

Ministry of Energy, Mines & Petroleum Resources
Mining & Minerals Division
BC Geological Survey

Assessment Report
Title Page and Summary

TYPE OF REPORT [type of survey(s)]: Geochemical

TOTAL COST: \$44,190.00

AUTHOR(S): Ed Kruchkowski

SIGNATURE(S): 

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): July 1 to October 1, 2017

YEAR OF WORK: 2017

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): 5671425

PROPERTY NAME: Goat

CLAIM NAME(S) (on which the work was done): 514578, 514483 and 1049879

COMMODITIES SOUGHT: Gold, Silver, Copper, Lead, Zinc

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: 104 A 002

MINING DIVISION: Skeena

NTS/BCGS: 104A012

LATITUDE: 56 ° 08 ' 31 " LONGITUDE: 129 ° 37 ' 54 " (at centre of work)

OWNER(S):

1) Decade Resources Ltd

2) Aurames Resource Corp

MAILING ADDRESS:

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Stewart BC, V0T 1W0

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OPERATOR(S) [who paid for the work]:

1) Decade Resources Ltd

2) _____

MAILING ADDRESS:

426 King Street

Stewart BC, V0T 1W0

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):

Quartz filled shears with galena, chalcopyrite, arsenopyrite, tetrahedrite and sphalerite occur within Lower Jurassic volcanics.

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: ARIS 22040, 22777, 27290 and 24996

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping	_____		
Photo interpretation	_____		
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic	_____		
Electromagnetic	_____		
Induced Polarization	_____		
Radiometric	_____		
Seismic	_____		
Other	_____		
Airborne	_____		
GEOCHEMICAL (number of samples analysed for...)			
Soil	_____		
Silt	_____		
Rock	64 rock samples analyzed by ICP	Claim 514578, 514483 and 1049879	\$44,190.00
Other	_____		
DRILLING (total metres; number of holes, size)			
Core	_____		
Non-core	_____		
RELATED TECHNICAL			
Sampling/assaying	_____		
Petrographic	_____		
Mineralographic	_____		
Metallurgic	_____		
PROSPECTING (scale, area)			
PREPARATORY / PHYSICAL			
Line/grid (kilometres)	_____		
Topographic/Photogrammetric (scale, area)	_____		
Legal surveys (scale, area)	_____		
Road, local access (kilometres)/trail	_____		
Trench (metres)	_____		
Underground dev. (metres)	_____		
Other	_____		
		TOTAL COST:	\$44,190.00

**Assessment Report On
Exploration Program On:**

**Mineral Claim # 514578
514483
#1049879**

Statement of exploration # 5671425

**Located
34 kilometres Northeast of
Stewart, British Columbia in
Skeena Mining Division**

**NTS 104A/4E
LATITUDE 56 08' 31"N
LONGITUDE 129 37' 54"W**

**On Behalf of
Decade Resources Ltd
Stewart, BC**

by

Edward Kruchkowski, B.Sc., P. Geo.

January 20 2018

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SUMMARY

The Goat property is located about 34 kilometers northeast of Stewart, British Columbia in the Skeena Mining Division. It covers a series of fault related quartz veins in an area of Jurassic Hazelton pyroclastic volcanic rocks and Cretaceous Bowser Lake sedimentary rocks. The claims also follow the contact zone between the Mt Dilworth rhyolite and overlying Salmon River sedimentary formations, a similar stratigraphic sequence as that hosting the Eskay Creek deposit and the BA mineralization being explored approximately 8 km to the south of the property.

The property consists of 8 claims totaling 1210.40 hectares in the Golden Triangle district of British Columbia.

The property lies within a belt of Jurassic volcanic rocks extending from the Kitsault area, south of Stewart, to north of the Stikine River. This belt is host to numerous gold and gold-silver deposits, in a variety of geological settings, including the former Eskay Creek Mine and past producing Snip, Premier-Big Missouri, Granduc, Scottie Gold and SB properties.

The claims cover the Goat Deposit, which consists of a parallel series of polymetallic silver - gold-zinc-lead veins that are crudely laminated sulphide-quartz-siderite veins with massive sphalerite and disseminated to massive arsenopyrite, pyrite, tetrahedrite, freibergite and minor galena. The Goat Deposit was a historic producer during the late 1970's with reported production of about 4,159 tonnes of ore with an average grade of 563 grams per tonne (g/t) silver, 1.72 g/t gold and 1.65 per cent (%) zinc with minor lead and copper from 3,186 tonnes of milled ore. A historic resource of 8,800 tonnes grading 4,782.9 g/t silver and 10.6 g/t gold was reported in 1979, however the resource is not compliant with National Instrument 43-101 guidelines.

Previous work by Decade conducted during 2011 and 2016 was primarily focused on exploration for Kuroko type VMS deposits along the northern and western part of the property. Several different mineralization types were indicated from this work.

Highlights of the previous Decade sampling included:

- The presence of Kuroko type VMS mineralization along the western portion of the claim.
- The presence of high grade silver with gold associated with lead - zinc bearing rocks along the northern part of the property.

The 2011 sampling was carried out on float rocks in the valleys in order to cover as great an area as possible. Sampling of a calcareous mudstone with finely laminated and bedded sulphides yielded 33.4 g/t Ag, 0.70 % Pb and 6.50 % Zn. Sampling of dacitic rocks gave a high of 115.7 g/t Ag, 0.50 % Pb and 6.5 % Zn within a breccia with strong hydrozincite

staining. Numerous hydrozincite stained boulders are present within a moraine along the south part of the claims that are derived from the western portion of the property.

Past exploration programs on the area of the Goat property indicated mineralization within the present claim group as follows:

1. Float rocks containing pervasive, fine-grained pyrite as well as pyritic bands within grey fine-grained lapilli tuff rhyolitic rocks. This rhyolite appears to be present along the entire western length of the block as evidenced in float along moraines in both the Goat and North Goat Glaciers.
2. Crudely laminated sulphide-quartz-siderite veins in float rocks containing massive sphalerite and disseminated to massive arsenopyrite, pyrite, tetrahedrite, freibergite and minor galena that probably originated from the Goat Mine mineralization.
3. Coarse dacitic breccias containing pyrite with minor sphalerite and galena within both clasts as well as the matrix.
4. Thinly bedded mudstones that have pyrite forming thin layers along bedding planes.
5. Silicified dacitic rocks with local coarse sphalerite and galena along quartz veinlets.

This exploration work in 2011 indicated that the BA type mineralization which is a Kuroko-type volcanogenic massive sulphide (VMS) system composed of an exhalite horizon with related zinc-lead-silver mineralization is present within the Goat property boundaries. The BA mineralization consists of finely bedded sphalerite and pyrite with minor galena and chalcopyrite occurring below the main exhalite (red jasper/green to grey chert) within mudstones, mudstone breccias and dacite breccias.

Sampling during 2011 indicated both dacite and mudstone related mineralization in float rocks on the property. Sample KP-99 (2011 sample) was an example of silicified rhyolite/dacite that yielded 115.7 g/t silver, 0.40 % lead and 6.51 % zinc. Sample G-2011-1 (2011 sample) was an example of mudstone related mineralization with finely laminated pyrite associated with minor sphalerite and galena yielding 33.4 g/t silver, 0.69 % lead and 6.49 % zinc.

In the 2017 geochemical program, a total of 64 float and bedrock samples were collected. Sampling was carried out along moraines and valley bottoms extending from known gold-silver bearing areas on the property. Samples were taken of any pyritiferous, manganese stained or sulphide bearing bedrock or float boulders. Sampling indicated values ranging from <5 ppb to 2,02 g/t gold, <0.2 to 136 g/t silver, < 1 ppm to 0.28 % copper, <2 ppm to 2.35 % lead and 13ppm to 3.51 % zinc.

It is recommended that the next exploration phase consist of further sampling to define the bedrock sources of the indicated mineralization in previous geochemical sampling as well as further evaluate the Goat Cirque and North mineral showings.

Estimated cost of the program is \$150,000.00.

INTRODUCTION

Decade Resources Ltd owns a 100% interest in 4 of the claims in the Goat property as well as having a right to earn a 60 % interest in 4 adjoining claims. This report is being prepared in order to summarize the 2017 sampling results on the 8 claims comprising the property.

Location and Access

The claims in the property are contiguous and are located about 34 kilometers northeast of Stewart, British Columbia in the headwaters of the Goat and North Goat Glacier valleys, tributaries to Surprise Creek. The claim area is approximately 56 degrees 08 minutes 31 seconds latitude and 129 degrees 37 minutes 54 seconds longitude on NTS sheet 104A/4E. Figure 1 shows the location of the claim area.

Access to the property at the present time is by road and/or helicopter from Stewart about 34 kilometers to the southwest of the claim area. During the 1970's, a mine access trail was constructed to the base of the mine workings located along steep cliffs within the Goat Glacier valley. This trail can provide access to the eastern part of the property. Nearest major road is the paved Highway 37A running between Stewart and Meziadin Junction which within 7 kilometers of the northern portion of the property.

Physiography and Topography

The area of the Goat property claims encompasses steep mountain slopes typical of the Coast Range region of British Columbia. The property is situated along east-west trending valleys that are sloped east away from the Todd ice field. Slopes range from moderate to precipitous. Elevations vary from about 823 meters along Goat Creek to about 2042 meters along peaks rising from the Todd ice field. The upper slopes of the property above 1500 meters are mainly rock outcrops, talus slopes and permanent ice.

Spruce and hemlock trees as well as small patches of tag spruce are present along the lower slopes of the mountain valleys, particularly the north facing edges. Alders grow along avalanche slopes and moraines. Alpine grasses, heather and arctic willow grows in patches along the talus, moraine and outcrops in the upper regions of the property.

PROPERTY OWNERSHIP

The property consists of 8 modified grid claims totaling 1210.40 ha. Relevant claim information is summarized below:

<u>Name</u>	<u>Tenure #</u>	<u>Area (ha)</u>	<u>Expiry Date</u>
Goat 1	514484	432.63	February 25 2021
Goat 2	514483	198.26	February 25 2021
Goat 3	514578	234.27	February 25 2021
Goat Extension	1049879	18.03	February 7 2020
	545638	146.88	December 31 2019
	545640	54.10	December 31 2019
	607865	36.07	December 31 2019
Yvonne East	1049856	90.16	February 6 2020
	Total	1210.40 ha	

The Goat 1 to 3 and 1049879 claims are owned 100 % by Decade Resources Ltd. Auramex Resource Corp. owns claims 545638, 565640, 607865 and 1049856.

Decade can earn a 60 % interest in the Auramex claims by:

a) Making payments to the Optionor of:

- (I) \$5,000.00 cash and \$300,000.00 Portable assessment Credit upon execution of the agreement.
- (II) \$0.00 on or before the First Anniversary of the agreement.
- (III) \$15,000.00 on or before the Second Anniversary of the Agreement.
- (IV) \$20,000.00 on or before the Third Anniversary of the Agreement.

b) Incurring Expenditures on the Property as follows:

- (I) \$5,000.00 cash and \$300,000.00 Portable assessment Credit upon execution of the agreement.
- (II) \$50,000.00 the on or before the Second Anniversary of the agreement.
- (III) \$70,000.00 the on or before the Third Anniversary of the agreement.

Claims location is shown in Figure 2 copied from MINFILE database. All the claims are situated in the Skeena Mining Division in the Province of British Columbia.

PREVIOUS WORK

The first lode gold exploration carried out in the Stewart area occurred in the upper reaches of Bitter Creek approximately 20 km southwest of the Goat claim area in the early 1900 period. Intermittent prospecting was carried out in the general area from this

period until the late 1950's when claims were staked in the Goat Glacier area. The original discovery of the Goat Mine mineralization was made by Mr. Fred Hasselburg in 1959 who was a member of a prospecting team financed by Newmont Mining Corporation and Granby Mining Co. The chronology of development for this property is listed below:

- 1960 Showings were staked by Newmont Mining Corporation of Canada and Granby Mining Company Limited as the Surprise Group (20 units).
- 1960-1962 Exploration including geological mapping, sampling and diamond drilling in 6 packsack drill holes.
- 1963 Restaked as the Goat Group consisting of 20 units.
- 1964 Noradco Mines Limited acquired the property and expanded the holding to 80 units. Work included trenching, sampling, and 124 metres of diamond drilling in 3 holes.
- 1965 Noradco entered share option agreement with Gunnar Mining Limited. Work was carried out by Gunnar's wholly owned subsidiary, Gunnex Limited. Two adits totaling 71 metres were driven on the F vein, two 11 metre raises were driven from the upper adit to the G vein.
- 1966 The lower adit was extended an additional 46 metres. Gunnar Mining acquired a 51% interest in Noradco Mines under terms of the option agreement.
- 1968 Under an agreement with Shield Minerals Corporation. to continue exploration on the property. Three adits totaling 231 metres and two raises totaling 39 metres were driven and 80 metres of underground diamond drilling in 4 holes was carried out. Shield Minerals earned a 26% interest in the property.
- 1971 Abitibi Asbestos Mining Company Limited acquired the Shield Minerals interest and incorporated Nordore Mining Co. A subsequent agreement with Noradco called for Nordore to bring the property into production.
- 1974 Nordore rehabilitated the workings, completed 121 metres of exploratory crosscutting and drifting and 20 metres of raising on the 4,625 and 4,759 levels: and, development crosscutting and drifting totaling 21 metres and raising totaling 114 metres on the 3,900, 4,500, and 4,625 levels.
- 1975 Nordore Silver-Gold Group. was formed to provide funds for additional work under the management of Nordore. The Remus 1-6 claims located at highway 37A near the west end of Meziadin Lake and some 9

miles by road from the mine site were acquired as a mill site. About 1,770 tonnes of ore were stockpiled at the mill site.

- 1976 A 49 tonne per day portable concentrator was commissioned and about 295 tonnes of ore were milled.
- 1979 Development work on the E vein recommenced and stoping resumed. Some material was put through the concentrator and a trial direct shipment was made to Trail.
- 1980 Nor-Quest Resources Ltd. was formed to manage the property for Nordore Mining Co. and Nordore Silver Gold Group. Some 76 metres of underground development was carried out and the mill operated for several months.
- 1981 All work was suspended when the mill was destroyed by fire.
- 1989-1990 Bond Gold Canada Inc. carried out a helicopter borne magnetic electromagnetic and VLF EM survey over the claim area as part of a larger regional survey. Results were filed for assessment work as ARIS report 20200A.
- 1991 A total of 219 samples were collected by Geofine Exploration Consultants in the Goat Mine Glacier area. The majority of these samples were float collected at the base of the slopes or from glacial moraines. Two talus and seven stream sediment samples were also collected. Talus, rock, and moraine float samples returned values up to 10 ppb Au, up to 27.8 & ppm Ag, up to 437 ppm Cu, up to 7133 ppm Pb, and up to 5185 ppm Zn. Stream sediment samples ran up to 135 ppb Au, up to 31.6 ppm Ag, up to 109 ppm Cu, up to 528 ppm Pb, and up to 1406 ppm Zn. Samples of mill feed collected at the old Goat Mine mill site assayed up to 19.15 g/t Au, up to 316.7 g/Ag, up to 0.261% Cu, up to 3.04% Pb, and up to 15.25% Zn.
- 2003 Goat claims staked.
- 2005 A total of 44 samples were collected by Apex Geoscience on behalf of Grizzly Diamonds. Six samples contained more than 1 g/t gold with values of up to 7.26 g/t gold. A total of 11 samples contained more than 34.29 g/t silver (1 oz/t silver) with values up to 2,090 g/t Ag (60.9 oz/t Ag). In addition, a total of six rock samples contained greater than 1% zinc and two rock samples yield greater than 1% lead.
- 2011 During the period May 1 to August 31, 2011 a total of 226 rock samples; both outcrop and float were collected. The sampling indicated gold values varying from <0.001 to 4.02 g/t, silver values varying from <0.05 to 509.3

g/t, copper values varying from <1 to 1990 ppm, lead values varying from 7 to 28,300 ppm and zinc values varying from 29.6 to 154,400 ppm.

