dis blebs py; tr dis po; 5% qz/cb veins	MIG	0.90	1362	2028	3.04505
789776					Blank					
789777	67.90	68.90	1.00	4.41	2% dis/vein-hosted po; 2% dis/vein-hosted py; 2% qz/cb veins w ser haloes	SBm	1.00	1324	1982	3.01216
789778	68.90	69.90	1.00	1.66	3% dis/vein-hosted po; 0.2% vein-hosted py; 1% qz and qz/cb veins/stockwork	SBm	1.00	1364	2071	2.92928
789779	69.90	70.90	1.00	2.74	1% vein-hosted/dis py; 0.3% dis po; 2% qz and qz/cb veins	SBm	1.00	1048	1602	2.8917
789780				0.505 g/t	Standard					
789781	70.90	71.90	1.00	0.146	Tr dis po in host; 1% qz and qz/cb veins	SBm	1.00	1380	2056	3.04142
789782	71.90	73.00	1.10	0.001	Tr dis py in host; tr qz/cb veins	SBm	1.10	1588	2382	3

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-04	Sampled by: JJ			DATE:	08/June/18					
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
789754			0.00		Blank						
789783	73.00	74.00	1.00	0.459	Tr dis py/po in host; tr qz/cb veins	SBm	1.00	1376	2046	3.05373	
789784	74.00	75.00	1.00	1.31	0.5% dis po in host; 0.5% dis/vein-hosted py; 1% qz/cb veins	SBm	1.00	1430	2118	3.07849	
789785	75.00	76.00	1.00	2.47	2% dis/vein-hosted/semi massive py; tr dis po; 25% qz and qz/cb veins (w ch alt)	SB\$\$	1.00	1350	2050	2.92857	
789786	76.00	77.00	1.00	3.53	3% dis/vein-hosted py; tr dis/vein-hosted po; 10 qz/cb veins (w ch alt)	SB\$\$	1.00	1158	1790	2.83228	
789787	77.00	78.00	1.00	9.06	1.5% dis po in host; 1.5% dis/blebby py; tr qz/cb veins	SB\$\$	1.00	1252	1908	2.90854	
789788	78.00	79.00	1.00	10.7	1.5% dis py in host; tr dis po in host; 20% qz and qz/cb veins	SB\$\$	1.00	1236	1890	2.88991	
789789	79.00	79.80	0.80	7.45	4% dis/vein-hosted/blebby py; 5% qz and qz/cb veins	SB\$\$	0.80	916	1380	2.97414	
789790	79.80	80.80	1.00	0.184	Tr dis/vein-hosted py; 3% qz/cb veins	MIG	1.00	1060	1578	3.04633	
789791	80.80	81.80	1.00	1.26	0.5% dis/vein-hosted py; 2% qz and qz/cb veins	MIG	1.00	1396	2086	3.02319	
789792	81.80	82.80	1.00	1.14	1% dis/vein-hosted py; 5% qz and qz/cb veins	MIG	1.00	1312	1950	3.05643	

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-04	Sampled by: JJ			DATE:	08/June/18					
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
789754			0.00		Blank						
789793	82.80	83.70	0.90	1.19	0.5% dis/vein-hosted py; tr dis po in host; 3% qz/cb veins (w ch alt)	MIG	0.90	1126	1658	3.11654	
789794	83.70	85.00	1.30	0.789	Tr dis py in host; 1% qz/cb veins; heavily fractured	MIG	1.30	1550	2326	2.99742	
789795	85.00	86.50	1.50	24.6	1% vein-hosted/dis py; 5% qz and qz/cb veins; heavily fractured	MIG	1.50	1844	2784	2.9617	
789796	86.50	88.00	1.50	0.152	Tr vein-hosted/blebby py; 10% qz/cb stockwork w ser alt	MIG	1.50	1660	2508	2.95755	
789797	88.00	89.50	1.50	0.016	Tr dis py in host; 0.5% qz/cb veins	MIG	1.50	1780	2656	3.03196	
789798	89.50	91.00	1.50	0.004	Tr dis py in host; 1% qz and qz/cb veins	MIG	1.50	2226	3278	3.11597	
789799	91.00	92.50	1.50	0.008	Tr dis/vein-hosted py; tr dis po in host; 1% qz and qz/cb veins	MIG	1.50	2064	3064	3.064	
789800	92.50	94.00	1.50	0.011	Tr dis py in host; 0.5% qz/cb veins	MIG	1.50	1980	2906	3.13823	
789801					Blank					#DIV/0!	
789802	94.00	95.50	1.50	0.015	Tr dis py in host; 0.5% qz/cb veins w ser alt	MIG	1.50	2320	3390	3.16822	
789803	95.50	97.00	1.50	0.012	Tr dis/vein-hosted py; 1% qz/cb veins w ser alt	MIG	1.50	2360	3450	3.16514	
789804	97.00	98.50	1.50	0.013	Tr dis py in host; tr qz/cb veins	MIG	1.50	1936	2836	3.15111	
789805				1.58 g/t	Standard						
789806	98.50	100.00	1.50	0.119	Tr dis py/po in host; 1% qz/cb veins	MIG	1.50	2136	3126	3.15758	

SAMPLE & SPECIFIC GRAVITY LOGS										
Hole ID: KAS-18-04		Sampled by: JJ			DATE: 08/June/18					
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)				
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG
789754			0.00		Blank					
789807	100.00	101.50	1.50	0.01	0.2% vein-hosted/dis py; tr vein-hosted/dis po; 5% qz and qz/cb veins	MIG	1.50	2352	3450	3.14208
789808	101.50	103.00	1.50	0.008	Tr dis/vein-hosted py; tr dis po in host; tr qz/cb veins	MIG	1.50	1546	2264	3.1532
789809	103.00	104.50	1.50	0.018	Tr vein-hosted py; tr qz/cb veins	MIG	1.50	744	1086	3.17544
789810	103.00	104.50	1.50		Duplicate of 789809		1.50	1136	1664	3.15152
789811	104.50	106.00	1.50	0.015	Tr qz/cb veins	MIG	1.50	2068	3044	3.11885
789812	106.00	107.50	1.50	0.399	Tr vein-hosted/dis py/po; 5% qz and qz/cb veins	MIG	1.50	2508	3534	3.44444
789813	107.50	109.00	1.50	0.027	Tr vein-hosted/dis py; 0.5% qz/cb veins	MIG	1.50	2174	3192	3.13556
789814	109.00	110.50	1.50	0.032	Tr vein-hosted/dis py; 0.5% qz/cb veins	MIG	1.50	636	928	3.17808
789815	110.50	112.00	1.50	0.026	Tr vein-hosted/dis py; 1% qz and qz/cb veins	MIG	1.50	1798	2652	3.10539
789816	112.00	113.50	1.50	0.017	Tr dis py in host; 1% qz/cb veins	MIG	1.50	1556	2288	3.12568
789817	113.50	115.00	1.50	0.018	Tr dis/vein-hosted py; tr qz/cb veins w ser alt	MIG	1.50	2884	4272	3.07781

LOGGED BY:	J.J.	Magnetic Declination:		5.54	West		Equipment:	Reflex	
BHID	Depth (m)	Dip (neg.)	Az (TN)	Az (Mag)	Az (NAD83)	Az (NAD83) Used	Mag Sus (nT)	DDH Ref	Geo/Driller Comments
KAS-18-04	0	-62.2	152.88		150.84	150.74			Dip Estimated
KAS-18-04	16	-61.6		155.4	149.9	151.1	57658.00		AZ affected by Mag
KAS-18-04	46	-60.8		155.4	149.9	151.9	56645.00		AZ affected by Mag
KAS-18-04	76	-60.2		157.6	152.1	152.6	58599.00		AZ affected by Mag
KAS-18-04	100	-59.6		157.7	152.2	153.2	57741.00		AZ affected by Mag



Project:	Pickle Lake		
Prospect:	Kas Lake		
Claim #:	319583 (legacy claim 4207794)		
Hole ID:	KAS-18-05		
Start Date:	04/June/18		
End Date:	05/June/18		
EOH Depth:	136m		
Datum/Proj:	Nad83	Zone 15	
UTM North:	5683214.613	m	
UTM East:	682451.834	m	
Elevation:	377.68	m	
Dip:	-72	at setup	
Az:	152.77TN	at setup	
Collar Survey Method:	APS		
Surveyed by:	DG		
Drill Co:	M3 Drilling		
Drill Rig:	JKS300		
m From	m To	Hole Size	Drill Type
0	6	BW	Casing
0	136	BTW	Rods
Drill comments (issues, casing, gear in hole): Casing was removed after drilling. APS taken while orienting drill.			
Geology comments: Intersected Mineralized Banded Iron Formation			

GEOLOGICAL CORE LOG

Hole ID: KAS-18-05 EOH called by: Daniel Grabiec

Date Logged: 12/June/18

Geologist: JJ

From (m)	To (m)	Int (m)	Lithology 1	Vn Type	Vn Pct	Pyrite %	Pyrrhotite %	Comments
0.00	4.10	4.10	OB					
4.10	25.70	21.60	IV	QZCC	2	0.10		Brownish-grey strongly foliated/banded Intermediate Volcanic. 45% subhedral FS (1-5mm; white; weakly boudinaged by foliation) 20% aph mafic groundmass (could be BT/CH/HB) 20% BT (brown; aphanitic to 1 mm; strongly foliated; 1-10 mm wide bands; wrap around FS/QZ grains) 10% QZ (1-2mm; clear; weakly boudinaged by fol) 2% QZ & QZ/CB veining (<1cm wide; 50% have 1-4 cm SER veins) 1% CH bands (1-30 cm wide; proximal to BT & PY). Trace dis and vein-hosted PY; 5% of rock is weakly magnetic. Fault gouge at 15.2 m
25.70	32.30	6.60	MV	QZCC	2	0.10		Same as unit before mafic dike but thicker intermediate layers. 60% Green-grey strongly foliated/banded Mafic Volcanic with 40% grey Intermediate Volcanic bands (2-15 cm wide), distinguished via FS content (10% vs 30% respectively). Overall 30% aph mafic groundmass (green/black; could be BT/CH/HB) 25% BT (aph to 2 mm; strongly fol; wrap around QZ/FS) 20% FS (0.5-3 mm; white; anhedral; rotated and boudinaged by foliation) 15% CH (aph to 2 mm; strongly fol; mostly in bands alternating with BT-rich zones in MV) 10% QZ (0.5-2 mm; clear). 2% QZ and QZ/CB veins (0.5-5.0 cm; SER haloes 0.2-1.0 cm; HM haloes at 29.0-32.4 m). Tr vein-hosted PY. Brecciated host rock in 5 cm QZ/CB/SER veins at 30.4 cm. SER stockwork at 30.7-31.0 m. Fault gouge 25.9 m.
32.30	33.00	0.70	MP				0.10	Dark grey/green moderately foliated non-banded Mafic Intrusive. Not magnetic. Lower contact crosscuts foliation. 35% aphanitic groundmass (black/green; could be BT/CH/HB) 25% BT (black; aph to 3 mm; mod fol; wrap around FS) 25% CH (aph to 1 mm; mod fol) 15% FS (white; 0.5-2 mm) Tr dis PO.
33.00	41.40	8.40	MV	QZCC	1	0.10	0.10	85% Green-grey strongly foliated/banded Mafic Volcanic with 15% grey Intermediate Volcanic bands (1-5cm wide), distinguished via FS content (10% vs 35% respectively). Not magnetic. Overall 40% aph mafic groundmass (green/black; could be BT/CH/HB) 25% BT (aph to 2 mm; strongly fol; wrap around QZ/FS) 20% CH (aph to 2 mm; strongly fol; mostly in bands alternating with BT-rich zones in MV) 10% FS (0.5-5 mm; white; anhedral; rotated and boudinaged by foliation) 5% QZ (0.5-2 mm; clear). 1% QZ and QZ/CB veins (SER/CH haloes). Tr vein-hosted PY/PO. Fault gouge at 41.0 m
41.40	59.60	18.20	MV	QZCC	2	0.10		Grey-green strongly foliated/banded Mafic Volcanic. Gradational contact with below unit. 35% CH (green; 0.2-1 mm; 0.1-1.0 cm bands; strongly fol) 30% aph mafic groundmass (green/black; some is CH; could also be BT/HB) 20% BT (brown; 0.5-1 mm; 0.1-1cm bands; strongly fol) 10% FS (0.2-1.0 mm; white) 5% QZ (clear; discontinuous bands along foliation) 2% QZ/CB veins (1-10 cm wide; up to 50% massive TM at 41.7-43.8 m). Tr dis/vein-hosted PY. 5% of rock is weakly magnetic.
59.60	62.30	2.70	MV	QZCC	0.5	0.20		Dark grey-green strongly foliated/banded Mafic Volcanic. Gradational contact with above unit. Same as above unit but with weak to moderate silicification and sericitization. 50% aph mafic groundmass (green/black; could be CH/BT/HB) 20% QZ (flooding/discontinuous thin veins) 10% CH (green; 0.5-2 mm; mod to strong fol) 10% BT (brown; aph to 1 mm; mod fol) 10% FS (0.2-1.0 mm; white). 0.5% QZ/CB veins (0.5-1 mm; SER haloes) 0.2% dis/vein-hosted PY

GEOLOGICAL CORE LOG

Hole ID: KAS-18-05 EOH called by: Daniel Grabiec

Date Logged: 12/June/18

Geologist: JJ

From (m)	To (m)	Int (m)	Lithology 1	Vn Type	Vn Pct	Pyrite %	Pyrrhotite %	Comments
62.30	80.80	18.50	MIG	QZCC	2	0.10	0.10	Green moderately foliated Mafic Intrusive. Stronger/more pervasive alteration than above units; coarser grained than above; mottled texture that grades to strong foliation toward end of unit. 40% CH (0.5-4 mm; platy; weakly to strongly foliated) 20% BT (0.5-4 mm; brown; weakly foliated) 20% aph mafic groundmass (green/black; some CH; could also be BT/HB) 15% QZ (flooding/mm-size veins rimmed by <0.2 mm qz/cb haloes) 5% FS (0.2-1.0 mm; white) 2% QZ/CB (0.2-5 cm veins; 0.1-3.0 cm SER alt) Tr dis/vein-hosted PY; tr dis PO.
80.80	86.40	5.60	SBm	QZCC	1	0.10		Dark grey strongly foliated Banded Iron Formation. 80% of rock mod to strongly magnetic. 40% aph mafic mins (including MT) 20% CH (0.5-2.0 mm) 10% GT (0.5-5 mm; red) 10% QZ (chert and/or veins/flooding) 10% FS (0.2-1 mm; white) 5% BT (0.5-1.0 mm; brown) 3% MT (0.1-0.5 mm; more in aph matrix) 1% QZ and QZ/CB veins (0.1-2.0 cm). TR dis/vein-hosted PY.
86.40	89.50	3.10	SBm	QZCC	3	0.20	0.10	Dark grey mod to strongly foliated Banded Iron Formation. Weakly to mod silicified; 60% of unit moderately to strongly magnetic. 45% aph mafic minerals (including MT). 20% QZ (appears to be chert) 15% CH (aph to 1 mm; green; foliated) 10% BT (aph to 1 mm; brown; foliated) 5% FS (0.2-1.0 mm; white) 3% QZ and QZ/CB veining (0.2-15 cm wide) 1% MT (<0.5 mm; equant/acicular; more in aph matrix). 0.2% PY (dis/vein-hosted; 5% at); Tr dis PO (2% at 86.9-87.1 m).
89.50	94.80	5.30	SB\$\$	QZ	7	0.50	2.50	Dark grey mod to strongly foliated Banded Iron Formation. Weakly to mod silicified; 60% of unit mod to strongly magnetic. Strong olive green alteration at 89.7-91.8 m (SER+CH?). 50% aph mafic minerals (including MT) 15% QZ (appears to be chert) 15% BT (aph to 1 mm; brown; foliated) 5% CH (aph to 1 mm; green; foliated) 7% QZ veins (0.5-6 cm wide; few CB haloes; few SER haloes) 5% FS (0.2-1.0 mm; white) 1% MT (<0.5 mm; equant/acicular; more in aph matrix). 2.5% PO (vein-hosted/dis throughout; 0.5/1.0 cm thick continuous PO vein crosscutting fol at 91.3-91.7 m; 0.2-3.0 cm thick discontinuous PO/PY vein along fol at 91.8-91.9 m) 0.5% PY (vein-hosted).
94.80	103.40	8.60	SBm	QZ	3	0.20	0.10	Dark grey mod to strongly foliated Banded Iron Formation. 60% of unit moderately to strongly magnetic. 60% aph mafic minerals (including MT). 10% QZ (appears to be chert) 10% CH (aph to 1 mm; green; foliated) 10% BT (aph to 1 mm; brown; foliated) 5% FS (0.2-1.0 mm; white) 3% QZ and QZ/CB veining (0.2-6 cm wide; few SER haloes) 1% MT (<0.5 mm; equant/acicular). 0.2% dis/vein-hosted PY; tr dis PO.
103.40	136.00	32.60	MIG	QZCC	1	0.10	0.10	Dark grey moderately foliated Mafic Intrusive. 80% of unit weakly to strongly magnetic. 45% aph mafic mins (inc MT; could be BT/HB/CH) 25% FS (0.5-2 mm; white) 15% CH (aph to 2 mm; platy; green) 10% BT (aph to 1 mm; platy; brown) 3% MT (equant; aph to 1 mm; black) 1% QZ and QZ/CB veins (0.1-4 cm; some w ser haloes; 1-5 cm veins w up to 75% massive TM at 128.5-133 m). Tr dis/vein-hosted/blebby PY/PO (up to 5% locally; mostly in TM zone). Thin BIF zone at 109.9-110.0 m. Coarser-grained non-foliated mafic intrusion at 120.8-121.6 m.
136	EOH							

STRUCTURAL CORE LOG

Hole ID: KAS-18-05

Date Logged: 12/June/18

Geologist: JJ

Core Data							
From (m)	To (m)	Interval (m)	Rock Type	Structure Type	Foliation (TCA)	Other (TCA)	Struc. Intensity
0.00	4.10	4.10	OB				
5.00	5.10	0.10	IV	Fol	28		S
10.00	10.10	0.10	IV	Fol	31		S
15.00	15.10	0.10	IV	Fol	28		S
20.00	20.10	0.10	IV	Fol	31		S
25.00	25.10	0.10	IV	Fol	29		S
25.70	25.70	0.00	IV/MV	Ct		29	S
30.00	30.10	0.10	MV	Fol	31		S
32.30	32.30	0.00	MV/MP	Ct		36	S
35.00	35.10	0.10	MV	Fol	30		S
40.00	40.10	0.10	MV	Fol	31		S
45.00	45.10	0.10	MV	Fol	30		S
49.90	50.00	0.10	MV	Fol	32		S
54.90	55.00	0.10	MV	Fol	35		S
60.00	60.10	0.10	MV	Fol	33		M
65.80	65.90	0.10	MIG	Fol	34		M
69.90	70.00	0.10	MIG	Fol	38		S
78.00	78.10	0.10	MIG	Fol	40		S
80.80	80.80	0.00	MIG/SBm	Ct		45	S
87.00	87.10	0.10	SBm	Fol	44		S
91.20	91.30	0.10	SB\$\$	Fol	26		M
93.00	93.10	0.10	SB\$\$	Fol	40		M
93.50	93.60	0.10	SB\$\$	Fol	29		S
94.80	94.80	0.00	SB\$\$/SBm	Ct		30	S
95.00	95.10	0.10	SBm	Fol	35		S
95.90	96.00	0.10	SBm	Fol	34		S
99.00	99.10	0.10	SBm	Fol	34		S
106.00	106.10	0.10	MIG	Fol	43		S
110.00	110.10	0.10	MIG	Fol	44		M
116.90	117.00	0.10	MIG	Fol	42		S
123.00	123.10	0.10	MIG	Fol	42		S
128.00	128.10	0.10	MIG	Fol	43		S
133.00	133.10	0.10	MIG	Fol	43		S

SAMPLE & SPECIFIC GRAVITY LOGS										
Hole ID:	KAS-18-05		Sampled by:	JJ		DATE:	12/June/18			
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)				
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG
789878	31.30	32.30	1.00	0.003	Tr vein-hosted py; 1% qz/cb veins w ser haloes	MV	1.00	936	1468	2.7594
789879	32.30	33.00	0.70	0.013	Tr dis po in host; tr qz/cb veins w ser haloes	MP	0.70	780	1200	2.8571
789880				1.58 g/t	Standard					
789881	33.00	34.00	1.00	0.002	Tr vein-hosted py; 3% qz/cb veins/stockwork w ser haloes	MV	1.00	1142	1788	2.7678
789882	58.60	59.60	1.00	0.015	Tr dis py in host	MV	1.00	1052	1632	2.8138
789883	59.60	60.60	1.00	0.008	0.5% dis py in host; 2% qz/cb veins w ser haloes	MV	1.00	1016	1600	2.7397
789884	60.60	61.60	1.00	0.002	Tr dis py in host; 3% qz/cb veins w ser haloes	MV	1.00	1206	1900	2.7378
789885	61.60	62.30	0.70	0.008	Tr vein-hosted py	MV	0.70	708	1108	2.77
789886	62.30	63.80	1.50	0.003	Tr dis/vein-hosted py; 2% qz/cb veins	MIG	1.50	2216	3296	3.0519
789887	63.80	65.30	1.50	0	Tr dis py in host; 1% qz/cb veins	MIG	1.50	1852	2758	3.0442
789888	65.30	66.80	1.50	0.002	Tr dis py in host; 2% qz/cb veins w ser alt	MIG	1.50	1908	2848	3.0298
789889	66.80	68.30	1.50	0.003	Tr dis/vein-hosted py; 2% qz/cb veins w ser alt	MIG	1.50	1930	2868	3.0576
789890	68.30	69.80	1.50	0.007	Tr dis py in host; 3% qz/cb veins w ser haloes	MIG	1.50	1760	2630	3.023
789891	69.80	71.30	1.50	0.005	Tr dis py in host; 2% qz and qz/cb veins w ser haloes	MIG	1.50	1696	2518	3.0633
789892	71.30	72.80	1.50	0.003	Tr dis py in host; 2% qz and qz/cb veins w ser haloes	MIG	1.50	1614	2424	2.9926
789893	72.80	74.30	1.50	0.001	Tr dis py in host; 1% qz/cb veins	MIG	1.50	2228	3322	3.0366
789894	74.30	75.80	1.50	0.002	Tr dis/vein-hosted py; 1% qz/cb veins	MIG	1.50	2052	3068	3.0197

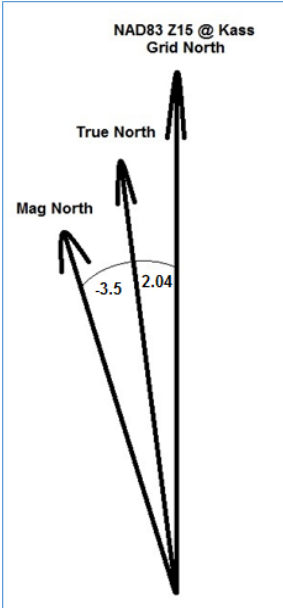
SAMPLE & SPECIFIC GRAVITY LOGS										
Hole ID:	KAS-18-05		Sampled by:	JJ		DATE:	12/June/18			
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)				
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG
789895	75.80	77.30	1.50	0.005	Tr dis py/po; 1% qz/cb veins w ser haloes	MIG	1.50	2066	3082	3.0335
789896	77.30	78.80	1.50	0.229	Tr dis/vein-hosted py; 1% qz/cb veins	MIG	1.50	2086	3118	3.0213
789897	78.80	80.00	1.20	0.325	Tr vein-hosted py/po; 1% qz/cb veins	MIG	1.20	1722	2540	3.1051
789898	80.00	80.80	0.80	2.77	0.5% dis/vein-hosted py; tr dis po; 4% qz/cb veins	MIG	0.80	910	1374	2.9612
789899	80.80	82.00	1.20	0.232	Tr vein-hosted py; 0.5% qz/cb veins	SBm	1.20	1478	2242	2.9346
789900	82.00	83.10	1.10	0.275	Tr dis/vein-hosted py	SBm	1.10	1372	2092	2.9056
789901			0.00		Blank					
789902	83.10	84.10	1.00	0.013	Tr dis/vein-hosted py	SBm	1.00	1276	1928	2.9571
789903	84.10	85.30	1.20	0.522	Tr vein-hosted py	SBm	1.20	1396	2098	2.9886
789904	85.30	86.40	1.10	0.005	Tr dis py in host; tr qz/cb veins	SBm	1.10	1610	2424	2.9779
789905				6.66 g/t	Standard					
789906	86.40	87.40	1.00	1.99	1% vein-hosted py; tr vein-hosted/dis po; 5% qz and qz/cb veins w ser/ch alt	SBm	1.00	1264	1924	2.9152
789907	87.40	88.40	1.00	0.028	Tr dis py in host; tr qz/cb veins	SBm	1.00	1208	1826	2.9547
789908					Blank					
789909	88.40	89.50	1.10	0.037	Tr dis py in host; tr qz/cb veins	SBm	1.10	412	612	3.06
789910	88.40	89.50	1.10	Duplicate	Duplicate of 789909	SBm	1.10	572	868	2.9324
789911	89.50	90.50	1.00	2.94	4% dis/vein-hosted py; 0.5% dis po; 3% qz and qz/cb veins w ch/ser haloes	SB\$\$	1.00	1352	2052	2.9314

SAMPLE & SPECIFIC GRAVITY LOGS										
Hole ID:	KAS-18-05		Sampled by:	JJ		DATE:	12/June/18			
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)				
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG
789912	90.50	91.30	0.80	1.81	2% dis/vein-hosted po; 2% dis/vein-hosted/blebby py; 2% qz and qz/cb veins w ser/ch haloes	SB\$\$	0.80	838	1272	2.9309
789913	91.30	92.30	1.00	3.08	4% dis/vein-hosted po; 0.5% dis/vein-hosted/semi-massive py; 4% qz and qz/cb veins w ser/ch haloes	SB\$\$	1.00	1258	1900	2.9595
789914	92.30	93.40	1.10	2.78	3% dis/vein-hosted po; 0.5% dis py; 5% qz and qz/cb veins w ser haloes	SB\$\$	1.10	1384	2110	2.9063
789915	93.40	94.00	0.60	10.4	3% dis/vein-hosted po; 0.5% vein-hosted py;	SB\$\$	0.60	792	1210	2.8947
789916	94.00	94.80	0.80	3.84	2% dis/vein-hosted po; tr dis py; 5% qz and qz/cb veins w ser/ch haloes	SB\$\$	0.80	1114	1686	2.9476
789917	94.80	96.30	1.50	0.009	Tr dis py/po; 2% qz/cb veins w ser haloes	SBm	1.50	2092	3086	3.1046
789918	96.30	97.80	1.50	0.205	0.5% tr dis/vein-hosted py; tr dis po in host; 4% qz/cb veins	SBm	1.50	1880	2788	3.0705
789919	97.80	99.30	1.50	0.007	Tr dis py in host; 2% qz/cb veins	SBm	1.50	1938	2872	3.0749
789920	99.30	100.80	1.50	0.429	Tr dis/vein-hosted py; 4% qz/cb veins w ser/tm alt	SBm	1.50	2072	3088	3.0394
789921	100.80	102.30	1.50	0.164	Tr dis py in host; 1% qz/cb veins	SBm	1.50	2008	2982	3.0616
789922	102.30	103.40	1.10	0.826	0.2% dis/vein-hosted py; 5% qz and qz/cb veins w ser alt	SBm	1.10	1398	2086	3.032
789923	103.40	104.50	1.10	0.017	Tr qz/cb veins	MIG	1.10	1318	1954	3.0723
789924	104.50	106.00	1.50	0.007	Tr qz/cb veins	MIG	1.50	2000	2958	3.0877

SAMPLE & SPECIFIC GRAVITY LOGS										
Hole ID:	KAS-18-05		Sampled by:		JJ		DATE:	12/June/18		
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)				
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG
789925	106.00	107.50	1.50	0.192	Tr dis/vein-hosted py; 1% qz/cb veins	MIG	1.50	2320	3436	3.0789
789926					Blank					
789927	107.50	109.00	1.50	0.001	Tr dis/blebby py; 1% qz/cb veins w ser haloes	MIG	1.50	1922	2842	3.0891
789928	109.00	110.50	1.50	0.112	Tr dis/blebby py; 2% qz/cb veins	MIG	1.50	2350	3500	3.0435
789929	110.50	112.00	1.50	0.018	Tr dis py in host; tr qz/cb veins	MIG	1.50	2060	3030	3.1237
789930				0.505 g/t	Standard					
789931	112.00	113.50	1.50	0.015	Tr dis py in host; tr qz/cb veins	MIG	1.50	1894	2784	3.1281
789932	113.50	115.00	1.50	0.01	Tr dis py in host; tr qz/cb veins	MIG	1.50	2160	3174	3.1302
789933	115.00	116.50	1.50	0.009	0.2% dis py in host; tr qz/cb veins	MIG	1.50	2166	3198	3.0988
789934	116.50	118.00	1.50	0.204	Tr dis/vein-hosted py; tr qz/cb veins	MIG	1.50	2062	3040	3.1084
789935	118.00	119.50	1.50	0.015	Tr dis py in host; tr qz/cb veins w ser alt	MIG	1.50	2046	3000	3.1447
789936	119.50	120.80	1.30	0.016	1% qz/cb veins w ser haloes	MIG	1.30	1736	2556	3.1171
789937	120.80	121.60	0.80	0.005	Tr dis/vein-hosted py; tr qz/cb veins	MIG	0.80	1220	1812	3.0608
789938	121.60	122.50	0.90	0.005	Tr dis py in host; tr qz/cb veins	MIG	0.90	1324	1952	3.1083
789939	122.50	124.00	1.50	1.03	Tr dis/vein-hosted py; tr qz/cb veins	MIG	1.50	1982	2902	3.1543
789940	124.00	125.50	1.50	0.014	Tr dis/vein-hosted py; 3% qz and qz/cb veins w ch alt	MIG	1.50	2070	3006	3.2115
789941	125.50	127.00	1.50	0.001	Tr dis/vein-hosted py; tr qz/cb veins	MIG	1.50	2296	3338	3.2035
789942	127.00	128.50	1.50	0.009	Tr dis/vein-hosted py; 1% qz/cb veins	MIG	1.50	1996	2916	3.1696

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-05	Sampled by: JJ			DATE:	12/June/18					
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
789943	128.50	130.00	1.50	0.052	0.2% dis/vein-hosted po; tr dis py; 1% qz/cb and qz/cb/tm veins	MIG	1.50	1982	2882	3.2022	
789944	130.00	131.50	1.50	0.034	0.5% tr/vein-hosted po; tr vein-hosted py; 3% qz/cb/tm veins; tr qz/cb veins	MIG	1.50	2074	3026	3.1786	
789945	131.50	133.00	1.50	0.063	0.2% vein-hosted py; tr vein-hosted po; 3% qz/cb/tm veins	MIG	1.50	2108	3092	3.1423	
789946	133.00	134.50	1.50	0.038	Tr dis py in host; 1% qz/cb veins w ser alt	MIG	1.50	1798	2628	3.1663	
789947	134.50	136.00	1.50	0.012	Tr qz/cb veins	MIG	1.50	2080	3080	3.08	

LOGGED BY:	J.J.	Magnetic Declination:		5.54	West		Equipment:	Reflex	
BHID	Depth (m)	Dip (neg.)	Az (TN)	Az (Mag)	Az (NAD83)	Az (NAD83) Used	Mag Sus (nT)	DDH Ref	Geo/Driller Comments
KAS-18-05	0	-70.6	152.77		150.73	150.73			Dip Estimated
KAS-18-05	16	-70.4		156.7	151.2	151.1	57517.00		AZ affected by Mag
KAS-18-05	46	-70.2		156.9	151.4	151.9	56990.00		AZ affected by Mag
KAS-18-05	76	-70.0		157.3	151.8	152.6	57522.00		AZ affected by Mag
KAS-18-05	106	-69.9		158.2	152.7	153.4	57226.00		AZ affected by Mag
KAS-18-05	136	-69.5		159.7	154.2	154.1	56718.00		AZ affected by Mag



Project:	Pickle Lake		
Prospect:	Kas Lake		
Claim #:	319583 (legacy claim 4207794)		
Hole ID:	KAS-18-06	Datum/Proj:	Nad83 Zone 15
Start Date:	06/June/18	UTM North:	5683214.613 m
End Date:	07/June/18	UTM East:	682451.834 m
EOH Depth:	164.5m	Elevation:	377.68 m
		Dip:	-78 at setup
		Az:	153.67TN at setup
		Collar Survey Method:	APS
		Surveyed by:	D.G.
Drill Co:	M3 Drilling		
Drill Rig:	JKS300		
m From	m To	Hole Size	Drill Type
0	6	BW	Casing
0	164.5	BTW	Rods
Drill comments (issues, casing, gear in hole): Casing was removed after drilling. APS taken at EOH - rods on bottom and clamps disengaged.			
Geology comments: Intersected mineralized Banded Iron Formation.			

GEOLOGICAL CORE LOG

Hole ID: KAS-18-06

EOH called by: Dan Grabiec

Date Logged: 14/June/18

Geologist: JJ

EOH Reason: Drilled past mineralized Banded Iron Formation into the Mafic Intrusive.

From (m)	To (m)	Int (m)	Lithology 1	Major Vn Type	Vn Pct	Pyrite %	Pyrrhotite %	Comments
0.00	4.10	4.10	OB					
4.10	31.60	27.50	IV	QZCC	2	0.10		Brownish-grey strongly foliated/banded Intermediate Volcanic. 45% subhedral FS (1-5mm; white; weakly boudinaged by foliation) 20% aph mafic groundmass (could be BT/CH/HB) 20% BT (brown; aphanitic to 1 mm; strongly foliated; 1-10 mm wide bands; wrap around FS/QZ grains) 10% QZ (1-2mm; clear; weakly boudinaged by fol) 2% QZ & QZ/CB veining (<1cm wide; 50% have 0.1-2.0 cm SER haloes; few orange HM haloes) 1% CH (1-15 cm bands). Trace dis and vein-hosted PY; 5% of rock is weakly magnetic.
31.60	38.40	6.80	MV	QZCC	0.5	0.10		70% Green-grey strongly foliated/banded Mafic Volcanic with 30% grey Intermediate Volcanic bands (2-15 cm wide), distinguished via FS content (10% vs 30% respectively). Overall 30% aph mafic groundmass (green/black; could be BT/CH/HB) 25% BT (aph to 2 mm; strongly fol; wrap around QZ/FS) 20% CH (aph to 2 mm; strongly fol; mostly in bands alternating with BT-rich zones in MV) 15% FS (0.5-3 mm; white; anhedral; rotated and boudinaged by foliation) 10% QZ (0.5-2 mm; clear). 0.5% QZ and QZ/CB veins (0.5-2.0 cm; SER haloes 0.2-1.0 cm; HM haloes at 29.0-32.4 m). Tr vein-hosted PY. SER stockwork at 36.3-37.3 M
38.40	39.10	0.70	MP	QZCC	0.1	0.00		Dark grey/green moderately foliated non-banded Mafic Intrusive. Not magnetic. 40% aphanitic groundmass (black/green; could be BT/CH/HB) 25% BT (black; aph to 3 mm; mod fol; wrap around FS) 25% CH (aph to 1 mm; mod fol) 10% FS (white; 0.5-2 mm). Tr QZ/CB veins
39.10	47.30	8.20	MV	QZCC	0.1	0.10		70% Green-grey strongly foliated/banded Mafic Volcanic with 30% grey Intermediate Volcanic bands (2-30 cm wide), distinguished via FS content (10% vs 30% respectively). Same as unit above Mafic Intrusive. Overall 30% aph mafic groundmass (green/black; could be BT/CH/HB) 25% BT (aph to 2 mm; strongly fol; wrap around QZ/FS) 20% CH (aph to 2 mm; strongly fol; mostly in bands alternating with BT-rich zones in MV) 15% FS (0.5-6 mm; white; anhedral; rotated and boudinaged by foliation) 10% QZ (0.5-2 mm; clear). Tr QZ/CB veins (0.2-1.0 cm; SER haloes 0.2-1.0 cm). Tr vein-hosted PY.
47.30	71.80	24.50	MV	QZCC	0.1	0.10	0.10	Grey-green strongly foliated/banded Mafic Volcanic. Gradational contact with below unit. 35% CH (green; 0.2-1 mm; 0.1-1.0 cm bands; strongly fol) 30% aph mafic groundmass (green/black; some is CH; could also be BT/HB) 20% BT (brown; 0.5-1 mm; 0.1-1cm bands; strongly fol) 10% QZ (clear; discontinuous bands along foliation) 5% FS (0.2-1.0 mm; white) 1% QZ/CB veins (0.2-8.0 cm wide; 50% have 0.1-2.0 cm SER haloes). Tr GT (red; occurs at 57.9-64.6 m). Tr vein-hosted PY/PO. 5% of rock is weakly magnetic. Fault gouge at 48.2 m.
71.80	75.40	3.60	MV	QZCC	0.1	0.10	0.10	Dark grey-green strongly foliated/banded Mafic Volcanic. Gradational contact with above unit. Same as above unit but with moderate silicification and sericitization; strong alteration at 73.3-73.7 m. 50% aph mafic groundmass (green/black; could be CH/BT/HB) 25% QZ (flooding/discontinuous thin veins) 15% FS (0.2-10 mm; white; 35% 2-10 mm beige/white FS at 73.3-73.7 m) 10% CH (green; 0.5-2 mm; mod to strong fol). Tr QZ/CB veins (<0.5 mm). Tr dis/vein-hosted PY/PO.
75.40	89.10	13.70	MIG	QZCC	3	0.10	0.10	Green moderately foliated Mafic Intrusive. Coarser grained than above; mottled texture that grades to strong foliation toward end of unit. 40% CH (0.5-4 mm; platy; weakly to strongly foliated; wrap around QZ) 25% aph mafic groundmass (green/black; some CH; could also be BT/HB) 25% QZ (flooding/discontinuous veins) 5% BT (aph to 1 mm; brown; weakly foliated) 3% FS (0.2-1.0 mm; white) 3% QZ/CB (0.1-10 cm veins) Tr dis/vein-hosted PY; tr dis PO (locally up to 1%).

GEOLOGICAL CORE LOG

Hole ID: KAS-18-06

EOH called by: Dan Grabiec

Date Logged: 14/June/18

Geologist: JJ

EOH Reason: Drilled past mineralized Banded Iron Formation into the Mafic Intrusive.

From (m)	To (m)	Int (m)	Lithology 1	Major Vn Type	Vn Pct	Pyrite %	Pyrrhotite %	Comments
89.10	92.50	3.40	SBm	QZ	2	0.10	0.10	Dark grey strongly foliated Banded Iron Formation. 90% of rock mod to strongly magnetic. 40% aph mafic mins (including MT) 20% CH (0.5-2.0 mm) 15% GT (0.5-5 mm; red) 10% QZ (chert and/or veins/flooding) 5% FS (0.2-1 mm; white) 5% BT (0.5-1.0 mm; brown) 2% QZ and QZ/CB veins (0.5-5 mm; 8 cm QZ vein at 89.4 m) 1% MT (0.1-0.5 mm; more in aph matrix). TR dis PY/PO.
92.50	95.90	3.40	SB\$\$	QZCC	1	0.10	0.50	Dark grey strongly foliated Banded Iron Formation. Weakly to mod silicified; 60% of unit moderately to strongly magnetic. 40% aph mafic minerals (including MT). 25% QZ (appears to be chert) 15% CH (aph to 1 mm; green; foliated) 15% BT (aph to 2 mm; brown; weak to mod foliated) 5% FS (0.2-1.0 mm; white) 1% QZ/CB veining (0.1-8 cm) 1% MT. 0.5% dis PO; Tr dis/vein-hosted PY.
95.90	120.80	24.90	SBm	QZCC	2	0.10	0.10	Dark grey mod to strongly foliated Banded Iron Formation. 70% of unit moderately to strongly magnetic. 40% QZ (appears to be chert) 35% aph mafic minerals (including MT) 10% CH (0.5-1 mm; green; foliated) 10% BT (aph to 1 mm; brown; weak to strong fol) 5% FS (0.2-1.0 mm; white) 2% QZ and QZ/CB veining (0.2-9 cm wide) 1% MT (<0.5 mm). Tr vein-hosted/dis PY/PO (8% dis PO at 113.2-114.1 m). GT-bearing zones at 105-106.2 and 108.2-110 m.
120.80	132.80	12.00	MIG	QZCC	1	0.10	0.10	Dark grey strongly foliated Mafic Intrusive (70%) intercalated with Banded Iron Formation (30%). BIF zones 5-50 cm; amount of BIF decreases toward end of unit. 70% of unit mod to strongly magnetic. 50% aph mafic minerals (including MT) 20% QZ (chert and/or flooding/discontinuous veins) 10% CH (aph to 1 mm; green) 10% FS (1-3 mm; white) 10% BT (aph to 1 mm; brown; strong fol) 1% QZ and QZ/CB veining (1-10 mm; few SER haloes 0.1-1 cm). Tr dis PY/PO
132.80	164.50	31.70	MIG	QZCC	1	0.10		Dark grey moderately foliated Mafic Intrusive. Moderately magnetic throughout. 40% aph mafic mins (inc MT; could be BT/HB/CH) 30% FS (0.5-2 mm; white) 15% CH (aph to 2 mm; green; weak to strong fol) 10% BT (aph to 1 mm; brown; weak to strong fol) 3% MT (equant; aph to 1 mm; black) 1% QZ and QZ/CB veins. Tr dis/vein-hosted PY
164.5	EOH							

STRUCTURAL CORE LOG

Hole ID: KAS-18-06

Date Logged: 14/June/18

Geologist: JJ

Core Data

From (m)	To (m)	Interval (m)	Rock Type	Structure Type	Foliation (TCA)	Other (TCA)	Struc. Intensity
0.00	4.10	4.10	OB				
7.00	7.10	0.10	IV	Fol	31		S
11.50	11.60	0.00	IV	Fol	25		S
17.00	17.10	0.10	IV	Fol	27		S
18.90	19.00	0.10	IV	Fol	32		S
25.00	25.10	0.10	IV	Fol	31		S
30.90	31.00	0.10	IV	Fol	33		S
31.60	31.60	0.00	IV/MV	Ct		30	S
35.90	36.00	0.10	MV	Fol	31		S
39.10	39.10	0.00	MP/MV	Ct		28	S
43.00	43.10	0.10	MV	Fol	32		S
47.00	47.10	0.10	MV	Fol	28		S
53.00	53.10	0.10	MV	Fol	35		S
59.00	59.10	0.10	MV	Fol	28		S
64.00	64.10	0.10	MV	Fol	28		S
70.00	70.10	0.10	MV	Fol	27		S
72.00	73.00	1.00	MV	Fol	21		S
75.40	75.40	0.00	MV/MIG	Ct		55	S
84.90	85.00	0.10	MIG	Fol	36		S
88.00	88.10	0.10	MIG	Fol	43		S
89.10	89.10	0.00	MIG/SBm	Ct		35	S
101.00	101.10	0.10	SBm	Fol	38		S
109.10	109.20	0.10	SBm	Fol	32		S
113.00	113.10	0.10	SBm	Fol	34		S
117.00	117.10	0.10	SBm	Fol	38		S
121.00	121.10	0.10	MIG	Fol	29		S
127.10	127.10	0.00	MIG	Ct	30		S
133.80	133.80	0.00	MIG	Ct	34		S
138.00	138.10	0.10	MIG	Fol	39		S
142.00	142.10	0.10	MIG	Fol	46		S
152.50	152.60	0.10	MIG	Fol	28		S
162.90	163.00	0.10	MIG	Fol	21		S

SAMPLE & SPECIFIC GRAVITY LOGS										
Hole ID:	KAS-18-06		Sampled by:		JJ		DATE:	14/June/18		
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)				
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG
789948	69.80	70.80	1.00	0.007	Shoulder	MV	1.00	1430	2250	2.7439
789949	70.80	71.80	1.00	0.015	Tr dis/blebby py	MV	1.00	954	1500	2.7473
789950	71.80	73.20	1.40	0.001	30% qz flooding/veining	MV	1.40	1236	1958	2.7119
789951					Blank					
789952	73.20	74.20	1.00	0.035	25% qz veining/flooding	MV	1.00	1196	1890	2.7233
789953	74.20	75.40	1.20	0.026	Tr dis/vein-hosted py/po; 15% qz veining/flooding	MV	1.20	1274	2000	2.7548
789954	75.40	76.40	1.00	0.017	Tr dis po in host; 15% qz/cb veining	MIG	1.00	1394	2076	3.044
789955				1.58 g/t	Standard					
789956	76.40	77.50	1.10	0.001	Tr dis py in host; 3% qz/cb veins w ser/ch haloes	MIG	1.10	1418	2138	2.9694
789957	77.50	79.00	1.50	0.001	0.2% dis po in host; 1% qz/cb veins/amygdules	MIG	1.50	2102	3116	3.073
789958	79.00	80.50	1.50	0.001	Tr dis/blebby po; 5% qz/cb veins	MIG	1.50	1890	2832	3.0064
789959	80.50	82.00	1.50	0.004	0.2% dis/blebby po; 5% qz/cb veins	MIG	1.50	954	1420	3.0472
789960	80.50	82.00	1.50	Duplicate	Duplicate of 789959	MIG	1.50	740	1102	3.0442
789961	82.00	83.50	1.50	0.009	Tr dis po in host; 2% qz/cb veins	MIG	1.50	1990	2976	3.0183
789962	83.50	85.00	1.50	0.013	Tr dis po in host; tr qz and qz/cb veins	MIG	1.50	2036	3034	3.0401
789963	85.00	86.50	1.50	1.58	Tr dis po in host; 2% qz and qz/cb veins	MIG	1.50	1898	2840	3.0149
789964	86.50	88.00	1.50	0.441	Tr dis/vein-hosted po; 5% qz/cb veins (some w ser alt)	MIG	1.50	2198	3280	3.0314
789965	88.00	89.10	1.10	0.336	Tr dis po in host; 1% qz and qz/cb veins	MIG	1.10	1502	2204	3.1396

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-06	Sampled by:			JJ	DATE:	14/June/18				
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
789966	89.10	90.30	1.20	0.387	Tr dis poin host; 4% qz and qz/cb veins	SBm	1.20	1588	2382	3	
789967	90.30	91.40	1.10	0.104	Tr dis/vein-hosted po; 1% qz/cb veins	SBm	1.10	1278	1920	2.9907	
789968	91.40	92.50	1.10	0.048	Tr dis/vein-hosted py/po; tr qz/cb veins	SBm	1.10	1090	1642	2.9746	
789969					Blank						
789970	92.50	93.40	0.90	0.055	0.4% dis po in host; 1% qz/cb veins	SB\$\$	0.90	1176	1778	2.9535	
789971	93.40	94.30	0.90	0.844	1% dis po in host; tr qz/cb veins	SB\$\$	0.90	1090	1646	2.9604	
789972	94.30	95.10	0.80	5.67	1% dis po in host; 0.5% dis/vein-hosted py; 5% qz/cb veins (some w ser haloes)	SB\$\$	0.80	1082	1646	2.9184	
789973	95.10	95.90	0.80	0.977	1% dis po in host; 1% qz/cb veins	SB\$\$	0.80	1014	1530	2.9651	
789974	95.90	97.00	1.10	0.006	Tr qz/cb veins	SBm	1.10	1492	2268	2.9227	
789975	97.00	98.50	1.50	0.001	Tr qz/cb veins	SBm	1.50	1536	2332	2.9296	
789976					Blank						
789977	98.50	100.00	1.50	0.001	Tr qz/cb veins	SBm	1.50	2042	3092	2.9448	
789978	100.00	101.50	1.50	0.11	0.5% qz/cb veins	SBm	1.50	1828	2768	2.9447	
789979	101.50	103.00	1.50	2.57	Tr dis py/po; tr qz/cb veins	SBm	1.50	1764	2666	2.9557	
789980				6.66 g/t	Standard						
789981	103.00	104.20	1.20	0.058	Tr dis py in host; tr qz/cb veins	SBm	1.20	1478	2232	2.9602	
789982	104.20	104.70	0.50	21.2	5% vein-hosted/semi-massive py; tr dis po in host; 5% qz veins	SBm	0.50	580	880	2.9333	

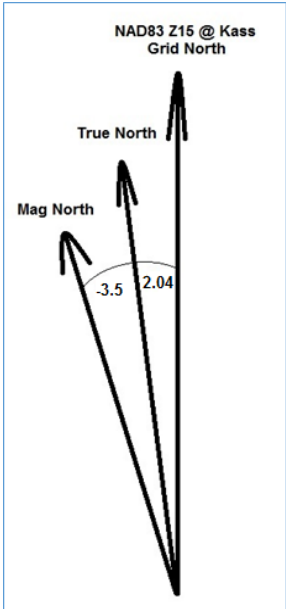
SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-06	Sampled by:			JJ	DATE:	14/June/18				
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
789983	104.70	106.20	1.50	0.169	Tr vein-hosted py; tr qz/cb veins	SBm	1.50	1964	2980	2.9331	
789984	106.20	107.50	1.30	0.318	0.2% tr dis/vein-hosted py; tr dis po in host; tr qz/cb veins	SBm	1.30	1494	2254	2.9658	
789985	107.50	108.50	1.00	1.35	0.5% dis/blebby po; 8% qz and qz/cb veins	SBm	1.00	1154	1752	2.9298	
789986	108.50	109.40	0.90	0.093	Tr dis py in host; tr qz/cb veins	SBm	0.90	1216	1826	2.9934	
789987	109.40	110.30	0.90	0.047	Tr qz/cb veins	SBm	0.90	908	1368	2.9739	
789988	110.30	111.00	0.70	0.514	0.2% dis/blebby py; tr dis po in host; 7% qz/cb veins	SBm	0.70	838	1270	2.9398	
789989	111.00	111.80	0.80	6.86	3% dis/vein-hosted po; 0.5% vein-hosted py; 5% qz and qz/cb veins	SBm	0.80	978	1478	2.956	
789990	111.80	112.80	1.00	0.119	Tr dis po in host; 2% qz/cb veins w ser alt	SBm	1.00	1428	2128	3.04	
789991	112.80	113.50	0.70	2.66	5% dis/vein-hosted po; 3% qz/cb veins	SBm	0.70	918	1388	2.9532	
789992	113.50	114.20	0.70	2.97	6% dis/vein-hosted po; 0.5% dis py in host; 5% qz/cb veins w ser alt	SBm	0.70	1002	1508	2.9802	
789993	114.20	115.00	0.80	0.021	Tr dis/vein-hosted py/po; tr qz/cb veins	SBm	0.80	970	1448	3.0293	
789994	115.00	116.50	1.50	0.009	Tr qz/cb veins	SBm	1.50	2172	3200	3.1128	
789995	116.50	118.00	1.50	0.37	Tr dis po in host; 1% qz/cb veins	SBm	1.50	2168	3216	3.0687	
789996	118.00	118.50	0.50	0.174	2% dis/blebby py; 1% qz/cb veins	SBm	0.50	682	1002	3.1313	
789997	118.50	119.50	1.00	0.011	2% qz/cb veins	SBm	1.00	1394	2054	3.1121	

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-06	Sampled by:			JJ	DATE:	14/June/18				
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
789998	119.50	120.80	1.30	0.006	1% qz/cb veins	SBm	1.30	1804	2714	2.9824	
789999	120.80	121.60	0.80	0.007	Tr dis py in host; 1% qz/cb veins	MIG	0.80	1268	1868	3.1133	
790000	121.60	122.50	0.90	0.03	Tr dis py in host; 2% qz and qz/cb veins	MIG	0.90	1276	1916	2.9938	
790001			0.00		Blank					#DIV/0!	
790002	122.50	124.00	1.50	0.009	Tr qz/cb veins	MIG	1.50	2096	3108	3.0711	
790003	124.00	125.00	1.00	0.007	Tr qz/cb veins	MIG	1.00	1132	1660	3.1439	
790004	125.00	125.90	0.90	0.007	1% qz/cb veins	MIG	0.90	1160	1708	3.1168	
790005			0.00	0.505 g/t	Standard						
790006	125.90	126.70	0.80	0.278	1% py in host; tr dis po in host; 3% qz/cb veins	MIG	0.80	944	1400	3.0702	
790007	126.70	127.30	0.60	0.018	Tr qz/cb veins	MIG	0.60	764	1142	3.0212	
790008	127.30	128.80	1.50	0.068	Tr dis py in host; tr qz/cb veins	MIG	1.50	2366	3496	3.0938	
790009	128.80	130.00	1.20	0.007	2% qz/cb veins	MIG	1.20	686	1028	3.0058	
790010	128.80	130.00	1.20	Duplicate	Duplicate of 790009	MIG	1.20	810	1198	3.0876	
790011	130.00	131.50	1.50	0.009	Tr dis/blebby py; tr qz/cb veins	MIG	1.50	2214	3336	2.9733	
790012	131.50	132.80	1.30	0.009	Tr qz/cb veins	MIG	1.30	1710	2544	3.0504	
790013	132.80	133.50	0.70	0.106	Tr qz/cb veins	MIG	0.70	1160	1714	3.0939	
790014	133.50	134.50	1.00	0.011	Tr dis py in host; tr qz/cb veins	MIG	1.00	1392	2046	3.1284	
790015	134.50	136.00	1.50	0.01	Tr dis/vein-hosted py; tr qz/cb veins	MIG	1.50	2134	3142	3.1171	
790016	136.00	137.50	1.50	0.017	Tr dis py in host; tr qz/cb veins	MIG	1.50	2298	3402	3.0815	
790017	137.50	139.00	1.50	0.015	Tr dis py in host; tr qz/cb veins	MIG	1.50	2182	3230	3.0821	
790018	139.00	140.50	1.50	0.027	Tr dis py in host; 1% qz/cb veins	MIG	1.50	1824	2690	3.1062	

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-06	Sampled by:			JJ	DATE:	14/June/18				
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
790019	140.50	142.00	1.50	0.014	Tr dis/vein-hosted py; 1% qz/cb veins	MIG	1.50	2132	3164	3.0659	
790020	142.00	143.50	1.50	0.013	1% qz and qz/cb veins	MIG	1.50	1594	2350	3.1085	
790021	143.50	145.00	1.50	0.006	Tr dis/vein-hosted py; tr qz/cb veins	MIG	1.50	1994	2920	3.1533	
790022	145.00	146.50	1.50	0.001	Tr dis/vein-hosted py; tr qz/cb veins	MIG	1.50	2328	3384	3.2045	
790023	146.50	148.00	1.50	0.006	Tr dis/vein-hosted py; tr qz/cb veins	MIG	1.50	2190	3172	3.2301	
790024	148.00	149.50	1.50	0.011	Tr vein-hosted py; tr qz/cb veins	MIG	1.50	2324	3382	3.1966	
790025	149.50	151.00	1.50	0.009	Tr vein-hosted py; tr qz/cb veins	MIG	1.50	1988	2920	3.133	
790026					Blank	MIG					
790027	151.00	152.50	1.50	0.05	Tr vein-hosted py; 5% qz and qz/cb veins	MIG	1.50	2190	3222	3.1221	
790028	152.50	154.00	1.50	0.028	2% qz and qz/cb veins w ser/ch alt	MIG	1.50	2130	3166	3.056	
790029	154.00	155.50	1.50	0.047	Tr dis py in host; tr qz/cb veins	MIG	1.50	2242	3316	3.0875	
790030				1.58 g/t	Standard						
790031	155.50	157.00	1.50	0.039	Tr dis/vein-hosted py; 1% qz/cb veins	MIG	1.50	1156	1714	3.0717	
790032	157.00	158.50	1.50	0.031	Tr dis/vein-hosted py; tr qz/cb veins	MIG	1.50	2756	4066	3.1038	
790033	158.50	160.00	1.50	0.005	Tr dis/vein-hosted py; 1% qz/cb veins	MIG	1.50	1914	2848	3.0493	
790034	160.00	161.50	1.50	0.012	Tr qz/cb veins w ser alt	MIG	1.50	2120	3130	3.099	
790035	161.50	163.00	1.50	0.024	2% qz and qz/cb veins w ser/ch alt	MIG	1.50	1826	2728	3.0244	

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID: KAS-18-06		Sampled by: JJ			DATE: 14/June/18						
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
790036	163.00	164.50	1.50	0.026	1% qz/cb veins w ser/ch alt	MIG	1.50	1802	2714	2.9759	

LOGGED BY:	J.J.	Magnetic Declination:			5.54	West	Equipment:			Reflex	
BHID	Depth (m)	Dip (neg.)	Az (TN)	Az (Mag)	Az (NAD83)	Az (NAD83) Used	Mag Sus (nT)	DDH Ref	Geo/Driller Comments		
KAS-18-06	0	-77.5	153.67		151.63	151.63		APS	Dip Estimated		
KAS-18-06	13	-77.3		157.6	152.1	152.0	58921.00	Reflex	AZ affected by Mag		
KAS-18-06	43	-76.8		161.8	156.3	152.7	57539.00	Reflex	AZ affected by Mag		
KAS-18-06	73	-76.5		160.1	154.6	153.5	57922.00	Reflex	AZ affected by Mag		
KAS-18-06	103	-76.2		160.8	155.3	154.2	59533.00	Reflex	AZ affected by Mag		
KAS-18-06	133	-75.9		163.6	158.1	155.0	56380.00	Reflex	AZ affected by Mag		
KAS-18-06	164.5	-75.6		159.4	153.9	155.7	58029.00	Reflex	AZ affected by Mag		



Project:	Pickle Lake		
Prospect:	Kas Lake		
Claim #:	319583 (legacy claim 4207794)		
Hole ID:	KAS-18-07	Datum/Proj:	Nad83 Zone 15
Start Date:	08/June/18	UTM North:	5683214.613 m
End Date:	09/June/18	UTM East:	682451.834 m
EOH Depth:	85m	Elevation:	377.68 m
		Dip:	-50 at setup
		Az:	212.1TN at setup
		Collar Survey Method:	APS
		Surveyed by:	D.G.
Drill Co:	M3 Drilling		
Drill Rig:	JKS300		
m From	m To	Hole Size	Drill Type
0	6	BW	Casing
0	85	BTW	Rods
Drill comments (issues, casing, gear in hole): Casing was removed after drilling. APS was taken while orienting drill.			
Geology comments: Intersected mineralized Banded Iron Formation			

GEOLOGICAL CORE LOG

Hole ID: KAS-18-07

EOH called by: Dan Grabiec

Date Logged: 16/June/18

EOH Reason: Drilled past mineralized Banded Iron Formation into Mafic Intrusive.

Geologist: JJ

From (m)	To (m)	Int (m)	Lithology 1	Major Vn Type	Vn Pct	Pyrite %	Pyrrhotite %	Comments
0.00	5.80	5.80	OB					
5.80	17.90	12.10	IV	QZCC	2	0.10		Brownish-grey strongly foliated/banded Intermediate Volcanic. 40% subhedral FS (1-5mm; white; weakly boudinaged by foliation) 25% aph mafic groundmass (could be BT/CH/HB) 15% BT (brown; aphanitic to 1 mm; strongly foliated; 1-10 mm wide bands; wrap around FS/QZ grains) 15% QZ (1-2mm; clear; weakly boudinaged by fol) 5% CH (1-15 cm bands) 2% QZ & QZ/CB veining (1-10 mm wide; 50% have 0.1-2.0 cm SER haloes). Trace dis and vein-hosted PY.
17.90	23.10	5.20	MV	QZCC	0.5	0.10		70% Green-grey strongly foliated/banded Mafic Volcanic with 30% grey Intermediate Volcanic bands (2-25 cm wide) distinguished via FS content (10% vs 40% respectively). Overall 25% aph mafic groundmass (green/black; could be BT/CH/HB) 25% BT (aph to 2 mm; strongly fol; wrap around QZ/FS) 20% CH (aph to 2 mm; strongly fol; mostly in bands alternating with BT-rich zones in MV) 20% FS (0.5-3 mm; white; anhedral; rotated and boudinaged by foliation) 10% QZ (0.5-2 mm; clear). 0.5% QZ and QZ/CB veins (1-10 mm; SER haloes 0.2-1.0 cm). Tr vein-hosted PY. SER stockwork at 20.5-21 m and 22.4-22.4 m.
23.10	23.50	0.40	MP	QZCC	0.1			Dark grey/green moderately foliated non-banded Mafic Intrusive. Not magnetic. 40% aphanitic groundmass (black/green; could be BT/CH/HB) 25% BT (black; aph to 3 mm; mod fol; wrap around FS) 20% FS (white; <1 mm) 15% CH (aph to 1 mm; mod fol). Tr QZ/CB veins
23.50	26.00	2.50	MV	QZCC	0.1			80% Green-grey strongly foliated/banded Mafic Volcanic with 20% grey Intermediate Volcanic bands (2-30 cm wide), distinguished via FS content (10% vs 30% respectively). Same as unit above Mafic Intrusive. Overall 35% aph mafic groundmass (green/black; could be BT/CH/HB) 30% BT (aph to 2 mm; strongly fol; wrap around QZ/FS) 20% CH (aph to 2 mm; strongly fol; mostly in bands alternating with BT-rich zones in MV) 10% FS (0.5-6 mm; white; anhedral; rotated and boudinaged by foliation) 10% QZ (0.5-2 mm; clear). Tr QZ and QZ/CB veins (0.2-1.0 cm; SER haloes 0.1-1.0 cm). Tr dis PY.
26.00	42.10	16.10	MV	QZCC	1	0.10		Grey-green strongly foliated/banded Mafic Volcanic. Banding becomes stronger toward end of unit. 35% CH (green; 0.2-2 mm; 0.1-1.0 cm bands; strongly fol) 35% aph mafic groundmass (green/black; some is CH; could also be BT/HB) 15% QZ (clear; discontinuous bands along foliation) 10% BT (brown; 0.2-1 mm; 0.1-1cm bands; strongly fol) 5% FS (0.2-1.0 mm; white) 1% QZ QZ/CB veins (0.2-5.0 cm wide; few 1-10 mm SER/CH haloes). 60% QZ/TM/CB/CH veining at 29.8-31.3 m (semi-massive TM in veins up to 5 cm thick). Tr vein-hosted PY. Fault gouges at 26.2 m at 26.5 m.
42.10	43.90	1.80	MV	QZ	10	0.10	0.10	Dark grey-green strongly foliated/banded Mafic Volcanic. Same as above unit but with moderate silicification and stronger banding. 45% aph mafic groundmass (green/black; could be CH/BT/HB) 15% CH (green; 0.5-2 mm; mod to strong fol) 15% QZ (flooding/discontinuous thin veins) 10% FS (0.2-10 mm; white; 35% 2-10 mm beige/white FS at 73.3-73.7 m) 5% BT (0.1-1.5 cm; brown; mod fol). 10% QZ veins (1-4 cm; CH haloes; semi-massive/haloes of TM). Tr dis/vein-hosted PY/PO.
43.90	54.70	10.80	MIG	QZCC	2	0.10	0.10	Green moderately foliated Mafic Intrusive. Coarser grained than above; mottled texture that grades to strong foliation toward end of unit. 40% CH (0.5-4 mm; platy; weakly to strongly foliated; wrap around QZ) 30% QZ (flooding/discontinuous veins) 15% aph mafic groundmass (green/black; some CH; could also be BT/HB) 10% BT (aph to 1 mm; brown; weakly foliated) 2% FS (0.2-1.0 mm; white) 2% QZ and QZ/CB veins (0.2-6.0 cm veins; few SER haloes) Tr dis/vein-hosted PY; tr dis PY/PO.
54.70	62.20	7.50	SBm	QZCC	1	0.10	0.10	Dark grey strongly foliated Banded Iron Formation. 80% of rock mod to strongly magnetic. 30% aph mafic mins (including MT) 20% CH (0.5-2.0 mm; green; mod to strong fol) 20% QZ (chert and/or veins/flooding) 15% GT (0.5-3 mm; red; only 60.3-63.2 m) 5% FS (0.2-1 mm; white) 5% BT (0.2-1.0 mm; brown) 3% MT (0.1-0.5 mm; more in aph matrix) 1% QZ and QZ/CB veins (0.1-4 cm). TR dis/vein-hosted PY/PO.

GEOLOGICAL CORE LOG

Hole ID: KAS-18-07

EOH called by: Dan Grabiec

Date Logged: 16/June/18

EOH Reason: Drilled past mineralized Banded Iron Formation into Mafic Intrusive.

Geologist: JJ

From (m)	To (m)	Int (m)	Lithology 1	Major Vn Type	Vn Pct	Pyrite %	Pyrrhotite %	Comments
62.20	70.00	7.80	SBm	QZCC	0.5	0.10	0.10	Dark grey mod to strongly foliated Banded Iron Formation. 80% of unit moderately to strongly magnetic. 45% QZ (appears to be chert) 20% aph mafic minerals (including MT) 15% CH (0.5-1 mm; green; foliated) 10% FS (0.2-1.0 mm; white) 5% BT (aph to 1 mm; brown; weak to strong fol) 3% MT (<0.5 mm) 0.5% QZ and QZ/CB veining (0.1-6 cm wide). Tr GT (red; 0.5-10 mm). Tr dis PY/PO.
70.00	85.00	15.00	MIG	QZ	4	0.10	0.10	Dark grey strongly foliated Mafic Intrusive (80%) intercalated with Banded Iron Formation (20%). BIF zones 2-25 cm; amount of BIF decreases toward end of unit. 50% of unit mod to strongly magnetic. 45% aph mafic minerals (including MT) 20% CH (aph to 1 mm; green; mod to strong fol) 10% QZ (chert and/or flooding/discontinuous veins) 10% FS (1-3 mm; white) 10% BT (aph to 1 mm; brown; strong fol) 4% QZ and QZ/CB veining (0.1-15 cm) 2% MT (<0.5 mm; more in groundmass) Tr dis/vein-hosted PY/PO.
85	EOH							

STRUCTURAL CORE LOG

Hole ID: KAS-18-07

Date Logged: 17/June/18

Geologist: JJ

Core Data

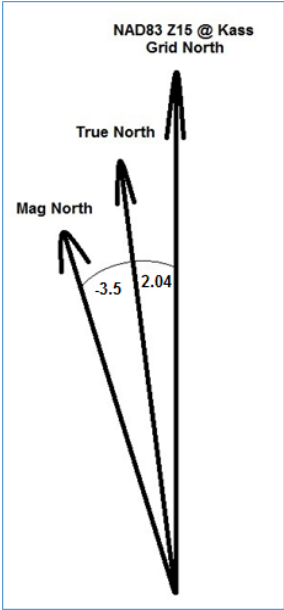
th From	Depth To (m)	Interval (m)	Rock Type	Structure Type	Foliation (TCA)	Other (TCA)	Struc. Intensity
0.00	5.80	5.80	OB				
10.00	10.10	0.10	IV	Fol	41		S
14.90	15.00	0.10	IV	Fol	43		S
20.00	20.10	0.10	MT	Fol	48		S
23.10	23.10	0.00	MV/MP	Ct		51	S
25.00	25.10	0.10	MV	Fol	47		S
29.50	29.60	0.10	MV	Fol	48		S
35.00	35.10	0.10	MV	Fol	51		S
43.90	43.90	0.00	MV/MIG	Ct		52	S
45.10	45.20	0.10	MIG	Fol	50		S
50.40	50.50	0.10	MIG	Fol	52		S
54.70	54.70	0.00	MIG	Ct		47	S
55.00	55.10	0.10	SBm	Fol	49		S
59.90	60.00	0.10	SBm	Fol	45		S
62.20	62.20	0.00	SBm	Ct		47	S
65.10	65.20	0.10	SBm	Fol	50		S
70.40	70.50	0.10	MIG	Fol	45		S
78.90	79.00	0.10	MIG	Fol	62		S

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-07	Sampled by:			JJ	DATE:	17/June/18				
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
790037	28.70	29.70	1.00	0.001	Shoulder; tr qz/cb veins	MV	1.00	1180	1850	2.7612	
790038	29.70	30.50	0.80	0.016	60% qz/cb/tm/ch veins	MV	0.80	910	1388	2.9038	
790039	30.50	31.20	0.70	0.001	60% qz/cb/tm/ch veins	MV	0.70	730	1130	2.825	
790040	31.20	32.20	1.00	0.001	Shoulder; 2% qz/cb veins	MV	1.00	1008	1556	2.8394	
790041	40.10	41.10	1.00	0.008	Tr qz/cb veins	MV	1.00	1188	1864	2.7574	
790042	41.10	42.10	1.00	0.001	Tr qz veins	MV	1.00	1084	1692	2.7829	
790043	42.10	43.00	0.90	0.001	5% qz/cb/tm veins	MV	0.90	1022	1568	2.8718	
790044	43.00	43.90	0.90	0.019	2% qz veins; strongly silicified/sericitized; tr po bands	MV	0.90	966	1516	2.7564	
790045	43.90	45.00	1.10	0.008	0.5% qz and qz/cb veins	MIG	1.10	1354	2024	3.0209	
790046	45.00	46.00	1.00	0.001	Tr qz/cb veins	MIG	1.00	1254	1870	3.0357	
790047	46.00	47.50	1.50	0.001	2% qz and qz/cb veins; tr po	MIG	1.50	1762	2640	3.0068	
790048	47.50	49.00	1.50	0.001	Tr qz/cb veins	MIG	1.50	1866	2778	3.0461	
790049	49.00	50.50	1.50	0.009	Tr qz/cb veins; tr dis po in host	MIG	1.50	1886	2792	3.0817	
790050	50.50	52.00	1.50	0.001	2% qz and qz/cb veins	MIG	1.50	1902	2842	3.0234	
790051					Blank						
790052	52.00	53.50	1.50	0.074	Tr qz and qz/cb veins	MIG	1.50	1854	2758	3.0509	
790053	53.50	54.70	1.20	0.073	Tr qz and qz/cb veins	MIG	1.20	1504	2222	3.0947	
790054	54.70	55.80	1.10	0.44	2% qz/cb veins; tr dis po bands	SBm	1.10	1416	2126	2.9944	
790055				6.66 g/t	Standard						
790056	55.80	57.00	1.20	0.001	Tr qz/cb veins	SBm	1.20	1420	2144	2.9613	
790057	57.00	58.10	1.10	0.001	1% qz/cb veins	SBm	1.10	1469	2198	3.0151	
790058	58.10	59.20	1.10	0.005	Tr qz/cb veins	SBm	1.10	1210	1834	2.9391	
790059	59.20	60.30	1.10	0.045	Tr qz/cb veins	SBm	1.10	536	816	2.9143	
790060	59.20	60.30	1.10	Duplicate	Duplicate of 790059		1.10	556	848	2.9041	

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-07	Sampled by:			JJ	DATE:	17/June/18				
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
790061	60.30	61.20	0.90	4.41	4% qz and qz/cb veins; 0.5% dis/vein-hosted py/po	SBm	0.90	1146	1738	2.9358	
790062					Blank						
790063	61.20	62.20	1.00	0.032	0.5% qz/cb veins	SBm	1.00	1324	2000	2.9586	
790064	62.20	62.80	0.60	0.287	0.5% qz/cb veins; tr dis py/po in host	SBm	0.60	772	1164	2.9694	
790065	62.80	63.70	0.90	1.05	2% qz and qz/cb veins	SBm	0.90	962	1486	2.8359	
790066	63.70	64.60	0.90	0.614	Tr qz/cb veins; 0.2% dis/vein-hosted py; tr dis po in host	SBm	0.90	1080	1630	2.9636	
790067	64.60	65.50	0.90	0.022	Tr qz/cb veins; tr vein-hosted py	SBm	0.90	1072	1630	2.9211	
790068	65.50	67.00	1.50	0.001	Tr qz/cb veins	SBm	1.50	1824	2750	2.9698	
790069	67.00	68.50	1.50	0.014	Tr qz/cb veins; tr dis po in host; tr vein-hosted py	SBm	1.50	1910	2886	2.957	
790070	68.50	70.00	1.50	0.022	1% qz and qz/cb veins; tr vein-hosted py	MIG	1.50	1878	2836	2.9603	
790071	70.00	71.50	1.50	0.113	0.5% qz and qz/cb veins	MIG	1.50	1880	2806	3.0302	
790072	71.50	73.00	1.50	0.386	Tr vein-hosted py	MIG	1.50	1858	2762	3.0553	
790073	73.00	73.90	0.90	0.807	2% qz and qz/cb veins; 0.2% dis/banded po	MIG	0.90	1130	1660	3.1321	
790074	73.90	75.20	1.30	0.999	2% qz/cb veins; 0.2% vein-hosted po; tr vein-hosted py	MIG	1.30	1698	2516	3.0758	
790075	75.20	76.00	0.80	0.258	50% qz veins w minor tm; 0.5% dis/vein-hosted po	MIG	0.80	858	1322	2.8491	
790076					Blank						
790077	76.00	77.00	1.00	0.553	4% qz/cb veins tr dis/blebby po	MIG	1.00	1278	1908	3.0286	
790078	77.00	78.00	1.00	0.023	3% qz/cb veins; 0.2% dis/vein-hosted po	MIG	1.00	1288	1912	3.0641	

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-07	Sampled by: JJ			DATE:	17/June/18					
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
790079	78.00	79.00	1.00	0.029	3% qz and qz/cb veins; 0.2% dis/vein-hosted po/py	MIG	1.00	1314	1944	3.0857	
790080				0.505 g/t	Standard						
790081	79.00	80.00	1.00	0.016	4% qz and qz/cb veins	MIG	1.00	1248	1856	3.0526	
790082	80.00	81.00	1.00	0.134	10% qz veins; 0.5% vein-hosted/blebby po; tr vein-hosted py	MIG	1.00	1300	1922	3.09	
790083	81.00	82.00	1.00	0.008	3% qz and qz/cb veins; tr vein-hosted py	MIG	1.00	1330	1976	3.0588	
790084	82.00	83.00	1.00	0.022	Tr qz/cb veins (some w ser haloes)	MIG	1.00	1304	1922	3.11	
790085	83.00	84.00	1.00	0.007	Tr qz/cb veins; tr dis py in post	MIG	1.00	1208	1758	3.1964	
790086	84.00	85.00	1.00	0.008	Tr qz/cb veins; tr dis py in host	MIG	1	1318	1918	3.1967	

LOGGED BY:	<i>J.J.</i>	Magnetic Declination:			5.54	West	Equipment:		Reflex	
BHID	Depth (m)	Dip (neg.)	Az (TN)	Az (Mag)	Az (NAD83)	Az (NAD83) Used	Mag Sus (nT)	DDH Ref	Geo/Driller Comments	
KAS-18-07	0	-48.3	212.1		210.06	210.06		APS	Dip Estimated	
KAS-18-07	16	-48.1		220.4	214.9	210.5	57503.00	Reflex	AZ affected by Mag	
KAS-18-07	46	-47.6		220.1	214.6	211.2	56389.00	Reflex	AZ affected by Mag	
KAS-18-07	76	-47.0		223.3	217.8	212.0	57461.00	Reflex	AZ affected by Mag	



Project:	Pickle Lake		
Prospect:	Kas Lake		
Claim #:	319583 (legacy claim 4207794)		
Hole ID:	KAS-18-08		
Start Date:	09/June/18		
End Date:	10/June/18		
EOH Depth:	97m		
Datum/Proj:	Nad83	Zone 15	
UTM North:	5683214.613	m	
UTM East:	682451.834	m	
Elevation:	377.68	m	
Dip:	-62	at setup	
Az:	210.1TN	at setup	
Collar Survey Method:	APS		
Surveyed by:	D.G.		
Drill Co:	M3 Drilling		
Drill Rig:	JKS300		
m From	m To	Hole Size	Drill Type
0	6	BW	Casing
0	97	BTW	Rods
Drill comments (issues, casing, gear in hole): Casing was removed after drilling. APS taken while orienting drill.			
Geology comments: Intersected mineralized Banded Iron Formation			

GEOLOGICAL CORE LOG

Hole ID: KAS-18-08

EOH called by: Dan Grabiec

Date Logged: 19-Jun-2018 EOH Reason:

Geologist: JJ

From (m)	To (m)	Int (m)	Lithology 1	Major Vn Typ	Vn Pct	Pyrite %	Pyrrhotite %	Comments
0.00	4.40	4.40	OB					
4.40	23.80	19.40	IV	QZCC	2	0.10		Brownish-grey strongly foliated/banded Intermediate Volcanic. 40% subhedral FS (1-5mm; white; weakly boudinaged by foliation) 25% BT (brown; aphanitic to 1 mm; strongly foliated; 1-10 mm wide bands; wrap around FS/QZ grains) 15% aph mafic groundmass (could be BT/CH/HB) 10% QZ (1-2mm; clear; weakly boudinaged by fol) 10% CH (aph to 1 mm; mostly in 1-10 cm bands) 2% QZ & QZ/CB veining (1-10 mm wide; 50% have 0.1-1.0 cm SER haloes). Trace dis/vein-hosted PY. Fault gouges at 23.0 m; 23.2 m; 23.5 m
23.80	27.10	3.30	MV	QZ/SER	5	0.10		60% Green-grey strongly foliated/banded Mafic Volcanic with 40% grey Intermediate Volcanic bands (2-15 cm wide) distinguished via FS content (10% vs 30% respectively). Overall 30% BT (aph to 2 mm; strongly fol; wrap around QZ/FS) 20% CH (aph to 2 mm; strongly fol; mostly in bands alternating with BT-rich zones in MV) 20% aph mafic groundmass (green/black; could be BT/CH/HB) 15% FS (0.5-3 mm; white; anhedral; rotated and boudinaged by foliation) 10% QZ (0.5-2 mm; clear). 5% QZ/SER stockwork throughout (60% at 26.7-27.1 m) Tr QZ and QZ/CB veins (1-10 mm). Tr vein-hosted PY.
27.10	27.90	0.80	MP	QZ/SER	1			Dark grey/green moderately foliated non-banded Mafic Intrusive. Not magnetic. 40% aphanitic groundmass (black/green; could be BT/CH/HB) 25% BT (black; aph to 3 mm; mod fol; wrap around FS) 20% FS (white; <1 mm) 15% CH (aph to 1 mm; mod fol) .05% QZ/SER veins. Tr QZ/CB veins
27.90	33.80	5.90	MV	QZCC	0.1	0.10		80% Green-grey strongly foliated/banded Mafic Volcanic with 20% grey Intermediate Volcanic bands (2-10 cm wide), distinguished via FS content (10% vs 30% respectively). Same as unit above Mafic Intrusive. Overall 30% BT (aph to 2 mm; strongly fol; wrap around QZ/FS) 20% CH (aph to 2 mm; strongly fol; mostly in bands alternating with BT-rich zones in MV) 20% aph mafic groundmass (green/black; could be BT/CH/HB) 15% FS (0.5-6 mm; white; anhedral; rotated and boudinaged by foliation) 15% QZ (0.5-2 mm; clear; some discontinuous thin veins/flooding). Tr QZ and QZ/CB veins (0.5-3 mm; SER haloes 0.1-1.0 cm). Tr vein-hosted PY. Fault gouge at 33.1 m.
33.80	44.50	10.70	MV	QZ	3	0.10		Grey-green strongly foliated/banded Mafic Volcanic. 30% aph mafic groundmass (green/black; some is CH; could also be BT/HB) 25% CH (green; 0.2-5 mm; 0.1-1.0 cm bands; strongly fol) 20% FS (0.2-1.0 mm; white) 15% QZ (clear; discontinuous bands along foliation) 10% BT (brown; 0.2-1 mm; 0.1-2cm bands; strongly fol) 3% QZ QZ/CB veins (0.2-5.0 cm wide). 10% QZ/TM/CB/CH veining at 34.7-37.5 m. Mod to strong SER/SIL/HM alteration at 40-42.2 m. 40% QZ/TM/SER veining at Tr vein-hosted PY.
44.50	51.50	7.00	MV	QZ	2	0.10	0.30	Dark grey-green strongly foliated/banded Mafic Volcanic w mod/strong silicification and sericitization. 40% aph mafic groundmass (green/black; could be CH/BT/HB) 30% QZ (flooding/thin discontinuous veins) 10% CH (green; 0.5-1 mm; mod to strong fol) 10% FS (0.2-10 mm; white) 10% BT (0.5-3.0 mm; brown; mod fol). 2% QZ veins (0.5-4 cm). 0.3% dis PO; Tr vein-hosted PY. Fault gouge at 50.3 m.
51.50	64.60	13.10	MIG	QZCC	1	0.10	0.10	Green moderately foliated Mafic Intrusive. Coarser grained than above; mottled texture that grades to strong foliation toward end of unit. 40% CH (0.5-4 mm; platy; weakly to strongly foliated; wrap around QZ) 30% QZ (flooding/discontinuous veins) 15% aph mafic groundmass (green/black; some CH; could also be BT/HB) 10% BT (aph to 1 mm; brown; weakly foliated) 2% FS (0.2-1.0 mm; white) 1% QZ and QZ/CB veins (0.2-2.0 cm veins; few SER haloes) Tr dis PY/PO.

GEOLOGICAL CORE LOG

Hole ID: KAS-18-08

EOH called by: Dan Grabiec

Date Logged: 19-Jun-2018 EOH Reason:

Geologist: JJ

From (m)	To (m)	Int (m)	Lithology 1	Major Vn Typ	Vn Pct	Pyrite %	Pyrrhotite %	Comments
64.60	72.50	7.90	SB\$\$	QZCC	1	0.20	0.50	Dark grey strongly foliated Banded Iron Formation. 70% of rock mod to strongly magnetic. 0.5-1.8 m weakly magnetic mineralized zones separated by strongly magnetic barren zones. 30% aph mafic mins (including MT) 20% CH (0.1-2.0 mm; green; mod to strong fol) 20% QZ (chert and/or veins/flooding) 10% FS (0.2-1 mm; white) 10% GT (1-10 mm; red; 70% of unit is GT-bearing - mostly in non-mineralized zones) 5% BT (0.1-1.0 mm; brown) 3% MT (<0.5 mm; more in aph matrix) 1% QZ/CB veins (0.1-4 cm). 0.5% dis/blebby PO (locally up to 5%); 0.2% dis/blebby/vein-hosted PY (locally up to 4%).
72.50	81.00	8.50	SBm	QZCC	1	0.20	0.10	Dark grey strongly foliated Banded Iron Formation. 90% of rock mod to strongly magnetic. Similar to previous unit but with less mineralization. 40% QZ (chert and/or veins/flooding) 20% aph mafic mins (including MT) 15% CH (0.2-2.0 mm; green; mod to strong fol) 10% FS (0.2-1 mm; white) 5% GT (0.5-5 mm; red; 60% of unit is GT-bearing) 5% BT (0.2-1.0 mm; brown) 3% MT (0.1-0.5 mm; more in aph matrix) 1% QZ and QZ/CB veins (0.1-4 cm). 0.2% dis/vein-hosted PY (locally up to 3%); Tr dis PO (locally up to 5%).
81.00	86.40	5.40	SBm	QZCC	1	0.10	0.10	Dark grey mod to strongly foliated Banded Iron Formation. 80% of unit moderately to strongly magnetic. 35% QZ (appears to be chert) 25% aph mafic minerals (including MT) 15% CH (0.5-1 mm; green; foliated) 10% FS (0.2-1.0 mm; white) 10% BT (aph to 1 mm; brown; mod to strong fol) 3% MT (<0.5 mm) 1% QZ and QZ/CB veining (0.1-6 cm wide). Tr GT (red; 0.5-5 mm). Tr dis/vein-hosted PY; tr dis PO.
86.40	88.40	2.00	MIG	QZCC	1	0.10		Dark grey strongly foliated Mafic Intrusive. 60% of unit mod to strongly magnetic. 50% aph mafic minerals (including MT) 20% CH (aph to 1 mm; green; mod to strong fol) 15% QZ (chert and/or flooding/discontinuous veins) 5% FS (0.2-2.0 mm; white) 5% BT (aph to 1 mm; brown; strong fol) 3% QZ and QZ/CB veining (0.5-10 mm) 2% MT (<0.5 mm; more in groundmass) Tr dis PY.
88.40	88.60	0.20	SBm	QZCC	3	0.50		Dark grey strongly foliated Banded Iron Formation. Strongly magnetic. 40% QZ (appears to be chert) 35% aph mafic minerals (including MT) 10% CH (0.5-1 mm; green; strong fol) 5% BT (aph to 1 mm; brown; strong fol) 5% FS (0.2-1.0 mm; white) 3% QZ/CB veining (0.5-1 mm wide). 0.5% dis PY.
88.60	89.50	0.90	MIG	QZCC	5	0.10	2.00	Dark grey strongly foliated Mafic Intrusive. 30% of unit moderately magnetic. 45% CH (aph to 2 mm; green; mod to strong fol) 30% aph mafic minerals (including MT) 10% FS (0.2-1.0 mm; white) 5% QZ (chert and/or flooding/discontinuous veins) 5% BT (aph to 1 mm; brown; strong fol) 5% QZ/CB veining (0.1-2.0 cm) 2% dis/vein-hosted PO; Tr dis PY
89.50	89.90	0.40	SB\$\$	QZ	10	3.00	3.00	Grey moderately foliated Banded Iron Formation. Weakly magnetic. 40% QZ (appears to be chert) 20% FS (0.2-1.0 mm; white) 10% aph mafic minerals (including MT) 10% CH (0.5-1 mm; green; mod to strong fol) 5% BT (aph to 1 mm; brown; strong fol) 10% QZ and QZ/CB veining (0.2-3 cm wide; CH halo around QZ vein). 3% dis PO; 3% dis/semi-massive PY.
89.90	90.60	0.70	MIG	QZ	5	0.50	0.50	Dark grey strongly foliated Mafic Intrusive. 50% of unit weakly to mod magnetic. 35% CH (aph to 2 mm; green; mod to strong fol) 35% aph mafic minerals (including MT) 10% FS (0.2-1.0 mm; white) 10% QZ (chert and/or flooding/discontinuous veins) 5% BT (aph to 1 mm; brown; strong fol) 5% QZ and QZ/CB veining (0.1-3.0 cm) 0.5% dis PO; 0.5% dis PY
90.60	90.80	0.20	SBm	QZCC	1	0.10		Dark grey moderately foliated Banded Iron Formation. Weakly to mod magnetic. 35% CH (aph to 1 mm; green; mod to strong fol) 30% aph mafic minerals (including MT) 15% FS (0.2-1.0 mm; white) 10% QZ (appears to be chert) 10% BT (aph to 1 mm; brown; strong fol) 1% QZ and QZ/CB veining (0.5-1.0 mm wide). Tr vein-hosted PY.

GEOLOGICAL CORE LOG

Hole ID: KAS-18-08

EOH called by: Dan Grabiec

Date Logged: 19-Jun-2018 EOH Reason:

Geologist: JJ

From (m)	To (m)	Int (m)	Lithology 1	Major Vn Typ	Vn Pct	Pyrite %	Pyrrhotite %	Comments
90.80	92.30	1.50	MIG	QZ	3	0.10		Dark grey strongly foliated Mafic Intrusive. 70% of unit weakly to mod magnetic. 40% CH (aph to 2 mm; green; mod to strong fol) 25% FS (0.2-1.0 mm; white) 15% BT (aph to 1 mm; brown; strong fol) 10% aph mafic minerals (including MT) 10% QZ (0.2-1.0 mm; clear) 3% QZ and QZ/CB veining (0.1-2.0 cm). Tr vein-hosted/dis PY.
92.30	93.20	0.90	SBm	QZCC	2	0.10		Dark grey strongly foliated Banded Iron Formation. Strongly magnetic. 30% QZ (appears to be chert) 20% CH (aph to 1 mm; green; weak to strong fol) 20% aph mafic minerals (including MT) 20% FS (0.2-2.0 mm; white) 10% BT (aph to 1 mm; brown; strong fol) 2% QZ and QZ/CB veining (0.5-10 mm wide). Tr dis PY.
93.20	97.00	3.80	MIG	QZCC	1	0.10		Dark grey mod to strongly foliated Mafic Intrusive. Moderately to strongly magnetic. 35% CH (aph to 2 mm; green; weak to strong fol) 35% FS (0.2-1.0 mm; white) 15% BT (aph to 1 mm; brown; mod to strong fol) 10% aph mafic minerals (including MT) 5% QZ (0.2-1.0 mm; clear) 1% QZ/CB veining (0.1-2.0 cm). Tr vein-hosted/dis PY.
97	EOH							

STRUCTURAL CORE LOG

Hole ID: KAS-18-08

Date Logged: 19-Jun-2018

Geologist: JJ

Core Data

From (m)	To (m)	Interval (m)	Rock Type	Structure Type	Foliation (TCA)	Other (TCA)	Struc. Intensity
0.00	4.40	4.40	OB				
4.90	5.00	0.10	IV	Fol	38		S
10.00	10.10	0.10	IV	Fol	39		S
15.00	15.10	0.10	IV	Fol	36		S
20.00	20.10	0.10	IV	Fol	40		S
24.90	25.00	0.10	MV	Fol	38		S
27.10	27.10	0.00	MV/MP	Ct		44	S
30.00	30.10	0.10	MV	Fol	40		S
35.20	35.30	0.10	MV	Fol	38		S
38.90	39.00	0.10	MV	Fol	46		S
42.00	42.10	0.10	MV	Fol	45		S
44.90	45.00	0.10	MV	Fol	43		S
48.00	48.10	0.10	MV	Fol	48		S
51.50	51.50	0.00	MV/MIG	Ct		35	S
58.90	59.00	0.10	MIG	Fol	47		S
63.00	63.10	0.10	MIG	Fol	47		S
64.60	64.60	0.00	MIG/SB\$\$	Ct		47	S
67.90	68.00	0.10	SB\$\$	Fol	45		S
75.00	75.10	0.10	SBm	Fol	46		S
77.00	77.10	0.10	SBm	Fol	45		S
83.00	83.10	0.10	SBm	Fol	46		S
86.40	86.40	0.00	SBm/MIG	Ct		41	S
90.00	90.10	0.10	MIG	Fol	46		S
93.20	93.20	0.00	SBm/MIG	Ct		46	S

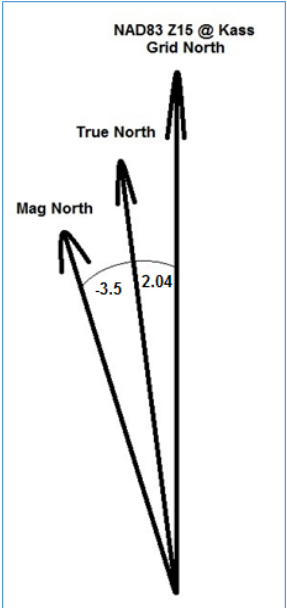
SAMPLE & SPECIFIC GRAVITY LOGS										
Hole ID: KAS-18-08		Sampled by: JJ			DATE: 20-Jun-2018					
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)				
			0.00			Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG
790087	44.10	45.10	1.00	0.005	3% qz and qz/cb veins; strong ser/ch/hm alteration	MV	1.00	1200	1878	2.76991
790088	45.10	45.70	0.60	0.001	50% qz veins w tm/ch/ser haloes	MV	0.60	632	1000	2.71739
790089	45.70	46.50	0.80	0.01	50% qz veins w tm/ch/ser haloes	MV	0.80	816	1276	2.77391
790090	46.50	47.60	1.10	0.014	1% qz/tm veins; tr dis py in host	MV	1.10	1190	1864	2.76558
790091	47.60	48.70	1.10	0.014	2% qz veins w ser haloes; tr dis py/po in host	MV	1.10	1268	1996	2.74176
790092	48.70	49.80	1.10	0.221	1% qz veins; tr dis py in host	MV	1.10	1260	1960	2.8
790093	49.80	50.60	0.80	0.001	20% qz veins w strong silicification and ch/ser/hm alteration	MV	0.80	840	1332	2.70732
790094	50.60	51.50	0.90	0.006	Strong silicification; 2% dis po	MV	0.90	994	1562	2.75
790095	51.50	52.50	1.00	0.001	1% qz and qz/cb veins; tr dis po in host	MIG	1.00	1236	1836	3.06
790096	52.50	53.50	1.00	0.001	1% qz veins; tr dis po in host	MIG	1.00	1260	1872	3.05882
790097	53.50	55.00	1.50	0.001	2% qz/cb veins w ser haloes; tr dis po in host	MIG	1.50	1968	2938	3.02887
790098	55.00	56.50	1.50	0.001	2% qz and qz/cb veins; tr dis po in host	MIG	1.50	1884	2808	3.03896
790099	56.50	58.00	1.50	0.01	1% qz/cb veins; tr dis po/py in host	MIG	1.50	1786	2674	3.01126
790100	58.00	59.50	1.50	0.013	1% qz/cb veins; tr dis po/py in host	MIG	1.50	1876	2794	3.04357
790101					Blank					
790102	59.50	61.00	1.50	0.001	1% qz/cb veins w ser alt; tr dis po/py in host	MIG	1.50	1908	2840	3.04721

SAMPLE & SPECIFIC GRAVITY LOGS										
Hole ID:	KAS-18-08		Sampled by: JJ		DATE: 20-Jun-2018					
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)				
			0.00			Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG
790103	61.00	62.50	1.50	0.001	1% qz/cb veins; tr dis po/py in host	MIG	1.50	1870	2790	3.03261
790104	62.50	63.50	1.00	0.134	2% qz/cb veins; tr dis py in host	MIG	1.00	1212	1800	3.06122
790105				1.58 g/t	Standard					
790106	63.50	64.60	1.10	0.008	Tr qz/cb veins; tr dis py in host	MIG	1.10	1382	2056	3.05045
790107					Blank					
790108	64.60	65.60	1.00	0.001	1% qz/cb veins; tr dis/vein-hosted py	SB\$\$	1.00	1328	2000	2.97619
790109	65.60	66.60	1.00	0.263	Tr qz/cb veins	SB\$\$	1.00	514	772	2.99225
790110	65.60	66.60	1.00	Duplicate	Duplicate of 790109	SB\$\$	1.00	508	764	2.98438
790111	66.60	67.50	0.90	4.86	3% qz and qz/cb veins; 4% vein-hosted/dis py; 2% dis po in host	SB\$\$	0.90	1080	1622	2.99262
790112	67.50	68.50	1.00	8.15	2% qz/cb veins (some w ser haloes); 2% dis/blebby py; 1% dis po in host	SB\$\$	1.00	1218	1830	2.9902
790113	68.50	69.50	1.00	1.72	1% qz and qz/cb veins; 0.2% dis thin veins py	SB\$\$	1.00	1210	1824	2.97068
790114	69.50	70.50	1.00	0.147	0.5% qz/cb veins; tr dis py in host	SB\$\$	1.00	1234	1858	2.97756
790115	70.50	71.50	1.00	4.63	3% qz/cb veins; 2% dis po in host; 1% dis/vein-hosted py	SB\$\$	1.00	1132	1738	2.86799
790116	71.50	72.50	1.00	7.71	4% qz and qz/cb veins; 2% dis py in host; 1% dis po in host	SB\$\$	1.00	1136	1746	2.8623
790117	72.50	73.70	1.20	0.698	2% qz/cb veins	SBm	1.20	1514	2290	2.95103
790118	73.70	75.20	1.50	0.001	1% qz/cb veins	SBm	1.50	1956	2956	2.956

SAMPLE & SPECIFIC GRAVITY LOGS										
Hole ID:	KAS-18-08		Sampled by:		JJ		DATE:	20-Jun-2018		
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)				
			0.00			Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG
790119	75.20	76.20	1.00	0.969	0.5% qz/cb veins; 0.5% vein-hosted/blebby py; 0.2% dis po in host	SBm	1.00	1350	2044	2.94524
790120	76.20	77.70	1.50	0.001	Tr qz/cb veins	SBm	1.50	1598	2400	2.99252
790121	77.70	78.40	0.70	23.5	1% qz and qz/cb veins; 3% dis po in host; 0.5% dis/blebby py	SBm	0.70	862	1300	2.96804
790122	78.40	79.20	0.80	4.73	4% qz and qz/cb veins; 1% vein-hosted py; tr dis po in host	SBm	0.80	916	1388	2.94068
790123	79.20	80.00	0.80	0.544	1% qz/cb veins; pervasive ser alteration; tr dis po/py in host	SBm	0.80	926	1398	2.96186
790124	80.00	81.00	1.00	0.125	1% qz/cb veins; tr dis py in host	SBm	1.00	1290	1940	2.98462
790125	81.00	82.40	1.40	0.007	2% qz veins; 0.2% dis po; tr dis py in host	SBm	1.40	1524	2318	2.9194
790126					Blank					
790127	82.40	83.40	1.00	0.012	2% qz and qz/cb veins; 1% vein-hosted py	SBm	1.00	1202	1808	2.9835
790128	83.40	84.90	1.50	0.001	1% qz/cb veins	SBm	1.50	1902	2824	3.06291
790129	84.90	86.40	1.50	0.008	1% qz/cb veins w ch haloes	SBm	1.50	1890	2816	3.04104
790130				6.66 g/t	Standard					
790131	86.40	87.10	0.70	0.006	4% qz/cb veins	MIG	0.70	1036	1540	3.05556
790132	87.10	88.60	1.50	0.519	1% qz/cb veins; tr dis py/po in host	MIG/SBm	1.50	1668	2488	3.03415
790133	88.60	89.50	0.90	0.504	3% qz/cb veins; 1% dis po in host; tr dis py in host	MIG	0.90	536	800	3.0303
790134	88.60	89.50	0.90	Duplicate	Duplicate of 790133	MIG	0.90	552	812	3.12308

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-08	Sampled by: JJ			DATE:	20-Jun-2018					
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
			0.00			Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
790135	89.50	90.00	0.50	0.047	10% qz and qz/cb veins w ch haloes; 2% dis po in host; 2% dis/semi-massive py	MIG/SB\$\$	0.50	638	968	2.93333	
790136	90.00	90.50	0.50	0.134	5% qz and qz/cb veins; tr dis po in host	MIG	0.50	600	894	3.04082	
790137	90.50	91.00	0.50	0.148	3% qz/cb veins; tr dis po in host	MIG/SBm	0.50	582	872	3.0069	
790138	91.00	92.30	1.30	0.042	2% qz/cb veins; tr dis py in host	MIG	1.30	1788	2644	3.08879	
790139	92.30	93.20	0.90	0.001	2% qz and qz/cb veins	SBm	0.90	1070	1608	2.98885	
790140	93.20	94.00	0.80	0.001	Tr qz/cb veins; tr dis py in host	MIG	0.80	1588	2336	3.12299	
790141	94.00	95.50	1.50	0.001	Tr qz/cb veins w ser alt; tr dis py in host	MIG	1.50	1588	2336	3.12299	
790142	95.50	97.00	1.50	0.008	Tr qz/cb veins w ser alt; tr dis py in host	MIG	1.50	1658	2424	3.16449	

LOGGED BY:	J.J.	Magnetic Declination:		5.54	West		Equipment:	Reflex	
BHID	Depth (m)	Dip (neg.)	Az (TN)	Az (Mag)	Az (NAD83)	Az (NAD83) Used	Mag Sus (nT)	DDH Ref	Geo/Driller Comments
KAS-18-08	0	-61.2	210.10		208.06	208.06			Dip Estimated
KAS-18-08	13	-61.1		223.2	217.7	208.4	58883.00		Az affected by Mag
KAS-18-08	43	-60.9		218.1	212.6	209.1	57149.00		Az affected by Mag
KAS-18-08	73	-60.6		210.5	205.0	209.9	60072.00		Az affected by Mag
KAS-18-08	97	-59.8		216.8	211.3	210.5	58339.00		Az affected by Mag



Project:	Pickle Lake		
Prospect:	Kas Lake		
Claim #:	319583 (legacy claim 4207794)		
Hole ID:	KAS-18-09		
Start Date:	10/June/18		
End Date:	11/June/18		
EOH Depth:	146.5m		
	Datum/Proj:	Nad83	Zone 15
	UTM North:	5683214.613	m
	UTM East:	682451.834	m
	Elevation:	377.68	m
	Dip:	-70	at setup
	Az:	209.93TN	at setup
	Collar Survey Method:	APS	
	Surveyed by:	DG	
Drill Co:	M3 Drilling		
Drill Rig:	JKS300		
m From	m To	Hole Size	Drill Type
0	6	BW	Casing
0	146.5	BTW	Rods
Drill comments (issues, casing, gear in hole): Casing was removed after drilling. Collar survey taken at end of hole (rods sitting on bottom of hole with footclamp disengaged)			
Geology comments: Intersected mineralized Banded Iron Formation			

GEOLOGICAL CORE LOG

Hole ID: KAS-18-09

Date Logged: 20/June/2018

EOH called by: Dan Grabiec

Geologist: JJ

EOH Reason:

Depth From (m)	Depth To (m)	Int (m)	Lithology 1	Major Vn Typ	Vn Pct	Pyrite %	Pyrrhotite %	Comments
0.00	4.10	4.10	OB					
4.10	28.10	24.00	IV	QZCC	2	0.10		Brownish-grey strongly foliated/banded Intermediate Volcanic. 40% subhedral FS (1-5mm; white; weakly boudinaged by foliation) 30% BT (brown; aphanitic to 1 mm; strongly foliated; 1-10 mm wide bands; wrap around FS/QZ grains) 15% aph mafic groundmass (could be BT/CH/HB) 10% CH (aph to 1 mm; mostly in 1-10 cm bands) 5% QZ (1-2mm; clear; weakly boudinaged by fol) 2% QZ & QZ/CB veining (0.1-10.0 cm; some have CH/SER haloes; SER stockwork/strong vein at 10.6-10.8 m). Trace dis/vein-hosted PY. Fault gouge at 28.0 m.
28.10	30.20	2.10	MV	QZCC	1	0.10		90% Green-grey strongly foliated/banded Mafic Volcanic with 10% grey Intermediate Volcanic bands (0.5-3.0 cm wide), distinguished via FS content (10% vs 30% respectively). Overall 40% CH (aph to 2 mm; strongly fol; mostly in bands alternating with BT-rich zones in MV) 25% BT (aph to 2 mm; strongly fol; wrap around QZ/FS) 20% aph mafic groundmass (green/black; could be BT/CH/HB) 10% FS (0.5-3 mm; white; anhedral; rotated and boudinaged by foliation) 5% QZ (0.5-2 mm; clear). 1% QZ and QZ/CB veins (1-10 mm). Tr vein-hosted PY.
30.20	30.80	0.60	MP	QZCC	0.1			Dark grey/green moderately foliated non-banded Mafic Intrusive. Not magnetic. 35% aphanitic groundmass (black/green; could be BT/CH/HB) 25% BT (black; aph to 3 mm; mod fol; wrap around FS) 20% FS (white; <1 mm) 20% CH (aph to 1 mm; mod fol). Tr QZ/CB veins
30.80	38.60	7.80	MV	QZCC	0.1	0.10		60% Green-grey strongly foliated/banded Mafic Volcanic with 40% grey Intermediate Volcanic bands (5-75 cm wide) distinguished via FS content (10% vs 35% respectively). Overall 30% CH (aph to 2 mm; strongly fol; mostly in bands alternating with BT-rich zones in MV) 20% BT (aph to 2 mm; strongly fol; wrap around QZ/FS) 20% aph mafic groundmass (green/black; could be BT/CH/HB) 20% FS (0.5-3 mm; white; anhedral; rotated and boudinaged by foliation) 10% QZ (0.5-2 mm; clear). Tr QZ and QZ/CB veins (1-10 mm; some SER haloes). SER stockwork at 30.8-32.0 m. Tr vein-hosted PY.
38.60	56.80	18.20	MV	QZ	1	0.10		Grey-green strongly foliated/banded Mafic Volcanic. 25% aph mafic groundmass (green/black; some is CH; could also be BT/HB) 25% CH (green; 0.2-2 mm; 0.1-1.0 cm bands; strongly fol) 20% FS (0.2-1.0 mm; white) 15% QZ (clear; discontinuous bands along foliation) 15% BT (brown; 0.2-1 mm; 0.1-2cm bands; strongly fol) 1% QZ and QZ/CB veins (0.2-5.0 cm wide; CH haloes; TM haloes at 39.2-41.3 m). Mod orange HM alteration at 42.4-44.0 m. Tr vein-hosted PY. Fault gouges at 47.0 and 58.1 m
56.80	59.10	2.30	MV	QZ	1	0.10	0.10	Dark grey-green strongly foliated/banded Mafic Volcanic w mod/strong silicification and sericitization. Strong alteration at 57.4-57.9 m. 30% QZ (flooding/thin discontinuous veins) 25% aph mafic groundmass (green/black; could be CH/BT/HB) 20% FS (0.2-3 mm; white to beige) 15% BT (0.5-3.0 mm; brown; mod to strong fol) 10% CH (green; 0.5-1 mm; mod to strong fol). 1% QZ veins (0.2-2.0 cm). Tr dis/vein-hosted PY/PO.
59.10	73.20	14.10	MIG	QZCC	1	0.10	0.10	Green moderately foliated Mafic Intrusive. Coarser grained than above; mottled texture that grades to moderate foliation toward end of unit. 40% CH (0.5-5 mm; platy; weakly to strongly foliated; wrap around QZ) 30% QZ (flooding/discontinuous veins) 15% aph mafic groundmass (green/black; some CH; could also be BT/HB) 10% FS (0.2-1.0 mm; white) 5% BT (aph to 1 mm; brown; weakly foliated) 1% QZ and QZ/CB veins (0.1-15.0 cm veins; some w SER haloes) Tr dis PY/PO.
73.20	85.80	12.60	SBm	QZCC	2	0.20	0.30	Dark grey strongly foliated Banded Iron Formation. 70% of rock mod to strongly magnetic. Pervasive green SER/CH all at 78.3-79.0 m. 25% CH (0.1-2.0 mm; green; mod to strong fol) 25% QZ (chert and/or discontinuous veins/flooding) 20% aph mafic mins (including MT) 10% FS (0.2-1 mm; white) 10% BT (0.1-1.0 mm; brown; strong fol) 5% GT (0.5-5 mm; red; ranges from 0-10%; 60% of unit is GT-bearing) 3% MT (<0.5 mm; more in aph matrix) 2% QZ/CB veins (0.1-8 cm; few SER/CH haloes). 0.3% dis/blebby PY; 0.2% dis/blebby PO (5% dis/blebby PY and 3% dis/blebby PO at 75.6-76.6 m)

GEOLOGICAL CORE LOG

Hole ID: KAS-18-09

Date Logged: 20/June/2018

EOH called by: Dan Grabiec

Geologist: JJ

EOH Reason:

Depth From (m)	Depth To (m)	Int (m)	Lithology 1	Major Vn Typ	Vn Pct	Pyrite %	Pyrrhotite %	Comments
85.80	91.60	5.80	SB\$\$	QZ	5	1.00	0.50	Dark grey strongly foliated Banded Iron Formation. 70% of rock mod to strongly magnetic. 35% QZ (chert and/or discontinuous veins/flooding) 25% CH (0.1-2.0 mm; green; mod to strong fol) 15% aph mafic mins (including MT) 10% FS (0.2-1 mm; white) 5% BT (0.1-1.0 mm; brown) 3% MT (<0.5 mm; more in aph matrix) 3% GT (0.5-3 mm; red; ranges from 0-5%; 80% of unit is GT-bearing) 5% QZ and QZ/CB veins (0.1-4 cm). 1% dis PO; 0.5% vein-hosted PY (50% of unit is mineralized; locally up to 8% sulfides).
91.60	98.20	6.60	MIG	QZCC	3	0.10		Dark grey strongly foliated Mafic Intrusive. 60% of unit mod to strongly magnetic. 50% aph mafic minerals (including MT) 30% CH (aph to 2 mm; green; mod to strong fol) 10% QZ (chert and/or flooding/discontinuous veins) 5% FS (0.2-2.0 mm; white) 5% BT (aph to 1 mm; brown; strong fol) 3% QZ and QZ/CB veining (0.5-10 mm) 2% MT (<0.5 mm; more in groundmass) Tr dis PY.
98.20	98.80	0.60	SBm	QZCC	0.1			Dark grey strongly foliated Banded Iron Formation. Mod to strongly magnetic. 35% QZ (appears to be chert) 20% aph mafic minerals (including MT) 15% CH (aph to 1 mm; green; strong fol) 15% BT (aph to 1 mm; brown; strong fol) 15% FS (0.2-3.0 mm; white) Tr QZ/CB veining (0.5-1 mm wide). No sulfides.
98.80	104.00	5.20	MIG	QZCC	2	0.10		Dark grey strongly foliated Mafic Intrusive. 50% of unit weakly to mod magnetic. 35% CH (aph to 2 mm; green; mod to strong fol) 20% BT (aph to 1 mm; brown; mod to strong fol) 20% aph mafic minerals (including MT) 15% FS (0.2-1.0 mm; white) 5% QZ (chert and/or flooding/discontinuous veins) 2% QZ and QZ/CB veining (0.1-11.0 cm) 2% MT (<0.5 mm; more in groundmass) Tr dis PY.
104.00	104.30	0.30	SBm	QZCC	0.1			Dark grey strongly foliated Banded Iron Formation. Strongly magnetic. 30% CH (aph to 1 mm; green; strong fol) 25% QZ (appears to be chert) 20% BT (aph to 1 mm; brown; strong fol) 15% FS (0.2-3.0 mm; white) 10% aph mafic minerals (including MT). Tr QZ/CB veins (<1 mm). No sulfides.
104.30	104.40	0.10	MIG					Dark grey strongly foliated Mafic Intrusive. Moderately magnetic. 70% aph mafic minerals (including MT) 10% FS (0.2-1.0 mm; white) 10% CH (aph to 1 mm; green; mod to strong fol) 10% BT (aph to 1 mm; brown; mod to strong fol). No sulfides.
104.40	104.90	0.50	SBm	QZCC	0.1	0.10		Dark grey strongly foliated Banded Iron Formation. Strongly magnetic. 30% CH (aph to 1 mm; green; strong fol) 30% QZ (appears to be chert) 15% aph mafic minerals (including MT) 15% BT (aph to 1 mm; brown; strong fol) 10% FS (0.2-3.0 mm; white). Tr QZ/CB veins (<1 mm). Tr dis PY.
104.90	146.50	41.60	MIG	QZCC	3	0.10	0.10	Dark grey mod to strongly foliated Mafic Intrusive. 20% of unit weakly to mod magnetic. 35% CH (aph to 2 mm; green; weak to strong fol) 25% aph mafic minerals (including MT) 20% FS (0.2-1.0 mm; white) 15% BT (aph to 1 mm; brown; mod to strong fol) 5% QZ (0.2-1.0 mm; clear) 3% QZ and QZ/CB veining (0.1-2.0 cm; 25% have SER haloes). Tr vein-hosted/dis PY/PO. Fault gouges/fractured zone at 144.4-144.9 m.
146.5	EOH							

STRUCTURAL CORE LOG

Hole ID: KAS-18-09

Date Logged: 21/June/2018							
Geologist: JJ							
Core Data							
Depth From	Depth To (m)	Interval (m)	Rock Type	Structure Type	Foliation (TCA)	Other (TCA)	Struc. Intensity
0.00	4.10	4.10	OB				
5.90	6.00	0.10	IV	Fol	34		S
14.00	14.10	0.10	IV	Fol	34		S
21.00	21.10	0.10	IV	Fol	34		S
24.00	24.10	0.10	IV	Fol	35		S
26.00	26.10	0.10	IV	Fol	34		S
30.20	30.20	0.00	MV/MP	Ct		35	S
30.80	30.80	0.00	MP/MV	Ct		35	S
36.00	36.10	0.10	MV	Fol	36		S
43.90	44.00	0.10	MV	Fol	43		S
54.00	54.10	0.10	MV	Fol	36		S
57.00	57.10	0.10	MV	Fol	34		S
59.10	59.10	0.00	MV	Ct		50	S
62.90	63.00	0.10	MIG	Fol	34		S
69.00	69.10	0.10	MIG	Fol	35		S
71.00	71.10	0.10	MIG	Fol	36		S
73.20	73.20	0.00	MIG/SBm	Ct		43	S
77.00	77.10	0.10	SBm	Fol	45		S
81.00	81.10	0.10	SBm	Fol	45		S
83.00	83.10	0.10	SBm	Fol	40		S
87.90	88.00	0.10	SB\$\$	Fol	40		S
91.60	91.60	0.00	SB\$\$/MIG	Ct		44	S
94.90	95.00	0.10	MIG	Fol	40		S
98.20	98.20	0.00	MIG/SBm	Ct		45	S
98.80	98.80	0.00	SBm/MIG	Ct		39	S
100.00	100.10	0.10	MIG	Fol	38		S
104.00	104.00	0.00	MIG/SBm	Ct		57	S
104.90	104.90	0.00	SBm/MIG	Ct		35	S
111.00	111.10	0.10	MIG	Fol	42		S
123.00	123.10	0.10	MIG	Fol	38		S
128.50	128.60	0.10	MIG	Fol	42		M
139.00	139.10	0.10	MIG	Fol	51		S

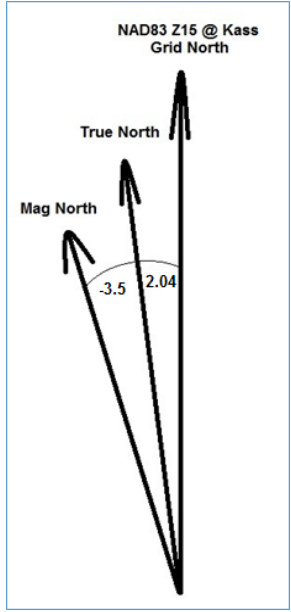
SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-09	Sampled by:			JJ	DATE:	20/June/2018				
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
790143	55.00	56.00	1.00	0.001	Tr qz and qz/cb veins; 0.2% dis py in host; trace dis po in host	MV	1.00	1098	1728	2.7429	
790144	56.00	56.80	0.80	0.001	Tr qz/cb veins; tr vein-hosted py	MV	0.80	896	1418	2.7165	
790145	56.80	58.00	1.20	0.006	Tr qz/cb veins; ser alt	MV	1.20	1246	1966	2.7306	
790146	58.00	59.10	1.10	0.018	3% qz veins (some w tm alt); tr dis/blebby po	MV	1.10	1180	1862	2.7302	
790147	59.10	60.10	1.00	0.019	1% qz/cb veins; tr dis/blebby po	MIG	1.00	1318	1962	3.0466	
790148	60.10	61.00	0.90	0.001	Tr qz/cb veins; tr dis po in host	MIG	0.90	1140	1690	3.0727	
790149	61.00	62.50	1.50	0.001	0.5% qz/cb veins (some w ser/ch alt); tr dis po in host	MIG	1.50	1906	2850	3.0191	
790150	62.50	64.00	1.50	0.001	Tr qz/cb veins (some w ser alt); tr dis py/po in host	MIG	1.50	1870	2790	3.0326	
790151					Blank						
790152	64.00	65.50	1.50	0.006	10% qz/cb veins; tr dis py/po in host	MIG	1.50	1802	2708	2.989	
790153	65.50	67.00	1.50	0.008	Tr qz/cb veins (some w ser alt)	MIG	1.50	1876	2798	3.0347	
790154	67.00	68.50	1.50	0.007	3% qz/cb veins (some w ser alt); tr dis py in host	MIG	1.50	1796	2684	3.0225	
790155				0.505 g/t	Standard		0.00				
790156	68.50	70.00	1.50	0.248	5% qz/cb veins (some w ser alt); tr dis/vein-hosted py	MIG	1.50	1862	2774	3.0417	
790157	70.00	71.00	1.00	0.012	0.5% qz/cb veins; tr dis py in host	MIG	1.00	1274	1902	3.0287	
790158	71.00	72.20	1.20	0.048	Tr qz/cb veins w ser alt; tr dis py in host	MIG	1.20	1574	2334	3.0711	
790159	72.20	73.20	1.00	0.001	1% qz/cb veins; tr dis py in host	MIG	1.00	562	830	3.097	
790160	72.20	73.20	1.00	Duplicate	Duplicate of 790159	MIG	1.00	496	740	3.0328	
790161	73.20	74.00	0.80	0.001	1% qz/cb veins; tr dis py in host	SBm	0.80	1076	1626	2.9564	
790162	74.00	74.80	0.80	0.001	Tr qz/cb veins	SBm	0.80	970	1456	2.9959	
790163	74.80	75.60	0.80	0.519	2% qz/cb veins; tr vein-hosted py	SBm	0.80	986	1500	2.9183	

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-09	Sampled by:			JJ	DATE:	20/June/2018				
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
790164	75.60	76.60	1.00	5.18	4% qz and qz/cb veins; mod ser alt; 5% dis/blebby py; 3% dis/blebby po	SBm	1.00	1096	1660	2.9433	
790165	76.60	77.70	1.10	0.534	2% qz/cb veins; tr vein-hosted py	SBm	1.10	1314	1972	2.997	
790166	77.70	78.80	1.10	0.008	0.5% qz/cb veins	SBm	1.10	1324	2008	2.9357	
790167	78.80	79.80	1.00	3.47	10% qz veins; tr dis py in host	SBm	1.00	1126	1728	2.8704	
790168	79.80	80.80	1.00	0.035	Tr qz/cb veins	SBm	1.00	1192	1810	2.9288	
790169	80.80	81.80	1.00	0.001	Tr qz/cb veins	SBm	1.00	1194	1800	2.9703	
790170	81.80	82.80	1.00	0.015	Quartz flooding; tr qz/cb veins	SBm	1.00	1142	1764	2.836	
790171	82.80	83.80	1.00	0.539	2% qz/cb veins	SBm	1.00	1178	1776	2.9699	
790172	83.80	84.80	1.00	0.001	Tr qz/cb veins	SBm	1.00	1062	1612	2.9309	
790173	84.80	85.80	1.00	0.083	3% qz/cb veins	SBm	1.00	1192	1822	2.8921	
790174			0.00		Blank						
790175	85.80	86.80	1.00	3.58	7% qz and qz/cb veins w ser alt; 5% dis/vein-hosted po; tr blebby py	SB\$\$	1.00	1222	1862	2.9094	
790176			0.00		Blank						
790177	86.80	87.80	1.00	10.5	2% qz/cb veins; 2% dis po in host; 2% vein-hosted/semi-massive py	SB\$\$	1.00	1208	1842	2.9054	
790178	87.80	88.80	1.00	15.8	4% qz/cb veins; 4% dis/vein-hosted po; tr vein-hosted py	SB\$\$	1.00	1196	1822	2.9105	
790179	88.80	89.70	0.90	1.25	1% qz/cb veins; tr dis po in host	SB\$\$	0.90	1038	1570	2.9511	
790180				1.58 g/t	Standard						
790181	89.70	90.30	0.60	3.77	4% qz/cb veins; 4% dis po in host	SB\$\$	0.60	790	1200	2.9268	
790182	90.30	91.60	1.30	0.072	2% qz and qz/cb veins; tr dis po in host	SB\$\$	1.30	1562	2348	2.9873	
790183	91.60	92.50	0.90	0.039	Tr qz/cb veins; tr dis po in host	MIG	0.90	1130	1686	3.0324	
790184	92.50	94.00	1.50	0.052	1% qz and qz/cb veins	MIG	1.50	1950	2900	3.0526	
790185	94.00	95.50	1.50	0.093	2% qz/cb veins	MIG	1.50	1902	2840	3.0277	

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-09	Sampled by:			JJ	DATE:	20/June/2018				
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
790186	95.50	97.00	1.50	3.6	1% qz/cb veins; tr dis py/po in host	MIG	1.50	1962	2916	3.0566	
790187	97.00	98.20	1.20	0.024	3% qz/cb veins; tr dis py in host	MIG	1.20	1492	2214	3.0665	
790188	98.20	98.80	0.60	0.006	Tr qz veins	SBm	0.60	742	1124	2.9424	
790189	98.80	100.00	1.20	0.008	0.5% qz/cb veins; tr dis po in host	MIG	1.20	1528	2274	3.0483	
790190	100.00	101.50	1.50	0.105	1% qz/cb veins; tr dis py/po in host	MIG	1.50	1920	2856	3.0513	
790191	101.50	103.00	1.50	0.001	2% qz/cb veins; tr dis py in host	MIG	1.50	1896	2808	3.0789	
790192	103.00	104.00	1.00	0.006	5% qz/cb veins; tr dis py in host	MIG	1.00	1258	1866	3.0691	
790193	104.00	105.00	1.00	0.008	1% qz/cb veins; tr dis py in host	MIG/SBm	1.00	1108	1660	3.0072	
790194	105.00	106.00	1.00	0.025	Tr qz/cb veins (some w ser alt); tr dis py in host	MIG	1.00	1392	2046	3.1284	
790195	106.00	107.50	1.50	0.001	Tr qz/cb veins (some w ser alt); tr dis py in host	MIG	1.50	1938	2848	3.1297	
790196	107.50	109.00	1.50	0.011	Tr qz/cb veins w ser haloes; tr dis py in host	MIG	1.50	2012	2964	3.1134	
790197	109.00	110.50	1.50	0.005	0.5% qz and qz/cb veins w ser haloes; tr dis/vein-hosted py	MIG	1.50	1838	2726	3.0698	
790198	110.50	112.00	1.50	0.017	Tr qz/cb veins (some w ser haloes); tr dis/vein-hosted py	MIG	1.50	1870	2762	3.0964	
790199	112.00	113.50	1.50	0.01	Tr qz/cb veins (some w ser haloes); tr dis/vein-hosted py	MIG	1.50	2106	3084	3.1534	
790200	113.50	115.00	1.50	0.006	Tr qz/cb veins; tr dis py in host	MIG	1.50	2034	2948	3.2254	
790201					Blank						
790202	115.00	116.50	1.50	0.006	Tr qz/cb veins (some w ser alt); tr dis py in host	MIG	1.50	2016	2958	3.1401	
790203	116.50	118.00	1.50	0.01	2% qz/cb veins (some w ser haloes); tr dis py in host	MIG	1.50	1908	2814	3.106	
790204	118.00	119.50	1.50	0.007	8% qz/cb veins (w ser/ch haloes); tr dis py in host	MIG	1.50	1968	2890	3.1345	
790205				6.66 g/t	Standard						

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-09	Sampled by:			JJ	DATE:	20/June/2018				
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
790206	119.50	121.00	1.50	0.001	Tr qz/cb veins (some w ser haloes); tr dis py in host	MIG	1.50	1994	2902	3.196	
790207	121.00	122.50	1.50	0.001	Tr qz/cb veins (some w ser haloes); tr dis py in host	MIG	1.50	2074	3034	3.1604	
790208	122.50	124.00	1.50	0.029	2% qz/cb veins; tr dis/vein-hosted py	MIG	1.50	2052	2974	3.2256	
790209	124.00	125.50	1.50	0.006	1% qz/cb veins; tr dis py in host	MIG	1.50	818	1188	3.2108	
790210	124.00	125.50	1.50	Duplicate	Duplicate of 790209	MIG	1.50	912	1318	3.2463	
790211	125.50	127.00	1.50	0.005	0.5% qz/cb veins; tr dis py in host	MIG	1.50	2264	3284	3.2196	
790212	127.00	128.50	1.50	0.008	1% qz/cb veins; tr dis/vein-hosted py	MIG	1.50	2090	3036	3.2093	
790213	128.50	130.00	1.50	0.001	Tr qz/cb veins; tr dis py in host	MIG	1.50	1910	2766	3.2313	
790214	130.00	131.50	1.50	0.095	Tr qz/cb veins (few ser haloes); tr dis/vein-hosted py	MIG	1.50	2172	3144	3.2346	
790215	131.50	133.00	1.50	0.03	Tr qz/cb veins (some w ser haloes); tr dis py in host	MIG	1.50	2181	3186	3.1701	
790216	133.00	134.50	1.50	0.04	Tr qz/cb veins (some w ser/hm haloes); tr dis py in host	MIG	1.50	1970	2896	3.1274	
790217	134.50	136.00	1.50	0.042	Tr qz/cb veins; tr dis py in host	MIG	1.50	1962	2866	3.1704	
790218	136.00	137.50	1.50	0.137	Tr qz/cb veins (some w hm haloes); tr dis py in host	MIG	1.50	1996	2934	3.1279	
790219	137.50	139.00	1.50	0.042	3% qz and qz/cb veins; tr dis py in host	MIG	1.50	1990	2926	3.1261	
790220	139.00	140.50	1.50	0.012	2% qz and qz/cb veins (some with ser/ch alt); tr dis py in host	MIG	1.50	1918	2870	3.0147	
790221	140.50	142.00	1.50	0.028	Tr qz/cb veins w ser haloes; tr dis py in host	MIG	1.50	1846	2766	3.0065	
790222	142.00	143.50	1.50	0.013	1% qz and qz/cb veins	MIG	1.50	1820	2754	2.9486	
790223	143.50	145.00	1.50	0.016	Tr qz/cb veins; some w hm haloes	MIG	1.50	1612	2446	2.9329	
790224	145.00	146.50	1.50	0.03	5% qz veins w ser haloes	MIG	1.50	1662	2518	2.9416	

LOGGED BY: J.J		Magnetic Declination:			5.54 West		Equipment:		Reflex	
BHID	Depth (m)	Dip (neg.)	Az (TN)	Az (Mag)	Az (NAD83)	Az (NAD83) Used	Mag Sus (nT)	DDH Ref	Geo/Driller Comments	
KAS-18-09	0	-69.4	209.93		207.89	207.9		APS	Dip Estimated	
KAS-18-09	13	-69.1		209.5	204.0	208.2	58849.00	Reflex	Az affected by MAG	
KAS-18-09	43	-68.7		209.8	204.3	209.0	57824.00	Reflex	Az affected by MAG	
KAS-18-09	73	-68.8		206.4	200.9	209.7	57662.00	Reflex		
KAS-18-09	103	-68.4		206.5	201.0	210.5	56574.00	Reflex		
KAS-18-09	120	-67.6		206.5	201.0	210.9	59641.00	Reflex		



Project:	Pickle Lake		
Prospect:	Kas Lake		
Claim #:	319583 (legacy claim 420)		
Hole ID:	KAS-18-10		
Start Date:	12/June/18		
End Date:	13/June/18		
EOH Depth:	142m		
	Datum/Proj:	Nad83	Zone 15
	UTM North:	5683214.613	m
	UTM East:	682451.834	m
	Elevation:	377.68	m
	Dip:	-78	at setup
	Az:	212.35TN	at setup
	Collar Survey Method:	APS	
	Surveyed by:	D.G.	
Drill Co:	M3 Drilling		
Drill Rig:	1		
m From	m To	Hole Size	Drill Type
0	6	BW	Casing
0	142	BTW	Rods
Drill comments (issues, casing, gear in hole): Casing was removed after drilling. Collar survey taken at end of hole (rods sitting on bottom of hole with footclamp disengaged)			
Geology comments: Intersected mineralized Banded Iron Formation			

GEOLOGICAL CORE LOG

Hole ID: KAS-18-10

Date Logged: 22/June/20 EOH called by: Dan Grabiec

Geologist: JJ EOH Reason: Drilled through Iron Formation and into Mafic Intrusive.

From (m)	To (m)	Int (m)	Lithology 1	Major Vn Type	Vn Pct	Pyrite %	Pyrrhotite %	Comments
0.00	4.00	4.00	OB					
4.00	30.00	26.00	IV	QZCC	2	0.10		Brownish-grey strongly foliated/banded Intermediate Volcanic. 40% subhedral FS (1-5mm; white; weakly boudinaged by foliation) 20% BT (brown; aphanitic to 1 mm; strongly foliated; 1-10 mm wide bands; wrap around FS/QZ grains) 20% aph mafic groundmass (could be BT/CH/HB) 10% CH (aph to 1 mm; mostly in 1-10 cm bands) 10% QZ (0.2-2mm; clear; weakly boudinaged by fol) 2% QZ & QZ/CB veining (0.1-10.0 cm; some have CH/SER haloes). 35% QZ veining w TM/CH haloes and tr PY at 5.5-7.4 m. SER stockwork with some HM at 21.4-23.2 m. Trace dis/vein-hosted PY. Fault gouge at 28.0 m.
30.00	38.90	8.90	MV	QZCC	1	0.10		60% Green-grey strongly foliated/banded Mafic Volcanic with 40% grey Intermediate Volcanic bands (0.5-25 cm wide), distinguished via FS content (10% vs 40% respectively). Gradation contact with above unit. Overall 35% aph mafic groundmass (green/black; could be BT/CH/HB) 20% CH (aph to 2 mm; strongly fol; mostly in bands alternating with BT-rich zones in MV) 20% BT (aph to 1 mm; strongly fol; wrap around QZ/FS) 20% FS (0.5-3 mm; white; anhedral; rotated and boudinaged by foliation) 5% QZ (0.5-2 mm; clear). 1% QZ and QZ/CB veins (0.1-15.0 cm; some w SER haloes; few with HM haloes). SER stockwork at 37.5-38.8 m. Tr dis/vein-hosted PY. Fault gouges at 39.4 m; 36.0 m
38.90	39.60	0.70	MP	QZCC	0.1			Dark grey/green moderately foliated non-banded Mafic Intrusive. Contacts crosscut foliation. 30% CH (aph to 1 mm; mod fol) 25% FS (white; <1 mm) 20% BT (black; aph to 3 mm; mod fol; wrap around FS) 15% aphanitic groundmass (black/green; could be BT/CH/HB) 10% QZ (0.2-3.0 mm; clear). Tr QZ/CB veins w SER haloes.
39.60	57.60	18.00	MV	QZ	1	0.10		85% Green-grey strongly foliated/banded Mafic Volcanic with 15% grey Intermediate Volcanic bands (0.5-25 cm wide), distinguished via FS content (5% vs 30% respectively). Overall 40% aph mafic groundmass (green/black; could be BT/CH/HB) 25% CH (aph to 2 mm; strongly fol; mostly in bands alternating with BT-rich zones in MV) 15% BT (aph to 1 mm; strongly fol; wrap around QZ/FS) 15% FS (0.5-6 mm; white; anhedral; rotated and boudinaged by foliation) 5% QZ (0.5-2 mm; clear). 1% QZ and QZ/CB veins (0.1-13.0 cm; some w SER/TM haloes). Tr dis/vein-hosted PY.
57.60	72.00	14.40	MV	QZ	3	0.10		Grey-green strongly foliated/banded Mafic Volcanic. 40% aph mafic groundmass (green/black; some is CH; could also be BT/HB) 20% FS (0.2-1.0 mm; white) 20% QZ (clear; discontinuous bands/veins along foliation) 15% BT (brown; 0.2-1 mm; 0.1-2cm bands; strongly fol) 5% CH (green; aph to 2 mm; 0.1-4.0 cm bands; strongly fol) 3% QZ and QZ/CB veins (0.1-3.0 cm wide; veins at 69.4-71.6 m have CH/TM haloes and weak HM alt). Tr dis/vein-hosted PY. Fault gouge at 69.6 m.
72.00	74.40	2.40	MV	QZ	0.1			Grey-brown strongly foliated/banded Mafic Volcanic w mod/strong silicification and weak sericitization. 35% QZ (flooding/thin discontinuous veins) 20% aph mafic groundmass (green/black; could be CH/BT/HB) 20% FS (0.2-5 mm; white to beige; 30% 2-5 mm FS at 73.9-74.3 m) 20% BT (0.5-3.0 mm; brown; mod to strong fol) 5% CH (green; aph to 1 mm; weak to strong fol). Tr QZ/CB veins (<1 mm). Fault gouges/rubble zone at 72.0-72.2 m
74.40	89.30	14.90	MIG	QZCC	1	0.10	0.10	Green moderately foliated Mafic Intrusive. Coarser grained than above; mottled texture that grades to moderate foliation toward end of unit. 5% of unit is weakly magnetic. 50% CH (0.5-5 mm; platy; weakly to strongly foliated; wrap around QZ) 30% QZ (flooding/discontinuous vein; form 1-8 mm discontinuous bands from 83.7 m onward) 10% aph mafic groundmass (green/black; some CH; could also be BT/HB) 5% FS (0.2-1.0 mm; white) 5% BT (aph to 1 mm; brown; weakly foliated) 1% QZ and QZ/CB veins (0.1-7.0 cm veins; some w SER haloes; <0.5 mm rims around QZ amygdules) Tr dis PY/PO.

GEOLOGICAL CORE LOG

Hole ID: KAS-18-10

Date Logged: 22/June/20 EOH called by: Dan Grabiec

Geologist: JJ EOH Reason: Drilled through Iron Formation and into Mafic Intrusive.

From (m)	To (m)	Int (m)	Lithology 1	Major Vn Type	Vn Pct	Pyrite %	Pyrrhotite %	Comments
89.30	91.30	2.00	MIG	QZCC	3	7.00	0.20	Green moderately foliated Mafic Intrusive? (Similar to above unit with mod to strong silicification; not magnetic) 50% QZ (flooding/discontinuous veins) 15% aph mafic groundmass (green/black; some CH; could also be BT/HB) 15% CH (0.5-2 mm; mod fol) 5% BT (aph to 1 mm; brown; mostly in bands) 5% FS (0.2-1.0 mm; white) 3% QZ/CB veins (0.1-2.0 mm). 7% dis/blebby/vein-hosted PY; 0.2% dis PO.
91.30	101.50	10.20	SBm	QZCC	2	0.10	0.10	Dark grey strongly foliated Banded Iron Formation. 70% of rock mod to strongly magnetic. 30% QZ (chert and/or discontinuous veins/flooding) 20% CH (0.1-2.0 mm; green; mod to strong fol) 20% aph mafic mins (including MT) 10% FS (0.2-1 mm; white) 10% BT (0.1-1.0 mm; brown; strong fol) 7% GT (0.5-7.0 mm; red; ranges from 1-15%) 2% QZ and QZ/CB veins (0.1-5 cm) 1% MT (<0.5 mm; more in aph matrix). Tr blebby/vein-hosted PY; tr vein-hosted PO.
101.50	114.30	12.80	SB\$\$	QZ	3	4.00	0.10	Dark grey strongly foliated Banded Iron Formation. 70% of rock mod to strongly magnetic. 40% QZ (chert and/or discontinuous veins/flooding) 20% CH (aph to 1.0 mm; green; mod to strong fol) 15% aph mafic mins (including MT) 10% FS (0.2-1 mm; white) 5% BT (0.1-1.0 mm; brown) 3% MT (<0.5 mm; more in aph matrix) 3% GT (0.5-3 mm; red; ranges from 0-5%; 80% of unit is GT-bearing) 3% QZ and QZ/CB veins (0.1-20 cm). 4% dis/blebby/vein-hosted PY; tr dis PO in host.
114.30	118.20	3.90	MV	QZCC	1	0.10	0.10	Dark grey strongly foliated Mafic Volcanic? (Finer-grained than typical footwall unit - could be intrusive?) 10% of unit is coarser grained with 35% feldspar (in 0.5-3 cm bands). Not magnetic. 35% aph mafic minerals (including MT) 20% CH (aph to 1 mm; green; weak to strong fol) 20% QZ (chert and/or flooding/discontinuous veins) 15% FS (0.2-1.0 mm; white) 10% BT (aph to 1 mm; brown) 1% QZ/CB veining (0.5-10 mm). Tr dis PY/PO.
118.20	121.00	2.80	MIG	QZCC	1	3.00	0.10	Dark grey strongly foliated Mafic Intrusive? (Finer-grained than typical but slightly coarser-grained than units above and below - could be volcanic?). Not magnetic. 30% aph mafic minerals (including MT) 20% QZ (chert and/or flooding/discontinuous veins) 15% BT (aph to 1 mm; brown) 15% CH (aph to 1 mm; green) 15% FS (0.2-1.0 mm; white) 1% QZ/CB veining (0.5-10 mm). 3% dis/vein-hosted PY; tr dis PO.
121.00	123.50	2.50	MV	QZCC	3	0.10		Dark grey strongly foliated Mafic Volcanic? (Finer-grained than typical footwall unit - could be intrusive?) 25% of unit weakly magnetic. 35% aph mafic minerals (including MT) 20% CH (aph to 1 mm; green; weak to strong fol) 20% QZ (chert and/or flooding/discontinuous veins) 15% FS (0.2-1.0 mm; white) 10% BT (aph to 1 mm; brown) 3% QZ and QZ/CB veins (0.1-5.0 cm). Tr dis/vein-hosted PY.
123.50	124.20	0.70	SBm	QZCC	0.1	0.20		Dark grey weakly foliated Banded Iron Formation? (coarse-grained; weaker foliation than others; could be intrusive) 70% of rock mod to strongly magnetic. 40% QZ (chert?) 30% CH (aph to 4.0 mm; green; mod fol) 15% FS (0.2-3 mm; white) 15% BT (0.1-3.0 mm; brown; not foliated) 2% MT (<1 mm) Tr QZ/CB veins (1 mm). 0.2% dis/vein-hosted PY.
124.20	125.10	0.90	MIG	QZ	5	0.10	0.10	Dark grey strongly foliated Mafic Intrusive. Not magnetic. 35% CH (aph to 2 mm; green; mod to strong fol) 25% aph mafic minerals (green/brown; could be CH/BT/HB) 15% BT (aph to 1 mm; brown; mod to strong fol) 15% QZ (<1 mm; clear; could be flooding) 5% FS (0.2-1.0 mm; white) 5% QZ and QZ/CB veining (1-10 mm) Tr dis PY/PO.
125.10	125.30	0.20	SBm					Grey moderately foliated Banded Iron Formation. Strongly magnetic. 60% QZ (appears to be chert) 20% FS (0.2-3 mm; white) 10% CH (aph to 1.0mm; green; mod fol) 10% aph mafic minerals (green/brown; could be CH/BT/HB/MT) 3% MT (<0.5 mm). 0.3% dis PY.

GEOLOGICAL CORE LOG

Hole ID: KAS-18-10

Date Logged: 22/June/20 EOH called by: Dan Grabiec

Geologist: JJ EOH Reason: Drilled through Iron Formation and into Mafic Intrusive.