2016 During the period April 1 to November 1, 2016 a total of 18 float rock samples were collected. A total of 9 samples collected below the area of the underground workings yielded 0.1 to 2.3 g/t Au, 6.7 to 100 g/t Ag with 0.02 to 0.65 % Pb and 0.085 to 2.76 % Zn.

A total of 9 samples collected in the North Goat area gave low gold-silver values. Sample values varied from 50-67 ppb Au, <0.5 to 3.8 ppm Ag, 14-473 ppm Pb, 10-183 ppm Cu and 85 to 1139 ppm Zn.

Personnel and Operations

During the sampling program, all personnel were accommodated in Stewart, BC. An A-Star helicopter owned by Mustang Helicopters was used to transport personnel to and from the property area. E. Kruchkowski, geologist directed the program on behalf of Decade Resources. Personnel involved in the program included as follows:

Alex Walus	Contract Geologist	September 7 to 10 and 30	5 days
Krzysztof Mastalerz	Contract Geologist	September 7 to 10	4 days
Dirk Meckart	Contract Geologist	September 7 to 10 and 30	5 days
Thomas Bauer	Geological Assistant	September 7 to 10 and 30	5 days
Matthew Wesley	Geological Assistant	September 7 to 10 and 30	5 days
Steve Stannus	Geological Assistant	September 30	1 day

Samples were analyzed by Activation Laboratories Ltd in Kamloops BC.

GEOLOGICAL SURVEYS

Regional Geology

The claims comprising the Goat Property lie in the Stewart area, east of the Coast Crystalline Complex and within the western boundary of the Bowser Basin. Rocks in the area belong to the Mesozoic Hazelton Group and Bowser Lake Group that have been intruded by plugs of both Cenozoic and Mesozoic age.

According to C.F. Greig, in G.S.C. Open File 2931, the western portion of the claim area is underlain by Lower Jurassic volcanic rocks overlain by the Lower to Middle Jurassic Salmon River Formation at the east edge of the claims. The Salmon River formation is in turn overlain by the Upper Jurassic Bowser Lake sediments, east of the claim holdings.

At the base of the Hazelton Group is the lower Lower Jurassic Marine (submergent) and non-marine (emergent) volcanoclastic Unuk River Formation. This is overlain at steep discordant angles by a second, lithologically similar, middle Lower Jurassic volcanic

cycle (Betty Creek Formation), in turn overlain by an upper Lower Jurassic tuff horizon (Mt. Dilworth Formation). Middle Jurassic non-marine sediments with minor volcanics of the Salmon River Formation unconformably overlie the above sequence.

The lower Lower Jurassic Unuk River Formation forms a north-northwesterly trending belt extending from Alice Arm to the Iskut River. It consists of green, red and purple volcanic breccia, volcanic conglomerate, sandstone and siltstone with minor crystal and lithic tuff, limestone, chert and coal. Also included in the sequence are pillow lavas and volcanic flows.

In the property area, the Unuk River Formation is unconformably overlain by middle Lower Jurassic rocks from the Betty Creek Formation. The Betty Creek Formation is another cycle of troughfilling sub-marine pillow lavas, broken pillow breccias, andesitic and basaltic flows, green, red, purple and black volcanic breccia, with self erosional conglomerate, sandstone and siltstone and minor crystal and lithic tuffs, chert, limestone and lava.

The upper Lower Jurassic Mt. Dilworth Formation consists of a thin sequence varying from black carbonaceous tuffs to siliceous massive tuffs and felsic ash flows. Minor sediments and limestone are present in the sequence. Locally pyritic varieties form strong gossans.

The Middle Jurassic Salmon River Formation is a late to post volcanic episode of banded, predominantly dark colored siltstone, greywacke, sandstone, intercalated claystone, minor limestone, argillite, conglomerate, littoral deposits, volcanic sediments and minor flows.

Overlying the above sequences are the Upper Jurassic Bowser Lake Group rocks. These rocks mark the western edge of the Bowser Basin and are also located as remnants on mountaintops in the Stewart area. These rocks consist of dark grey to black clastic rocks including silty mudstone and thick beds of massive, dark green to dark grey, fine to medium grained arkosic litharenite.

According to E.W. Grove, the majority of the rocks from the Hazelton Group were derived from the erosion of andesitic volcanoes subsequently deposited as overlapping lenticular beds varying laterally in grain size from breccia to siltstone. Alldrick's work to the north of Stewart has shown several volcanic centers in the surveyed area. Lower Jurassic volcanic centers in the Unuk River Formation are located in the Big Missouri Premier area and in the Brucejack Lake area. Volcanic centers within the Lower Jurassic Betty Creek Formation are located in the Mitchell Glacier and Knipple Glacier areas.

The granodiorites of the Coast Plutonic Complex largely engulf the Mesozoic volcanic terrain to the west. East of these (in the property area), smaller intrusive plugs range from quartz monzonite to granite to highly felsic. Some are likely related to the late phase offshoots of the Coast plutonism, other is synvolcanic and Tertiary. Double plunging, northwesterly - trending synclinal folds of the Salmon River and underlying Betty Creek Formations dominate the structural setting of the area. These folds are

locally disrupted by small east-over thrusts on strikes parallel to the major fold axis, cross-axis steep angled faults which locally turn beds, selective tectonization of tuff units and major northwest faults which turn beds.

Local Geology

Figure 3 shows the general property geology after Massey, MacIntyre, Desjardins and Cooney -2005-1(Digital Map of British Columbia).

This map indicates that property is underlain by rocks of the Unuk River and Betty Creek Formations. In the course of sampling, rocks observed in the valley were almost exclusively volcanic, of felsic to intermediate composition. Alteration in the form of alunite/jarosite, silification, carbonatization, sericitization and chloritization was noted. Several gossanous areas were noted, one on the north side of North Goat Glacier, one associated with the Goat Mine mineralization and one along the south side of Goat Glacier. Feldspar porphyry float was noted in the lower portion of the Goat Glacier area. Work has shown that a dacitic/rhyolitic horizon is present in the property area. This horizon occurs along the north side of North Goat Glacier, and along the south side of Goat Glacier. This indicates that an anticlinal feature is present within the claims with the nose of the fold dipping to the east. This horizon is analogous to the Mount Dilworth Formation. The claims also follow the contact zone between the Mt Dilworth rhyolite and overlying Salmon River sedimentary formations, a similar stratigraphic sequence as that hosting the Eskay Creek deposit and the BA mineralization being explored approximately 8 km to the south of the property. Along the east side of the claims, thinly bedded argillites from the Salmon River Formation are present.

Mineralization

Exploration programs on the area of the Goat property have indicated mineralization within the present claim group as follows:

1. Float rocks containing pervasive, fine-grained pyrite as well as pyritic bands within grey fine grained lapilli tuff rhyolitic rocks. This rhyolite appears to be present along the entire western length of the block as evidenced in float along moraines in both the Goat and North Goat Glaciers. Pyrite content can be up to 20 % in some of these highly siliceous float rocks. These rocks are present in the eastern edges of the lateral moraines indicating a possible source that occurs in the more easterly portions of claim areas.
2. Crudely laminated sulphide-quartz-siderite veins in float rocks containing massive sphalerite and disseminated to massive arsenopyrite, pyrite, tetrahedrite, freibergite and minor galena that probably originated from the Goat Mine. Mineralization was not observed in outcrop but was noted in float rocks on both the north and south sides of the ridge between the North Goat and Goat glaciers. The Goat Deposit consists of a parallel series of polymetallic silver - gold-zinc-lead veins that are crudely laminated sulphide-quartz-siderite veins with massive sphalerite and disseminated to massive arsenopyrite,

pyrite, tetrahedrite, freibergite and minor galena. The Goat Deposit was a historic producer during the late 1970's with reported production of about 4,159 tonnes of ore with an average grade of 563 grams per tonne (g/t) silver, 1.72 g/t gold and 1.65 per cent (%) zinc with minor lead and copper from 3,186 tonnes of milled ore. A historic resource of 8,800 tonnes grading 4,782.9 g/t silver and 10.6 g/t gold was reported in 1979, however the resource is not compliant with National Instrument 43-101 guidelines.

3. Goat Valley Cirque Zone: Initial grab sampling of a number of narrow (30 cm) quartz carbonate veins has returned up to 17.83 g Au/t, 1321.8 g Ag/t, and 3.95% Ph. The veins are hosted by silicified volcanic rocks and are located 2 km southeast of the old Goat silver-gold Mine.

4. North Valley Zone: Initial sampling of the gossan zone that is hosted by silicified volcanic rocks has returned up to 10.62 g Au/t, 1280 g Ag/t, 0.33% Cu and 0.40% Zn. The zone is located approximately 1 km northeast of the old Goat Mine.

5. Coarse dacitic breccias containing pyrite with minor sphalerite and galena within both clasts as well as the matrix. The rocks are grey with coarse angular to sub-rounded fragments up to 20 cm in a black chloritic rich matrix that carries fine pyrite. Traces of sphalerite, galena, chalcopyrite and pyrite occur within the clasts and generally form less than 1 % of the rock. Pervasive sericite alteration is noted within these rocks.

6. Thinly bedded mudstones that have pyrite forming thin layers along bedding planes. The rocks usually have minor hydrozincite coatings which indicate the presence of sphalerite. Occasionally, fine galena is present along the sulphide bands.

7. Silicified dacitic rocks with local coarse sphalerite and galena along quartz veinlets. The rock is grey, siliceous with up to 25 % quartz veinlets cutting the rock in a random fashion. These rocks were only noted along the south side of the North Goat Glacier.

This exploration work in 2011, 2016 and 2017 indicates that the BA type mineralization which is a Kuroko-type volcanogenic massive sulphide (VMS) system composed of an exhalite horizon with related zinc-lead-silver mineralization is present within the Goat property boundaries. The BA mineralization consists of finely bedded sphalerite and pyrite with minor galena and chalcopyrite occurring below the main exhalite (red jasper/green to grey chert) within mudstones, mudstone breccias and dacite breccias. Numerous float boulders of red-green jasper which represent the exhalite are present along both glacial valleys.

GEOCHEMICAL SAMPLING

Introduction

During the period July 1 to October 1, 2017 reconnaissance rock geochemical samples were taken from the area of the Goat claim area. The location of the sampling is shown in figure 4a and 4b at a scale of 1: 10,000. Icefield boundaries have been taken from the most recent government topographic maps, however, these are often inaccurate: pronounced ablation in Stewart during the past years has exposed much new rock outcrop and reduced the size of snow and icefields considerably.

Altogether 64 rock samples were taken with locations for the all samples shown on Figure 4a and 4b.

Field Procedure and Laboratory Technique

Rock samples were taken in the field with a prospector's pick and collected in standard plastic sample bag. Grab samples were taken to ascertain character of mineralization at any specific locality. These samples consisted generally of three to ten representative pieces with total sample weight ranging between 0.5 to 2.0 kgs.

All rock were analyzed at the Activation laboratories facility in Kamloops BC. Rock samples were first crushed to minus 10 mesh (70 % of sample) using jaw and cone crushers. Then 250 grams of the minus 10-mesh material was pulverized to minus 150 mesh using a ring pulverizer. Method of analysis is reported on the assay certificates. Appendix I has the analysis for the rock samples collected. Appendix II has the GPS locations, type of sample and brief descriptions.

Anomalous Zones

Rock geochemical sampling was principally restricted to float sampling of any identified mineralized rocks in the North Glacier valley, Goat Valley and Goat Cirque areas.

In the 2017 geochemical program, a total of 64 float and bedrock samples were collected. Sampling was carried out along moraines and valley bottoms extending from known gold-silver bearing areas on the property. An attempt was also made to locate the area of the Goat Cirque showing. Samples were taken of any pyritiferous, manganese stained or sulphide bearing bedrock or float boulders. Sampling indicated values ranging from <5 ppb to 2,02 g/t gold, <0.2 to 136 g/t silver, < 1 ppm to 0.28 % copper, <2 ppm to 2.35 % lead and 13 ppm to 3.51 % zinc.

Figures 4a and 4b shows the location of the samples with accompanying assay results for gold, silver, copper, lead and zinc.

Further geochemical surveys are recommended to locate the area of the North and Goat Cirque zones values and extend survey area.

INTERPRETATION AND CONCLUSIONS

1. The Goat property is located about 34 kilometers northeast of Stewart, British Columbia in the Skeena Mining Division. It covers a series of fault related quartz veins in an area of Jurassic Hazelton pyroclastic volcanic rocks and Cretaceous Bowser Lake sedimentary rocks.
2. The claims cover the Goat Deposit, which consists of a parallel series of polymetallic silver - gold-zinc-lead veins that are crudely laminated sulphide-quartz-siderite veins with massive sphalerite and disseminated to massive arsenopyrite, pyrite, tetrahedrite, freibergite and minor galena. The Goat Deposit was a historic producer during the late 1970's with reported production of about 4,159 tonnes of ore with an average grade of 563 grams per tonne (g/t) silver, 1.72 g/t gold and 1.65 per cent (%) zinc with minor lead and copper from 3,186 tonnes of milled ore. A historic resource of 8,800 tonnes grading 4,782.9 g/t silver and 10.6 g/t gold was reported in 1979, however the resource is not compliant with National Instrument 43-101 guidelines.
3. The property contains approximately 1210.40 hectares in 8 separate claims.
4. Previous exploration programs on the area of the Goat property indicated mineralization within the present claim group as follows:
 - a. Float rocks containing pervasive, fine-grained pyrite as well as pyritic bands within grey fine-grained lapilli tuff rhyolitic rocks. This rhyolite appears to be present along the entire western length of the block as evidenced in float along moraines in both the Goat and North Goat Glaciers.
 - b. Crudely laminated sulphide-quartz-siderite veins in float rocks containing massive sphalerite and disseminated to massive arsenopyrite, pyrite, tetrahedrite, freibergite and minor galena that probably originated from the Goat Mine mineralization.
 - c. Coarse dacitic breccias containing pyrite with minor sphalerite and galena within both clasts as well as the matrix.
 - d. Thinly bedded mudstones that have pyrite forming thin layers along bedding planes.
 - e. Silicified dacitic rocks with local coarse sphalerite and galena along quartz veinlets.
5. In 2017, total of 64 samples were collected in the property area. Sampling indicated values ranging from <5 ppb to 2,02 g/t gold, <0.2 to 136 g/t silver, < 1 ppm to 0.28 % copper, <2 ppm to 2.35 % lead and 13 ppm to 3.51 % zinc.
7. This exploration work in 2011, 2016 and 2017 indicates that the BA type mineralization which is a Kuroko-type volcanogenic massive sulphide (VMS) system composed of an exhalite horizon with related zinc-lead-silver mineralization is present within the Goat property boundaries. The BA mineralization consists of finely bedded sphalerite and pyrite with minor galena

and chalcopyrite occurring below the main exhalite (red jasper/green to grey chert) within mudstones, mudstone breccias and dacite breccias.

9. It is recommended that the next exploration phase consist of further sampling to define the bedrock sources of the mineralization and locate the North and Goat Cirque showings.
10. Estimated cost of the program is \$150,000.00.

RECOMMENDATIONS AND BUDGET

It is recommended that the next exploration phase consist of further sampling in the area of the North, Goat Cirque and Goat Mine showings.

Estimated Cost of the Program

Geochemical assays, 200 samples @ \$25/sample	\$5,000.00
2 Geologists, 20 days @ \$700.00/ day	\$28,000.00
2 Field assistants, 20 days @ \$300.00/day	\$12,000.00
Accommodation and food (in Stewart)	\$2,000.00
Vehicle rental	\$2,000.00
Freight	\$1,000.00
Report	\$5,000.00
Drafting	\$2,000.00
Helicopter 40 hours @ \$1,800.00/hour	\$72,000.00
Contingency	\$11,000.00
Total	\$150,000.00

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13. RAINSFORD, D.R.B. (1990) Report on Combined Helicopter Borne Magnetic Electromagnetic and VLF Survey. ARIS 20200a.

CERTIFICATE of AUTHORS' QUALIFICATIONS

I, Edward R. Kruchkowski, geologist, residing at 23 Templeside Bay, N.E., in the City of Calgary, in the Province of Alberta, hereby certify that:

1. I received a Bachelor of Science degree in Geology from the University of Alberta in 1972.
2. I have been practicing my profession continuously since graduation.
3. I am a member of the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
4. I am a member of the Association of Professional Engineers and Geoscientists of British Columbia.
5. I am a consulting geologist working on behalf of Resources Ltd.
6. This report is based on the supervision of sampling as well as conducting some of the geochemical survey.
7. This report is based on a review of reports, documents, maps and other technical data on the property area.
8. I am familiar with these types of deposits having conducted exploration programs on these types of occurrences in the Stewart region.

Date:

E.R. Kruchkowski, B.Sc.

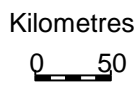
STATEMENT OF EXPLORATION COSTS

E Kruchkowski - geologist 2 days @ \$700.00/day September 7 and 8, 2017	\$1,400.00
Alex Walus – geologist 5 days @ \$650.00/day September 7 to 10 and 30, 2017	\$3,250.00
Dirk Meckert – geologist 5 days @ \$650.00/day September 7 to 10 and 30, 2017	\$3,250.00
Krzys Mastalerz – geologist 4 days @ \$650.00/day September 7 to 10, 2017	\$2,600.00
Thomas Bauer – geological assistant 5 days @ \$300.00/day September 7 to 10 and 30, 2017	\$1,500.00
Matthew Wesley – geological assistant 5 days @ \$300.00/day September 7 to 10 and 30, 2017	\$1,500.00
Steve Stannus – geological assistant 1 days @ \$300.00/day September 30, 2017	\$300.00
Report Writing	\$2,100.00
Drafting	\$1,600.00
Sample analysis – 64geochemical samples @ \$35	\$2,240.00
Truck use 5 days – 2 @ \$100.00/day	\$1,000.00
Hotel and Meal Expenses 25-man days @ \$150.00/day	\$3,750.00
Helicopter - 10 hours @ \$1,800.00/hour	\$18,000.00
Sample Delivery to Kamloops	\$1,000.00
Geological supplies	\$200.00
Pro-rated travel time for geologists and assistants	\$500.00

Total **\$44,190.00**



**GOAT
PROPERTY**



To accompany report by E. Kruchkowski	
DECADE RESOURCES LTD.	
GOAT PROPERTY SKEENA MINING DIVISION, B.C.	
LOCATION MAP	
NTS: 104A/04	SCALE: As Shown
DATE: Jan., 2018	FIGURE: 1

DECADE RESOURCES LTD.

**GOAT PROPERTY
SKEENA MINING DIVISION**

CLAIM MAP

NTS 104A 04

Figure 2

Date: January 2018

Scale as shown

To accompany report by E. Kruchkowski



6222,000 N

6221,000 N

6220,000 N

6223,000 N

6222,000 N

6221,000 N

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6219,000 N

460,000 E

461,000 E

462,000 E

463,000 E

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Yvonne
Peak

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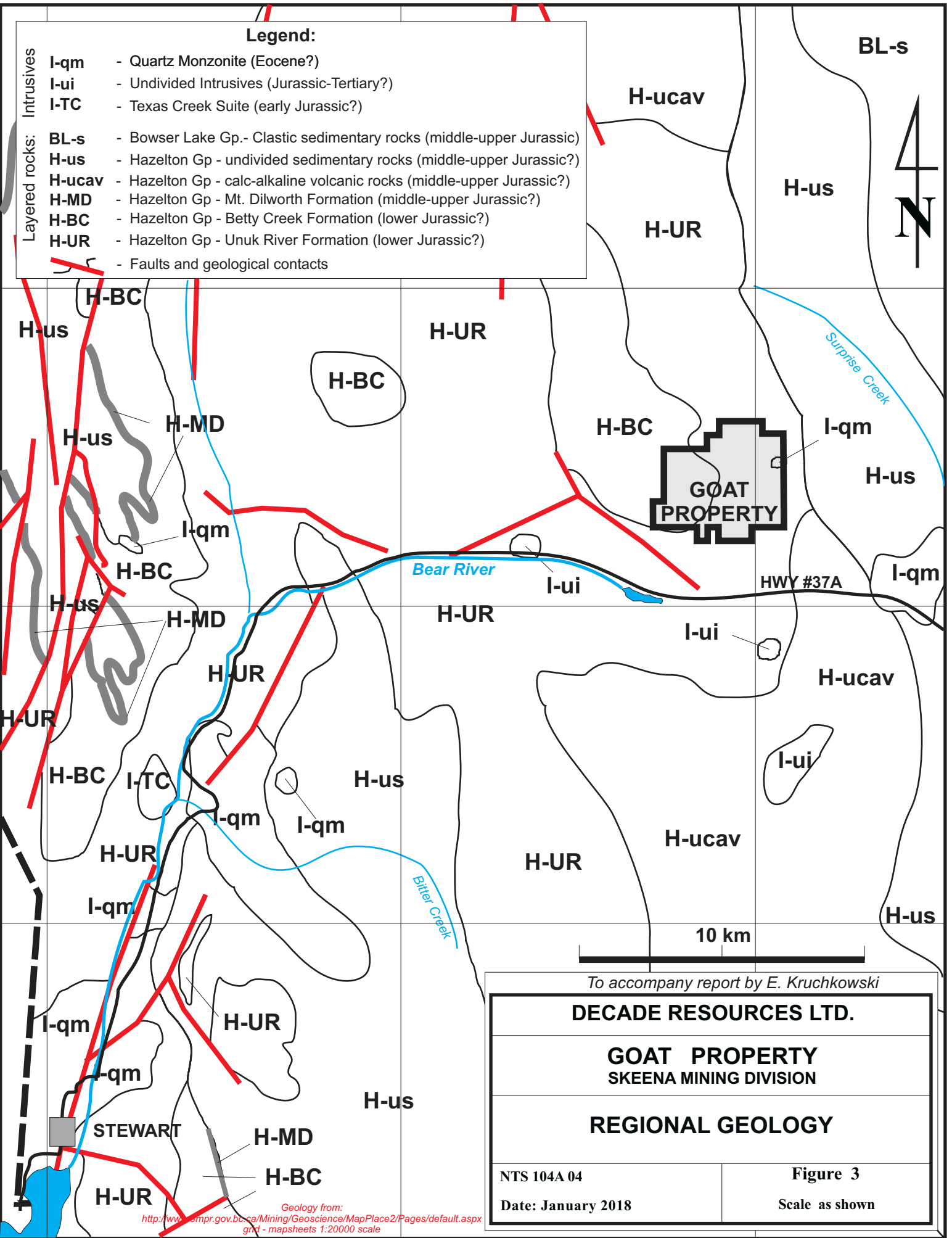
545638

1049879

HWY 37A

1 km

Background map from:
<http://www.empr.gov.bc.ca/Mining/Geoscience/MapPlace2/Pages/default.aspx>



Legend:

Intrusives

- I-qm - Quartz Monzonite (Eocene?)
- I-ui - Undivided Intrusives (Jurassic-Tertiary?)
- I-TC - Texas Creek Suite (early Jurassic?)

Layered rocks:

- BL-s - Bowser Lake Gp. - Clastic sedimentary rocks (middle-upper Jurassic)
- H-us - Hazelton Gp - undivided sedimentary rocks (middle-upper Jurassic?)
- H-ucav - Hazelton Gp - calc-alkaline volcanic rocks (middle-upper Jurassic?)
- H-MD - Hazelton Gp - Mt. Dilworth Formation (middle-upper Jurassic?)
- H-BC - Hazelton Gp - Betty Creek Formation (lower Jurassic?)
- H-UR - Hazelton Gp - Unuk River Formation (lower Jurassic?)

Faults and geological contacts

To accompany report by E. Kruckowski

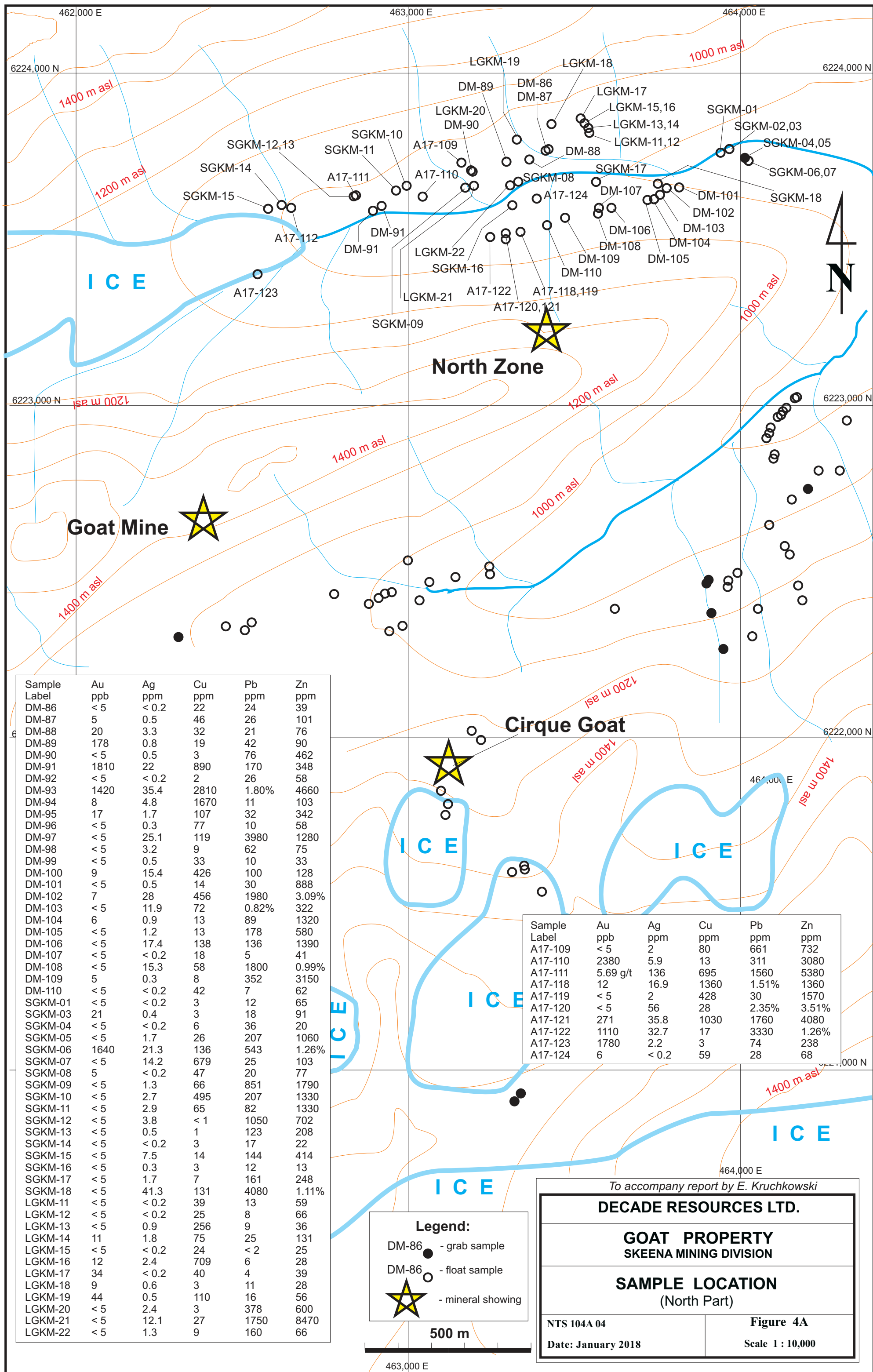
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GOAT PROPERTY
SKEENA MINING DIVISION

REGIONAL GEOLOGY

NTS 104A 04	Figure 3
Date: January 2018	Scale as shown

Geology from:
<http://www.camp.gov.bc.ca/Mining/Geoscience/MapPlace2/Pages/default.aspx?gtl - mapsheets 1:20000 scale>



Sample Label	Au (ppb)	Ag (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
DM-86	< 5	< 0.2	22	24	39
DM-87	5	0.5	46	26	101
DM-88	20	3.3	32	21	76
DM-89	178	0.8	19	42	90
DM-90	< 5	0.5	3	76	462
DM-91	1810	22	890	170	348
DM-92	< 5	< 0.2	2	26	58
DM-93	1420	35.4	2810	1.80%	4660
DM-94	8	4.8	1670	11	103
DM-95	17	1.7	107	32	342
DM-96	< 5	0.3	77	10	58
DM-97	< 5	25.1	119	3980	1280
DM-98	< 5	3.2	9	62	75
DM-99	< 5	0.5	33	10	33
DM-100	9	15.4	426	100	128
DM-101	< 5	0.5	14	30	888
DM-102	7	28	456	1980	3.09%
DM-103	< 5	11.9	72	0.82%	322
DM-104	6	0.9	13	89	1320
DM-105	< 5	1.2	13	178	580
DM-106	< 5	17.4	138	136	1390
DM-107	< 5	< 0.2	18	5	41
DM-108	< 5	15.3	58	1800	0.99%
DM-109	5	0.3	8	352	3150
DM-110	< 5	< 0.2	42	7	62
SGKM-01	< 5	< 0.2	3	12	65
SGKM-03	21	0.4	3	18	91
SGKM-04	< 5	< 0.2	6	36	20
SGKM-05	< 5	1.7	26	207	1060
SGKM-06	1640	21.3	136	543	1.26%
SGKM-07	< 5	14.2	679	25	103
SGKM-08	5	< 0.2	47	20	77
SGKM-09	< 5	1.3	66	851	1790
SGKM-10	< 5	2.7	495	207	1330
SGKM-11	< 5	2.9	65	82	1330
SGKM-12	< 5	3.8	< 1	1050	702
SGKM-13	< 5	0.5	1	123	208
SGKM-14	< 5	< 0.2	3	17	22
SGKM-15	< 5	7.5	14	144	414
SGKM-16	< 5	0.3	3	12	13
SGKM-17	< 5	1.7	7	161	248
SGKM-18	< 5	41.3	131	4080	1.11%
LGKM-11	< 5	< 0.2	39	13	59
LGKM-12	< 5	< 0.2	25	8	66
LGKM-13	< 5	0.9	256	9	36
LGKM-14	11	1.8	75	25	131
LGKM-15	< 5	< 0.2	24	< 2	25
LGKM-16	12	2.4	709	6	28
LGKM-17	34	< 0.2	40	4	39
LGKM-18	9	0.6	3	11	28
LGKM-19	44	0.5	110	16	56
LGKM-20	< 5	2.4	3	378	600
LGKM-21	< 5	12.1	27	1750	8470
LGKM-22	< 5	1.3	9	160	66