From (m)	To (m)	Int (m)	Lithology 1	Major Vn Type	Vn Pct	Pyrite %	Pyrrhotite %	Comments
125.30	126.40	1.10	MIG	QZCC	2	0.10		Dark grey strongly foliated Mafic Intrusive. 25% of unit weak to mod magnetic. 30% CH (aph to 2 mm; green; mod to strong fol) 20% aph mafic minerals (green/brown; could be CH/BT/HB) 20% QZ (<1 mm; clear; could be flooding) 15% FS (0.2-1.0 mm; white) 10% BT (aph to 1 mm; brown; mod to strong fol; mostly in 0.5-2 mm bands) 2% QZ and QZ/CB veining (1-10 mm) Tr dis PY.
126.40	126.50	0.10	SBm					Dark grey moderately foliated Banded Iron Formation. Moderately magnetic. 70% QZ (appears to be chert and/or flooding) 10% CH (aph to 1.0mm; green; mod fol) 10% aph mafic minerals (green/brown; could be CH/BT/HB/MT) 5% BT (aph to 1 mm; brown; mostly in 0.5-1 mm bands). 5% FS (0.2-3 mm; white).
126.50	132.80	6.30	MIG	QZCC	2	0.10		Dark grey moderately foliated Mafic Intrusive. Moderately magnetic throughout. 30% CH (aph to 2 mm; green; weak to strong fol) 30% QZ (<1 mm; clear; could be flooding) 20% aph mafic minerals (green/brown; could be CH/BT/HB) 10% FS (0.2-1.0 mm; white) 10% BT (aph to 1 mm; brown; mod fol) 2% QZ and QZ/CB veining (1-10 mm; some w SER haloes) 1% MT (<0.5 mm; more in aph matrix) Tr dis PY.
132.80	134.10	1.30	MIG	QZCC	2	0.10		Grey weakly foliated Mafic Intrusive? (coarse grained - could be Iron Formation). Strongly magnetic. 45% QZ (appears to be chert and/or flooding) 20% FS (0.2-2 mm; white) 20% CH (1-10 mm; green; weak fol) 15% MT (0.2-2.0 mm; equant). 2% QZ and QZ/CB veins (few SER haloes; isoclinally folded QZ vein at 132.8 m). Tr vein-hosted PY.
134.10	136.10	2.00	MIG	QZCC	0.1	0.10		Dark grey moderately foliated Mafic Intrusive. Moderately magnetic throughout. 35% QZ (<1 mm; clear; could be flooding; some <0.5 mm QZ/CB rims around grains) 30% CH (aph to 2 mm; green; weak to strong fol) 15% aph mafic minerals (green/brown; could be CH/BT/HB) 10% FS (0.2-1.0 mm; white) 10% BT (aph to 1 mm; brown; mod fol) 1% MT (<0.5 mm; more in aph matrix) Tr QZ/CB veins; tr dis PY.
136.10	136.70	0.60	MIG	QZCC	2	0.10		Grey massive Mafic Intrusive? (very coarse grained - could be Iron Formation) Strongly magnetic. 50% QZ (appears to be chert and/or flooding) 20% CH (0.2-4.0 cm; green) 20% MT (1-10 mm; equant). 10% FS (0.2-2 mm; white) 2% QZ and QZ/CB veins (some yellow/beige alteration, likely SER). Tr vein-hosted PY.
136.70	138.50	1.80	MIG	QZCC	2	0.10		Dark grey moderately foliated Mafic Intrusive. Moderately magnetic throughout. 35% QZ (<1 mm; clear; could be flooding; some <0.5 mm QZ/CB rims around grains) 30% CH (aph to 2 mm; green; weak to strong fol) 15% aph mafic minerals (green/brown; could be CH/BT/HB) 10% FS (0.2-1.0 mm; white) 10% BT (aph to 1 mm; brown; mod fol) 1% MT (<0.5 mm; more in aph matrix) 2% QZ and QZ/CB veins (most have 0.5-2.0 cm light green CH haloes); tr dis PY.
138.50	140.70	2.20	MIG	QZ	2	0.10		Grey massive Mafic Intrusive? (coarse grained - could be Iron Formation) Strongly magnetic. 50% QZ (appears to be chert and/or flooding) 20% CH (0.5-10 mm; green) 20% FS (0.2-3 mm; white) 10% MT (0.5-5.0 mm; equant). 2% QZ and QZ/CB veins (some have yellow/beige haloes; likely SER). Tr vein-hosted PY.
140.70	142.00	1.30	MIG	QZCC	0.1	0.10		Dark grey moderately foliated Mafic Intrusive. Moderately magnetic throughout. 35% QZ (<1 mm; clear; could be flooding; some <0.5 mm QZ/CB rims around grains) 35% CH (aph to 2 mm; green; weak to strong fol) 10% aph mafic minerals (green/brown; could be CH/BT/HB) 10% FS (0.2-1.0 mm; white) 10% BT (aph to 1 mm; brown; mod fol) 1% MT (<0.5 mm; more in aph matrix) Tr QZ/CB veins (some w SER alt); tr dis PY.
142	EOH							

STRUCTURAL CORE LOG

Hole ID: KAS-18-10

Date Logged: 22/June/2018

Geologist: JJ

Core Data

th From	Depth To (m)	Interval (m)	Rock Type	Structure Type	Foliation (TCA)	Other (TCA)	Struc. Intensity
0.00	4.00	4.00	OB				
9.00	9.10	0.10	IV	Fol	32		S
15.00	15.10	0.10	IV	Fol	26		S
20.00	20.10	0.10	IV	Fol	25		S
23.00	23.10	0.10	IV	Fol	28		S
26.00	26.10	0.10	IV	Fol	27		S
30.00	30.10	0.10	MV	Fol	25		S
38.90	38.90	0.00	MV/MP	Ct		53	S
39.60	39.60	0.00	MP/MV	Ct		75	S
45.00	45.10	0.10	MV	Fol	28		S
48.00	48.10	0.10	MV	Fol	25		S
54.00	54.10	0.10	MV	Fol	29		S
55.90	56.00	0.10	MV	Fol	31		S
61.00	61.10	0.10	MV	Fol	34		S
65.00	65.10	0.10	MV	Fol	34		S
74.00	74.10	0.10	MIG	Fol	32		S
81.00	81.10	0.10	MIG	Fol	33		S
84.00	84.10	0.10	MIG	Fol	33		M
89.30	89.30	0.00	MIG/MIG	Ct		40	S
89.90	90.00	0.10	MIG	Fol	43		M
92.00	92.10	0.10	SBm	Fol	40		S
96.00	96.10	0.10	SBm	Fol	41		S
101.00	101.10	0.10	SBm	Fol	35		S
104.90	105.00	0.10	SB\$\$	Fol	38		S
107.50	107.60	0.10	SB\$\$	Fol	52		S
109.50	109.60	0.10	SB\$\$	Fol	35		M
116.00	116.10	0.10	MIG	Fol	35		S
117.00	117.10	0.10	MIG	Fol	35		S
122.00	122.10	0.10	MV	Fol	28		S
123.50	123.50	0.00	MV/SBm	Ct		30	S
126.40	126.40	0.00	MIG/SBm	Ct		38	S
132.80	132.80	0.00	MIG/MIG	Ct		36	S
133.00	133.10	0.10	MIG	Fol	36		S
136.70	136.70	0.00	MIG/MIG	Ct		47	S
138.50	138.50	0.00	MIG/MIG	Ct		9	S
142	EOH						

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-10	Sampled by:			JJ	DATE:	22/June/2018				
Sample ID	From (m)	To (m)	Interval (m)	Standard # / Duplicate	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
790225	4.00	5.50	1.50	0.001	3% qz/cb veins w ser haloes; tr dis py in host	IV	1.50	1654	2454	3.0675	
790226					Blank						
790227	5.50	6.40	0.90	0.001	25% qz and qz/cb veins w ch/tm haloes; tr vein-hosted py	IV	0.90	976	1500	2.8626	
790228	6.40	7.40	1.00	0.001	15% qz and qz/cb veins w ch/tm haloes; tr vein-hosted py	IV	1.00	1062	1650	2.8061	
790229	7.40	8.40	1.00	0.001	Tr qz/cb veins; tr vein-hosted py	IV	1.00	1094	1718	2.7532	
790230				0.505 g/t	Standard						
790231	68.00	69.00	1.00	0.005	4% qz and qz/cb veins (some w ser/ch haloes); tr dis py in host	MV	1.00	976	1536	2.7429	
790232	69.00	70.00	1.00	0.007	2% qz and qz/cb veins (some w ser/ch/hm alt); tr dis py in host	MV	1.00	1102	1726	2.766	
790233	70.00	71.00	1.00	0.022	Tr qz/cb veins (some w hm haloes); tr dis py in host	MV	1.00	1086	1696	2.7803	
790234	71.00	72.00	1.00	0.016	2% qz veins w tm/hm haloes; tr dis py in host	MV	1.00	1190	1846	2.814	
790235	72.00	73.00	1.00	0.001	1% qz/cb veins w ser/ch haloes; pervasive silicification	MV	1.00	1076	1700	2.7244	
790236	73.00	74.40	1.40	0.006	Moderate to strong silicification	MV	1.40	1670	2632	2.736	
790237	74.40	75.20	0.80	0.006	Tr qz/cb veins (few w hm alt); tr dis py in host	MIG	0.80	866	1278	3.1019	
790238	75.20	76.00	0.80	0.007	Tr qz/cb veins (few w hm alt); tr dis py in host	MIG	0.80	976	1448	3.0678	
790239	76.00	77.50	1.50	0.007	0.5% qz/cb veins w ser alt; tr dis py in host	MIG	1.50	1834	2754	2.9935	
790240	77.50	79.00	1.50	0.021	Tr dis py/po in host	MIG	1.50	1966	2924	3.0522	
790241	79.00	80.50	1.50	0.006	Tr qz/cb veins; tr dis py/po in host	MIG	1.50	1910	2848	3.0362	
790242	80.50	82.00	1.50	0.036	Tr qz/cb veins; tr dis py/po in host	MIG	1.50	1906	2838	3.0451	
790243	82.00	83.50	1.50	0.006	Tr qz/cb veins; tr dis py/po in host	MIG	1.50	1808	2969	2.5573	

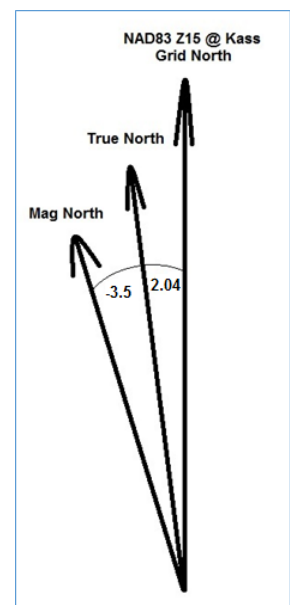
SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-10	Sampled by: JJ			DATE:	22/June/2018					
Sample ID	From (m)	To (m)	Interval (m)	Standard # / Duplicate	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
790244	83.50	85.00	1.50	0.008	2% qz and qz/cb veins	MIG	1.50	1924	2870	3.0338	
790245	85.00	86.00	1.00	0.024	7% qz and qz/cb veins; tr dis/vein-hosted py/po	MIG	1.00	1170	1758	2.9898	
790246	86.00	87.30	1.30	0.148	2% qz and qz/cb veins; tr dis py/po in host	MIG	1.30	1724	2566	3.0475	
790247	87.30	88.30	1.00	0.01	2% qz/cb veins; tr dis/vein-hosted py; tr dis po in host	MIG	1.00	1330	1986	3.0274	
790248	88.30	89.30	1.00	0.012	1% qz/cb veins; tr dis py in host	MIG	1.00	1232	1838	3.033	
790249					Blank						
790250	89.30	90.30	1.00	6.66	2% qz/cb veins; strong silicification/quartz flooding; 8% dis/blebby/vein-hosted py; tr dis po in host	MIG	1.00	1252	1902	2.9262	
790251	90.30	91.30	1.00	1.43	2% qz/cb veins; strong silicification/quartz flooding; 5% dis/blebby/vein-hosted py; tr dis po in host	MIG	1.00	1152	1752	2.92	
790252	91.30	92.30	1.00	0.107	0.5% qz/cb veins; tr dis py in host	SBm	1.00	1148	1734	2.959	
790253	92.30	93.30	1.00	1.58	3% qz and qz/cb veins; tr dis py in host	SBm	1.00	1190	1806	2.9318	
790254	93.30	94.30	1.00	2.27	7% qz and qz/cb veins; 0.3% dis/vein-hosted py; tr dis po in host	SBm	1.00	1224	1846	2.9678	
790255				1.58 g/t	Standard						
790256	94.30	95.30	1.00	1.05	2% qz and qz/cb veins	SBm	1.00	1254	1880	3.0032	
790257	95.30	96.50	1.20	0.091	1% qz and qz/cb veins	SBm	1.20	1492	2256	2.9529	
790258	96.50	97.50	1.00	0.058	Tr qz/cb veins	SBm	1.00	1240	1868	2.9745	
790259	97.50	98.50	1.00	0.038	0.5% qz/cb veins	SBm	1.00	544	818	2.9854	
790260	97.50	98.50	1.00	Duplicate	Duplicate of 790259	SBm	1.00	542	816	2.9781	

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-10	Sampled by: JJ			DATE:	22/June/2018					
Sample ID	From (m)	To (m)	Interval (m)	Standard # / Duplicate	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
790261	98.50	99.50	1.00	0.163	Tr qz/cb veins; tr blebby py	SBm	1.00	1306	1976	2.9493	
790262	99.50	100.50	1.00	0.134	Tr qz/cb veins; tr dis py in host	SBm	1.00	1158	1762	2.9172	
790263	100.50	101.50	1.00	0.282	Tr qz/cb veins; tr dis/vein-hosted py	SBm	1.00	1220	1848	2.9427	
790264					Blank						
790265	101.50	102.50	1.00	12.7	2% qz and qz/cb veins; 5% dis/vein-hosted/semi-massive py; tr dis po in host	SB\$\$	1.00	1180	1800	2.9032	
790266	102.50	103.50	1.00	20.5	3% qz/cb veins; 4% dis/vein-hosted py; tr dis po in host	SB\$\$	1.00	1196	1824	2.9045	
790267	103.50	104.50	1.00	0.994	0.5% qz/cb veins; 1% dis/blebby py; tr dis po in host	SB\$\$	1.00	1184	1806	2.9035	
790268	104.50	105.50	1.00	0.624	Tr qz/cb veins; 0.5% dis/blebby/vein-hosted py	SB\$\$	1.00	1124	1708	2.9247	
790269	105.50	106.50	1.00	0.023	Tr qz/cb veins	SB\$\$	1.00	1028	1564	2.9179	
790270	106.50	107.50	1.00	0.011	Tr qz/cb veins	SB\$\$	1.00	1252	1920	2.8743	
790271	107.50	108.50	1.00	1.16	1% qz/cb veins; 3% dis/blebby py	SB\$\$	1.00	1254	1922	2.8772	
790272	108.50	109.50	1.00	2.07	2% qz/cb veins; 3% dis/blebby py	SB\$\$	1.00	1172	1798	2.8722	
790273	109.50	110.50	1.00	8.22	1% qz/cb veins; 5% dis/blebby py	SB\$\$	1.00	1056	1622	2.8657	
790274	110.50	111.50	1.00	8.32	5% qz veins; 12% dis/blebby/vein-hosted py	SB\$\$	1.00	1104	1692	2.8776	
790275	111.50	112.40	0.90	9.26	10% qz veins; 8% dis/blebby py	SB\$\$	0.90	1032	1600	2.8169	
790276					Blank						
790277	112.40	113.40	1.00	7.76	50% qz veins; tr dis py in host	SB\$\$	1.00	1036	1614	2.7924	
790278	113.40	114.30	0.90	3.08	5% qz and qz/cb veins; 2% dis/blebby py	SB\$\$	0.90	1046	1616	2.8351	
790279	114.30	115.50	1.20	0.241	3% qz/cb veins; tr dis py in host	MV	1.20	1288	1980	2.8613	
790280				6.66 g/t	Standard					#DIV/0!	
790281	115.50	116.90	1.40	0.027	2% qz and qz/cb veins	MV	1.40	1720	2578	3.0047	

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-10	Sampled by: JJ			DATE:	22/June/2018					
Sample ID	From (m)	To (m)	Interval (m)	Standard # / Duplicate	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
790282	116.90	118.20	1.30	0.03	3% qz/cb veins	MV	1.30	1712	2594	2.941	
790283	118.20	119.10	0.90	0.553	2% qz/cb veins; 3% dis/blebby py	MIG	0.90	1068	1612	2.9632	
790284	119.10	120.00	0.90	0.369	1% qz/cb veins; 0.5% dis/vein-hosted py	MIG	0.90	992	1498	2.9605	
790285	120.00	121.00	1.00	2.89	Tr qz/cb veins; 5% dis/blebby py	MIG	1.00	1398	2098	2.9971	
790286	121.00	122.30	1.30	0.141	3% qz and qz/cb veins; tr dis py in host	MV	1.30	1668	2470	3.0798	
790287	122.30	123.50	1.20	0.148	5% qz and qz/cb veins; 0.2% dis/vein-hosted py	MV	1.20	1540	2286	3.0643	
790288	123.50	124.20	0.70	0.022	Tr qz/cb veins; 0.2% dis/vein-hosted py	SBm	0.70	874	1294	3.081	
790289	124.20	125.10	0.90	0.166	3% qz and qz/cb veins; tr dis/vein-hosted py	MIG	0.90	1138	1688	3.0691	
790290	125.10	126.10	1.00	0.257	0.5% qz and qz/cb veins; 0.2% dis py in host	SBm/MIG	1.00	858	1286	3.0047	
790291	126.10	126.60	0.50	0.927	Tr qz/cb veins	MIG/SBm	0.50	1050	1562	3.0508	
790292	126.60	128.00	1.40	0.006	Tr qz/cb veins w ser alt	MIG	1.40	1692	2520	3.0435	
790293	128.00	129.50	1.50	0.012	1% qz/cb veins w ser/ch haloes; tr dis/vein-hosted py	MIG	1.50	2004	2948	3.1229	
790294	129.50	131.00	1.50	0.011	Tr qz/cb veins	MIG	1.50	1418	2096	3.0914	
790295	131.00	131.80	0.80	0.006	Tr qz/cb veins; tr dis py in host	MIG	0.80	1064	1566	3.1195	
790296	131.80	132.80	1.00	0.011	2% qz and qz/cb veins (some w ser haloes); tr dis py in host	MIG	1.00	1238	1828	3.0983	
790297	132.80	134.10	1.30	0.014	4% qz and qz/cb veins (some w ser haloes); tr vein-hosted py	MIG	1.30	1640	2462	2.9951	
790298	134.10	135.00	0.90	0.009	Tr qz/cb veins w ser haloes; tr dis py in host	MIG	0.90	1168	1724	3.1007	
790299	135.00	136.10	1.10	0.005	Tr qz/cb veins w ser haloes	MIG	1.10	1492	2188	3.1437	
790300	136.10	136.70	0.60	0.001	Tr qz/cb veins w ser haloes	MIG	0.60	690	1014	3.1296	
790301					Blank						

SAMPLE & SPECIFIC GRAVITY LOGS										
Hole ID: KAS-18-10		Sampled by: JJ			DATE: 22/June/2018					
Sample ID	From (m)	To (m)	Interval (m)	Standard # / Duplicate	Comments	Specific Gravity (SG)				
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG
790302	136.70	137.50	0.80	0.001	2% qz and qz/cb veins w ser/ch alt	MIG	0.80	1016	1496	3.1167
790303	137.50	138.50	1.00	0.001	3% qz and qz/cb veins w ser alt; tr vein-hosted py	MIG	1.00	1300	1918	3.1036
790304	138.50	139.50	1.00	0.001	3% qz and qz/cb veins w ser alt	MIG	1.00	1164	1736	3.035
790305				1.58 g/t	Standard					
790306	139.50	140.70	1.20	0.001	0.5% qz/cb veins w ser alt; tr vein-hosted py	MIG	1.20	1504	2254	3.0053
790307	140.70	142.00	1.30	0.013	Tr qz/cb veins; tr dis py in host	MIG	1.30	1660	2450	3.1013

LOGGED BY:	<i>J.J.</i>	Magnetic Declination:	5.5 West				Equipment:	Reflex	
BHID	Depth (m)	Dip (neg.)	Az (TN)	Az (Mag)	Az (NAD83)	Az (NAD83) Used	Mag Sus (nT)	DDH Ref	Geo/Driller Comments
KAS-18-10	0	-77.9	212.35		210.31	210.31		APS	Dip Estimated
KAS-18-10	13	-77.6		218.0	212.5	210.6	60957.00	Reflex	Mag affected
KAS-18-10	43	-76.9		214.9	209.4	211.4	57989.00	Reflex	Mag affected
KAS-18-10	73	-76.4		213.2	207.7	212.1	58265.00	Reflex	Mag affected
KAS-18-10	103	-75.9		204.9	199.4	212.9	57745.00	Reflex	Mag affected
KAS-18-10	140.5	-75.5		211.1	205.6	213.8	56207.00	Reflex	Mag affected



Project:	Pickle Lake		
Prospect:	Kas Lake		
Claim #:	319583 (legacy claim 4207)		
Hole ID:	KAS-18-11		
Start Date:	14/June/2018		
End Date:	15/June/2018		
EOH Depth:	131.5m		
	Datum/Proj:	Nad83	Zone 15
	UTM North:	5683227.511	m
	UTM East:	682548.625	m
	Elevation:	379.6	m
	Dip:	-55	at setup
	Az:	181.92TN	at setup
	Collar Survey Method:	APS	
	Surveyed by:	DG	
Drill Co:	M3 Drilling		
Drill Rig:	JKS300		
m From	m To	Hole Size	Drill Type
0	27	BW	Casing
0	131.5	BTW	Rods
Drill comments (issues, casing, gear in hole): Unable to remove casing from ground because of difficult overburden. Collar survey taken at end of hole (rods sitting on bottom of hole with footclamp disengaged)			
Geology comments: Intersected mineralized Banded Iron Formation			

GEOLOGICAL CORE LOG

Hole ID: KAS-18-11

Date Logged: 23/June EOH called by: Dan Grabiec

Geologist: JJ EOH Reason: Drilled through Iron Formation and into Mafic Intrusive.

From (m)	To (m)	Int (m)	Lithology 1	Major Vn Type	Vn Pct	Pyrite %	Pyrrhotite %	Comments
0.00	25.10	25.10	OB					
25.10	38.40	13.30	MV	QZCC	1	0.10		80% Green-grey strongly foliated/banded Mafic Volcanic with 20% grey Intermediate Volcanic bands (0.5-40 cm wide), distinguished via FS content (10% vs 25% respectively). Overall 35% aph mafic groundmass (green/black; could be BT/CH/HB) 20% BT (aph to 1 mm; strong fol) 15% CH (aph to 2 mm; strongly fol; mostly in bands alternating with BT-rich zones in MV) 15% FS (0.5-3 mm; white; anhedral; boudinaged by foliation) 15% QZ (0.5-2 mm; clear). 1% QZ and QZ/CB veins (1-10 mm; some w SER haloes). SER stockwork at 32.9-33.3 m. Tr dis/vein-hosted PY.
38.40	38.90	0.50	MP					Dark grey/green moderately foliated non-banded Mafic Intrusive. Contacts crosscut foliation. 35% QZ (0.2-3.0 mm; clear; could be flooding) 30% BT (brown/black; aph to 1 mm; weak to mod fol) 25% CH (aph to 1 mm; mod fol) 10% FS (white; <1 mm). Tr QZ/CB veins w SER haloes.
38.90	43.50	4.60	MV	QZ	3	0.10		90% Green-grey strongly foliated/banded Mafic Volcanic with 10% grey Intermediate Volcanic bands (0.5-10 cm wide), distinguished via FS content (10% vs 25% respectively). Overall 40% aph mafic groundmass (green/black; could be BT/CH/HB) 20% QZ (0.5-2 mm; clear; flooding/discontinuous thin veins) 15% BT (aph to 1 mm; strong fol) 15% CH (aph to 1 mm; strongly fol; mostly in bands alternating with BT-rich zones in MV) 10% FS (0.5-3 mm; white). 3% QZ and QZ/CB veins (0.1-3 cm; some w SER haloes; few with HM haloes; 35% QZ veins w TM/CH haloes at 40.9-41.9 m). Tr dis/vein-hosted PY.
43.50	58.30	14.80	MV	QZ	2	0.10		Grey-green strongly foliated/banded Mafic Volcanic. Strongly silicified area below this unit not present in this hole (weak silicification at 57.9-58.1 looks somewhat similar). 30% aph mafic groundmass (green/black; could be CH/BT/HB) 25% QZ (clear; flooding/discontinuous veins along foliation) 20% CH (green; aph to 2 mm; strongly fol) 15% FS (0.1-1.0 mm; white) 10% BT (brown; 0.2-1 mm; strongly fol) 2% QZ and QZ/CB veins (0.1-4.0 cm wide; most have TM/CH haloes; strong TM alteration at 54.4-54.5 m). Tr GT (3-10 mm; red) Tr dis PY.
58.30	66.40	8.10	MIG	QZCC	3	0.10		Green moderately to strongly foliated Mafic Intrusive. Coarser grained than above; does not have mottled texture seen in earlier holes. 40% CH (0.5-5 mm; platy; weakly to strongly foliated; wrap around QZ) 35% QZ (flooding/discontinuous veins; form 1-10 mm discontinuous bands from 59.7 m onward) 10% aph mafic groundmass (green/black; some CH; could also be BT/HB) 10% BT (aph to 1 mm; brown; weakly foliated) 5% FS (0.2-1.0 mm; white) 3% QZ/CB veins (0.1-3.0 cm veins; few SER/CH haloes) Tr dis/vein-hosted PY (5% vein-hosted PY in quartz flooded/fracture zone at 66.0-66.2 m)
66.40	77.00	10.60	SBm	QZCC	3	0.20	0.10	Dark grey strongly foliated Banded Iron Formation. 70% of rock mod to strongly magnetic. 35% QZ (chert and/or discontinuous veins/flooding) 25% CH (aph to 1.0 mm; green; mod to strong fol; wrap around QZ) 10% aph mafic mins (including MT) 10% FS (0.2-1 mm; white; fine-grained and altered to light green/yellow in areas - may not be FS?) 10% BT (0.1-1.0 mm; brown; largely in bands) 5% GT (0.5-7 mm; red; ranges from 0-15%; 90% of unit is GT-bearing) 3% QZ and QZ/CB veins (0.1-8 cm) 3% MT (<0.5 mm; more in aph matrix). 0.2% dis/blebby/vein-hosted PY; tr dis PO (8% blebby/vein-hosted PY at 72.0-72.6 m; zone is not magnetic and not GT-bearing; strong banded BT alteration). Fault gouge at 72.3 m.
77.00	85.00	8.00	MIG	QZCC	3	0.10	0.10	Dark grey moderately to strongly foliated Mafic Intrusive. 25% of unit weakly to mod magnetic. 35% CH (aph to 2 mm; green; mod to strong fol; wrap around QZ) 30% QZ (chert and/or flooding/discontinuous veins) 20% aph mafic minerals (green/black; could be CH/BT/HB/MT) 10% BT (aph to 1 mm; brown; strong fol) 5% FS (<0.5 mm; white) 3% QZ and QZ/CB veining (0.1-7 cm; 1 cm pink/orange CB vein at 82.1 m - iron carb?) Tr dis/blebby PY/PO. Coarse-grained (up to 1 3 cm) CH/MT at 84.5-84.6 m.

GEOLOGICAL CORE LOG

Hole ID: KAS-18-11

Date Logged: 23/June EOH called by: Dan Grabiec

Geologist: JJ EOH Reason: Drilled through Iron Formation and into Mafic Intrusive.

From (m)	To (m)	Int (m)	Lithology 1	Major Vn Type	Vn Pct	Pyrite %	Pyrrhotite %	Comments
85.00	85.20	0.20	SBm			0.50		Dark grey weakly foliated Banded Iron Formation? (could be intrusive) Moderately to strongly magnetic. 45% QZ (chert?) 35% CH (aph to 8.0 mm; green; weak fol) 10% BT (0.1-3.0 mm; brown; not foliated) 10% MT (0.2-3.0 mm; grey/black; equant). 0.5% dis PY.
85.20	86.50	1.30	MIG	QZCC	3	0.20	0.10	Dark grey/green moderately foliated Mafic Intrusive. Not magnetic. 35% CH (aph to 2 mm; green; mod fol; wrap around QZ) 30% QZ (chert and/or flooding/discontinuous veins) 20% aph mafic minerals (green/black; could be CH/BT/HB/MT) 10% BT (aph to 1 mm; brown; strong fol) 5% FS (<0.5 mm; white) 3% QZ and QZ/CB veining (0.1-2.0 cm) 0.3% dis PY; tr dis PO
86.50	87.90	1.40	SB\$\$	QZCC	2	0.50	1.00	Dark grey weakly foliated Banded Iron Formation? (could be intrusive) Moderately to strongly magnetic. 35% QZ (chert?) 30% CH (aph to 8.0 mm; green; weak fol) 15% aph mafic minerals (green/black; could be CH/BT/HB/MT) 10% BT (0.1-3.0 mm; brown; not foliated) 5% MT (0.2-1.0 mm; grey/black; equant) 5% FS (0.2-1.0 mm; white). 2% QZ/CB veins. 1% dis PO; 0.5% dis PY.
87.90	106.10	18.20	MIG	QZ	5	0.10	0.10	Dark grey/green moderately foliated Mafic Intrusive. 30% weakly to moderately magnetic. 30% CH (aph to 2 mm; green; mod fol; wrap around QZ) 30% QZ (chert and/or flooding/discontinuous veins) 25% aph mafic minerals (green/black; could be CH/BT/HB/MT) 10% BT (aph to 1 mm; brown; strong fol) 5% FS (<0.5 mm; white) 5% QZ and QZ/CB veining (0.1-22 cm; some w CH haloes). Tr dis/vein-hosted PY/PO. Bright yellow CP vein at 96.3 m. Fault gouge at 105.7 m. Alteration zones at 100.6-100.7 m and 107.2-107.3 m (70% quartz flooding; 3% dis PO; 0.5% dis PY)
106.10	131.50	25.40	MIG	QZCC	3	0.10	0.10	Dark grey/green moderately to strongly foliated Mafic Intrusive. Not magnetic. Coarser grained than above unit; more SER alteration. 35% QZ (chert and/or flooding/discontinuous veins; some grains rimmed by white aph <0.5 mm haloes not reactive to acid - FS?) 30% CH (aph to 4 mm; green; weak to strong fol; wrap around QZ) 20% aph mafic minerals (green/black; could be CH/BT/HB/MT) 10% BT (aph to 2 mm; brown; weak to strong fol) 5% FS (<0.5 mm; white;) 3% QZ and QZ/CB veining (0.1-15 cm; most have beige SER alteration; some TM/CH haloes; few with pink/orange alteration - iron carb?) Tr dis/vein-hosted PY/PO. Fault gouge at 123.7 m. 60% QZ veins at 129.1-129.8 m (CH/TM haloes; pink alteration at 129.8-129.9 m - iron carb?).
131.5	EOH							

STRUCTURAL CORE LOG

Hole ID: KAS-18-11

Date Logged: 23/June/2018

Geologist: JJ

Core Data							
th From	Depth To (m)	Interval (m)	Rock Type	Structure Type	Foliation (TCA)	Other (TCA)	Struc. Intensity
0.00	25.10	25.10	OB				
28.00	28.10	0.10	MV	Fol	45		S
34.00	34.10	0.10	MV	Fol	45		S
38.40	38.40	0.00	MV/MP	Ct		55	S
38.90	38.90	0.00	MP/MV	Ct		50	S
41.50	41.50	0.00	MV	Fol	44		S
42.00	42.10	0.10	MV	Fol	58		S
48.00	48.10	0.10	MV	Fol	58		S
53.00	53.10	0.10	MV	Fol	52		S
58.30	58.30	0.00	MV/MIG	Fol		53	S
62.00	62.10	0.10	MIG	Fol	54		M
65.00	65.10	0.10	MIG	Fol	53		M
69.00	69.10	0.10	MIG	Fol	52		S
70.00	70.10	0.10	MIG	Fol	48		S
75.00	75.10	0.10	MIG	Fol	55		S
77.00	77.10	0.10	SBm/MIG	Ct		52	S
79.00	79.10	0.10	MIG	Fol	50		S
84.90	85.00	0.10	MIG	Fol	48		S
86.90	87.00	0.10	SB\$\$	Fol	62		S
92.00	92.10	0.10	MIG	Fol	60		S
112.00	112.10	0.10	MIG	Fol	49		M
119.00	119.10	0.10	MIG	Fol	60		S
123.90	124.00	0.10	MIG	Fol	58		S

SAMPLE & SPECIFIC GRAVITY LOGS										
Hole ID: KAS-18-11		Sampled by: JJ			DATE: 23/June/2018					
Sample ID	From (m)	To (m)	Interval (m)	Standard # / Duplicate	Comments	Specific Gravity (SG)				
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG
790308	56.30	57.30	1.00	0.001	Tr qz/cb veins	MV	1.00	984	1546	2.75089
790309	57.30	58.30	1.00	0.005	Tr qz/cb veins; weak silicification	MV	1.00	496	782	2.73427
790310	57.30	58.30	1.00	Duplicate	Duplicate of 790309		1.00	500	786	2.74825
790311	58.30	59.40	1.10	0.012	Tr qz/cb veins (some w ser haloes)	MIG	1.10	1468	2200	3.00546
790312	59.40	60.90	1.50	0.001	3% qz/cb veins; tr dis py in host	MIG	1.50	1950	2918	3.01446
790313	60.90	62.40	1.50	0.001	2% qz/cb veins; tr dis py in host	MIG	1.50	1804	2698	3.0179
790314	62.40	63.90	1.50	0.005	4% qz/cb veins; tr dis py in host	MIG	1.50	1944	2894	3.04632
790315	63.90	65.40	1.50	0.008	3% qz/cb veins; tr dis py/po in host	MIG	1.50	1894	2806	3.07675
790316	65.40	66.40	1.00	0.074	6% qz and qz/cb veins; 3% dis/vein-hosted py	MIG	1.00	1348	1994	3.08669
790317	66.40	67.40	1.00	0.808	3% qz and qz/cb veins; 1% dis py in host	SBm	1.00	1200	1800	3
790318	67.40	68.40	1.00	0.55	5% qz/cb veins; tr dis py in host; tr blebby po	SBm	1.00	1240	1852	3.02614
790319	68.40	69.90	1.50	0.106	3% qz/cb veins; tr dis/blebby py	SBm	1.50	1894	2844	2.99368
790320	69.90	70.90	1.00	3.46	10% qz/cb veins; tr dis/vein-hosted py	SBm	1.00	1146	1726	2.97586
790321	70.90	71.90	1.00	0.047	0.5% qz/cb veins/stockwork (some w ch haloes); tr dis py in host	SBm	1.00	1292	1928	3.03145
790322					Blank					
790323	71.90	72.90	1.00	4.94	4% qz/cb veins w strong bt alt; 6% dis/blebby/vein-hosted py	SB\$\$	1.00	1130	1712	2.94158
790324	72.90	73.90	1.00	0.001	1% qz/cb veins; tr dis py in host	SBm	1.00	1162	1736	3.02439
790325	73.90	74.90	1.00	3.09	3% qz/cb veins; 1% dis/blebby py; 0.5% dis po in host	SB\$\$	1.00	1392	2086	3.00576
790326					Blank					
790327	74.90	76.00	1.10	0.029	1% qz/cb veins	SBm	1.10	1362	2036	3.02077
790328	76.00	77.00	1.00	0.66	2% qz/cb veins; tr vein-hosted py	SBm	1.00	1074	1602	3.03409
790329	77.00	78.00	1.00	0.088	Tr qz/cb veins; tr dis py in host	MIG	1.00	1692	2536	3.00474

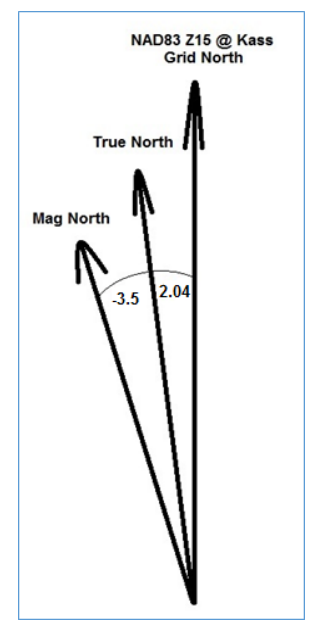
SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID: KAS-18-11		Sampled by: JJ			DATE: 23/June/2018						
Sample ID	From (m)	To (m)	Interval (m)	Standard # / Duplicate	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
790330				6.6 g/t	Standard						
790331	78.00	79.00	1.00	0.006	1% qz/cb veins; 0.2% dis/blebby py	MIG	1.00	962	1426	3.07328	
790332	79.00	80.50	1.50	0.609	Tr qz/cb veins (some w ch/tm alt); tr dis/vein-hosted py	MIG	1.50	1978	2956	3.02249	
790333	80.50	82.00	1.50	0.034	6% qz and qz/cb veins; tr dis/blebby py/po	MIG	1.50	1834	2728	3.05145	
790334	82.00	83.50	1.50	0.001	0.5% qz/cb veins w pink/orange alt (iron carb?); tr dis py/po	MIG	1.50	1934	2846	3.12061	
790335	83.50	85.00	1.50	0.155	2% qz and qz/cb veins; 0.5% dis/blebby po; 0.2% dis py	MIG	1.50	1948	2892	3.06356	
790336	85.00	85.50	0.50	0.001	3% qz/cb veins; 0.5% dis/blebby po	SBm/MIG	0.50	654	958	3.15132	
790337	85.50	86.50	1.00	0.001	3% qz/cb veins; 0.5% dis/vein-hosted py	MIG	1.00	1310	1924	3.13355	
790338	86.50	87.20	0.70	0.001	5% qz/cb veins; 1% dis/bands of po; 1% dis/bands of py	SBm	0.70	852	1280	2.99065	
790339	87.20	87.90	0.70	0.001	Tr qz/cb veins; 1% dis/bands of po; 0.3% dis py in host	SBm	0.70	860	1294	2.98157	
790340	87.90	89.00	1.10	0.001	2% qz/cb veins; tr dis po/py in host	MIG	1.10	1670	2436	3.18016	
790341	89.00	90.00	1.00	0.001	5% quartz flooding; tr qz/cb veins; tr dis py in host	MIG	1.00	1220	1800	3.10345	
790342	90.00	91.00	1.00	0.001	Tr qz/cb veins; tr dis py in host	MIG	1.00	1300	1912	3.12418	
790343	91.00	92.50	1.50	0.064	2% qz/cb veins; tr dis py in host	MIG	1.50	1804	2706	3	
790344	92.50	94.00	1.50	0.166	15% qz and qz/cb veins; tr dis/vein-hosted py/po	MIG	1.50	1828	2726	3.03563	
790345	94.00	95.00	1.00	0.017	20% qz and qz/cb veins; 0.5% dis po; tr vein-hosted py	MIG	1.00	1208	1798	3.04746	

SAMPLE & SPECIFIC GRAVITY LOGS										
Hole ID: KAS-18-11		Sampled by: JJ			DATE: 23/June/2018					
Sample ID	From (m)	To (m)	Interval (m)	Standard # / Duplicate	Comments	Specific Gravity (SG)				
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG
790346	95.00	96.00	1.00	1.33	3% qz and qz/cb veins (some w ch/tm alt); 0.3% dis py in host; tr dis po in host	MIG	1.00	1342	1968	3.14377
790347	96.00	97.00	1.00	0.062	2% qz/cb veins; 0.5% dis/vein-hosted py; tr vein-hosted cp	MIG	1.00	1448	2114	3.17417
790348	97.00	98.00	1.00	0.025	1% qz and qz/cb veins; tr dis py in host	MIG	1.00	1252	1826	3.18118
790349	98.00	99.50	1.50	0.053	2% qz and qz/cb veins; tr dis/vein-hosted py	MIG	1.50	1954	2846	3.19058
790350	99.50	100.60	1.10	0.033	Tr qz/cb veins (some w ch haloes); tr dis py in host	MIG	1.10	1468	2154	3.13994
790351					Blank					
790352	100.60	101.30	0.70	0.12	20% qz flooding; 3% qz/cb veins; 1% dis po in host; tr dis py in host	MIG	0.70	764	1142	3.02116
790353	101.30	102.30	1.00	0.053	4% qz and qz/cb veins (some w ch haloes); tr dis/vein-hosted py	MIG	1.00	1390	2044	3.12538
790354	102.30	103.50	1.20	0.054	Tr qz/cb veins	MIG	1.20	1510	2238	3.07418
790355				1.58 g/t	Standard					
790356	103.50	105.00	1.50	0.067	1% qz and qz/cb veins (some w ch haloes); tr dis py in host	MIG	1.50	1838	2750	3.01535
790357	105.00	106.10	1.10	0.04	3% qz and qz/cb veins (some w ch/ser haloes); tr vein-hosted py	MIG	1.10	1298	1962	2.95482
790358	106.10	107.50	1.40	0.028	2% qz and qz/cb veins (some w ch/ser/hm haloes)	MIG	1.40	1702	2556	2.99297
790359	107.50	109.00	1.50	0.026	1% qz and qz/cb veins (some w ch/ser/hm haloes); tr dis py in host	MIG	1.50	808	1206	3.03015
790360	107.50	109.00	1.50	Duplicate	Duplicate of 790359	MIG	1.50	820	1220	3.05

SAMPLE & SPECIFIC GRAVITY LOGS										
Hole ID: KAS-18-11		Sampled by: JJ			DATE: 23/June/2018					
Sample ID	From (m)	To (m)	Interval (m)	Standard # / Duplicate	Comments	Specific Gravity (SG)				
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG
790361	109.00	110.50	1.50	0.012	3% qz and qz/cb veins (some w ser/ch/hm haloes); tr dis py in host	MIG	1.50	1724	2584	3.00465
790362	110.50	112.00	1.50	0.007	1% qz and qz/cb veins (some w ser haloes)	MIG	1.50	1836	2736	3.04
790363	112.00	113.50	1.50	0.006	0.5% qz/cb veins w ser haloes	MIG	1.50	1836	2736	3.04
790364	113.50	115.00	1.50	0.007	1% qz/cb veins w ser haloes	MIG	1.50	1890	2812	3.04989
790365	115.00	116.50	1.50	0.001	Tr qz/cb veins w ser haloes; tr dis py in host	MIG	1.50	1878	2790	3.05921
790366	116.50	118.00	1.50	0.001	Tr qz/cb veins w ser haloes; tr dis py in host	MIG	1.50	1876	2798	3.03471
790367	118.00	119.50	1.50	0.018	0.5% qz/cb veins w ser haloes (some ch haloes); tr dis py in host	MIG	1.50	1928	2884	3.01674
790368	119.50	121.00	1.50	0.018	4% qz and qz/cb veins (ch/ser haloes; some tm alt; some pink/orange haloes - iron carb?); tr vein-hosted cp	MIG	1.50	1784	2678	2.99553
790369	121.00	122.50	1.50	0.031	2% qz/cb veins (ch/ser haloes; some pink/orange alt - iron carb?)	MIG	1.50	1846	2774	2.98922
790370	122.50	124.00	1.50	0.05	2% qz/cb veins (some ser haloes)	MIG	1.50	1866	2812	2.97252
790371	124.00	125.50	1.50	0.06	1% qz/cb veins w ser haloes; tr dis py in host	MIG	1.50	1914	2840	3.06695
790372	125.50	127.00	1.50	0.009	2% qz/cb veins (ser haloes; some hm haloes)	MIG	1.50	1724	2590	2.99076
790373	127.00	128.00	1.00	0.009	2% qz/cb veins (ser haloes; some hm haloes); tr dis py in host	MIG	1.00	1282	1922	3.00313
790374	128.00	129.10	1.10	0.017	2% qz and qz/cb veins (ser haloes; some hm haloes); tr dis py in host	MIG	1.10	1290	1916	3.0607
790375	129.10	130.00	0.90	0.016	50% qz veins w ch/tm alt; tr dis py in host	MIG	0.90	920	1418	2.84739

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID: KAS-18-11		Sampled by: JJ			DATE: 23/June/2018						
Sample ID	From (m)	To (m)	Interval (m)	Standard # / Duplicate	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
790376					Blank						
790377	130.00	131.50	1.50	0.012	1% qz/cb veins w ser/ch alt; tr dispy in host	MIG	1.50	2064	3076	3.03953	

LOGGED BY:	J.J.	Magnetic Declination:			5.54	West	Equipment:	Reflex	
BHID	Depth (m)	Dip (neg.)	Az (TN)	Az (Mag)	Az (NAD83)	Az (NAD83) Used	Mag Sus (nT)	DDH Ref	Geo/Driller Comments
KAS-18-11	0	-54.4	181.92		179.88	179.88		APS	Dip Estimated
KAS-18-11	34	-52.9		185.5	180.0	180.73	58522.00	Reflex	Az affected by MAG
KAS-18-11	64	-51.5		185.5	180.0	181.48	57531.00	Reflex	Az affected by MAG
KAS-18-11	94	-50.2		185.1	179.6	182.23	57304.00	Reflex	Az affected by MAG
KAS-18-11	130	-48.6		185.6	180.1	183.13	57708.00	Reflex	Az affected by MAG



Project:	Pickle Lake		
Prospect:	Kas Lake		
Claim #:	319583 (legacy claim 42077)		
Hole ID:	KAS-18-12	Datum/Proj:	Nad83 Zone 15
Start Date:	15/June/2018	UTM North:	5683227.511 m
End Date:	17/June/2018	UTM East:	682548.625 m
EOH Depth:	140.5m	Elevation:	379.6 m
		Dip:	-72 at setup
		Az:	181.58TN at setup
		Collar Survey Method:	APS
		Surveyed by:	DG
Drill Co:	M3 Drilling		
Drill Rig:	JKS300		
m From	m To	Hole Size	Drill Type
0	21	BW	Casing
0	140.5	BTW	Rods
Drill comments (issues, casing, gear in hole): Unable to remove casing after drilling. Collar survey taken at end of hole (rods sitting on bottom of hole with footclamp disengaged)			
Geology comments: Intersected mineralized Banded Iron Formation			

GEOLOGICAL CORE LOG

Hole ID: KAS-18-12

Date Logged: 24/June/2018 EOH Reason: Drilled through Iron Formation into Mafic Intrusive

Geologist: JJ

From (m)	To (m)	Int (m)	Lithology 1	Major Vn Typ	Vn Pct	Pyrite %	Pyrrhotite %	Comments
0.00	20.70	20.70	OB					
20.70	56.70	36.00	MV	QZ	2	0.10		80% Green-grey strongly foliated/banded Mafic Volcanic with 20% grey Intermediate Volcanic bands (0.5-20 cm wide), distinguished via FS content (10% vs 25% respectively). Proportion of Intermediate Volcanic gradually decreases towards bottom of unit (45% vs 10%). Overall 30% aph mafic groundmass (green/black; could be BT/CH/HB) 20% QZ (0.5-2 mm; clear) 20% BT (aph to 1 mm; strong fol) 15% CH (aph to 2 mm; strongly fol; mostly in bands alternating with BT-rich zones in MV) 15% FS (0.5-3 mm; white; anhedral; boudinaged by foliation). 2% QZ and QZ/CB veins (0.1-40 cm; some w SER haloes - as in other holes SER is green/yellow. May be additional alteration mins). Tr dis/vein-hosted PY. Breccia zones w QZ/SER infill at 31.7-31.9 m and 54.4-54.5 m. 35% QZ veins w CH haloes at 22.2-25.3 cm (some HM haloes; 0.3% vein-hosted PY; includes 40 cm vein at 22.3-22.7 m)
56.70	59.60	2.90	MV			0.10		Grey-green strongly foliated/banded Mafic Volcanic. 35% aph mafic groundmass (green/black; could be CH/BT/HB) 25% QZ (clear; flooding/discontinuous veins along foliation) 20% CH (green; aph to 1 mm; strongly fol) 10% BT (brown; 0.2-1 mm; strongly fol) 5% FS (0.1-1.0 mm; white) 5% QZ and QZ/CB veins (SER haloes; few TM haloes). Tr dis PY. SER stockwork at 57.4-58.4 m and 59.1-59.6 m
59.60	60.10	0.50	MP					Dark grey/green moderately foliated non-banded Mafic Intrusive. Contacts crosscut foliation. 35% QZ (0.2-5.0 mm; clear; could be flooding) 25% aph mafic groundmass (green/brown; could be BT/CH/HB) 20% CH (aph to 1 mm; mod fol) 15% BT (brown/black; aph to 1 mm; weak to mod fol). 5% QZ/SER stockwork (some HM alt) Tr QZ/CB veins w SER haloes.
60.10	82.80	22.70	MV			0.10		Grey-green strongly foliated/banded Mafic Volcanic. Strongly silicified area at end of unit seen in holes 1-10 not present (weak silicification at 81.5-81.8 m looks somewhat similar). 40% aph mafic groundmass (green/black; could be CH/BT/HB) 20% QZ (clear; flooding/discontinuous veins along foliation) 20% CH (green; aph to 2 mm; strongly fol) 15% FS (0.1-1.0 mm; white; fine-grained and altered to light green/yellow in areas - may not be FS?) 5% BT (brown; 0.2-1 mm; weak to strong fol) 2% QZ and QZ/CB veins (0.1-8.0 cm; some CH/TM haloes). Tr GT (1-6 mm; red) Tr dis/vein-hosted PY; tr vein-hosted CP.
82.80	97.40	14.60	MIG			0.10		Green weakly to strongly foliated Mafic Intrusive. Coarser grained than above; mottled texture at top grades to strong foliation at bottom. 35% CH (0.5-7 mm; platy; weakly to strongly foliated; wrap around QZ) 30% QZ (flooding/discontinuous veins; form 1-10 mm discontinuous bands) 15% aph mafic groundmass (green/black; some CH; could also be BT/HB) 15% FS (0.2-1.0 mm; white; fine-grained and altered to light green/yellow in areas - may not be FS?) 5% BT (aph to 1 mm; brown; weakly foliated) 3% QZ and QZ/CB veins (0.1-3.0 cm veins; few SER haloes) Tr dis/vein-hosted PY.
97.40	99.60	2.20	MIG			0.30	0.50	Grey massive to weakly foliated Mafic Intrusive? (Coarse grained - could be Iron Formation/alteration texture - similar to massive unit seen in footwall in KAS-18-10) 40% of unit weakly to moderately magnetic. 50% QZ (appears to be chert and/or flooding) 20% CH (1-15 mm; green; massive to weak fol) 20% BT (1-5 mm; brown; not foliated) 5% MT (aph to 4 mm; equant). 5% FS (0.2-2 mm; white) 2% QZ/CB veins (1-4 cm). 0.5% dis/blebby PO; 0.3% blebby/vein-hosted PY.

GEOLOGICAL CORE LOG

Hole ID: KAS-18-12

Date Logged: 24/June/2018 EOH Reason: Drilled through Iron Formation into Mafic Intrusive

Geologist: JJ

99.60	101.50	1.90	MIG			0.10		Green strongly foliated Mafic Intrusive. Same as unit above coarse-grained massive unit. 30% QZ (flooding/discontinuous veins; form 1-10 mm discontinuous bands) 25% CH (0.5-3 mm; platy; weakly to strongly foliated; wrap around QZ) 20% aph mafic groundmass (green/black; some CH; could also be BT/HB) 15% FS (0.2-1.0 mm; white; fine-grained and altered to light green/yellow in areas - may not be FS?) 5% BT (aph to 1 mm; brown; weakly foliated) 5% QZ and QZ/CB veins (0.1-13.0 cm veins) Tr dis PY.
101.50	115.40	13.90	SBm			0.20		Dark grey strongly foliated Banded Iron Formation. 70% of rock mod to strongly magnetic. 35% QZ (chert and/or discontinuous veins/flooding) 25% CH (aph to 1.0 mm; green; mod to strong fol; wrap around QZ) 15% FS (0.2-1 mm; white; fine-grained and altered to light green/yellow in areas - may not be FS?) 10% aph mafic mins (including MT) 5% BT (0.1-1.0 mm; brown) 5% GT (0.5-7 mm; red; ranges from 1-15%) 5% MT (aph to 1 mm; more in aph matrix) 3% QZ and QZ/CB veins (0.1-3 cm). 0.2% dis/blebby PO; tr dis PY (3% dis/vein-hosted/blebby PO at 105.5-108.5 m; no GT in mineralized zone; strong GT alteration directly below at 109.2-110.6 m)
115.40	118.60	3.20	SB\$\$			0.50	3.00	Dark grey strongly foliated Banded Iron Formation. 50% of rock moderately magnetic. 40% QZ (chert and/or discontinuous veins/flooding) 25% CH (aph to 1.0 mm; green; mod to strong fol; wrap around QZ) 10% FS (0.2-1 mm; white; fine-grained and altered to light green/yellow in areas - may not be FS?) 10% aph mafic mins (including MT) 5% BT (0.1-1.0 mm; brown). 10% QZ and QZ/CB veins (0.1-20 cm; some w CH/SER alt). 3% dis/vein-hosted/semi-massive PO; 0.5% dis/vein-hosted PY
118.60	140.50	21.90	MIG			0.10		Dark grey moderately to strongly foliated Mafic Intrusive. 10% of unit weakly to mod magnetic. 30% QZ (chert and/or flooding/discontinuous veins) 25% aph mafic minerals (green/black; could be CH/BT/HB/MT) 20% CH (aph to 2 mm; green; mod to strong fol; wrap around QZ) 15% BT (aph to 2 mm; brown; mod to strong fol) 10% FS (<0.5 mm; white; fine-grained and altered to light green/yellow in areas - may not be FS) 2% QZ and QZ/CB veining (0.1-5 cm; some w SER/CH alt) Tr dis/vein-hosted PY. Fault gouge at 124.5 m. Quartz flooded zone at 128.1-128.2 m. Late-stage alteration at 134.5 to EOH (pervasive light green alteration - SER/CH? Some pervasive/vein-hosted HM alteration; fault gouges and small-scale brecciation throughout).
140.5	EOH							

STRUCTURAL CORE LOG

Hole ID: KAS-18-12

Date Logged: 24/June/2018

Geologist: JJ

Core Data

th From	Depth To (m)	Interval (m)	Rock Type	Structure Type	Foliation (TCA)	Other (TCA)	Struc. Intensity
0.00	20.70	20.70	OB				
24.00	24.10	0.10	MV	Fol	27		S
28.00	28.10	0.10	MV	Fol	27		S
34.00	34.10	0.10	MV	Fol	27		S
41.00	41.10	0.10	MV	Fol	31		S
43.00	43.10	0.10	MV	Fol	31		S
48.00	48.10	0.10	MV	Fol	31		S
51.00	51.10	0.10	MV	Fol	32		S
57.00	57.10	0.10	MV	Fol	35		S
59.60	59.60	0.00	MV/MP	Ct		32	S
60.10	60.10	0.00	MP/MV	Ct		39	S
64.90	65.00	0.10	MV	Fol	35		S
66.00	66.10	0.10	MV	Fol	32		S
70.20	70.30	0.10	MV	Fol	38		S
72.90	72.90	0.00	MV	Fol	34		S
77.90	78.00	0.10	MV	Fol	45		S
82.80	82.80	0.00	MV	Ct		34	S
88.00	88.10	0.10	MIG	Fol	46		M
90.90	91.00	0.10	MIG	Fol	45		M
96.90	97.00	0.10	MIG	Fol	32		M
97.40	97.40	0.00	MIG	Ct		48	S
101.50	101.50	0.00	MIG	Ct		45	S
103.00	103.10	0.10	SBm	Fol	35		S
108.90	109.00	0.10	SBm	Fol	44		S
112.10	112.20	0.10	SBm	Fol	37		S
114.00	114.10	0.10	SBm	Fol	44		S
118.60	118.60	0.00	SB\$\$/MIG	Ct		54	S
119.00	119.10	0.10	MIG	Fol	55		S
126.00	126.10	0.10	MIG	Fol	38		S
132.00	132.10	0.10	MIG	Fol	54		S

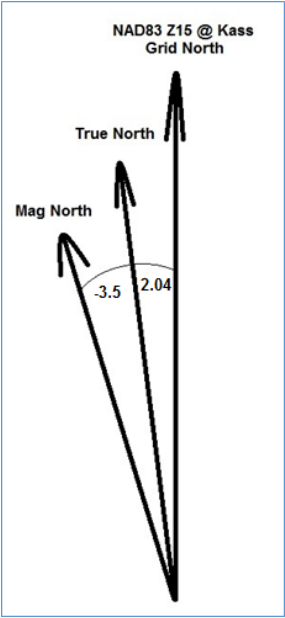
SAMPLE & SPECIFIC GRAVITY LOGS										
Hole ID:	KAS-18-12		Sampled by:		JJ/DG		DATE:		24/June/2018	
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)				
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG
790378	20.70	22.10	1.40	0.014	0.5% qz veins; tr dis py in host	MV	1.40	1480	2314	2.7746
790379	22.10	22.90	0.80	0.008	80% qz veins w ch/hm alt; 0.3% vein hosted py	MV	0.80	774	1222	2.7277
790380				6.66 g/t	Standard					
790381	22.90	23.70	0.80	0.205	30% qz veins w ch haloes; 0.2% vein hosted py; tr vein-hosted cp	MV	0.80	876	1370	2.7733
790382	23.70	24.70	1.00	0.012	3% qz veins w ch haloes; tr vein-hosted py	MV	1.00	1056	1640	2.8082
790383	24.70	25.50	0.80	0.011	15% qz veins w ch haloes; tr vein-hosted py	MV	0.80	910	1432	2.7433
790384	25.50	26.50	1.00	0.01	2% qz and qz/cb veins	MV	1.00	1060	1670	2.7377
790385	66.80	67.80	1.00	0.012	Tr qz/cb veins	MV	1.00	1304	1994	2.8899
790386	67.80	68.80	1.00	0.008	4% qz veins w tm haloes; tr dis/vein-hosted py	MV	1.00	1056	1644	2.7959
790387	68.80	69.80	1.00	0.001	3% qz veins w tm/ch haloes; tr vein-hosted py/cp	MV	1.00	1108	1732	2.7756
790388	69.80	70.80	1.00	0.097	1% qz veins w tm/ch haloes; tr dis py in host	MV	1.00	1044	1624	2.8
790389	80.80	81.80	1.00	0.001	Tr qz/cb veins; weak to mod silicification	MV	1.00	1046	1646	2.7433
790390	81.80	82.80	1.00	0.001	Tr qz/cb veins	MV	1.00	1070	1660	2.8136
790391	82.80	84.00	1.20	0.008	0.5% qz/cb veins (some w ser haloes); tr dis py in host	MIG	1.20	1442	2142	3.06
790392	84.00	85.00	1.00	0.001	1% qz/cb veins	MIG	1.00	1240	1842	3.0598
790393	85.00	86.50	1.50	0.001	1% qz/cb veins w ser alt	MIG	1.50	1798	2694	3.0067
790394	86.50	88.00	1.50	0.001	2% qz and qz/cb veins; tr vein-hosted py	MIG	1.50	1892	2818	3.0432
790395	88.00	89.50	1.50	0.001	2% qz and qz/cb veins; tr dis py in host	MIG	1.50	1874	2774	3.0822
790396	89.50	91.00	1.50	0.001	1% qz/cb veins; tr dis py in host	MIG	1.50	1826	2724	3.0334

SAMPLE & SPECIFIC GRAVITY LOGS										
Hole ID: KAS-18-12		Sampled by: JJ/DG			DATE: 24/June/2018					
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)				
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG
790397	91.00	92.50	1.50	0.001	1% qz and qz/cb veins (some ser haloes); tr dis py in host	MIG	1.50	1894	2816	3.0542
790398	92.50	94.00	1.50	0.007	4% qz and qz/cb veins; tr dis/vein-hosted py	MIG	1.50	1846	2772	2.9935
790399	94.00	95.00	1.00	0.005	Tr qz/cb veins; tr dis py in host	MIG	1.00	1190	1774	3.0377
790400	95.00	96.00	1.00	0.001	5% qz/cb veins; tr dis py in host	MIG	1.00	1258	1872	3.0489
790401					Blank					
790402	96.00	97.40	1.40	0.001	2% qz and qz/cb veins	MIG	1.40	1752	2610	3.042
790403	97.40	98.50	1.10	0.001	1% qz/cb veins; tr dis py in host	MIG	1.10	1350	2012	3.0393
790404	98.50	99.60	1.10	0.009	1% qz and qz/cb veins; 1% dis/blebby po; 0.5% dis/vein-hosted py	MIG	1.10	1520	2274	3.0159
790405				1.58 g/t	Standard					
790406	99.60	100.50	0.90	0.191	30% qz and qz/cb veins; 0.2% dis/vein-hosted py; tr vein-hosted po	MIG	0.90	984	1468	3.0331
790407	100.50	101.50	1.00	0.028	3% qz/cb veins; tr dis/vein-hosted py	MIG	1.00	1412	2080	3.1138
790408	101.50	102.50	1.00	0.042	0.5% qz/cb veins	SBm	1.00	1140	1694	3.0578
790409	102.50	103.50	1.00	0.178	0.5% qz/cb veins; tr dis py in host	SBm	1.00	590	874	3.0775
790410	102.50	103.50	1.00	Duplicate	Duplicate of 790409	SBm	1.00	548	808	3.1077
790411	103.50	104.50	1.00	0.076	Tr qz/cb veins	SBm	1.00	1262	1876	3.0554
790412	104.50	105.50	1.00	0.268	1% qz/cb veins; tr dis py in host	SBm	1.00	1184	1782	2.9799
790413	105.50	106.50	1.00	0.114	0.5% qz/cb veins; 4% dis/blebby po	SB\$\$	1.00	1234	1822	3.0986
790414	106.50	107.50	1.00	0.023	Tr qz/cb veins; 3% blebby/vein-hosted po	SB\$\$	1.00	1260	1892	2.9937
790415	107.50	108.50	1.00	0.03	1% qz/cb veins; 2% dis/blebby po; tr dis py in host	SB\$\$	1.00	1242	1852	3.0361
790416	108.50	109.50	1.00	0.067	0.5% qz/cb veins	SBm	1.00	1250	1866	3.0292

SAMPLE & SPECIFIC GRAVITY LOGS										
Hole ID:	KAS-18-12		Sampled by:		JJ/DG		DATE:		24/June/2018	
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)				
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG
790417	109.50	110.50	1.00	0.171	0.5% qz/cb veins	SBm	1.00	1240	1840	3.0667
790418	110.50	111.50	1.00	0.477	Tr qz/cb veins	SBm	1.00	1234	1844	3.023
790419	111.50	112.50	1.00	0.049	3% qz/cb veins	SBm	1.00	1256	1876	3.0258
790420	112.50	113.40	0.90	0.018	Tr qz/cb veins; tr dis py in host	SBm	0.90	1024	1544	2.9692
790421	113.40	114.40	1.00	0.119	0.5% qz/cb veins; 0.5% blebby/vein-hosted py; tr dis po in host	SBm	1.00	1330	2006	2.9675
790422	114.40	115.40	1.00	1.48	1% qz/cb veins; 0.3% dis po in host	SBm	1.00	1220	1806	3.0819
790423					Blank					
790424	115.40	116.40	1.00	4.99	15% qz veins w ser/ch haloes; tr qz/cb veins; 5% dis/vein-hosted/semi-massive po; 1% dis/vein-hosted py	SB\$\$	1.00	1290	1948	2.9605
790425	116.40	117.30	0.90	2.9	25% qz veins w ch alt; tr qz/cb veins; 3% dis/vein-hosted/bands of po; tr dis/vein-hosted py	SB\$\$	0.90	984	1472	3.0164
790426					Blank					
790427	117.30	118.60	1.30	0.081	2% qz and qz/cb veins; 1% dis/vein-hosted po; tr dis py in host	SB\$\$	1.30	1756	2620	3.0324
790428	118.60	119.50	0.90	0.583	2% qz and qz/cb veins; 0.3% dis/thinly banded po	MIG	0.90	1128	1662	3.1124
790429	119.50	121.00	1.50	0.088	0.5% qz and qz/cb veins; tr dis py in host	MIG	1.50	1938	2850	3.125
790430				6.66 g/t	Standard					
790431	121.00	122.50	1.50	0.037	4% qz/cb veins; tr dis py in host	MIG	1.50	1892	2812	3.0565
790432	122.50	124.00	1.50	0.006	2% qz and qz/cb veins; tr dis py in host	MIG	1.50	1912	2834	3.0738
790433	124.00	125.50	1.50	0.487	Tr qz/cb veins; tr dis py in host	MIG	1.50	1864	2782	3.0305
790434	125.50	127.00	1.50	0.922	2% qz and qz/cb veins; tr dis/vein-hosted py	MIG	1.50	1842	2738	3.0558

SAMPLE & SPECIFIC GRAVITY LOGS										
Hole ID: KAS-18-12		Sampled by: JJ/DG			DATE: 24/June/2018					
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)				
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG
790435	127.00	128.50	1.50	0.016	2% qz/cb veins; tr dis py in host	MIG	1.50	2014	2974	3.0979
790436	128.50	130.00	1.50	0.012	2% qz and qz/cb veins; tr dis/vein-hosted py	MIG	1.50	2034	2980	3.1501
790437	130.00	131.50	1.50	0.015	1% qz and qz/cb veins (some hm alt); tr dis py in host	MIG	1.50	1954	2874	3.1239
790438	131.50	133.00	1.50	0.063	0.5% qz and qz/cb veins; prv ser(?)/hm alt	MIG	1.50	1794	2692	2.9978
790439	133.00	134.50	1.50	0.064	Tr qz/cb veins; prv ser(?) alt	MIG	1.50	1906	2824	3.0763
790440	134.50	136.00	1.50	0.047	Tr qz/cb veins (some hm haloes); prv ser(?) alt	MIG	1.50	1922	2876	3.0147
790441	136.00	137.50	1.50	0.028	3% qz/ser(?) vein/stockwork; some hm haloes	MIG	1.50	1954	2942	2.9777
790442	137.50	139.00	1.50	0.031	3% qz/ser(?) vein/stockwork; some hm haloes; tr dis py in host	MIG	1.50	1816	2742	2.9611
790443	139.00	140.50	1.50	0.013	5% qz/ser(?) vein/stockwork; some hm haloes	MIG	1.50	1766	2684	2.9237

LOGGED BY:	JJ	Magnetic Declination:	5.54 West		Equipment:	Reflex			
BHID	Depth (m)	Dip (neg.)	Az (TN)	Az (Mag)	Az (NAD83)	Az (NAD83) Used	Mag Sus (nT)	DDH Ref	Geo/Driller Comments
KAS-18-12	0	-74.1	181.58		179.54	179.50		APS	Dip Estimated
KAS-18-12	31	-72.6		190.70	185.16	180.28	58590.00	Reflex	
KAS-18-12	61	-70.3		191.70	186.16	181.03	58101.00	Reflex	
KAS-18-12	91	-66.0		194.60	189.06	181.78	58309.00	Reflex	
KAS-18-12	124	-65.0		196.00	190.46	182.60	56637.00	Reflex	
KAS-18-12	140.5	-64.5		193.20	187.66	183.01	59260.00	Reflex	



Project:	Pickle Lake		
Prospect:	Kas Lake		
Claim #:	319583 (legacy claim 4207)		
Hole ID:	KAS-18-13		
Start Date:	17/June/2018		
End Date:	19/June/2018		
EOH Depth:	115m		
Datum/Proj:	Nad83	Zone 15	
UTM North:	5683227.511	m	
UTM East:	682548.625	m	
Elevation:	379.6	m	
Dip:	-50	at setup	
Az:	212.05TN	at setup	
Collar Survey Method:	APS		
Surveyed by:	DG		
Drill Co:	M3 Drilling		
Drill Rig:	JKS300		
m From	m To	Hole Size	Drill Type
0	27	BW	Casing
0	115	BTW	Rods
Drill comments (issues, casing, gear in hole): Unable to remove casing after drilling. Collar survey taken at end of hole (rods sitting on bottom of hole with footclamp disengaged)			
Geology comments: Intersected mineralized Banded Iron Formation			

GEOLOGICAL CORE LOG

Hole ID: KAS-18-13

EOH called by: Dan Grabiec

Date Logged: 25/June/2018

Geologist: JJ

From (m)	To (m)	Int (m)	Lithology 1	Vn Type	Vn Pct	Pyrite %	Pyrrhotite %	Comments
0.00	26.40	26.40	OB					
26.40	34.30	7.90	MV	QZCC	2	0.10		80% Green-grey strongly foliated/banded Mafic Volcanic with 20% grey Intermediate Volcanic bands (0.5-20 cm wide), distinguished via FS content (5% vs 25% respectively). Overall 35% aph mafic groundmass (green/black; could be BT/CH/HB) 25% QZ (0.5-2 mm; clear) 15% BT (aph to 2 mm; strong fol) 15% CH (aph to 2 mm; mod to strong fol; mostly in bands alternating with BT-rich zones in MV) 10% FS (0.5-3 mm; white; anhedral; boudinaged by foliation). 2% QZ and QZ/CB veins (0.1-3 cm; some w SER haloes). Tr dis/vein-hosted PY. Fault gouges at 28.0 and 28.6 m.
34.30	42.50	8.20	MV	QZCC	2	0.10		Grey-green strongly foliated/banded Mafic Volcanic. 35% QZ (clear; flooding/discontinuous veins along foliation) 30% aph mafic groundmass (green/black; could be CH/BT/HB) 20% CH (green; aph to 1 mm; strongly fol) 10% BT (brown; aph to 1 mm; strongly fol) 5% FS (0.1-1.0 mm; white) 2% QZ and QZ/CB veins (SER haloes; some CH haloes). Tr dis PY. SER stockwork at 36.6-37.0 m and 40.0-41.0 m.
42.50	43.00	0.50	MP	QZCC	0.1			Dark grey/green moderately foliated non-banded Mafic Intrusive. 35% QZ (0.2-2.0 mm; clear; could be flooding) 35% aph mafic groundmass (green/brown; could be BT/CH/HB) 20% CH (aph to 1 mm; mod fol) 10% BT (brown/black; aph to 1 mm; weak to mod fol). Tr QZ/CB veins w SER haloes.
43.00	62.60	19.60	MV	QZ	2	0.10		Grey-green strongly foliated/banded Mafic Volcanic. Strongly silicified area at end of unit seen in holes 1-10 not present (weak silicification at 61.5-62.3 m looks somewhat similar). 35% aph mafic groundmass (green/black; could be CH/BT/HB) 25% QZ (clear; flooding/discontinuous veins along foliation) 20% CH (green; aph to 2 mm; strongly fol) 10% FS (0.1-1.0 mm; white; fine-grained and altered to light green/yellow in areas - may not be FS?) 10% BT (brown; aph to 1 mm; weak to strong fol) 2% QZ veins (0.1-7.0 cm; some CH/TM haloes; few HM haloes). Tr GT (1-6 mm; red) Tr dis/vein-hosted PY. Fault gouge at 56.9 m. SER stockwork at 44.6-45.2 m. 15% QZ veins at 45.8-46.3 m (TM/CH haloes and 1% vein hosted PY).
62.60	75.10	12.50	MIG	QZ	3	0.10	0.10	Green weakly to strongly foliated Mafic Intrusive. Coarser grained than above; mottled texture at top grades to strong foliation at bottom. 35% CH (0.5-5 mm; platy; weakly to strongly foliated; wrap around QZ) 30% QZ (flooding/discontinuous veins/amygdules; form 1-10 mm discontinuous bands at 69.5 m onwards; <0.5 mm qz/cb rims around amygdules) 15% aph mafic groundmass (green/black; some CH; could also be BT/HB) 10% FS (0.2-1.0 mm; white; fine-grained and altered to light green/yellow in areas - may not be FS?) 10% BT (aph to 1 mm; brown; weakly foliated; largely in bands) 3% QZ and QZ/CB veins (0.1-3.0 cm veins; few SER haloes) Tr dis/vein-hosted PY/PO. Light grey/green (SER?) stockwork at 67.7-67.9 m.
75.10	90.00	14.90	SBm	QZCC	3	0.10	0.10	Dark grey strongly foliated Banded Iron Formation. 70% of rock mod to strongly magnetic. 35% QZ (chert and/or discontinuous veins/flooding) 25% CH (aph to 2.0 mm; green; mod to strong fol; wrap around QZ) 10% FS (0.2-1 mm; white; fine-grained and altered to light green/yellow in areas - may not be FS?) 10% aph mafic mins (including MT) 7% MT (0.1-1.0 mm) 5% BT (0.1-1.0 mm; brown) 5% GT (0.5-7 mm; red; ranges from 0-20%; 80% of unit is GT-bearing) 3% QZ and QZ/CB veins (0.1-10 cm). Tr dis/vein-hosted PY/PO (no GT in mineralized zone).
90.00	91.10	1.10	MIG	QZCC	0.5	0.10	0.10	Dark grey moderately to strongly foliated Mafic Intrusive. 5% of unit mod magnetic. 35% CH (aph to 2 mm; green; mod to strong fol; wrap around QZ) 25% QZ (chert and/or flooding/discontinuous veins) 25% aph mafic minerals (green/black; could be CH/BT/HB/MT) 10% FS (0.2-1.0 mm; white) 5% BT (aph to 1 mm; brown; mod to strong fol) 0.5% QZ/CB veins (0.5-10 mm; few SER haloes) Tr dis PY/PO.
91.10	92.00	0.90	SBm	QZCC	2	0.10		Dark grey strongly foliated Banded Iron Formation. 70% of rock mod to strongly magnetic. 55% QZ (chert and/or discontinuous veins/flooding) 25% CH (aph to 2.0 mm; green; mod to strong fol; wrap around QZ) 10% aph mafic mins (including MT) 5% FS (0.2-1 mm) 5% BT (0.1-1.0 mm; brown) 1% MT (0.1-1.0 mm). 2% QZ and QZ/CB veins (0.1-2.0 cm; SER CH alt). Tr dis PY.

GEOLOGICAL CORE LOG

Hole ID: KAS-18-13

EOH called by: Dan Grabiec

Date Logged: 25/June/2018

Geologist: JJ

From (m)	To (m)	Int (m)	Lithology 1	Vn Type	Vn Pct	Pyrite %	Pyrrhotite %	Comments
92.00	115.00	23.00	MIG	QZCC	4	0.10		Dark grey moderately to strongly foliated Mafic Intrusive. 10% of unit weakly to mod magnetic. 25% QZ (chert and/or flooding/discontinuous veins) 20% aph mafic minerals (green/black; could be CH/BT/HB/MT) 20% CH (aph to 2 mm; green; mod to strong fol; wrap around QZ) 20% BT (aph to 2 mm; brown; mod to strong fol) 10% FS (0.2-1.00 mm; white; fine-grained and altered to light green/yellow in areas - may not all be FS) 4% QZ and QZ/CB veining (0.1-25 cm; some w SER/CH alt; few with TM/HM alt) Tr dis/vein-hosted PY. Quartz flooded zone at 128.1-128.2 m. Highly fractured "rubble zone" at 98.5-99.0 m.
115	EOH							

STRUCTURAL CORE LOG

Hole ID: KAS-18-13

Date Logged: 25/June/2018

Geologist: JJ

Core Data

From (m)	To (m)	Interval (m)	Rock Type	Structure Type	Foliation (TCA)	Other (TCA)	Struc. Intensity
0.00	1.50	1.50	OB				
32.00	32.10	0.10	MV	Fol	47		S
34.30	34.30	0.00	MV/MV	Ct		48	S
39.00	39.10	0.10	MV	Fol	48		S
42.50	42.50	0.00	MV/MP	Ct		46	S
43.00	43.00	0.00	MP/MV	Ct		48	S
48.00	48.10	0.10	MV	Fol	52		S
55.90	56.00	0.10	MV	Fol	57		S
61.90	62.00	0.10	MV	Fol	64		S
62.60	62.60	0.00	MV/MIG	Ct		58	S
69.00	69.10	0.10	MIG	Fol	54		M
75.10	75.10	0.00	MIG/SBm	Ct		38	S
77.00	77.10	0.10	SBm	Fol	45		S
80.90	81.00	0.10	SBm	Fol	50		S
83.90	84.00	0.10	SBm	Fol	56		S
87.00	87.10	0.10	SBm	Fol	58		S
90.00	90.00	0.00	SBm/MIG	Ct		56	S
91.10	91.10	0.00	MIG/SBm	Ct		57	S
92.00	92.00	0.00	SBm/MIG	Ct		57	S
99.90	100.00	0.10	MIG	Fol	67		S
107.00	107.10	0.10	MIG	Fol	53		S
113.00	113.10	0.10	MIG	Fol	57		S

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-1	Sampled by:			JJ/DG	DATE:	25/June/2018				
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
790444	60.50	61.50	1.00	0.009	Some quartz flooding; 0.5% qz/cb veins	MV	1.00	1042	1636	2.7542	
790445	61.50	62.60	1.10	0.011	Some quartz flooding/silicification; tr dis py in host	MV	1.10	1210	1894	2.769	
790446	62.60	64.00	1.40	0.012	2% qz/cb veins (some ser haloes); tr dis/vein-hosted py	MIG	1.40	1676	2492	3.0539	
790447	64.00	65.50	1.50	0.001	3% qz and qz/cb veins; tr dis py in host	MIG	1.50	1908	2846	3.0341	
790448	65.50	67.00	1.50	0.009	1% qz and qz/cb veins; tr dis py/po in host	MIG	1.50	1886	2814	3.0323	
790449	67.00	68.50	1.50	0.012	2% qz/cb veins (some ser haloes); 0.5% grey-green stockwork (ser?); tr dis py in host	MIG	1.50	1814	2722	2.9978	
790450	68.50	70.00	1.50	0.001	2% qz and qz/cb veins (some ser/tm haloes); tr dis/vein-hosted py	MIG	1.50	1840	2748	3.0264	
790451					Blank						
790452	70.00	71.50	1.50	0.032	1% qz and qz/cb veins (some ser/tm haloes); tr dis py in host	MIG	1.50	1918	2842	3.0758	
790453	71.50	73.00	1.50	0.026	5% qz and qz/cb veins; tr dis/vein-hosted py	MIG	1.50	1750	2624	3.0023	
790454	73.00	74.00	1.00	0.015	3% qz and qz/cb veins; tr dis py in host	MIG	1.00	1296	1922	3.0703	
790455				1.58 g/t	Standard						
790456	74.00	75.10	1.10	0.015	1% qz/cb veins; tr dis py in host	MIG	1.10	1456	2136	3.1412	
790457	75.10	76.00	0.90	0.008	3% qz/cb veins; tr dis py in host	SBm	0.90	1088	1630	3.0074	
790458	76.00	77.00	1.00	0.001	1% qz/cb veins; tr vein-hosted py	SBm	1.00	1270	1900	3.0159	
790459	77.00	78.00	1.00	0.012	1% qz and qz/cb veins; tr dis py in host	SBm	1.00	472	700	3.0702	
790460	77.00	78.00	1.00	Duplicate	Duplicate of 790460	SBm	1.00	516	766	3.064	
790461	78.00	79.00	1.00	0.027	4% qz and qz/cb veins; tr dis/vein-hosted py	SBm	1.00	1444	2172	2.9835	

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-1	Sampled by:			JJ/DG	DATE:	25/June/2018				
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
790462	79.00	80.00	1.00	0.093	1% qz/cb veins; tr dis/blebby py in host	SBm	1.00	1072	1608	3	
790463	80.00	81.00	1.00	0.047	1% qz/cb veins	SBm	1.00	1340	2000	3.0303	
790464	81.00	82.00	1.00	0.519	2% qz/cb veins; tr vein-hosted py	SBm	1.00	1218	1812	3.0505	
790465	82.00	83.00	1.00	3.66	5% qz and qz/cb veins; tr dis/vein-hosted py	SBm	1.00	1270	1902	3.0095	
790466					Blank						
790467	83.00	84.00	1.00	3.41	4% qz and qz/cb veins; 2% dis/vein-hosted/blebby py	SBm	1.00	1206	1824	2.9515	
790468	84.00	85.00	1.00	0.89	2% qz/cb veins; 0.3% dis py	SBm	1.00	1214	1814	3.0233	
790469	85.00	86.00	1.00	0.066	0.5% qz/cb veins; tr dis py in host	SBm	1.00	1186	1786	2.9767	
790470	86.00	87.00	1.00	0.173	1% qz/cb veins; tr dis py in host	SBm	1.00	1146	1724	2.9827	
790471	87.00	88.00	1.00	0.764	2% qz/cb veins; tr dis py in host	SBm	1.00	1276	1906	3.0254	
790472	88.00	89.00	1.00	0.258	1% qz/cb veins; tr dis py/po in host	SBm	1.00	1052	1562	3.0627	
790473	89.00	90.00	1.00	0.385	2% qz/cb veins; tr dis py in host	SBm	1.00	1396	2048	3.1411	
790474	90.00	91.10	1.10	0.012	Tr qz/cb veins (some ch haloes); tr dis py in host	MIG	1.10	1516	2226	3.1352	
790475	91.10	92.00	0.90	0.039	2% qz and qz/cb veins; tr dis py in host	SBm	0.90	1106	1684	2.9135	
790476					Blank						
790477	92.00	93.00	1.00	0.062	1% qz veins; tr qz/cb veins	MIG	1.00	1284	1872	3.1837	
790478	93.00	94.00	1.00	0.077	10% qz/cb veins (some w ser/ch alt)	MIG	1.00	1218	1816	3.0368	
790479	94.00	95.50	1.50	0.088	5% qz and qz/cb veins; tr dis py in host	MIG	1.50	1888	2814	3.0389	
790480				6.66 g/t	Standard						
790481	95.50	97.00	1.50	0.061	2% qz /cb veins; tr dis py in host	MIG	1.50	1810	2682	3.0757	
790482	97.00	98.50	1.50	0.513	8% qz veins/qz flooding; tr qz/cb veins; 0.5% dis/vein-hosted/blebby py	MIG	1.50	1884	2800	3.0568	
790483	98.50	100.00	1.50	0.011	4% qz and qz/cb veins; some ch/ser haloes; tr dis/vein-hosted py	MIG	1.50	1812	2684	3.078	

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-1	Sampled by: JJ/DG			DATE:	25/June/2018					
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
790484	100.00	101.50	1.50	0.001	25% qz veins (some w ser/ch alt); dis/vein-hosted py	MIG	1.50	1902	2822	3.0674	
790485	101.50	103.00	1.50	0.008	1% qz/cb veins; tr dis py in host	MIG	1.50	1970	2886	3.1507	
790486	103.00	104.50	1.50	0.005	1% qz/cb veins (some ch haloes; few hm haloes); tr dis/vein-hosted py	MIG	1.50	1990	2914	3.1537	
790487	104.50	106.00	1.50	0.006	1% qz/cb veins; tr dis/vein-hosted py	MIG	1.50	1936	2858	3.0998	
790488	106.00	107.50	1.50	0.118	2% qz veins (some ser haloes; few tm haloes); tr vein-hosted py	MIG	1.50	2030	2958	3.1875	
790489	107.50	109.00	1.50	0.007	1% qz and qz/cb veins; tr dis py in host	MIG	1.50	2022	2964	3.1465	
790490	109.00	110.50	1.50	0.012	20 cm qz flooding; tr qz/cb veins; tr vein-hosted py	MIG	1.50	1926	2834	3.1211	
790491	110.50	112.00	1.50	0.048	1% qz and qz/cb veins (ser haloes); tr dis/vein-hosted py	MIG	1.50	2086	3058	3.1461	
790492	112.00	113.50	1.50	1.25	15% qz and qz/cb veins (some ser/ch haloes)	MIG	1.50	1740	2600	3.0233	
790493	113.50	115.00	1.50	0.049	3% qz and qz/cb veins (some ser/ch haloes)	MIG	1.50	1798	2706	2.9802	

Project:	Pickle Lake		
Prospect:	Kas Lake		
Claim #:	319583 (legacy claim 420779)		
Hole ID:	KAS-18-14		
Start Date:	19/June/2018		
End Date:	20/June/2018		
EOH Depth:	113.5m		
	Datum/Proj:	Nad83	Zone 15
	UTM North:	5683227.511	m
	UTM East:	682548.625	m
	Elevation:	379.6	m
	Dip:	-62	at setup
	Az:	210.88	at setup
	Collar Survey Method:	APS	
	Surveyed by:	DG	
Drill Co:	M3 Drilling		
Drill Rig:	JKS300		
m From	m To	Hole Size	Drill Type
0	20.5	BW	Casing
0	113.5	BTW	Rods
Drill comments (issues, casing, gear in hole): Unable to remove casing because of difficult overburden conditions. Collar survey taken at end of hole (rods sitting on bottom of hole with footclamp disengaged)			
Geology comments: Intersected mineralized Banded Iron Formation			

GEOLOGICAL CORE LOG

Hole ID: KAS-18-14

Date Logged: 26/June/2018

EOH Reason: Drilled through Iron Formation into Mafic Intrusive

Geologist: JJ

From (m)	To (m)	Int (m)	Lithology 1	Major Vn Typ	Vn Pct	Pyrite %	Pyrrhotite %	Comments
0.00	19.80	19.80	OB					
19.80	43.20	23.40	MV	QZ	3	0.10		70% Green-grey strongly foliated/banded Mafic Volcanic with 30% grey Intermediate Volcanic bands (0.5-30 cm wide), distinguished via FS content (5% vs 25% respectively). Overall 30% aph mafic groundmass (green/black; could be BT/CH/HB) 30% QZ (0.5-2 mm; clear) 20% BT (aph to 2 mm; strong fol) 10% CH (aph to 2 mm; mod to strong fol; mostly in bands alternating with BT-rich zones in MV) 10% FS (0.5-3 mm; white; anhedral; boudinaged by foliation). 3% QZ and QZ/CB veins (0.1-8 cm; some w SER haloes). Tr dis/vein-hosted PY. Orange (HM?) alt at 32.2-32.6 m; 34.6-34.9 m; 35.6-35.9 m. Weak SER stockwork at 22.3-22.8 m; strong SER stockwork at 41.5-41.6 m.
43.20	47.80	4.60	MV	QZ	3	0.10		Grey-green strongly foliated/banded Mafic Volcanic. 35% QZ (clear; flooding/discontinuous veins along foliation) 20% aph mafic groundmass (green/black; could be CH/BT/HB) 20% CH (green; aph to 1 mm; strongly fol) 20% BT (brown; aph to 1 mm; strongly fol) 5% FS (0.1-2.0 mm; white) 3% QZ and QZ/CB veins (SER haloes). Tr dis PY. Weak SER stockwork at 45.9-46.2 m and 47.1-47.3 m.
47.80	48.20	0.40	MP	QZCC	1			Dark grey/green moderately foliated non-banded Mafic Intrusive. 35% QZ (0.2-2.0 mm; clear; could be flooding) 30% aph mafic groundmass (green/brown; could be BT/CH/HB) 20% BT (brown/black; aph to 1 mm; weak to mod fol) 15% CH (aph to 1 mm; mod fol). 1% QZ/CB veins w SER haloes.
48.20	71.30	23.10	MV	QZ	3	0.10		Grey-green strongly foliated/banded Mafic Volcanic. Moderately silicified area at 70.0-70.3 m (similar to strongly silicified zone seen in holes 1-10). 30% aph mafic groundmass (green/black; could be CH/BT/HB) 30% QZ (clear; flooding/discontinuous veins along foliation) 15% CH (green; aph to 2 mm; strongly fol) 15% FS (0.1-1.0 mm; white; fine-grained and altered to light green/yellow in areas - may not be FS?) 10% BT (brown; aph to 1 mm; weak to strong fol) 3% QZ and QZ/CB veins (0.1-7.0 cm; some CH haloes; few TM haloes). Tr GT (1-10 mm; red) Tr dis/vein-hosted PY. 10% QZ veins at 57.9-60.0 m (CH haloes; TM haloes/massive alt; 0.2% vein-hosted PY).
71.30	85.60	14.30	MIG	QZ	3	0.10	0.10	Green weakly to strongly foliated Mafic Intrusive. Coarser grained than above; mottled texture at top grades to strong foliation at bottom. 30% CH (0.5-5 mm; platy; weakly to strongly foliated; wrap around QZ) 30% QZ (flooding/discontinuous veins/amygdules; form 1-10 mm discontinuous bands at 79.0 m onwards; <0.5 mm qz/cb rims around amygdules) 15% aph mafic groundmass (green/black; could be CH/BT/HB) 15% FS (0.2-1.0 mm; white; fine-grained and altered to light green/yellow in areas - may not be FS?) 10% BT (aph to 1 mm; brown; weakly foliated; some is banded) 3% QZ and QZ/CB veins (0.1-15.0 cm veins; few SER haloes) Tr dis/vein-hosted PY; tr dis PO. Light grey/green (SER?) stockwork at 75.8-76.1 m.
85.60	99.90	14.30	SBm	QZCC	3	0.10	0.10	Dark grey strongly foliated Banded Iron Formation. 70% of rock mod to strongly magnetic. 35% QZ (chert and/or discontinuous veins/flooding) 30% aph mafic mins (including MT) 10% CH (aph to 2.0 mm; green; mod to strong fol; wrap around QZ) 15% FS (0.2-1 mm; white; fine-grained and altered to light green/yellow in areas - may not be FS?) 4% MT (0.1-1.0 mm; more in aph groundmass) 3% GT (0.5-7 mm; red; ranges from 0-10%; 70% of unit is GT-bearing) 3% QZ and QZ/CB veins (0.1-4.0 cm). Tr dis/vein-hosted PY/PO (little to no GT in mineralized zone at 93.7-94.0 m).
99.90	101.70	1.80	SB\$\$	QZCC	1	0.20	4.00	Dark grey strongly foliated Banded Iron Formation. 60% of rock mod to strongly magnetic. 35% QZ (chert and/or discontinuous veins/flooding) 30% aph mafic mins (including MT) 15% CH (aph to 2.0 mm; green; mod to strong fol; wrap around QZ) 15% FS (0.2-1 mm; white; fine-grained and altered to light green/yellow in areas - may not be FS?) 3% GT (0.5-3 mm; red) 2% MT (0.1-0.5 mm; more in aph groundmass) 1% QZ/CB veins (1-10 mm). 4% dis/vein-hosted/banded PO; 0.2% banded PY.
101.70	107.50	5.80	MIG	QZCC	5	0.10	0.10	Dark grey moderately to strongly foliated Mafic Intrusive. 10% of unit weakly to mod magnetic. 35% QZ (chert and/or flooding/discontinuous veins) 25% aph mafic minerals (green/black; could be CH/BT/HB/MT) 20% CH (aph to 2 mm; green; mod to strong fol) 10% FS (0.2-1.0 mm; white) 5% BT (aph to 1 mm; brown; mod to strong fol) 5% QZ and QZ/CB veins (0.1-12 cm; some CH/SER alt). Tr dis/banded PO; tr dis PY.