Sample Label	Au (ppb)	Ag (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
A17-109	< 5	2	80	661	732
A17-110	2380	5.9	13	311	3080
A17-111	5.69 g/t	136	695	1560	5380
A17-118	12	16.9	1360	1.51%	1360
A17-119	< 5	2	428	30	1570
A17-120	< 5	56	28	2.35%	3.51%
A17-121	271	35.8	1030	1760	4080
A17-122	1110	32.7	17	3330	1.26%
A17-123	1780	2.2	3	74	238
A17-124	6	< 0.2	59	28	68

Legend:

- DM-86 ● - grab sample
- DM-86 ○ - float sample
- ★ - mineral showing



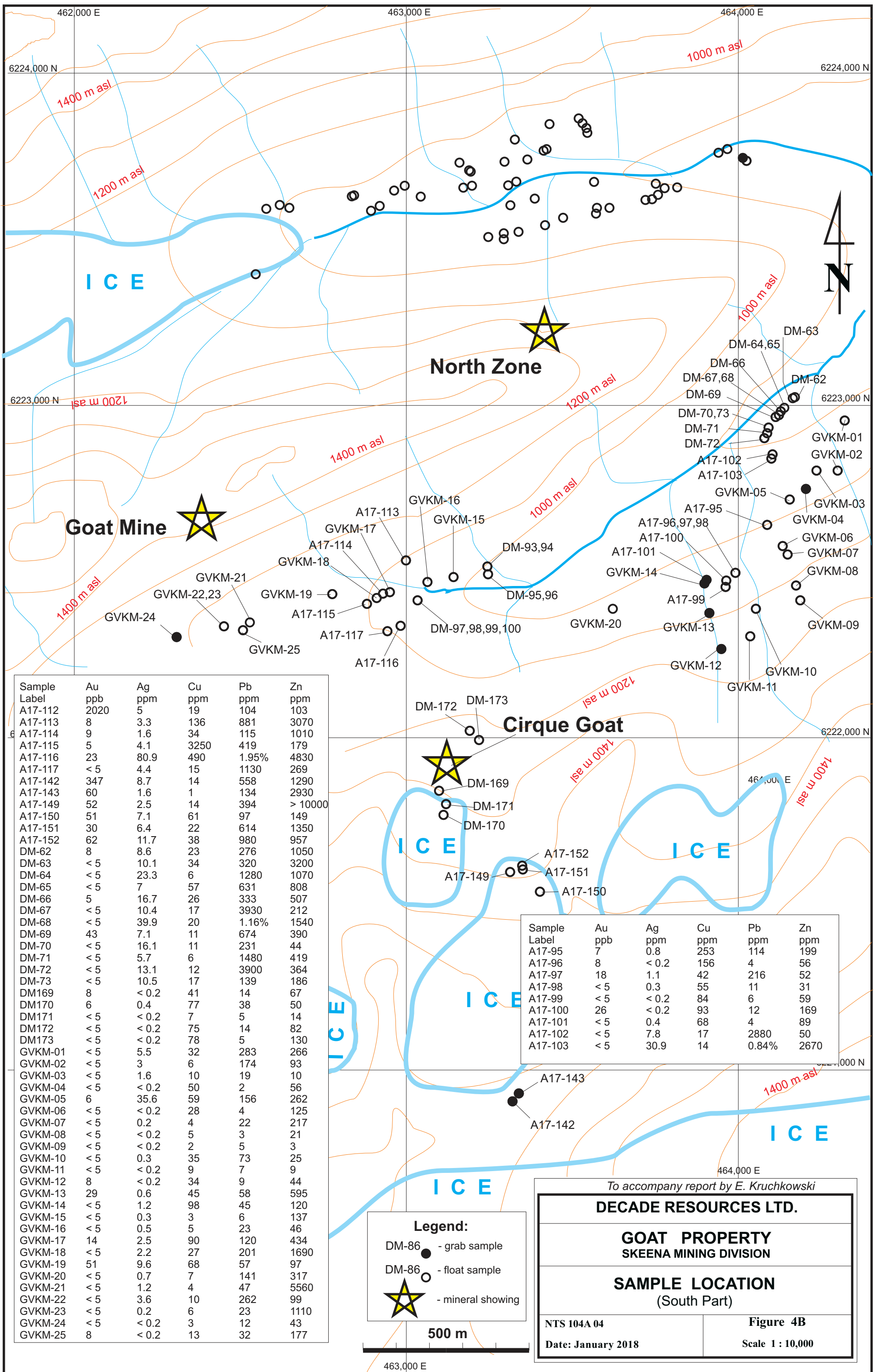
To accompany report by E. Kruchkowski

DECADE RESOURCES LTD.

GOAT PROPERTY
SKEENA MINING DIVISION

SAMPLE LOCATION
(North Part)

NTS 104A 04	Figure 4A
Date: January 2018	Scale 1 : 10,000



Sample Label	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
A17-112	2020	5	19	104	103
A17-113	8	3.3	136	881	3070
A17-114	9	1.6	34	115	1010
A17-115	5	4.1	3250	419	179
A17-116	23	80.9	490	1.95%	4830
A17-117	< 5	4.4	15	1130	269
A17-142	347	8.7	14	558	1290
A17-143	60	1.6	1	134	2930
A17-149	52	2.5	14	394	> 10000
A17-150	51	7.1	61	97	149
A17-151	30	6.4	22	614	1350
A17-152	62	11.7	38	980	957
DM-62	8	8.6	23	276	1050
DM-63	< 5	10.1	34	320	3200
DM-64	< 5	23.3	6	1280	1070
DM-65	< 5	7	57	631	808
DM-66	5	16.7	26	333	507
DM-67	< 5	10.4	17	3930	212
DM-68	< 5	39.9	20	1.16%	1540
DM-69	43	7.1	11	674	390
DM-70	< 5	16.1	11	231	44
DM-71	< 5	5.7	6	1480	419
DM-72	< 5	13.1	12	3900	364
DM-73	< 5	10.5	17	139	186
DM169	8	< 0.2	41	14	67
DM170	6	0.4	77	38	50
DM171	< 5	< 0.2	7	5	14
DM172	< 5	< 0.2	75	14	82
DM173	< 5	< 0.2	78	5	130
GVKM-01	< 5	5.5	32	283	266
GVKM-02	< 5	3	6	174	93
GVKM-03	< 5	1.6	10	19	10
GVKM-04	< 5	< 0.2	50	2	56
GVKM-05	6	35.6	59	156	262
GVKM-06	< 5	< 0.2	28	4	125
GVKM-07	< 5	0.2	4	22	217
GVKM-08	< 5	< 0.2	5	3	21
GVKM-09	< 5	< 0.2	2	5	3
GVKM-10	< 5	0.3	35	73	25
GVKM-11	< 5	< 0.2	9	7	9
GVKM-12	8	< 0.2	34	9	44
GVKM-13	29	0.6	45	58	595
GVKM-14	< 5	1.2	98	45	120
GVKM-15	< 5	0.3	3	6	137
GVKM-16	< 5	0.5	5	23	46
GVKM-17	14	2.5	90	120	434
GVKM-18	< 5	2.2	27	201	1690
GVKM-19	51	9.6	68	57	97
GVKM-20	< 5	0.7	7	141	317
GVKM-21	< 5	1.2	4	47	5560
GVKM-22	< 5	3.6	10	262	99
GVKM-23	< 5	0.2	6	23	1110
GVKM-24	< 5	< 0.2	3	12	43
GVKM-25	8	< 0.2	13	32	177

Sample Label	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm
A17-95	7	0.8	253	114	199
A17-96	8	< 0.2	156	4	56
A17-97	18	1.1	42	216	52
A17-98	< 5	0.3	55	11	31
A17-99	< 5	< 0.2	84	6	59
A17-100	26	< 0.2	93	12	169
A17-101	< 5	0.4	68	4	89
A17-102	< 5	7.8	17	2880	50
A17-103	< 5	30.9	14	0.84%	2670

Legend:

- DM-86 ● - grab sample
- DM-86 ○ - float sample
- ★ - mineral showing



To accompany report by E. Kruchkowski

DECADE RESOURCES LTD.

**GOAT PROPERTY
SKEENA MINING DIVISION**

**SAMPLE LOCATION
(South Part)**

NTS 104A 04	Figure 4B
Date: January 2018	Scale 1 : 10,000

Appendix I
Analysis Results

Final Report
Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Au	Ag	Cd	Cu	Mn
Unit Symbol	ppb	ppm	ppm	ppm	ppm
Detection Limit	5	0.2	0.5	1	5
Analysis Method	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-63	191	47.4	1.6	> 10000	1080
A17-64	795	51.9	0.8	> 10000	597
A17-65	76	11.2	< 0.5	> 10000	319
A17-66	8	< 0.2	< 0.5	220	1610
A17-67	6	0.3	< 0.5	407	1470
A17-68	> 5000	16	2.2	> 10000	2270
A17-69	17	0.8	0.6	1220	1980
A17-70	6	< 0.2	< 0.5	70	1320
A17-71	< 5	2.8	< 0.5	3450	530
A17-72	9	1.8	< 0.5	2810	367
A17-73	< 5	< 0.2	< 0.5	50	1000
A17-74	8	0.7	< 0.5	1170	1160
A17-75	12	0.7	< 0.5	1470	867
A17-76	9	3.9	< 0.5	7370	1080
A17-77	< 5	< 0.2	< 0.5	126	976
A17-78	7	2.9	0.6	3100	2670
A17-79	61	55.5	1	> 10000	920
A17-80	< 5	0.5	< 0.5	404	830
A17-81	< 5	< 0.2	< 0.5	142	997
A17-82	38	45	< 0.5	> 10000	323
A17-83	> 5000	35.8	< 0.5	> 10000	276
A17-84	5	< 0.2	< 0.5	74	1000
A17-85	44	1.3	< 0.5	4770	856
A17-86	58	2.6	1.2	6970	943
A17-87	119	13	1.7	> 10000	1190
A17-88	362	39.4	< 0.5	> 10000	1120
A17-89	82	21	< 0.5	> 10000	852
A17-95	7	0.8	0.5	253	80
A17-96	8	< 0.2	< 0.5	156	501
A17-97	18	1.1	< 0.5	42	1680
A17-98	< 5	0.3	< 0.5	55	467

Final Report
Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Au	Ag	Cd	Cu	Mn
Unit Symbol	ppb	ppm	ppm	ppm	ppm
Detection Limit	5	0.2	0.5	1	5
Analysis Method	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-99	< 5	< 0.2	< 0.5	84	382
A17-100	26	< 0.2	1.5	93	349
A17-101	< 5	0.4	< 0.5	68	583
A17-102	< 5	7.8	< 0.5	17	47
A17-103	< 5	30.9	32.5	14	89
A17-109	< 5	2	4.9	80	1360
A17-110	2380	5.9	24.7	13	2810
A17-111	> 5000	> 100	59.5	695	4070
A17-112	2020	5	1.6	19	8490
A17-113	8	3.3	5.7	136	269
A17-114	9	1.6	8.8	34	243
A17-115	5	4.1	0.9	3250	1730
A17-116	23	80.9	17.2	490	1140
A17-117	< 5	4.4	3.2	15	141
A17-118	12	16.9	10.7	1360	7730
A17-119	< 5	2	15.8	428	4230
A17-120	< 5	56	889	28	76
A17-121	271	35.8	40.4	1030	2130
A17-122	1110	32.7	111	17	8400
A17-123	1780	2.2	1.7	3	22300
A17-124	6	< 0.2	< 0.5	59	1560
DM-62	8	8.6	12.7	23	591
DM-63	< 5	10.1	15.4	34	595
DM-64	< 5	23.3	10.9	6	232
DM-65	< 5	7	4.9	57	4300
DM-66	5	16.7	5.6	26	1130
DM-67	< 5	10.4	1.9	17	104
DM-68	< 5	39.9	14.3	20	1270
DM-69	43	7.1	3.6	11	243
DM-70	< 5	16.1	0.6	11	56
DM-71	< 5	5.7	4.1	6	353

Final Report
Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Au	Ag	Cd	Cu	Mn
Unit Symbol	ppb	ppm	ppm	ppm	ppm
Detection Limit	5	0.2	0.5	1	5
Analysis Method	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM-72	< 5	13.1	2.4	12	217
DM-73	< 5	10.5	< 0.5	17	423
DM-86	< 5	< 0.2	< 0.5	22	1870
DM-87	5	0.5	1	46	591
DM-88	20	3.3	0.7	32	1850
DM-89	178	0.8	0.7	19	5300
DM-90	< 5	0.5	2.9	3	1470
DM-91	1810	22	4.3	890	155
DM-92	< 5	< 0.2	< 0.5	2	1080
DM-93	1420	35.4	283	2810	198
DM-94	8	4.8	1	1670	778
DM-95	17	1.7	2.5	107	2030
DM-96	< 5	0.3	< 0.5	77	493
DM-97	< 5	25.1	9.9	119	150
DM-98	< 5	3.2	< 0.5	9	76
DM-99	< 5	0.5	< 0.5	33	193
DM-100	9	15.4	0.5	426	1230
DM-101	< 5	0.5	4.7	14	690
DM-102	7	28	145	456	1770
DM-103	< 5	11.9	2.4	72	44
DM-104	6	0.9	8.7	13	2570
DM-105	< 5	1.2	6.3	13	3330
DM-106	< 5	17.4	12.8	138	2120
DM-107	< 5	< 0.2	< 0.5	18	820
DM-108	< 5	15.3	195	58	128
DM-109	5	0.3	6.2	8	2360
DM-110	< 5	< 0.2	< 0.5	42	949
SGKM-01	< 5	< 0.2	< 0.5	3	562
SGKM-02	126	20.9	19.1	54	765
SGKM-03	21	0.4	< 0.5	3	1860
SGKM-04	< 5	< 0.2	< 0.5	6	559

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Analyte Symbol	Au	Ag	Cd	Cu	Mn
Unit Symbol	ppb	ppm	ppm	ppm	ppm
Detection Limit	5	0.2	0.5	1	5
Analysis Method	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP
SGKM-05	< 5	1.7	12.4	26	6790
SGKM-06	1640	21.3	109	136	1110
SGKM-07	< 5	14.2	1.4	679	2640
SGKM-08	5	< 0.2	< 0.5	47	1630
SGKM-09	< 5	1.3	9.5	66	3970
SGKM-10	< 5	2.7	9.2	495	150
SGKM-11	< 5	2.9	6.5	65	4000
SGKM-12	< 5	3.8	9.6	< 1	5490
SGKM-13	< 5	0.5	4.6	1	4490
SGKM-14	< 5	< 0.2	< 0.5	3	238
SGKM-15	< 5	7.5	4.9	14	3450
SGKM-16	< 5	0.3	< 0.5	3	686
SGKM-17	< 5	1.7	4.2	7	4770
SGKM-18	< 5	41.3	66.9	131	5010
LGKM-01	< 5	< 0.2	1	5	811
LGKM-02	< 5	< 0.2	< 0.5	11	1740
LGKM-03	< 5	< 0.2	< 0.5	4	2020
LGKM-04	< 5	< 0.2	< 0.5	3	840
LGKM-05	25	4	8.5	288	4030
LGKM-06	< 5	< 0.2	< 0.5	8	2280
LGKM-07	17	10.6	< 0.5	80	60
LGKM-08	< 5	< 0.2	1	2	4190
LGKM-09	< 5	< 0.2	< 0.5	2	3560
LGKM-10	< 5	< 0.2	< 0.5	20	1060
LGKM-11	< 5	< 0.2	< 0.5	39	799
LGKM-12	< 5	< 0.2	< 0.5	25	596
LGKM-13	< 5	0.9	< 0.5	256	1180
LGKM-14	11	1.8	1	75	849
LGKM-15	< 5	< 0.2	< 0.5	24	403
LGKM-16	12	2.4	< 0.5	709	640
LGKM-17	34	< 0.2	< 0.5	40	540