GEOLOGICAL CORE LOG

Hole ID: KAS-18-14

Date Logged: 26/June/2018

EOH Reason: Drilled through Iron Formation into Mafic Intrusive

Geologist: JJ								
107.50	108.30	0.80	SBm	QZCC	1	0.10		Dark grey strongly foliated Banded Iron Formation. 60% of rock mod to strongly magnetic. 35% QZ (chert and/or discontinuous veins/flooding) 25% aph mafic mins (including MT) 25% BT (aph to 1 mm; strong fol; largely in bands) 10% CH (aph to 2.0 mm; green; mod to strong fol) 2% MT (aph to 0.5 mm; more in aph groundmass) 1% QZ/CB veins (1-10 mm). Tr dis PY.
108.30	113.50	5.20	MIG	QZCC	2	0.10	0.10	Dark grey moderately to strongly foliated Mafic Intrusive. 20% of unit weakly to mod magnetic. 35% QZ (chert and/or flooding/discontinuous veins) 35% aph mafic minerals (green/black; could be CH/BT/HB/MT) 15% BT (aph to 1 mm; brown; mod to strong fol) 10% CH (aph to 2 mm; green; mod to strong fol) 5% FS (0.2-1.0 mm; white) 2% QZ and QZ/CB veins (0.1-12 cm; CH/SER alt). Tr dis/banded PO; tr dis PY.
113.5	EOH							

STRUCTURAL CORE LOG

Hole ID: KAS-18-14

Date Logged: 26/June/2018

Geologist: JJ

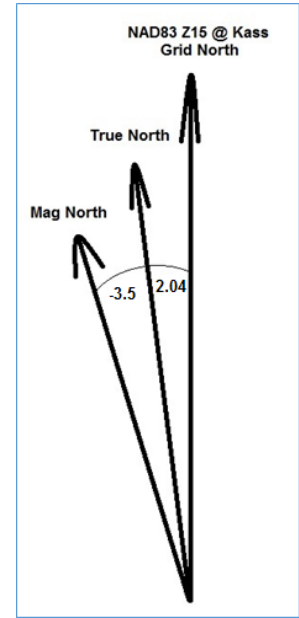
Core Data							
Depth From	Depth To (m)	Interval (m)	Rock Type	Structure Type	Foliation (TCA)	Other (TCA)	Struc. Intensity
0.00	19.80	19.80	OB				
25.00	25.10	0.10	IV	Fol	38		S
28.10	28.20	0.10	MV	Fol	37		S
32.00	32.10	0.10	MV	Fol	44		S
37.00	37.10	0.10	IV	Fol	37		S
41.00	41.10	0.10	MV	Fol	32		S
45.90	46.00	0.10	MV	Fol	37		S
47.80	47.80	0.00	MV/MP	Ct		40	S
48.20	48.20	0.00	MP/MV	Ct		52	S
53.00	53.10	0.10	MV	Fol	47		S
61.90	62.00	0.10	MV	Fol	47		S
66.00	66.10	0.10	MV	Fol	46		S
71.30	71.30	0.00	MV/MIG	Ct		44	S
74.90	75.00	0.10	MIG	Fol	48		M
83.00	83.10	0.10	MIG	Fol	45		S
90.00	90.10	0.10	SBm	Fol	44		S
92.00	92.10	0.10	SBm	Fol	44		S
95.00	95.10	0.10	SBm	Fol	50		S
99.00	99.10	0.10	SBm	Fol	53		S
101.70	101.70	0.00	SB\$/MIG	Ct		44	S
108.30	108.30	0.00	SBm/MIG	Ct		48	S
109.90	110.00	0.10	MIG	Fol	48		M
113.5	EOH						

SAMPLE & SPECIFIC GRAVITY LOGS										
Hole ID:	KAS-18-14	Sampled by:	JJ/DG	DATE:	26/June/2018					
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)				
			0.00			Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG
790494	56.9	57.9	1.00	0.001	2% qz and qz/cb veins; tr dis py in host	MV	1.00	1110	1742	2.7563
790495	57.90	58.90	1.00	0.001	3% qz veins w tm haloes; tr dis py in host	MV	1.00	1094	1702	2.7993
790496	58.90	60.00	1.10	0.001	3% qz veins w tm/ch haloes; tr dis py in host	MV	1.10	1246	1922	2.8432
790497	60.00	61.00	1.00	0.001	3% qz veins w tm-ch haloes; tr dis py in host	MV	1.00	1026	1610	2.7568
790498	69.30	70.30	1.00	0.001	Moderate silicification; 1% qz/cb veins	MV	1.00	1070	1706	2.6824
790499	70.30	71.30	1.00	0.01	Moderate silicification	MV	1.00	894	1400	2.7668
790500	71.30	72.30	1.00	0.014	1% qz/cb veins (some w ch alt); tr vein-hosted py	MIG	1.00	1320	1962	3.0561
759501					Blank					
759502	72.30	73.30	1.00	0.001	0.5% qz/cb veins (some w ch/ser alt); tr dis py/po	MIG	1.00	1236	1852	3.0065
759503	73.30	74.50	1.20	0.001	0.5% qz/cb veins (some w ch/ser alt); tr dis py/po	MIG	1.20	1540	2300	3.0263
759504	74.50	76.00	1.50	0.006	1% qz/cb veins; 1% grey/green stockwork (ser?); tr py/po in host	MIG	1.50	2046	3064	3.0098
759505				1.58 g/t	Standard					
759506	76.00	77.50	1.50	0.001	5% qz and qz/cb veins; tr dis py in host	MIG	1.50	1872	2812	2.9915
759507	77.50	79.00	1.50	0.007	1% qz/cb veins; tr dis py in host	MIG	1.50	2060	3084	3.0117
759508	79.00	80.50	1.50	0.005	15% qz veins; tr dis py in host	MIG	1.50	1566	2338	3.0285
759509	80.50	82.00	1.50	0.052	4% qz and qz/cb veins; tr dis/vein-hosted py	MIG	1.50	972	1450	3.0335
759510	80.50	82.00	1.50	Duplicate	Duplicate of 759509	MIG	1.50	934	1392	3.0393
759511	82.00	83.50	1.50	0.008	4% qz and qz/cb veins; tr dis/vein-hosted py	MIG	1.50	1842	2744	3.0421

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-14			Sampled by:	JJ/DG		DATE:	26/June/2018			
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
			0.00			Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
759512	83.50	84.50	1.00	0.007	10% qz and qz/cb veins; tr dis py/po in host	MIG	1.00	1210	1800	3.0508	
759513	84.50	85.50	1.00	0.026	3% qz and qz/cb veins; tr dis py in host	MIG	1.00	1474	2172	3.1117	
759514	85.50	86.50	1.00	0.529	2% qz/cb veins; tr dis py/po in host	SBm	1.00	1200	1784	3.0548	
759515	86.50	88.00	1.50	0.303	4% qz and qz/cb veins; tr dis/vein-hosted po; tr dis py in host	SBm	1.50	1880	2800	3.0435	
759516	88.00	89.00	1.00	0.005	1% qz/cb veins; 0.2% banded po	SBm	1.00	1144	1702	3.0502	
759517	89.00	90.00	1.00	0.659	3% qz and qz/cb veins; tr dis/blebby py	SBm	1.00	1196	1794	3	
759518	90.00	91.00	1.00	0.025	1% qz/cb veins; tr dis py in host	SBm	1.00	1340	2008	3.006	
759519	91.00	92.00	1.00	0.001	1% qz/cb veins; tr dis py in host	SBm	1.00	1214	1814	3.0233	
759520	92.00	93.00	1.00	0.001	0.5% qz/cb veins	SBm	1.00	1352	2026	3.0059	
759521	93.00	94.00	1.00	4.18	3% qz and qz/cb veins; 1% dis/banded po; tr banded py	SB\$\$	1.00	1084	1644	2.9357	
759522	94.00	95.00	1.00	1.17	0.5% qz/cb veins (some w ch/ser alt); tr dis py in host	SBm	1.00	1174	1738	3.0816	
759523	95.00	96.00	1.00	1.35	3% qz and qz/cb veins; 2% dis/blebby/banded po	SB\$\$	1.00	1192	1782	3.0203	
759524	96.00	97.00	1.00	0.118	2% qz/cb veins (some w ser/ch alt); 0.5% dis/banded po	SBm	1.00	1410	2152	2.9003	
759525	97.00	98.00	1.00	0.02	3% qz and qz/cb veins (some w ch alt); 1% dis po in host	SB\$\$	1.00	1028	1556	2.947	
759526					Blank						
759527	98.00	99.00	1.00	0.354	0.5% qz/cb veins; tr dis py in host	SBm	1.00	1234	1834	3.0567	
759528	99.00	99.90	0.90	6.87	Tr qz/cb veins; 0.2% dis po in host	SBm	0.90	1116	1650	3.0899	
759529	99.90	100.80	0.90	0.948	2% qz and qz/cb veins; 2% dis/banded po	SB\$\$	0.90	1140	1706	3.0141	
759530				6.66 g/t	Standard						

SAMPLE & SPECIFIC GRAVITY LOGS											
Hole ID:	KAS-18-14	Sampled by: JJ/DG			DATE: 26/June/2018						
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)					
			0.00			Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG	
759531	100.80	101.70	0.90	8.42	2% qz and qz/cb veins; 5% dis/blebby/banded po; tr dis py in host	SB\$\$	0.90	1156	1732	3.0069	
759532	101.70	103.00	1.30	0.582	2% qz and qz/cb veins (some w ch alt); 0.5% dis/banded po	MIG	1.30	1670	2462	3.1086	
759533	103.00	104.00	1.00	0.746	15% qz and qz/cb veins (some w ch alt); 0.5% dis/banded po	MIG	1.00	1286	1918	3.0348	
759534	104.00	105.00	1.00	0.538	3% qz/cb veins (some w ch alt); tr dis po in host	MIG	1.00	1256	1834	3.173	
759535	105.00	106.00	1.00	0.165	1% qz/cb veins w ser alt	MIG	1.00	1312	1930	3.123	
759536	106.00	107.50	1.50	0.015	2% qz and qz/cb veins (some w ser/ch alt); tr dis py in host	MIG	1.50	1930	2860	3.0753	
759537	107.50	108.30	0.80	0.005	2% qz/cb veins; tr dis py in host	SBm	0.80	990	1470	3.0625	
759538	108.30	109.30	1.00	0.06	5% qz and qz/cb veins (some w ch alt); 0.5% vein-hosted py; tr vein-hosted po	MIG	1.00	1384	2036	3.1227	
759539	109.30	110.50	1.20	0.008	Tr qz/cb veins; tr dis py in host	MIG	1.20	1554	2282	3.1346	
759540	110.50	112.00	1.50	0.008	0.5% qz and qz/cb veins; 0.2% dis/vein-hosted py	MIG	1.50	2022	2950	3.1789	
759541	112.00	113.50	1.50	0.014	3% qz and qz/cb veins w ser/ch alt; tr dis/vein-hosted py	MIG	1.50	1910	2792	3.1655	

LOGGED BY:	JJ	Magnetic Declination:		5.54	West		Equipment:	Reflex	
BHID	Depth (m)	Dip (neg.)	Azi (TN)	Az (Mag)	Az (NAD83)	Az (NAD83) Used	Mag Sus (nT)	DDH Ref	Geo/Driller Comments
KAS-18-14	0	-61.8	210.9		208.84	208.84		APS	
KAS-18-14	31	-61.2		215.90	210.36	210.36	58108.00	Reflex	
KAS-18-14	61	-59.9		214.90	209.36	209.36	57872.00	Reflex	
KAS-18-14	91	-59.1		211.00	205.46	209.50	59074.00	Reflex	Mag
KAS-18-14	113.5	-58.8		215.00	209.46	209.46	58878.00	Reflex	



Project:	Pickle Lake		
Prospect:	Kas Lake		
Claim #:	319583 (legacy claim 4207794)		
Hole ID:	KAS-18-15	Datum/Proj:	Nad83 Zone 15
Start Date:	21/June/2018	UTM North:	5683227.511 m
End Date:	22/June/2018	UTM East:	682548.625 m
EOH Depth:	134.5m	Elevation:	379.6 m
		Dip:	-70 at setup
		Az:	211.65TN at setup
		Collar Survey Method:	APS
		Surveyed by:	DG
Drill Co:	M3 Drilling		
Drill Rig:	JKS300		
m From	m To	Hole Size	Drill Type
0	20.5	BW	Casing
0	134.5	BTW	Rods
Drill comments (issues, casing, gear in hole): Casing was removed after drilling. Collar survey taken at end of hole (rods sitting on bottom of hole with footclamp disengaged)			
Geology comments: Intersected mineralized Banded Iron Formation			

GEOLOGICAL CORE LOG

Hole ID: KAS-18-15

Date Logged: 26/June/2011 EOH called by: Dan Grabiec EOH Reason: Drilled through Banded Iron Formation into Mafic Intrusives

Geologist: Justin Jonsenn

Depth From (m)	Depth To (m)	Int (m)	Lithology 1	Texture	Colour	Major Vn Type	Vn %	Pyrite %	Pyrrhotite %	Comments
0.00	20.00	20.00	OB							
20.00	58.50	38.50	MV	FOL	GRN	QZCC	5	0.10		70% Green-grey strongly foliated/banded Mafic Volcanic with 30% grey Intermediate Volcanic bands (0.5-40 cm wide), distinguished via FS content (5% vs 25% respectively). Overall 30% QZ (0.5-2 mm; clear) 20% aph mafic groundmass (green/black; could be BT/CH/HB) 20% BT (aph to 2 mm; strong fol) 20% CH (aph to 2 mm; mod to strong fol; mostly in bands alternating with BT-rich zones in MV) 10% FS (0.5-3 mm; white; anhedral; boudinaged by foliation). 5% QZ and QZ/CB veins (0.1-20 cm; some SER haloes). Tr dis/vein-hosted PY. Brecciated host rock (brecciation postdates foliation) within QZ/SER stockwork/veining at 29.9-30.4 m; 32.3-32.5 m; 53.6-53.8 m. 65% QZ veining at 20.0-21.5 m (CH haloes; few HM haloes; 0.3% vein-hosted PY).
58.50	59.10	0.60	MP	FOL	DK GRY	QZCC	0.1			Dark grey/green moderately foliated non-banded Mafic Intrusive. 35% QZ (0.2-2.0 mm; clear; could be flooding) 30% aph mafic groundmass (green/brown; could be BT/CH/HB) 20% BT (brown/black; aph to 1 mm; weak to mod fol) 15% CH (aph to 1 mm; mod fol). Tr QZ/CB veins.

GEOLOGICAL CORE LOG

Hole ID: KAS-18-15

Date Logged: 26/June/2011 EOH called by: Dan Grabiec EOH Reason: Drilled through Banded Iron Formation into Mafic Intrusives

Geologist: Justin Jonsenn

59.10	67.90	8.80	MV	FOL	GRN	QZCC	2	0.10	70% Green-grey strongly foliated/banded Mafic Volcanic with 30% grey Intermediate Volcanic bands (0.5-40 cm wide), distinguished via FS content (5% vs 25% respectively). Overall 30% QZ (0.5-2 mm; clear) 20% aph mafic groundmass (green/black; could be BT/CH/HB) 20% BT (aph to 2 mm; strong fol) 20% CH (aph to 2 mm; mod to strong fol) 10% FS (0.5-3 mm; white; anhedral; boudinaged by foliation). 2% QZ and QZ/CB veins (0.1-6.0 cm; some SER haloes). Tr dis/vein-hosted PY. Fault gouges at 63.2 m and 65.6 m.
67.90	85.90	18.00	MV	FOL	GRY	QZCC	1	0.10	Grey-green strongly foliated/banded Mafic Volcanic. Moderately silicified area at 83.5-84.9 m (similar to strongly silicified zone seen in holes 1-10). 35% aph mafic groundmass (green/black; could be CH/BT/HB) 35% QZ (clear; flooding/discontinuous veins along foliation) 10% FS (0.1-1.0 mm; white; fine-grained and altered to light green/yellow in areas - may not be FS?) 10% CH (green; aph to 2 mm; mod to strong fol) 10% BT (brown; aph to 1 mm; weak to strong fol) 1% QZ and QZ/CB veins (0.1-7.0 cm; CH/SER haloes) Tr GT (1-10 mm; red) Tr dis/vein-hosted PY.

GEOLOGICAL CORE LOG

Hole ID: KAS-18-15

Date Logged: 26/June/2011; EOH called by: Dan Grabiec EOH Reason: Drilled through Banded Iron Formation into Mafic Intrusives

Geologist: Justin Jonsenn

85.90	107.80	21.90	MIG	FOL	GRN	QZCC	3	0.10	0.10	Green weakly to strongly foliated Mafic Intrusive. Coarser grained than above; mottled texture at top grades to strong foliation at bottom. 30% CH (0.5-5 mm; platy; weakly to strongly foliated; wrap around QZ) 25% QZ (flooding/discontinuous veins/amygdules; form 1-10 mm discontinuous bands at 96.2 m onwards; <0.5 mm qz/cb rims around amygdules) 25% aph mafic groundmass (green/black; could be CH/BT/HB) 10% FS (0.2-1.0 mm; white; fine-grained and altered to light green/yellow in areas - may not be FS?) 10% BT (aph to 1 mm; brown; weakly foliated; some is banded) 3% QZ and QZ/CB veins (0.1-10.0 cm veins; few SER haloes) Tr dis/vein-hosted PY; tr dis PO. Light grey/green (SER?) stockwork at 90.7-91.1 m. 10% vein-hosted PY at 104.7-104.9 m.
107.80	113.50	5.70	SBm	FOL	DK GRY	QZCC	4	0.10		Dark grey strongly foliated Banded Iron Formation. 80% of rock mod to strongly magnetic. 35% QZ (chert and/or discontinuous veins/flooding) 20% aph mafic mins (including MT) 15% CH (aph to 2.0 mm; green; mod to strong fol) 10% FS (0.2-1 mm; white; fine-grained and altered to light green/yellow in areas - may not be FS?) 8% MT (0.1-1.0 mm; more in aph groundmass) 7% GT (0.5-4 mm; red; ranges from 0-15%; 70% of unit is GT-bearing) 4% QZ and QZ/CB veins (0.1-6.0 cm). Tr dis/vein-hosted PY.

GEOLOGICAL CORE LOG

Hole ID: KAS-18-15

Date Logged: 26/June/2011 EOH called by: Dan Grabiec EOH Reason: Drilled through Banded Iron Formation into Mafic Intrusives

Geologist: Justin Jonsenn

113.50	124.10	10.60	SB\$\$	FOL	DK GRY	QZCC	5	1.00	0.20	Dark grey strongly foliated Banded Iron Formation. 50% of rock mod to strongly magnetic. 40% QZ (chert and/or discontinuous veins/flooding) 35% aph mafic mins (including MT) 10% FS (0.2-1 mm; white; fine-grained and altered to light green/yellow in areas - may not be FS?) 5% BT (aph to 1.0 mm; brown; mod to strong fol) 5% CH (aph to 2.0 mm; green; mod to strong fol) 1% MT (0.1-1.0 mm; more in aph groundmass) 1% GT (0.5-4 mm; red; ranges from 0-10%; 30% of unit is GT-bearing). 5% QZ and QZ/CB veins (0.1-11.0 cm). 1% dis/vein-hosted/banded PY; 0.2% dis/banded PO.
124.10	125.50	1.40	MIG	FOL	DK GRY	QZCC	1	0.10		Dark grey moderately to strongly foliated Mafic Intrusive. 10% of unit weakly to mod magnetic. 65% aph mafic minerals (green/black; could be CH/BT/HB/MT) 20% QZ (chert and/or flooding/discontinuous veins) 10% CH (aph to 1 mm; green; mod to strong fol) 5% FS (0.2-1.0 mm; white) 1% QZ/CB veins (1-5 mm; some CH/SER alt). Tr dis PY.
125.50	128.00	2.50	SBm	FOL	DK GRY	QZCC	35	0.10		Dark grey strongly foliated Banded Iron Formation. 40% of unit weakly to mod magnetic. 40% aph mafic mins (including MT) 25% QZ (chert and/or discontinuous veins/flooding) 10% CH (aph to 2.0 mm; green; mod to strong fol). 35% QZ and QZ/CB veins (mostly 1-4 cm; 57 cm QZ vein at 125.8-126.4 m). Tr dis PY.
128.00	129.60	1.60	MIG	FOL	DK GRY	QZ	0.5	0.10		Dark grey moderately to strongly foliated Mafic Intrusive. 10% of unit weakly to mod magnetic. 50% aph mafic minerals (green/black; could be CH/BT/HB/MT) 30% QZ (chert and/or flooding/discontinuous veins) 10% CH (aph to 1 mm; green; mod to strong fol) 5% BT (aph to 1 mm; brown; mod to strong fol) 5% FS (0.2-1.0 mm; white) 0.5% QZ and QZ/CB veins (1-5 mm; some CH/SER alt). Tr dis PY.

GEOLOGICAL CORE LOG

Hole ID: KAS-18-15

Date Logged: 26/June/2011 EOH called by: Dan Grabiec EOH Reason: Drilled through Banded Iron Formation into Mafic Intrusives

Geologist: Justin Jonsenn

129.60	129.90	0.30	SBm	FOL	DK GRY	QZCC	5	0.10	Dark grey weakly to strongly foliated Banded Iron Formation. Moderately to strongly magnetic. 35% aph mafic mins (including MT) 35% QZ (chert and/or discontinuous veins/flooding) 15% CH (aph to 2.0 mm; green; mod to strong fol) 10% MT (aph to 1.0 mm; grey/black). 5% QZ and QZ/CB veins w SER haloes. Tr dis PY.
129.90	132.60	2.70	MIG	FOL	DK GRY	QZCC	0.1	0.10	Dark grey moderately to strongly foliated Mafic Intrusive. 20% of unit weakly magnetic. 50% aph mafic minerals (green/black; could be CH/BT/HB/MT) 30% QZ (chert and/or flooding/discontinuous veins) 15% CH (aph to 1 mm; green; mod to strong fol) 5% FS (0.2-1.0 mm; white) Tr QZ/CB veins. Tr dis PY.
132.60	132.90	0.30	SBm	FOL	DK GRY	QZCC	2	0.10	Dark grey weakly to strongly foliated Banded Iron Formation. 60% of unit mod to strong magnetic. 50% QZ (chert and/or quartz flooding) 15% FS (0.2-2.0 mm; white) 15% MT (aph to 1.0 mm; grey/black). 10% aph mafic mins (including MT) 10% CH (aph to 2.0 mm; green; mod to strong fol) 2% QZ/CB veins. Tr vein-hosted PY. Pervasive orange alteration (HM?)
132.90	134.50	1.60	MIG	FOL	DK GRY	QZCC	2	0.10	Dark grey moderately to strongly foliated Mafic Intrusive. 20% of unit weakly magnetic. 50% aph mafic minerals (green/black; could be CH/BT/HB/MT) 30% QZ (chert and/or flooding/discontinuous veins) 15% CH (aph to 1 mm; green; mod to strong fol) 10% FS (0.2-1.0 mm; white) 2% QZ/CB veins (some w SER haloes). Tr dis PY.
134.5	EOH								

STRUCTURAL CORE LOG

Hole ID: KAS-18-15

Date Logged: 26/June/2018

Geologist: JJ

Core Data

Depth From	Depth To (m)	Interval (m)	Rock Type	Structure Type	Foliation (TCA)	Fault (TCA)	Shear Zone (TCA)	Fold (TCA)	Other (TCA)	Struc. Intensity
0.00	20.00	20.00	OB							
23.00	23.10	0.10	IV	Fol	42					S
29.00	29.10	0.10	MV	Fol	28					S
35.40	35.50	0.10	IV	Fol	28					S
38.90	39.00	0.10	MV	Fol	39					S
42.00	42.10	0.10	IV	Fol	29					S
47.90	48.00	0.10	IV	Fol	29					S
53.00	53.10	0.10	MV	Fol	32					S
58.50	58.50	0.00	MV/MP	Ct					42	S
59.20	59.20	0.00	MP/MV	Ct					37	S
62.00	62.10	0.10	MV	Fol	33					S
66.00	66.10	0.10	MV	Fol	36					S
72.00	72.10	0.10	MV	Fol	37					S
78.00	78.10	0.10	MV	Fol	34					S
84.00	84.10	0.10	MV	Fol	35					S
85.90	85.90	0.00	MV/MIG	Ct					42	S
94.30	94.40	0.10	MIG	Fol	50					M
99.90	100.00	0.10	MIG	Fol	50					M
104.40	104.50	0.10	MIG	Fol	38					M
105.80	105.80	0.00	MIG/SBm	Ct					35	S
112.20	112.30	0.10	SBm	Fol	38					S
115.10	115.20	0.10	SB\$\$	Fol	42					S
120.00	120.10	0.10	SB\$\$	Fol	45					S
124.10	124.20	0.10	SB\$\$/MIG	Ct					47	S
125.30	125.40	0.10	MIG	Fol	41					S
130.10	130.20	0.10	MIG	Fol	59					S
134.5	EOH									

SAMPLE & SPECIFIC GRAVITY LOGS										
Hole ID:	KAS-18-15		Sampled by:		JJ/DG		DATE:		26/June/2018	
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)				
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG
			0.00							
759542	20	21	1.00	0.011	80% qz veins w ch/tm alt (trace hm alt); 0.5% vein-hosted py	MV	1.00	994	1564	2.7439
759543	21.00	21.70	0.70	0.005	30% qz veins w ch haloes (some have hm alt); tr dis/vein-hosted py	MV	0.70	776	1214	2.7717
759544	21.70	22.80	1.10	0.009	Tr qz and qz/cb veins (some w ch/hm alt); tr dis py in host	MV	1.10	1202	1870	2.7994
759545	84.00	85.00	1.00	0.001	Moderate silicification; tr qz/cb veins	MV	1.00	1064	1678	2.7329
759546	85.00	85.90	0.90	0.001	Moderate silicification/quartz flooding; tr qz/cb veins	MV	0.90	1026	1614	2.7449
759547	85.90	87.00	1.10	0.005	0.5% qz/cb veins (some ser haloes); tr dis py in host	MIG	1.10	1306	1944	3.047
759548	87.00	88.00	1.00	0.001	Tr qz/cb veins; tr dis py in host	MIG	1.00	1202	1800	3.01
759549	88.00	89.50	1.50	0.001	3% qz/cb veins (some w ser alt); tr dis py in host	MIG	1.50	1838	2752	3.0109
759550	89.50	91.00	1.50	0.001	4% qz veins/stockwork (some w ser haloes); tr dis py in host	MIG	1.50	1830	2742	3.0066
759551					Blank					
759552	91.00	92.50	1.50	0.001	2% qz/cb veins/stockwork; tr dis py in host	MIG	1.50	1818	2704	3.0519
759553	92.50	94.00	1.50	0.006	3% qz and qz/cb veins (some ch/ser haloes); tr dis py in host	MIG	1.50	1972	2938	3.0414
759554	94.00	95.50	1.50	0.001	2% qz and qz/cb veins (some w ser alt); 0.5% dis py in host	MIG	1.50	1852	2768	3.0218
759555				1.58 g/t	Standard					
759556	95.50	97.00	1.50	0.001	4% qz and qz/cb veins (some w ser alt); tr dis py in host	MIG	1.50	1826	2742	2.9934
759557	97.00	98.50	1.50	0.001	3% qz and qz/cb veins (some w ser haloes); tr dis py in host	MIG	1.50	1886	2818	3.0236
759558	98.50	100.00	1.50	0.001	1% qz and qz/cb veins (some w ch/ser haloes); tr dis py in host	MIG	1.50	1826	2726	3.0289
759559	100.00	101.50	1.50	0.005	3% qz and qz/cb veins	MIG	1.50	830	1238	3.0343
759560	100.00	101.50	1.50	Duplicate	Duplicate of 759559	MIG	1.50	778	1176	2.9548
759561	101.50	103.00	1.50	0.009	Tr qz/cb veins; tr dis py in host	MIG	1.50	1872	2782	3.0571
759562	103.00	103.90	0.90	0.005	1% qz and qz/cb veins (some w tm alt); tr dis/vein-hosted py	MIG	0.90	1008	1652	2.5652
759563	103.90	104.80	0.90	0.001	0.5% qz veins; 0.2% dis py in host	MIG	0.90	1182	1756	3.0592
759564	104.80	105.80	1.00	0.01	10% qz and qz/cb veins w ch alt; 3% dis/vein-hosted py	MIG	1.00	970	1442	3.0551
759565	105.80	106.80	1.00	0.005	1% qz/cb veins; tr dis py in host	MIG	1.00	1440	2134	3.0749
759566	106.80	107.80	1.00	0.014	5% qz/cb veins (some w ser alt); tr dis py in host	MIG	1.00	1226	1818	3.0709
759567	107.80	#####	0.90	0.001	2% qz/cb veins; tr dis py in host	SBm	0.90	1168	1726	3.0932
759568	108.70	109.60	0.90	0.001	3% qz/cb veins; tr dis py in host	SBm	0.90	1130	1676	3.0696
759569	109.60	110.50	0.90	0.014	10% qz and qz/cb veins (some have ch alt); tr dis py in host	SBm	0.90	1154	1728	3.0105
759570	110.50	111.50	1.00	0.018	8% qz/cb veins (some w ser/ch alt); tr dis/vein-hosted py	SBm	1.00	1290	1934	3.0031

SAMPLE & SPECIFIC GRAVITY LOGS										
Hole ID:	KAS-18-15		Sampled by:	JJ/DG		DATE:	26/June/2018			
Sample ID	From (m)	To (m)	Interval (m)	Au g/t	Comments	Specific Gravity (SG)				
						Rock Type	Length (m)	Wet Weight (g)	Dry Weight (g)	Calc SG
			0.00							
759571	111.50	112.50	1.00	0.069	2% qz/cb veins; tr dis py in host	SBm	1.00	1224	1816	3.0676
759572	112.50	113.50	1.00	0.013	2% qz/cb veins; tr dis/vein-hosted py	SBm	1.00	1414	2108	3.0375
759573	113.50	#####	1.00	3.83	10% qz and qz/cb veins w ch alt; 5% dis/vein-hosted py	SB\$\$	1.00	956	1534	2.654
759574					Blank					
759575	114.50	115.50	1.00	0.998	3% qz/cb veins; 0.5% dis/vein-hosted py	SB\$\$	1.00	1080	1618	3.0074
759576					Blank					
759577	115.50	#####	1.00	0.714	3% qz/cb veins; 1% dis/vein-hosted py	SB\$\$	1.00	1388	2090	2.9772
759578	116.50	117.50	1.00	0.217	1% qz/cb veins; tr dis py in host	SBm	1.00	1236	1838	3.0532
759579	117.50	118.50	1.00	1.62	5% qz and qz/cb veins (some w ch alt); 4% dis/vein-hosted py; 0.3% vein-hosted po	SB\$\$	1.00	1206	1800	3.0303
759580				1.58 g/t	Standard					
759581	118.50	119.50	1.00	0.346	3% qz and qz/cb veins; 0.2% banded po; tr dis py in host	SBm	1.00	1322	1944	3.1254
759582	119.50	120.10	0.60	0.673	2% qz and qz/cb veins; 5% dis/banded po; 2% dis/banded py	SB\$\$	0.60	688	1052	2.8901
759583	120.10	121.10	1.00	1.77	3% qz and qz/cb veins; 3% dis/vein-hosted/banded py; 0.3% dis/banded po	SB\$\$	1.00	1192	1774	3.0481
759584	121.10	122.20	1.10	1.26	3% qz/cb veins; 1% dis/blebby py	SB\$\$	1.10	524	776	3.0794
759585	121.10	122.20	1.10	Duplicate	Duplicate of 789584		1.10	590	872	3.0922
759586	122.10	123.10	1.00	0.437	3% qz/cb veins; 1% dis/banded po; tr dis py in host	SB\$\$	1.00	1386	2038	3.1258
759587	123.10	124.10	1.00	3.02	5% qz and qz/cb veins; 3% dis/banded po; tr dis/banded py	SB\$\$	1.00	1378	2028	3.12
759588	124.10	125.50	1.40	0.012	1% qz/cb veins	MIG	1.40	1714	2504	3.1696
759589	125.50	127.00	1.50	0.005	40% qz veins (some ch alt); 5% qz/cb veins; tr dis py in host	SBm	1.50	1868	2874	2.8569
759590	127.00	128.00	1.00	0.046	2% qz/cb veins; tr dis py in host	SBm	1.00	1314	1964	3.0215
759591	128.00	128.80	0.80	0.001	Tr qz/cb veins; tr dis py in host	MIG	0.80	970	1428	3.1179
759592	128.80	129.60	0.80	0.013	Tr qz/cb veins; tr dis/vein-hosted py	MIG	0.80	1046	1542	3.1089
759593	129.60	130.10	0.50	0.001	Quartz flooding; 5% qz/cb veins w ch alt; tr dis py in host	SBm/MIG	0.50	602	896	3.0476
759594	130.10	131.30	1.20	0.001	2% qz/cb veins w ch alt; tr dis py in host	MIG	1.20	1538	2266	3.1126
759595	131.30	132.50	1.20	0.006	Tr qz/cb veins; tr dis py in host	MIG	1.20	1616	2372	3.1376
759596	132.50	133.00	0.50	0.001	Quartz flooding w orange (HM?) alteration; 2% qz/cb veins; tr dis/vein-hosted py	SBm/MIG	0.50	642	964	2.9938
759597	133.00	134.50	1.50	0.019	2% qz/cb veins (some w ser alt); tr dis py in host	MIG	1.50	1970	2908	3.1002
759598					Blank					
759599				1.58 g/t	Standard					

Appendix II Assay Certificates



Date Submitted: 06-Jun-18
Invoice No.: A18-07416 (i)
Invoice Date: 11-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Suite 6, 295 Rokeby Rd
Subiaco WA 6008
Australia

ATTN: Brad Boyle (inv/res)

CERTIFICATE OF ANALYSIS

70 Core samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1C-OES-Tbay Fire Assay ICPOES (QOP Fire Assay Tbay)
Code 1E3-Tbay Aqua Regia ICP(AQUAGEO)
Code Specific Gravity Core-Tbay - Core

REPORT **A18-07416 (i)**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

Values which exceed the upper limit should be assayed for accurate numbers.

Note: Samples 789605 and 789626, 55 and 61 are INS- There may be presence of coarse Au in Sample 789632.

CERTIFIED BY:

A handwritten signature in black ink, appearing to be "Emmanuel Esemé". The signature is written in a cursive, somewhat stylized font.

Emmanuel Esemé , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
1201 Walsh Street West, Thunder Bay, Ontario, Canada, P7E 4X6
TELEPHONE +807 622-6707 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Tbay@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Date Submitted: 06-Jun-18
Invoice No.: A18-07416 (i)
Invoice Date: 11-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Suite 6, 295 Rokeby Rd
Subiaco WA 6008
Australia

ATTN: Brad Boyle (inv/res)

CERTIFICATE OF ANALYSIS

70 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 4F-S Infrared

REPORT **A18-07416 (i)**

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Notes:

Values which exceed the upper limit should be assayed for accurate numbers.

Note: Samples 789605 and 789626, 55 and 61 are INS- There may be presence of coarse Au in Sample 789632.

CERTIFIED BY:



Emmanuel Esemé , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
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E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Results

Activation Laboratories Ltd.

Report: A18-07416

Analyte Symbol	Au	Pd	Pt	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg
Unit Symbol	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm
Lower Limit	2	5	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1
Method Code	FA-ICP	FA-ICP	FA-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
789601	< 2	< 5	< 5	< 0.2	< 0.5	2	40	< 1	2	4	14	0.14	3	< 10	16	< 0.5	< 2	0.03	< 1	5	0.33	< 10	< 1
789602	5	< 5	< 5	< 0.2	< 0.5	37	678	< 1	56	< 2	40	2.27	< 2	< 10	201	< 0.5	< 2	1.57	17	119	3.23	< 10	< 1
789603	< 2	< 5	< 5	< 0.2	< 0.5	1	34	< 1	< 1	< 2	2	0.10	3	< 10	12	< 0.5	< 2	0.02	< 1	3	0.31	< 10	< 1
789604	11	< 5	< 5	< 0.2	< 0.5	38	523	< 1	36	< 2	45	2.60	< 2	< 10	229	< 0.5	< 2	2.14	17	147	3.25	< 10	< 1
789605	6810	8	11																				
789606	2	< 5	< 5	< 0.2	< 0.5	5	457	< 1	43	< 2	35	2.32	< 2	< 10	182	< 0.5	< 2	0.50	13	105	2.61	< 10	< 1
789607	< 2	< 5	< 5	< 0.2	< 0.5	96	617	< 1	60	< 2	35	2.72	< 2	< 10	< 10	< 0.5	< 2	2.93	28	107	5.10	10	< 1
789608	4	< 5	5	< 0.2	< 0.5	182	627	< 1	57	< 2	31	2.31	3	< 10	< 10	< 0.5	< 2	3.06	30	92	5.54	< 10	< 1
789609	21	< 5	< 5	< 0.2	< 0.5	262	609	< 1	49	< 2	33	2.15	< 2	< 10	< 10	< 0.5	< 2	2.37	29	74	5.42	< 10	< 1
789610	22	< 5	< 5	< 0.2	< 0.5	344	574	< 1	47	< 2	30	2.00	< 2	< 10	< 10	< 0.5	< 2	2.24	29	67	5.14	< 10	< 1
789611	17	< 5	< 5	< 0.2	< 0.5	114	564	< 1	38	< 2	24	1.98	< 2	< 10	< 10	< 0.5	< 2	2.96	23	60	4.55	< 10	< 1
789612	< 2	< 5	< 5	< 0.2	< 0.5	47	576	< 1	28	< 2	34	2.04	< 2	< 10	10	< 0.5	< 2	2.87	24	25	5.12	< 10	< 1
789613	6	< 5	< 5	< 0.2	< 0.5	45	650	< 1	22	< 2	34	2.01	< 2	< 10	< 10	< 0.5	< 2	3.44	23	23	5.14	10	< 1
789614	18	< 5	< 5	< 0.2	< 0.5	102	653	< 1	30	< 2	68	2.04	< 2	< 10	< 10	< 0.5	< 2	2.57	30	17	5.94	10	< 1
789615	65	< 5	< 5	< 0.2	< 0.5	58	778	< 1	26	< 2	41	2.21	< 2	< 10	139	< 0.5	< 2	4.10	29	16	6.24	10	1
789616	367	< 5	< 5	< 0.2	< 0.5	77	774	< 1	23	< 2	58	2.48	3	< 10	< 10	< 0.5	< 2	3.33	31	8	6.85	10	2
789617	31	< 5	< 5	< 0.2	< 0.5	114	914	< 1	17	< 2	192	3.06	< 2	< 10	114	< 0.5	< 2	3.41	36	4	8.90	20	3
789618	1050	< 5	< 5	0.3	< 0.5	25	737	< 1	2	< 2	78	2.29	4	< 10	< 10	< 0.5	< 2	3.79	23	7	8.50	20	< 1
789619	< 2	< 5	< 5	< 0.2	< 0.5	2	43	< 1	< 1	< 2	3	0.11	< 2	< 10	< 10	< 0.5	< 2	0.05	< 1	3	0.40	< 10	< 1
789620	7460	< 5	< 5	1.5	< 0.5	56	659	1	4	6	75	1.47	< 2	< 10	18	< 0.5	< 2	2.19	20	12	8.49	10	1
789621	1550	< 5	< 5	0.5	< 0.5	11	899	2	< 1	3	68	1.49	4	< 10	< 10	< 0.5	< 2	4.36	7	11	6.24	10	< 1
789622	250	< 5	< 5	< 0.2	< 0.5	3	794	< 1	< 1	< 2	53	1.73	< 2	< 10	12	0.6	< 2	2.99	7	10	7.18	20	< 1
789623	< 2	< 5	< 5	< 0.2	< 0.5	< 1	737	< 1	2	< 2	45	1.46	< 2	< 10	< 10	0.6	< 2	2.21	8	10	9.17	20	3
789624	< 2	< 5	< 5	< 0.2	< 0.5	2	709	2	2	2	43	1.30	2	< 10	< 10	0.5	< 2	2.07	8	10	8.45	20	1
789625	1310	< 5	< 5	< 0.2	< 0.5	10	916	1	1	< 2	40	1.83	2	< 10	19	< 0.5	< 2	4.13	11	9	6.47	20	< 1
789626	< 2	< 5	< 5																				
789627	6460	< 5	< 5	0.5	< 0.5	24	1010	1	2	2	33	1.11	105	< 10	40	< 0.5	< 2	5.57	13	14	6.35	< 10	< 1
789628	8310	< 5	< 5	0.8	< 0.5	35	757	4	1	3	34	1.50	4	< 10	33	< 0.5	< 2	2.29	18	6	8.88	10	< 1
789629	6190	< 5	< 5	1.1	< 0.5	49	775	7	3	< 2	24	0.88	< 2	< 10	11	< 0.5	< 2	2.29	20	10	8.87	< 10	< 1
789630	477	< 5	< 5	< 0.2	< 0.5	53	599	1	149	9	92	3.13	11	< 10	78	0.7	< 2	1.80	35	86	6.05	< 10	< 1
789631	1260	< 5	< 5	< 0.2	0.6	7	855	< 1	< 1	< 2	34	1.50	< 2	< 10	22	< 0.5	< 2	2.75	13	9	9.07	20	< 1
789632	862	< 5	< 5	< 0.2	< 0.5	< 1	775	< 1	< 1	< 2	36	1.43	< 2	< 10	12	< 0.5	< 2	3.00	11	10	7.58	20	< 1
789633	2	< 5	< 5	< 0.2	< 0.5	< 1	801	< 1	2	< 2	45	1.69	< 2	< 10	38	0.6	< 2	2.69	14	8	9.20	20	2
789634	5	< 5	< 5	< 0.2	< 0.5	< 1	825	1	2	< 2	44	1.66	< 2	< 10	11	< 0.5	< 2	3.13	13	9	8.99	20	< 1
789635	101	< 5	< 5	< 0.2	< 0.5	16	715	< 1	2	< 2	41	1.67	< 2	< 10	< 10	< 0.5	< 2	2.75	20	7	7.94	10	< 1
789636	2590	< 5	< 5	0.8	< 0.5	44	798	< 1	4	< 2	41	1.77	< 2	< 10	< 10	< 0.5	< 2	3.67	27	5	8.15	10	< 1
789637	989	< 5	< 5	< 0.2	< 0.5	19	794	< 1	4	< 2	38	1.80	< 2	< 10	< 10	< 0.5	< 2	2.52	28	4	8.32	10	< 1
789638	206	< 5	< 5	< 0.2	< 0.5	26	891	< 1	< 1	< 2	50	1.86	< 2	< 10	13	< 0.5	< 2	3.16	31	3	8.91	10	1
789639	171	< 5	< 5	< 0.2	< 0.5	13	742	< 1	2	< 2	32	1.53	< 2	< 10	22	< 0.5	< 2	4.10	23	7	6.10	< 10	< 1
789640	895	< 5	< 5	< 0.2	< 0.5	27	746	< 1	5	< 2	45	2.09	< 2	< 10	19	< 0.5	< 2	2.82	39	2	8.06	10	1
789641	12	< 5	< 5	< 0.2	< 0.5	20	778	< 1	< 1	< 2	41	2.08	< 2	< 10	95	< 0.5	< 2	2.94	32	1	7.72	10	< 1
789642	7	< 5	< 5	< 0.2	< 0.5	17	733	< 1	4	< 2	42	1.78	< 2	< 10	12	< 0.5	< 2	2.55	34	2	8.83	10	< 1

Analyte Symbol	Au	Pd	Pt	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg
Unit Symbol	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm
Lower Limit	2	5	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1
Method Code	FA-ICP	FA-ICP	FA-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
789643	14	< 5	< 5	< 0.2	0.6	43	724	< 1	3	< 2	50	1.85	< 2	< 10	11	< 0.5	< 2	2.56	36	2	8.56	10	< 1
789644	11	< 5	< 5	< 0.2	< 0.5	35	730	< 1	5	< 2	49	2.10	< 2	< 10	30	< 0.5	< 2	3.06	37	1	8.17	10	2
789645	> 30000	< 5	< 5	0.7	< 0.5	88	725	< 1	7	3	46	2.04	< 2	< 10	13	< 0.5	3	3.02	39	6	8.80	10	3
789646	29	< 5	< 5	< 0.2	< 0.5	88	890	< 1	17	< 2	61	2.63	< 2	< 10	13	< 0.5	< 2	4.58	38	7	8.12	10	2
789647	26	< 5	< 5	< 0.2	< 0.5	106	769	< 1	18	< 2	53	2.45	2	< 10	19	< 0.5	< 2	3.05	37	4	7.85	10	< 1
789648	7	< 5	< 5	< 0.2	< 0.5	143	823	< 1	21	< 2	64	2.66	< 2	< 10	15	< 0.5	< 2	3.34	51	5	9.63	10	3
789649	11	< 5	< 5	< 0.2	< 0.5	102	702	< 1	14	< 2	50	1.97	< 2	< 10	15	< 0.5	< 2	2.72	38	4	7.73	10	2
789650	13	< 5	< 5	< 0.2	< 0.5	108	697	< 1	15	< 2	50	1.90	< 2	< 10	15	< 0.5	< 2	2.83	39	5	8.70	10	< 1
789651	< 2	< 5	19	< 0.2	< 0.5	2	37	< 1	< 1	< 2	2	0.11	< 2	< 10	< 10	< 0.5	< 2	0.05	< 1	1	0.30	< 10	< 1
789652	3	< 5	< 5	< 0.2	< 0.5	78	715	< 1	14	< 2	65	2.36	< 2	< 10	18	< 0.5	< 2	2.75	41	3	9.79	10	< 1
789653	< 2	< 5	< 5	< 0.2	< 0.5	76	758	< 1	19	< 2	60	2.16	< 2	< 10	19	< 0.5	< 2	2.93	45	2	9.05	10	< 1
789654	5	< 5	< 5	< 0.2	< 0.5	56	519	< 1	76	2	41	2.34	< 2	< 10	256	< 0.5	< 2	2.24	18	149	2.92	< 10	< 1
789655	1550	< 5	< 5																				
789656	10	< 5	< 5	< 0.2	< 0.5	38	547	< 1	36	< 2	48	2.49	< 2	< 10	202	< 0.5	< 2	2.09	17	148	3.24	< 10	< 1
789657	12	< 5	< 5	< 0.2	< 0.5	61	522	1	61	< 2	55	3.34	< 2	< 10	190	< 0.5	< 2	2.57	16	131	2.86	10	< 1
789658	8	< 5	< 5	0.2	< 0.5	645	502	< 1	35	< 2	168	2.99	< 2	< 10	64	< 0.5	< 2	0.80	32	59	4.02	10	< 1
789659	3	< 5	< 5	< 0.2	< 0.5	188	205	< 1	33	< 2	100	1.77	< 2	< 10	41	< 0.5	< 2	0.50	34	67	2.68	< 10	< 1
789660	3	< 5	< 5	< 0.2	< 0.5	254	208	< 1	34	< 2	88	1.79	< 2	< 10	43	< 0.5	< 2	0.58	39	62	2.69	< 10	< 1
789661	< 2	< 5	< 5																				
789662	13	9	5	0.4	< 0.5	475	119	< 1	242	< 2	94	1.29	< 2	< 10	32	< 0.5	< 2	0.48	98	64	3.62	< 10	< 1
789663	18	< 5	< 5	< 0.2	< 0.5	117	95	< 1	17	< 2	21	0.82	< 2	< 10	23	< 0.5	< 2	0.39	6	59	0.88	< 10	< 1
789664	18	< 5	< 5	< 0.2	< 0.5	158	80	< 1	12	< 2	27	0.57	< 2	< 10	26	< 0.5	< 2	0.38	7	27	1.01	< 10	< 1
789665	5	< 5	< 5	< 0.2	< 0.5	106	552	< 1	58	< 2	28	2.81	< 2	< 10	14	< 0.5	< 2	3.24	28	111	4.90	< 10	< 1
789666	2	< 5	< 5	< 0.2	< 0.5	69	558	< 1	58	< 2	26	2.44	2	< 10	< 10	< 0.5	< 2	3.19	27	102	4.27	< 10	< 1
789667	< 2	< 5	< 5	< 0.2	< 0.5	70	515	< 1	51	< 2	25	2.74	< 2	< 10	< 10	< 0.5	< 2	3.01	24	77	3.81	< 10	< 1
789668	< 2	< 5	< 5	< 0.2	< 0.5	74	650	< 1	52	< 2	34	2.77	< 2	< 10	< 10	< 0.5	< 2	3.23	26	92	4.70	< 10	< 1
789669	23	< 5	< 5	< 0.2	< 0.5	77	631	< 1	51	< 2	34	2.92	< 2	< 10	11	< 0.5	< 2	3.29	27	73	4.64	< 10	< 1
789670	12	< 5	< 5	< 0.2	< 0.5	82	609	< 1	57	< 2	29	2.36	< 2	< 10	10	< 0.5	< 2	2.66	31	103	5.19	< 10	< 1

Results

Activation Laboratories Ltd.

Report: A18-07416

Analyte Symbol	K	La	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Total S	Spec Grav Core	Au
Unit Symbol	%	ppm	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	-	g/tonne
Lower Limit	0.01	10	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	0.01	0.01	0.03
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	CS	GRAV	FA-GRA
789601	0.03	< 10	0.03	0.028	0.002	< 0.01	< 2	< 1	2	< 0.01	< 20	2	< 2	< 10	3	< 10	1	4	< 0.01		
789602	0.61	23	2.05	0.237	0.055	0.17	< 2	10	41	0.13	< 20	2	< 2	< 10	86	< 10	7	16	0.17	2.81	
789603	0.01	< 10	0.02	0.021	0.002	< 0.01	< 2	< 1	2	< 0.01	< 20	< 1	< 2	< 10	2	< 10	1	4	< 0.01		
789604	0.48	14	2.24	0.362	0.079	0.02	< 2	8	67	0.16	< 20	1	< 2	< 10	61	< 10	6	15	0.02		
789605																			0.75		
789606	0.54	25	2.52	0.119	0.064	0.02	< 2	8	18	0.15	< 20	3	< 2	< 10	84	< 10	5	15	0.02		
789607	0.05	< 10	1.90	0.446	0.039	0.28	2	22	47	0.30	< 20	< 1	< 2	< 10	161	< 10	15	5	0.28		
789608	0.05	< 10	1.96	0.405	0.043	0.29	2	25	22	0.26	< 20	< 1	< 2	< 10	186	< 10	15	6	0.29		
789609	0.04	< 10	2.17	0.363	0.036	0.24	3	24	7	0.26	< 20	< 1	< 2	< 10	172	< 10	13	7	0.23		
789610	0.03	< 10	2.05	0.339	0.036	0.29	< 2	23	6	0.25	< 20	< 1	< 2	< 10	165	< 10	12	7	0.29		
789611	0.03	< 10	1.91	0.307	0.038	0.06	< 2	21	10	0.24	< 20	< 1	< 2	< 10	167	< 10	13	5	< 0.01		
789612	0.04	< 10	1.66	0.342	0.051	0.08	< 2	23	12	0.24	< 20	2	< 2	< 10	199	< 10	16	6	0.07		
789613	0.05	< 10	1.74	0.311	0.057	0.05	2	24	16	0.22	< 20	< 1	< 2	< 10	202	< 10	18	5	0.05		
789614	0.04	< 10	1.67	0.341	0.051	0.26	< 2	25	10	0.27	< 20	< 1	< 2	< 10	215	< 10	19	7	0.26		
789615	0.14	< 10	1.56	0.335	0.048	0.30	< 2	25	27	0.25	< 20	1	< 2	< 10	223	< 10	19	7	0.28		
789616	0.05	< 10	1.54	0.401	0.055	0.33	2	28	14	0.25	< 20	< 1	< 2	< 10	252	< 10	22	6	0.31		
789617	0.30	< 10	1.78	0.410	0.052	0.18	4	31	18	0.33	< 20	< 1	< 2	< 10	383	< 10	23	7	0.18		
789618	0.03	18	0.96	0.344	0.103	0.97	< 2	23	17	0.24	< 20	2	< 2	< 10	16	< 10	41	12	0.99		
789619	< 0.01	< 10	0.02	0.027	0.004	< 0.01	< 2	< 1	1	< 0.01	< 20	< 1	< 2	< 10	5	< 10	2	4	< 0.01		
789620	0.06	13	0.80	0.184	0.102	3.08	3	16	16	0.23	< 20	2	< 2	< 10	26	< 10	35	29	3.42	2.98	6.01
789621	0.04	14	0.49	0.214	0.100	0.84	2	11	54	0.14	< 20	1	< 2	< 10	24	< 10	54	18	0.79		
789622	0.03	17	0.51	0.247	0.136	0.11	2	13	20	0.15	< 20	< 1	< 2	< 10	2	< 10	57	8	0.11		
789623	0.02	17	0.30	0.232	0.165	0.02	4	15	12	0.14	< 20	< 1	< 2	< 10	1	< 10	60	5	0.02		
789624	0.02	17	0.25	0.208	0.167	0.06	6	15	13	0.14	< 20	< 1	< 2	< 10	2	< 10	57	5	0.06		
789625	0.06	14	0.56	0.293	0.146	0.42	3	15	32	0.15	< 20	< 1	< 2	< 10	4	< 10	56	8	0.43		
789626																			< 0.01		
789627	0.11	< 10	0.38	0.135	0.088	1.10	2	12	72	0.11	< 20	< 1	< 2	< 10	21	< 10	35	12	1.74		6.02
789628	0.08	< 10	0.54	0.194	0.138	1.84	3	19	24	0.17	< 20	2	< 2	< 10	15	< 10	40	18	2.65		7.10
789629	0.10	< 10	0.36	0.134	0.130	3.68	3	15	26	0.16	< 20	< 1	< 2	< 10	41	< 10	34	22	4.00		4.72
789630	0.20	19	1.95	0.591	0.095	0.02	4	7	136	0.29	< 20	2	3	< 10	60	< 10	13	7	0.02		
789631	0.05	12	0.44	0.228	0.134	0.46	4	19	17	0.18	< 20	< 1	< 2	< 10	7	< 10	50	13	0.48		
789632	0.04	11	0.43	0.207	0.144	0.03	3	19	18	0.15	< 20	2	< 2	< 10	3	< 10	51	8	0.04		
789633	0.07	< 10	0.55	0.225	0.130	0.02	2	19	15	0.16	< 20	< 1	< 2	< 10	2	< 10	50	9	0.02		
789634	0.04	11	0.57	0.265	0.127	0.03	< 2	19	19	0.16	< 20	< 1	< 2	< 10	2	< 10	47	9	0.03		
789635	0.02	< 10	0.69	0.311	0.106	0.23	3	23	14	0.21	< 20	< 1	< 2	< 10	66	< 10	38	10	0.24	2.91	
789636	0.02	< 10	0.86	0.335	0.078	0.90	3	26	23	0.25	< 20	1	< 2	< 10	123	< 10	28	11	0.93		4.23
789637	0.03	< 10	1.06	0.365	0.068	0.37	3	27	11	0.28	< 20	< 1	< 2	< 10	122	< 10	24	8	0.37		
789638	0.05	< 10	1.00	0.394	0.065	0.52	2	32	17	0.31	< 20	< 1	< 2	< 10	44	< 10	24	8	0.54		
789639	0.05	< 10	0.92	0.302	0.043	0.45	< 2	26	33	0.34	< 20	4	< 2	< 10	61	< 10	17	6	0.46		
789640	0.13	< 10	1.58	0.376	0.050	0.60	3	31	12	0.31	< 20	< 1	< 2	< 10	242	< 10	20	7	0.61		

Analyte Symbol	K	La	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Total S	Spec Grav Core	Au
Unit Symbol	%	ppm	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	-	g/tonne
Lower Limit	0.01	10	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	0.01	0.01	0.03
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	CS	GRAV	FA-GRA
789641	0.25	< 10	1.69	0.374	0.037	0.03	< 2	30	13	0.31	< 20	1	< 2	< 10	259	< 10	15	6	0.02		
789642	0.09	< 10	1.61	0.339	0.036	< 0.01	2	29	11	0.30	< 20	< 1	< 2	< 10	310	< 10	15	6	< 0.01		
789643	0.08	< 10	1.55	0.322	0.034	0.01	5	28	24	0.32	< 20	< 1	< 2	< 10	405	< 10	13	6	< 0.01		
789644	0.11	< 10	1.67	0.347	0.033	0.01	3	29	17	0.30	< 20	< 1	< 2	< 10	387	< 10	14	5	0.01		
789645	0.04	< 10	1.71	0.265	0.062	0.50	< 2	26	13	0.27	< 20	< 1	< 2	< 10	325	< 10	18	9	0.54		27.6
789646	0.05	< 10	2.15	0.335	0.025	0.22	< 2	28	29	0.25	< 20	< 1	< 2	< 10	394	< 10	11	4	0.22		
789647	0.08	< 10	1.88	0.411	0.028	0.08	3	29	13	0.30	< 20	2	< 2	< 10	421	< 10	12	4	0.08		
789648	0.07	< 10	2.21	0.405	0.027	0.25	3	32	17	0.30	< 20	< 1	< 2	< 10	517	< 10	11	4	0.25		
789649	0.04	< 10	1.81	0.329	0.024	0.11	< 2	26	11	0.28	< 20	< 1	< 2	< 10	449	< 10	10	4	0.12		
789650	0.05	< 10	1.74	0.342	0.022	0.09	4	26	23	0.32	< 20	< 1	< 2	< 10	532	< 10	10	4	0.09		
789651	< 0.01	< 10	0.03	0.031	0.002	< 0.01	< 2	< 1	1	< 0.01	< 20	< 1	< 2	< 10	6	< 10	1	3	< 0.01		
789652	0.05	< 10	1.99	0.342	0.032	0.21	3	29	13	0.27	< 20	< 1	< 2	< 10	526	< 10	12	4	0.21	3.14	
789653	0.05	< 10	1.89	0.392	0.026	0.18	4	29	11	0.35	< 20	< 1	< 2	< 10	554	< 10	11	4	0.17		
789654	0.55	23	2.03	0.270	0.065	0.22	< 2	9	62	0.15	< 20	4	< 2	< 10	84	< 10	6	7	0.20		
789655																			0.85		
789656	0.51	14	2.19	0.317	0.078	0.02	< 2	8	65	0.18	< 20	< 1	< 2	< 10	66	< 10	6	10	0.02		
789657	0.60	23	1.93	0.348	0.063	0.25	2	8	112	0.14	< 20	< 1	< 2	< 10	77	< 10	6	14	0.22		
789658	0.36	< 10	2.96	0.134	0.061	0.57	< 2	10	12	0.12	< 20	< 1	< 2	< 10	83	< 10	6	19	0.55		
789659	0.62	< 10	2.04	0.136	0.063	0.55	< 2	9	6	0.13	< 20	< 1	< 2	< 10	63	< 10	4	15	0.54		
789660	0.60	< 10	1.99	0.152	0.066	0.61	< 2	9	7	0.12	< 20	< 1	< 2	< 10	61	< 10	4	14	0.59		
789661																			< 0.01		
789662	0.11	< 10	1.60	0.110	0.008	1.62	2	6	5	0.05	< 20	< 1	< 2	< 10	38	< 10	2	19	1.54		
789663	0.06	< 10	1.15	0.121	0.034	0.02	< 2	4	5	0.03	< 20	< 1	< 2	< 10	37	< 10	3	4	0.01		
789664	0.05	< 10	0.57	0.165	0.049	0.07	< 2	4	7	0.13	< 20	2	< 2	< 10	49	< 10	6	6	0.06		
789665	0.05	< 10	2.03	0.368	0.040	0.26	3	21	58	0.29	< 20	5	< 2	< 10	167	< 10	14	5	0.26		
789666	0.04	< 10	1.85	0.353	0.047	0.21	3	20	44	0.28	< 20	2	< 2	< 10	158	< 10	15	4	0.22		
789667	0.04	< 10	1.44	0.442	0.045	0.18	< 2	17	86	0.37	< 20	4	< 2	< 10	144	< 10	15	4	0.18		
789668	0.04	< 10	1.75	0.447	0.035	0.16	< 2	21	64	0.31	< 20	3	< 2	< 10	157	< 10	14	5	0.16		
789669	0.03	< 10	1.65	0.514	0.042	0.19	4	19	75	0.37	< 20	< 1	< 2	< 10	157	< 10	16	5	0.19		
789670	0.04	< 10	2.13	0.351	0.035	0.22	< 2	22	18	0.26	< 20	2	< 2	< 10	174	< 10	14	4	0.23		

Analyte Symbol	Au	Pd	Pt	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg
Unit Symbol	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm
Lower Limit	2	5	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1
Method Code	FA-ICP	FA-ICP	FA-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-1 Meas				27.9	2.6	1170	741	15	44	633	723	0.36	366	< 10	256	0.8	1420	0.72	6	6	23.0	< 10	4
GXR-1 Cert				31.0	3.30	1110	852	18.0	41.0	730	760	3.52	427	15.0	750	1.22	1380	0.960	8.20	12.0	23.6	13.8	3.90
GXR-6 Meas				0.3	< 0.5	65	942	1	23	85	121	7.00	171	< 10	945	0.9	< 2	0.18	13	78	5.24	20	2
GXR-6 Cert				1.30	1.00	66.0	1010	2.40	27.0	101	118	17.7	330	9.80	1300	1.40	0.290	0.180	13.8	96.0	5.58	35.0	0.0680
BaSO4 Meas																							
BaSO4 Cert																							
BaSO4 Meas																							
BaSO4 Cert																							
BaSO4 Meas																							
BaSO4 Cert																							
SGR-1b Meas																							
SGR-1b Cert																							
SGR-1b Meas																							
SGR-1b Cert																							
SGR-1b Meas																							
SGR-1b Cert																							
GS311-4 Meas																							
GS311-4 Cert																							
GS311-4 Meas																							
GS311-4 Cert																							
GS311-4 Meas																							
GS311-4 Cert																							
GS311-4 Meas																							
GS311-4 Cert																							
GS900-5 Meas																							
GS900-5 Cert																							
GS900-5 Meas																							
GS900-5 Cert																							
GS900-5 Meas																							
GS900-5 Cert																							
GS900-5 Meas																							
GS900-5 Cert																							
OREAS 904 (Aqua Regia) Meas				0.3	< 0.5	6480	441	1	38	11	26	2.14	94		73	7.6	< 2	0.05	96	28	6.36	< 10	
OREAS 904 (Aqua Regia) Cert				0.366	0.0580	6300	410	2.02	36.6	8.49	22.4	1.25	91.0		68.0	6.54	3.74	0.0404	82.0	17.5	6.40	3.40	
OREAS 922 (AQUA REGIA) Meas				0.8	< 0.5	2380	766	< 1	38	55	275	3.14	6		80	0.8	4	0.42	21	51	5.45	< 10	
OREAS 922 (AQUA REGIA)				0.851	0.28	2176	730	0.69	34.3	60	256	2.72	6.12		70	0.65	10.3	0.324	19.4	40.7	5.05	7.62	

Analyte Symbol	Au	Pd	Pt	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg
Unit Symbol	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm
Lower Limit	2	5	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1
Method Code	FA-ICP	FA-ICP	FA-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
Cert																							
OREAS 923 (AQUA REGIA) Meas				1.7	< 0.5	4650	865	< 1	36	77	356	3.12	8		61	0.7	13	0.42	23	46	6.24	< 10	
OREAS 923 (AQUA REGIA) Cert				1.62	0.40	4248	850	0.84	32.7	81	335	2.80	7.07		54	0.61	21.8	0.326	22.2	39.4	5.91	8.01	
OREAS 216 (Fire Assay) Meas																							
OREAS 216 (Fire Assay) Cert																							
OREAS 215 (Fire Assay) Meas																							
OREAS 215 (Fire Assay) Cert																							
789610 Orig																							
789610 Dup																							
789611 Orig	19	< 5	< 5	< 0.2	< 0.5	114	561	< 1	38	< 2	23	1.98	< 2	< 10	< 10	< 0.5	< 2	2.97	23	60	4.57	< 10	< 1
789611 Dup	16	< 5	< 5	< 0.2	< 0.5	113	567	< 1	38	< 2	24	1.97	< 2	< 10	< 10	< 0.5	< 2	2.94	24	60	4.54	< 10	< 1
789614 Orig				< 0.2	< 0.5	102	651	< 1	29	< 2	67	2.04	< 2	< 10	< 10	< 0.5	< 2	2.56	29	17	5.93	10	2
789614 Dup				< 0.2	< 0.5	102	655	< 1	31	< 2	69	2.04	< 2	< 10	< 10	< 0.5	< 2	2.57	30	17	5.94	10	< 1
789620 Orig																							
789620 Dup																							
789621 Orig	1650	< 5	< 5																				
789621 Dup	1450	< 5	< 5																				
789622 Orig				< 0.2	< 0.5	3	793	1	< 1	< 2	53	1.74	2	< 10	12	0.6	< 2	3.01	6	9	7.19	20	3
789622 Dup				< 0.2	< 0.5	3	794	< 1	2	< 2	53	1.73	< 2	< 10	11	0.6	< 2	2.98	8	10	7.17	20	< 1
789631 Orig																							
789631 Dup																							
789639 Orig				< 0.2	< 0.5	13	741	< 1	2	< 2	32	1.53	< 2	< 10	22	< 0.5	< 2	4.10	23	6	6.11	< 10	< 1
789639 Dup				< 0.2	< 0.5	13	742	< 1	3	< 2	32	1.54	2	< 10	22	< 0.5	< 2	4.10	24	7	6.09	< 10	< 1
789641 Orig																							
789641 Dup																							
789645 Orig	> 30000	< 5	< 5																				
789645 Dup	> 30000	< 5	< 5																				
789646 Orig				< 0.2	< 0.5	88	881	< 1	15	< 2	61	2.59	< 2	< 10	13	< 0.5	< 2	4.54	38	7	7.92	10	3
789646 Dup				< 0.2	< 0.5	89	899	< 1	20	< 2	61	2.67	< 2	< 10	13	< 0.5	< 2	4.62	38	7	8.33	10	2
789650 Orig	13	< 5	< 5	< 0.2	< 0.5	108	697	< 1	15	< 2	50	1.90	< 2	< 10	15	< 0.5	< 2	2.83	39	5	8.70	10	< 1
789650 Split PREP DUP	11	< 5	< 5	< 0.2	< 0.5	120	691	< 1	15	< 2	51	1.91	< 2	< 10	16	< 0.5	< 2	2.78	42	6	8.75	10	< 1
789651 Orig																							
789651 Dup																							
789654 Orig	5	< 5	< 5																				
789654 Dup	5	< 5	< 5																				

Analyte Symbol	Au	Pd	Pt	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg
Unit Symbol	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm
Lower Limit	2	5	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1
Method Code	FA-ICP	FA-ICP	FA-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
789661 Orig																							
789661 Dup																							
789670 Orig																							
789670 Dup																							
Method Blank	< 2	< 5	< 5																				
Method Blank	< 2	< 5	< 5																				
Method Blank	< 2	< 5	< 5																				
Method Blank	< 2	< 5	< 5																				
Method Blank				< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1
Method Blank				< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1
Method Blank	< 2	< 5	< 5																				
Method Blank																							

Analyte Symbol	K	La	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Total S	Au		
Unit Symbol	%	ppm	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	g/tonne		
Lower Limit	0.01	10	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	0.01	0.03		
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	CS	FA- GRA		
GXR-1 Meas	0.03	< 10	0.14	0.054	0.048	0.20	83	1	183	< 0.01	< 20	7	< 2	32	77	124	25	14				
GXR-1 Cert	0.050	7.50	0.217	0.0520	0.0650	0.257	122	1.58	275	0.036	2.44	13.0	0.390	34.9	80.0	164	32.0	38.0				
GXR-6 Meas	1.04	< 10	0.42	0.115	0.032	0.01	3	19	39		< 20	< 1	< 2	< 10	168	< 10	5	8				
GXR-6 Cert	1.87	13.9	0.609	0.104	0.0350	0.0160	3.60	27.6	35.0		5.30	0.0180	2.20	1.54	186	1.90	14.0	110				
BaSO4 Meas																				13.3		
BaSO4 Cert																					14.0	
BaSO4 Meas																					13.7	
BaSO4 Cert																						14.0
BaSO4 Meas																						14.0
BaSO4 Cert																						14.0
SGR-1b Meas																						1.54
SGR-1b Cert																						1.53
SGR-1b Meas																						1.51
SGR-1b Cert																						1.53
SGR-1b Meas																						1.51
SGR-1b Cert																						1.53
SGR-1b Meas																						1.46
SGR-1b Cert																						1.53
GS311-4 Meas																						0.53
GS311-4 Cert																						0.54
GS311-4 Meas																						0.55
GS311-4 Cert																						0.54
GS311-4 Meas																						0.54
GS311-4 Cert																						0.54
GS311-4 Meas																						0.54
GS311-4 Cert																						0.54
GS900-5 Meas																						0.34
GS900-5 Cert																						0.34
GS900-5 Meas																						0.34
GS900-5 Cert																						0.34
GS900-5 Meas																						0.35
GS900-5 Cert																						0.34
GS900-5 Meas																						0.36
GS900-5 Cert																						0.34
OREAS 904 (Aqua Regia) Meas	0.96	42	0.24		0.102	0.04	5	5	20		< 20		< 2	< 10	38			20				
OREAS 904 (Aqua Regia) Cert	0.603	33.9	0.143		0.0950	0.0340	0.780	3.83	16.5		7.56		0.150	5.20	21.7			17.2				
OREAS 922 (AQUA REGIA) Meas	0.51	41	1.47	0.036	0.065	0.38	4	4	17		< 20		< 2	< 10	40	< 10		23	17			
OREAS 922	0.376	32.5	1.33	0.021	0.063	0.386	0.57	3.15	15.0		14.5		0.14	1.98	29.4	1.12		16.0	22.3			

Analyte Symbol	K	La	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Total S	Au	
Unit Symbol	%	ppm	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	g/tonne	
Lower Limit	0.01	10	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	0.01	0.03	
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	CS	FA- GRA	
(AQUA REGIA) Cert																					
OREAS 923 (AQUA REGIA) Meas	0.43	38	1.56		0.062	0.70	3	4	15		< 20		< 2	< 10	39	< 10	21	27			
OREAS 923 (AQUA REGIA) Cert	0.322	30.0	1.43		0.061	0.684	0.58	3.09	13.6		14.3		0.12	1.80	30.6	1.96	14.3	22.5			
OREAS 216 (Fire Assay) Meas																				6.70	
OREAS 216 (Fire Assay) Cert																				6.66	
OREAS 215 (Fire Assay) Meas																				3.56	
OREAS 215 (Fire Assay) Cert																				3.54	
789610 Orig																				0.29	
789610 Dup																				0.28	
789611 Orig	0.03	< 10	1.92	0.308	0.038	0.06	2	21	10	0.23	< 20	1	< 2	< 10	167	< 10	13	5			
789611 Dup	0.03	< 10	1.91	0.307	0.037	0.06	< 2	21	10	0.24	< 20	< 1	< 2	< 10	167	< 10	13	5			
789614 Orig	0.04	< 10	1.66	0.339	0.051	0.26	3	25	10	0.27	< 20	< 1	< 2	< 10	214	< 10	19	7			
789614 Dup	0.04	< 10	1.68	0.342	0.051	0.27	< 2	25	10	0.27	< 20	< 1	< 2	< 10	216	< 10	19	7			
789620 Orig																				3.37	6.64
789620 Dup																				3.46	5.38
789621 Orig																					
789621 Dup																					
789622 Orig	0.04	17	0.51	0.248	0.137	0.11	2	13	21	0.15	< 20	< 1	< 2	< 10	2	< 10	57	8			
789622 Dup	0.03	17	0.51	0.245	0.135	0.11	3	13	20	0.15	< 20	< 1	< 2	< 10	1	< 10	57	8			
789631 Orig																				0.48	
789631 Dup																				0.48	
789639 Orig	0.05	< 10	0.92	0.301	0.043	0.45	2	26	33	0.34	< 20	3	< 2	< 10	61	< 10	17	6			
789639 Dup	0.05	< 10	0.93	0.302	0.043	0.45	< 2	26	33	0.33	< 20	5	< 2	< 10	61	< 10	17	6			
789641 Orig																				0.02	
789641 Dup																				0.02	
789645 Orig																					
789645 Dup																					
789646 Orig	0.05	< 10	2.12	0.329	0.025	0.22	3	28	28	0.25	< 20	< 1	< 2	< 10	391	< 10	11	4			
789646 Dup	0.06	< 10	2.18	0.342	0.025	0.22	< 2	28	29	0.25	< 20	< 1	< 2	< 10	398	< 10	12	4			
789650 Orig	0.05	< 10	1.74	0.342	0.022	0.09	4	26	23	0.32	< 20	< 1	< 2	< 10	532	< 10	10	4	0.09		
789650 Split PREP DUP	0.04	< 10	1.78	0.344	0.022	0.10	< 2	27	21	0.29	< 20	< 1	< 2	< 10	541	< 10	10	4	0.10		
789651 Orig																				< 0.01	
789651 Dup																				< 0.01	
789654 Orig																					

Analyte Symbol	K	La	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Total S	Au
Unit Symbol	%	ppm	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	g/tonne
Lower Limit	0.01	10	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	0.01	0.03
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	CS	FA- GRA
789654 Dup																				
789661 Orig																				< 0.01
789661 Dup																				< 0.01
789670 Orig																				0.24
789670 Dup																				0.23
Method Blank																				
Method Blank																				
Method Blank																				
Method Blank																				
Method Blank	< 0.01	< 10	< 0.01	0.013	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1		
Method Blank	< 0.01	< 10	< 0.01	0.013	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1		
Method Blank																				
Method Blank																				< 0.03



Date Submitted: 19-Jun-18
Invoice No.: A18-07864
Invoice Date: 01-Aug-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Suite 6, 295 Rokeby Rd
Subiaco WA 6008
Australia

ATTN: Brad Boyle (inv/res)

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1C-OES Fire Assay ICPOES
Code 1E3 Aqua Regia ICP(AQUAGEO)
Code 4F-S Infrared

REPORT **A18-07864**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:

A handwritten signature in black ink, appearing to read "Emmanuel Esemé". The signature is stylized and somewhat illegible.

Emmanuel Esemé , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-9611 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Results

Activation Laboratories Ltd.

Report: A18-07864

Analyte Symbol	Total S	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	CS	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
789916	1.60	0.9	< 0.5	24	752	2	1	< 2	28	1.12	< 2	< 10	< 10	< 0.5	< 2	4.11	16	5	6.49	< 10	< 1	0.02	< 10
789917	0.10	< 0.2	< 0.5	11	756	< 1	3	< 2	29	1.74	< 2	< 10	68	< 0.5	< 2	3.21	21	5	7.17	10	< 1	0.11	< 10
789918	0.40	< 0.2	< 0.5	21	926	< 1	1	< 2	34	1.51	< 2	< 10	24	< 0.5	< 2	3.81	21	3	7.49	< 10	< 1	0.07	< 10
789919	0.10	< 0.2	< 0.5	7	737	< 1	2	< 2	30	1.71	< 2	< 10	< 10	< 0.5	< 2	2.91	22	3	7.87	10	< 1	0.04	< 10
789920	0.32	< 0.2	< 0.5	17	721	< 1	3	< 2	31	1.72	2	< 10	12	< 0.5	< 2	3.98	26	2	6.37	< 10	< 1	0.04	< 10
789921	0.21	< 0.2	< 0.5	19	613	< 1	4	3	42	1.70	< 2	< 10	< 10	< 0.5	< 2	3.03	25	2	5.70	< 10	< 1	0.04	< 10
789922	0.75	< 0.2	< 0.5	56	608	< 1	2	< 2	32	1.74	< 2	< 10	11	< 0.5	< 2	3.46	38	2	6.05	< 10	< 1	0.06	< 10
789923	0.12	< 0.2	< 0.5	30	729	< 1	3	< 2	36	1.84	< 2	< 10	34	< 0.5	< 2	2.60	32	< 1	7.36	< 10	< 1	0.16	< 10
789924	0.06	< 0.2	< 0.5	27	743	< 1	5	< 2	36	2.16	< 2	< 10	146	< 0.5	< 2	2.34	37	1	7.74	10	< 1	0.46	< 10
789925	0.27	< 0.2	< 0.5	38	785	< 1	9	< 2	44	2.44	< 2	< 10	35	< 0.5	< 2	3.26	39	1	8.31	10	< 1	0.09	< 10
789926	< 0.01	< 0.2	< 0.5	2	84	< 1	< 1	< 2	2	0.14	< 2	< 10	13	< 0.5	< 2	0.08	< 1	5	0.65	< 10	< 1	0.03	< 10
789927	0.12	< 0.2	< 0.5	43	744	< 1	10	< 2	37	1.93	< 2	< 10	20	< 0.5	< 2	3.11	34	4	7.00	< 10	< 1	0.07	< 10
789928	0.26	< 0.2	< 0.5	50	662	< 1	8	< 2	35	1.86	< 2	< 10	26	< 0.5	< 2	3.10	29	3	6.32	< 10	< 1	0.06	< 10
789929	0.17	< 0.2	< 0.5	79	760	< 1	12	< 2	42	2.25	< 2	< 10	20	< 0.5	< 2	3.53	33	2	6.87	< 10	< 1	0.08	< 10
789930	0.02	< 0.2	< 0.5	49	624	1	124	10	90	2.98	11	< 10	89	0.7	< 2	1.86	33	84	5.59	< 10	< 1	0.18	17
789931	0.14	< 0.2	< 0.5	102	758	< 1	13	< 2	45	2.14	< 2	< 10	20	< 0.5	< 2	3.11	34	2	6.69	< 10	< 1	0.07	< 10
789932	0.34	< 0.2	< 0.5	146	738	< 1	15	< 2	47	2.43	< 2	< 10	17	< 0.5	< 2	3.08	39	2	7.30	10	< 1	0.06	< 10
789933	0.26	< 0.2	< 0.5	76	787	< 1	16	< 2	49	2.50	< 2	< 10	16	< 0.5	< 2	3.50	37	3	7.16	< 10	< 1	0.06	< 10
789934	0.33	< 0.2	< 0.5	101	825	< 1	16	< 2	51	2.48	< 2	< 10	48	< 0.5	< 2	3.27	39	4	7.40	10	< 1	0.06	< 10
789935	0.09	< 0.2	< 0.5	90	754	< 1	11	< 2	47	2.10	< 2	< 10	14	< 0.5	< 2	3.34	31	2	6.70	< 10	< 1	0.06	< 10
789936	0.10	< 0.2	< 0.5	104	708	< 1	11	< 2	45	1.98	< 2	< 10	12	< 0.5	< 2	2.80	29	2	6.59	< 10	< 1	0.06	< 10
789937	0.07	< 0.2	< 0.5	54	636	< 1	6	< 2	42	1.11	< 2	< 10	< 10	< 0.5	< 2	1.84	26	3	7.95	< 10	< 1	0.04	< 10
789938	0.20	< 0.2	< 0.5	113	751	< 1	15	< 2	49	1.79	< 2	< 10	12	< 0.5	< 2	2.58	38	3	7.03	< 10	< 1	0.07	< 10
789939	0.39	< 0.2	< 0.5	108	699	< 1	15	< 2	48	1.94	< 2	< 10	20	< 0.5	< 2	2.80	38	6	6.47	< 10	< 1	0.06	< 10
789940	0.38	< 0.2	< 0.5	67	731	< 1	10	< 2	47	2.12	< 2	< 10	15	< 0.5	< 2	3.12	51	1	7.36	< 10	< 1	0.07	< 10
789941	0.36	< 0.2	< 0.5	66	681	< 1	9	< 2	45	2.04	< 2	< 10	14	< 0.5	< 2	2.82	48	3	7.07	< 10	< 1	0.06	< 10
789942	0.46	< 0.2	< 0.5	89	717	< 1	14	< 2	50	2.08	< 2	< 10	56	< 0.5	< 2	3.18	52	3	8.21	< 10	< 1	0.09	< 10
789943	2.10	0.3	< 0.5	461	769	< 1	30	3	63	1.95	< 2	< 10	39	< 0.5	< 2	3.55	58	3	8.56	< 10	< 1	0.10	23
789944	1.95	< 0.2	< 0.5	341	963	< 1	28	< 2	59	1.82	< 2	13	36	< 0.5	< 2	5.26	43	3	8.33	< 10	< 1	0.15	27
789945	0.75	< 0.2	< 0.5	279	835	< 1	33	< 2	75	2.38	2	< 10	93	< 0.5	< 2	4.01	34	3	7.56	< 10	< 1	0.21	17
789946	0.29	< 0.2	< 0.5	279	667	< 1	45	< 2	46	2.24	< 2	< 10	31	< 0.5	< 2	3.12	33	5	5.48	< 10	< 1	0.07	< 10
789947	0.08	< 0.2	< 0.5	194	601	< 1	32	< 2	29	1.86	< 2	< 10	11	< 0.5	< 2	2.47	22	10	4.03	< 10	< 1	0.05	< 10
789948	0.33	0.4	< 0.5	122	589	< 1	27	3	211	3.03	< 2	< 10	52	< 0.5	< 2	1.46	22	52	4.14	10	< 1	0.24	< 10
789949	0.24	0.3	< 0.5	365	557	< 1	34	3	148	2.69	< 2	< 10	55	< 0.5	< 2	0.51	32	53	4.24	10	< 1	0.27	< 10
789950	0.16	0.2	< 0.5	204	201	< 1	56	< 2	61	1.27	< 2	< 10	144	< 0.5	< 2	0.38	19	44	1.61	< 10	< 1	0.37	< 10

Results

Activation Laboratories Ltd.

Report: A18-07864

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Pd	Pt
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	2	5	5
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-ICP	FA-ICP	FA-ICP
789916	0.42	0.154	0.101	1.42	< 2	16	33	0.16	< 20	< 1	< 2	< 10	20	< 10	34	11	3840	< 5	< 5
789917	0.72	0.234	0.065	0.09	< 2	26	20	0.29	< 20	< 1	< 2	< 10	132	< 10	23	7	9	< 5	< 5
789918	0.69	0.225	0.064	0.34	< 2	25	25	0.25	< 20	< 1	< 2	< 10	24	< 10	23	7	205	< 5	< 5
789919	0.87	0.265	0.055	0.08	< 2	29	14	0.33	< 20	1	< 2	< 10	52	< 10	20	6	7	< 5	< 5
789920	1.01	0.242	0.046	0.27	< 2	24	22	0.30	< 20	< 1	< 2	< 10	73	< 10	16	5	429	< 5	< 5
789921	1.18	0.240	0.066	0.17	< 2	22	15	0.27	< 20	< 1	< 2	< 10	139	< 10	20	6	164	< 5	< 5
789922	1.10	0.217	0.034	0.65	< 2	20	14	0.28	< 20	< 1	< 2	< 10	158	< 10	12	5	826	< 5	< 5
789923	1.34	0.230	0.036	0.10	< 2	23	12	0.35	< 20	< 1	< 2	< 10	258	< 10	12	5	17	< 5	< 5
789924	1.52	0.252	0.036	0.05	< 2	25	10	0.39	< 20	< 1	< 2	< 10	275	< 10	13	6	7	< 5	< 5
789925	1.62	0.251	0.032	0.22	< 2	25	11	0.37	< 20	< 1	< 2	< 10	352	< 10	13	5	192	< 5	< 5
789926	0.03	0.032	0.003	< 0.01	< 2	< 1	3	0.01	< 20	< 1	< 2	< 10	5	< 10	1	4	< 2	< 5	< 5
789927	1.44	0.270	0.029	0.11	< 2	23	24	0.35	< 20	< 1	< 2	< 10	348	< 10	11	5	< 2	< 5	< 5
789928	1.35	0.258	0.037	0.22	< 2	21	11	0.28	< 20	< 1	< 2	< 10	279	< 10	13	4	112	< 5	< 5
789929	1.49	0.321	0.028	0.14	< 2	24	14	0.31	< 20	< 1	< 2	< 10	369	< 10	11	4	18	< 5	< 5
789930	1.82	0.521	0.090	0.02	< 2	7	139	0.34	< 20	< 1	< 2	< 10	62	< 10	12	5	502	< 5	< 5
789931	1.50	0.307	0.027	0.12	< 2	23	18	0.32	< 20	< 1	< 2	< 10	370	< 10	10	4	15	< 5	< 5
789932	1.66	0.326	0.026	0.29	< 2	26	11	0.33	< 20	< 1	< 2	< 10	409	< 10	11	4	10	< 5	< 5
789933	1.73	0.293	0.027	0.22	< 2	25	13	0.31	< 20	< 1	< 2	< 10	395	< 10	11	4	9	< 5	< 5
789934	1.71	0.322	0.025	0.28	< 2	26	9	0.35	< 20	< 1	< 2	< 10	417	< 10	11	4	204	< 5	< 5
789935	1.48	0.296	0.021	0.08	< 2	23	21	0.41	< 20	< 1	< 2	< 10	411	< 10	9	3	15	< 5	< 5
789936	1.44	0.257	0.024	0.09	< 2	21	24	0.45	< 20	< 1	< 2	< 10	388	< 10	11	4	16	< 5	< 5
789937	0.93	0.186	0.073	0.06	< 2	17	7	0.27	< 20	< 1	< 2	< 10	194	< 10	23	7	5	< 5	< 5
789938	1.48	0.278	0.023	0.18	< 2	23	8	0.32	< 20	< 1	< 2	< 10	409	< 10	9	3	5	< 5	< 5
789939	1.44	0.296	0.020	0.34	< 2	23	10	0.40	< 20	< 1	< 2	< 10	385	< 10	9	3	1030	< 5	< 5
789940	1.56	0.338	0.015	0.33	< 2	24	11	0.51	< 20	< 1	< 2	< 10	568	< 10	7	4	14	< 5	< 5
789941	1.56	0.313	0.017	0.30	< 2	24	14	0.39	< 20	< 1	< 2	< 10	526	< 10	7	3	< 2	< 5	< 5
789942	1.78	0.329	0.016	0.39	< 2	26	17	0.41	< 20	< 1	< 2	< 10	660	< 10	8	4	9	< 5	< 5
789943	1.68	0.327	0.024	1.77	< 2	21	40	0.34	< 20	< 1	< 2	< 10	551	< 10	10	6	52	< 5	< 5
789944	1.72	0.271	0.040	1.58	< 2	20	96	0.32	< 20	< 1	< 2	< 10	517	< 10	11	6	34	< 5	< 5
789945	2.11	0.343	0.027	0.73	< 2	23	39	0.31	< 20	< 1	< 2	< 10	502	< 10	10	5	63	< 5	< 5
789946	1.75	0.361	0.014	0.25	< 2	22	15	0.37	< 20	< 1	< 2	< 10	440	< 10	8	3	38	< 5	< 5
789947	1.53	0.286	0.014	0.07	< 2	17	17	0.24	< 20	< 1	< 2	< 10	238	< 10	6	3	12	< 5	< 5
789948	2.55	0.112	0.036	0.30	< 2	8	20	0.09	< 20	< 1	< 2	< 10	68	< 10	5	16	7	< 5	< 5
789949	2.53	0.054	0.054	0.22	< 2	9	7	0.11	< 20	< 1	< 2	< 10	80	< 10	5	14	15	< 5	< 5
789950	1.50	0.099	0.041	0.15	< 2	7	5	0.09	< 20	< 1	< 2	< 10	50	< 10	3	12	< 2	< 5	< 5

Analyte Symbol	Total S	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	CS	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-4 Meas		3.1	< 0.5	6100	143	293	36	40	69	2.63	99	< 10	27	1.4	21	0.86	13	53	3.00	10	< 1	1.62	50
GXR-4 Cert		4.0	0.860	6520	155	310	42.0	52.0	73.0	7.20	98.0	4.50	1640	1.90	19.0	1.01	14.6	64.0	3.09	20.0	0.110	4.01	64.5
GXR-4 Meas		3.1	< 0.5	5960	142	294	35	39	69	2.58	98	< 10	27	1.4	17	0.86	12	51	2.96	10	< 1	1.61	49
GXR-4 Cert		4.0	0.860	6520	155	310	42.0	52.0	73.0	7.20	98.0	4.50	1640	1.90	19.0	1.01	14.6	64.0	3.09	20.0	0.110	4.01	64.5
GXR-6 Meas		0.3	< 0.5	65	1070	< 1	23	95	127	7.03	255	< 10	803	1.0	< 2	0.15	13	78	5.56	20	< 1	1.12	11
GXR-6 Cert		1.30	1.00	66.0	1010	2.40	27.0	101	118	17.7	330	9.80	1300	1.40	0.290	0.180	13.8	96.0	5.58	35.0	0.0680	1.87	13.9
GXR-6 Meas		0.3	< 0.5	66	1080	1	22	96	129	7.20	250	< 10	836	1.0	< 2	0.16	13	80	5.61	20	< 1	1.15	12
GXR-6 Cert		1.30	1.00	66.0	1010	2.40	27.0	101	118	17.7	330	9.80	1300	1.40	0.290	0.180	13.8	96.0	5.58	35.0	0.0680	1.87	13.9
BaSO4 Meas	14.3																						
BaSO4 Cert	14.0																						
BaSO4 Meas	13.2																						
BaSO4 Cert	14.0																						
BaSO4 Meas	13.7																						
BaSO4 Cert	14.0																						
BaSO4 Meas	13.7																						
BaSO4 Cert	14.0																						
BaSO4 Meas	14.1																						
BaSO4 Cert	14.0																						
BaSO4 Meas	13.4																						
BaSO4 Cert	14.0																						
BaSO4 Meas	14.5																						
BaSO4 Cert	14.0																						
BaSO4 Meas	13.9																						
BaSO4 Cert	14.0																						
BaSO4 Meas	14.3																						
BaSO4 Cert	14.0																						
SGR-1b Meas	1.61																						
SGR-1b Cert	1.53																						
SGR-1b Meas	1.50																						
SGR-1b Cert	1.53																						
SGR-1b Meas	1.45																						
SGR-1b Cert	1.53																						
SGR-1b Meas	1.56																						
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SGR-1b Meas	1.52																						
SGR-1b Cert	1.53																						

Analyte Symbol	Total S	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	CS	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
SGR-1b Meas	1.55																						
SGR-1b Cert	1.53																						
PK2 Meas																							
PK2 Cert																							
PK2 Meas																							
PK2 Cert																							
GS311-4 Meas	0.52																						
GS311-4 Cert	0.54																						
GS311-4 Meas	0.54																						
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GS311-4 Meas	0.58																						
GS311-4 Cert	0.54																						
GS900-5 Meas	0.33																						
GS900-5 Cert	0.34																						
GS900-5 Meas	0.34																						
GS900-5 Cert	0.34																						
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GS900-5 Cert	0.34																						
GS900-5 Meas	0.33																						
GS900-5 Cert	0.34																						
GS900-5 Meas	0.35																						
GS900-5 Cert	0.34																						

Analyte Symbol	Total S	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	CS	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
Oreas 621 (Aqua Regia) Meas		62.7	275	3330	517	12	23	> 5000	> 10000	1.70	73			0.6	7	1.63	27	30	3.34	< 10	3	0.35	19
Oreas 621 (Aqua Regia) Cert		68.0	278	3660	520	13.3	25.8	13600	51700	1.60	75.0			0.530	3.85	1.65	27.9	31.3	3.43	9.29	3.93	0.333	19.4
Oreas 621 (Aqua Regia) Meas		64.4	274	3410	531	12	25	> 5000	> 10000	1.77	74			0.6	2	1.67	28	33	3.42	< 10	4	0.37	20
Oreas 621 (Aqua Regia) Cert		68.0	278	3660	520	13.3	25.8	13600	51700	1.60	75.0			0.530	3.85	1.65	27.9	31.3	3.43	9.29	3.93	0.333	19.4
789917 Orig		< 0.2	< 0.5	11	761	< 1	3	< 2	30	1.76	< 2	< 10	69	< 0.5	< 2	3.24	21	4	7.24	10	< 1	0.11	< 10
789917 Dup		< 0.2	< 0.5	11	752	< 1	3	< 2	29	1.72	< 2	< 10	67	< 0.5	< 2	3.17	20	5	7.10	10	< 1	0.11	< 10
789925 Orig	0.26																						
789925 Dup	0.27																						
789927 Orig																							
789927 Dup																							
789935 Orig	0.10																						
789935 Dup	0.09																						
789946 Orig	0.29	< 0.2	< 0.5	277	666	< 1	46	< 2	46	2.25	< 2	< 10	33	< 0.5	< 2	3.13	33	6	5.50	< 10	< 1	0.07	< 10
789946 Dup	0.29	< 0.2	< 0.5	280	668	< 1	45	< 2	47	2.24	< 2	< 10	30	< 0.5	< 2	3.12	33	5	5.46	< 10	< 1	0.07	< 10
789947 Orig		< 0.2	< 0.5	192	594	< 1	32	< 2	29	1.82	< 2	< 10	11	< 0.5	< 2	2.42	21	9	3.95	< 10	< 1	0.05	< 10
789947 Dup		< 0.2	< 0.5	195	609	< 1	32	< 2	30	1.90	< 2	< 10	11	< 0.5	< 2	2.51	22	10	4.11	< 10	< 1	0.05	< 10
789950 Orig	0.16	0.2	< 0.5	204	201	< 1	56	< 2	61	1.27	< 2	< 10	144	< 0.5	< 2	0.38	19	44	1.61	< 10	< 1	0.37	< 10
789950 Split PREP DUP	0.13	0.3	< 0.5	269	205	< 1	72	< 2	78	1.30	< 2	< 10	135	< 0.5	< 2	0.40	21	41	1.63	< 10	< 1	0.39	< 10
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank		< 0.2	< 0.5	1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Pd	Pt
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	2	5	5
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-ICP	FA-ICP	FA-ICP
SGR-1b Meas																			
SGR-1b Cert																			
PK2 Meas																	4900	5930	4640
PK2 Cert																	4790	5918.00	4749.00
PK2 Meas																	4860	6020	4830
PK2 Cert																	4790	5918.00	4749.00
GS311-4 Meas																			
GS311-4 Cert																			
GS311-4 Meas																			
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Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Pd	Pt
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	2	5	5
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-ICP	FA-ICP	FA-ICP
GS900-5 Cert																			
Oreas 621 (Aqua Regia) Meas	0.42	0.171	0.032	4.09	100	2	18		< 20			< 2	< 10	12	< 10	7	65		
Oreas 621 (Aqua Regia) Cert	0.436	0.160	0.0335	4.50	107	2.20	18.9		5.91			0.770	163	10.9	1.00	6.87	55.0		
Oreas 621 (Aqua Regia) Meas	0.43	0.179	0.033	4.24	105	2	19		< 20			5	< 10	13	< 10	8	68		
Oreas 621 (Aqua Regia) Cert	0.436	0.160	0.0335	4.50	107	2.20	18.9		5.91			0.770	163	10.9	1.00	6.87	55.0		
789917 Orig	0.73	0.237	0.066	0.09	2	26	20	0.29	< 20	< 1	< 2	< 10	134	< 10	23	7			
789917 Dup	0.71	0.230	0.064	0.09	< 2	26	20	0.29	< 20	< 1	< 2	< 10	129	< 10	23	7			
789925 Orig																			
789925 Dup																			
789927 Orig																	< 2	< 5	< 5
789927 Dup																	< 2	< 5	< 5
789935 Orig																			
789935 Dup																			
789946 Orig	1.75	0.363	0.014	0.25	< 2	22	14	0.37	< 20	< 1	< 2	< 10	441	< 10	8	3	35	< 5	< 5
789946 Dup	1.74	0.359	0.014	0.26	< 2	22	15	0.37	< 20	< 1	< 2	< 10	439	< 10	8	3	41	< 5	< 5
789947 Orig	1.49	0.280	0.014	0.07	< 2	17	16	0.24	< 20	< 1	< 2	< 10	233	< 10	6	3			
789947 Dup	1.56	0.292	0.014	0.07	< 2	18	17	0.25	< 20	< 1	< 2	< 10	242	< 10	6	3			
789950 Orig	1.50	0.099	0.041	0.15	< 2	7	5	0.09	< 20	< 1	< 2	< 10	50	< 10	3	12	< 2	< 5	< 5
789950 Split PREP DUP	1.55	0.087	0.054	0.13	< 2	7	5	0.09	< 20	< 1	< 2	< 10	51	< 10	4	9	2	< 5	< 5
Method Blank	< 0.01	0.012	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1			
Method Blank	< 0.01	0.012	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1			
Method Blank	< 0.01	0.016	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1			
Method Blank	< 0.01	0.014	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1			
Method Blank																	< 2	< 5	< 5
Method Blank																	< 2	< 5	< 5
Method Blank																	< 2	< 5	< 5
Method Blank																	< 2	< 5	< 5



Date Submitted: 18-Jun-18
Invoice No.: A18-08010
Invoice Date: 27-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth
6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1C-OES Fire Assay ICPOES
Code 1E3 Aqua Regia ICP(AQUAGEO)
Code 4F-S Infrared
Code Specific Gravity Pulp

REPORT **A18-08010**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:

A handwritten signature in black ink, appearing to be "Emmanuel Esemé". The signature is stylized and somewhat cursive, written over a horizontal line.

Emmanuel Esemé , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-9611 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Results

Activation Laboratories Ltd.

Report: A18-08010

Analyte Symbol	Total S	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	CS	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
789671	0.19	< 0.2	< 0.5	127	569	< 1	38	< 2	20	1.62	< 2	< 10	< 10	< 0.5	< 2	3.31	23	61	4.11	< 10	< 1	0.03	< 10
789672	0.24	< 0.2	< 0.5	113	637	< 1	32	3	37	2.13	< 2	< 10	12	< 0.5	< 2	4.68	24	31	4.73	< 10	< 1	0.04	< 10
789673	0.10	< 0.2	< 0.5	42	546	< 1	22	< 2	23	2.04	< 2	< 10	11	< 0.5	< 2	3.14	20	21	4.42	< 10	< 1	0.03	< 10
789674	0.25	< 0.2	< 0.5	44	597	< 1	22	< 2	31	2.03	< 2	< 10	10	< 0.5	< 2	2.99	23	15	4.60	< 10	< 1	0.02	< 10
789675	0.62	< 0.2	< 0.5	91	655	< 1	21	< 2	40	2.12	< 2	< 10	18	< 0.5	< 2	2.92	28	8	5.73	< 10	< 1	0.06	< 10
789676	< 0.01	< 0.2	< 0.5	8	118	< 1	2	< 2	4	0.19	< 2	< 10	14	< 0.5	< 2	0.09	1	6	1.19	< 10	< 1	0.04	< 10
789677	0.09	< 0.2	< 0.5	48	761	< 1	17	< 2	45	2.05	< 2	< 10	307	< 0.5	< 2	3.14	25	6	5.85	< 10	< 1	0.41	< 10
789678	0.23	< 0.2	< 0.5	116	759	< 1	13	< 2	46	2.26	2	< 10	112	< 0.5	< 2	3.62	28	3	6.85	10	< 1	0.19	< 10
789679	0.78	< 0.2	< 0.5	27	715	2	2	< 2	57	1.55	< 2	< 10	11	< 0.5	< 2	3.04	15	1	6.56	10	< 1	0.02	< 10
789680	0.75	1.3	< 0.5	116	607	4	148	26	59	2.87	52	13	50	< 0.5	< 2	3.01	27	403	4.37	< 10	< 1	0.19	< 10
789681	0.33	< 0.2	< 0.5	4	727	< 1	< 1	< 2	74	1.48	8	< 10	< 10	< 0.5	< 2	2.82	9	< 1	6.83	10	< 1	0.02	15
789682	0.28	< 0.2	< 0.5	4	739	< 1	2	< 2	71	1.22	23	< 10	< 10	< 0.5	< 2	1.48	8	< 1	7.73	20	< 1	0.02	15
789683	< 0.01	< 0.2	< 0.5	3	63	< 1	< 1	< 2	2	0.12	< 2	< 10	15	< 0.5	< 2	0.06	< 1	4	0.57	< 10	< 1	0.02	< 10
789684	2.67	0.9	< 0.5	34	851	1	2	< 2	58	1.10	471	< 10	36	< 0.5	< 2	3.16	11	< 1	7.28	< 10	< 1	0.12	12
789685	2.50	1.6	< 0.5	32	1110	3	1	< 2	46	0.98	87	< 10	35	< 0.5	< 2	5.54	8	< 1	6.50	< 10	< 1	0.26	11
789686	0.32	< 0.2	< 0.5	10	999	< 1	< 1	< 2	43	1.31	11	< 10	15	< 0.5	< 2	3.59	8	< 1	7.79	10	< 1	0.04	13
789687	0.04	< 0.2	< 0.5	3	694	< 1	< 1	< 2	41	1.88	2	< 10	285	0.6	< 2	2.68	8	< 1	6.23	10	< 1	0.23	14
789688	< 0.01	< 0.2	< 0.5	< 1	633	< 1	2	< 2	29	1.42	< 2	< 10	67	0.6	< 2	1.86	10	< 1	8.28	10	< 1	0.12	10
789689	0.01	< 0.2	< 0.5	1	669	< 1	< 1	< 2	24	1.54	< 2	< 10	129	< 0.5	< 2	3.20	7	< 1	5.16	10	< 1	0.11	11
789690	0.59	0.4	< 0.5	14	855	< 1	1	< 2	51	1.60	< 2	< 10	21	< 0.5	< 2	2.56	11	< 1	7.59	10	< 1	0.03	13
789691	2.66	0.9	< 0.5	32	1010	< 1	< 1	< 2	29	0.88	5	< 10	25	< 0.5	< 2	4.86	13	< 1	6.80	< 10	< 1	0.04	< 10
789692	1.56	0.5	< 0.5	19	807	< 1	2	< 2	42	1.13	< 2	< 10	18	< 0.5	< 2	2.44	12	< 1	8.16	< 10	< 1	0.04	11
789693	0.03	< 0.2	< 0.5	< 1	845	< 1	1	< 2	48	1.29	< 2	< 10	47	0.5	< 2	1.92	11	< 1	8.92	10	< 1	0.07	11
789694	0.07	< 0.2	< 0.5	2	840	< 1	< 1	< 2	49	1.51	2	< 10	29	< 0.5	< 2	3.99	7	< 1	5.59	10	< 1	0.06	12
789695	0.01	< 0.2	< 0.5	< 1	1050	< 1	2	< 2	37	1.43	< 2	< 10	35	< 0.5	< 2	5.45	6	< 1	4.82	10	< 1	0.06	< 10
789696	0.08	< 0.2	< 0.5	< 1	885	< 1	2	< 2	42	1.47	< 2	< 10	53	< 0.5	< 2	3.83	8	< 1	5.94	10	< 1	0.08	10
789697	0.28	< 0.2	< 0.5	5	741	< 1	2	< 2	41	1.50	< 2	< 10	58	< 0.5	< 2	2.73	10	< 1	7.76	10	< 1	0.08	11
789698	1.01	0.5	< 0.5	28	631	< 1	1	6	35	1.43	< 2	< 10	29	< 0.5	< 2	2.56	16	< 1	7.90	10	< 1	0.06	< 10
789699	1.94	0.8	< 0.5	41	746	< 1	< 1	2	40	1.48	3	< 10	23	< 0.5	< 2	2.25	18	< 1	7.63	10	< 1	0.06	10
789700	0.71	< 0.2	< 0.5	25	641	< 1	2	< 2	42	1.71	< 2	< 10	< 10	< 0.5	< 2	2.75	21	< 1	6.13	10	< 1	0.04	< 10
789701	0.01	< 0.2	< 0.5	5	88	< 1	< 1	< 2	3	0.12	< 2	< 10	15	< 0.5	< 2	0.08	< 1	4	0.60	< 10	< 1	0.02	< 10
789702	0.04	< 0.2	< 0.5	56	825	< 1	3	< 2	49	1.70	< 2	< 10	116	< 0.5	< 2	3.46	20	< 1	6.57	10	< 1	0.25	< 10
789703	0.01	< 0.2	< 0.5	29	653	< 1	2	< 2	37	1.71	< 2	< 10	102	< 0.5	< 2	2.23	21	< 1	8.14	10	< 1	0.24	< 10
789704	0.03	< 0.2	< 0.5	24	678	< 1	2	< 2	29	1.62	< 2	< 10	18	< 0.5	< 2	2.86	17	< 1	6.57	10	< 1	0.07	< 10
789705	0.02	< 0.2	< 0.5	49	622	1	125	9	89	2.83	13	< 10	94	0.6	< 2	1.76	32	80	5.53	< 10	< 1	0.18	17

Results

Activation Laboratories Ltd.

Report: A18-08010

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Pd	Pt	Spec Grav
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb	-
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	2	5	5	0.01
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-ICP	FA-ICP	FA-ICP	GRAV
789671	1.46	0.257	0.035	0.18	< 2	18	15	0.23	< 20	< 1	< 2	< 10	145	< 10	10	4	3	< 5	< 5	
789672	1.55	0.297	0.036	0.22	< 2	21	19	0.24	< 20	< 1	< 2	< 10	164	< 10	13	5	< 2	< 5	< 5	
789673	1.53	0.299	0.047	0.09	< 2	21	15	0.26	< 20	< 1	< 2	< 10	178	< 10	14	4	74	< 5	< 5	
789674	1.34	0.293	0.042	0.22	< 2	21	14	0.25	< 20	4	< 2	< 10	177	< 10	15	4	24	< 5	< 5	
789675	1.44	0.284	0.045	0.53	< 2	22	14	0.24	< 20	1	< 2	< 10	207	< 10	16	6	141	< 5	< 5	
789676	0.04	0.057	0.003	< 0.01	< 2	< 1	2	0.01	< 20	< 1	< 2	< 10	6	< 10	2	8	< 2	< 5	< 5	
789677	1.35	0.250	0.051	0.07	< 2	23	18	0.30	< 20	2	< 2	< 10	224	< 10	19	6	15	< 5	< 5	
789678	1.40	0.281	0.053	0.20	< 2	25	22	0.30	< 20	< 1	< 2	< 10	259	< 10	23	7	117	< 5	< 5	
789679	0.54	0.218	0.107	0.69	< 2	17	32	0.23	< 20	3	< 2	< 10	38	< 10	36	11	1160	< 5	< 5	
789680	3.01	0.064	0.027	0.65	2	9	42	0.24	< 20	1	< 2	< 10	109	< 10	9	18	6520	7	< 5	
789681	0.39	0.202	0.145	0.29	< 2	10	16	0.16	< 20	4	< 2	< 10	13	< 10	48	6	1180	< 5	< 5	
789682	0.27	0.175	0.144	0.25	< 2	10	10	0.16	< 20	< 1	< 2	< 10	4	< 10	50	6	257	< 5	< 5	2.99
789683	0.03	0.037	0.002	< 0.01	< 2	< 1	2	0.01	< 20	< 1	< 2	< 10	7	< 10	1	4	< 2	< 5	< 5	
789684	0.37	0.126	0.127	1.87	< 2	12	27	0.10	< 20	3	< 2	< 10	17	< 10	31	7	6480	< 5	< 5	2.90
789685	0.45	0.104	0.148	1.93	< 2	11	65	0.13	< 20	2	< 2	< 10	23	< 10	36	7	4500	< 5	< 5	
789686	0.27	0.193	0.144	0.27	2	12	20	0.16	< 20	2	< 2	< 10	3	< 10	47	7	433	< 5	< 5	
789687	0.52	0.263	0.149	0.04	2	15	15	0.19	< 20	3	< 2	< 10	1	< 10	56	5	3	< 5	< 5	
789688	0.28	0.246	0.149	< 0.01	2	16	9	0.19	< 20	< 1	< 2	< 10	2	< 10	52	8	15	< 5	< 5	
789689	0.45	0.193	0.132	0.01	< 2	14	21	0.18	< 20	3	< 2	< 10	1	< 10	46	6	4	< 5	< 5	
789690	0.42	0.198	0.139	0.52	2	14	16	0.17	< 20	2	< 2	< 10	3	< 10	48	8	501	< 5	< 5	
789691	0.34	0.133	0.103	2.28	2	11	61	0.13	< 20	< 1	< 2	< 10	33	< 10	32	14	3310	< 5	< 5	
789692	0.29	0.172	0.121	1.12	< 2	13	19	0.16	< 20	2	< 2	< 10	28	< 10	41	12	3120	< 5	< 5	
789693	0.31	0.194	0.134	0.02	3	15	12	0.18	< 20	4	< 2	< 10	2	< 10	47	9	8	< 5	< 5	
789694	0.48	0.223	0.125	0.07	< 2	13	35	0.18	< 20	< 1	< 2	< 10	5	< 10	45	8	135	< 5	< 5	
789695	0.50	0.240	0.131	0.01	< 2	12	53	0.15	< 20	2	< 2	< 10	10	< 10	44	7	34	< 5	< 5	
789696	0.43	0.230	0.141	0.08	< 2	15	30	0.18	< 20	3	< 2	< 10	8	< 10	48	6	52	< 5	< 5	
789697	0.48	0.200	0.140	0.23	< 2	14	17	0.18	< 20	1	< 2	< 10	3	< 10	46	8	156	< 5	< 5	
789698	0.59	0.163	0.167	0.95	< 2	13	18	0.17	< 20	3	< 2	< 10	9	< 10	42	10	1610	< 5	< 5	
789699	0.52	0.189	0.131	1.78	2	18	14	0.19	< 20	6	< 2	< 10	24	< 10	42	13	3980	< 5	< 5	
789700	0.76	0.271	0.083	0.61	2	22	14	0.25	< 20	< 1	< 2	< 10	125	< 10	30	9	794	< 5	< 5	
789701	0.03	0.038	0.002	0.01	< 2	< 1	2	0.01	< 20	< 1	< 2	< 10	7	< 10	1	5	< 2	< 5	< 5	
789702	0.75	0.229	0.068	0.04	< 2	21	31	0.26	< 20	< 1	< 2	< 10	141	< 10	25	8	8	< 5	< 5	
789703	0.74	0.253	0.082	0.01	< 2	24	16	0.29	< 20	5	< 2	< 10	123	< 10	31	12	6	< 5	< 5	
789704	0.79	0.276	0.075	0.03	2	22	15	0.24	< 20	< 1	< 2	< 10	74	< 10	26	8	4	< 5	< 5	
789705	1.80	0.490	0.090	0.02	2	7	132	0.31	< 20	2	< 2	< 10	60	< 10	12	3	514	< 5	< 5	

Analyte Symbol	Total S	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	CS	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-4 Meas		3.2	< 0.5	6080	136	293	36	39	68	2.64	98	< 10	20	1.2	21	0.86	13	52	2.98	10	< 1	1.65	50
GXR-4 Cert		4.0	0.860	6520	155	310	42.0	52.0	73.0	7.20	98.0	4.50	1640	1.90	19.0	1.01	14.6	64.0	3.09	20.0	0.110	4.01	64.5
GXR-6 Meas		0.3	< 0.5	64	1040	< 1	22	92	123	6.88	233	< 10	873	0.8	< 2	0.15	12	76	5.38	20	< 1	1.08	11
GXR-6 Cert		1.30	1.00	66.0	1010	2.40	27.0	101	118	17.7	330	9.80	1300	1.40	0.290	0.180	13.8	96.0	5.58	35.0	0.0680	1.87	13.9
BaSO4 Meas	13.7																						
BaSO4 Cert	14.0																						
BaSO4 Meas	13.3																						
BaSO4 Cert	14.0																						
BaSO4 Meas	13.4																						
BaSO4 Cert	14.0																						
BaSO4 Meas	13.9																						
BaSO4 Cert	14.0																						
SGR-1b Meas	1.58																						
SGR-1b Cert	1.53																						
SGR-1b Meas	1.57																						
SGR-1b Cert	1.53																						
SGR-1b Meas	1.51																						
SGR-1b Cert	1.53																						
SGR-1b Meas	1.50																						
SGR-1b Cert	1.53																						
PK2 Meas																							
PK2 Cert																							
PK2 Meas																							
PK2 Cert																							
GS311-4 Meas	0.54																						
GS311-4 Cert	0.54																						
GS311-4 Meas	0.54																						
GS311-4 Cert	0.54																						
GS311-4 Meas	0.53																						
GS311-4 Cert	0.54																						
GS311-4 Meas	0.54																						
GS311-4 Cert	0.54																						
GS900-5 Meas	0.33																						
GS900-5 Cert	0.34																						
GS900-5 Meas	0.32																						
GS900-5 Cert	0.34																						
GS900-5 Meas	0.31																						
GS900-5 Cert	0.34																						
GS900-5 Meas	0.32																						
GS900-5 Cert	0.34																						
CDN-PGMS-29 Meas																							

Analyte Symbol	Total S	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	CS	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
CDN-PGMS-29 Cert																							
Oreas 621 (Aqua Regia) Meas		64.9	271	3450	529	12	24	> 5000	> 10000	1.74	76			0.5	3	1.67	28	30	3.44	< 10	4	0.35	20
Oreas 621 (Aqua Regia) Cert		68.0	278	3660	520	13.3	25.8	13600	51700	1.60	75.0			0.530	3.85	1.65	27.9	31.3	3.43	9.29	3.93	0.333	19.4
789672 Orig		< 0.2	< 0.5	113	637	< 1	34	3	38	2.13	< 2	< 10	12	< 0.5	< 2	4.67	24	31	4.72	< 10	< 1	0.04	< 10
789672 Dup		< 0.2	< 0.5	113	637	< 1	30	3	37	2.13	< 2	< 10	12	< 0.5	< 2	4.69	24	31	4.73	< 10	< 1	0.04	< 10
789678 Orig																							
789678 Dup																							
789680 Orig	0.76																						
789680 Dup	0.73																						
789682 Orig																							
789682 Dup																							
789690 Orig	0.59																						
789690 Dup	0.60																						
789699 Orig																							
789699 Dup																							
789701 Orig	0.01	< 0.2	< 0.5	5	88	< 1	< 1	< 2	3	0.12	< 2	< 10	14	< 0.5	< 2	0.08	1	4	0.60	< 10	< 1	0.02	< 10
789701 Dup	0.01	< 0.2	< 0.5	5	88	< 1	< 1	< 2	3	0.12	< 2	< 10	16	< 0.5	< 2	0.08	< 1	4	0.60	< 10	< 1	0.02	< 10
789702 Orig		< 0.2	< 0.5	55	812	< 1	3	< 2	48	1.67	< 2	< 10	116	< 0.5	< 2	3.42	20	< 1	6.47	10	< 1	0.25	< 10
789702 Dup		< 0.2	< 0.5	56	839	< 1	3	< 2	51	1.73	< 2	< 10	116	< 0.5	< 2	3.51	20	< 1	6.67	10	< 1	0.25	< 10
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank																							

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Pd	Pt	Spec Grav	
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb	-	
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	2	5	5	0.01	
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-ICP	FA-ICP	FA-ICP	GRAV	
GXR-4 Meas	1.54	0.129	0.123	1.64	2	7	72	0.13	< 20	< 1	2	< 10	78	< 10	11	10					
GXR-4 Cert	1.66	0.564	0.120	1.77	4.80	7.70	221	0.29	22.5	0.970	3.20	6.20	87.0	30.8	14.0	186					
GXR-6 Meas	0.38	0.074	0.033	0.01	2	24	33		< 20	< 1	< 2	< 10	168	< 10	6	12					
GXR-6 Cert	0.609	0.104	0.0350	0.0160	3.60	27.6	35.0		5.30	0.0180	2.20	1.54	186	1.90	14.0	110					
BaSO4 Meas																					
BaSO4 Cert																					
BaSO4 Meas																					
BaSO4 Cert																					
BaSO4 Meas																					
BaSO4 Cert																					
BaSO4 Meas																					
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BaSO4 Meas																					
BaSO4 Cert																					
SGR-1b Meas																					
SGR-1b Cert																					
SGR-1b Meas																					
SGR-1b Cert																					
SGR-1b Meas																					
SGR-1b Cert																					
SGR-1b Meas																					
SGR-1b Cert																					
PK2 Meas																	4890	6020	4800		
PK2 Cert																	4790	5918.000	4749.000		
PK2 Meas																	4770	5850	4670		
PK2 Cert																	4790	5918.000	4749.000		
GS311-4 Meas																					
GS311-4 Cert																					
GS311-4 Meas																					
GS311-4 Cert																					
GS311-4 Meas																					
GS311-4 Cert																					
GS311-4 Meas																					
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GS311-4 Cert																					
GS900-5 Meas																					
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GS900-5 Cert																					
GS900-5 Meas																					
GS900-5 Cert																					
GS900-5 Meas																					
GS900-5 Cert																					
GS900-5 Meas																					
GS900-5 Cert																					

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Pd	Pt	Spec Grav
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb	-
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	2	5	5	0.01
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-ICP	FA-ICP	FA-ICP	GRAV
CDN-PGMS-29 Meas																	92	677	544	
CDN-PGMS-29 Cert																	88.0	677	550	
Oreas 621 (Aqua Regia) Meas	0.43	0.174	0.031	4.21	72	2	18		< 20		< 2	< 10	12	< 10	8	41				
Oreas 621 (Aqua Regia) Cert	0.436	0.160	0.0335	4.50	107	2.20	18.9		5.91		0.770	163	10.9	1.00	6.87	55.0				
789672 Orig	1.55	0.297	0.036	0.22	< 2	21	19	0.23	< 20	< 1	< 2	< 10	163	< 10	13	5				
789672 Dup	1.55	0.297	0.036	0.22	< 2	21	19	0.24	< 20	< 1	< 2	< 10	164	< 10	13	5				
789678 Orig																	91	< 5	< 5	
789678 Dup																	143	< 5	< 5	
789680 Orig																				
789680 Dup																				
789682 Orig																				2.97
789682 Dup																				3.00
789690 Orig																	423	< 5	< 5	
789690 Dup																	579	< 5	< 5	
789699 Orig																	4650	< 5	< 5	
789699 Dup																	3310	< 5	< 5	
789701 Orig	0.03	0.038	0.002	0.01	< 2	< 1	2	0.01	< 20	< 1	< 2	< 10	7	< 10	1	5				
789701 Dup	0.03	0.038	0.002	0.01	< 2	< 1	2	0.01	< 20	< 1	< 2	< 10	7	< 10	1	5				
789702 Orig	0.74	0.226	0.067	0.04	< 2	20	31	0.25	< 20	< 1	< 2	< 10	138	< 10	25	7				
789702 Dup	0.76	0.233	0.068	0.04	< 2	21	32	0.27	< 20	1	< 2	< 10	143	< 10	25	8				
Method Blank																	< 2	< 5	< 5	
Method Blank																	< 2	< 5	< 5	
Method Blank																	< 2	< 5	< 5	
Method Blank																	< 2	< 5	< 5	
Method Blank	< 0.01	0.016	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1				
Method Blank	< 0.01	0.007	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1				
Method Blank																				1.00



Date Submitted: 18-Jun-18
Invoice No.: A18-08011
Invoice Date: 07-Aug-18
Your Reference:

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested:

Code 4F-S Infrared

Code Specific Gravity Core - Core

REPORT **A18-08011**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:

A handwritten signature in black ink, appearing to be "Emmanuel Esemé". The signature is written in a cursive style with some loops and is positioned above a horizontal line.

Emmanuel Esemé , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
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Date Submitted: 18-Jun-18
Invoice No.: A18-08011
Invoice Date: 07-Aug-18
Your Reference:

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1C-OES-Tbay Fire Assay ICPOES (QOP Fire Assay Tbay)

Code 1E3-Tbay Aqua Regia ICP(AQUAGEO)

REPORT **A18-08011**

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Notes:

Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:



Emmanuel Esemé , Ph.D.
Quality Control

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Analyte Symbol	Total S	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	CS	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
789881	< 0.01	< 0.2	< 0.5	24	633	< 1	41	< 2	40	2.75	< 2	< 10	254	< 0.5	< 2	1.84	13	100	2.86	< 10	< 1	0.65	22
789882	0.35	< 0.2	< 0.5	156	432	< 1	49	< 2	29	3.27	< 2	< 10	52	< 0.5	< 2	1.24	23	90	4.78	< 10	< 1	0.19	< 10
789883	0.66	< 0.2	< 0.5	316	61	< 1	118	< 2	9	0.67	< 2	< 10	39	< 0.5	< 2	0.17	37	39	1.94	< 10	< 1	0.07	< 10
789884	0.46	< 0.2	< 0.5	207	62	1	22	< 2	8	0.56	< 2	< 10	12	< 0.5	< 2	0.19	25	37	1.68	< 10	< 1	0.02	< 10
789885	0.06	< 0.2	< 0.5	133	58	< 1	6	< 2	6	0.37	< 2	< 10	< 10	< 0.5	< 2	0.28	6	20	0.89	< 10	< 1	0.01	< 10
789886	0.23	< 0.2	< 0.5	113	551	< 1	57	< 2	24	2.65	< 2	< 10	15	< 0.5	< 2	3.51	26	99	4.32	< 10	< 1	0.05	< 10
789887	0.28	< 0.2	< 0.5	80	555	< 1	48	< 2	27	2.04	< 2	< 10	12	< 0.5	< 2	2.78	25	67	4.09	< 10	< 1	0.04	< 10
789888	0.18	< 0.2	< 0.5	53	609	< 1	54	< 2	29	2.20	< 2	< 10	15	< 0.5	< 2	3.00	24	95	4.41	< 10	< 1	0.05	< 10
789889	0.16	< 0.2	< 0.5	130	598	< 1	41	< 2	37	2.31	< 2	< 10	12	< 0.5	< 2	2.79	23	71	4.34	< 10	< 1	0.04	< 10
789890	0.11	< 0.2	< 0.5	150	608	< 1	38	< 2	36	2.42	2	< 10	12	< 0.5	< 2	3.38	21	83	4.12	< 10	< 1	0.04	< 10
789891	0.13	< 0.2	< 0.5	134	613	< 1	38	< 2	49	2.29	< 2	< 10	12	< 0.5	< 2	2.71	22	73	4.28	< 10	< 1	0.04	< 10
789892	0.25	< 0.2	< 0.5	118	511	< 1	47	< 2	54	1.74	< 2	< 10	< 10	< 0.5	< 2	2.10	26	71	4.19	< 10	< 1	0.03	< 10
789893	0.16	< 0.2	< 0.5	68	542	< 1	27	< 2	21	1.84	< 2	< 10	< 10	< 0.5	< 2	2.75	22	28	4.44	< 10	< 1	0.04	< 10
789894	0.06	< 0.2	< 0.5	35	444	< 1	20	< 2	22	1.62	< 2	< 10	< 10	< 0.5	< 2	1.86	20	17	4.01	< 10	< 1	0.03	< 10
789895	0.32	< 0.2	< 0.5	109	591	< 1	22	< 2	41	1.90	< 2	< 10	13	< 0.5	< 2	2.70	25	14	4.82	< 10	< 1	0.04	< 10
789896	0.27	< 0.2	< 0.5	63	725	< 1	19	< 2	46	2.21	< 2	< 10	12	< 0.5	< 2	3.30	27	10	5.78	< 10	< 1	0.04	< 10
789897	0.38	< 0.2	< 0.5	121	765	< 1	21	< 2	57	2.42	< 2	< 10	129	< 0.5	< 2	3.17	33	3	6.72	10	< 1	0.16	< 10
789898	1.79	0.6	< 0.5	38	604	2	< 1	< 2	48	1.25	< 2	< 10	< 10	< 0.5	< 2	3.85	19	4	5.77	< 10	< 1	0.02	< 10
789899	0.16	< 0.2	< 0.5	5	812	< 1	2	2	70	1.56	12	< 10	< 10	< 0.5	< 2	1.83	8	8	7.86	20	< 1	0.03	16
789900	0.06	< 0.2	< 0.5	2	758	< 1	< 1	< 2	56	1.07	< 2	< 10	< 10	< 0.5	< 2	2.56	5	7	6.94	10	< 1	0.04	15
789901	< 0.01	< 0.2	< 0.5	< 1	56	< 1	< 1	< 2	< 2	0.06	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	3	0.34	< 10	< 1	< 0.01	< 10
789902	0.05	< 0.2	< 0.5	2	777	< 1	2	< 2	67	1.72	< 2	< 10	39	0.7	< 2	2.03	8	6	7.80	20	< 1	0.10	13
789903	0.10	< 0.2	< 0.5	11	891	< 1	2	< 2	57	2.63	< 2	< 10	100	0.8	< 2	2.62	10	6	8.72	20	< 1	0.18	12
789904	0.06	< 0.2	< 0.5	7	770	< 1	2	< 2	43	1.82	< 2	< 10	144	0.6	< 2	2.35	8	5	6.47	10	< 1	0.22	14
789905	0.71	1.3	< 0.5	118	616	4	149	27	61	2.89	54	13	49	< 0.5	< 2	3.07	27	414	4.42	< 10	< 1	0.20	< 10
789906	1.74	0.4	< 0.5	26	759	< 1	1	3	26	1.55	250	< 10	57	< 0.5	< 2	4.50	12	7	7.00	10	< 1	0.18	10
789907	0.03	< 0.2	< 0.5	< 1	739	< 1	2	< 2	23	1.55	< 2	< 10	< 10	< 0.5	< 2	2.70	9	6	6.69	10	< 1	0.03	12
789908	< 0.01	< 0.2	< 0.5	1	59	< 1	1	< 2	2	0.11	< 2	< 10	13	< 0.5	< 2	0.04	< 1	5	0.50	< 10	< 1	0.02	< 10
789909	0.08	< 0.2	< 0.5	< 1	892	< 1	2	< 2	33	1.36	< 2	< 10	< 10	< 0.5	< 2	2.28	13	5	9.21	10	< 1	0.03	< 10
789910	0.03	< 0.2	< 0.5	< 1	855	< 1	2	< 2	32	1.30	< 2	< 10	< 10	< 0.5	< 2	2.28	12	6	9.21	10	< 1	0.03	< 10
789911	4.72	0.7	< 0.5	59	821	1	3	7	25	1.17	2	< 10	22	< 0.5	< 2	3.07	27	4	10.2	< 10	< 1	0.05	10
789912	2.92	0.5	< 0.5	39	847	< 1	2	2	32	1.10	< 2	< 10	36	< 0.5	< 2	3.42	16	4	8.10	< 10	< 1	0.04	10
789913	3.79	0.8	< 0.5	45	685	< 1	2	2	35	1.16	< 2	< 10	15	< 0.5	< 2	2.36	20	4	9.62	< 10	< 1	0.03	12
789914	2.31	0.5	< 0.5	32	629	3	1	< 2	33	0.92	2	< 10	16	< 0.5	< 2	2.51	14	9	6.71	< 10	< 1	0.02	< 10
789915	2.69	1.1	< 0.5	38	597	2	3	< 2	34	0.87	< 2	< 10	< 10	< 0.5	< 2	1.76	18	8	8.07	< 10	< 1	0.01	12

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Pd	Pt	Spec Grav Core
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb	-
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	2	5	5	0.01
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-ICP	FA-ICP	FA-ICP	GRAV
789881	1.81	0.269	0.054	0.08	< 2	7	71	0.12	< 20	< 1	< 2	< 10	70	< 10	5	10	2	< 5	< 5	2.80
789882	2.50	0.175	0.043	0.32	< 2	10	16	0.16	< 20	< 1	< 2	< 10	81	< 10	6	16	15	< 5	< 5	
789883	0.77	0.109	0.013	0.64	< 2	3	5	0.08	< 20	< 1	< 2	< 10	29	< 10	2	22	8	7	< 5	
789884	0.66	0.119	0.029	0.44	< 2	3	5	0.10	< 20	< 1	< 2	< 10	35	< 10	3	27	2	< 5	< 5	
789885	0.32	0.102	0.044	0.06	< 2	2	6	0.12	< 20	< 1	< 2	< 10	37	< 10	5	11	8	< 5	< 5	
789886	1.70	0.328	0.041	0.22	< 2	18	54	0.25	< 20	2	< 2	< 10	143	< 10	13	4	3	< 5	< 5	
789887	1.36	0.289	0.043	0.25	< 2	15	43	0.25	< 20	< 1	< 2	< 10	132	< 10	13	4	6	< 5	< 5	
789888	1.80	0.289	0.040	0.17	< 2	19	26	0.25	< 20	< 1	< 2	< 10	156	< 10	14	4	2	< 5	< 5	
789889	1.44	0.300	0.037	0.15	< 2	17	45	0.24	< 20	< 1	< 2	< 10	143	< 10	13	4	3	< 5	< 5	
789890	1.37	0.298	0.032	0.10	< 2	16	61	0.27	< 20	< 1	< 2	< 10	131	< 10	10	3	7	< 5	< 5	
789891	1.45	0.325	0.031	0.12	< 2	17	50	0.28	< 20	< 1	< 2	< 10	139	< 10	12	4	5	< 5	< 5	
789892	1.64	0.212	0.036	0.23	< 2	16	10	0.21	< 20	< 1	< 2	< 10	132	< 10	10	4	3	< 5	< 5	
789893	1.47	0.252	0.040	0.13	< 2	18	10	0.23	< 20	< 1	< 2	< 10	157	< 10	13	5	< 2	< 5	< 5	
789894	1.45	0.190	0.043	0.05	< 2	17	7	0.23	< 20	< 1	< 2	< 10	155	< 10	12	4	2	< 5	< 5	
789895	1.40	0.247	0.046	0.28	< 2	20	12	0.22	< 20	< 1	< 2	< 10	180	< 10	15	5	5	< 5	< 5	
789896	1.51	0.234	0.048	0.24	< 2	22	16	0.20	< 20	< 1	< 2	< 10	202	< 10	16	5	229	< 5	< 5	
789897	1.38	0.290	0.039	0.33	< 2	25	15	0.30	< 20	< 1	< 2	< 10	364	< 10	18	5	325	< 5	< 5	3.13
789898	0.52	0.160	0.090	1.60	< 2	15	23	0.18	< 20	< 1	< 2	< 10	50	< 10	28	11	2770	< 5	< 5	
789899	0.40	0.176	0.127	0.15	< 2	11	9	0.15	< 20	< 1	< 2	< 10	4	< 10	56	8	232	< 5	< 5	
789900	0.23	0.144	0.110	0.06	< 2	11	16	0.15	< 20	< 1	< 2	< 10	2	< 10	49	10	275	< 5	< 5	
789901	< 0.01	0.020	0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	2	< 2	< 5	< 5	
789902	0.41	0.224	0.160	0.04	< 2	17	9	0.18	< 20	< 1	< 2	< 10	2	< 10	59	10	13	< 5	< 5	
789903	0.87	0.227	0.155	0.09	4	15	14	0.19	< 20	< 1	< 2	< 10	2	< 10	53	10	522	< 5	< 5	
789904	0.50	0.206	0.143	0.05	< 2	15	13	0.18	< 20	< 1	< 2	< 10	1	< 10	50	10	5	< 5	< 5	
789905	3.04	0.066	0.027	0.65	< 2	10	45	0.24	< 20	< 1	< 2	< 10	111	< 10	9	18	6620	8	< 5	
789906	0.56	0.146	0.123	1.57	< 2	15	29	0.14	< 20	< 1	< 2	< 10	24	< 10	41	12	1990	< 5	< 5	
789907	0.42	0.189	0.113	0.02	3	17	15	0.19	< 20	< 1	< 2	< 10	2	< 10	50	9	28	< 5	< 5	
789908	0.02	0.023	0.003	< 0.01	< 2	< 1	1	< 0.01	< 20	< 1	< 2	< 10	2	< 10	1	4	2	< 5	< 5	
789909	0.34	0.194	0.115	0.07	< 2	18	14	0.20	< 20	< 1	< 2	< 10	3	< 10	42	10	37	< 5	< 5	
789910	0.33	0.181	0.116	0.03	< 2	17	14	0.18	< 20	< 1	< 2	< 10	2	< 10	41	9	6	< 5	< 5	
789911	0.43	0.136	0.130	4.29	2	15	26	0.18	< 20	< 1	< 2	< 10	29	< 10	36	21	2940	< 5	< 5	
789912	0.37	0.137	0.118	2.51	< 2	15	33	0.19	< 20	< 1	< 2	< 10	29	< 10	36	16	1810	< 5	< 5	
789913	0.38	0.160	0.114	3.24	3	17	16	0.19	< 20	< 1	< 2	< 10	28	< 10	40	19	3080	< 5	< 5	2.99
789914	0.36	0.122	0.094	1.94	< 2	14	15	0.17	< 20	< 1	< 2	< 10	25	< 10	28	12	2780	< 5	< 5	
789915	0.32	0.121	0.109	2.35	4	12	10	0.16	< 20	< 1	< 2	< 10	21	< 10	32	18	10400	< 5	< 5	

Analyte Symbol	Total S	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	CS	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-4 Meas		3.1	< 0.5	6100	143	293	36	40	69	2.63	99	< 10	27	1.4	21	0.86	13	53	3.00	10	< 1	1.62	50
GXR-4 Cert		4.0	0.860	6520	155	310	42.0	52.0	73.0	7.20	98.0	4.50	1640	1.90	19.0	1.01	14.6	64.0	3.09	20.0	0.110	4.01	64.5
GXR-4 Meas		3.1	< 0.5	5960	142	294	35	39	69	2.58	98	< 10	27	1.4	17	0.86	12	51	2.96	10	< 1	1.61	49
GXR-4 Cert		4.0	0.860	6520	155	310	42.0	52.0	73.0	7.20	98.0	4.50	1640	1.90	19.0	1.01	14.6	64.0	3.09	20.0	0.110	4.01	64.5
GXR-6 Meas		0.3	< 0.5	65	1070	< 1	23	95	127	7.03	255	< 10	803	1.0	< 2	0.15	13	78	5.56	20	< 1	1.12	11
GXR-6 Cert		1.30	1.00	66.0	1010	2.40	27.0	101	118	17.7	330	9.80	1300	1.40	0.290	0.180	13.8	96.0	5.58	35.0	0.0680	1.87	13.9
GXR-6 Meas		0.3	< 0.5	66	1080	1	22	96	129	7.20	250	< 10	836	1.0	< 2	0.16	13	80	5.61	20	< 1	1.15	12
GXR-6 Cert		1.30	1.00	66.0	1010	2.40	27.0	101	118	17.7	330	9.80	1300	1.40	0.290	0.180	13.8	96.0	5.58	35.0	0.0680	1.87	13.9
BaSO4 Meas	14.3																						
BaSO4 Cert	14.0																						
BaSO4 Meas	13.2																						
BaSO4 Cert	14.0																						
BaSO4 Meas	13.7																						
BaSO4 Cert	14.0																						
BaSO4 Meas	13.7																						
BaSO4 Cert	14.0																						
BaSO4 Meas	14.1																						
BaSO4 Cert	14.0																						
BaSO4 Meas	13.4																						
BaSO4 Cert	14.0																						
BaSO4 Meas	14.5																						
BaSO4 Cert	14.0																						
BaSO4 Meas	13.9																						
BaSO4 Cert	14.0																						
BaSO4 Meas	14.3																						
BaSO4 Cert	14.0																						
SGR-1b Meas	1.61																						
SGR-1b Cert	1.53																						
SGR-1b Meas	1.50																						
SGR-1b Cert	1.53																						
SGR-1b Meas	1.45																						
SGR-1b Cert	1.53																						
SGR-1b Meas	1.56																						
SGR-1b Cert	1.53																						
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SGR-1b Meas	1.52																						
SGR-1b Cert	1.53																						

Analyte Symbol	Total S	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	CS	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
SGR-1b Meas	1.55																						
SGR-1b Cert	1.53																						
PK2 Meas																							
PK2 Cert																							
PK2 Meas																							
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PK2 Meas																							
PK2 Cert																							
PK2 Meas																							
PK2 Cert																							
GS311-4 Meas	0.52																						
GS311-4 Cert	0.54																						
GS311-4 Meas	0.54																						
GS311-4 Cert	0.54																						
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GS311-4 Cert	0.54																						
GS311-4 Meas	0.58																						
GS311-4 Cert	0.54																						
GS900-5 Meas	0.33																						
GS900-5 Cert	0.34																						
GS900-5 Meas	0.34																						
GS900-5 Cert	0.34																						
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GS900-5 Cert	0.34																						

Analyte Symbol	Total S	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	CS	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GS900-5 Meas	0.33																						
GS900-5 Cert	0.34																						
GS900-5 Meas	0.35																						
GS900-5 Cert	0.34																						
CDN-PGMS-29 Meas																							
CDN-PGMS-29 Cert																							
CDN-PGMS-29 Meas																							
CDN-PGMS-29 Cert																							
Oreas 621 (Aqua Regia) Meas		62.7	275	3330	517	12	23	> 5000	> 10000	1.70	73			0.6	7	1.63	27	30	3.34	< 10	3	0.35	19
Oreas 621 (Aqua Regia) Cert		68.0	278	3660	520	13.3	25.8	13600	51700	1.60	75.0			0.530	3.85	1.65	27.9	31.3	3.43	9.29	3.93	0.333	19.4
Oreas 621 (Aqua Regia) Meas		64.4	274	3410	531	12	25	> 5000	> 10000	1.77	74			0.6	2	1.67	28	33	3.42	< 10	4	0.37	20
Oreas 621 (Aqua Regia) Cert		68.0	278	3660	520	13.3	25.8	13600	51700	1.60	75.0			0.530	3.85	1.65	27.9	31.3	3.43	9.29	3.93	0.333	19.4
789881 Orig	< 0.01																						
789881 Dup	0.08																						
789887 Orig		< 0.2	< 0.5	79	548	< 1	47	< 2	26	2.03	< 2	< 10	11	< 0.5	< 2	2.74	25	66	4.04	< 10	< 1	0.04	< 10
789887 Dup		< 0.2	< 0.5	80	563	< 1	49	< 2	28	2.06	< 2	< 10	13	< 0.5	< 2	2.81	26	69	4.13	< 10	< 1	0.04	< 10
789891 Orig	0.13																						
789891 Dup	0.13																						
789898 Orig		0.7	< 0.5	39	603	2	1	< 2	49	1.26	< 2	< 10	< 10	< 0.5	< 2	3.89	20	4	5.80	< 10	< 1	0.02	< 10
789898 Dup		0.5	< 0.5	38	604	2	< 1	< 2	48	1.24	3	< 10	< 10	< 0.5	< 2	3.80	19	4	5.74	< 10	< 1	0.02	< 10
789902 Orig	0.05																						
789902 Dup	0.05																						
789911 Orig																							
789911 Dup																							
789912 Orig	2.95																						
789912 Dup	2.89																						
789915 Orig	2.69	1.1	< 0.5	38	597	2	3	< 2	34	0.87	< 2	< 10	< 10	< 0.5	< 2	1.76	18	8	8.07	< 10	< 1	0.01	12
789915 Split PREP DUP	2.66	1.5	< 0.5	39	603	1	< 1	< 2	35	0.89	< 2	< 10	< 10	< 0.5	< 2	1.78	18	9	8.19	< 10	< 1	0.01	12
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank		< 0.2	< 0.5	1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank																							
Method Blank																							
Method Blank																							

Analyte Symbol	Total S	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	CS	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Pd	Pt
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	2	5	5
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-ICP	FA-ICP	FA-ICP
SGR-1b Meas																			
SGR-1b Cert																			
PK2 Meas																	4630	5720	4590
PK2 Cert																	4790	5918.00	4749.00
PK2 Meas																	4820	5980	4860
PK2 Cert																	4790	5918.00	4749.00
PK2 Meas																	5160	6340	5070
PK2 Cert																	4790	5918.00	4749.00
PK2 Meas																	5040	6190	4890
PK2 Cert																	4790	5918.00	4749.00
GS311-4 Meas																			
GS311-4 Cert																			
GS311-4 Meas																			
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Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Pd	Pt
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	2	5	5
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-ICP	FA-ICP	FA-ICP
GS900-5 Cert																			
GS900-5 Meas																			
GS900-5 Cert																			
GS900-5 Meas																			
GS900-5 Cert																			
GS900-5 Meas																			
GS900-5 Cert																			
CDN-PGMS-29 Meas																	78	624	519
CDN-PGMS-29 Cert																	88.0	677	550
CDN-PGMS-29 Meas																	105	669	571
CDN-PGMS-29 Cert																	88.0	677	550
Oreas 621 (Aqua Regia) Meas	0.42	0.171	0.032	4.09	100	2	18	< 20			< 2	< 10	12	< 10	7	65			
Oreas 621 (Aqua Regia) Cert	0.436	0.160	0.0335	4.50	107	2.20	18.9	5.91			0.770	163	10.9	1.00	6.87	55.0			
Oreas 621 (Aqua Regia) Meas	0.43	0.179	0.033	4.24	105	2	19	< 20			5	< 10	13	< 10	8	68			
Oreas 621 (Aqua Regia) Cert	0.436	0.160	0.0335	4.50	107	2.20	18.9	5.91			0.770	163	10.9	1.00	6.87	55.0			
789881 Orig																			
789881 Dup																			
789887 Orig	1.34	0.284	0.043	0.25	< 2	15	42	0.25	< 20	< 1	< 2	< 10	131	< 10	12	4	5	< 5	< 5
789887 Dup	1.38	0.294	0.044	0.26	< 2	15	45	0.25	< 20	< 1	< 2	< 10	134	< 10	13	4	6	< 5	< 5
789891 Orig																	6	< 5	< 5
789891 Dup																	5	< 5	< 5
789898 Orig	0.52	0.160	0.090	1.63	< 2	15	24	0.18	< 20	< 1	< 2	< 10	51	< 10	28	10			
789898 Dup	0.51	0.160	0.089	1.57	< 2	15	23	0.19	< 20	< 1	< 2	< 10	49	< 10	27	12			
789902 Orig																			
789902 Dup																			
789911 Orig																	2510	< 5	< 5
789911 Dup																	3380	< 5	< 5
789912 Orig																			
789912 Dup																			
789915 Orig	0.32	0.121	0.109	2.35	4	12	10	0.16	< 20	< 1	< 2	< 10	21	< 10	32	18	10400	< 5	< 5
789915 Split PREP DUP	0.33	0.118	0.112	2.45	3	12	10	0.16	< 20	1	< 2	< 10	21	< 10	33	18	11400	< 5	< 5
Method Blank	< 0.01	0.012	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1			
Method Blank	< 0.01	0.012	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1			
Method Blank	< 0.01	0.016	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1			
Method Blank	< 0.01	0.014	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1			

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Pd	Pt
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	2	5	5
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-ICP	FA-ICP	FA-ICP
Method Blank																	< 2	< 5	< 5
Method Blank																	< 2	< 5	< 5
Method Blank																	< 2	< 5	< 5
Method Blank																	< 2	< 5	< 5
Method Blank																	< 2	< 5	< 5
Method Blank																	< 2	< 5	< 5
Method Blank																	2	< 5	< 5



Date Submitted: 18-Jun-18
Invoice No.: A18-08012
Invoice Date: 27-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1C-OES Fire Assay ICPOES
Code 1E3 Aqua Regia ICP(AQUAGEO)
Code 4F-S Infrared

REPORT **A18-08012**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:

A handwritten signature in black ink, appearing to read "Emmanuel Esemé". The signature is stylized with loops and is positioned above a horizontal line.