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Analyte Symbol	Au	Ag	Cd	Cu	Mn
Unit Symbol	ppb	ppm	ppm	ppm	ppm
Detection Limit	5	0.2	0.5	1	5
Analysis Method	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP
LGKM-18	9	0.6	< 0.5	3	231
LGKM-19	44	0.5	< 0.5	110	959
LGKM-20	< 5	2.4	4.3	3	5730
LGKM-21	< 5	12.1	62.2	27	4470
LGKM-22	< 5	1.3	< 0.5	9	2580
GVKM-01	< 5	5.5	1	32	172
GVKM-02	< 5	3	0.6	6	70
GVKM-03	< 5	1.6	< 0.5	10	47
GVKM-04	< 5	< 0.2	< 0.5	50	1030
GVKM-05	6	35.6	2.5	59	681
GVKM-06	< 5	< 0.2	< 0.5	28	386
GVKM-07	< 5	0.2	1.9	4	1010
GVKM-08	< 5	< 0.2	< 0.5	5	1420
GVKM-09	< 5	< 0.2	< 0.5	2	1770
GVKM-10	< 5	0.3	< 0.5	35	1010
GVKM-11	< 5	< 0.2	< 0.5	9	636
GVKM-12	8	< 0.2	< 0.5	34	845
GVKM-13	29	0.6	8.3	45	871
GVKM-14	< 5	1.2	< 0.5	98	714
GVKM-15	< 5	0.3	1.6	3	938
GVKM-16	< 5	0.5	< 0.5	5	1440
GVKM-17	14	2.5	4.7	90	52
GVKM-18	< 5	2.2	10.7	27	2820
GVKM-19	51	9.6	1.3	68	243
GVKM-20	< 5	0.7	11	7	3210
GVKM-21	< 5	1.2	26.9	4	397
GVKM-22	< 5	3.6	< 0.5	10	75
GVKM-23	< 5	0.2	1.5	6	815
GVKM-24	< 5	< 0.2	< 0.5	3	83
GVKM-25	8	< 0.2	1.2	13	3150
GSKM-01	< 5	< 0.2	< 0.5	53	1160

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Analyte Symbol	Au	Ag	Cd	Cu	Mn
Unit Symbol	ppb	ppm	ppm	ppm	ppm
Detection Limit	5	0.2	0.5	1	5
Analysis Method	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GSKM-02	< 5	< 0.2	< 0.5	57	702
GSKM-03	< 5	0.5	2.2	31	603
GSKM-04	< 5	0.5	< 0.5	28	600
GSKM-06	10	< 0.2	< 0.5	2	427
GSKM-07	< 5	< 0.2	0.8	17	1860
GSKM-08	253	2.5	14.9	5	1360
GSKM-09	< 5	0.3	0.7	69	629

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Analyte Symbol	Mo	Ni	Pb	Zn	Al
Unit Symbol	ppm	ppm	ppm	ppm	%
Detection Limit	1	1	2	2	0.01
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-63	1	15	5	130	2.85
A17-64	< 1	6	8	78	1.16
A17-65	< 1	3	5	15	7.36
A17-66	< 1	29	< 2	90	4.81
A17-67	< 1	30	< 2	80	4.62
A17-68	< 1	< 1	27	205	0.82
A17-69	1	4	10	160	1.29
A17-70	< 1	4	5	57	1.85
A17-71	2	3	10	55	0.67
A17-72	1	2	5	34	0.66
A17-73	< 1	7	3	83	0.74
A17-74	< 1	19	12	158	0.6
A17-75	< 1	17	10	122	0.98
A17-76	< 1	20	16	153	0.6
A17-77	< 1	16	11	117	1.12
A17-78	< 1	32	9	281	0.51
A17-79	< 1	10	18	117	0.91
A17-80	< 1	15	10	84	0.6
A17-81	< 1	27	9	146	0.96
A17-82	1	2	11	40	0.55
A17-83	2	8	10	37	1.2
A17-84	< 1	29	3	63	3.72
A17-85	< 1	7	< 2	49	8.35
A17-86	< 1	8	< 2	54	7.84
A17-87	< 1	5	< 2	87	6.8
A17-88	< 1	12	2	110	3.37
A17-89	< 1	3	< 2	37	1.23
A17-95	9	7	114	199	1.03
A17-96	2	2	4	56	0.43
A17-97	1	3	216	52	0.47
A17-98	2	9	11	31	1.49

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Analyte Symbol	Mo	Ni	Pb	Zn	Al
Unit Symbol	ppm	ppm	ppm	ppm	%
Detection Limit	1	1	2	2	0.01
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-99	2	5	6	59	1.38
A17-100	1	3	12	169	1.25
A17-101	1	14	4	89	2.1
A17-102	3	< 1	2880	50	0.54
A17-103	3	1	> 5000	2670	0.64
A17-109	11	3	661	732	1.35
A17-110	< 1	3	311	3080	0.31
A17-111	2	4	1560	5380	0.08
A17-112	1	4	104	103	0.17
A17-113	8	4	881	3070	0.45
A17-114	4	3	115	1010	0.19
A17-115	34	5	419	179	1.29
A17-116	9	3	> 5000	4830	0.68
A17-117	17	3	1130	269	0.21
A17-118	5	3	> 5000	1360	0.36
A17-119	7	3	30	1570	0.45
A17-120	5	2	> 5000	> 10000	1.06
A17-121	260	32	1760	4080	0.76
A17-122	2	3	3330	> 10000	0.57
A17-123	< 1	7	74	238	0.52
A17-124	2	5	28	68	0.52
DM-62	9	2	276	1050	0.11
DM-63	3	1	320	3200	0.34
DM-64	52	3	1280	1070	0.05
DM-65	2	2	631	808	0.54
DM-66	2	2	333	507	0.61
DM-67	5	8	3930	212	0.58
DM-68	3	3	> 5000	1540	0.49
DM-69	12	13	674	390	0.61
DM-70	16	< 1	231	44	0.49
DM-71	3	2	1480	419	0.58

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Analyte Symbol	Mo	Ni	Pb	Zn	Al
Unit Symbol	ppm	ppm	ppm	ppm	%
Detection Limit	1	1	2	2	0.01
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM-72	3	3	3900	364	0.28
DM-73	8	4	139	186	0.62
DM-86	4	< 1	24	39	0.48
DM-87	9	1	26	101	0.57
DM-88	3	3	21	76	0.38
DM-89	17	6	42	90	1.16
DM-90	10	3	76	462	1.23
DM-91	< 1	7	170	348	0.09
DM-92	4	1	26	58	0.26
DM-93	5	2	> 5000	4660	0.13
DM-94	9	3	11	103	1.56
DM-95	5	6	32	342	1.32
DM-96	11	2	10	58	1.19
DM-97	4	2	3980	1280	0.59
DM-98	13	2	62	75	0.45
DM-99	2	< 1	10	33	0.22
DM-100	16	9	100	128	2.38
DM-101	2	1	30	888	0.49
DM-102	5	5	1980	> 10000	0.52
DM-103	15	4	> 5000	322	0.13
DM-104	5	3	89	1320	0.57
DM-105	< 1	4	178	580	0.09
DM-106	39	11	136	1390	0.88
DM-107	2	6	5	41	1.44
DM-108	37	6	1800	> 10000	0.1
DM-109	7	4	352	3150	1.57
DM-110	2	3	7	62	0.81
SGKM-01	3	2	12	65	0.53
SGKM-02	60	8	308	2960	1.08
SGKM-03	3	5	18	91	0.43
SGKM-04	2	2	36	20	0.1

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Analyte Symbol	Mo	Ni	Pb	Zn	Al
Unit Symbol	ppm	ppm	ppm	ppm	%
Detection Limit	1	1	2	2	0.01
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
SGKM-05	11	2	207	1060	1.35
SGKM-06	2	8	543	> 10000	0.65
SGKM-07	5	< 1	25	103	0.08
SGKM-08	4	< 1	20	77	0.82
SGKM-09	3	5	851	1790	0.57
SGKM-10	13	3	207	1330	0.21
SGKM-11	2	2	82	1330	0.57
SGKM-12	12	8	1050	702	0.16
SGKM-13	16	4	123	208	0.08
SGKM-14	3	2	17	22	0.33
SGKM-15	29	3	144	414	0.15
SGKM-16	3	2	12	13	0.3
SGKM-17	4	1	161	248	0.06
SGKM-18	176	5	4080	> 10000	0.41
LGKM-01	4	2	19	275	0.61
LGKM-02	2	4	21	61	0.76
LGKM-03	1	< 1	18	61	0.3
LGKM-04	< 1	3	3	35	0.32
LGKM-05	2	2	290	77	0.34
LGKM-06	4	2	6	34	0.55
LGKM-07	6	3	341	15	0.26
LGKM-08	2	1	13	18	0.11
LGKM-09	< 1	3	4	35	0.46
LGKM-10	7	2	10	19	0.53
LGKM-11	2	3	13	59	1.42
LGKM-12	5	4	8	66	0.89
LGKM-13	2	12	9	36	2.19
LGKM-14	3	3	25	131	0.68
LGKM-15	5	< 1	< 2	25	0.84
LGKM-16	7	67	6	28	2.38
LGKM-17	4	8	4	39	0.75

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Analyte Symbol	Mo	Ni	Pb	Zn	Al
Unit Symbol	ppm	ppm	ppm	ppm	%
Detection Limit	1	1	2	2	0.01
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
LGKM-18	2	2	11	28	1.48
LGKM-19	35	5	16	56	1.8
LGKM-20	11	5	378	600	0.2
LGKM-21	17	5	1750	8470	0.14
LGKM-22	30	4	160	66	0.39
GVKM-01	10	4	283	266	0.73
GVKM-02	13	3	174	93	0.39
GVKM-03	4	4	19	10	0.39
GVKM-04	< 1	30	2	56	2.62
GVKM-05	2	1	156	262	0.6
GVKM-06	2	14	4	125	0.22
GVKM-07	3	3	22	217	0.3
GVKM-08	3	2	3	21	0.48
GVKM-09	< 1	1	5	3	0.16
GVKM-10	2	2	73	25	0.38
GVKM-11	2	2	7	9	0.32
GVKM-12	2	25	9	44	0.53
GVKM-13	1	33	58	595	0.83
GVKM-14	2	7	45	120	1.89
GVKM-15	4	3	6	137	0.45
GVKM-16	5	3	23	46	0.29
GVKM-17	9	3	120	434	0.84
GVKM-18	19	4	201	1690	2.22
GVKM-19	5	1	57	97	0.52
GVKM-20	7	4	141	317	0.32
GVKM-21	6	3	47	5560	0.45
GVKM-22	17	4	262	99	0.29
GVKM-23	< 1	5	23	1110	2.8
GVKM-24	7	2	12	43	0.89
GVKM-25	195	< 1	32	177	0.78
GSKM-01	1	23	4	55	1.99

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Analyte Symbol	Mo	Ni	Pb	Zn	Al
Unit Symbol	ppm	ppm	ppm	ppm	%
Detection Limit	1	1	2	2	0.01
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GSKM-02	2	58	5	105	2.36
GSKM-03	1	12	56	212	0.25
GSKM-04	3	19	12	38	0.72
GSKM-06	3	3	< 2	17	0.39
GSKM-07	3	8	7	90	0.58
GSKM-08	2	4	336	1280	0.71
GSKM-09	3	103	38	155	0.89

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Analyte Symbol	As	B	Ba	Be	Bi
Unit Symbol	ppm	ppm	ppm	ppm	ppm
Detection Limit	2	10	10	0.5	2
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-63	5	< 10	146	< 0.5	< 2
A17-64	2	< 10	157	< 0.5	< 2
A17-65	< 2	< 10	72	< 0.5	< 2
A17-66	4	< 10	90	< 0.5	< 2
A17-67	3	< 10	107	< 0.5	< 2
A17-68	29	< 10	40	0.6	< 2
A17-69	4	< 10	835	0.8	< 2
A17-70	< 2	< 10	188	0.7	< 2
A17-71	< 2	< 10	778	< 0.5	< 2
A17-72	< 2	< 10	584	< 0.5	3
A17-73	< 2	< 10	81	< 0.5	< 2
A17-74	< 2	< 10	169	< 0.5	< 2
A17-75	< 2	< 10	478	< 0.5	< 2
A17-76	< 2	< 10	274	< 0.5	< 2
A17-77	< 2	< 10	136	< 0.5	< 2
A17-78	< 2	< 10	449	< 0.5	< 2
A17-79	< 2	< 10	16	< 0.5	< 2
A17-80	< 2	< 10	130	< 0.5	< 2
A17-81	6	< 10	109	< 0.5	< 2
A17-82	5	< 10	18	< 0.5	< 2
A17-83	< 2	< 10	20	< 0.5	5
A17-84	< 2	< 10	119	< 0.5	< 2
A17-85	< 2	< 10	49	< 0.5	7
A17-86	2	< 10	56	< 0.5	2
A17-87	2	< 10	153	< 0.5	< 2
A17-88	< 2	< 10	29	< 0.5	< 2
A17-89	< 2	< 10	30	< 0.5	< 2
A17-95	68	< 10	17	0.7	< 2
A17-96	302	< 10	89	< 0.5	< 2
A17-97	138	< 10	64	< 0.5	4
A17-98	< 2	< 10	42	< 0.5	< 2

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Analyte Symbol	As	B	Ba	Be	Bi
Unit Symbol	ppm	ppm	ppm	ppm	ppm
Detection Limit	2	10	10	0.5	2
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-99	3	< 10	166	< 0.5	< 2
A17-100	< 2	< 10	53	< 0.5	< 2
A17-101	< 2	< 10	78	< 0.5	< 2
A17-102	13	< 10	88	< 0.5	< 2
A17-103	23	< 10	55	< 0.5	< 2
A17-109	642	< 10	14	< 0.5	< 2
A17-110	> 10000	< 10	< 10	< 0.5	6
A17-111	> 10000	< 10	< 10	< 0.5	22
A17-112	> 10000	< 10	15	< 0.5	5
A17-113	158	< 10	120	< 0.5	< 2
A17-114	199	< 10	46	< 0.5	< 2
A17-115	97	84	84	1	< 2
A17-116	183	< 10	34	1.1	< 2
A17-117	134	< 10	22	< 0.5	< 2
A17-118	134	< 10	22	< 0.5	< 2
A17-119	22	< 10	136	< 0.5	< 2
A17-120	145	< 10	< 10	< 0.5	< 2
A17-121	560	< 10	< 10	< 0.5	< 2
A17-122	5350	< 10	< 10	< 0.5	< 2
A17-123	> 10000	< 10	41	< 0.5	3
A17-124	29	< 10	51	< 0.5	5
DM-62	75	< 10	< 10	< 0.5	< 2
DM-63	37	< 10	23	< 0.5	< 2
DM-64	415	< 10	< 10	< 0.5	< 2
DM-65	18	< 10	109	0.5	3
DM-66	22	< 10	92	0.8	< 2
DM-67	23	< 10	66	< 0.5	< 2
DM-68	22	< 10	75	< 0.5	< 2
DM-69	46	< 10	< 10	0.5	< 2
DM-70	14	< 10	57	< 0.5	< 2
DM-71	12	< 10	76	< 0.5	< 2