Emmanuel Esemé , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
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Results

Activation Laboratories Ltd.

Report: A18-08012

Analyte Symbol	Total S	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	CS	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
789741	1.00	0.2	< 0.5	145	668	2	14	4	52	1.28	< 2	< 10	79	< 0.5	< 2	3.94	44	9	7.83	< 10	< 1	0.08	11
789742	2.60	0.4	< 0.5	431	1220	1	26	4	100	1.49	< 2	< 10	28	< 0.5	< 2	5.90	79	4	13.4	< 10	< 1	0.33	13
789743	2.91	0.3	< 0.5	344	1740	< 1	21	5	133	2.08	< 2	21	26	< 0.5	< 2	6.48	67	17	12.2	< 10	< 1	0.65	82
789744	1.56	< 0.2	< 0.5	186	925	< 1	15	< 2	96	1.71	< 2	< 10	61	0.5	< 2	3.85	65	1	10.6	< 10	< 1	0.09	< 10
789745	0.56	< 0.2	< 0.5	95	668	< 1	15	< 2	80	1.16	< 2	< 10	17	< 0.5	< 2	3.16	54	6	9.55	< 10	< 1	0.06	< 10
789746	0.97	< 0.2	< 0.5	146	823	6	13	< 2	80	1.37	< 2	< 10	55	< 0.5	< 2	3.56	52	< 1	9.50	< 10	< 1	0.15	16
789747	0.55	< 0.2	< 0.5	106	834	< 1	19	2	66	1.05	< 2	< 10	129	< 0.5	< 2	4.73	56	4	9.88	< 10	< 1	0.08	< 10
789748	1.96	0.2	< 0.5	291	1370	5	31	5	129	2.41	< 2	12	18	< 0.5	< 2	5.69	66	2	10.4	< 10	< 1	0.33	43
789749	0.32	< 0.2	< 0.5	225	673	< 1	43	< 2	43	1.43	< 2	< 10	25	< 0.5	< 2	3.51	37	7	7.51	< 10	< 1	0.03	< 10
789750	0.19	< 0.2	< 0.5	278	702	< 1	39	< 2	42	1.47	< 2	< 10	17	< 0.5	< 2	3.56	33	5	7.27	< 10	< 1	0.04	< 10
789751	< 0.01	< 0.2	< 0.5	6	51	< 1	9	< 2	< 2	0.09	< 2	< 10	14	< 0.5	< 2	0.04	< 1	183	0.49	< 10	< 1	0.02	< 10
789752	0.34	< 0.2	< 0.5	183	708	< 1	31	< 2	50	1.65	< 2	< 10	124	< 0.5	< 2	4.49	31	4	5.49	< 10	< 1	0.10	10
789753	0.11	< 0.2	< 0.5	288	653	< 1	32	< 2	44	1.82	< 2	< 10	18	< 0.5	< 2	2.80	29	12	5.82	< 10	< 1	0.06	< 10
789754	< 0.01	< 0.2	< 0.5	3	47	< 1	< 1	< 2	< 2	0.07	< 2	< 10	10	< 0.5	< 2	0.03	< 1	3	0.46	< 10	< 1	0.01	< 10
789755	0.75	1.4	< 0.5	125	634	4	157	29	63	3.06	57	13	49	< 0.5	< 2	3.21	29	433	4.67	< 10	< 1	0.21	< 10
789756	0.17	< 0.2	< 0.5	29	646	1	43	< 2	40	2.22	< 2	< 10	224	< 0.5	< 2	1.43	14	113	2.68	< 10	< 1	0.57	23
789757	0.02	< 0.2	< 0.5	45	552	< 1	31	< 2	44	2.34	< 2	< 10	300	< 0.5	< 2	2.16	16	125	3.08	< 10	< 1	0.55	13
789758	0.19	0.4	< 0.5	58	512	< 1	37	7	52	2.22	< 2	< 10	192	< 0.5	< 2	1.23	15	95	2.52	< 10	< 1	0.50	19
789759	0.22	< 0.2	< 0.5	30	289	< 1	26	< 2	56	1.68	< 2	< 10	98	< 0.5	< 2	0.72	12	64	2.01	< 10	< 1	0.24	< 10
789760	0.29	< 0.2	< 0.5	32	245	< 1	26	< 2	50	1.64	< 2	< 10	95	< 0.5	< 2	0.75	12	84	1.93	< 10	< 1	0.24	< 10
789761	0.14	< 0.2	< 0.5	23	492	< 1	32	< 2	67	2.84	< 2	13	198	< 0.5	< 2	1.93	16	51	2.76	< 10	< 1	0.43	11
789762	0.04	< 0.2	< 0.5	12	287	< 1	28	< 2	53	2.47	< 2	< 10	121	< 0.5	< 2	1.62	11	90	2.25	< 10	< 1	0.43	< 10
789763	0.18	< 0.2	< 0.5	312	300	1	39	< 2	48	3.18	< 2	< 10	97	< 0.5	< 2	0.65	35	89	4.15	10	< 1	0.36	11
789764	0.07	< 0.2	< 0.5	203	142	< 1	39	< 2	39	1.20	< 2	< 10	81	< 0.5	< 2	0.46	13	59	1.91	< 10	< 1	0.14	< 10
789765	0.19	< 0.2	< 0.5	129	437	< 1	51	< 2	26	2.00	< 2	< 10	16	< 0.5	< 2	3.26	21	100	3.38	< 10	< 1	0.05	< 10
789766	0.23	< 0.2	< 0.5	91	449	< 1	47	< 2	25	1.77	< 2	< 10	14	< 0.5	< 2	2.41	23	72	3.50	< 10	< 1	0.04	< 10
789767	0.21	< 0.2	< 0.5	80	467	< 1	48	< 2	40	1.63	< 2	< 10	13	< 0.5	< 2	1.94	23	76	3.45	< 10	< 1	0.04	< 10
789768	0.15	< 0.2	< 0.5	72	441	< 1	44	< 2	26	1.57	< 2	< 10	11	< 0.5	< 2	1.95	21	88	3.48	< 10	< 1	0.03	< 10
789769	0.32	< 0.2	< 0.5	138	546	< 1	43	< 2	24	1.62	< 2	< 10	13	< 0.5	< 2	3.94	24	89	4.10	< 10	< 1	0.04	< 10
789770	0.22	< 0.2	< 0.5	60	435	< 1	27	< 2	18	1.51	< 2	< 10	17	< 0.5	< 2	3.00	22	30	3.52	< 10	< 1	0.04	< 10
789771	0.12	< 0.2	< 0.5	44	557	< 1	25	< 2	26	1.83	< 2	< 10	14	< 0.5	< 2	2.38	23	28	4.60	< 10	< 1	0.04	< 10
789772	0.18	< 0.2	< 0.5	74	597	< 1	24	< 2	79	1.93	< 2	< 10	11	< 0.5	< 2	2.43	25	13	4.86	< 10	< 1	0.04	< 10
789773	0.08	< 0.2	< 0.5	53	603	< 1	16	< 2	32	1.89	< 2	< 10	13	< 0.5	< 2	2.39	21	18	4.68	< 10	< 1	0.05	< 10
789774	0.13	< 0.2	< 0.5	99	645	< 1	16	< 2	53	2.21	< 2	< 10	289	< 0.5	< 2	2.79	27	5	5.95	< 10	< 1	0.25	< 10
789775	0.23	< 0.2	< 0.5	76	782	< 1	13	< 2	69	2.55	< 2	< 10	107	< 0.5	< 2	3.19	30	2	7.47	10	< 1	0.12	< 10

Results

Activation Laboratories Ltd.

Report: A18-08012

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Pd	Pt
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	2	5	5
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-ICP	FA-ICP	FA-ICP
789741	1.25	0.283	0.026	0.94	3	20	39	0.37	< 20	< 1	< 2	< 10	421	< 10	12	7	23	< 5	< 5
789742	1.90	0.169	0.020	2.38	3	20	280	0.31	< 20	< 1	< 2	< 10	510	< 10	11	8	77	< 5	< 5
789743	2.72	0.132	0.048	2.42	3	20	485	0.35	< 20	< 1	< 2	< 10	477	< 10	17	8	30	< 5	< 5
789744	1.83	0.404	0.017	1.36	2	28	55	0.43	< 20	< 1	< 2	< 10	758	< 10	9	7	21	< 5	< 5
789745	1.27	0.275	0.015	0.50	2	21	23	0.46	< 20	< 1	< 2	< 10	735	< 10	8	4	6	< 5	< 5
789746	1.47	0.291	0.022	0.96	< 2	23	77	0.36	< 20	< 1	< 2	< 10	654	< 10	12	7	98	< 5	< 5
789747	1.33	0.250	0.014	0.50	3	20	57	0.34	< 20	< 1	< 2	< 10	792	< 10	6	5	10	< 5	< 5
789748	2.44	0.274	0.029	1.67	< 2	25	256	0.27	< 20	< 1	< 2	< 10	483	< 10	16	8	22	< 5	< 5
789749	1.59	0.360	0.016	0.30	< 2	22	19	0.26	< 20	< 1	< 2	< 10	566	< 10	7	4	3	< 5	< 5
789750	1.58	0.313	0.016	0.18	< 2	20	17	0.29	< 20	< 1	< 2	< 10	586	< 10	6	3	70	< 5	< 5
789751	0.02	0.032	0.002	< 0.01	< 2	< 1	2	< 0.01	< 20	< 1	< 2	< 10	4	< 10	< 1	4	< 2	< 5	< 5
789752	1.37	0.276	0.015	0.33	< 2	17	50	0.31	< 20	< 1	< 2	< 10	408	< 10	8	4	30	< 5	< 5
789753	1.56	0.339	0.016	0.11	< 2	21	13	0.31	< 20	< 1	< 2	< 10	500	< 10	7	3	10	< 5	< 5
789754	0.01	0.024	0.001	< 0.01	< 2	< 1	1	< 0.01	< 20	< 1	< 2	< 10	3	< 10	< 1	3	< 2	< 5	< 5
789755	3.21	0.067	0.029	0.69	2	10	47	0.26	< 20	< 1	< 2	< 10	115	< 10	10	18	6610	7	9
789756	1.87	0.205	0.055	0.16	< 2	7	42	0.14	< 20	< 1	< 2	< 10	67	< 10	5	7	3	< 5	< 5
789757	1.99	0.281	0.071	0.03	< 2	8	68	0.12	< 20	< 1	< 2	< 10	55	< 10	5	5	12	< 5	< 5
789758	1.79	0.197	0.053	0.19	< 2	6	43	0.11	< 20	< 1	< 2	< 10	65	< 10	5	7	4	< 5	< 5
789759	1.07	0.195	0.038	0.22	< 2	5	29	0.12	< 20	< 1	< 2	< 10	53	< 10	3	12	3	< 5	< 5
789760	0.92	0.235	0.036	0.28	< 2	5	33	0.12	< 20	< 1	< 2	< 10	50	< 10	3	16	54	< 5	< 5
789761	1.77	0.183	0.025	0.13	< 2	6	52	0.16	< 20	< 1	< 2	< 10	57	< 10	5	17	< 2	< 5	< 5
789762	1.60	0.142	0.026	0.07	< 2	5	33	0.12	< 20	< 1	< 2	< 10	45	< 10	4	16	< 2	< 5	< 5
789763	3.06	0.089	0.057	0.18	< 2	8	10	0.11	< 20	< 1	< 2	< 10	78	< 10	6	5	15	< 5	< 5
789764	1.29	0.133	0.020	0.09	< 2	4	7	0.14	< 20	< 1	< 2	< 10	74	< 10	3	15	< 2	< 5	< 5
789765	1.38	0.223	0.034	0.16	< 2	15	32	0.23	< 20	< 1	< 2	< 10	118	< 10	10	4	< 2	< 5	< 5
789766	1.32	0.215	0.041	0.24	< 2	13	29	0.20	< 20	< 1	< 2	< 10	111	< 10	10	4	3	< 5	< 5
789767	1.38	0.203	0.035	0.22	< 2	14	14	0.20	< 20	< 1	< 2	< 10	121	< 10	10	3	< 2	< 5	< 5
789768	1.41	0.224	0.038	0.15	< 2	15	9	0.20	< 20	< 1	< 2	< 10	118	< 10	9	3	< 2	< 5	6
789769	1.36	0.243	0.035	0.30	< 2	18	24	0.24	< 20	< 1	< 2	< 10	143	< 10	12	5	20	< 5	< 5
789770	1.28	0.186	0.035	0.21	< 2	14	21	0.21	< 20	< 1	< 2	< 10	121	< 10	10	5	18	< 5	< 5
789771	1.61	0.250	0.048	0.11	< 2	19	11	0.25	< 20	< 1	< 2	< 10	173	< 10	13	5	< 2	< 5	< 5
789772	1.45	0.267	0.048	0.19	< 2	21	10	0.25	< 20	< 1	< 2	< 10	184	< 10	15	5	< 2	< 5	< 5
789773	1.28	0.270	0.052	0.10	< 2	21	9	0.26	< 20	< 1	< 2	< 10	193	< 10	16	5	82	< 5	< 5
789774	1.25	0.267	0.055	0.13	< 2	25	14	0.27	< 20	< 1	< 2	< 10	255	< 10	21	6	17	< 5	< 5
789775	1.54	0.277	0.049	0.23	3	25	16	0.29	< 20	< 1	< 2	< 10	308	< 10	20	5	208	< 5	< 5

Analyte Symbol	Total S	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	CS	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-4 Meas		3.2	< 0.5	6060	143	301	37	40	68	2.63	99	< 10	25	1.4	11	0.87	13	53	3.01	10	< 1	1.63	48
GXR-4 Cert		4.0	0.860	6520	155	310	42.0	52.0	73.0	7.20	98.0	4.50	1640	1.90	19.0	1.01	14.6	64.0	3.09	20.0	0.110	4.01	64.5
GXR-6 Meas		0.3	< 0.5	66	1070	1	23	95	127	7.12	237	< 10	845	1.0	< 2	0.16	13	79	5.58	20	< 1	1.13	12
GXR-6 Cert		1.30	1.00	66.0	1010	2.40	27.0	101	118	17.7	330	9.80	1300	1.40	0.290	0.180	13.8	96.0	5.58	35.0	0.0680	1.87	13.9
BaSO4 Meas	14.1																						
BaSO4 Cert	14.0																						
BaSO4 Meas	13.5																						
BaSO4 Cert	14.0																						
BaSO4 Meas	14.1																						
BaSO4 Cert	14.0																						
BaSO4 Meas	14.0																						
BaSO4 Cert	14.0																						
BaSO4 Meas	13.5																						
BaSO4 Cert	14.0																						
BaSO4 Meas	13.4																						
BaSO4 Cert	14.0																						
SGR-1b Meas	1.54																						
SGR-1b Cert	1.53																						
SGR-1b Meas	1.56																						
SGR-1b Cert	1.53																						
SGR-1b Meas	1.55																						
SGR-1b Cert	1.53																						
SGR-1b Meas	1.56																						
SGR-1b Cert	1.53																						
SGR-1b Meas	1.55																						
SGR-1b Cert	1.53																						
SGR-1b Meas	1.49																						
SGR-1b Cert	1.53																						
PK2 Meas																							
PK2 Cert																							
PK2 Meas																							
PK2 Cert																							
GS311-4 Meas	0.53																						
GS311-4 Cert	0.54																						
GS311-4 Meas	0.56																						
GS311-4 Cert	0.54																						
GS311-4 Meas	0.53																						
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GS311-4 Meas	0.56																						
GS311-4 Cert	0.54																						

Analyte Symbol	Total S	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	CS	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GS311-4 Meas	0.53																						
GS311-4 Cert	0.54																						
GS900-5 Meas	0.35																						
GS900-5 Cert	0.34																						
GS900-5 Meas	0.34																						
GS900-5 Cert	0.34																						
GS900-5 Meas	0.33																						
GS900-5 Cert	0.34																						
GS900-5 Meas	0.31																						
GS900-5 Cert	0.34																						
GS900-5 Meas	0.34																						
GS900-5 Cert	0.34																						
GS900-5 Meas	0.33																						
GS900-5 Cert	0.34																						
CDN-PGMS-29 Meas																							
CDN-PGMS-29 Cert																							
CDN-PGMS-29 Meas																							
CDN-PGMS-29 Cert																							
Oreas 621 (Aqua Regia) Meas		65.7	277	3520	537	12	22	> 5000	> 10000	1.76	78			0.6	< 2	1.69	28	30	3.45	< 10	4	0.35	20
Oreas 621 (Aqua Regia) Cert		68.0	278	3660	520	13.3	25.8	13600	51700	1.60	75.0			0.530	3.85	1.65	27.9	31.3	3.43	9.29	3.93	0.333	19.4
789742 Orig		0.4	< 0.5	424	1210	1	27	4	98	1.47	< 2	< 10	27	< 0.5	< 2	5.84	78	4	13.2	< 10	< 1	0.32	12
789742 Dup		0.4	< 0.5	437	1240	1	25	5	101	1.51	< 2	< 10	28	< 0.5	< 2	5.96	79	4	13.6	< 10	< 1	0.33	13
789750 Orig	0.19																						
789750 Dup	0.19																						
789752 Orig																							
789752 Dup																							
789760 Orig	0.29																						
789760 Dup	0.29																						
789771 Orig	0.12	< 0.2	< 0.5	44	558	< 1	25	< 2	26	1.83	< 2	< 10	14	< 0.5	< 2	2.37	23	28	4.60	< 10	< 1	0.04	< 10
789771 Dup	0.11	< 0.2	< 0.5	44	556	< 1	26	< 2	26	1.84	< 2	< 10	14	< 0.5	< 2	2.39	23	28	4.61	< 10	< 1	0.04	< 10
789772 Orig		< 0.2	< 0.5	73	578	< 1	23	< 2	36	1.86	3	< 10	10	< 0.5	< 2	2.35	24	13	4.70	< 10	< 1	0.04	< 10
789772 Dup		< 0.2	< 0.5	74	617	< 1	25	< 2	122	2.00	< 2	< 10	11	< 0.5	< 2	2.50	26	13	5.01	< 10	< 1	0.04	< 10
789775 Orig	0.23	< 0.2	< 0.5	76	782	< 1	13	< 2	69	2.55	< 2	< 10	107	< 0.5	< 2	3.19	30	2	7.47	10	< 1	0.12	< 10
789775 Split PREP DUP	0.23	< 0.2	< 0.5	77	814	< 1	16	< 2	70	2.66	< 2	< 10	104	< 0.5	< 2	3.28	30	12	7.76	10	< 1	0.12	< 10
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank																							

Analyte Symbol	Total S	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	CS	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
Method Blank																							
Method Blank																							
Method Blank																							

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Pd	Pt
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	2	5	5
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-ICP	FA-ICP	FA-ICP
Method Blank																	< 2	< 5	< 5
Method Blank																	< 2	< 5	< 5
Method Blank																	< 2	< 5	< 5
Method Blank																	< 2	< 5	< 5



Date Submitted: 18-Jun-18
Invoice No.: A18-08013
Invoice Date: 30-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Suite 6, 295 Rokeby Rd
Subiaco WA 6008
Australia

ATTN: Brad Boyle (inv/res)

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1C-OES Fire Assay ICPOES
Code 1E3 Aqua Regia ICP(AQUAGEO)
Code 4F-S Infrared
Code Specific Gravity Pulp

REPORT **A18-08013**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

Values which exceed the upper limit should be assayed for accurate numbers.

Footnote: No material for sample with missing data

CERTIFIED BY:

A handwritten signature in black ink, appearing to be "Emmanuel Esemé". The signature is stylized and somewhat cursive.

Emmanuel Esemé , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
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Results

Activation Laboratories Ltd.

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Analyte Symbol	Total S	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	CS	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
789706	0.14	< 0.2	< 0.5	15	755	< 1	3	< 2	34	1.60	< 2	< 10	33	< 0.5	< 2	3.66	21	2	6.51	< 10	< 1	0.05	< 10
789707	2.11	0.5	< 0.5	51	745	< 1	3	< 2	40	1.47	< 2	< 10	21	< 0.5	< 2	3.24	33	< 1	8.29	< 10	< 1	0.05	< 10
789708	2.57	0.7	< 0.5	68	809	6	6	< 2	36	1.33	< 2	< 10	20	< 0.5	< 2	5.54	35	2	7.51	< 10	< 1	0.05	< 10
789709	0.10	< 0.2	< 0.5	21	713	< 1	2	< 2	38	1.54	< 2	< 10	14	< 0.5	< 2	2.76	26	< 1	6.85	< 10	< 1	0.04	< 10
789710	0.12	< 0.2	< 0.5	23	620	< 1	3	< 2	36	1.31	< 2	< 10	11	< 0.5	< 2	2.39	25	< 1	6.26	< 10	< 1	0.03	< 10
789711	0.11	< 0.2	< 0.5	56	769	< 1	7	< 2	37	1.89	< 2	< 10	19	< 0.5	< 2	3.17	30	< 1	7.48	< 10	< 1	0.09	< 10
789712	0.03	< 0.2	< 0.5	48	685	< 1	8	< 2	32	1.71	< 2	< 10	36	< 0.5	< 2	3.54	32	< 1	7.03	< 10	< 1	0.17	< 10
789713	0.09	< 0.2	< 0.5	17	681	< 1	3	< 2	32	1.80	< 2	< 10	67	< 0.5	< 2	3.06	29	< 1	6.45	< 10	< 1	0.18	< 10
789714	0.54	< 0.2	< 0.5	31	786	< 1	3	< 2	35	1.73	< 2	< 10	34	< 0.5	< 2	3.81	35	< 1	6.62	< 10	< 1	0.10	< 10
789715	0.86	< 0.2	< 0.5	33	697	< 1	4	< 2	45	1.82	< 2	< 10	21	< 0.5	< 2	2.63	37	1	7.40	10	< 1	0.10	< 10
789716	0.06	< 0.2	< 0.5	23	876	< 1	4	< 2	45	2.30	2	< 10	200	< 0.5	< 2	3.40	36	< 1	7.67	10	< 1	0.39	< 10
789717	0.16	< 0.2	< 0.5	21	761	< 1	5	< 2	35	1.84	< 2	< 10	13	< 0.5	< 2	3.15	33	< 1	7.08	< 10	< 1	0.06	< 10
789718	1.19	< 0.2	< 0.5	98	788	< 1	9	< 2	33	1.58	< 2	< 10	20	< 0.5	< 2	4.15	40	< 1	7.09	< 10	< 1	0.04	< 10
789719	0.22	< 0.2	< 0.5	52	786	< 1	12	< 2	42	1.90	< 2	< 10	22	< 0.5	< 2	2.51	39	< 1	8.02	< 10	< 1	0.07	< 10
789720	0.26	< 0.2	< 0.5	75	751	< 1	13	< 2	38	1.92	< 2	< 10	16	< 0.5	< 2	2.76	40	< 1	7.14	< 10	< 1	0.07	< 10
789721	0.21	< 0.2	< 0.5	67	775	< 1	13	< 2	38	2.15	< 2	< 10	17	< 0.5	< 2	3.11	40	< 1	7.84	< 10	< 1	0.06	< 10
789722	0.17	< 0.2	< 0.5	59	766	< 1	11	< 2	39	1.77	< 2	< 10	14	< 0.5	< 2	2.77	33	< 1	7.03	< 10	< 1	0.05	< 10
789723	0.09	< 0.2	< 0.5	41	639	< 1	3	< 2	31	1.89	< 2	< 10	11	< 0.5	< 2	3.80	18	< 1	4.84	< 10	< 1	0.03	< 10
789724	0.05	< 0.2	< 0.5	42	647	< 1	3	< 2	36	1.97	< 2	< 10	14	< 0.5	< 2	3.17	20	< 1	7.15	< 10	< 1	0.04	< 10
789725	0.19	< 0.2	< 0.5	59	768	< 1	15	< 2	52	2.49	< 2	< 10	19	< 0.5	< 2	3.70	34	< 1	7.28	< 10	< 1	0.07	< 10
789726	< 0.01	< 0.2	< 0.5	1	54	< 1	< 1	< 2	2	0.10	< 2	< 10	11	< 0.5	< 2	0.05	< 1	4	0.49	< 10	< 1	0.02	< 10
789727	0.08	< 0.2	< 0.5	73	753	< 1	13	< 2	46	2.02	< 2	< 10	16	< 0.5	< 2	2.79	30	< 1	7.29	< 10	< 1	0.06	< 10
789728	0.18	< 0.2	< 0.5	127	794	< 1	15	< 2	55	2.10	< 2	< 10	28	< 0.5	< 2	2.80	33	< 1	6.77	< 10	< 1	0.07	< 10
789729	0.06	< 0.2	< 0.5	83	786	< 1	12	< 2	48	2.08	< 2	< 10	14	< 0.5	< 2	3.09	32	1	7.24	< 10	< 1	0.07	< 10
789730	0.86	< 0.2	< 0.5	72	1350	1	108	< 2	70	1.80	1010	< 10	69	< 0.5	< 2	1.91	26	44	6.16	< 10	< 1	0.08	13
789731	0.03	< 0.2	< 0.5	34	420	< 1	4	< 2	28	3.65	7	< 10	12	< 0.5	< 2	1.57	15	< 1	3.36	< 10	< 1	0.82	< 10
789732	0.34	< 0.2	< 0.5	150	855	< 1	18	< 2	70	2.33	< 2	< 10	69	< 0.5	< 2	2.93	45	4	8.41	10	< 1	0.11	< 10
789733	0.32	< 0.2	< 0.5	153	681	< 1	10	< 2	47	1.44	< 2	< 10	11	< 0.5	< 2	2.45	36	1	7.22	< 10	< 1	0.06	< 10
789734	0.11	< 0.2	< 0.5	83	672	< 1	10	< 2	49	1.44	3	< 10	10	< 0.5	< 2	2.14	31	2	7.06	< 10	< 1	0.05	< 10
789735	0.17	< 0.2	< 0.5	125	855	< 1	17	< 2	58	1.93	< 2	< 10	15	< 0.5	< 2	2.92	40	3	8.04	< 10	< 1	0.07	< 10
789736	0.24	< 0.2	< 0.5	126	817	< 1	15	< 2	57	1.87	< 2	< 10	20	< 0.5	< 2	3.19	41	3	8.67	< 10	< 1	0.07	< 10
789737	0.24	< 0.2	< 0.5	133	753	< 1	15	< 2	51	1.76	< 2	< 10	21	< 0.5	< 2	2.84	40	2	8.10	< 10	< 1	0.06	< 10
789738	1.25	< 0.2	< 0.5	219	789	< 1	20	< 2	57	1.66	< 2	< 10	64	< 0.5	< 2	3.67	46	2	8.60	< 10	< 1	0.06	14
789739	1.50	< 0.2	< 0.5	266	775	< 1	17	< 2	56	1.48	< 2	< 10	35	< 0.5	< 2	3.62	49	2	8.42	< 10	< 1	0.07	22
789740	0.25	< 0.2	< 0.5	103	654	< 1	15	< 2	47	1.43	< 2	< 10	18	< 0.5	< 2	2.62	36	1	8.17	< 10	< 1	0.06	< 10

Results

Activation Laboratories Ltd.

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Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Pd	Pt	Spec Grav
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb	-
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	2	5	5	0.01
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-ICP	FA-ICP	FA-ICP	GRAV
789706	0.93	0.286	0.062	0.12	< 2	25	33	0.31	< 20	1	< 2	< 10	117	< 10	21	7	36	< 5	< 5	
789707	0.97	0.253	0.051	1.80	2	23	27	0.30	< 20	< 1	< 2	< 10	123	< 10	22	9	489	< 5	< 5	
789708	1.18	0.194	0.023	2.24	< 2	17	67	0.25	< 20	4	< 2	< 10	101	< 10	19	9	204	< 5	< 5	
789709	1.06	0.283	0.041	0.09	< 2	24	18	0.34	< 20	5	< 2	< 10	229	< 10	15	5	114	< 5	< 5	
789710	0.93	0.233	0.041	0.11	2	21	14	0.31	< 20	1	< 2	< 10	219	< 10	13	5	77	< 5	< 5	
789711	1.31	0.314	0.033	0.10	< 2	27	17	0.41	< 20	3	< 2	< 10	351	< 10	13	5	197	< 5	< 5	
789712	1.37	0.247	0.029	0.03	< 2	26	22	0.43	< 20	3	< 2	< 10	346	< 10	11	5	11	< 5	< 5	
789713	1.31	0.248	0.038	0.08	< 2	24	16	0.34	< 20	< 1	< 2	< 10	174	< 10	14	5	49	< 5	< 5	
789714	1.22	0.298	0.035	0.49	< 2	25	19	0.31	< 20	1	< 2	< 10	232	< 10	13	6	319	< 5	< 5	
789715	1.25	0.265	0.048	0.82	< 2	23	12	0.29	< 20	1	< 2	< 10	234	< 10	17	7	366	< 5	< 5	
789716	1.58	0.311	0.033	0.05	2	27	15	0.41	< 20	3	< 2	< 10	328	< 10	14	6	42	< 5	< 5	
789717	1.41	0.316	0.029	0.14	< 2	25	11	0.34	< 20	1	< 2	< 10	353	< 10	11	5	66	< 5	< 5	
789718	1.18	0.231	0.024	1.06	< 2	24	15	0.29	< 20	1	< 2	< 10	261	< 10	13	5	918	< 5	< 5	
789719	1.53	0.336	0.031	0.19	< 2	27	7	0.35	< 20	< 1	< 2	< 10	389	< 10	12	5	4	< 5	< 5	
789720	1.42	0.335	0.030	0.24	< 2	25	10	0.34	< 20	4	< 2	< 10	353	< 10	11	4	< 2	< 5	< 5	
789721	1.52	0.320	0.029	0.18	2	27	10	0.41	< 20	2	< 2	< 10	384	< 10	14	5	3	< 5	< 5	
789722	1.38	0.305	0.030	0.15	4	24	10	0.34	< 20	2	< 2	< 10	352	< 10	12	5	< 2	< 5	< 5	
789723	0.67	0.178	0.083	0.08	2	15	134	0.34	< 20	4	< 2	< 10	66	< 10	20	6	< 2	< 5	< 5	
789724	0.92	0.232	0.071	0.04	3	20	103	0.38	< 20	< 1	< 2	< 10	133	< 10	25	7	3	< 5	< 5	
789725	1.54	0.369	0.028	0.18	< 2	26	54	0.34	< 20	1	< 2	< 10	343	< 10	10	4	< 2	< 5	< 5	
789726	0.02	0.030	0.002	< 0.01	< 2	< 1	2	< 0.01	< 20	< 1	< 2	< 10	3	< 10	1	4				
789727	1.50	0.336	0.027	0.07	2	25	21	0.34	< 20	1	< 2	< 10	365	< 10	10	4	8	< 5	< 5	
789728	1.49	0.357	0.028	0.15	< 2	25	12	0.32	< 20	< 1	< 2	< 10	358	< 10	13	5	7	< 5	< 5	
789729	1.55	0.343	0.026	0.05	2	26	19	0.33	< 20	< 1	< 2	< 10	374	< 10	10	4	15	< 5	< 5	
789730	2.26	0.333	0.148	0.77	3	4	96	0.15	< 20	< 1	< 2	< 10	46	< 10	12	2	1560	< 5	< 5	
789731	0.72	1.92	0.011	0.02	< 2	12	20	0.20	< 20	3	< 2	< 10	169	< 10	6	2	6	< 5	< 5	
789732	1.81	0.366	0.024	0.30	< 2	30	9	0.34	< 20	2	< 2	< 10	505	< 10	10	3	6	< 5	< 5	
789733	1.19	0.247	0.048	0.29	2	20	10	0.26	< 20	2	< 2	< 10	321	< 10	15	5	11	< 5	< 5	
789734	1.26	0.258	0.038	0.09	< 2	21	8	0.30	< 20	< 1	< 2	< 10	356	< 10	13	4	13	< 5	< 5	
789735	1.66	0.335	0.021	0.15	2	27	12	0.39	< 20	4	< 2	< 10	508	< 10	10	4	10	< 5	< 5	
789736	1.69	0.338	0.022	0.21	< 2	26	15	0.38	< 20	< 1	< 2	< 10	525	< 10	10	4	9	< 5	< 5	
789737	1.58	0.314	0.022	0.22	< 2	24	12	0.34	< 20	2	< 2	< 10	486	< 10	9	4	9	< 5	< 5	
789738	1.54	0.327	0.030	1.07	< 2	25	34	0.40	< 20	3	< 2	< 10	476	< 10	12	5	80	< 5	< 5	
789739	1.42	0.278	0.040	1.35	3	22	52	0.39	< 20	3	< 2	< 10	423	< 10	13	6	51	< 5	< 5	3.18
789740	1.34	0.318	0.025	0.23	< 2	23	8	0.49	< 20	< 1	< 2	< 10	495	< 10	12	5	22	< 5	< 5	

Analyte Symbol	Total S	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	CS	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-4 Meas		3.2	< 0.5	6080	136	293	36	39	68	2.64	98	< 10	20	1.2	21	0.86	13	52	2.98	10	< 1	1.65	50
GXR-4 Cert		4.0	0.860	6520	155	310	42.0	52.0	73.0	7.20	98.0	4.50	1640	1.90	19.0	1.01	14.6	64.0	3.09	20.0	0.110	4.01	64.5
GXR-6 Meas		0.3	< 0.5	64	1040	< 1	22	92	123	6.88	233	< 10	873	0.8	< 2	0.15	12	76	5.38	20	< 1	1.08	11
GXR-6 Cert		1.30	1.00	66.0	1010	2.40	27.0	101	118	17.7	330	9.80	1300	1.40	0.290	0.180	13.8	96.0	5.58	35.0	0.0680	1.87	13.9
BaSO4 Meas	13.7																						
BaSO4 Cert	14.0																						
BaSO4 Meas	13.3																						
BaSO4 Cert	14.0																						
BaSO4 Meas	13.4																						
BaSO4 Cert	14.0																						
BaSO4 Meas	13.9																						
BaSO4 Cert	14.0																						
SGR-1b Meas	1.58																						
SGR-1b Cert	1.53																						
SGR-1b Meas	1.57																						
SGR-1b Cert	1.53																						
SGR-1b Meas	1.51																						
SGR-1b Cert	1.53																						
SGR-1b Meas	1.50																						
SGR-1b Cert	1.53																						
PK2 Meas																							
PK2 Cert																							
PK2 Meas																							
PK2 Cert																							
GS311-4 Meas	0.54																						
GS311-4 Cert	0.54																						
GS311-4 Meas	0.54																						
GS311-4 Cert	0.54																						
GS311-4 Meas	0.53																						
GS311-4 Cert	0.54																						
GS311-4 Meas	0.54																						
GS311-4 Cert	0.54																						
GS900-5 Meas	0.33																						
GS900-5 Cert	0.34																						
GS900-5 Meas	0.32																						
GS900-5 Cert	0.34																						
GS900-5 Meas	0.31																						
GS900-5 Cert	0.34																						
GS900-5 Meas	0.32																						
GS900-5 Cert	0.34																						
CDN-PGMS-29 Meas																							

Analyte Symbol	Total S	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	CS	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
CDN-PGMS-29 Cert																							
Oreas 621 (Aqua Regia) Meas		64.9	271	3450	529	12	24	> 5000	> 10000	1.74	76			0.5	3	1.67	28	30	3.44	< 10	4	0.35	20
Oreas 621 (Aqua Regia) Cert		68.0	278	3660	520	13.3	25.8	13600	51700	1.60	75.0			0.530	3.85	1.65	27.9	31.3	3.43	9.29	3.93	0.333	19.4
789710 Orig																							
789710 Dup																							
789711 Orig	0.11																						
789711 Dup	0.11																						
789713 Orig		< 0.2	< 0.5	17	676	< 1	3	< 2	31	1.79	< 2	< 10	66	< 0.5	< 2	3.05	29	< 1	6.41	< 10	< 1	0.18	< 10
789713 Dup		< 0.2	< 0.5	17	686	< 1	2	< 2	32	1.80	< 2	< 10	67	< 0.5	< 2	3.06	29	< 1	6.48	< 10	< 1	0.18	< 10
789720 Orig																							
789720 Dup																							
789722 Orig	0.17																						
789722 Dup	0.16																						
789724 Orig		< 0.2	< 0.5	42	647	< 1	3	< 2	37	1.98	< 2	< 10	14	< 0.5	< 2	3.18	20	< 1	7.16	< 10	< 1	0.04	< 10
789724 Dup		< 0.2	< 0.5	42	648	< 1	3	< 2	36	1.97	< 2	< 10	13	< 0.5	< 2	3.17	20	< 1	7.13	< 10	< 1	0.04	< 10
789728 Orig																							
789728 Dup																							
789732 Orig	0.35																						
789732 Dup	0.33																						
789740 Orig	0.25	< 0.2	< 0.5	104	661	< 1	14	< 2	47	1.45	< 2	< 10	18	< 0.5	< 2	2.65	36	1	8.24	< 10	< 1	0.06	< 10
789740 Dup	0.25	< 0.2	< 0.5	102	647	< 1	15	< 2	46	1.41	< 2	< 10	19	< 0.5	< 2	2.60	36	1	8.11	< 10	< 1	0.06	< 10
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank																							

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Pd	Pt	Spec Grav
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb	-
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	2	5	5	0.01
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-ICP	FA-ICP	FA-ICP	GRAV
GXR-4 Meas	1.54	0.129	0.123	1.64	2	7	72	0.13	< 20	< 1	2	< 10	78	< 10	11	10				
GXR-4 Cert	1.66	0.564	0.120	1.77	4.80	7.70	221	0.29	22.5	0.970	3.20	6.20	87.0	30.8	14.0	186				
GXR-6 Meas	0.38	0.074	0.033	0.01	2	24	33		< 20	< 1	< 2	< 10	168	< 10	6	12				
GXR-6 Cert	0.609	0.104	0.0350	0.0160	3.60	27.6	35.0		5.30	0.0180	2.20	1.54	186	1.90	14.0	110				
BaSO4 Meas																				
BaSO4 Cert																				
BaSO4 Meas																				
BaSO4 Cert																				
BaSO4 Meas																				
BaSO4 Cert																				
BaSO4 Meas																				
BaSO4 Cert																				
BaSO4 Meas																				
BaSO4 Cert																				
SGR-1b Meas																				
SGR-1b Cert																				
SGR-1b Meas																				
SGR-1b Cert																				
SGR-1b Meas																				
SGR-1b Cert																				
SGR-1b Meas																				
SGR-1b Cert																				
PK2 Meas																	4890	6020	4800	
PK2 Cert																	4790	5918.000	4749.000	
PK2 Meas																	4770	5850	4670	
PK2 Cert																	4790	5918.000	4749.000	
GS311-4 Meas																				
GS311-4 Cert																				
GS311-4 Meas																				
GS311-4 Cert																				
GS311-4 Meas																				
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GS311-4 Cert																				
GS311-4 Meas																				
GS311-4 Cert																				
GS900-5 Meas																				
GS900-5 Cert																				
GS900-5 Meas																				
GS900-5 Cert																				
GS900-5 Meas																				
GS900-5 Cert																				
GS900-5 Meas																				
GS900-5 Cert																				

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Pd	Pt	Spec Grav
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb	-
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	2	5	5	0.01
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-ICP	FA-ICP	FA-ICP	GRAV
CDN-PGMS-29 Meas																	92	677	544	
CDN-PGMS-29 Cert																	88.0	677	550	
Oreas 621 (Aqua Regia) Meas	0.43	0.174	0.031	4.21	72	2	18		< 20			< 2	< 10	12	< 10	8	41			
Oreas 621 (Aqua Regia) Cert	0.436	0.160	0.0335	4.50	107	2.20	18.9		5.91			0.770	163	10.9	1.00	6.87	55.0			
789710 Orig																	83	< 5	< 5	
789710 Dup																	71	< 5	< 5	
789711 Orig																				
789711 Dup																				
789713 Orig	1.30	0.246	0.038	0.08	2	24	16	0.34	< 20	3	< 2	< 10	174	< 10	14	5				
789713 Dup	1.32	0.249	0.038	0.08	< 2	24	16	0.34	< 20	< 1	< 2	< 10	174	< 10	14	5				
789720 Orig																	< 2	< 5	< 5	
789720 Dup																	< 2	< 5	< 5	
789722 Orig																				
789722 Dup																				
789724 Orig	0.92	0.233	0.070	0.04	2	20	104	0.38	< 20	3	< 2	< 10	133	< 10	25	7				
789724 Dup	0.92	0.230	0.071	0.04	3	20	102	0.39	< 20	< 1	< 2	< 10	133	< 10	25	7				
789728 Orig																	7	< 5	< 5	
789728 Dup																	6	< 5	< 5	
789732 Orig																				
789732 Dup																				
789740 Orig	1.35	0.321	0.025	0.23	< 2	23	8	0.49	< 20	< 1	< 2	< 10	500	< 10	12	5				
789740 Dup	1.32	0.314	0.025	0.23	2	23	8	0.48	< 20	5	< 2	< 10	491	< 10	12	5				
Method Blank																	< 2	< 5	< 5	
Method Blank																	< 2	< 5	< 5	
Method Blank																	< 2	< 5	< 5	
Method Blank																	< 2	< 5	< 5	
Method Blank	< 0.01	0.016	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1				
Method Blank	< 0.01	0.007	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1				
Method Blank																				1.00



Date Submitted: 18-Jun-18
Invoice No.: A18-08021
Invoice Date: 27-Jul-18
Your Reference:

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth
6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1C-OES Fire Assay ICPOES
Code 1E3 Aqua Regia ICP(AQUAGEO)
Code 4F-S Infrared

REPORT **A18-08021**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:

A handwritten signature in black ink, appearing to read "Emmanuel Esemé". The signature is stylized with loops and is positioned above a horizontal line.

Emmanuel Esemé , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
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Results

Activation Laboratories Ltd.

Report: A18-08021

Analyte Symbol	Total S	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	CS	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
789776	< 0.01	< 0.2	< 0.5	2	43	< 1	< 1	< 2	< 2	0.07	< 2	< 10	10	< 0.5	< 2	0.02	< 1	3	0.44	< 10	< 1	0.01	< 10
789777	2.53	0.7	< 0.5	56	740	< 1	2	< 2	81	1.50	5	< 10	25	< 0.5	< 2	2.96	24	15	8.15	< 10	< 1	0.05	10
789778	1.74	0.2	< 0.5	39	874	2	2	< 2	71	1.40	63	< 10	< 10	< 0.5	< 2	3.78	17	< 1	7.47	< 10	< 1	0.03	13
789779	1.28	0.3	< 0.5	34	714	< 1	3	< 2	66	1.24	< 2	< 10	< 10	< 0.5	< 2	2.00	13	26	7.39	10	< 1	0.03	15
789780	0.01	< 0.2	< 0.5	47	615	1	123	9	87	2.84	10	< 10	85	0.7	< 2	1.77	32	80	5.41	< 10	< 1	0.17	17
789781	0.26	< 0.2	< 0.5	12	890	< 1	3	< 2	50	1.63	< 2	< 10	10	< 0.5	< 2	2.50	10	< 1	6.17	10	< 1	0.02	13
789782	0.13	< 0.2	< 0.5	13	703	< 1	2	< 2	40	2.03	< 2	< 10	179	< 0.5	< 2	2.26	14	15	7.16	10	< 1	0.34	< 10
789783	0.24	< 0.2	< 0.5	16	822	< 1	2	< 2	38	2.16	2	< 10	51	< 0.5	< 2	2.68	18	< 1	7.06	10	< 1	0.16	< 10
789784	1.09	< 0.2	< 0.5	23	853	< 1	2	< 2	36	1.74	< 2	< 10	12	< 0.5	< 2	2.90	23	15	7.88	10	< 1	0.04	< 10
789785	1.87	0.5	< 0.5	30	680	1	1	2	36	1.04	< 2	< 10	35	< 0.5	< 2	3.30	11	< 1	6.21	< 10	< 1	0.08	21
789786	2.96	1.6	< 0.5	55	635	3	3	6	36	1.27	< 2	< 10	32	< 0.5	< 2	1.74	17	40	7.46	< 10	< 1	0.12	23
789787	3.67	1.2	< 0.5	57	665	1	1	5	26	1.08	11	< 10	16	< 0.5	< 2	1.55	20	< 1	8.44	< 10	< 1	0.06	14
789788	1.72	1.5	< 0.5	28	658	2	3	3	28	1.45	3	< 10	17	< 0.5	< 2	3.21	15	37	7.07	10	< 1	0.06	< 10
789789	3.32	1.2	< 0.5	41	672	2	2	4	249	1.99	4	< 10	22	< 0.5	< 2	1.91	39	< 1	10.1	10	< 1	0.03	< 10
789790	0.14	< 0.2	< 0.5	11	896	< 1	2	< 2	57	2.23	< 2	< 10	18	< 0.5	< 2	2.86	20	12	8.38	10	< 1	0.05	< 10
789791	0.36	0.2	< 0.5	12	838	< 1	1	< 2	35	2.25	< 2	< 10	22	< 0.5	< 2	2.86	23	< 1	8.76	10	< 1	0.07	< 10
789792	1.09	0.4	< 0.5	36	824	< 1	3	6	39	2.06	< 2	< 10	18	< 0.5	< 2	3.16	24	16	8.13	10	< 1	0.05	< 10
789793	0.63	< 0.2	< 0.5	20	794	< 1	1	< 2	34	1.88	< 2	< 10	16	< 0.5	< 2	3.39	20	< 1	6.94	10	< 1	0.06	< 10
789794	0.42	0.2	< 0.5	24	722	< 1	3	< 2	28	2.20	< 2	< 10	29	< 0.5	< 2	4.11	29	9	7.79	10	< 1	0.07	< 10
789795	1.05	6.5	1.5	33	737	< 1	2	2	31	2.32	< 2	< 10	14	< 0.5	< 2	3.91	47	< 1	8.77	10	< 1	0.04	< 10
789796	0.62	< 0.2	< 0.5	41	712	< 1	4	< 2	31	2.34	3	< 10	26	< 0.5	< 2	2.76	39	< 1	8.01	10	< 1	0.08	< 10
789797	0.02	< 0.2	< 0.5	25	558	< 1	4	< 2	32	1.30	< 2	< 10	< 10	< 0.5	< 2	1.95	21	6	6.18	< 10	< 1	0.05	< 10
789798	0.16	< 0.2	< 0.5	49	624	< 1	7	< 2	34	1.49	< 2	< 10	16	< 0.5	< 2	2.63	30	< 1	5.79	< 10	< 1	0.06	< 10
789799	0.40	< 0.2	< 0.5	118	609	< 1	12	< 2	32	1.61	< 2	< 10	15	< 0.5	< 2	2.11	35	6	5.62	< 10	< 1	0.05	< 10
789800	0.18	< 0.2	< 0.5	105	531	< 1	11	< 2	33	1.42	< 2	< 10	15	< 0.5	< 2	1.96	31	6	5.81	< 10	< 1	0.04	< 10
789801	< 0.01	< 0.2	< 0.5	2	48	< 1	< 1	< 2	< 2	0.08	< 2	< 10	14	< 0.5	< 2	0.03	< 1	3	0.50	< 10	< 1	0.02	< 10
789802	0.09	< 0.2	< 0.5	96	773	< 1	15	< 2	69	2.34	< 2	< 10	16	< 0.5	< 2	3.11	35	9	7.13	< 10	< 1	0.07	< 10
789803	0.17	< 0.2	< 0.5	134	569	< 1	13	< 2	37	1.61	< 2	< 10	12	< 0.5	< 2	2.31	32	3	6.03	< 10	< 1	0.04	< 10
789804	0.17	< 0.2	< 0.5	123	818	< 1	13	< 2	50	2.21	< 2	< 10	16	< 0.5	< 2	3.00	39	3	7.17	< 10	< 1	0.07	< 10
789805	0.85	0.2	< 0.5	74	1390	1	112	3	73	1.94	1050	< 10	39	< 0.5	< 2	2.02	27	47	6.34	< 10	< 1	0.08	14
789806	0.36	< 0.2	< 0.5	126	730	< 1	16	< 2	51	2.12	< 2	< 10	22	< 0.5	< 2	2.90	39	2	7.45	< 10	< 1	0.05	< 10
789807	0.51	< 0.2	< 0.5	161	817	< 1	16	< 2	56	2.57	< 2	< 10	25	< 0.5	< 2	3.63	46	6	8.22	< 10	< 1	0.07	< 10
789808	0.18	< 0.2	< 0.5	113	725	< 1	14	< 2	51	2.11	< 2	< 10	15	< 0.5	< 2	2.91	36	3	6.43	< 10	< 1	0.06	< 10
789809	0.05	< 0.2	< 0.5	87	725	< 1	12	< 2	46	2.19	< 2	< 10	13	< 0.5	< 2	3.02	30	7	5.95	< 10	< 1	0.06	< 10
789810	0.04	< 0.2	< 0.5	76	652	< 1	9	< 2	41	1.92	< 2	< 10	11	< 0.5	< 2	2.72	27	2	5.29	< 10	< 1	0.05	< 10

Results

Activation Laboratories Ltd.

Report: A18-08021

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Pd	Pt
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	2	5	5
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-ICP	FA-ICP	FA-ICP
789776	0.01	0.025	0.002	< 0.01	< 2	< 1	1	< 0.01	< 20	< 1	< 2	< 10	3	< 10	< 1	3	< 2	< 5	< 5
789777	0.65	0.192	0.103	2.39	< 2	18	17	0.24	< 20	< 1	< 2	< 10	11	11	35	13	4410	< 5	< 5
789778	0.46	0.186	0.112	1.54	< 2	15	26	0.17	< 20	< 1	< 2	< 10	12	< 10	42	14	1660	< 5	< 5
789779	0.33	0.165	0.140	1.26	2	14	12	0.18	< 20	< 1	< 2	< 10	27	< 10	49	12	2740	< 5	< 5
789780	1.74	0.481	0.088	0.02	3	7	135	0.33	< 20	< 1	< 2	< 10	61	< 10	12	5	505	< 5	< 5
789781	0.37	0.198	0.148	0.26	< 2	15	13	0.18	< 20	< 1	< 2	< 10	10	< 10	45	10	146	< 5	< 5
789782	0.63	0.244	0.130	0.12	< 2	21	11	0.23	< 20	< 1	< 2	< 10	3	< 10	42	10	< 2	< 5	< 5
789783	0.76	0.265	0.126	0.23	2	21	12	0.25	< 20	1	< 2	< 10	4	< 10	37	9	459	< 5	< 5
789784	0.52	0.290	0.097	1.04	< 2	18	15	0.27	< 20	< 1	< 2	< 10	10	< 10	30	10	1310	< 5	< 5
789785	0.58	0.134	0.100	1.75	< 2	11	22	0.28	< 20	2	< 2	< 10	47	< 10	29	10	2470	< 5	< 5
789786	0.93	0.172	0.123	2.78	< 2	17	14	0.24	< 20	< 1	< 2	< 10	52	< 10	40	14	3530	< 5	< 5
789787	0.46	0.184	0.125	3.25	2	15	10	0.17	< 20	< 1	< 2	< 10	17	< 10	48	20	9060	< 5	< 5
789788	0.62	0.193	0.109	1.75	< 2	15	17	0.21	< 20	2	< 2	< 10	9	< 10	37	12	10700	< 5	< 5
789789	0.96	0.151	0.098	3.12	2	19	9	0.35	< 20	3	< 2	< 10	28	< 10	31	12	7450	< 5	< 5
789790	1.16	0.285	0.070	0.14	3	28	13	0.35	< 20	< 1	< 2	< 10	18	< 10	25	9	184	< 5	< 5
789791	1.04	0.254	0.075	0.34	< 2	26	12	0.32	< 20	< 1	< 2	< 10	23	< 10	25	8	1260	< 5	< 5
789792	0.99	0.306	0.073	1.09	< 2	27	14	0.30	< 20	< 1	< 2	< 10	41	< 10	27	9	1140	< 5	< 5
789793	1.04	0.298	0.072	0.57	< 2	26	15	0.35	< 20	< 1	< 2	< 10	40	< 10	26	7	1190	< 5	< 5
789794	1.44	0.223	0.058	0.38	< 2	25	18	0.49	< 20	2	< 2	< 10	57	< 10	20	8	789	< 5	< 5
789795	1.57	0.147	0.030	0.99	2	18	15	0.42	< 20	4	< 2	< 10	121	< 10	13	8	24600	< 5	22
789796	1.61	0.155	0.030	0.53	2	18	13	0.37	< 20	< 1	< 2	< 10	251	< 10	11	8	152	< 5	< 5
789797	0.93	0.192	0.052	0.02	< 2	16	13	0.28	< 20	< 1	< 2	< 10	239	< 10	14	6	16	< 5	< 5
789798	1.08	0.230	0.033	0.15	< 2	18	16	0.30	< 20	< 1	< 2	< 10	285	< 10	9	4	4	< 5	< 5
789799	1.16	0.252	0.031	0.37	< 2	19	8	0.31	< 20	2	< 2	< 10	284	< 10	8	4	8	< 5	< 5
789800	1.08	0.213	0.035	0.17	< 2	17	8	0.27	< 20	< 1	< 2	< 10	326	< 10	9	4	11	< 5	< 5
789801	0.02	0.029	0.002	< 0.01	< 2	< 1	1	< 0.01	< 20	< 1	< 2	< 10	2	< 10	< 1	3	2	< 5	< 5
789802	1.72	0.367	0.025	0.08	2	26	15	0.35	< 20	< 1	< 2	< 10	417	< 10	10	4	15	< 5	< 5
789803	1.29	0.217	0.023	0.17	< 2	18	16	0.31	< 20	< 1	< 2	< 10	397	< 10	7	3	12	< 5	< 5
789804	1.67	0.356	0.026	0.16	< 2	27	13	0.33	< 20	< 1	< 2	< 10	442	< 10	10	4	13	< 5	< 5
789805	2.33	0.361	0.151	0.79	3	4	103	0.16	< 20	1	< 2	< 10	48	< 10	13	4	1590	< 5	< 5
789806	1.62	0.324	0.023	0.32	< 2	26	10	0.29	< 20	< 1	< 2	< 10	468	< 10	10	4	119	< 5	< 5
789807	1.81	0.376	0.022	0.46	< 2	26	14	0.34	< 20	< 1	< 2	< 10	429	< 10	10	4	10	< 5	< 5
789808	1.54	0.324	0.022	0.17	< 2	24	12	0.29	< 20	1	< 2	< 10	370	< 10	9	3	8	< 5	< 5
789809	1.52	0.349	0.021	0.05	< 2	23	14	0.40	< 20	< 1	< 2	< 10	337	< 10	10	3	18	< 5	< 5
789810	1.35	0.306	0.021	0.05	< 2	21	12	0.37	< 20	2	< 2	< 10	305	< 10	9	3	17	< 5	< 5

Analyte Symbol	Total S	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	CS	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-4 Meas		3.2	< 0.5	6060	143	301	37	40	68	2.63	99	< 10	25	1.4	11	0.87	13	53	3.01	10	< 1	1.63	48
GXR-4 Cert		4.0	0.860	6520	155	310	42.0	52.0	73.0	7.20	98.0	4.50	1640	1.90	19.0	1.01	14.6	64.0	3.09	20.0	0.110	4.01	64.5
GXR-6 Meas		0.3	< 0.5	66	1070	1	23	95	127	7.12	237	< 10	845	1.0	< 2	0.16	13	79	5.58	20	< 1	1.13	12
GXR-6 Cert		1.30	1.00	66.0	1010	2.40	27.0	101	118	17.7	330	9.80	1300	1.40	0.290	0.180	13.8	96.0	5.58	35.0	0.0680	1.87	13.9
BaSO4 Meas	14.0																						
BaSO4 Cert	14.0																						
BaSO4 Meas	14.3																						
BaSO4 Cert	14.0																						
SGR-1b Meas	1.52																						
SGR-1b Cert	1.53																						
SGR-1b Meas	1.44																						
SGR-1b Cert	1.53																						
PK2 Meas																							
PK2 Cert																							
PK2 Meas																							
PK2 Cert																							
GS311-4 Meas	0.53																						
GS311-4 Cert	0.54																						
GS311-4 Meas	0.52																						
GS311-4 Cert	0.54																						
GS900-5 Meas	0.33																						
GS900-5 Cert	0.34																						
GS900-5 Meas	0.33																						
GS900-5 Cert	0.34																						
CDN-PGMS-29 Meas																							
CDN-PGMS-29 Cert																							
CDN-PGMS-29 Meas																							
CDN-PGMS-29 Cert																							
Oreas 621 (Aqua Regia) Meas		65.7	277	3520	537	12	22	> 5000	> 10000	1.76	78			0.6	< 2	1.69	28	30	3.45	< 10	4	0.35	20
Oreas 621 (Aqua Regia) Cert		68.0	278	3660	520	13.3	25.8	13600	51700	1.60	75.0			0.530	3.85	1.65	27.9	31.3	3.43	9.29	3.93	0.333	19.4
789782 Orig	0.13	< 0.2	< 0.5	13	705	< 1	2	< 2	39	2.02	< 2	< 10	179	< 0.5	< 2	2.25	13	15	7.15	10	< 1	0.34	< 10
789782 Dup	0.12	< 0.2	< 0.5	12	702	< 1	2	< 2	40	2.04	< 2	< 10	178	0.5	< 2	2.27	14	15	7.16	10	< 1	0.35	< 10
789792 Orig	1.09																						
789792 Dup	1.09																						
789793 Orig		< 0.2	< 0.5	20	808	< 1	1	< 2	35	1.92	< 2	< 10	17	< 0.5	< 2	3.41	20	< 1	7.06	10	< 1	0.06	< 10
789793 Dup		< 0.2	< 0.5	20	780	< 1	1	2	33	1.85	< 2	< 10	14	< 0.5	< 2	3.36	20	< 1	6.82	10	< 1	0.06	< 10
789803 Orig	0.17																						
789803 Dup	0.17																						

Analyte Symbol	Total S	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	CS	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
789810 Orig	0.04	< 0.2	< 0.5	76	652	< 1	9	< 2	41	1.92	< 2	< 10	11	< 0.5	< 2	2.72	27	2	5.29	< 10	< 1	0.05	< 10
789810 Split PREP DUP	0.04	< 0.2	< 0.5	75	726	< 1	11	< 2	46	2.19	< 2	< 10	12	< 0.5	< 2	3.02	30	6	5.95	< 10	< 1	0.06	< 10
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Pd	Pt
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	2	5	5
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-ICP	FA-ICP	FA-ICP
GXR-4 Meas	1.54	0.125	0.119	1.65	3	7	71	0.13	< 20	< 1	< 2	< 10	78	13	11	10			
GXR-4 Cert	1.66	0.564	0.120	1.77	4.80	7.70	221	0.29	22.5	0.970	3.20	6.20	87.0	30.8	14.0	186			
GXR-6 Meas	0.39	0.072	0.034	0.01	4	25	33		< 20	< 1	< 2	< 10	173	< 10	7	13			
GXR-6 Cert	0.609	0.104	0.0350	0.0160	3.60	27.6	35.0		5.30	0.0180	2.20	1.54	186	1.90	14.0	110			
BaSO4 Meas																			
BaSO4 Cert																			
BaSO4 Meas																			
BaSO4 Cert																			
SGR-1b Meas																			
SGR-1b Cert																			
SGR-1b Meas																			
SGR-1b Cert																			
PK2 Meas																	4760	5830	4840
PK2 Cert																	4790	5918.00	4749.00
PK2 Meas																	4830	6070	4800
PK2 Cert																	4790	5918.00	4749.00
GS311-4 Meas																			
GS311-4 Cert																			
GS311-4 Meas																			
GS311-4 Cert																			
GS900-5 Meas																			
GS900-5 Cert																			
GS900-5 Meas																			
GS900-5 Cert																			
CDN-PGMS-29 Meas																	91	685	594
CDN-PGMS-29 Cert																	88.0	677	550
CDN-PGMS-29 Meas																	84	639	471
CDN-PGMS-29 Cert																	88.0	677	550
Oreas 621 (Aqua Regia) Meas	0.44	0.177	0.033	4.15	109	2	20		< 20		< 2	< 10	12	< 10	8	58			
Oreas 621 (Aqua Regia) Cert	0.436	0.160	0.0335	4.50	107	2.20	18.9		5.91		0.770	163	10.9	1.00	6.87	55.0			
789782 Orig	0.62	0.241	0.129	0.12	< 2	21	11	0.24	< 20	2	< 2	< 10	3	< 10	42	10	< 2	< 5	< 5
789782 Dup	0.64	0.246	0.131	0.12	4	21	11	0.23	< 20	< 1	< 2	< 10	3	< 10	42	10	< 2	< 5	< 5
789792 Orig																	1110	< 5	< 5
789792 Dup																	1180	< 5	< 5
789793 Orig	1.05	0.304	0.072	0.57	< 2	27	15	0.37	< 20	< 1	< 2	< 10	41	< 10	26	7			
789793 Dup	1.03	0.292	0.072	0.57	< 2	26	15	0.34	< 20	< 1	< 2	< 10	39	< 10	25	7			

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Pd	Pt
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	2	5	5
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-ICP	FA-ICP	FA-ICP
789803 Orig																			
789803 Dup																			
789810 Orig	1.35	0.306	0.021	0.05	< 2	21	12	0.37	< 20	2	< 2	< 10	305	< 10	9	3	17	< 5	< 5
789810 Split PREP DUP	1.52	0.348	0.021	0.05	< 2	24	14	0.40	< 20	< 1	< 2	< 10	335	< 10	10	3	16	< 5	< 5
Method Blank	< 0.01	0.013	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1			
Method Blank	< 0.01	0.014	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1			
Method Blank																	< 2	< 5	< 5
Method Blank																	< 2	< 5	< 5
Method Blank																	< 2	< 5	< 5
Method Blank																	< 2	< 5	< 5



Date Submitted: 18-Jun-18
Invoice No.: A18-08025
Invoice Date: 01-Aug-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Suite 6, 295 Rokeby Rd
Subiaco WA 6008
Australia

ATTN: Brad Boyle (inv/res)

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested:

- Code 1C-OES Fire Assay ICPOES
Code 1E3 Aqua Regia ICP(AQUAGEO)
Code 4F-S Infrared
Code Specific Gravity Core - Core

REPORT A18-08025

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:

[Handwritten signature]

Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-9611 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Results

Activation Laboratories Ltd.