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Analyte Symbol	As	B	Ba	Be	Bi
Unit Symbol	ppm	ppm	ppm	ppm	ppm
Detection Limit	2	10	10	0.5	2
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM-72	18	< 10	73	< 0.5	< 2
DM-73	54	< 10	< 10	< 0.5	< 2
DM-86	26	< 10	101	< 0.5	< 2
DM-87	71	< 10	64	0.5	< 2
DM-88	257	< 10	78	< 0.5	3
DM-89	1520	< 10	60	< 0.5	2
DM-90	128	< 10	76	< 0.5	< 2
DM-91	> 10000	< 10	< 10	< 0.5	87
DM-92	40	< 10	549	< 0.5	< 2
DM-93	41	< 10	17	< 0.5	> 10000
DM-94	17	< 10	32	< 0.5	4
DM-95	102	< 10	< 10	< 0.5	18
DM-96	7	< 10	123	< 0.5	3
DM-97	72	< 10	23	< 0.5	< 2
DM-98	197	< 10	14	0.7	3
DM-99	56	< 10	105	< 0.5	< 2
DM-100	< 2	< 10	15	0.7	72
DM-101	24	< 10	80	< 0.5	3
DM-102	91	< 10	< 10	0.5	3
DM-103	118	< 10	46	< 0.5	< 2
DM-104	143	< 10	11	< 0.5	< 2
DM-105	6	< 10	35	< 0.5	2
DM-106	385	12	10	0.9	5
DM-107	8	< 10	35	< 0.5	2
DM-108	178	< 10	< 10	< 0.5	< 2
DM-109	84	14	20	1.2	< 2
DM-110	< 2	< 10	114	< 0.5	3
SGKM-01	6	< 10	148	< 0.5	< 2
SGKM-02	661	< 10	< 10	< 0.5	< 2
SGKM-03	302	< 10	109	< 0.5	< 2
SGKM-04	8	< 10	22	< 0.5	< 2

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Analyte Symbol	As	B	Ba	Be	Bi
Unit Symbol	ppm	ppm	ppm	ppm	ppm
Detection Limit	2	10	10	0.5	2
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
SGKM-05	103	< 10	23	0.6	< 2
SGKM-06	4680	< 10	11	< 0.5	41
SGKM-07	45	< 10	40	< 0.5	4
SGKM-08	10	< 10	21	< 0.5	5
SGKM-09	12	< 10	238	0.9	< 2
SGKM-10	44	< 10	38	< 0.5	2
SGKM-11	37	< 10	31	< 0.5	< 2
SGKM-12	167	26	43	3.1	5
SGKM-13	46	14	77	2.5	8
SGKM-14	5	< 10	125	< 0.5	< 2
SGKM-15	733	66	84	5.1	4
SGKM-16	29	< 10	78	< 0.5	< 2
SGKM-17	35	< 10	325	< 0.5	< 2
SGKM-18	> 10000	< 10	< 10	< 0.5	3
LGKM-01	42	< 10	75	0.7	< 2
LGKM-02	35	< 10	79	0.7	< 2
LGKM-03	7	< 10	30	< 0.5	< 2
LGKM-04	6	< 10	98	< 0.5	< 2
LGKM-05	6	< 10	506	0.5	< 2
LGKM-06	66	< 10	163	< 0.5	< 2
LGKM-07	4440	< 10	< 10	< 0.5	4
LGKM-08	12	< 10	1090	< 0.5	4
LGKM-09	7	< 10	580	< 0.5	< 2
LGKM-10	< 2	< 10	1680	< 0.5	< 2
LGKM-11	53	< 10	147	< 0.5	< 2
LGKM-12	14	< 10	194	< 0.5	3
LGKM-13	25	280	35	1.2	< 2
LGKM-14	292	< 10	152	< 0.5	4
LGKM-15	3	< 10	119	< 0.5	2
LGKM-16	126	< 10	19	< 0.5	< 2
LGKM-17	1520	< 10	138	< 0.5	< 2

Final Report
Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	As	B	Ba	Be	Bi
Unit Symbol	ppm	ppm	ppm	ppm	ppm
Detection Limit	2	10	10	0.5	2
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
LGKM-18	130	11	17	0.9	< 2
LGKM-19	46	< 10	< 10	< 0.5	8
LGKM-20	68	52	117	3.6	7
LGKM-21	267	30	19	2.8	3
LGKM-22	54	< 10	54	1.2	4
GVKM-01	16	< 10	28	< 0.5	4
GVKM-02	18	< 10	43	< 0.5	5
GVKM-03	9	< 10	29	< 0.5	< 2
GVKM-04	20	< 10	334	0.7	< 2
GVKM-05	83	< 10	< 10	< 0.5	3
GVKM-06	4	< 10	52	< 0.5	< 2
GVKM-07	4	< 10	102	< 0.5	< 2
GVKM-08	3	< 10	71	< 0.5	< 2
GVKM-09	3	< 10	47	< 0.5	< 2
GVKM-10	64	< 10	69	< 0.5	< 2
GVKM-11	7	< 10	80	< 0.5	< 2
GVKM-12	104	< 10	58	< 0.5	3
GVKM-13	351	< 10	135	< 0.5	3
GVKM-14	< 2	< 10	46	< 0.5	< 2
GVKM-15	< 2	< 10	133	< 0.5	< 2
GVKM-16	12	< 10	115	< 0.5	< 2
GVKM-17	192	< 10	29	< 0.5	4
GVKM-18	251	< 10	39	1.1	< 2
GVKM-19	361	< 10	42	< 0.5	< 2
GVKM-20	44	< 10	143	< 0.5	< 2
GVKM-21	52	< 10	171	< 0.5	< 2
GVKM-22	72	< 10	123	< 0.5	< 2
GVKM-23	4	< 10	854	0.5	4
GVKM-24	13	< 10	46	0.6	< 2
GVKM-25	95	< 10	68	0.6	3
GSKM-01	33	< 10	117	< 0.5	< 2

Final Report
Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	As	B	Ba	Be	Bi
Unit Symbol	ppm	ppm	ppm	ppm	ppm
Detection Limit	2	10	10	0.5	2
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GSKM-02	27	< 10	248	< 0.5	< 2
GSKM-03	48	< 10	65	< 0.5	7
GSKM-04	29	< 10	122	< 0.5	< 2
GSKM-06	3	< 10	22	< 0.5	< 2
GSKM-07	19	< 10	142	< 0.5	< 2
GSKM-08	247	< 10	196	< 0.5	3
GSKM-09	25	< 10	70	< 0.5	< 2

Final Report
Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Ca	Co	Cr	Fe	Ga
Unit Symbol	%	ppm	ppm	%	ppm
Detection Limit	0.01	1	1	0.01	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-63	0.76	17	20	3.88	< 10
A17-64	1.13	6	12	1.83	< 10
A17-65	4.79	2	12	3.07	10
A17-66	0.54	23	11	3.49	10
A17-67	0.52	22	12	3.6	10
A17-68	0.41	6	5	4.23	< 10
A17-69	0.34	6	11	4.03	< 10
A17-70	1.31	12	7	4.16	< 10
A17-71	0.64	2	25	1.11	< 10
A17-72	0.43	2	12	1.12	< 10
A17-73	1.33	14	12	3.87	< 10
A17-74	2.63	19	14	4.6	< 10
A17-75	2.12	14	15	3.27	< 10
A17-76	3.08	16	11	3.78	< 10
A17-77	2.72	17	13	4.47	< 10
A17-78	7.29	30	5	4.23	< 10
A17-79	3.47	10	9	2.12	< 10
A17-80	3.32	12	11	3.13	< 10
A17-81	2.09	19	16	4.19	< 10
A17-82	0.79	4	18	1.21	< 10
A17-83	0.16	5	24	2.54	< 10
A17-84	1.72	17	38	4.41	10
A17-85	3.47	11	6	3.47	20
A17-86	4.06	13	5	3.75	20
A17-87	3.52	13	2	3.61	10
A17-88	5.28	16	6	2.77	< 10
A17-89	> 10.0	5	3	0.98	< 10
A17-95	0.3	4	10	2.37	< 10
A17-96	0.59	3	17	1.36	< 10
A17-97	3.69	2	13	3.19	< 10
A17-98	0.56	5	36	2.71	< 10

Final Report
Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Ca	Co	Cr	Fe	Ga
Unit Symbol	%	ppm	ppm	%	ppm
Detection Limit	0.01	1	1	0.01	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-99	0.36	8	23	3.82	< 10
A17-100	1.27	6	8	2.5	< 10
A17-101	0.33	7	14	3.04	< 10
A17-102	0.18	1	16	0.84	< 10
A17-103	0.17	2	12	1.32	< 10
A17-109	0.78	< 1	32	7.25	< 10
A17-110	0.08	2	11	5.27	< 10
A17-111	0.04	< 1	25	7.6	< 10
A17-112	0.31	2	15	6.54	< 10
A17-113	0.21	10	16	0.96	< 10
A17-114	0.04	3	45	1.52	< 10
A17-115	3.07	13	18	3.61	< 10
A17-116	0.1	9	12	5.58	< 10
A17-117	0.01	2	63	1.6	< 10
A17-118	7.38	35	5	3.77	< 10
A17-119	2.21	6	11	2.24	< 10
A17-120	0.21	12	4	2.12	< 10
A17-121	1.3	116	16	8.49	< 10
A17-122	0.41	9	7	5.69	< 10
A17-123	0.33	5	3	12.4	< 10
A17-124	6.75	7	9	2.19	< 10
DM-62	0.06	3	40	4.04	< 10
DM-63	0.31	2	14	2.07	< 10
DM-64	0.01	3	47	3.24	< 10
DM-65	0.23	6	18	2.46	< 10
DM-66	0.27	8	22	1.63	< 10
DM-67	0.28	3	27	1.3	< 10
DM-68	1.55	8	21	1.4	< 10
DM-69	0.29	23	11	4.67	< 10
DM-70	0.03	2	17	0.86	< 10
DM-71	0.35	2	22	1.06	< 10

Final Report
Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Ca	Co	Cr	Fe	Ga
Unit Symbol	%	ppm	ppm	%	ppm
Detection Limit	0.01	1	1	0.01	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM-72	0.16	3	27	0.77	< 10
DM-73	0.46	6	16	5.06	< 10
DM-86	1.49	1	15	1.89	< 10
DM-87	0.99	3	14	1.43	< 10
DM-88	2.28	3	10	2.33	< 10
DM-89	3.67	11	6	4.21	< 10
DM-90	0.23	3	32	3.73	< 10
DM-91	0.03	11	3	14.8	< 10
DM-92	0.1	< 1	22	0.93	< 10
DM-93	0.12	< 1	28	0.65	< 10
DM-94	0.89	14	21	4.05	< 10
DM-95	3.81	14	8	7.87	< 10
DM-96	0.46	4	23	2.42	< 10
DM-97	0.29	8	17	1.57	< 10
DM-98	0.09	8	16	2.49	< 10
DM-99	0.26	4	13	0.84	< 10
DM-100	0.92	26	14	5.67	< 10
DM-101	0.1	5	25	2.2	< 10
DM-102	6.39	24	6	6.74	< 10
DM-103	0.01	2	49	1.24	< 10
DM-104	2.86	6	21	5.97	< 10
DM-105	> 10.0	1	11	0.78	< 10
DM-106	3.6	100	9	4.04	< 10
DM-107	1.82	5	23	3.32	< 10
DM-108	0.04	27	38	1.27	< 10
DM-109	2.21	10	27	7.1	< 10
DM-110	3.61	5	9	2.09	< 10
SGKM-01	0.55	1	21	0.92	< 10
SGKM-02	0.71	28	5	5.25	< 10
SGKM-03	4.81	3	24	1.12	< 10
SGKM-04	> 10.0	1	15	0.64	< 10

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Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Ca	Co	Cr	Fe	Ga
Unit Symbol	%	ppm	ppm	%	ppm
Detection Limit	0.01	1	1	0.01	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
SGKM-05	7.05	22	4	3.37	< 10
SGKM-06	1.22	7	16	4.89	< 10
SGKM-07	6.25	2	30	1.47	< 10
SGKM-08	4.26	4	10	2.74	< 10
SGKM-09	4.4	12	15	7.1	< 10
SGKM-10	0.26	3	35	0.7	< 10
SGKM-11	7.36	7	9	3.25	< 10
SGKM-12	2.88	< 1	5	18.9	< 10
SGKM-13	2.78	< 1	15	16.8	< 10
SGKM-14	0.24	< 1	29	0.62	< 10
SGKM-15	4.76	3	4	18.9	< 10
SGKM-16	1.55	5	22	1.1	< 10
SGKM-17	> 10.0	5	7	1.03	< 10
SGKM-18	5.96	70	5	10.8	< 10
LGKM-01	0.31	8	20	0.87	< 10
LGKM-02	2.98	9	5	1.59	< 10
LGKM-03	> 10.0	2	3	0.88	< 10
LGKM-04	0.74	1	15	2.26	< 10
LGKM-05	8.73	5	14	1.76	< 10
LGKM-06	1.3	15	10	2.12	< 10
LGKM-07	0.07	4	4	12.2	< 10
LGKM-08	> 10.0	3	14	0.85	< 10
LGKM-09	3.88	4	13	2.34	< 10
LGKM-10	1.3	3	12	1.32	< 10
LGKM-11	1.72	10	7	3.35	< 10
LGKM-12	0.28	3	25	1.91	< 10
LGKM-13	0.95	20	38	5.18	10
LGKM-14	2.71	8	10	2.23	< 10
LGKM-15	0.7	2	17	1.77	< 10
LGKM-16	0.71	110	19	7.2	10
LGKM-17	1.82	6	8	2.05	< 10

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Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Ca	Co	Cr	Fe	Ga
Unit Symbol	%	ppm	ppm	%	ppm
Detection Limit	0.01	1	1	0.01	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
LGKM-18	0.7	21	6	7.73	< 10
LGKM-19	0.06	315	8	11.5	< 10
LGKM-20	3.03	< 1	12	16	< 10
LGKM-21	3.62	8	12	10.1	< 10
LGKM-22	5.25	5	9	15.2	< 10
GVKM-01	0.54	4	10	2.68	< 10
GVKM-02	0.08	3	21	1.77	< 10
GVKM-03	0.07	5	20	2.08	< 10
GVKM-04	4.84	21	57	4.73	< 10
GVKM-05	1.56	3	5	12.8	< 10
GVKM-06	1.07	4	21	1	< 10
GVKM-07	3.58	3	16	3.12	< 10
GVKM-08	7.24	4	8	1.88	< 10
GVKM-09	> 10.0	1	9	0.48	< 10
GVKM-10	2.65	3	9	1.63	< 10
GVKM-11	1.74	5	10	1.76	< 10
GVKM-12	3.83	6	34	1.96	< 10
GVKM-13	4.25	7	40	1.91	< 10
GVKM-14	2.12	14	13	4.62	< 10
GVKM-15	1.09	3	19	1.6	< 10
GVKM-16	1.35	2	25	1.28	< 10
GVKM-17	0.32	14	18	2.54	< 10
GVKM-18	3.26	12	6	5.61	< 10
GVKM-19	0.01	10	21	4.4	< 10
GVKM-20	5.8	2	28	1.84	< 10
GVKM-21	0.12	3	38	1.16	< 10
GVKM-22	0.04	2	55	1.04	< 10
GVKM-23	0.92	16	9	3.86	< 10
GVKM-24	0.29	2	22	1.82	< 10
GVKM-25	6.9	7	4	1.79	< 10
GSKM-01	4.22	15	29	4.88	< 10

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Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Ca	Co	Cr	Fe	Ga
Unit Symbol	%	ppm	ppm	%	ppm
Detection Limit	0.01	1	1	0.01	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GSKM-02	1.64	17	57	4.59	< 10
GSKM-03	1.81	4	17	2.16	< 10
GSKM-04	1.55	4	41	2.62	< 10
GSKM-06	0.75	3	33	1.5	< 10
GSKM-07	2.4	6	11	2.14	< 10
GSKM-08	0.45	4	17	3.02	< 10
GSKM-09	0.04	29	40	3.88	< 10

Final Report
Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Hg	K	La	Mg	Na
Unit Symbol	ppm	%	ppm	%	%
Detection Limit	1	0.01	10	0.01	0.001
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-63	< 1	0.49	< 10	1.06	0.035
A17-64	< 1	0.34	< 10	0.17	0.024
A17-65	1	0.17	< 10	0.12	0.036
A17-66	< 1	0.44	< 10	4.08	0.037
A17-67	< 1	0.66	< 10	3.64	0.041
A17-68	< 1	0.27	< 10	0.12	0.094
A17-69	< 1	0.39	< 10	0.18	0.133
A17-70	< 1	0.78	10	0.52	0.053
A17-71	< 1	0.32	< 10	0.14	0.114
A17-72	< 1	0.33	< 10	0.13	0.061
A17-73	< 1	0.12	< 10	0.53	0.188
A17-74	< 1	0.17	< 10	1.13	0.083
A17-75	< 1	0.21	< 10	0.94	0.106
A17-76	< 1	0.16	< 10	1.43	0.07
A17-77	< 1	0.33	< 10	1.16	0.09
A17-78	< 1	0.15	< 10	3.69	0.052
A17-79	< 1	0.22	< 10	1.65	0.057
A17-80	< 1	0.19	< 10	1.51	0.128
A17-81	< 1	0.25	< 10	1.03	0.145
A17-82	1	0.13	< 10	0.32	0.021
A17-83	< 1	0.37	< 10	0.38	0.039
A17-84	< 1	0.17	11	2.08	0.068
A17-85	2	0.06	< 10	1.15	1.08
A17-86	2	0.03	< 10	1.26	1
A17-87	< 1	0.04	< 10	2.29	0.451
A17-88	1	0.05	< 10	1.35	0.028
A17-89	< 1	0.1	< 10	0.47	0.025
A17-95	< 1	0.64	15	0.09	0.055
A17-96	< 1	0.22	15	0.06	0.086
A17-97	< 1	0.24	< 10	0.72	0.074
A17-98	< 1	0.79	< 10	0.75	0.149

Final Report
Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Hg	K	La	Mg	Na
Unit Symbol	ppm	%	ppm	%	%
Detection Limit	1	0.01	10	0.01	0.001
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-99	< 1	0.34	14	0.75	0.067
A17-100	< 1	0.09	< 10	0.91	0.108
A17-101	< 1	0.92	< 10	1.57	0.154
A17-102	< 1	0.43	24	0.02	0.024
A17-103	3	0.46	16	0.04	0.03
A17-109	2	< 0.01	< 10	0.37	0.017
A17-110	< 1	0.21	< 10	0.11	0.023
A17-111	< 1	0.06	< 10	0.12	0.017
A17-112	< 1	0.12	< 10	0.28	0.019
A17-113	6	0.38	28	0.02	0.049
A17-114	< 1	0.12	< 10	0.03	0.021
A17-115	< 1	0.09	18	0.23	0.079
A17-116	10	0.34	< 10	0.02	0.018
A17-117	2	0.15	< 10	0.01	0.022
A17-118	3	0.26	11	3.13	0.028
A17-119	< 1	0.36	22	0.05	0.026
A17-120	28	0.63	21	0.04	0.032
A17-121	7	0.51	< 10	0.37	0.027
A17-122	< 1	0.37	< 10	0.29	0.02
A17-123	< 1	0.36	< 10	0.92	0.017
A17-124	1	0.08	< 10	0.33	0.079
DM-62	< 1	0.07	< 10	0.03	0.016
DM-63	1	0.31	21	0.02	0.026
DM-64	4	0.03	< 10	< 0.01	0.018
DM-65	< 1	0.39	16	0.11	0.027
DM-66	< 1	0.46	19	0.07	0.024
DM-67	< 1	0.47	20	0.02	0.024
DM-68	1	0.31	10	0.04	0.026
DM-69	< 1	0.47	21	0.03	0.019
DM-70	< 1	0.4	15	0.02	0.026
DM-71	< 1	0.35	12	0.05	0.023

Final Report
Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Hg	K	La	Mg	Na
Unit Symbol	ppm	%	ppm	%	%
Detection Limit	1	0.01	10	0.01	0.001
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM-72	< 1	0.26	22	< 0.01	0.019
DM-73	< 1	0.4	< 10	0.04	0.021
DM-86	< 1	0.35	10	0.07	0.044
DM-87	2	0.42	14	0.05	0.041
DM-88	< 1	0.26	18	0.5	0.043
DM-89	< 1	0.53	< 10	1.05	0.024
DM-90	< 1	0.13	< 10	0.36	0.022
DM-91	< 1	0.05	< 10	0.01	0.013
DM-92	< 1	0.26	28	0.01	0.049
DM-93	1	0.08	< 10	0.02	0.024
DM-94	< 1	0.68	< 10	0.94	0.043
DM-95	2	0.75	< 10	1.56	0.023
DM-96	< 1	0.59	14	0.36	0.045
DM-97	< 1	0.43	18	0.02	0.028
DM-98	< 1	0.34	21	0.01	0.032
DM-99	< 1	0.15	17	0.01	0.085
DM-100	< 1	1.9	< 10	1.44	0.04
DM-101	< 1	0.28	12	0.04	0.024
DM-102	52	0.36	< 10	0.04	0.033
DM-103	< 1	0.1	< 10	< 0.01	0.018
DM-104	< 1	0.18	< 10	0.17	0.018
DM-105	1	0.07	11	0.18	0.022
DM-106	4	0.58	< 10	0.08	0.024
DM-107	< 1	0.06	< 10	0.93	0.131
DM-108	12	0.09	< 10	< 0.01	0.019
DM-109	1	0.37	< 10	0.37	0.021
DM-110	< 1	0.18	< 10	0.6	0.111
SGKM-01	< 1	0.35	19	0.07	0.037
SGKM-02	3	0.71	< 10	0.06	0.037
SGKM-03	1	0.2	17	0.23	0.041
SGKM-04	2	0.05	< 10	0.19	0.022

Final Report
Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Hg	K	La	Mg	Na
Unit Symbol	ppm	%	ppm	%	%
Detection Limit	1	0.01	10	0.01	0.001
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
SGKM-05	2	0.56	16	0.19	0.034
SGKM-06	5	0.39	< 10	0.35	0.039
SGKM-07	1	0.04	< 10	0.02	0.021
SGKM-08	< 1	0.61	26	0.07	0.025
SGKM-09	< 1	0.05	< 10	1.66	0.027
SGKM-10	3	0.27	22	0.02	0.024
SGKM-11	2	0.35	< 10	0.07	0.027
SGKM-12	< 1	0.02	< 10	0.4	0.012
SGKM-13	< 1	< 0.01	< 10	0.35	0.016
SGKM-14	< 1	0.31	19	0.05	0.052
SGKM-15	< 1	< 0.01	< 10	0.37	0.014
SGKM-16	< 1	0.36	24	0.13	0.032
SGKM-17	< 1	0.04	11	0.03	0.024
SGKM-18	15	0.26	< 10	0.03	0.032
LGKM-01	< 1	0.39	15	0.02	0.025
LGKM-02	< 1	0.51	25	0.03	0.021
LGKM-03	< 1	0.22	< 10	0.14	0.016
LGKM-04	< 1	0.22	< 10	0.19	0.034
LGKM-05	< 1	0.27	18	0.19	0.034
LGKM-06	< 1	0.49	48	0.07	0.032
LGKM-07	< 1	0.19	< 10	0.01	0.068
LGKM-08	2	0.08	< 10	0.28	0.034
LGKM-09	< 1	0.36	10	0.09	0.03
LGKM-10	< 1	0.51	20	0.05	0.05
LGKM-11	< 1	0.37	< 10	0.62	0.107
LGKM-12	< 1	0.24	24	0.24	0.25
LGKM-13	< 1	0.05	< 10	1.75	0.129
LGKM-14	< 1	0.32	12	0.5	0.137
LGKM-15	< 1	0.32	19	0.23	0.098
LGKM-16	< 1	0.16	10	1.64	0.075
LGKM-17	< 1	0.43	24	0.47	0.068

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Report Date: 9/11/2017

Analyte Symbol	Hg	K	La	Mg	Na
Unit Symbol	ppm	%	ppm	%	%
Detection Limit	1	0.01	10	0.01	0.001
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
LGKM-18	< 1	0.77	13	0.13	0.038
LGKM-19	< 1	0.18	< 10	1.07	0.015
LGKM-20	< 1	0.01	< 10	0.28	0.017
LGKM-21	< 1	0.04	< 10	0.21	0.019
LGKM-22	< 1	0.08	< 10	0.12	0.015
GVKM-01	< 1	0.56	16	0.05	0.033
GVKM-02	< 1	0.37	20	0.02	0.024
GVKM-03	< 1	0.4	22	0.02	0.021
GVKM-04	< 1	1.08	< 10	2.35	0.061
GVKM-05	5	0.3	< 10	0.09	0.018
GVKM-06	< 1	0.12	< 10	0.06	0.042
GVKM-07	< 1	0.17	21	0.58	0.059
GVKM-08	< 1	0.17	11	0.12	0.059
GVKM-09	1	0.11	< 10	0.09	0.029
GVKM-10	< 1	0.18	18	0.23	0.099
GVKM-11	< 1	0.19	24	0.19	0.102
GVKM-12	< 1	0.25	< 10	0.9	0.061
GVKM-13	1	0.35	< 10	1.16	0.052
GVKM-14	< 1	0.76	< 10	1.37	0.058
GVKM-15	< 1	0.28	< 10	0.07	0.087
GVKM-16	< 1	0.32	23	0.31	0.028
GVKM-17	< 1	0.47	18	0.04	0.09
GVKM-18	< 1	0.62	< 10	0.6	0.03
GVKM-19	< 1	0.32	< 10	0.06	0.026
GVKM-20	< 1	0.09	< 10	0.09	0.023
GVKM-21	< 1	0.44	18	0.01	0.036
GVKM-22	< 1	0.27	< 10	< 0.01	0.034
GVKM-23	< 1	0.91	< 10	1.99	0.058
GVKM-24	< 1	0.48	16	0.16	0.077
GVKM-25	2	0.45	< 10	0.1	0.038
GSKM-01	< 1	0.43	< 10	0.68	0.068

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Report Date: 9/11/2017

Analyte Symbol	Hg	K	La	Mg	Na
Unit Symbol	ppm	%	ppm	%	%
Detection Limit	1	0.01	10	0.01	0.001
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GSKM-02	< 1	0.47	12	1.12	0.146
GSKM-03	< 1	0.13	< 10	0.06	0.042
GSKM-04	< 1	0.37	< 10	0.1	0.06
GSKM-06	< 1	0.02	< 10	0.06	0.031
GSKM-07	< 1	0.23	< 10	0.19	0.135
GSKM-08	< 1	0.4	17	0.02	0.031
GSKM-09	< 1	0.13	< 10	0.37	0.031

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Report Number: A17-10632

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Analyte Symbol	P	S	Sb	Sc	Sr
Unit Symbol	%	%	ppm	ppm	ppm
Detection Limit	0.001	0.01	2	1	1
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-63	0.078	0.06	3	9	10
A17-64	0.036	0.15	< 2	4	10
A17-65	0.068	0.06	4	10	508
A17-66	0.038	< 0.01	3	9	19
A17-67	0.054	< 0.01	< 2	10	12
A17-68	0.115	0.41	4	8	25
A17-69	0.12	0.06	2	9	24
A17-70	0.083	< 0.01	3	15	74
A17-71	0.008	0.07	< 2	3	31
A17-72	0.009	0.04	< 2	2	30
A17-73	0.061	< 0.01	3	8	69
A17-74	0.061	0.01	4	8	59
A17-75	0.032	0.03	< 2	6	87
A17-76	0.025	0.14	3	7	95
A17-77	0.072	< 0.01	3	9	57
A17-78	0.019	0.05	3	4	138
A17-79	0.019	0.74	3	4	128
A17-80	0.055	< 0.01	3	9	92
A17-81	0.066	< 0.01	3	8	58
A17-82	0.018	1.16	4	3	111
A17-83	0.044	0.88	< 2	4	19
A17-84	0.057	< 0.01	3	13	41
A17-85	0.051	< 0.01	3	9	134
A17-86	0.057	0.05	4	10	153
A17-87	0.063	0.19	< 2	9	97
A17-88	0.077	0.61	2	8	161
A17-89	0.023	0.29	2	2	94
A17-95	0.088	1.88	10	3	22
A17-96	0.038	0.01	< 2	2	26
A17-97	0.046	0.01	4	3	407
A17-98	0.051	0.87	< 2	3	41

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Analyte Symbol	P	S	Sb	Sc	Sr
Unit Symbol	%	%	ppm	ppm	ppm
Detection Limit	0.001	0.01	2	1	1
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-99	0.096	0.07	3	4	67
A17-100	0.12	0.32	3	3	121
A17-101	0.068	0.4	< 2	5	44
A17-102	0.077	0.36	11	1	12
A17-103	0.082	0.8	26	2	16
A17-109	0.008	2.25	22	< 1	32
A17-110	0.023	2.83	56	1	4
A17-111	0.003	4.15	351	< 1	2
A17-112	0.006	1.92	30	< 1	21
A17-113	0.094	0.11	7	3	13
A17-114	0.011	0.5	6	3	5
A17-115	0.088	0.04	14	17	447
A17-116	0.077	0.29	343	5	15
A17-117	0.002	1.31	15	< 1	5
A17-118	0.042	0.58	22	8	213
A17-119	0.076	0.04	5	5	25
A17-120	0.099	3.91	38	3	10
A17-121	0.083	7.61	56	6	42
A17-122	0.063	2.64	37	3	25
A17-123	0.042	0.67	16	3	10
A17-124	0.042	0.61	3	4	860
DM-62	0.015	3.73	18	< 1	7
DM-63	0.065	1.36	11	2	49
DM-64	0.001	3.76	22	< 1	3
DM-65	0.09	0.11	8	5	20
DM-66	0.096	0.25	20	4	22
DM-67	0.09	0.72	13	2	16
DM-68	0.082	0.69	34	4	98
DM-69	0.024	4.74	8	2	14
DM-70	0.018	0.47	8	2	7
DM-71	0.063	0.17	7	2	23

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Analyte Symbol	P	S	Sb	Sc	Sr
Unit Symbol	%	%	ppm	ppm	ppm
Detection Limit	0.001	0.01	2	1	1
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM-72	0.061	0.28	14	< 1	12
DM-73	0.061	4.74	14	3	27
DM-86	0.024	0.32	3	< 1	156
DM-87	0.029	0.77	< 2	< 1	79
DM-88	0.13	0.09	9	5	133
DM-89	0.07	0.73	11	4	188
DM-90	0.018	0.05	3	1	14
DM-91	0.005	11.3	44	< 1	3
DM-92	0.027	0.1	< 2	2	11
DM-93	0.004	1.12	58	< 1	4
DM-94	0.061	1.14	3	4	22
DM-95	0.01	7.5	11	1	136
DM-96	0.145	0.27	2	2	28
DM-97	0.118	0.86	24	3	25
DM-98	0.033	2.43	8	1	8
DM-99	0.108	0.23	< 2	1	32
DM-100	0.073	2.68	2	6	48
DM-101	0.041	0.1	< 2	2	7
DM-102	0.052	7.9	19	3	111
DM-103	0.009	0.51	157	< 1	7
DM-104	0.14	5.22	39	1	112
DM-105	0.01	0.08	5	3	2540
DM-106	0.078	3.48	16	6	66
DM-107	0.072	0.13	2	8	165
DM-108	0.011	1.85	43	< 1	15
DM-109	0.065	1.25	24	6	133
DM-110	0.052	0.51	< 2	4	430
SGKM-01	0.018	0.03	< 2	< 1	17
SGKM-02	0.124	6.03	44	4	38
SGKM-03	0.019	0.02	2	1	714
SGKM-04	0.006	0.01	2	< 1	2550