Report: A18-08025

Analyte Symbol	Total S	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	CS	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
789811	0.10	< 0.2	< 0.5	74	660	< 1	11	< 2	42	2.05	< 2	< 10	13	< 0.5	< 2	2.87	30	3	5.61	< 10	< 1	0.06	< 10
789812	0.55	< 0.2	< 0.5	197	760	< 1	21	< 2	66	2.40	< 2	< 10	33	< 0.5	< 2	3.88	50	4	7.34	< 10	< 1	0.06	< 10
789813	0.32	< 0.2	< 0.5	240	702	< 1	25	< 2	41	2.13	< 2	< 10	14	< 0.5	< 2	3.26	38	4	6.16	< 10	< 1	0.06	< 10
789814	0.34	0.2	< 0.5	312	710	< 1	38	< 2	42	2.32	< 2	< 10	13	< 0.5	< 2	3.61	41	3	6.73	< 10	< 1	0.06	< 10
789815	0.17	< 0.2	< 0.5	231	664	< 1	28	< 2	44	2.37	< 2	< 10	12	< 0.5	< 2	2.88	35	2	6.14	< 10	< 1	0.06	< 10
789816	0.10	< 0.2	< 0.5	249	653	< 1	34	< 2	39	2.14	< 2	< 10	12	< 0.5	< 2	2.86	30	4	5.68	< 10	< 1	0.06	< 10
789817	0.09	< 0.2	< 0.5	228	570	< 1	36	< 2	32	1.81	< 2	< 10	12	< 0.5	< 2	2.52	26	4	4.70	< 10	< 1	0.06	< 10
789818	< 0.01	< 0.2	< 0.5	19	619	< 1	24	< 2	117	3.03	< 2	< 10	160	< 0.5	< 2	0.25	13	52	3.24	10	< 1	0.43	< 10
789819	0.13	< 0.2	< 0.5	15	265	1	6	< 2	25	0.83	< 2	20	37	< 0.5	< 2	0.54	6	21	1.37	< 10	< 1	0.09	< 10
789820	< 0.01	< 0.2	< 0.5	5	857	< 1	23	< 2	97	3.09	< 2	< 10	51	< 0.5	< 2	0.27	14	49	3.83	< 10	< 1	0.16	< 10
789821	0.18	< 0.2	< 0.5	48	538	< 1	24	< 2	106	1.65	< 2	< 10	52	< 0.5	< 2	1.00	11	60	2.08	< 10	< 1	0.12	< 10
789822	0.22	< 0.2	< 0.5	52	437	< 1	19	< 2	29	1.00	< 2	< 10	21	< 0.5	< 2	0.88	10	26	1.74	< 10	< 1	0.05	< 10
789823	0.03	< 0.2	< 0.5	12	197	2	15	< 2	25	1.07	< 2	11	116	< 0.5	< 2	0.85	7	43	1.19	< 10	< 1	0.17	< 10
789824	0.13	< 0.2	< 0.5	57	208	< 1	20	< 2	79	1.77	< 2	11	134	< 0.5	< 2	1.61	16	40	2.65	< 10	< 1	0.30	< 10
789825	0.09	< 0.2	< 0.5	98	282	1	28	< 2	37	1.49	< 2	< 10	78	< 0.5	< 2	1.71	16	51	2.44	< 10	< 1	0.08	11
789826	< 0.01	< 0.2	< 0.5	2	95	< 1	< 1	< 2	< 2	0.09	< 2	< 10	13	< 0.5	< 2	0.01	< 1	6	0.92	< 10	< 1	0.02	< 10
789827	0.23	< 0.2	< 0.5	83	597	< 1	53	< 2	32	1.79	< 2	< 10	62	< 0.5	< 2	2.85	24	91	3.82	< 10	< 1	0.08	< 10
789828	0.23	< 0.2	< 0.5	105	576	< 1	45	< 2	33	1.90	< 2	< 10	14	< 0.5	< 2	2.83	25	82	4.36	< 10	< 1	0.05	< 10
789829	0.20	< 0.2	< 0.5	63	501	< 1	43	< 2	46	1.90	< 2	< 10	13	< 0.5	< 2	2.28	24	68	4.24	< 10	< 1	0.04	< 10
789830	0.73	1.4	< 0.5	121	631	4	152	27	62	3.00	53	14	50	< 0.5	< 2	3.15	28	424	4.53	< 10	< 1	0.21	< 10
789831	0.14	< 0.2	< 0.5	49	579	< 1	23	< 2	27	2.16	< 2	< 10	14	< 0.5	< 2	3.91	22	19	4.79	< 10	< 1	0.05	< 10
789832	0.25	< 0.2	< 0.5	104	687	< 1	23	< 2	41	2.06	< 2	< 10	13	< 0.5	< 2	2.45	27	12	5.49	< 10	< 1	0.05	< 10
789833	0.22	< 0.2	< 0.5	80	586	< 1	22	< 2	30	1.84	< 2	< 10	10	< 0.5	< 2	2.27	25	11	5.18	< 10	< 1	0.06	< 10
789834	0.29	< 0.2	< 0.5	54	601	< 1	17	< 2	34	1.99	< 2	< 10	35	< 0.5	< 2	2.91	26	7	5.52	< 10	< 1	0.09	< 10
789835	0.27	< 0.2	< 0.5	55	746	< 1	14	< 2	69	2.30	< 2	< 10	231	< 0.5	< 2	3.65	28	4	6.78	10	< 1	0.42	< 10
789836	1.49	0.5	< 0.5	44	614	2	2	< 2	60	1.37	118	< 10	35	< 0.5	< 2	3.18	22	4	6.24	< 10	< 1	0.05	< 10
789837	2.91	0.5	< 0.5	79	687	3	2	3	65	1.35	3	< 10	32	< 0.5	< 2	2.69	23	4	8.47	< 10	< 1	0.07	11
789838	0.95	< 0.2	< 0.5	18	802	< 1	1	< 2	72	1.77	5	< 10	11	< 0.5	< 2	2.32	16	5	7.87	10	< 1	0.04	14
789839	0.83	0.2	< 0.5	18	904	< 1	2	< 2	59	1.99	21	< 10	21	< 0.5	< 2	2.45	16	5	8.42	10	< 1	0.04	13
789840	0.20	< 0.2	< 0.5	8	731	< 1	< 1	< 2	37	1.61	< 2	< 10	14	< 0.5	< 2	2.57	12	6	5.88	10	< 1	0.04	11
789841	0.12	< 0.2	< 0.5	8	755	< 1	2	< 2	49	2.14	< 2	< 10	231	0.6	< 2	2.23	13	5	7.35	10	< 1	0.34	10
789842	0.23	< 0.2	< 0.5	27	713	< 1	< 1	< 2	39	1.54	< 2	< 10	10	< 0.5	< 2	2.22	14	4	6.43	10	< 1	0.03	< 10
789843	0.89	0.2	< 0.5	18	870	< 1	2	< 2	41	1.79	< 2	< 10	28	< 0.5	< 2	2.82	17	4	8.51	10	< 1	0.05	11
789844	< 0.01	< 0.2	< 0.5	2	74	< 1	2	< 2	3	0.14	< 2	< 10	16	< 0.5	< 2	0.05	< 1	5	0.57	< 10	< 1	0.02	< 10
789845	3.42	0.5	< 0.5	58	655	< 1	2	4	36	1.18	2	< 10	10	< 0.5	< 2	1.39	19	4	9.24	< 10	< 1	0.02	15

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Pd	Pt	Spec Grav Core
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb	-
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	2	5	5	0.01
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-ICP	FA-ICP	FA-ICP	GRAV
789811	1.43	0.296	0.019	0.09	< 2	21	14	0.36	< 20	< 1	< 2	< 10	326	< 10	9	3	15	< 5	< 5	
789812	1.90	0.296	0.013	0.46	< 2	25	14	0.35	< 20	< 1	< 2	< 10	563	< 10	7	3	399	< 5	< 5	
789813	1.71	0.315	0.015	0.26	< 2	23	10	0.32	< 20	< 1	< 2	< 10	519	< 10	7	3	27	< 5	< 5	
789814	1.79	0.345	0.015	0.29	< 2	24	13	0.33	< 20	< 1	< 2	< 10	605	< 10	7	3	32	< 5	< 5	
789815	1.88	0.296	0.018	0.15	2	22	14	0.30	< 20	< 1	< 2	< 10	476	< 10	7	3	26	< 5	< 5	
789816	1.68	0.318	0.017	0.09	< 2	21	16	0.32	< 20	< 1	< 2	< 10	452	< 10	7	3	17	< 5	< 5	
789817	1.57	0.287	0.023	0.08	< 2	18	8	0.29	< 20	< 1	< 2	< 10	409	< 10	7	3	18	< 5	< 5	
789818	2.45	0.086	0.038	< 0.01	< 2	8	11	0.12	< 20	< 1	< 2	< 10	72	< 10	2	15	4	< 5	< 5	
789819	0.75	0.061	0.009	0.13	< 2	2	10	0.03	< 20	< 1	< 2	< 10	11	< 10	2	13	3	< 5	< 5	
789820	2.71	0.069	0.036	< 0.01	< 2	8	12	0.08	< 20	< 1	< 2	< 10	64	< 10	2	14	< 2	< 5	< 5	2.73
789821	1.24	0.118	0.038	0.16	< 2	4	23	0.13	< 20	< 1	< 2	< 10	48	< 10	4	14	16	< 5	< 5	
789822	0.76	0.150	0.036	0.21	< 2	3	19	0.09	< 20	< 1	< 2	< 10	27	< 10	4	15	4	< 5	< 5	
789823	0.79	0.122	0.034	0.03	< 2	3	18	0.09	< 20	< 1	< 2	< 10	28	< 10	3	15	< 2	< 5	< 5	
789824	1.60	0.099	0.032	0.12	< 2	5	15	0.10	< 20	< 1	< 2	< 10	38	< 10	4	9	2	< 5	< 5	
789825	1.46	0.074	0.030	0.08	< 2	6	14	0.12	< 20	< 1	< 2	< 10	46	< 10	7	11	6	< 5	< 5	
789826	0.01	0.030	0.002	< 0.01	< 2	< 1	1	< 0.01	< 20	< 1	< 2	< 10	2	< 10	< 1	4	< 2	< 5	< 5	
789827	1.58	0.215	0.042	0.20	< 2	15	22	0.22	< 20	< 1	< 2	< 10	110	< 10	10	7	23	< 5	< 5	
789828	1.51	0.263	0.039	0.21	< 2	18	25	0.21	< 20	< 1	< 2	< 10	137	< 10	12	4	< 2	< 5	< 5	
789829	1.66	0.208	0.036	0.18	< 2	16	12	0.22	< 20	< 1	< 2	< 10	139	< 10	11	4	2	< 5	< 5	
789830	3.13	0.068	0.028	0.67	< 2	10	46	0.25	< 20	< 1	< 2	< 10	115	< 10	9	19	4470	< 5	< 5	
789831	1.61	0.229	0.040	0.13	< 2	19	17	0.26	< 20	< 1	< 2	< 10	171	< 10	14	5	3	< 5	< 5	
789832	1.62	0.244	0.047	0.22	< 2	19	10	0.24	< 20	< 1	< 2	< 10	181	< 10	15	6	3	< 5	< 5	
789833	1.33	0.280	0.051	0.19	< 2	23	7	0.25	< 20	< 1	< 2	< 10	208	< 10	17	7	< 2	< 5	< 5	
789834	1.33	0.258	0.051	0.25	< 2	22	12	0.24	< 20	< 1	< 2	< 10	218	< 10	17	5	1220	< 5	< 5	
789835	1.30	0.234	0.045	0.22	< 2	22	19	0.33	< 20	< 1	< 2	< 10	280	< 10	21	5	231	< 5	< 5	
789836	0.64	0.180	0.076	1.28	< 2	15	18	0.18	< 20	3	< 2	< 10	55	< 10	25	8	3090	< 5	< 5	
789837	0.60	0.177	0.106	2.50	< 2	15	13	0.23	< 20	< 1	< 2	< 10	27	< 10	37	17	6020	< 5	< 5	
789838	0.52	0.205	0.121	0.85	< 2	16	10	0.20	< 20	2	< 2	< 10	7	< 10	47	13	1500	< 5	< 5	
789839	0.48	0.240	0.131	0.78	< 2	17	10	0.20	< 20	< 1	< 2	< 10	18	< 10	44	12	4610	< 5	< 5	
789840	0.47	0.225	0.109	0.19	< 2	17	13	0.19	< 20	< 1	< 2	< 10	2	< 10	40	10	26	< 5	< 5	
789841	0.72	0.215	0.117	0.12	< 2	19	11	0.26	< 20	2	< 2	< 10	3	< 10	41	11	12	< 5	< 5	
789842	0.42	0.189	0.111	0.21	< 2	17	10	0.19	< 20	< 1	< 2	< 10	5	< 10	33	9	90	< 5	< 5	
789843	0.62	0.225	0.118	0.85	2	20	15	0.21	< 20	< 1	< 2	< 10	11	< 10	39	11	1080	< 5	< 5	
789844	0.02	0.037	0.003	< 0.01	< 2	< 1	2	0.01	< 20	< 1	< 2	< 10	1	< 10	2	4	< 2	< 5	< 5	
789845	0.39	0.127	0.139	2.92	3	12	9	0.13	< 20	< 1	< 2	< 10	17	< 10	49	18	5060	< 5	< 5	

Analyte Symbol	Total S	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	CS	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-4 Meas		3.1	< 0.5	6100	143	293	36	40	69	2.63	99	< 10	27	1.4	21	0.86	13	53	3.00	10	< 1	1.62	50
GXR-4 Cert		4.0	0.860	6520	155	310	42.0	52.0	73.0	7.20	98.0	4.50	1640	1.90	19.0	1.01	14.6	64.0	3.09	20.0	0.110	4.01	64.5
GXR-4 Meas		3.1	< 0.5	5960	142	294	35	39	69	2.58	98	< 10	27	1.4	17	0.86	12	51	2.96	10	< 1	1.61	49
GXR-4 Cert		4.0	0.860	6520	155	310	42.0	52.0	73.0	7.20	98.0	4.50	1640	1.90	19.0	1.01	14.6	64.0	3.09	20.0	0.110	4.01	64.5
GXR-6 Meas		0.3	< 0.5	65	1070	< 1	23	95	127	7.03	255	< 10	803	1.0	< 2	0.15	13	78	5.56	20	< 1	1.12	11
GXR-6 Cert		1.30	1.00	66.0	1010	2.40	27.0	101	118	17.7	330	9.80	1300	1.40	0.290	0.180	13.8	96.0	5.58	35.0	0.0680	1.87	13.9
GXR-6 Meas		0.3	< 0.5	66	1080	1	22	96	129	7.20	250	< 10	836	1.0	< 2	0.16	13	80	5.61	20	< 1	1.15	12
GXR-6 Cert		1.30	1.00	66.0	1010	2.40	27.0	101	118	17.7	330	9.80	1300	1.40	0.290	0.180	13.8	96.0	5.58	35.0	0.0680	1.87	13.9
BaSO4 Meas	14.3																						
BaSO4 Cert	14.0																						
BaSO4 Meas	13.2																						
BaSO4 Cert	14.0																						
BaSO4 Meas	13.7																						
BaSO4 Cert	14.0																						
BaSO4 Meas	13.7																						
BaSO4 Cert	14.0																						
BaSO4 Meas	14.1																						
BaSO4 Cert	14.0																						
BaSO4 Meas	13.4																						
BaSO4 Cert	14.0																						
BaSO4 Meas	14.5																						
BaSO4 Cert	14.0																						
BaSO4 Meas	13.9																						
BaSO4 Cert	14.0																						
BaSO4 Meas	14.3																						
BaSO4 Cert	14.0																						
SGR-1b Meas	1.61																						
SGR-1b Cert	1.53																						
SGR-1b Meas	1.50																						
SGR-1b Cert	1.53																						
SGR-1b Meas	1.45																						
SGR-1b Cert	1.53																						
SGR-1b Meas	1.56																						
SGR-1b Cert	1.53																						
SGR-1b Meas	1.53																						
SGR-1b Cert	1.53																						
SGR-1b Meas	1.51																						
SGR-1b Cert	1.53																						
SGR-1b Meas	1.54																						
SGR-1b Cert	1.53																						
SGR-1b Meas	1.52																						
SGR-1b Cert	1.53																						

Analyte Symbol	Total S	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	CS	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
SGR-1b Meas	1.55																						
SGR-1b Cert	1.53																						
PK2 Meas																							
PK2 Cert																							
PK2 Meas																							
PK2 Cert																							
PK2 Meas																							
PK2 Cert																							
GS311-4 Meas	0.52																						
GS311-4 Cert	0.54																						
GS311-4 Meas	0.54																						
GS311-4 Cert	0.54																						
GS311-4 Meas	0.52																						
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GS311-4 Meas	0.58																						
GS311-4 Cert	0.54																						
GS900-5 Meas	0.33																						
GS900-5 Cert	0.34																						
GS900-5 Meas	0.34																						
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GS900-5 Meas	0.33																						
GS900-5 Cert	0.34																						
GS900-5 Meas	0.34																						
GS900-5 Cert	0.34																						

Analyte Symbol	Total S	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	CS	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GS900-5 Meas	0.35																						
GS900-5 Cert	0.34																						
CDN-PGMS-29 Meas																							
CDN-PGMS-29 Cert																							
Oreas 621 (Aqua Regia) Meas		62.7	275	3330	517	12	23	> 5000	> 10000	1.70	73			0.6	7	1.63	27	30	3.34	< 10	3	0.35	19
Oreas 621 (Aqua Regia) Cert		68.0	278	3660	520	13.3	25.8	13600	51700	1.60	75.0			0.530	3.85	1.65	27.9	31.3	3.43	9.29	3.93	0.333	19.4
Oreas 621 (Aqua Regia) Meas		64.4	274	3410	531	12	25	> 5000	> 10000	1.77	74			0.6	2	1.67	28	33	3.42	< 10	4	0.37	20
Oreas 621 (Aqua Regia) Cert		68.0	278	3660	520	13.3	25.8	13600	51700	1.60	75.0			0.530	3.85	1.65	27.9	31.3	3.43	9.29	3.93	0.333	19.4
789812 Orig		< 0.2	< 0.5	196	751	< 1	21	< 2	66	2.37	< 2	< 10	34	< 0.5	< 2	3.83	50	3	7.25	< 10	< 1	0.06	< 10
789812 Dup		< 0.2	< 0.5	197	770	< 1	21	< 2	66	2.43	< 2	< 10	33	< 0.5	< 2	3.92	51	4	7.42	< 10	< 1	0.06	< 10
789817 Orig	0.09																						
789817 Dup	0.09																						
789827 Orig	0.23	< 0.2	< 0.5	84	590	< 1	53	< 2	32	1.77	< 2	< 10	62	< 0.5	< 2	2.83	24	89	3.79	< 10	< 1	0.08	< 10
789827 Dup	0.24	< 0.2	< 0.5	82	603	< 1	54	< 2	33	1.81	< 2	< 10	62	< 0.5	< 2	2.86	24	92	3.85	< 10	< 1	0.08	< 10
789838 Orig	0.94																						
789838 Dup	0.95																						
789845 Orig	3.42	0.5	< 0.5	58	655	< 1	2	4	36	1.18	2	< 10	10	< 0.5	< 2	1.39	19	4	9.24	< 10	< 1	0.02	15
789845 Split PREP DUP	3.20	0.9	< 0.5	51	617	< 1	< 1	5	33	1.10	3	< 10	11	< 0.5	< 2	1.37	19	4	9.30	< 10	< 1	0.02	14
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank		< 0.2	< 0.5	1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank																							
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Method Blank																							
Method Blank																							
Method Blank																							

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Pd	Pt
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	2	5	5
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-ICP	FA-ICP	FA-ICP
SGR-1b Meas																			
SGR-1b Cert																			
PK2 Meas																	4820	5980	4860
PK2 Cert																	4790	5918.00	4749.00
PK2 Meas																	5160	6340	5070
PK2 Cert																	4790	5918.00	4749.00
PK2 Meas																	5040	6190	4890
PK2 Cert																	4790	5918.00	4749.00
GS311-4 Meas																			
GS311-4 Cert																			
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Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Pd	Pt
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	2	5	5
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-ICP	FA-ICP	FA-ICP
GS900-5 Meas																			
GS900-5 Cert																			
GS900-5 Meas																			
GS900-5 Cert																			
CDN-PGMS-29 Meas																	78	624	519
CDN-PGMS-29 Cert																	88.0	677	550
CDN-PGMS-29 Meas																	105	669	571
CDN-PGMS-29 Cert																	88.0	677	550
Oreas 621 (Aqua Regia) Meas	0.42	0.171	0.032	4.09	100	2	18		< 20			< 2	< 10	12	< 10	7	65		
Oreas 621 (Aqua Regia) Cert	0.436	0.160	0.0335	4.50	107	2.20	18.9		5.91			0.770	163	10.9	1.00	6.87	55.0		
Oreas 621 (Aqua Regia) Meas	0.43	0.179	0.033	4.24	105	2	19		< 20			5	< 10	13	< 10	8	68		
Oreas 621 (Aqua Regia) Cert	0.436	0.160	0.0335	4.50	107	2.20	18.9		5.91			0.770	163	10.9	1.00	6.87	55.0		
789812 Orig	1.87	0.293	0.013	0.46	< 2	25	14	0.35	< 20	< 1	< 2	< 10	558	< 10	7	3			
789812 Dup	1.92	0.300	0.013	0.46	< 2	25	14	0.35	< 20	< 1	< 2	< 10	569	< 10	7	3			
789817 Orig																	17	< 5	< 5
789817 Dup																	18	< 5	< 5
789827 Orig	1.57	0.214	0.042	0.21	< 2	15	22	0.21	< 20	< 1	< 2	< 10	110	< 10	10	6	23	< 5	< 5
789827 Dup	1.59	0.217	0.042	0.20	< 2	15	22	0.22	< 20	1	< 2	< 10	111	< 10	11	7			
789838 Orig																			
789838 Dup																			
789845 Orig	0.39	0.127	0.139	2.92	3	12	9	0.13	< 20	< 1	< 2	< 10	17	< 10	49	18	5060	< 5	< 5
789845 Split PREP DUP	0.36	0.120	0.155	2.73	2	13	8	0.12	< 20	< 1	< 2	< 10	13	< 10	50	14	4430	< 5	< 5
Method Blank	< 0.01	0.012	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1			
Method Blank	< 0.01	0.012	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1			
Method Blank	< 0.01	0.016	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1			
Method Blank	< 0.01	0.014	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1			
Method Blank																	< 2	< 5	< 5
Method Blank																	< 2	< 5	< 5
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Method Blank																	< 2	< 5	< 5
Method Blank																	< 2	< 5	< 5
Method Blank																	< 2	< 5	< 5
Method Blank																	< 2	< 5	< 5



Date Submitted: 18-Jun-18
Invoice No.: A18-08029
Invoice Date: 01-Aug-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Suite 6, 295 Rokeby Rd
Subiaco WA 6008
Australia

ATTN: Brad Boyle (inv/res)

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1C-OES Fire Assay ICPOES
Code 1E3 Aqua Regia ICP(AQUAGEO)
Code 4F-S Infrared
Code Specific Gravity Core - Core

REPORT **A18-08029**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

Values which exceed the upper limit should be assayed for accurate numbers.

CERTIFIED BY:

A handwritten signature in black ink, appearing to be "Emmanuel Esemé". The signature is stylized and somewhat cursive.

Emmanuel Esemé , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-9611 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Results

Activation Laboratories Ltd.

Report: A18-08029

Analyte Symbol	Total S	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	CS	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
789846	1.19	< 0.2	< 0.5	21	810	< 1	< 1	< 2	42	1.61	< 2	< 10	23	< 0.5	< 2	2.80	17	4	7.67	10	< 1	0.04	< 10
789847	0.83	< 0.2	< 0.5	21	671	< 1	2	< 2	27	1.23	< 2	< 10	19	< 0.5	< 2	2.55	19	3	8.12	10	< 1	0.04	< 10
789848	0.11	< 0.2	< 0.5	3	780	< 1	2	< 2	36	1.61	< 2	< 10	54	< 0.5	< 2	3.12	21	3	8.01	10	< 1	0.11	< 10
789849	0.71	< 0.2	< 0.5	48	756	< 1	3	< 2	32	1.55	< 2	< 10	< 10	< 0.5	< 2	2.66	27	5	8.02	10	< 1	0.04	< 10
789850	0.02	< 0.2	< 0.5	8	933	< 1	2	< 2	41	2.09	< 2	< 10	31	< 0.5	< 2	3.83	25	3	8.36	10	< 1	0.10	< 10
789851	< 0.01	< 0.2	< 0.5	1	131	< 1	1	< 2	< 2	0.10	< 2	< 10	12	< 0.5	< 2	0.04	< 1	9	1.26	< 10	< 1	0.02	< 10
789852	0.02	< 0.2	< 0.5	12	708	< 1	2	< 2	30	1.63	< 2	< 10	30	< 0.5	< 2	3.33	24	3	7.34	< 10	< 1	0.11	< 10
789853	0.11	< 0.2	< 0.5	34	789	< 1	6	< 2	41	1.97	< 2	< 10	71	< 0.5	< 2	2.97	30	2	7.51	10	< 1	0.20	< 10
789854	1.62	< 0.2	< 0.5	105	721	< 1	8	< 2	45	1.78	< 2	< 10	29	< 0.5	< 2	2.51	47	4	7.08	< 10	< 1	0.08	< 10
789855	0.01	< 0.2	< 0.5	48	612	2	123	10	88	2.98	9	< 10	89	0.7	< 2	1.86	32	83	5.50	< 10	< 1	0.18	17
789856	0.53	< 0.2	< 0.5	103	714	< 1	9	< 2	39	1.73	< 2	< 10	11	< 0.5	< 2	2.59	33	3	6.98	< 10	< 1	0.04	< 10
789857	0.26	< 0.2	< 0.5	115	724	< 1	14	< 2	40	1.98	< 2	< 10	89	< 0.5	< 2	2.84	38	4	6.79	< 10	< 1	0.10	< 10
789858	0.14	< 0.2	< 0.5	83	716	< 1	13	< 2	41	2.06	< 2	< 10	73	< 0.5	< 2	3.12	33	4	6.90	< 10	< 1	0.06	< 10
789859	0.12	< 0.2	< 0.5	84	690	< 1	12	< 2	45	1.84	< 2	< 10	14	< 0.5	< 2	2.61	30	3	6.45	< 10	< 1	0.04	< 10
789860	0.12	< 0.2	< 0.5	82	713	< 1	11	< 2	46	1.88	< 2	< 10	16	< 0.5	< 2	2.73	30	3	6.58	< 10	< 1	0.04	< 10
789861	0.10	< 0.2	< 0.5	104	725	< 1	12	< 2	47	1.74	< 2	< 10	17	< 0.5	< 2	2.49	32	4	6.78	< 10	< 1	0.06	< 10
789862	0.22	< 0.2	< 0.5	158	752	< 1	13	< 2	48	1.99	< 2	< 10	17	< 0.5	< 2	2.76	39	6	6.84	< 10	< 1	0.06	< 10
789863	0.13	< 0.2	< 0.5	127	724	< 1	10	< 2	45	2.00	< 2	< 10	12	< 0.5	< 2	2.87	37	7	7.16	< 10	< 1	0.04	< 10
789864	0.25	< 0.2	< 0.5	134	706	< 1	11	< 2	46	2.06	< 2	< 10	12	< 0.5	< 2	2.87	42	3	7.29	< 10	< 1	0.04	< 10
789865	0.35	< 0.2	< 0.5	125	700	< 1	11	< 2	46	2.22	< 2	< 10	14	< 0.5	< 2	3.36	48	2	7.57	< 10	< 1	0.05	< 10
789866	0.47	< 0.2	< 0.5	87	730	< 1	8	< 2	46	2.40	< 2	< 10	12	< 0.5	< 2	3.68	53	< 1	8.38	< 10	< 1	0.04	< 10
789867	0.47	< 0.2	< 0.5	114	708	< 1	9	< 2	48	2.31	< 2	< 10	13	< 0.5	< 2	3.02	54	2	7.76	< 10	< 1	0.05	< 10
789868	0.72	< 0.2	< 0.5	121	727	< 1	8	< 2	49	2.45	< 2	< 10	18	< 0.5	< 2	3.21	57	1	8.06	< 10	< 1	0.05	< 10
789869	2.19	< 0.2	< 0.5	331	664	8	16	3	44	2.22	< 2	< 10	27	< 0.5	< 2	2.77	99	1	8.81	< 10	< 1	0.05	13
789870	1.24	< 0.2	< 0.5	240	707	7	15	< 2	48	2.16	< 2	< 10	28	< 0.5	< 2	2.94	64	3	7.94	< 10	< 1	0.08	< 10
789871	0.43	< 0.2	< 0.5	177	193	1	6	< 2	19	0.48	< 2	< 10	36	< 0.5	< 2	0.78	15	23	1.86	< 10	< 1	0.02	33
789872	0.56	< 0.2	< 0.5	293	650	< 1	34	< 2	42	1.78	< 2	< 10	43	< 0.5	< 2	2.97	37	3	5.48	< 10	< 1	0.08	< 10
789873	0.37	< 0.2	< 0.5	239	628	< 1	38	< 2	43	1.89	< 2	< 10	17	< 0.5	< 2	2.43	35	4	5.30	< 10	< 1	0.06	< 10
789874	0.48	< 0.2	< 0.5	347	601	< 1	43	< 2	43	1.85	< 2	< 10	23	< 0.5	< 2	2.76	37	10	4.71	< 10	< 1	0.06	< 10
789875	0.02	< 0.2	< 0.5	78	546	< 1	22	< 2	25	1.63	< 2	< 10	12	< 0.5	< 2	2.53	17	12	3.17	< 10	< 1	0.04	< 10
789876	< 0.01	< 0.2	< 0.5	2	59	< 1	< 1	< 2	3	0.08	< 2	< 10	12	< 0.5	< 2	0.02	< 1	3	0.51	< 10	< 1	0.02	< 10
789877	0.04	< 0.2	< 0.5	125	551	< 1	21	< 2	24	1.40	< 2	< 10	< 10	< 0.5	< 2	2.11	17	13	3.17	< 10	< 1	0.03	< 10
789878	0.11	< 0.2	< 0.5	44	441	1	51	< 2	29	2.00	< 2	< 10	254	< 0.5	< 2	1.80	12	117	2.18	< 10	< 1	0.45	23
789879	0.06	< 0.2	< 0.5	40	547	< 1	31	< 2	43	2.55	< 2	< 10	244	< 0.5	< 2	2.15	15	127	2.97	< 10	< 1	0.58	13
789880	0.86	< 0.2	< 0.5	70	1310	< 1	107	3	69	1.79	1000	< 10	72	< 0.5	< 2	1.89	26	45	5.98	< 10	< 1	0.08	13

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Pd	Pt	Spec Grav Core
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb	-
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	2	5	5	0.01
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-ICP	FA-ICP	FA-ICP	GRAV
789846	0.62	0.237	0.101	1.04	2	20	14	0.22	< 20	< 1	< 2	< 10	12	< 10	32	10	2440	< 5	< 5	
789847	0.52	0.200	0.106	0.75	< 2	16	13	0.20	< 20	< 1	< 2	< 10	11	< 10	30	10	3350	< 5	< 5	
789848	0.80	0.264	0.060	0.10	< 2	28	16	0.30	< 20	2	< 2	< 10	36	< 10	22	7	376	< 5	< 5	3.41
789849	0.79	0.243	0.063	0.66	3	27	12	0.32	< 20	< 1	< 2	< 10	47	< 10	22	8	115	< 5	< 5	
789850	1.18	0.296	0.051	0.02	2	29	16	0.39	< 20	2	< 2	< 10	62	< 10	19	7	4	< 5	< 5	
789851	< 0.01	0.023	0.002	< 0.01	< 2	< 1	1	< 0.01	< 20	< 1	< 2	< 10	1	< 10	1	6	< 2	< 5	< 5	
789852	1.02	0.245	0.047	0.02	< 2	26	12	0.39	< 20	< 1	< 2	< 10	116	< 10	17	6	3	< 5	< 5	
789853	1.38	0.285	0.037	0.10	< 2	27	11	0.44	< 20	< 1	< 2	< 10	252	< 10	15	5	60	< 5	< 5	
789854	1.28	0.289	0.028	1.34	< 2	24	9	0.35	< 20	2	< 2	< 10	292	< 10	13	6	576	< 5	< 5	
789855	1.80	0.520	0.088	0.02	< 2	7	139	0.33	< 20	< 1	< 2	< 10	61	< 10	12	4	476	< 5	< 5	
789856	1.27	0.301	0.046	0.48	< 2	23	9	0.31	< 20	< 1	< 2	< 10	295	< 10	15	5	35	< 5	< 5	
789857	1.57	0.295	0.027	0.22	< 2	24	10	0.36	< 20	< 1	< 2	< 10	380	< 10	10	4	32	< 5	< 5	
789858	1.63	0.279	0.023	0.13	< 2	24	11	0.36	< 20	< 1	< 2	< 10	403	< 10	10	4	9	< 5	< 5	
789859	1.36	0.289	0.027	0.11	< 2	22	10	0.38	< 20	2	< 2	< 10	382	< 10	11	4	20	< 5	< 5	
789860	1.39	0.298	0.026	0.11	< 2	22	12	0.38	< 20	< 1	< 2	< 10	386	< 10	11	4	38	< 5	< 5	
789861	1.44	0.284	0.025	0.09	< 2	22	8	0.35	< 20	< 1	< 2	< 10	378	< 10	10	4	23	< 5	< 5	3.11
789862	1.54	0.306	0.023	0.30	< 2	24	10	0.37	< 20	< 1	< 2	< 10	361	< 10	9	3	8	< 5	< 5	
789863	1.56	0.309	0.019	0.13	2	24	20	0.43	< 20	< 1	< 2	< 10	399	< 10	9	3	10	< 5	< 5	
789864	1.63	0.329	0.017	0.21	< 2	25	10	0.42	< 20	< 1	< 2	< 10	474	< 10	8	3	4	< 5	< 5	
789865	1.74	0.323	0.016	0.30	< 2	26	11	0.42	< 20	< 1	< 2	< 10	561	< 10	8	3	2	< 5	< 5	
789866	1.77	0.301	0.014	0.41	< 2	26	19	0.49	< 20	< 1	< 2	< 10	655	< 10	8	3	< 2	< 5	< 5	
789867	1.74	0.323	0.015	0.38	< 2	26	13	0.40	< 20	< 1	< 2	< 10	618	< 10	8	3	< 2	< 5	< 5	
789868	1.83	0.326	0.015	0.64	< 2	26	17	0.44	< 20	2	< 2	< 10	627	< 10	8	4	4	< 5	< 5	
789869	1.65	0.270	0.016	1.89	< 2	25	20	0.43	< 20	< 1	< 2	< 10	579	< 10	11	7	9	< 5	< 5	
789870	1.73	0.345	0.014	1.16	3	26	12	0.42	< 20	< 1	< 2	< 10	538	< 10	8	5	8	< 5	< 5	
789871	0.36	0.070	0.008	0.43	< 2	9	14	0.19	< 20	< 1	< 2	< 10	136	< 10	7	4	4	< 5	< 5	
789872	1.63	0.299	0.015	0.51	< 2	21	12	0.40	< 20	< 1	< 2	< 10	385	< 10	8	4	28	< 5	< 5	
789873	1.78	0.274	0.015	0.33	< 2	20	8	0.31	< 20	< 1	< 2	< 10	383	< 10	6	3	36	< 5	< 5	
789874	1.58	0.268	0.014	0.46	< 2	18	13	0.35	< 20	< 1	< 2	< 10	304	< 10	7	3	53	< 5	< 5	
789875	1.44	0.202	0.015	0.03	< 2	14	14	0.24	< 20	< 1	< 2	< 10	119	< 10	7	3	25	< 5	< 5	
789876	0.02	0.022	0.002	< 0.01	< 2	< 1	1	< 0.01	< 20	< 1	< 2	< 10	2	< 10	< 1	3	< 2	< 5	< 5	
789877	1.45	0.200	0.019	0.04	< 2	16	10	0.19	< 20	< 1	< 2	< 10	114	< 10	6	3	37	< 5	< 5	
789878	1.68	0.173	0.062	0.11	< 2	6	51	0.14	< 20	< 1	< 2	< 10	62	< 10	5	3	3	< 5	< 5	
789879	1.86	0.326	0.071	0.06	< 2	7	92	0.16	< 20	< 1	< 2	< 10	54	< 10	6	12	13	< 5	< 5	
789880	2.21	0.332	0.146	0.75	2	4	95	0.16	< 20	< 1	< 2	< 10	46	< 10	12	5	1500	< 5	< 5	

Analyte Symbol	Total S	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	CS	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-4 Meas		3.1	< 0.5	6100	143	293	36	40	69	2.63	99	< 10	27	1.4	21	0.86	13	53	3.00	10	< 1	1.62	50
GXR-4 Cert		4.0	0.860	6520	155	310	42.0	52.0	73.0	7.20	98.0	4.50	1640	1.90	19.0	1.01	14.6	64.0	3.09	20.0	0.110	4.01	64.5
GXR-4 Meas		3.1	< 0.5	5960	142	294	35	39	69	2.58	98	< 10	27	1.4	17	0.86	12	51	2.96	10	< 1	1.61	49
GXR-4 Cert		4.0	0.860	6520	155	310	42.0	52.0	73.0	7.20	98.0	4.50	1640	1.90	19.0	1.01	14.6	64.0	3.09	20.0	0.110	4.01	64.5
GXR-6 Meas		0.3	< 0.5	65	1070	< 1	23	95	127	7.03	255	< 10	803	1.0	< 2	0.15	13	78	5.56	20	< 1	1.12	11
GXR-6 Cert		1.30	1.00	66.0	1010	2.40	27.0	101	118	17.7	330	9.80	1300	1.40	0.290	0.180	13.8	96.0	5.58	35.0	0.0680	1.87	13.9
GXR-6 Meas		0.3	< 0.5	66	1080	1	22	96	129	7.20	250	< 10	836	1.0	< 2	0.16	13	80	5.61	20	< 1	1.15	12
GXR-6 Cert		1.30	1.00	66.0	1010	2.40	27.0	101	118	17.7	330	9.80	1300	1.40	0.290	0.180	13.8	96.0	5.58	35.0	0.0680	1.87	13.9
BaSO4 Meas	14.3																						
BaSO4 Cert	14.0																						
BaSO4 Meas	13.2																						
BaSO4 Cert	14.0																						
BaSO4 Meas	13.7																						
BaSO4 Cert	14.0																						
BaSO4 Meas	13.7																						
BaSO4 Cert	14.0																						
BaSO4 Meas	14.1																						
BaSO4 Cert	14.0																						
BaSO4 Meas	13.4																						
BaSO4 Cert	14.0																						
BaSO4 Meas	14.5																						
BaSO4 Cert	14.0																						
BaSO4 Meas	13.9																						
BaSO4 Cert	14.0																						
BaSO4 Meas	14.3																						
BaSO4 Cert	14.0																						
SGR-1b Meas	1.61																						
SGR-1b Cert	1.53																						
SGR-1b Meas	1.50																						
SGR-1b Cert	1.53																						
SGR-1b Meas	1.45																						
SGR-1b Cert	1.53																						
SGR-1b Meas	1.56																						
SGR-1b Cert	1.53																						
SGR-1b Meas	1.53																						
SGR-1b Cert	1.53																						
SGR-1b Meas	1.51																						
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SGR-1b Cert	1.53																						

Analyte Symbol	Total S	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	CS	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
SGR-1b Meas	1.55																						
SGR-1b Cert	1.53																						
PK2 Meas																							
PK2 Cert																							
PK2 Meas																							
PK2 Cert																							
PK2 Meas																							
PK2 Cert																							
GS311-4 Meas	0.52																						
GS311-4 Cert	0.54																						
GS311-4 Meas	0.54																						
GS311-4 Cert	0.54																						
GS311-4 Meas	0.52																						
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GS311-4 Cert	0.54																						
GS311-4 Meas	0.53																						
GS311-4 Cert	0.54																						
GS311-4 Meas	0.58																						
GS311-4 Cert	0.54																						
GS900-5 Meas	0.33																						
GS900-5 Cert	0.34																						
GS900-5 Meas	0.34																						
GS900-5 Cert	0.34																						
GS900-5 Meas	0.35																						
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GS900-5 Meas	0.34																						
GS900-5 Cert	0.34																						

Analyte Symbol	Total S	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	CS	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GS900-5 Meas	0.35																						
GS900-5 Cert	0.34																						
CDN-PGMS-29 Meas																							
CDN-PGMS-29 Cert																							
Oreas 621 (Aqua Regia) Meas		62.7	275	3330	517	12	23	> 5000	> 10000	1.70	73			0.6	7	1.63	27	30	3.34	< 10	3	0.35	19
Oreas 621 (Aqua Regia) Cert		68.0	278	3660	520	13.3	25.8	13600	51700	1.60	75.0			0.530	3.85	1.65	27.9	31.3	3.43	9.29	3.93	0.333	19.4
Oreas 621 (Aqua Regia) Meas		64.4	274	3410	531	12	25	> 5000	> 10000	1.77	74			0.6	2	1.67	28	33	3.42	< 10	4	0.37	20
Oreas 621 (Aqua Regia) Cert		68.0	278	3660	520	13.3	25.8	13600	51700	1.60	75.0			0.530	3.85	1.65	27.9	31.3	3.43	9.29	3.93	0.333	19.4
789847 Orig	0.81	< 0.2	< 0.5	20	669	< 1	3	< 2	27	1.23	< 2	< 10	19	< 0.5	< 2	2.54	19	3	8.10	10	< 1	0.04	< 10
789847 Dup	0.85	0.2	< 0.5	21	674	< 1	2	< 2	27	1.23	2	< 10	18	< 0.5	< 2	2.55	19	3	8.15	10	< 1	0.04	< 10
789856 Orig		< 0.2	< 0.5	102	720	< 1	9	< 2	39	1.74	< 2	< 10	11	< 0.5	< 2	2.60	34	3	7.02	< 10	< 1	0.04	< 10
789856 Dup		< 0.2	< 0.5	103	707	< 1	8	< 2	39	1.72	< 2	< 10	12	< 0.5	< 2	2.58	33	3	6.94	< 10	< 1	0.04	< 10
789858 Orig	0.13	< 0.2	< 0.5	84	723	< 1	13	< 2	41	2.06	< 2	< 10	73	< 0.5	< 2	3.13	33	4	6.92	< 10	< 1	0.06	< 10
789858 Dup	0.14	< 0.2	< 0.5	82	710	< 1	14	< 2	40	2.05	< 2	< 10	73	< 0.5	< 2	3.10	33	4	6.89	< 10	< 1	0.06	< 10
789864 Orig																							
789864 Dup																							
789868 Orig	0.71																						
789868 Dup	0.72																						
789874 Orig																							
789874 Dup																							
789877 Orig	0.04	< 0.2	< 0.5	125	551	< 1	21	< 2	24	1.40	< 2	< 10	< 10	< 0.5	< 2	2.11	17	13	3.17	< 10	< 1	0.03	< 10
789877 Split PREP DUP	0.03	< 0.2	< 0.5	128	594	< 1	23	< 2	26	1.50	< 2	< 10	11	< 0.5	< 2	2.29	18	14	3.41	< 10	< 1	0.03	< 10
789878 Orig	0.11																						
789878 Dup	0.11																						
789880 Orig	0.86																						
789880 Dup	0.86																						
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank		< 0.2	< 0.5	1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	< 10	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank																							
Method Blank																							
Method Blank																							

Analyte Symbol	Total S	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	0.01	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	CS	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
Method Blank																							
Method Blank																							
Method Blank																							

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Pd	Pt
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	2	5	5
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-ICP	FA-ICP	FA-ICP
SGR-1b Meas																			
SGR-1b Cert																			
PK2 Meas																	4820	5980	4860
PK2 Cert																	4790	5918.00	4749.00
PK2 Meas																	5160	6340	5070
PK2 Cert																	4790	5918.00	4749.00
PK2 Meas																	5040	6190	4890
PK2 Cert																	4790	5918.00	4749.00
GS311-4 Meas																			
GS311-4 Cert																			
GS311-4 Meas																			
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Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Pd	Pt
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	2	5	5
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-ICP	FA-ICP	FA-ICP
GS900-5 Meas																			
GS900-5 Cert																			
GS900-5 Meas																			
GS900-5 Cert																			
CDN-PGMS-29 Meas																	78	624	519
CDN-PGMS-29 Cert																	88.0	677	550
CDN-PGMS-29 Meas																	105	669	571
CDN-PGMS-29 Cert																	88.0	677	550
Oreas 621 (Aqua Regia) Meas	0.42	0.171	0.032	4.09	100	2	18		< 20			< 2	< 10	12	< 10	7	65		
Oreas 621 (Aqua Regia) Cert	0.436	0.160	0.0335	4.50	107	2.20	18.9		5.91			0.770	163	10.9	1.00	6.87	55.0		
Oreas 621 (Aqua Regia) Meas	0.43	0.179	0.033	4.24	105	2	19		< 20			5	< 10	13	< 10	8	68		
Oreas 621 (Aqua Regia) Cert	0.436	0.160	0.0335	4.50	107	2.20	18.9		5.91			0.770	163	10.9	1.00	6.87	55.0		
789847 Orig	0.51	0.200	0.106	0.75	3	17	13	0.20	< 20	< 1	< 2	< 10	11	< 10	30	10			
789847 Dup	0.52	0.199	0.106	0.75	< 2	16	13	0.21	< 20	< 1	< 2	< 10	12	< 10	30	10			
789856 Orig	1.28	0.303	0.045	0.48	< 2	24	9	0.32	< 20	3	< 2	< 10	298	< 10	15	5			
789856 Dup	1.25	0.300	0.046	0.48	< 2	23	9	0.30	< 20	< 1	< 2	< 10	292	< 10	15	5			
789858 Orig	1.64	0.279	0.023	0.13	< 2	25	11	0.37	< 20	< 1	< 2	< 10	403	< 10	10	4			
789858 Dup	1.63	0.279	0.023	0.13	< 2	24	10	0.36	< 20	< 1	< 2	< 10	402	< 10	10	4			
789864 Orig																	4	< 5	< 5
789864 Dup																	4	< 5	< 5
789868 Orig																			
789868 Dup																			
789874 Orig																	57	< 5	< 5
789874 Dup																	49	< 5	< 5
789877 Orig	1.45	0.200	0.019	0.04	< 2	16	10	0.19	< 20	< 1	< 2	< 10	114	< 10	6	3	37	< 5	< 5
789877 Split PREP DUP	1.54	0.213	0.020	0.04	< 2	17	12	0.21	< 20	< 1	< 2	< 10	122	< 10	7	3	54	< 5	< 5
789878 Orig																			
789878 Dup																			
789880 Orig																			
789880 Dup																			
Method Blank	< 0.01	0.012	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1			
Method Blank	< 0.01	0.012	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1			
Method Blank	< 0.01	0.016	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1			
Method Blank	< 0.01	0.014	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1			
Method Blank																	< 2	< 5	< 5

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr	Au	Pd	Pt
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1	2	5	5
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-ICP	FA-ICP	FA-ICP
Method Blank																	< 2	< 5	< 5
Method Blank																	< 2	< 5	< 5
Method Blank																	< 2	< 5	< 5
Method Blank																	< 2	< 5	< 5
Method Blank																	< 2	< 5	< 5



Date Submitted: 28-Jun-18
Invoice No.: A18-08372 (i)
Invoice Date: 27-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1A2-Tbay Au - Fire Assay AA (QOP Fire Assay Tbay)
Code 1A3-Tbay Au - Fire Assay Gravimetric (QOP Fire Assay Tbay)
Code Specific Gravity Core-Tbay - Core

REPORT **A18-08372 (i)**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:

A handwritten signature in black ink, appearing to be "Emmanuel Esemé". The signature is written in a cursive style with some loops and flourishes.

Emmanuel Esemé , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
1201 Walsh Street West, Thunder Bay, Ontario, Canada, P7E 4X6
TELEPHONE +807 622-6707 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Tbay@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Date Submitted: 28-Jun-18
Invoice No.: A18-08372 (i)
Invoice Date: 27-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 4F-S Infrared

REPORT **A18-08372 (i)**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:



Emmanuel Esemé , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5
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Analyte Symbol	Total S	Spec Grav Core	Au	Au
Unit Symbol	%	-	ppb	g/tonne
Lower Limit	0.01	0.01	5	0.03
Method Code	CS	GRAV	FA-AA	FA-GRA
790231	0.07		5	
790232	0.10		7	
790233	0.16		22	
790234	0.35		16	
790235	0.04		< 5	
790236	0.07		6	
790237	0.19		6	
790238	0.12		7	
790239	0.15		7	
790240	0.24		21	
790241	0.13		6	
790242	0.18		36	
790243	0.30		6	
790244	0.14		8	
790245	0.14		24	
790246	0.32		148	
790247	0.04		10	
790248	0.08		12	
790249	< 0.01		< 5	
790250	3.37		> 5000	6.66
790251	2.74		1430	
790252	0.32		107	
790253	0.16		1580	
790254	0.92		2270	
790255	0.87		1450	
790256	0.09		1050	
790257	0.03		91	
790258	0.02		58	
790259	0.06		38	
790260	0.07		38	
790261	0.12		163	
790262	0.22		134	
790263	0.23		282	
790264	< 0.01		< 5	
790265	1.74	2.86	> 5000	12.7

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
BaSO4 Meas	13.4		
BaSO4 Cert	14.0		
BaSO4 Meas	13.6		
BaSO4 Cert	14.0		
BaSO4 Meas	14.3		
BaSO4 Cert	14.0		
BaSO4 Meas	13.9		
BaSO4 Cert	14.0		
BaSO4 Meas	14.1		
BaSO4 Cert	14.0		
BaSO4 Meas	13.8		
BaSO4 Cert	14.0		
BaSO4 Meas	13.6		
BaSO4 Cert	14.0		
BaSO4 Meas	13.9		
BaSO4 Cert	14.0		
BaSO4 Meas	14.1		
BaSO4 Cert	14.0		
SGR-1b Meas	1.55		
SGR-1b Cert	1.53		
SGR-1b Meas	1.53		
SGR-1b Cert	1.53		
SGR-1b Meas	1.56		
SGR-1b Cert	1.53		
SGR-1b Meas	1.56		
SGR-1b Cert	1.53		
SGR-1b Meas	1.53		
SGR-1b Cert	1.53		
SGR-1b Meas	1.55		
SGR-1b Cert	1.53		
SGR-1b Meas	1.49		
SGR-1b Cert	1.53		
SGR-1b Meas	1.53		
SGR-1b Cert	1.53		
SGR-1b Meas	1.53		
SGR-1b Cert	1.53		
GS311-4 Meas	0.55		
GS311-4 Cert	0.54		
GS311-4 Meas	0.53		
GS311-4 Cert	0.54		
GS311-4 Meas	0.53		

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
GS311-4 Cert	0.54		
GS311-4 Meas	0.52		
GS311-4 Cert	0.54		
GS311-4 Meas	0.53		
GS311-4 Cert	0.54		
GS311-4 Meas	0.55		
GS311-4 Cert	0.54		
GS311-4 Meas	0.56		
GS311-4 Cert	0.54		
GS311-4 Meas	0.54		
GS311-4 Cert	0.54		
GS311-4 Meas	0.55		
GS311-4 Cert	0.54		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.32		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
OREAS 214 Meas		2980	
OREAS 214 Cert		3030	
OREAS 216 (Fire Assay) Meas			6.82
OREAS 216 (Fire Assay) Cert			6.66
OREAS 218 Meas		506	
OREAS 218 Cert		531	
OREAS 229 (Fire Assay) Meas			12.3
OREAS 229 (Fire Assay) Cert			12.1

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
Assay) Cert			
OREAS 217 (Fire Assay) Meas		325	
OREAS 217 (Fire Assay) Cert		338	
OREAS 215 (Fire Assay) Meas		3690	
OREAS 215 (Fire Assay) Cert		3540	
790240 Orig	0.24		
790240 Dup	0.24		
790250 Orig	3.38		6.61
790250 Dup	3.36		6.71
790254 Orig		2430	
790254 Dup		2110	
790260 Orig		32	
790260 Dup		43	
790261 Orig	0.12		
790261 Dup	0.12		
Method Blank		< 5	
Method Blank		< 5	
Method Blank			< 0.03
Method Blank		< 5	



Date Submitted: 28-Jun-18
Invoice No.: A18-08374
Invoice Date: 25-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1A2-Tbay Au - Fire Assay AA (QOP Fire Assay Tbay)

Code Specific Gravity Core-Tbay - Core

REPORT **A18-08374**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

Footnote: Sample 790280 was Insufficient for further analysis.

CERTIFIED BY:

A handwritten signature in black ink, appearing to read "Emmanuel Esemé", is written over a horizontal line.

Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
1201 Walsh Street West, Thunder Bay, Ontario, Canada, P7E 4X6
TELEPHONE +807 622-6707 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Tbay@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Date Submitted: 28-Jun-18
Invoice No.: A18-08374
Invoice Date: 25-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 4F-S Infrared

REPORT **A18-08374**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

Footnote: Sample 790280 was Insufficient for further analysis.

CERTIFIED BY:



Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-9611 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Total S	Spec Grav Core	Au	Au
Unit Symbol	%	-	ppb	g/tonne
Lower Limit	0.01	0.01	5	0.03
Method Code	CS	GRAV	FA-AA	FA-GRA
790266	2.17		> 5000	20.5
790267	0.77		994	
790268	0.34		624	
790269	0.04		23	
790270	0.07		11	
790271	1.51		1160	
790272	0.22		2070	
790273	3.13		> 5000	8.22
790274	5.02		> 5000	8.32
790275	3.20	2.68	> 5000	9.26
790276	< 0.01		9	
790277	1.93		> 5000	7.76
790278	0.93		3350	3.08
790279	0.07		241	
790280	0.75		> 5000	
790281	0.03		27	
790282	0.07		30	
790283	1.33		553	
790284	0.38		369	
790285	2.19		3080	2.89
790286	0.29		141	
790287	0.37		148	
790288	0.49		22	
790289	0.37		166	
790290	0.53		257	
790291	0.03		927	
790292	0.08		6	
790293	0.10		12	
790294	0.04		11	
790295	0.44		6	
790296	0.14		11	
790297	0.45		14	
790298	0.30		9	
790299	0.11		5	
790300	0.04		< 5	

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
BaSO4 Meas	13.4		
BaSO4 Cert	14.0		
BaSO4 Meas	13.6		
BaSO4 Cert	14.0		
BaSO4 Meas	14.3		
BaSO4 Cert	14.0		
BaSO4 Meas	13.9		
BaSO4 Cert	14.0		
BaSO4 Meas	14.1		
BaSO4 Cert	14.0		
BaSO4 Meas	13.8		
BaSO4 Cert	14.0		
BaSO4 Meas	13.6		
BaSO4 Cert	14.0		
BaSO4 Meas	13.9		
BaSO4 Cert	14.0		
BaSO4 Meas	14.1		
BaSO4 Cert	14.0		
SGR-1b Meas	1.55		
SGR-1b Cert	1.53		
SGR-1b Meas	1.53		
SGR-1b Cert	1.53		
SGR-1b Meas	1.56		
SGR-1b Cert	1.53		
SGR-1b Meas	1.56		
SGR-1b Cert	1.53		
SGR-1b Meas	1.53		
SGR-1b Cert	1.53		
SGR-1b Meas	1.55		
SGR-1b Cert	1.53		
SGR-1b Meas	1.49		
SGR-1b Cert	1.53		
SGR-1b Meas	1.53		
SGR-1b Cert	1.53		
SGR-1b Meas	1.53		
SGR-1b Cert	1.53		
GS311-4 Meas	0.55		
GS311-4 Cert	0.54		
GS311-4 Meas	0.53		
GS311-4 Cert	0.54		
GS311-4 Meas	0.53		

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
GS311-4 Cert	0.54		
GS311-4 Meas	0.52		
GS311-4 Cert	0.54		
GS311-4 Meas	0.53		
GS311-4 Cert	0.54		
GS311-4 Meas	0.55		
GS311-4 Cert	0.54		
GS311-4 Meas	0.56		
GS311-4 Cert	0.54		
GS311-4 Meas	0.54		
GS311-4 Cert	0.54		
GS311-4 Meas	0.55		
GS311-4 Cert	0.54		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.32		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
OREAS 214 Meas		3030	
OREAS 214 Cert		3030	
OREAS 216 (Fire Assay) Meas			6.48
OREAS 216 (Fire Assay) Cert			6.66
OREAS 218 Meas		531	
OREAS 218 Cert		531	
OREAS 229 (Fire Assay) Meas			12.1
OREAS 229 (Fire Assay) Cert			12.1

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
Assay) Cert			
790271 Orig	1.51		
790275 Orig		> 5000	
790275 Dup		> 5000	
790282 Orig	0.07		
790282 Dup	0.08		
790285 Orig		3070	
790285 Dup		3080	
790292 Orig	0.08		
790292 Dup	0.08		
790295 Orig		6	
790295 Dup		5	
Method Blank		< 5	
Method Blank		< 5	
Method Blank			< 0.03



Date Submitted: 28-Jun-18
Invoice No.: A18-08376
Invoice Date: 25-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1A2-Tbay Au - Fire Assay AA (QOP Fire Assay Tbay)

Code Specific Gravity Core-Tbay - Core

REPORT **A18-08376**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

Footnote: Sample 790330 was Insufficient for further analyses.

CERTIFIED BY:

A handwritten signature in black ink, appearing to be "Emmanuel Esemé". The signature is stylized and somewhat cursive, written over a horizontal line.

Emmanuel Esemé , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
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TELEPHONE +807 622-6707 or +1.888.228.5227 FAX +1.905.648.9613
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Date Submitted: 28-Jun-18
Invoice No.: A18-08376
Invoice Date: 25-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 4F-S Infrared

REPORT **A18-08376**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

Footnote: Sample 790330 was Insufficient for further analyses.

CERTIFIED BY:



Emmanuel Esemé , Ph.D.
Quality Control

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E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Total S	Spec Grav Core	Au	Au
Unit Symbol	%	-	ppb	g/tonne
Lower Limit	0.01	0.01	5	0.03
Method Code	CS	GRAV	FA-AA	FA-GRA
790301	< 0.01		< 5	
790302	0.39		< 5	
790303	0.10		< 5	
790304	0.02		< 5	
790305	0.82		1520	
790306	0.02		< 5	
790307	0.02	3.08	13	
790308	0.14		< 5	
790309	0.09		5	
790310	0.08		11	
790311	0.15		12	
790312	0.22		< 5	
790313	0.11		< 5	
790314	0.17		5	
790315	0.10		8	
790316	0.58		74	
790317	0.43		808	
790318	0.22		550	
790319	0.16		106	
790320	0.17		3080	3.46
790321	0.19		47	
790322	< 0.01		< 5	
790323	2.94		> 5000	4.94
790324	0.06		< 5	
790325	0.86		3300	3.09
790326	< 0.01		< 5	
790327	0.20		29	
790328	0.62		660	
790329	0.28		88	
790330	0.78		> 5000	
790331	0.41		6	
790332	0.14		609	
790333	0.19		34	
790334	0.24		< 5	
790335	0.39		155	

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
BaSO4 Meas	13.9		
BaSO4 Cert	14.0		
BaSO4 Meas	14.1		
BaSO4 Cert	14.0		
BaSO4 Meas	14.0		
BaSO4 Cert	14.0		
BaSO4 Meas	13.9		
BaSO4 Cert	14.0		
BaSO4 Meas	13.8		
BaSO4 Cert	14.0		
BaSO4 Meas	14.3		
BaSO4 Cert	14.0		
BaSO4 Meas	13.9		
BaSO4 Cert	14.0		
BaSO4 Meas	14.0		
BaSO4 Cert	14.0		
SGR-1b Meas	1.51		
SGR-1b Cert	1.53		
SGR-1b Meas	1.50		
SGR-1b Cert	1.53		
SGR-1b Meas	1.52		
SGR-1b Cert	1.53		
SGR-1b Meas	1.58		
SGR-1b Cert	1.53		
SGR-1b Meas	1.60		
SGR-1b Cert	1.53		
SGR-1b Meas	1.55		
SGR-1b Cert	1.53		
SGR-1b Meas	1.60		
SGR-1b Cert	1.53		
SGR-1b Meas	1.46		
SGR-1b Cert	1.53		
SGR-1b Meas	1.49		
SGR-1b Cert	1.53		
GS311-4 Meas	0.54		
GS311-4 Cert	0.54		
GS311-4 Meas	0.54		
GS311-4 Cert	0.54		
GS311-4 Meas	0.54		
GS311-4 Cert	0.54		
GS311-4 Meas	0.56		

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
GS311-4 Cert	0.54		
GS311-4 Meas	0.57		
GS311-4 Cert	0.54		
GS311-4 Meas	0.54		
GS311-4 Cert	0.54		
GS311-4 Meas	0.56		
GS311-4 Cert	0.54		
GS311-4 Meas	0.53		
GS311-4 Cert	0.54		
GS311-4 Meas	0.52		
GS311-4 Cert	0.54		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
GS900-5 Meas	0.35		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.36		
GS900-5 Cert	0.34		
GS900-5 Meas	0.32		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
OREAS 214 Meas		2960	
OREAS 214 Cert		3030	
OREAS 216 (Fire Assay) Meas			6.54
OREAS 216 (Fire Assay) Cert			6.66
OREAS 218 Meas		535	
OREAS 218 Cert		531	
OREAS 229 (Fire Assay) Meas			12.1
OREAS 229 (Fire Assay) Cert			12.1
790310 Orig	0.08		
790310 Dup	0.08		
790311 Orig		13	
790311 Dup		11	
790320 Orig	0.16		3.38

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
790320 Dup	0.17		3.53
790328 Orig		643	
790328 Dup		676	
790331 Orig	0.42		
790331 Dup	0.40		
Method Blank		< 5	
Method Blank		< 5	
Method Blank			< 0.03



Date Submitted: 28-Jun-18
Invoice No.: A18-08377
Invoice Date: 23-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 4F-S Infrared

REPORT **A18-08377**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:

A handwritten signature in black ink, appearing to read "Emmanuel Esemé". The signature is stylized and somewhat illegible.

Emmanuel Esemé , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-9611 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Date Submitted: 28-Jun-18
Invoice No.: A18-08377
Invoice Date: 23-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1A2-Tbay Au - Fire Assay AA (QOP Fire Assay Tbay)

REPORT **A18-08377**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:



Emmanuel Esemé , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
1201 Walsh Street West, Thunder Bay, Ontario, Canada, P7E 4X6
TELEPHONE +807 622-6707 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Tbay@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Total S	Au
Unit Symbol	%	ppb
Lower Limit	0.01	5
Method Code	CS	FA-AA
790336	0.37	< 5
790337	0.55	< 5
790338	0.72	< 5
790339	0.58	< 5
790340	0.22	< 5
790341	0.07	< 5
790342	0.20	< 5
790343	0.14	64
790344	0.37	166
790345	0.54	17
790346	1.16	1330
790347	0.68	62
790348	0.20	25
790349	0.11	53
790350	0.13	33
790351	< 0.01	< 5
790352	0.42	120
790353	0.40	53
790354	0.36	54
790355	0.86	1510
790356	0.13	67
790357	0.02	40
790358	< 0.01	28
790359	0.02	26
790360	0.02	28
790361	0.06	12
790362	0.08	7
790363	0.07	6
790364	0.07	7
790365	0.08	< 5
790366	0.09	< 5
790367	0.05	18
790368	0.05	18
790369	0.02	31
790370	0.03	50

Analyte Symbol	Total S	Au
Unit Symbol	%	ppb
Lower Limit	0.01	5
Method Code	CS	FA-AA
BaSO4 Meas	13.4	
BaSO4 Cert	14.0	
BaSO4 Meas	13.6	
BaSO4 Cert	14.0	
BaSO4 Meas	14.3	
BaSO4 Cert	14.0	
BaSO4 Meas	13.9	
BaSO4 Cert	14.0	
BaSO4 Meas	14.1	
BaSO4 Cert	14.0	
BaSO4 Meas	13.8	
BaSO4 Cert	14.0	
BaSO4 Meas	13.6	
BaSO4 Cert	14.0	
BaSO4 Meas	13.9	
BaSO4 Cert	14.0	
BaSO4 Meas	14.1	
BaSO4 Cert	14.0	
SGR-1b Meas	1.55	
SGR-1b Cert	1.53	
SGR-1b Meas	1.53	
SGR-1b Cert	1.53	
SGR-1b Meas	1.56	
SGR-1b Cert	1.53	
SGR-1b Meas	1.56	
SGR-1b Cert	1.53	
SGR-1b Meas	1.53	
SGR-1b Cert	1.53	
SGR-1b Meas	1.55	
SGR-1b Cert	1.53	
SGR-1b Meas	1.49	
SGR-1b Cert	1.53	
SGR-1b Meas	1.53	
SGR-1b Cert	1.53	
SGR-1b Meas	1.53	
SGR-1b Cert	1.53	
GS311-4 Meas	0.55	
GS311-4 Cert	0.54	
GS311-4 Meas	0.53	
GS311-4 Cert	0.54	
GS311-4 Meas	0.53	
GS311-4 Cert	0.54	

Analyte Symbol	Total S	Au
Unit Symbol	%	ppb
Lower Limit	0.01	5
Method Code	CS	FA-AA
GS311-4 Meas	0.52	
GS311-4 Cert	0.54	
GS311-4 Meas	0.53	
GS311-4 Cert	0.54	
GS311-4 Meas	0.55	
GS311-4 Cert	0.54	
GS311-4 Meas	0.56	
GS311-4 Cert	0.54	
GS311-4 Meas	0.54	
GS311-4 Cert	0.54	
GS311-4 Meas	0.55	
GS311-4 Cert	0.54	
GS900-5 Meas	0.34	
GS900-5 Cert	0.34	
GS900-5 Meas	0.33	
GS900-5 Cert	0.34	
GS900-5 Meas	0.34	
GS900-5 Cert	0.34	
GS900-5 Meas	0.34	
GS900-5 Cert	0.34	
GS900-5 Meas	0.32	
GS900-5 Cert	0.34	
GS900-5 Meas	0.34	
GS900-5 Cert	0.34	
GS900-5 Meas	0.34	
GS900-5 Cert	0.34	
GS900-5 Meas	0.34	
GS900-5 Cert	0.34	
GS900-5 Meas	0.33	
GS900-5 Cert	0.34	
OREAS 214 Meas		2890
OREAS 214 Cert		3030
OREAS 218 Meas		521
OREAS 218 Cert		531
790338 Orig	0.72	
790338 Dup	0.72	
790348 Orig	0.20	26
790348 Dup	0.20	24
790359 Orig	0.02	25
790359 Dup	0.02	27
790369 Orig	0.02	32
790369 Dup	0.02	30

Analyte Symbol	Total S	Au
Unit Symbol	%	ppb
Lower Limit	0.01	5
Method Code	CS	FA-AA
Method Blank		< 5
Method Blank		< 5



Date Submitted: 28-Jun-18
Invoice No.: A18-08378 (i)
Invoice Date: 23-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 4F-S Infrared

REPORT **A18-08378 (i)**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

Footnote Sample 790380 was Insufficient for further analysis.

CERTIFIED BY:

A handwritten signature in black ink, appearing to be "Emmanuel Esemé". The signature is written in a cursive style with a large, stylized 'E' and 'M'.

Emmanuel Esemé , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-9611 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Date Submitted: 28-Jun-18
Invoice No.: A18-08378 (i)
Invoice Date: 23-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1A2-Tbay Au - Fire Assay AA (QOP Fire Assay Tbay)

REPORT **A18-08378 (i)**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

Footnote Sample 790380 was Insufficient for further analysis.

CERTIFIED BY:



Emmanuel Esemé , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
1201 Walsh Street West, Thunder Bay, Ontario, Canada, P7E 4X6
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E-MAIL Tbay@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Total S	Au
Unit Symbol	%	ppb
Lower Limit	0.01	5
Method Code	CS	FA-AA
790371	0.09	60
790372	0.06	9
790373	0.07	9
790374	0.08	17
790375	0.06	16
790376	< 0.01	12
790377	0.11	12
790378	0.11	14
790379	0.18	8
790380	0.74	> 5000
790381	0.18	205
790382	0.02	12
790383	0.03	11
790384	0.01	10
790385	0.09	12
790386	0.08	8
790387	0.11	< 5
790388	0.33	97
790389	0.02	< 5
790390	0.33	< 5
790391	0.14	8
790392	0.21	< 5
790393	0.05	< 5
790394	0.24	< 5
790395	0.23	< 5
790396	0.22	< 5
790397	0.15	< 5
790398	0.13	7
790399	0.09	5
790400	0.08	< 5
790401	< 0.01	< 5
790402	0.01	< 5
790403	0.09	< 5
790404	0.72	9
790405	0.86	1480

Analyte Symbol	Total S	Au
Unit Symbol	%	ppb
Lower Limit	0.01	5
Method Code	CS	FA-AA
BaSO4 Meas	13.4	
BaSO4 Cert	14.0	
BaSO4 Meas	13.6	
BaSO4 Cert	14.0	
BaSO4 Meas	14.3	
BaSO4 Cert	14.0	
BaSO4 Meas	13.9	
BaSO4 Cert	14.0	
BaSO4 Meas	14.1	
BaSO4 Cert	14.0	
BaSO4 Meas	13.8	
BaSO4 Cert	14.0	
BaSO4 Meas	13.6	
BaSO4 Cert	14.0	
BaSO4 Meas	13.9	
BaSO4 Cert	14.0	
BaSO4 Meas	14.1	
BaSO4 Cert	14.0	
SGR-1b Meas	1.55	
SGR-1b Cert	1.53	
SGR-1b Meas	1.53	
SGR-1b Cert	1.53	
SGR-1b Meas	1.56	
SGR-1b Cert	1.53	
SGR-1b Meas	1.56	
SGR-1b Cert	1.53	
SGR-1b Meas	1.53	
SGR-1b Cert	1.53	
SGR-1b Meas	1.53	
SGR-1b Cert	1.53	
SGR-1b Meas	1.55	
SGR-1b Cert	1.53	
SGR-1b Meas	1.49	
SGR-1b Cert	1.53	
SGR-1b Meas	1.53	
SGR-1b Cert	1.53	
SGR-1b Meas	1.53	
SGR-1b Cert	1.53	
GS311-4 Meas	0.55	
GS311-4 Cert	0.54	
GS311-4 Meas	0.53	
GS311-4 Cert	0.54	
GS311-4 Meas	0.53	
GS311-4 Cert	0.54	

Analyte Symbol	Total S	Au
Unit Symbol	%	ppb
Lower Limit	0.01	5
Method Code	CS	FA-AA
GS311-4 Meas	0.52	
GS311-4 Cert	0.54	
GS311-4 Meas	0.53	
GS311-4 Cert	0.54	
GS311-4 Meas	0.55	
GS311-4 Cert	0.54	
GS311-4 Meas	0.56	
GS311-4 Cert	0.54	
GS311-4 Meas	0.54	
GS311-4 Cert	0.54	
GS311-4 Meas	0.55	
GS311-4 Cert	0.54	
GS900-5 Meas	0.34	
GS900-5 Cert	0.34	
GS900-5 Meas	0.33	
GS900-5 Cert	0.34	
GS900-5 Meas	0.34	
GS900-5 Cert	0.34	
GS900-5 Meas	0.34	
GS900-5 Cert	0.34	
GS900-5 Meas	0.32	
GS900-5 Cert	0.34	
GS900-5 Meas	0.34	
GS900-5 Cert	0.34	
GS900-5 Meas	0.34	
GS900-5 Cert	0.34	
GS900-5 Meas	0.33	
GS900-5 Cert	0.34	
OREAS 214 Meas		3020
OREAS 214 Cert		3030
OREAS 218 Meas		529
OREAS 218 Cert		531
790380 Orig	0.76	
790380 Dup	0.73	
790383 Orig		11
790383 Dup		11
790390 Orig	0.33	
790390 Dup	0.33	
790392 Orig		< 5
790392 Dup		< 5

Analyte Symbol	Total S	Au
Unit Symbol	%	ppb
Lower Limit	0.01	5
Method Code	CS	FA-AA
790401 Orig	< 0.01	
790401 Dup	< 0.01	
790402 Orig		< 5
790402 Dup		< 5
Method Blank		< 5
Method Blank		< 5



Date Submitted: 28-Jun-18
Invoice No.: A18-08379 (i)
Invoice Date: 30-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1A2-Tbay Au - Fire Assay AA (QOP Fire Assay Tbay)

Code 1A3-Tbay Au - Fire Assay Gravimetric (QOP Fire Assay Tbay)

REPORT **A18-08379 (i)**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

Footnote: Sample 790426 has insufficient sample left for analysis.

CERTIFIED BY:

A handwritten signature in black ink, appearing to read "Emmanuel Esemé". The signature is stylized with loops and is positioned above a horizontal line.

Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
1201 Walsh Street West, Thunder Bay, Ontario, Canada, P7E 4X6
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E-MAIL Tbay@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Date Submitted: 28-Jun-18
Invoice No.: A18-08379 (i)
Invoice Date: 30-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 4F-S Infrared

REPORT **A18-08379 (i)**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

Footnote: Sample 790426 has insufficient sample left for analysis.

CERTIFIED BY:



Emmanuel Esemé, Ph.D.
Quality Control

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E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
790406	0.13	191	
790407	0.09	28	
790408	0.27	42	
790409	0.28	178	
790410	0.31	320	
790411	0.02	76	
790412	0.20	268	
790413	1.16	114	
790414	0.57	23	
790415	0.62	30	
790416	0.07	67	
790417	0.08	171	
790418	0.24	477	
790419	0.04	49	
790420	0.11	18	
790421	0.63	119	
790422	0.93	1480	
790423	0.01	< 5	
790424	2.27	> 5000	4.99
790425	1.60	3180	2.90
790426	< 0.01		
790427	0.66	81	
790428	0.31	583	
790429	0.17	88	
790430	0.72	> 5000	6.48
790431	0.10	37	
790432	0.04	6	
790433	0.11	487	
790434	0.24	922	
790435	0.18	16	
790436	0.54	12	
790437	0.18	15	
790438	0.10	63	
790439	0.19	64	
790440	0.22	47	

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
BaSO4 Meas	13.4		
BaSO4 Cert	14.0		
BaSO4 Meas	13.6		
BaSO4 Cert	14.0		
BaSO4 Meas	14.3		
BaSO4 Cert	14.0		
BaSO4 Meas	13.9		
BaSO4 Cert	14.0		
BaSO4 Meas	14.1		
BaSO4 Cert	14.0		
BaSO4 Meas	13.8		
BaSO4 Cert	14.0		
BaSO4 Meas	13.6		
BaSO4 Cert	14.0		
BaSO4 Meas	13.9		
BaSO4 Cert	14.0		
BaSO4 Meas	14.1		
BaSO4 Cert	14.0		
SGR-1b Meas	1.55		
SGR-1b Cert	1.53		
SGR-1b Meas	1.53		
SGR-1b Cert	1.53		
SGR-1b Meas	1.56		
SGR-1b Cert	1.53		
SGR-1b Meas	1.56		
SGR-1b Cert	1.53		
SGR-1b Meas	1.53		
SGR-1b Cert	1.53		
SGR-1b Meas	1.55		
SGR-1b Cert	1.53		
SGR-1b Meas	1.49		
SGR-1b Cert	1.53		
SGR-1b Meas	1.53		
SGR-1b Cert	1.53		
SGR-1b Meas	1.53		
SGR-1b Cert	1.53		
GS311-4 Meas	0.55		
GS311-4 Cert	0.54		
GS311-4 Meas	0.53		
GS311-4 Cert	0.54		
GS311-4 Meas	0.53		

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
GS311-4 Cert	0.54		
GS311-4 Meas	0.52		
GS311-4 Cert	0.54		
GS311-4 Meas	0.53		
GS311-4 Cert	0.54		
GS311-4 Meas	0.55		
GS311-4 Cert	0.54		
GS311-4 Meas	0.56		
GS311-4 Cert	0.54		
GS311-4 Meas	0.54		
GS311-4 Cert	0.54		
GS311-4 Meas	0.55		
GS311-4 Cert	0.54		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.32		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
OREAS 214 Meas		2920	
OREAS 214 Cert		3030	
OREAS 216 (Fire Assay) Meas			6.36
OREAS 216 (Fire Assay) Cert			6.66
OREAS 216 (Fire Assay) Meas			6.46
OREAS 216 (Fire Assay) Cert			6.66
OREAS 218 Meas		514	

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
OREAS 218 Cert		531	
OREAS 229 (Fire Assay) Meas			12.0
OREAS 229 (Fire Assay) Cert			12.1
OREAS 217 (Fire Assay) Meas		325	
OREAS 217 (Fire Assay) Cert		338	
OREAS 215 (Fire Assay) Meas		3690	
OREAS 215 (Fire Assay) Cert		3540	
790411 Orig	0.02		
790411 Dup	0.02		
790422 Orig	0.92		
790422 Dup	0.93		
790424 Orig		> 5000	
790424 Dup		4870	
790425 Orig			2.86
790425 Dup			2.95
790432 Orig	0.04		
790432 Dup	0.04		
790440 Orig	0.22	44	
790440 Dup		50	
Method Blank		< 5	
Method Blank		< 5	
Method Blank			< 0.03
Method Blank		< 5	
Method Blank			< 0.03



Date Submitted: 29-Jun-18
Invoice No.: A18-08403 (i)
Invoice Date: 30-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1A2-Tbay Au - Fire Assay AA (QOP Fire Assay Tbay)

Code Specific Gravity Core-Tbay - Core

REPORT **A18-08403 (i)**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:

A handwritten signature in black ink, appearing to be "Emmanuel Esemé". The signature is written in a cursive style with a horizontal line underneath.

Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
1201 Walsh Street West, Thunder Bay, Ontario, Canada, P7E 4X6
TELEPHONE +807 622-6707 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Tbay@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Date Submitted: 29-Jun-18
Invoice No.: A18-08403 (i)
Invoice Date: 30-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 4F-S Infrared

REPORT **A18-08403 (i)**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:



Emmanuel Eseme , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-9611 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
790091	0.17	14	
790092	0.45	221	
790093	0.03	< 5	
790094	0.42	6	
790095	0.19	< 5	
790096	0.38	< 5	
790097	0.16	< 5	
790098	0.18	< 5	
790099	0.17	10	
790100	0.17	13	
790101	< 0.01	< 5	
790102	0.24	< 5	
790103	0.50	< 5	
790104	0.25	134	
790105	0.87	1540	
790106	0.12	8	
790107	< 0.01	< 5	
790108	0.08	< 5	
790109	0.05	263	
790110	0.06	36	
790111	2.00	> 5000	4.86
790112	1.37	> 5000	8.15
790113	0.67	1720	
790114	0.23	147	
790115	1.41	4570	4.63
790116	2.09	> 5000	7.71
790117	0.11	698	
790118	0.01	< 5	
790119	0.55	969	
790120	0.02	< 5	
790121	1.93	> 5000	23.5
790122	1.29	4740	4.73
790123	0.36	544	
790124	0.11	125	
790125	0.22	7	

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
BaSO4 Meas	14.1		
BaSO4 Cert	14.0		
BaSO4 Meas	13.7		
BaSO4 Cert	14.0		
BaSO4 Meas	14.5		
BaSO4 Cert	14.0		
BaSO4 Meas	14.6		
BaSO4 Cert	14.0		
BaSO4 Meas	14.6		
BaSO4 Cert	14.0		
BaSO4 Meas	14.6		
BaSO4 Cert	14.0		
BaSO4 Meas	13.8		
BaSO4 Cert	14.0		
BaSO4 Meas	13.5		
BaSO4 Cert	14.0		
BaSO4 Meas	13.6		
BaSO4 Cert	14.0		
SGR-1b Meas	1.63		
SGR-1b Cert	1.53		
SGR-1b Meas	1.61		
SGR-1b Cert	1.53		
SGR-1b Meas	1.56		
SGR-1b Cert	1.53		
SGR-1b Meas	1.54		
SGR-1b Cert	1.53		
SGR-1b Meas	1.52		
SGR-1b Cert	1.53		
SGR-1b Meas	1.50		
SGR-1b Cert	1.53		
SGR-1b Meas	1.51		
SGR-1b Cert	1.53		
SGR-1b Meas	1.55		
SGR-1b Cert	1.53		
SGR-1b Meas	1.45		
SGR-1b Cert	1.53		
GS311-4 Meas	0.55		
GS311-4 Cert	0.54		
GS311-4 Meas	0.55		
GS311-4 Cert	0.54		
GS311-4 Meas	0.54		

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
GS311-4 Cert	0.54		
GS311-4 Meas	0.53		
GS311-4 Cert	0.54		
GS311-4 Meas	0.53		
GS311-4 Cert	0.54		
GS311-4 Meas	0.52		
GS311-4 Cert	0.54		
GS311-4 Meas	0.47		
GS311-4 Cert	0.54		
GS311-4 Meas	0.55		
GS311-4 Cert	0.54		
GS311-4 Meas	0.53		
GS311-4 Cert	0.54		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
OREAS 214 Meas		3080	
OREAS 214 Cert		3030	
OREAS 216 (Fire Assay) Meas			6.36
OREAS 216 (Fire Assay) Cert			6.66
OREAS 216 (Fire Assay) Meas			6.46
OREAS 216 (Fire Assay) Cert			6.66
OREAS 218 Meas		530	
OREAS 218 Cert		531	
OREAS 229 (Fire Assay) Meas			12.0

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
OREAS 229 (Fire Assay) Cert			12.1
OREAS 215 (Fire Assay) Meas		3450	
OREAS 215 (Fire Assay) Cert		3540	
790100 Orig	0.17		
790100 Dup	0.17		
790103 Orig		< 5	
790103 Dup		< 5	
790110 Orig	0.06	36	
790110 Dup	0.06		
790121 Orig	1.95	> 5000	
790121 Dup	1.91	> 5000	
Method Blank		< 5	
Method Blank		< 5	
Method Blank			< 0.03
Method Blank			< 0.03
Method Blank		< 5	



Date Submitted: 29-Jun-18
Invoice No.: A18-08408 (i)
Invoice Date: 25-Jul-18
Your Reference: Kas Lake Gold(Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1A2-Tbay Au - Fire Assay AA (QOP Fire Assay Tbay)

REPORT **A18-08408 (i)**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:

A handwritten signature in black ink, appearing to be "Emmanuel Esemé". The signature is stylized and somewhat cursive, written over a horizontal line.

Emmanuel Esemé , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
1201 Walsh Street West, Thunder Bay, Ontario, Canada, P7E 4X6
TELEPHONE +807 622-6707 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Tbay@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Date Submitted: 29-Jun-18
Invoice No.: A18-08408 (i)
Invoice Date: 25-Jul-18
Your Reference: Kas Lake Gold(Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 4F-S Infrared

REPORT **A18-08408 (i)**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:



Emmanuel Eseme , Ph.D.
Quality Control

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41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5
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E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
789986	0.15	93	
789987	0.20	47	
789988	1.01	514	
789989	2.77	> 5000	6.86
789990	0.23	119	
789991	2.22	2710	2.66
789992	2.68	2880	2.97
789993	0.13	21	
789994	0.03	9	
789995	0.34	370	
789996	0.64	174	
789997	0.01	11	
789998	0.01	6	
789999	0.02	7	
790000	0.02	30	
790001	< 0.01	< 5	
790002	0.06	9	
790003	< 0.01	7	
790004	< 0.01	7	
790005	0.01	469	
790006	0.80	278	
790007	0.11	18	
790008	0.47	68	
790009	0.13	7	
790010	0.10	7	
790011	0.06	9	
790012	0.08	9	
790013	0.16	106	
790014	0.12	11	
790015	0.24	10	
790016	0.37	17	
790017	0.13	15	
790018	0.44	27	
790019	0.29	14	
790020	0.33	13	

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
BaSO4 Meas	14.5		
BaSO4 Cert	14.0		
BaSO4 Meas	14.6		
BaSO4 Cert	14.0		
BaSO4 Meas	14.6		
BaSO4 Cert	14.0		
BaSO4 Meas	14.6		
BaSO4 Cert	14.0		
BaSO4 Meas	13.8		
BaSO4 Cert	14.0		
BaSO4 Meas	13.5		
BaSO4 Cert	14.0		
BaSO4 Meas	13.6		
BaSO4 Cert	14.0		
SGR-1b Meas	1.56		
SGR-1b Cert	1.53		
SGR-1b Meas	1.54		
SGR-1b Cert	1.53		
SGR-1b Meas	1.52		
SGR-1b Cert	1.53		
SGR-1b Meas	1.50		
SGR-1b Cert	1.53		
SGR-1b Meas	1.51		
SGR-1b Cert	1.53		
SGR-1b Meas	1.55		
SGR-1b Cert	1.53		
SGR-1b Meas	1.45		
SGR-1b Cert	1.53		
GS311-4 Meas	0.54		
GS311-4 Cert	0.54		
GS311-4 Meas	0.53		
GS311-4 Cert	0.54		
GS311-4 Meas	0.53		
GS311-4 Cert	0.54		
GS311-4 Meas	0.52		
GS311-4 Cert	0.54		
GS311-4 Meas	0.47		
GS311-4 Cert	0.54		
GS311-4 Meas	0.55		
GS311-4 Cert	0.54		
GS311-4 Meas	0.53		

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
GS311-4 Cert	0.54		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
OREAS 214 Meas		2870	
OREAS 214 Cert		3030	
OREAS 216 (Fire Assay) Meas			6.75
OREAS 216 (Fire Assay) Cert			6.66
OREAS 218 Meas		515	
OREAS 218 Cert		531	
OREAS 229 (Fire Assay) Meas			12.3
OREAS 229 (Fire Assay) Cert			12.1
789991 Orig	2.22		2.58
789991 Dup	2.22		2.75
790002 Orig	0.06		
790002 Dup	0.06		
790004 Orig		7	
790004 Dup		7	
790012 Orig	0.08		
790012 Dup	0.07		
790015 Orig		9	
790015 Dup		11	
Method Blank		< 5	
Method Blank		< 5	
Method Blank			< 0.03



Date Submitted: 29-Jun-18
Invoice No.: A18-08412 (i)
Invoice Date: 25-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1A2-Tbay Au - Fire Assay AA (QOP Fire Assay Tbay)

Code Specific Gravity Core-Tbay - Core

REPORT **A18-08412 (i)**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

Footnote: Sample 790055 was Insufficient for further analyses.

CERTIFIED BY:

A handwritten signature in black ink, appearing to be "Emmanuel Esemé". The signature is written in a cursive style with a large, stylized 'E' and 'S'.

Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
1201 Walsh Street West, Thunder Bay, Ontario, Canada, P7E 4X6
TELEPHONE +807 622-6707 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Tbay@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Date Submitted: 29-Jun-18
Invoice No.: A18-08412 (i)
Invoice Date: 25-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 4F-S Infrared

REPORT **A18-08412 (i)**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

Footnote: Sample 790055 was Insufficient for further analyses.

CERTIFIED BY:



Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5
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E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Total S	Au
Unit Symbol	%	ppb
Lower Limit	0.01	5
Method Code	CS	FA-AA
790021	0.39	6
790022	0.31	< 5
790023	0.43	6
790024	0.26	11
790025	0.46	9
790026	< 0.01	< 5
790027	0.35	50
790028	0.12	28
790029	0.11	47
790030	0.87	1540
790031	0.21	39
790032	0.26	31
790033	0.08	5
790034	0.11	12
790035	0.02	24
790036	0.02	26
790037	0.01	< 5
790038	0.10	16
790039	0.11	< 5
790040	0.03	< 5
790041	0.21	8
790042	0.07	< 5
790043	0.09	< 5
790044	0.36	19
790045	0.23	8
790046	0.17	< 5
790047	0.19	< 5
790048	0.08	< 5
790049	0.24	9
790050	0.39	< 5
790051	< 0.01	< 5
790052	0.29	74
790053	0.23	73
790054	0.41	440
790055	0.73	> 5000

Analyte Symbol	Total S	Au
Unit Symbol	%	ppb
Lower Limit	0.01	5
Method Code	CS	FA-AA
BaSO4 Meas	14.5	
BaSO4 Cert	14.0	
BaSO4 Meas	14.6	
BaSO4 Cert	14.0	
BaSO4 Meas	14.6	
BaSO4 Cert	14.0	
BaSO4 Meas	14.6	
BaSO4 Cert	14.0	
BaSO4 Meas	13.8	
BaSO4 Cert	14.0	
BaSO4 Meas	13.5	
BaSO4 Cert	14.0	
BaSO4 Meas	13.6	
BaSO4 Cert	14.0	
SGR-1b Meas	1.56	
SGR-1b Cert	1.53	
SGR-1b Meas	1.54	
SGR-1b Cert	1.53	
SGR-1b Meas	1.52	
SGR-1b Cert	1.53	
SGR-1b Meas	1.50	
SGR-1b Cert	1.53	
SGR-1b Meas	1.51	
SGR-1b Cert	1.53	
SGR-1b Meas	1.55	
SGR-1b Cert	1.53	
SGR-1b Meas	1.45	
SGR-1b Cert	1.53	
GS311-4 Meas	0.54	
GS311-4 Cert	0.54	
GS311-4 Meas	0.53	
GS311-4 Cert	0.54	
GS311-4 Meas	0.53	
GS311-4 Cert	0.54	
GS311-4 Meas	0.52	
GS311-4 Cert	0.54	
GS311-4 Meas	0.47	
GS311-4 Cert	0.54	
GS311-4 Meas	0.55	
GS311-4 Cert	0.54	
GS311-4 Meas	0.53	
GS311-4 Cert	0.54	

Analyte Symbol	Total S	Au
Unit Symbol	%	ppb
Lower Limit	0.01	5
Method Code	CS	FA-AA
GS900-5 Meas	0.33	
GS900-5 Cert	0.34	
GS900-5 Meas	0.33	
GS900-5 Cert	0.34	
GS900-5 Meas	0.34	
GS900-5 Cert	0.34	
GS900-5 Meas	0.33	
GS900-5 Cert	0.34	
GS900-5 Meas	0.34	
GS900-5 Cert	0.34	
GS900-5 Meas	0.33	
GS900-5 Cert	0.34	
GS900-5 Meas	0.33	
GS900-5 Cert	0.34	
GS900-5 Meas	0.33	
GS900-5 Cert	0.34	
OREAS 214 Meas		3010
OREAS 214 Cert		3030
790023 Orig	0.43	
790023 Dup	0.44	
790031 Orig		39
790031 Dup		39
790033 Orig	0.08	
790033 Dup	0.08	
790040 Orig		< 5
790040 Dup		< 5
790044 Orig	0.37	
790044 Dup	0.35	
790050 Orig		< 5
790050 Dup		< 5
790054 Orig	0.41	
790054 Dup	0.41	
Method Blank		< 5
Method Blank		< 5



Date Submitted: 29-Jun-18
Invoice No.: A18-08415 (i)
Invoice Date: 27-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1A2-Tbay Au - Fire Assay AA (QOP Fire Assay Tbay)
Code 1A3-Tbay Au - Fire Assay Gravimetric (QOP Fire Assay Tbay)
Code Specific Gravity Core-Tbay - Core

REPORT **A18-08415 (i)**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:

A handwritten signature in black ink, appearing to be "Emmanuel Esemé".

Emmanuel Esemé , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
1201 Walsh Street West, Thunder Bay, Ontario, Canada, P7E 4X6
TELEPHONE +807 622-6707 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Tbay@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Date Submitted: 29-Jun-18
Invoice No.: A18-08415 (i)
Invoice Date: 27-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 4F-S Infrared

REPORT **A18-08415 (i)**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:



Emmanuel Eseme , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-9611 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
790056	0.06	< 5	
790057	0.09	< 5	
790058	0.03	5	
790059	0.11	45	
790060	0.08	96	
790061	0.92	4050	4.41
790062	< 0.01	< 5	
790063	0.10	32	
790064	0.39	287	
790065	0.05	1050	
790066	0.55	614	
790067	0.03	22	
790068	0.02	< 5	
790069	0.15	14	
790070	0.08	22	
790071	0.03	113	
790072	0.16	386	
790073	0.28	807	
790074	0.38	999	
790075	1.02	258	
790076	< 0.01	< 5	
790077	0.12	553	
790078	0.40	23	
790079	0.35	29	
790080	0.02	536	
790081	0.42	16	
790082	0.38	134	
790083	0.21	8	
790084	0.08	22	
790085	0.14	7	
790086	0.15	8	
790087	0.03	5	
790088	< 0.01	< 5	
790089	0.03	10	
790090	0.04	14	

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
BaSO4 Meas	14.5		
BaSO4 Cert	14.0		
BaSO4 Meas	14.6		
BaSO4 Cert	14.0		
BaSO4 Meas	14.6		
BaSO4 Cert	14.0		
BaSO4 Meas	14.6		
BaSO4 Cert	14.0		
BaSO4 Meas	13.8		
BaSO4 Cert	14.0		
BaSO4 Meas	13.5		
BaSO4 Cert	14.0		
BaSO4 Meas	13.6		
BaSO4 Cert	14.0		
SGR-1b Meas	1.56		
SGR-1b Cert	1.53		
SGR-1b Meas	1.54		
SGR-1b Cert	1.53		
SGR-1b Meas	1.52		
SGR-1b Cert	1.53		
SGR-1b Meas	1.50		
SGR-1b Cert	1.53		
SGR-1b Meas	1.51		
SGR-1b Cert	1.53		
SGR-1b Meas	1.55		
SGR-1b Cert	1.53		
SGR-1b Meas	1.45		
SGR-1b Cert	1.53		
GS311-4 Meas	0.54		
GS311-4 Cert	0.54		
GS311-4 Meas	0.53		
GS311-4 Cert	0.54		
GS311-4 Meas	0.53		
GS311-4 Cert	0.54		
GS311-4 Meas	0.52		
GS311-4 Cert	0.54		
GS311-4 Meas	0.47		
GS311-4 Cert	0.54		
GS311-4 Meas	0.55		
GS311-4 Cert	0.54		
GS311-4 Meas	0.53		

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
GS311-4 Cert	0.54		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
OREAS 214 Meas		2980	
OREAS 214 Cert		3030	
OREAS 216 (Fire Assay) Meas			6.83
OREAS 216 (Fire Assay) Cert			6.66
OREAS 218 Meas		541	
OREAS 218 Cert		531	
OREAS 229 (Fire Assay) Meas			12.2
OREAS 229 (Fire Assay) Cert			12.1
OREAS 217 (Fire Assay) Meas		325	
OREAS 217 (Fire Assay) Cert		338	
OREAS 215 (Fire Assay) Meas		3690	
OREAS 215 (Fire Assay) Cert		3540	
790065 Orig	0.05		
790065 Dup	0.05		
790075 Orig	1.01		
790075 Dup	1.02		
790086 Orig	0.15	7	
790086 Dup	0.16	8	
Method Blank		< 5	
Method Blank		< 5	
Method Blank			< 0.03
Method Blank		< 5	



Date Submitted: 29-Jun-18
Invoice No.: A18-08416 (i)
Invoice Date: 31-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 4F-S Infrared

REPORT **A18-08416 (i)**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:

A handwritten signature in black ink, appearing to be "Emmanuel Esemé". The signature is written over a horizontal line.

Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-9611 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Date Submitted: 29-Jun-18
Invoice No.: A18-08416 (i)
Invoice Date: 31-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 1A2-Tbay Au - Fire Assay AA (QOP Fire Assay Tbay)

REPORT **A18-08416 (i)**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:



Emmanuel Esemé , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
1201 Walsh Street West, Thunder Bay, Ontario, Canada, P7E 4X6
TELEPHONE +807 622-6707 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Tbay@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
790161	0.10	< 5	
790162	0.05	< 5	
790163	0.19	519	
790164	3.34	4130	5.18
790165	0.28	534	
790166	0.09	8	
790167	0.72	2850	3.47
790168	0.01	35	
790169	< 0.01	< 5	
790170	0.40	15	
790171	0.14	539	
790172	0.01	< 5	
790173	0.07	83	
790174	< 0.01	< 5	
790175	1.85	3490	3.58
790176	< 0.01	5	
790177	2.02	> 5000	10.5
790178	2.19	> 5000	15.8
790179	0.39	1250	
790180	0.87	1560	
790181	1.50	4200	3.77
790182	0.07	72	
790183	0.06	39	
790184	0.06	52	
790185	0.22	93	
790186	0.91	3480	3.60
790187	0.05	24	
790188	0.01	6	
790189	0.06	8	
790190	0.16	105	
790191	0.14	< 5	
790192	0.04	6	
790193	0.07	8	
790194	0.03	25	
790195	0.13	< 5	

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
BaSO4 Meas	14.1		
BaSO4 Cert	14.0		
BaSO4 Meas	13.7		
BaSO4 Cert	14.0		
BaSO4 Meas	14.5		
BaSO4 Cert	14.0		
BaSO4 Meas	14.6		
BaSO4 Cert	14.0		
BaSO4 Meas	14.6		
BaSO4 Cert	14.0		
BaSO4 Meas	14.6		
BaSO4 Cert	14.0		
BaSO4 Meas	13.8		
BaSO4 Cert	14.0		
BaSO4 Meas	13.5		
BaSO4 Cert	14.0		
BaSO4 Meas	13.6		
BaSO4 Cert	14.0		
SGR-1b Meas	1.63		
SGR-1b Cert	1.53		
SGR-1b Meas	1.61		
SGR-1b Cert	1.53		
SGR-1b Meas	1.56		
SGR-1b Cert	1.53		
SGR-1b Meas	1.54		
SGR-1b Cert	1.53		
SGR-1b Meas	1.52		
SGR-1b Cert	1.53		
SGR-1b Meas	1.50		
SGR-1b Cert	1.53		
SGR-1b Meas	1.51		
SGR-1b Cert	1.53		
SGR-1b Meas	1.55		
SGR-1b Cert	1.53		
SGR-1b Meas	1.45		
SGR-1b Cert	1.53		
GS311-4 Meas	0.55		
GS311-4 Cert	0.54		
GS311-4 Meas	0.55		
GS311-4 Cert	0.54		
GS311-4 Meas	0.54		

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
GS311-4 Cert	0.54		
GS311-4 Meas	0.53		
GS311-4 Cert	0.54		
GS311-4 Meas	0.53		
GS311-4 Cert	0.54		
GS311-4 Meas	0.52		
GS311-4 Cert	0.54		
GS311-4 Meas	0.47		
GS311-4 Cert	0.54		
GS311-4 Meas	0.55		
GS311-4 Cert	0.54		
GS311-4 Meas	0.53		
GS311-4 Cert	0.54		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
OREAS 216 (Fire Assay) Meas			6.59
OREAS 216 (Fire Assay) Cert			6.66
OREAS 216 (Fire Assay) Meas			6.46
OREAS 216 (Fire Assay) Cert			6.66
OREAS 218 Meas		536	
OREAS 218 Cert		531	
OREAS 229 (Fire Assay) Meas			12.0
OREAS 229 (Fire Assay) Cert			12.1

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
OREAS 217 (Fire Assay) Meas		325	
OREAS 217 (Fire Assay) Cert		338	
OREAS 215 (Fire Assay) Meas		3690	
OREAS 215 (Fire Assay) Cert		3540	
790164 Orig			5.20
790164 Dup			5.16
790166 Orig	0.09		
790166 Dup	0.09		
790169 Orig		< 5	
790169 Dup		< 5	
790172 Orig		< 5	
790172 Dup		< 5	
790177 Orig	2.08		
790177 Dup	1.96		
790178 Orig			15.6
790178 Dup			16.0
790187 Orig	0.05		
790187 Dup	0.05		
790195 Orig	0.12		
790195 Dup	0.13		
Method Blank		< 5	
Method Blank		< 5	
Method Blank			< 0.03
Method Blank		< 5	
Method Blank			< 0.03



Date Submitted: 29-Jun-18
Invoice No.: A18-08418
Invoice Date: 27-Jul-18
Your Reference:

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 4F-S Infrared

REPORT **A18-08418**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:

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Emmanuel Esemé, Ph.D.
Quality Control

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Date Submitted: 29-Jun-18
Invoice No.: A18-08418
Invoice Date: 27-Jul-18
Your Reference:

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1A2-Tbay Au - Fire Assay AA (QOP Fire Assay Tbay)
Code 1A3-Tbay Au - Fire Assay Gravimetric (QOP Fire Assay Tbay)
Code Specific Gravity Core-Tbay - Core

REPORT **A18-08418**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

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E-MAIL Tbay@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Total S	Spec Grav Core	Au	Au
Unit Symbol	%	-	ppb	g/tonne
Lower Limit	0.01	0.01	5	0.03
Method Code	CS	GRAV	FA-AA	FA-GRA
790196	0.15		11	
790197	0.24		5	
790198	0.20		17	
790199	0.25		10	
790200	0.27		6	
790201	< 0.01		< 5	
790202	0.14		6	
790203	0.08		10	
790204	0.14		7	
790205	0.75		> 5000	7.68
790206	0.21		< 5	
790207	0.16		< 5	
790208	0.38		29	
790209	0.38		6	
790210	0.42		13	
790211	0.40		5	
790212	0.39		8	
790213	0.36		< 5	
790214	0.51		95	
790215	0.26		30	
790216	0.20		40	
790217	0.28		42	
790218	0.16		137	
790219	0.30		42	
790220	0.17		12	
790221	0.08		28	
790222	0.17		13	
790223	0.04		16	
790224	0.11		30	
790225	0.28		< 5	
790226	< 0.01		< 5	
790227	0.03		< 5	
790228	0.30		< 5	
790229	0.02	2.72	< 5	
790230	0.02		492	

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
BaSO4 Meas	13.9		
BaSO4 Cert	14.0		
BaSO4 Meas	14.1		
BaSO4 Cert	14.0		
BaSO4 Meas	14.0		
BaSO4 Cert	14.0		
BaSO4 Meas	13.9		
BaSO4 Cert	14.0		
BaSO4 Meas	13.8		
BaSO4 Cert	14.0		
BaSO4 Meas	14.3		
BaSO4 Cert	14.0		
BaSO4 Meas	13.9		
BaSO4 Cert	14.0		
BaSO4 Meas	14.0		
BaSO4 Cert	14.0		
SGR-1b Meas	1.51		
SGR-1b Cert	1.53		
SGR-1b Meas	1.50		
SGR-1b Cert	1.53		
SGR-1b Meas	1.52		
SGR-1b Cert	1.53		
SGR-1b Meas	1.58		
SGR-1b Cert	1.53		
SGR-1b Meas	1.60		
SGR-1b Cert	1.53		
SGR-1b Meas	1.55		
SGR-1b Cert	1.53		
SGR-1b Meas	1.60		
SGR-1b Cert	1.53		
SGR-1b Meas	1.46		
SGR-1b Cert	1.53		
SGR-1b Meas	1.49		
SGR-1b Cert	1.53		
GS311-4 Meas	0.54		
GS311-4 Cert	0.54		
GS311-4 Meas	0.54		
GS311-4 Cert	0.54		
GS311-4 Meas	0.54		
GS311-4 Cert	0.54		
GS311-4 Meas	0.56		

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
GS311-4 Cert	0.54		
GS311-4 Meas	0.57		
GS311-4 Cert	0.54		
GS311-4 Meas	0.54		
GS311-4 Cert	0.54		
GS311-4 Meas	0.56		
GS311-4 Cert	0.54		
GS311-4 Meas	0.53		
GS311-4 Cert	0.54		
GS311-4 Meas	0.52		
GS311-4 Cert	0.54		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
GS900-5 Meas	0.35		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.36		
GS900-5 Cert	0.34		
GS900-5 Meas	0.32		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
OREAS 214 Meas		2930	
OREAS 214 Cert		3030	
OREAS 216 (Fire Assay) Meas			6.83
OREAS 216 (Fire Assay) Cert			6.66
OREAS 218 Meas		522	
OREAS 218 Cert		531	
OREAS 229 (Fire Assay) Meas			12.2
OREAS 229 (Fire Assay) Cert			12.1
790201 Orig	< 0.01		
790201 Dup	< 0.01		
790208 Orig		21	
790208 Dup		37	
790212 Orig	0.39		

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
790212 Dup	0.38		
790216 Orig		41	
790216 Dup		39	
790222 Orig	0.18		
790222 Dup	0.17		
790228 Orig		< 5	
790228 Dup		< 5	
Method Blank		< 5	
Method Blank		< 5	
Method Blank			< 0.03



Date Submitted: 29-Jun-18
Invoice No.: A18-08439 (i)
Invoice Date: 31-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 4F-S Infrared

REPORT **A18-08439 (i)**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:

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Emmanuel Esemé , Ph.D.
Quality Control

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E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Date Submitted: 29-Jun-18
Invoice No.: A18-08439 (i)
Invoice Date: 31-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1A2-Tbay Au - Fire Assay AA (QOP Fire Assay Tbay)

REPORT **A18-08439 (i)**

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Notes:

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CERTIFIED BY:



Emmanuel Eseme , Ph.D.
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E-MAIL Tbay@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
790126	< 0.01	< 5	
790127	0.22	12	
790128	0.02	< 5	
790129	< 0.01	8	
790130	0.76	> 5000	6.85
790131	< 0.01	6	
790132	0.09	519	
790133	1.12	504	
790134	1.02	574	
790135	1.50	47	
790136	0.68	134	
790137	0.19	148	
790138	0.39	42	
790139	0.09	< 5	
790140	0.19	< 5	
790141	0.18	< 5	
790142	0.10	8	
790143	0.49	< 5	
790144	0.14	< 5	
790145	0.28	6	
790146	0.15	18	
790147	0.15	19	
790148	0.26	< 5	
790149	0.06	< 5	
790150	0.37	< 5	
790151	< 0.01	< 5	
790152	0.10	6	
790153	0.11	8	
790154	0.07	7	
790155	0.02	495	
790156	0.18	248	
790157	0.45	12	
790158	0.25	48	
790159	0.22	< 5	
790160	0.27	< 5	

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
BaSO4 Meas	13.9		
BaSO4 Cert	14.0		
BaSO4 Meas	14.1		
BaSO4 Cert	14.0		
BaSO4 Meas	14.0		
BaSO4 Cert	14.0		
BaSO4 Meas	13.9		
BaSO4 Cert	14.0		
BaSO4 Meas	13.8		
BaSO4 Cert	14.0		
BaSO4 Meas	14.3		
BaSO4 Cert	14.0		
BaSO4 Meas	13.9		
BaSO4 Cert	14.0		
BaSO4 Meas	14.0		
BaSO4 Cert	14.0		
SGR-1b Meas	1.51		
SGR-1b Cert	1.53		
SGR-1b Meas	1.50		
SGR-1b Cert	1.53		
SGR-1b Meas	1.52		
SGR-1b Cert	1.53		
SGR-1b Meas	1.58		
SGR-1b Cert	1.53		
SGR-1b Meas	1.60		
SGR-1b Cert	1.53		
SGR-1b Meas	1.55		
SGR-1b Cert	1.53		
SGR-1b Meas	1.60		
SGR-1b Cert	1.53		
SGR-1b Meas	1.46		
SGR-1b Cert	1.53		
SGR-1b Meas	1.49		
SGR-1b Cert	1.53		
GS311-4 Meas	0.54		
GS311-4 Cert	0.54		
GS311-4 Meas	0.54		
GS311-4 Cert	0.54		
GS311-4 Meas	0.54		
GS311-4 Cert	0.54		
GS311-4 Meas	0.56		

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
GS311-4 Cert	0.54		
GS311-4 Meas	0.57		
GS311-4 Cert	0.54		
GS311-4 Meas	0.54		
GS311-4 Cert	0.54		
GS311-4 Meas	0.56		
GS311-4 Cert	0.54		
GS311-4 Meas	0.53		
GS311-4 Cert	0.54		
GS311-4 Meas	0.52		
GS311-4 Cert	0.54		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
GS900-5 Meas	0.35		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.36		
GS900-5 Cert	0.34		
GS900-5 Meas	0.32		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
OREAS 214 Meas		2980	
OREAS 214 Cert		3030	
OREAS 216 (Fire Assay) Meas			6.53
OREAS 216 (Fire Assay) Cert			6.66
OREAS 218 Meas		527	
OREAS 218 Cert		531	
OREAS 229 (Fire Assay) Meas			12.0
OREAS 229 (Fire Assay) Cert			12.1
790128 Orig	0.02		
790128 Dup	0.02		
790138 Orig	0.40		
790138 Dup	0.39		
790139 Orig		< 5	

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
790139 Dup		< 5	
790144 Orig		< 5	
790144 Dup		< 5	
790149 Orig	0.06		
790149 Dup	0.06		
790152 Orig		6	
790152 Dup		5	
790159 Orig	0.22		
790159 Dup	0.22		
Method Blank		< 5	
Method Blank		< 5	
Method Blank			< 0.03



Date Submitted: 03-Jul-18
Invoice No.: A18-08464 (i)
Invoice Date: 25-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

19 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 4F-S Infrared

REPORT **A18-08464 (i)**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:

A handwritten signature in black ink, appearing to be "Emmanuel Esemé".

Emmanuel Esemé , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-9611 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Date Submitted: 03-Jul-18
Invoice No.: A18-08464 (i)
Invoice Date: 25-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

19 Core samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1A2-Tbay Au - Fire Assay AA (QOP Fire Assay Tbay)

REPORT **A18-08464 (i)**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:



Emmanuel Eseme , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
1201 Walsh Street West, Thunder Bay, Ontario, Canada, P7E 4X6
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E-MAIL Tbay@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
759581	0.44	346	
759582	1.15	673	
759583	0.93	1770	
759584	0.57	1260	
759585	0.65	861	
759586	0.48	437	
759587	1.05	2960	3.02
759588	0.01	12	
759589	0.01	5	
759590	0.06	46	
759591	0.21	< 5	
759592	0.20	13	
759593	0.11	< 5	
759594	0.27	< 5	
759595	0.12	6	
759596	0.17	< 5	
759597	0.10	19	
759598	< 0.01	< 5	
759599	0.83	1550	

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
BaSO4 Meas	14.1		
BaSO4 Cert	14.0		
BaSO4 Meas	13.5		
BaSO4 Cert	14.0		
BaSO4 Meas	14.1		
BaSO4 Cert	14.0		
BaSO4 Meas	14.0		
BaSO4 Cert	14.0		
BaSO4 Meas	13.5		
BaSO4 Cert	14.0		
BaSO4 Meas	13.4		
BaSO4 Cert	14.0		
SGR-1b Meas	1.54		
SGR-1b Cert	1.53		
SGR-1b Meas	1.56		
SGR-1b Cert	1.53		
SGR-1b Meas	1.55		
SGR-1b Cert	1.53		
SGR-1b Meas	1.56		
SGR-1b Cert	1.53		
SGR-1b Meas	1.55		
SGR-1b Cert	1.53		
SGR-1b Meas	1.49		
SGR-1b Cert	1.53		
GS311-4 Meas	0.53		
GS311-4 Cert	0.54		
GS311-4 Meas	0.56		
GS311-4 Cert	0.54		
GS311-4 Meas	0.53		
GS311-4 Cert	0.54		
GS311-4 Meas	0.55		
GS311-4 Cert	0.54		
GS311-4 Meas	0.56		
GS311-4 Cert	0.54		
GS311-4 Meas	0.53		
GS311-4 Cert	0.54		
GS900-5 Meas	0.35		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
GS900-5 Cert	0.34		
GS900-5 Meas	0.31		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
OREAS 214 Meas		2970	
OREAS 214 Cert		3030	
OREAS 216 (Fire Assay) Meas			6.48
OREAS 216 (Fire Assay) Cert			6.66
OREAS 218 Meas		515	
OREAS 218 Cert		531	
OREAS 229 (Fire Assay) Meas			12.1
OREAS 229 (Fire Assay) Cert			12.1
759585 Orig	0.66		
759585 Dup	0.63		
759587 Orig			3.21
759587 Dup			2.84
759596 Orig	0.16		
759596 Dup	0.17		
Method Blank		< 5	
Method Blank			< 0.03



Date Submitted: 03-Jul-18
Invoice No.: A18-08469 (i)
Invoice Date: 25-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1A2-Tbay Au - Fire Assay AA (QOP Fire Assay Tbay)

Code Specific Gravity Core-Tbay - Core

REPORT **A18-08469 (i)**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:

A handwritten signature in black ink, appearing to be "Emmanuel Esemé". The signature is written in a cursive style with a horizontal line underneath.

Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
1201 Walsh Street West, Thunder Bay, Ontario, Canada, P7E 4X6
TELEPHONE +807 622-6707 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Tbay@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Date Submitted: 03-Jul-18
Invoice No.: A18-08469 (i)
Invoice Date: 25-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 4F-S Infrared

REPORT **A18-08469 (i)**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:



Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-9611 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Total S	Spec Grav Core	Au	Au
Unit Symbol	%	-	ppb	g/tonne
Lower Limit	0.01	0.01	5	0.03
Method Code	CS	GRAV	FA-AA	FA-GRA
759546	0.08		< 5	
759547	0.11		5	
759548	0.06		< 5	
759549	0.04		< 5	
759550	0.08		< 5	
759551	< 0.01		< 5	
759552	0.20		< 5	
759553	0.10		6	
759554	0.42		< 5	
759555	0.94		1570	
759556	0.07		< 5	
759557	0.08		< 5	
759558	0.18		< 5	
759559	0.08		5	
759560	0.10		< 5	
759561	0.03		9	
759562	0.21		5	
759563	0.10		< 5	
759564	0.64		10	
759565	0.08		5	
759566	0.03		14	
759567	0.10		< 5	
759568	0.02	3.06	< 5	
759569	0.11		14	
759570	0.07		18	
759571	0.10		69	
759572	0.10		13	
759573	1.31		3290	3.83
759574	< 0.01		< 5	
759575	0.52		998	
759576	< 0.01		< 5	
759577	0.57		714	
759578	0.32		217	
759579	1.15		1620	
759580	0.86		1550	

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
BaSO4 Meas	14.1		
BaSO4 Cert	14.0		
BaSO4 Meas	13.5		
BaSO4 Cert	14.0		
BaSO4 Meas	14.1		
BaSO4 Cert	14.0		
BaSO4 Meas	14.0		
BaSO4 Cert	14.0		
BaSO4 Meas	13.5		
BaSO4 Cert	14.0		
BaSO4 Meas	13.4		
BaSO4 Cert	14.0		
SGR-1b Meas	1.54		
SGR-1b Cert	1.53		
SGR-1b Meas	1.56		
SGR-1b Cert	1.53		
SGR-1b Meas	1.55		
SGR-1b Cert	1.53		
SGR-1b Meas	1.56		
SGR-1b Cert	1.53		
SGR-1b Meas	1.55		
SGR-1b Cert	1.53		
SGR-1b Meas	1.49		
SGR-1b Cert	1.53		
GS311-4 Meas	0.53		
GS311-4 Cert	0.54		
GS311-4 Meas	0.56		
GS311-4 Cert	0.54		
GS311-4 Meas	0.53		
GS311-4 Cert	0.54		
GS311-4 Meas	0.55		
GS311-4 Cert	0.54		
GS311-4 Meas	0.56		
GS311-4 Cert	0.54		
GS311-4 Meas	0.53		
GS311-4 Cert	0.54		
GS900-5 Meas	0.35		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
GS900-5 Cert	0.34		
GS900-5 Meas	0.31		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
OREAS 216 (Fire Assay) Meas			6.70
OREAS 216 (Fire Assay) Cert			6.66
OREAS 229 (Fire Assay) Meas			12.2
OREAS 229 (Fire Assay) Cert			12.1
OREAS 217 (Fire Assay) Meas		334	
OREAS 217 (Fire Assay) Cert		338	
OREAS 215 (Fire Assay) Meas		3350	
OREAS 215 (Fire Assay) Cert		3540	
759552 Orig	0.20		
759552 Dup	0.20		
759558 Orig		< 5	
759558 Dup		< 5	
759563 Orig	0.10		
759563 Dup	0.10		
759569 Orig		18	
759569 Dup		9	
759573 Orig	1.29		4.02
759573 Dup	1.32		3.64
Method Blank		< 5	
Method Blank		< 5	
Method Blank			< 0.03



Date Submitted: 03-Jul-18
Invoice No.: A18-08470 (i)
Invoice Date: 25-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 4F-S Infrared

REPORT **A18-08470 (i)**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

Footnote: Sample 759530 was Insufficient for further analyses.

CERTIFIED BY:

A handwritten signature in black ink, appearing to be "Emmanuel Esemé". The signature is written in a cursive style with some loops and is positioned above a horizontal line.

Emmanuel Esemé, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-9611 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Date Submitted: 03-Jul-18
Invoice No.: A18-08470 (i)
Invoice Date: 25-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1A2-Tbay Au - Fire Assay AA (QOP Fire Assay Tbay)

Code Specific Gravity Core-Tbay - Core

REPORT **A18-08470 (i)**

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Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

Footnote: Sample 759530 was Insufficient for further analyses.

CERTIFIED BY:



Emmanuel Esemé, Ph.D.
Quality Control

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1201 Walsh Street West, Thunder Bay, Ontario, Canada, P7E 4X6
TELEPHONE +807 622-6707 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Tbay@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Total S	Spec Grav Core	Au	Au
Unit Symbol	%	-	ppb	g/tonne
Lower Limit	0.01	0.01	5	0.03
Method Code	CS	GRAV	FA-AA	FA-GRA
759511	0.06		8	
759512	0.07		7	
759513	0.05		26	
759514	0.57		529	
759515	0.15		303	
759516	0.14		5	
759517	0.47		659	
759518	0.26		25	
759519	0.13		< 5	
759520	0.12		< 5	
759521	0.66		3840	4.18
759522	0.19		1170	
759523	0.77		1350	
759524	0.36		118	
759525	0.62		20	
759526	< 0.01		< 5	
759527	0.24	3.02	354	
759528	0.43		> 5000	6.87
759529	0.93		948	
759530	0.73		> 5000	
759531	1.52		> 5000	8.42
759532	0.36		582	
759533	0.42		746	
759534	0.26		538	
759535	0.10		165	
759536	0.08		15	
759537	0.05		5	
759538	0.66		60	
759539	0.45		8	
759540	0.27		8	
759541	0.13		14	
759542	0.29		11	
759543	0.14	2.72	5	
759544	0.08		9	
759545	0.04		< 5	

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
BaSO4 Meas	14.1		
BaSO4 Cert	14.0		
BaSO4 Meas	13.5		
BaSO4 Cert	14.0		
BaSO4 Meas	14.1		
BaSO4 Cert	14.0		
BaSO4 Meas	14.0		
BaSO4 Cert	14.0		
BaSO4 Meas	13.5		
BaSO4 Cert	14.0		
BaSO4 Meas	13.4		
BaSO4 Cert	14.0		
SGR-1b Meas	1.54		
SGR-1b Cert	1.53		
SGR-1b Meas	1.56		
SGR-1b Cert	1.53		
SGR-1b Meas	1.55		
SGR-1b Cert	1.53		
SGR-1b Meas	1.56		
SGR-1b Cert	1.53		
SGR-1b Meas	1.55		
SGR-1b Cert	1.53		
SGR-1b Meas	1.49		
SGR-1b Cert	1.53		
GS311-4 Meas	0.53		
GS311-4 Cert	0.54		
GS311-4 Meas	0.56		
GS311-4 Cert	0.54		
GS311-4 Meas	0.53		
GS311-4 Cert	0.54		
GS311-4 Meas	0.55		
GS311-4 Cert	0.54		
GS311-4 Meas	0.56		
GS311-4 Cert	0.54		
GS311-4 Meas	0.53		
GS311-4 Cert	0.54		
GS900-5 Meas	0.35		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
GS900-5 Cert	0.34		
GS900-5 Meas	0.31		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
OREAS 216 (Fire Assay) Meas			6.70
OREAS 216 (Fire Assay) Cert			6.66
OREAS 216 (Fire Assay) Meas			6.70
OREAS 216 (Fire Assay) Cert			6.66
OREAS 229 (Fire Assay) Meas			11.9
OREAS 229 (Fire Assay) Cert			12.1
OREAS 229 (Fire Assay) Meas			12.2
OREAS 229 (Fire Assay) Cert			12.1
OREAS 217 (Fire Assay) Meas		345	
OREAS 217 (Fire Assay) Cert		338	
OREAS 215 (Fire Assay) Meas		3520	
OREAS 215 (Fire Assay) Cert		3540	
759514 Orig	0.56		
759514 Dup	0.58		
759521 Orig			4.23
759521 Dup			4.14
759523 Orig		1240	
759523 Dup		1450	
759524 Orig	0.36		
759524 Dup	0.36		
759535 Orig	0.09		
759535 Dup	0.10		
759544 Orig		8	
759544 Dup		9	
759545 Orig	0.04		

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
759545 Dup	0.04		
Method Blank		< 5	
Method Blank		< 5	
Method Blank			< 0.03
Method Blank			< 0.03



Date Submitted: 03-Jul-18
Invoice No.: A18-08475
Invoice Date: 25-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1A2-Tbay Au - Fire Assay AA (QOP Fire Assay Tbay)

REPORT **A18-08475**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

Footnote: Sample 790480 was Insufficient for further analyses.

CERTIFIED BY:

A handwritten signature in black ink, appearing to be "Emmanuel Esemé". The signature is written in a cursive style with some loops and is positioned above a horizontal line.

Emmanuel Esemé , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
1201 Walsh Street West, Thunder Bay, Ontario, Canada, P7E 4X6
TELEPHONE +807 622-6707 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Tbay@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Date Submitted: 03-Jul-18
Invoice No.: A18-08475
Invoice Date: 25-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 4F-S Infrared

REPORT **A18-08475**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

Footnote: Sample 790480 was Insufficient for further analyses.

CERTIFIED BY:



Emmanuel Esemé , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-9611 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Total S	Au
Unit Symbol	%	ppb
Lower Limit	0.01	5
Method Code	CS	FA-AA
790476	< 0.01	< 5
790477	0.24	62
790478	0.08	77
790479	0.19	88
790480	0.74	> 5000
790481	0.42	61
790482	1.03	513
790483	0.67	11
790484	0.22	< 5
790485	0.17	8
790486	0.17	5
790487	0.22	6
790488	0.52	118
790489	0.46	7
790490	0.17	12
790491	0.24	48
790492	0.13	1250
790493	0.03	49
790494	0.18	< 5
790495	0.14	< 5
790496	0.23	< 5
790497	0.09	< 5
790498	0.01	< 5
790499	0.07	10
790500	0.14	14
790501	< 0.01	< 5
790502	0.20	< 5
790503	0.11	< 5
790504	0.15	6
790505	0.85	1500
790506	0.07	< 5
790507	0.09	7
790508	0.25	5
790509	0.16	52
790510	0.22	< 5

Analyte Symbol	Total S	Au
Unit Symbol	%	ppb
Lower Limit	0.01	5
Method Code	CS	FA-AA
BaSO4 Meas	13.9	
BaSO4 Cert	14.0	
BaSO4 Meas	14.1	
BaSO4 Cert	14.0	
BaSO4 Meas	14.0	
BaSO4 Cert	14.0	
BaSO4 Meas	13.9	
BaSO4 Cert	14.0	
BaSO4 Meas	13.8	
BaSO4 Cert	14.0	
BaSO4 Meas	14.3	
BaSO4 Cert	14.0	
BaSO4 Meas	13.9	
BaSO4 Cert	14.0	
BaSO4 Meas	14.0	
BaSO4 Cert	14.0	
SGR-1b Meas	1.51	
SGR-1b Cert	1.53	
SGR-1b Meas	1.50	
SGR-1b Cert	1.53	
SGR-1b Meas	1.52	
SGR-1b Cert	1.53	
SGR-1b Meas	1.58	
SGR-1b Cert	1.53	
SGR-1b Meas	1.60	
SGR-1b Cert	1.53	
SGR-1b Meas	1.55	
SGR-1b Cert	1.53	
SGR-1b Meas	1.60	
SGR-1b Cert	1.53	
SGR-1b Meas	1.46	
SGR-1b Cert	1.53	
SGR-1b Meas	1.49	
SGR-1b Cert	1.53	
GS311-4 Meas	0.54	
GS311-4 Cert	0.54	
GS311-4 Meas	0.54	
GS311-4 Cert	0.54	
GS311-4 Meas	0.54	
GS311-4 Cert	0.54	
GS311-4 Meas	0.56	
GS311-4 Cert	0.54	

Analyte Symbol	Total S	Au
Unit Symbol	%	ppb
Lower Limit	0.01	5
Method Code	CS	FA-AA
GS311-4 Meas	0.57	
GS311-4 Cert	0.54	
GS311-4 Meas	0.54	
GS311-4 Cert	0.54	
GS311-4 Meas	0.56	
GS311-4 Cert	0.54	
GS311-4 Meas	0.53	
GS311-4 Cert	0.54	
GS311-4 Meas	0.52	
GS311-4 Cert	0.54	
GS900-5 Meas	0.33	
GS900-5 Cert	0.34	
GS900-5 Meas	0.35	
GS900-5 Cert	0.34	
GS900-5 Meas	0.34	
GS900-5 Cert	0.34	
GS900-5 Meas	0.34	
GS900-5 Cert	0.34	
GS900-5 Meas	0.36	
GS900-5 Cert	0.34	
GS900-5 Meas	0.32	
GS900-5 Cert	0.34	
GS900-5 Meas	0.33	
GS900-5 Cert	0.34	
OREAS 214 Meas		3000
OREAS 214 Cert		3030
OREAS 218 Meas		515
OREAS 218 Cert		531
790485 Orig	0.16	
790485 Dup	0.17	
790491 Orig		49
790491 Dup		47
790495 Orig	0.14	
790495 Dup	0.14	
790500 Orig		16
790500 Dup		12
790506 Orig	0.07	
790506 Dup	0.07	
790510 Orig		< 5
790510 Dup		< 5
Method Blank		< 5
Method Blank		< 5



Date Submitted: 03-Jul-18
Invoice No.: A18-08484 (i)
Invoice Date: 31-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 4F-S Infrared

REPORT **A18-08484 (i)**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:

A handwritten signature in black ink, appearing to be "Emmanuel Esemé". The signature is stylized and somewhat illegible, with a horizontal line drawn underneath it.

Emmanuel Esemé , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
41 Bittern Street, Ancaster, Ontario, Canada, L9G 4V5
TELEPHONE +905 648-9611 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Ancaster@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Date Submitted: 03-Jul-18
Invoice No.: A18-08484 (i)
Invoice Date: 31-Jul-18
Your Reference: Kas Lake Gold (Pickle Lake)

Ardiden Ltd.
Level 1, 981 Wellington St.,
West Perth, 6005, Western Australia
Perth 6005
Australia

ATTN: Scott Jobin-Bevans

CERTIFICATE OF ANALYSIS

35 Core samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1A2-Tbay Au - Fire Assay AA (QOP Fire Assay Tbay)

REPORT **A18-08484 (i)**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

CERTIFIED BY:



Emmanuel Eseme , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
1201 Walsh Street West, Thunder Bay, Ontario, Canada, P7E 4X6
TELEPHONE +807 622-6707 or +1.888.228.5227 FAX +1.905.648.9613
E-MAIL Tbay@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

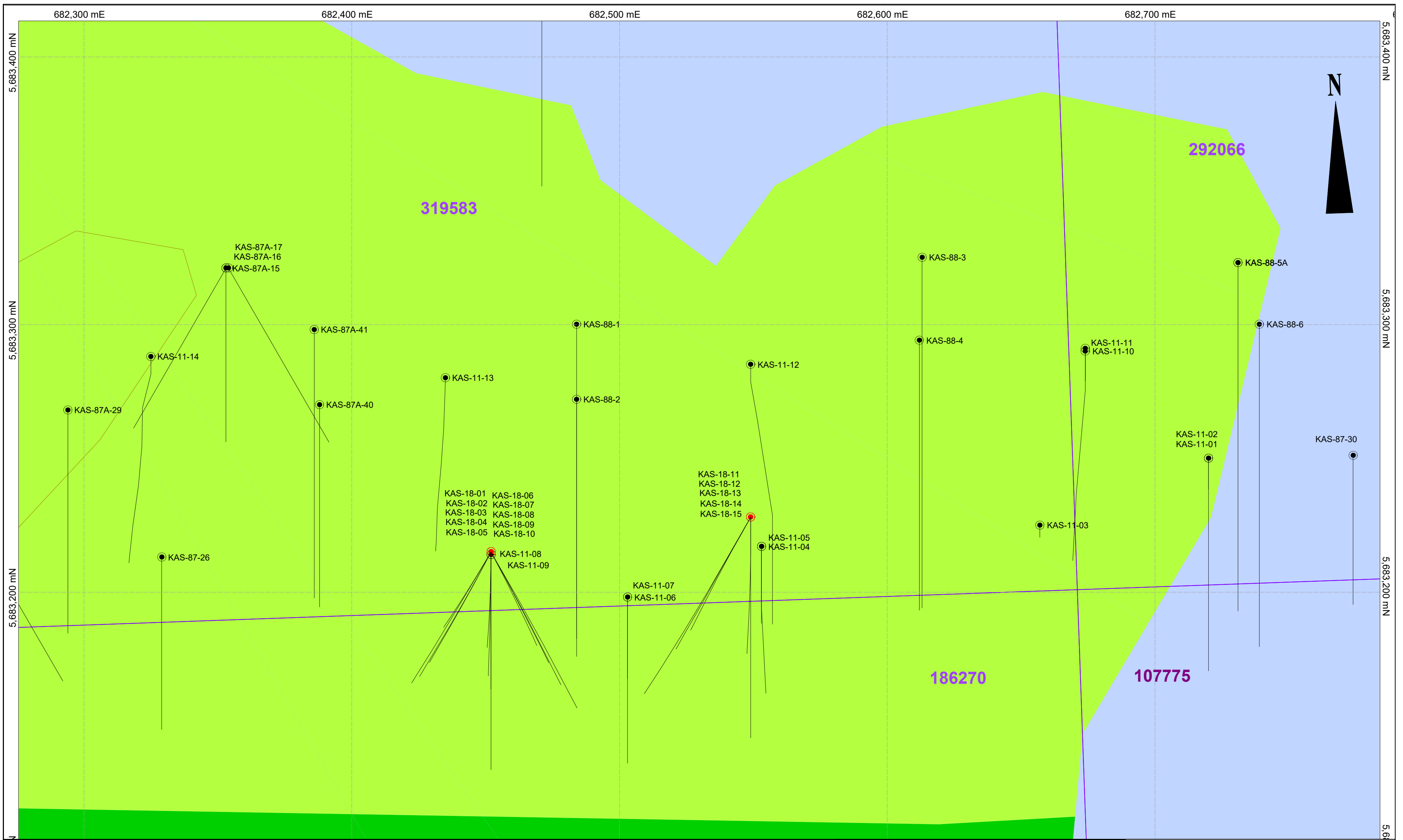
Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
790441	0.21	28	
790442	0.22	31	
790443	0.16	13	
790444	0.05	9	
790445	0.08	11	
790446	0.10	12	
790447	0.09	< 5	
790448	0.19	9	
790449	0.17	12	
790450	0.28	< 5	
790451	< 0.01	< 5	
790452	0.18	32	
790453	0.19	26	
790454	0.13	15	
790455	0.86	1560	
790456	0.06	15	
790457	0.06	8	
790458	0.04	< 5	
790459	0.12	12	
790460	0.10	39	
790461	0.21	27	
790462	0.19	93	
790463	0.11	47	
790464	0.28	519	
790465	0.60	3800	3.66
790466	< 0.01	6	
790467	1.05	3580	3.41
790468	0.48	890	
790469	0.08	66	
790470	0.12	173	
790471	0.27	764	
790472	0.29	258	
790473	0.37	385	
790474	0.08	12	
790475	0.04	39	

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
BaSO4 Meas	13.9		
BaSO4 Cert	14.0		
BaSO4 Meas	14.1		
BaSO4 Cert	14.0		
BaSO4 Meas	14.0		
BaSO4 Cert	14.0		
BaSO4 Meas	13.9		
BaSO4 Cert	14.0		
BaSO4 Meas	13.8		
BaSO4 Cert	14.0		
BaSO4 Meas	14.3		
BaSO4 Cert	14.0		
BaSO4 Meas	13.9		
BaSO4 Cert	14.0		
BaSO4 Meas	14.0		
BaSO4 Cert	14.0		
SGR-1b Meas	1.51		
SGR-1b Cert	1.53		
SGR-1b Meas	1.50		
SGR-1b Cert	1.53		
SGR-1b Meas	1.52		
SGR-1b Cert	1.53		
SGR-1b Meas	1.58		
SGR-1b Cert	1.53		
SGR-1b Meas	1.60		
SGR-1b Cert	1.53		
SGR-1b Meas	1.55		
SGR-1b Cert	1.53		
SGR-1b Meas	1.60		
SGR-1b Cert	1.53		
SGR-1b Meas	1.46		
SGR-1b Cert	1.53		
SGR-1b Meas	1.49		
SGR-1b Cert	1.53		
GS311-4 Meas	0.54		
GS311-4 Cert	0.54		
GS311-4 Meas	0.54		
GS311-4 Cert	0.54		
GS311-4 Meas	0.54		
GS311-4 Cert	0.54		
GS311-4 Meas	0.56		

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
GS311-4 Cert	0.54		
GS311-4 Meas	0.57		
GS311-4 Cert	0.54		
GS311-4 Meas	0.54		
GS311-4 Cert	0.54		
GS311-4 Meas	0.56		
GS311-4 Cert	0.54		
GS311-4 Meas	0.53		
GS311-4 Cert	0.54		
GS311-4 Meas	0.52		
GS311-4 Cert	0.54		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
GS900-5 Meas	0.35		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.34		
GS900-5 Cert	0.34		
GS900-5 Meas	0.36		
GS900-5 Cert	0.34		
GS900-5 Meas	0.32		
GS900-5 Cert	0.34		
GS900-5 Meas	0.33		
GS900-5 Cert	0.34		
OREAS 214 Meas		3020	
OREAS 214 Cert		3030	
OREAS 216 (Fire Assay) Meas			6.36
OREAS 216 (Fire Assay) Cert			6.66
OREAS 218 Meas		521	
OREAS 218 Cert		531	
OREAS 229 (Fire Assay) Meas			11.9
OREAS 229 (Fire Assay) Cert			12.1
OREAS 217 (Fire Assay) Meas		326	
OREAS 217 (Fire Assay) Cert		338	
OREAS 215 (Fire Assay) Meas		3550	

Analyte Symbol	Total S	Au	Au
Unit Symbol	%	ppb	g/tonne
Lower Limit	0.01	5	0.03
Method Code	CS	FA-AA	FA- GRA
OREAS 215 (Fire Assay) Cert		3540	
790446 Orig	0.09		
790446 Dup	0.10		
790453 Orig		35	
790453 Dup		17	
790457 Orig	0.06		
790457 Dup	0.06		
790467 Orig	1.08		3.35
790467 Dup	1.02		3.48
790475 Orig	0.04		
790475 Dup	0.04		
Method Blank		< 5	
Method Blank		< 5	
Method Blank			< 0.03
Method Blank		< 5	

Appendix III Vertical Sections and Plan Map



Lithology Legend

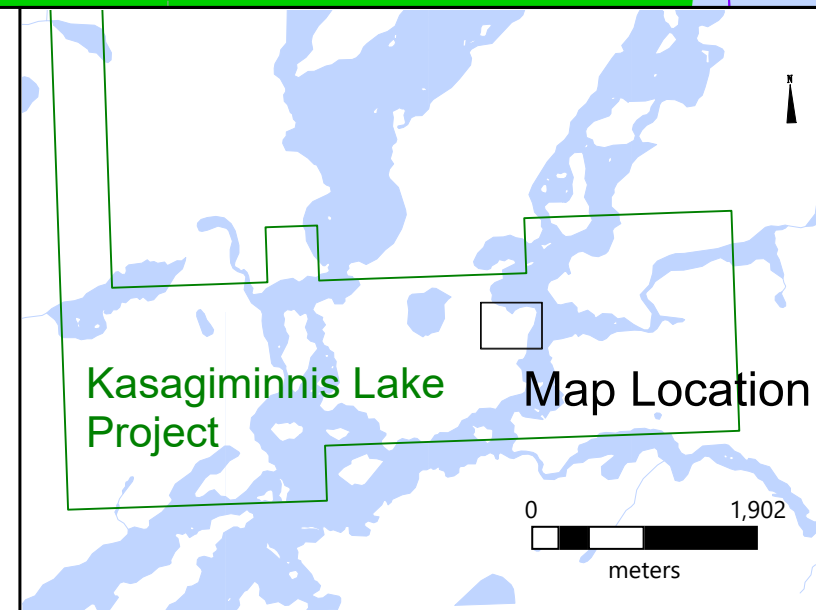
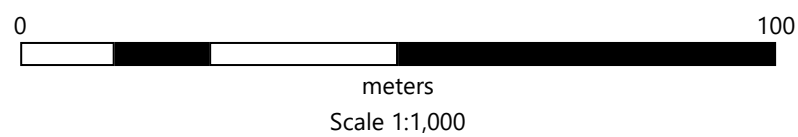
- Intermediate Volcanics
- Mafic Volcanics
- Mineral Claim Outline
- Property Boundary
- Lakes

Rivers/Streams

- Rivers/Streams
- Elevation Contour (10m)

Drill Collar

- Historic Collar
- 2018 Collar
- Drill Trace



Ardiden Limited

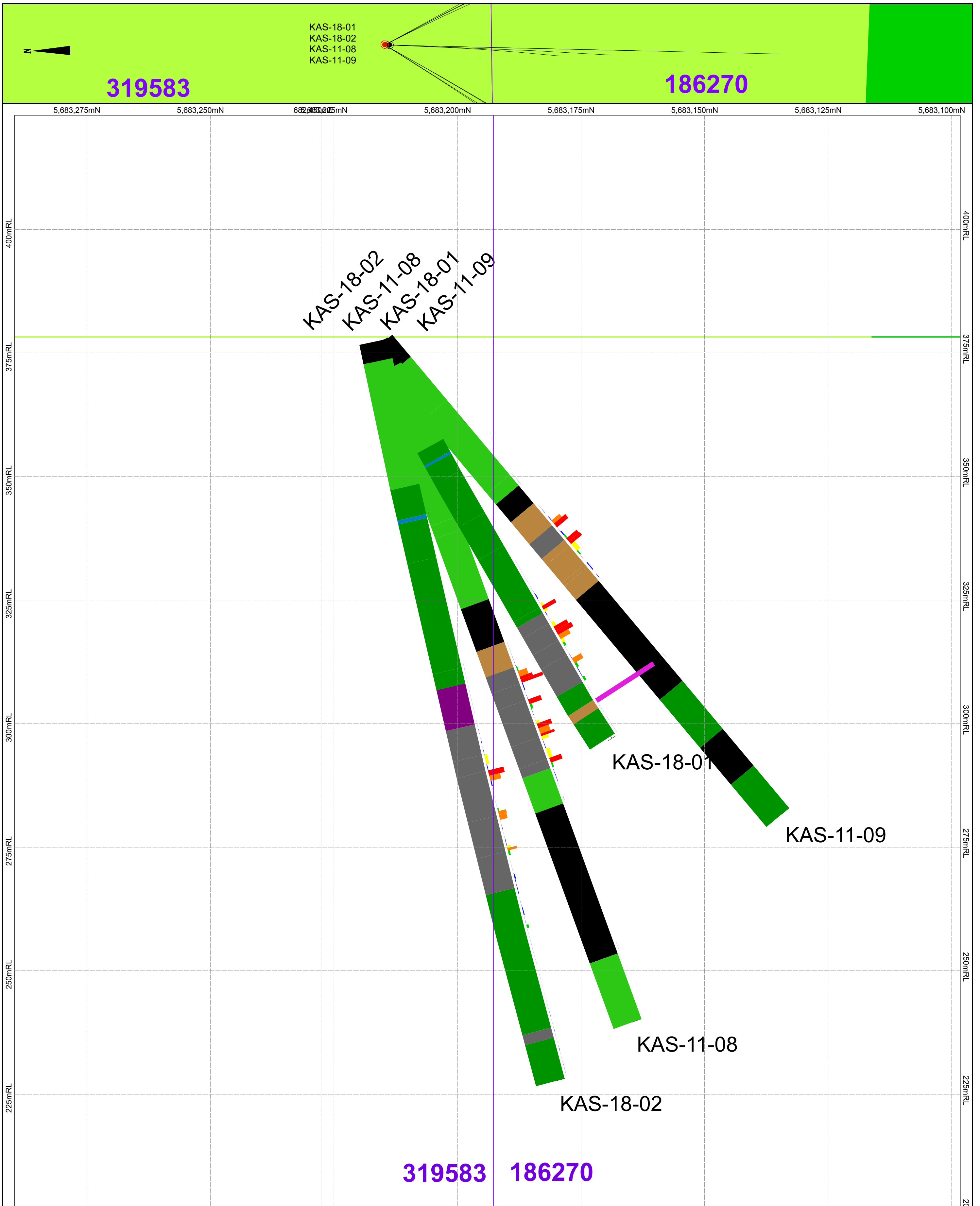
Summer 2018
Diamond Drill Program
Drill Collar Location Map

Date: 4/11/2019
Author: C. Jeffs
Office:
Drawing:

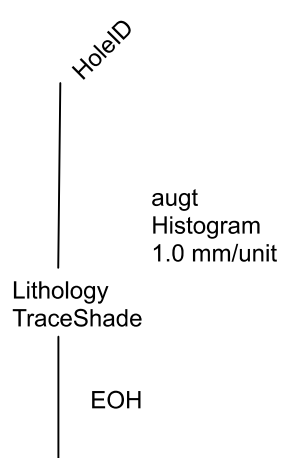
Scale: 1:1000

Projection: UTM Zone 15 (NAD 83)





Legend

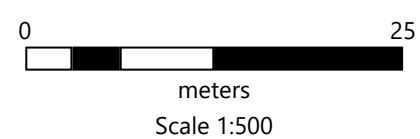


Downhole Lithology

- Overburden
- Mafic Volcanic
- Lost Core
- Intermediate Volcanic
- Banded Iron Formation
- Sediment
- Unknown
- Fault
- Felsic Volcanic
- Granite
- Mafic Porphyry
- Porphyry
- Diabase
- Vein
- Shear

Downhole Assays

- Gold g/t
- 0 - 0.5
 - 0.5 - 1
 - 1 - 3
 - 3 - 5
 - 5 - 10
 - 10 - 48



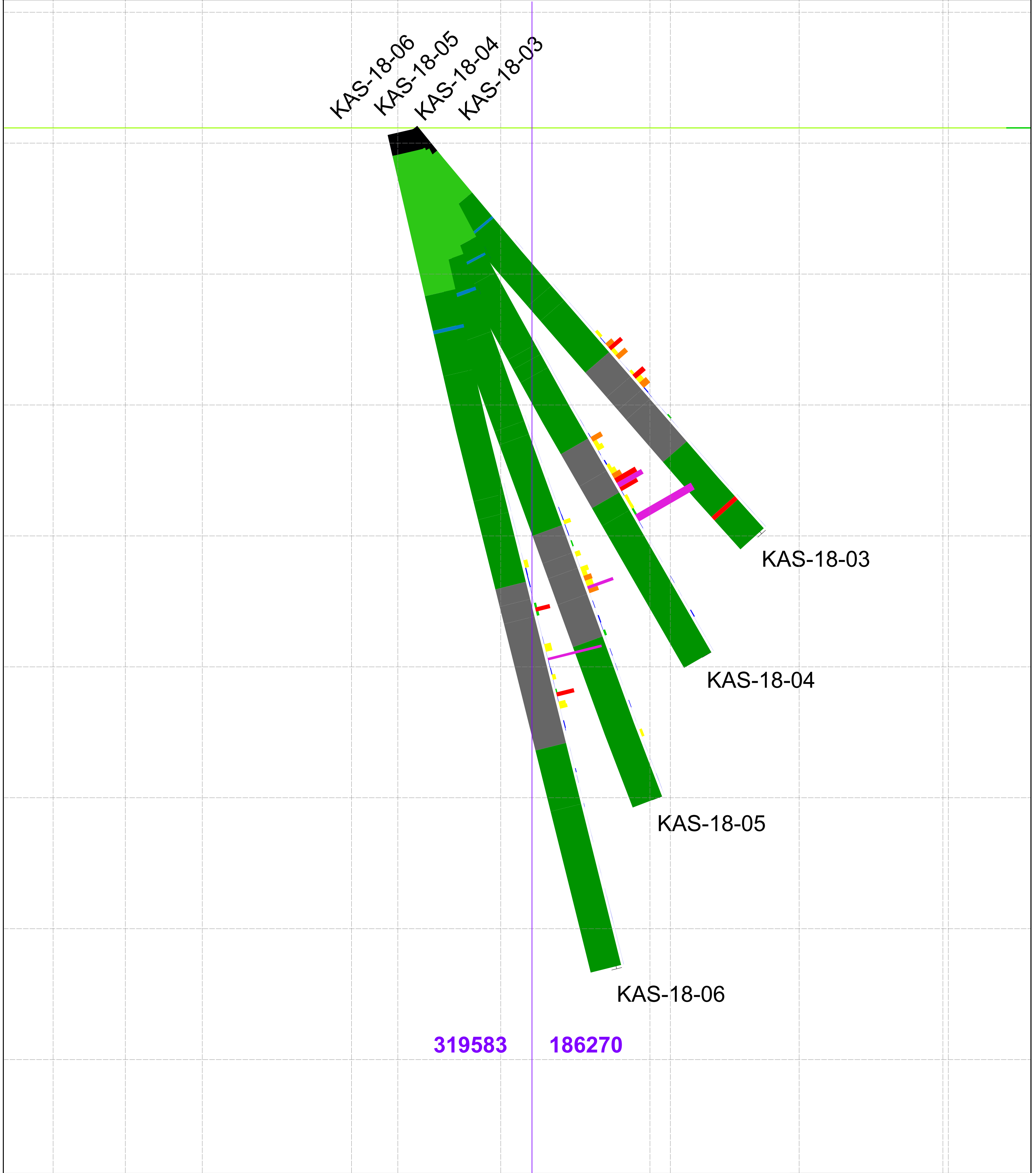
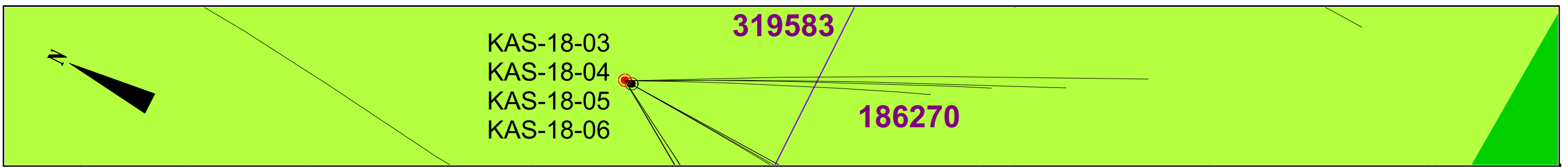
Ardiden Limited

Date: 4/8/2019
Author: Caitlin Jeffs
Office:
Drawing:

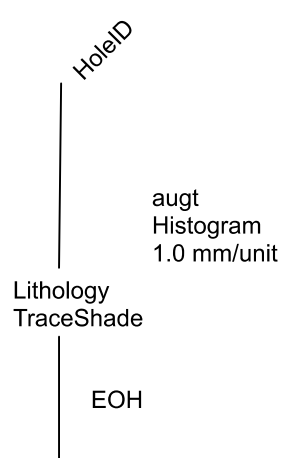
Kasagimminis Lake
Vertical Section
KAS-18-01 & 02
Facing East

Scale: 1:500 UTM NAD83 Zone 15





Legend

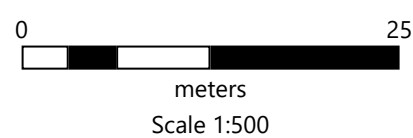


Downhole Lithology

- Overburden
- Mafic Volcanic
- Lost Core
- Intermediate Volcanic
- Banded Iron Formation
- Sediment
- Unknown
- Fault
- Felsic Volcanic
- Granite
- Mafic Porphyry
- Porphyry
- Diabase
- Vein
- Shear

Downhole Assays

- Gold g/t
- 0 - 0.5
 - 0.5 - 1
 - 1 - 3
 - 3 - 5
 - 5 - 10
 - 10 - 48



Ardiden Limited

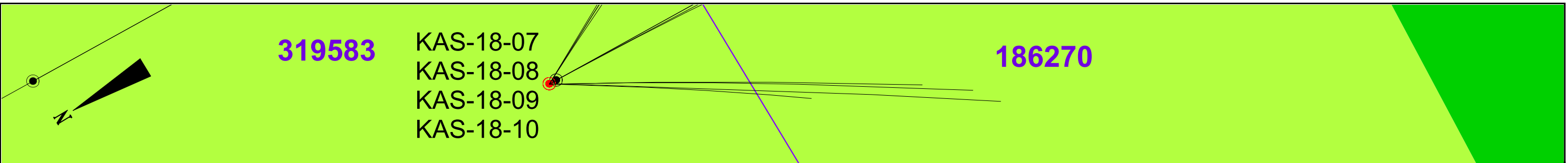
Date: 4/8/2019
 Author: C Jeffs
 Office:
 Drawing:

Kasagimminis Lake
 Vertical Section
 KAS-18-03, 04, 05 & 06
 Facing Northeast

Scale: 1:500

UTM NAD83 Zone 15

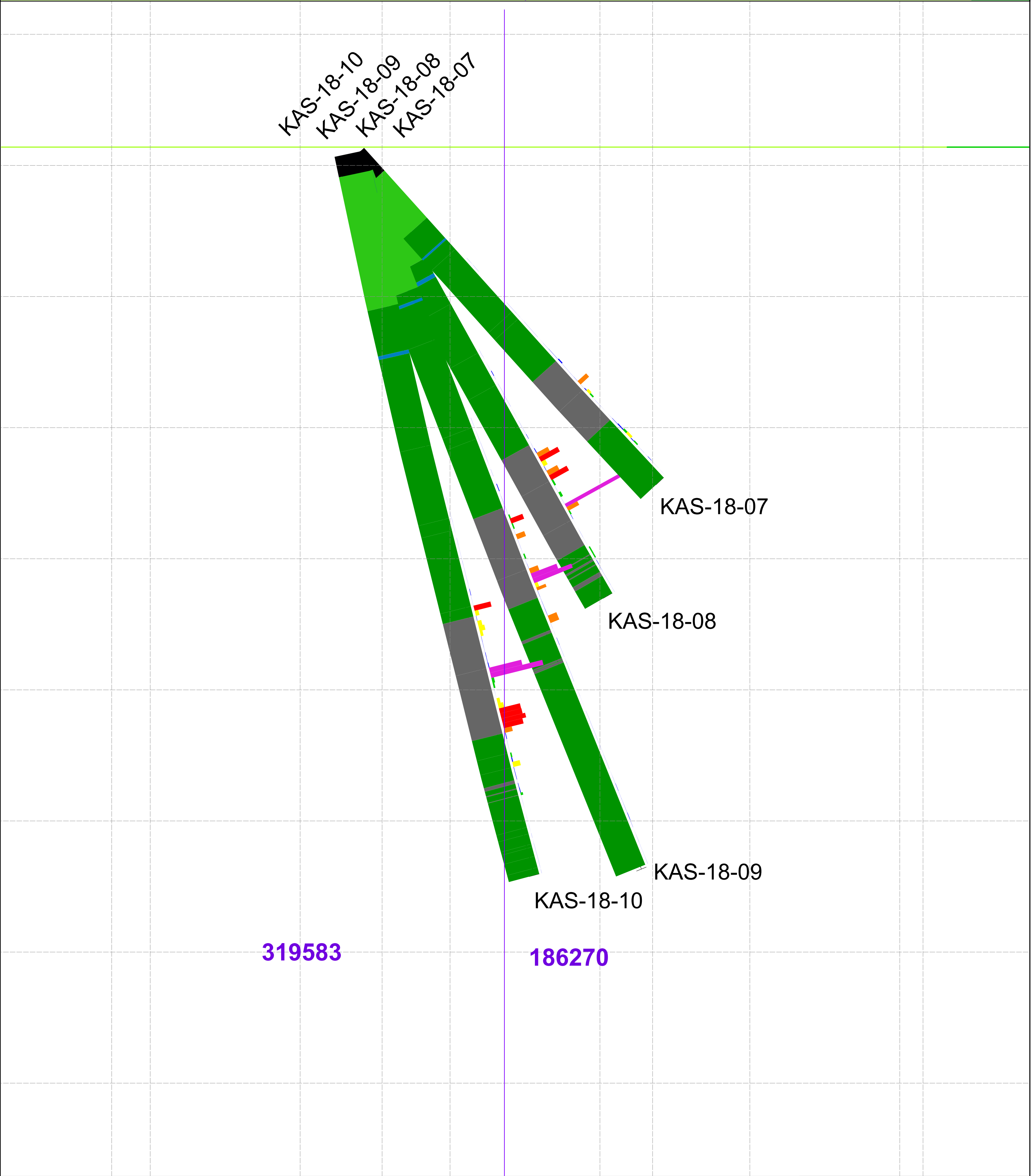




319583
 KAS-18-07
 KAS-18-08
 KAS-18-09
 KAS-18-10

186270

KAS-18-10
 KAS-18-09
 KAS-18-08
 KAS-18-07



319583

186270

Legend

HoldID
 augt
 Histogram
 1.0 mm/unit
 Lithology
 TraceShade
 EOH

Downhole Lithology

- Overburden
- Mafic Volcanic
- Lost Core
- Intermediate Volcanic
- Banded Iron Formation
- Sediment
- Unknown
- Fault
- Felsic Volcanic
- Granite
- Mafic Porphyry
- Porphyry
- Diabase
- Vein
- Shear

Downhole Assays Gold g/t

- 0 - 0.5
- 0.5 - 1
- 1 - 3
- 3 - 5
- 5 - 10
- 10 - 48

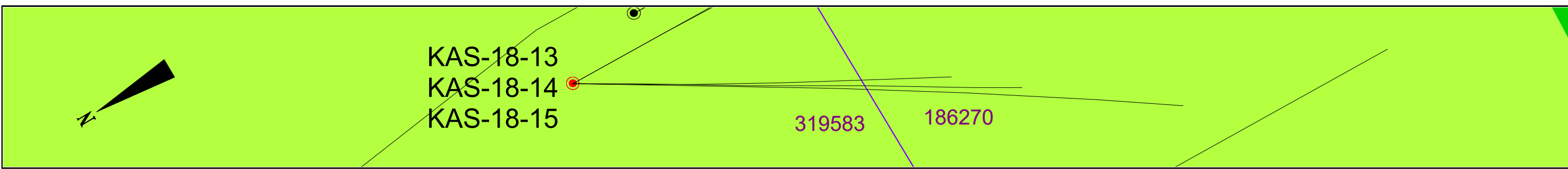
0 25
 meters
 Scale 1:500

Arididen Limited

Kasagimminis Lake
 KAS-18-07, 08, 09 & 10
 Vertical Section
 Facing Southeast

Date: 4/8/2019
 Author: C. Jeffs
 Office:
 Drawing:
 Scale: 1:500 UTM NAD83 Zone 15

Fladgate Exploration
 consulting corporation



Legend

HoleID
 augt
 Histogram
 1.0 mm/unit
 Lithology
 TraceShade
 EOH

Downhole Lithology

- Overburden
- Mafic Volcanic
- Lost Core
- Intermediate Volcanic
- Banded Iron Formation
- Sediment
- Unknown
- Fault
- Felsic Volcanic
- Granite
- Mafic Porphyry
- Porphyry
- Diabase
- Vein
- Shear

**Downhole Assays
 Gold g/t**

- 0 - 0.5
- 0.5 - 1
- 1 - 3
- 3 - 5
- 5 - 10
- 10 - 48

0 25
 meters
 Scale 1:500

Ardiden Limited

Kasagimminis Lake
 KAS-18-13, 14 & 15
 Vertical Section
 Facing Southeast

Date: 4/8/2019
 Author: C.Jeffs
 Office:
 Drawing:
 Scale: 1:500 UTM NAD83 Zone 15

Fladgate Exploration
 consulting corporation

Appendix IV Work Report and Cost Summary