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Analyte Symbol	P	S	Sb	Sc	Sr
Unit Symbol	%	%	ppm	ppm	ppm
Detection Limit	0.001	0.01	2	1	1
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
SGKM-05	0.087	1.91	6	6	80
SGKM-06	0.046	4.39	5	< 1	147
SGKM-07	0.004	0.65	44	< 1	178
SGKM-08	0.098	2.04	4	3	205
SGKM-09	0.011	0.1	10	1	77
SGKM-10	0.003	0.49	23	< 1	195
SGKM-11	0.036	0.47	13	6	217
SGKM-12	0.02	0.39	23	< 1	186
SGKM-13	0.011	0.06	17	< 1	186
SGKM-14	0.004	0.04	< 2	< 1	15
SGKM-15	0.012	0.23	61	< 1	208
SGKM-16	0.003	0.51	4	< 1	110
SGKM-17	0.015	0.12	11	1	236
SGKM-18	0.043	12.2	79	6	232
LGKM-01	0.047	0.01	< 2	2	13
LGKM-02	0.038	0.12	5	3	73
LGKM-03	0.016	0.04	4	1	467
LGKM-04	0.029	0.01	4	1	39
LGKM-05	0.021	0.05	18	2	271
LGKM-06	0.064	< 0.01	3	4	23
LGKM-07	0.037	14.9	111	2	6
LGKM-08	0.006	0.05	5	< 1	687
LGKM-09	0.039	0.02	4	6	46
LGKM-10	0.138	0.04	4	7	65
LGKM-11	0.082	0.54	4	4	207
LGKM-12	0.046	0.1	2	2	40
LGKM-13	0.129	0.51	3	9	36
LGKM-14	0.098	0.33	13	3	261
LGKM-15	0.026	0.29	< 2	1	47
LGKM-16	0.17	3.52	7	10	48
LGKM-17	0.041	0.6	11	2	214

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Analyte Symbol	P	S	Sb	Sc	Sr
Unit Symbol	%	%	ppm	ppm	ppm
Detection Limit	0.001	0.01	2	1	1
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
LGKM-18	0.121	6.4	8	6	87
LGKM-19	0.025	8.26	7	2	3
LGKM-20	0.01	0.11	33	< 1	117
LGKM-21	0.011	1.22	39	< 1	200
LGKM-22	0.012	0.29	18	< 1	212
GVKM-01	0.071	1.89	11	3	39
GVKM-02	0.033	1.36	5	1	8
GVKM-03	0.037	2.04	9	2	10
GVKM-04	0.093	0.35	4	12	383
GVKM-05	0.017	16.5	20	1	34
GVKM-06	0.038	0.08	3	< 1	129
GVKM-07	0.05	0.06	3	5	304
GVKM-08	0.049	< 0.01	4	2	454
GVKM-09	0.011	< 0.01	2	< 1	1270
GVKM-10	0.051	0.02	< 2	3	211
GVKM-11	0.038	0.05	< 2	1	110
GVKM-12	0.077	0.17	13	3	368
GVKM-13	0.033	0.26	6	3	470
GVKM-14	0.079	1.85	< 2	5	81
GVKM-15	0.046	0.59	< 2	2	19
GVKM-16	0.005	0.02	2	< 1	18
GVKM-17	0.16	1.86	4	3	49
GVKM-18	0.104	1.74	13	5	80
GVKM-19	0.008	1.74	6	2	2
GVKM-20	0.018	0.23	11	< 1	113
GVKM-21	0.027	0.11	6	2	10
GVKM-22	0.016	0.25	6	< 1	5
GVKM-23	0.085	0.02	5	7	62
GVKM-24	0.067	1.08	5	5	9
GVKM-25	0.085	0.76	6	4	280
GSKM-01	0.108	0.01	6	6	86

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Analyte Symbol	P	S	Sb	Sc	Sr
Unit Symbol	%	%	ppm	ppm	ppm
Detection Limit	0.001	0.01	2	1	1
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GSKM-02	0.108	0.02	10	6	35
GSKM-03	0.028	0.01	10	2	94
GSKM-04	0.08	< 0.01	10	3	37
GSKM-06	0.002	< 0.01	< 2	< 1	22
GSKM-07	0.043	0.2	5	4	85
GSKM-08	0.099	0.02	4	2	24
GSKM-09	0.028	0.06	14	2	8

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Analyte Symbol	Ti	Th	Te	Tl	U
Unit Symbol	%	ppm	ppm	ppm	ppm
Detection Limit	0.01	20	1	2	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-63	< 0.01	< 20	< 1	< 2	< 10
A17-64	< 0.01	< 20	< 1	< 2	< 10
A17-65	0.17	< 20	3	< 2	< 10
A17-66	0.22	< 20	< 1	< 2	< 10
A17-67	0.28	< 20	< 1	< 2	< 10
A17-68	< 0.01	< 20	< 1	< 2	< 10
A17-69	< 0.01	< 20	< 1	< 2	< 10
A17-70	0.04	< 20	< 1	< 2	< 10
A17-71	< 0.01	< 20	< 1	< 2	< 10
A17-72	< 0.01	< 20	< 1	< 2	< 10
A17-73	0.03	< 20	4	< 2	< 10
A17-74	0.04	< 20	< 1	< 2	< 10
A17-75	0.02	< 20	< 1	< 2	< 10
A17-76	0.03	< 20	< 1	< 2	< 10
A17-77	0.03	< 20	2	< 2	< 10
A17-78	< 0.01	< 20	< 1	< 2	< 10
A17-79	< 0.01	< 20	< 1	< 2	< 10
A17-80	0.02	< 20	< 1	< 2	< 10
A17-81	0.05	< 20	< 1	< 2	< 10
A17-82	< 0.01	< 20	< 1	< 2	< 10
A17-83	< 0.01	< 20	< 1	< 2	< 10
A17-84	0.09	< 20	2	< 2	< 10
A17-85	0.2	< 20	< 1	< 2	< 10
A17-86	0.23	< 20	< 1	< 2	< 10
A17-87	0.21	< 20	< 1	< 2	< 10
A17-88	0.13	< 20	< 1	2	< 10
A17-89	0.06	< 20	3	< 2	< 10
A17-95	< 0.01	< 20	< 1	< 2	< 10
A17-96	< 0.01	< 20	1	< 2	< 10
A17-97	< 0.01	< 20	4	< 2	< 10
A17-98	0.19	< 20	5	< 2	< 10

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Report Number: A17-10632

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Analyte Symbol	Ti	Th	Te	Tl	U
Unit Symbol	%	ppm	ppm	ppm	ppm
Detection Limit	0.01	20	1	2	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-99	0.04	< 20	< 1	< 2	< 10
A17-100	< 0.01	< 20	1	< 2	< 10
A17-101	0.24	< 20	3	< 2	< 10
A17-102	< 0.01	< 20	< 1	< 2	< 10
A17-103	< 0.01	< 20	2	< 2	< 10
A17-109	< 0.01	< 20	< 1	< 2	< 10
A17-110	< 0.01	< 20	< 1	< 2	< 10
A17-111	< 0.01	< 20	< 1	< 2	< 10
A17-112	< 0.01	< 20	3	< 2	< 10
A17-113	< 0.01	< 20	< 1	< 2	< 10
A17-114	< 0.01	< 20	< 1	< 2	< 10
A17-115	0.37	< 20	< 1	< 2	< 10
A17-116	< 0.01	< 20	< 1	< 2	< 10
A17-117	< 0.01	< 20	< 1	< 2	< 10
A17-118	< 0.01	< 20	< 1	< 2	< 10
A17-119	< 0.01	< 20	3	< 2	< 10
A17-120	< 0.01	< 20	2	< 2	< 10
A17-121	< 0.01	< 20	< 1	9	< 10
A17-122	< 0.01	< 20	< 1	< 2	< 10
A17-123	< 0.01	< 20	< 1	< 2	< 10
A17-124	< 0.01	< 20	< 1	< 2	< 10
DM-62	< 0.01	< 20	< 1	< 2	< 10
DM-63	< 0.01	< 20	1	< 2	< 10
DM-64	< 0.01	< 20	< 1	6	< 10
DM-65	< 0.01	< 20	2	< 2	< 10
DM-66	< 0.01	< 20	< 1	< 2	< 10
DM-67	< 0.01	< 20	1	< 2	< 10
DM-68	< 0.01	< 20	2	< 2	< 10
DM-69	< 0.01	< 20	< 1	< 2	< 10
DM-70	< 0.01	< 20	2	< 2	< 10
DM-71	< 0.01	< 20	3	< 2	< 10

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Analyte Symbol	Ti	Th	Te	Tl	U
Unit Symbol	%	ppm	ppm	ppm	ppm
Detection Limit	0.01	20	1	2	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM-72	< 0.01	< 20	2	< 2	< 10
DM-73	< 0.01	< 20	< 1	< 2	< 10
DM-86	< 0.01	< 20	< 1	< 2	< 10
DM-87	< 0.01	< 20	< 1	< 2	< 10
DM-88	< 0.01	< 20	< 1	< 2	< 10
DM-89	< 0.01	< 20	3	< 2	< 10
DM-90	< 0.01	< 20	< 1	< 2	< 10
DM-91	< 0.01	< 20	8	< 2	< 10
DM-92	< 0.01	< 20	< 1	< 2	< 10
DM-93	< 0.01	< 20	43	< 2	< 10
DM-94	0.11	< 20	< 1	< 2	< 10
DM-95	0.02	< 20	2	3	< 10
DM-96	0.05	< 20	2	< 2	< 10
DM-97	< 0.01	< 20	< 1	< 2	< 10
DM-98	< 0.01	< 20	< 1	< 2	< 10
DM-99	< 0.01	< 20	4	< 2	< 10
DM-100	0.21	< 20	23	< 2	< 10
DM-101	< 0.01	< 20	< 1	< 2	< 10
DM-102	< 0.01	< 20	2	< 2	< 10
DM-103	< 0.01	< 20	< 1	< 2	< 10
DM-104	< 0.01	< 20	2	< 2	< 10
DM-105	< 0.01	< 20	< 1	< 2	< 10
DM-106	< 0.01	< 20	< 1	3	< 10
DM-107	< 0.01	< 20	2	< 2	< 10
DM-108	< 0.01	< 20	< 1	10	< 10
DM-109	0.07	< 20	< 1	< 2	< 10
DM-110	< 0.01	< 20	< 1	< 2	< 10
SGKM-01	< 0.01	< 20	< 1	< 2	< 10
SGKM-02	< 0.01	< 20	< 1	< 2	< 10
SGKM-03	< 0.01	< 20	< 1	< 2	< 10
SGKM-04	< 0.01	< 20	< 1	< 2	< 10

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Analyte Symbol	Ti	Th	Te	Tl	U
Unit Symbol	%	ppm	ppm	ppm	ppm
Detection Limit	0.01	20	1	2	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
SGKM-05	0.2	< 20	3	< 2	< 10
SGKM-06	< 0.01	< 20	< 1	< 2	< 10
SGKM-07	< 0.01	< 20	< 1	< 2	< 10
SGKM-08	0.01	< 20	< 1	< 2	< 10
SGKM-09	0.02	< 20	< 1	< 2	< 10
SGKM-10	< 0.01	< 20	< 1	< 2	< 10
SGKM-11	0.05	< 20	< 1	< 2	< 10
SGKM-12	< 0.01	< 20	< 1	< 2	< 10
SGKM-13	< 0.01	< 20	< 1	< 2	< 10
SGKM-14	< 0.01	< 20	3	< 2	< 10
SGKM-15	< 0.01	< 20	< 1	< 2	< 10
SGKM-16	< 0.01	< 20	< 1	< 2	< 10
SGKM-17	< 0.01	< 20	< 1	< 2	< 10
SGKM-18	< 0.01	< 20	2	40	< 10
LGKM-01	< 0.01	< 20	< 1	< 2	< 10
LGKM-02	< 0.01	< 20	< 1	< 2	< 10
LGKM-03	< 0.01	< 20	< 1	< 2	< 10
LGKM-04	< 0.01	< 20	< 1	< 2	< 10
LGKM-05	0.01	< 20	4	< 2	< 10
LGKM-06	< 0.01	< 20	2	< 2	< 10
LGKM-07	< 0.01	< 20	< 1	43	< 10
LGKM-08	< 0.01	< 20	5	< 2	< 10
LGKM-09	< 0.01	< 20	< 1	< 2	< 10
LGKM-10	< 0.01	< 20	< 1	< 2	< 10
LGKM-11	< 0.01	< 20	< 1	< 2	< 10
LGKM-12	< 0.01	< 20	2	< 2	< 10
LGKM-13	0.22	< 20	3	< 2	< 10
LGKM-14	< 0.01	< 20	2	< 2	< 10
LGKM-15	< 0.01	< 20	4	< 2	< 10
LGKM-16	0.27	< 20	3	< 2	< 10
LGKM-17	< 0.01	< 20	9	< 2	< 10

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Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Ti	Th	Te	Tl	U
Unit Symbol	%	ppm	ppm	ppm	ppm
Detection Limit	0.01	20	1	2	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
LGKM-18	0.28	< 20	3	< 2	< 10
LGKM-19	0.03	< 20	< 1	< 2	< 10
LGKM-20	< 0.01	< 20	< 1	< 2	< 10
LGKM-21	< 0.01	< 20	< 1	< 2	< 10
LGKM-22	0.01	< 20	< 1	< 2	< 10
GVKM-01	< 0.01	< 20	< 1	< 2	< 10
GVKM-02	< 0.01	< 20	< 1	< 2	< 10
GVKM-03	< 0.01	< 20	< 1	< 2	< 10
GVKM-04	0.03	< 20	3	< 2	< 10
GVKM-05	< 0.01	< 20	< 1	< 2	< 10
GVKM-06	< 0.01	< 20	< 1	< 2	< 10
GVKM-07	< 0.01	< 20	< 1	< 2	< 10
GVKM-08	0.02	< 20	2	< 2	< 10
GVKM-09	< 0.01	< 20	< 1	< 2	< 10
GVKM-10	< 0.01	< 20	< 1	< 2	< 10
GVKM-11	< 0.01	< 20	6	< 2	< 10
GVKM-12	< 0.01	< 20	2	< 2	< 10
GVKM-13	< 0.01	< 20	< 1	< 2	< 10
GVKM-14	0.14	< 20	< 1	< 2	< 10
GVKM-15	< 0.01	< 20	< 1	< 2	< 10
GVKM-16	< 0.01	< 20	2	< 2	< 10
GVKM-17	< 0.01	< 20	< 1	< 2	< 10
GVKM-18	< 0.01	< 20	< 1	5	< 10
GVKM-19	< 0.01	< 20	< 1	< 2	< 10
GVKM-20	0.01	< 20	< 1	< 2	< 10
GVKM-21	< 0.01	< 20	3	< 2	< 10
GVKM-22	< 0.01	< 20	< 1	< 2	< 10
GVKM-23	0.03	< 20	< 1	< 2	< 10
GVKM-24	0.15	< 20	< 1	< 2	< 10
GVKM-25	< 0.01	< 20	< 1	< 2	< 10
GSKM-01	0.07	< 20	< 1	< 2	< 10

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Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Ti	Th	Te	Tl	U
Unit Symbol	%	ppm	ppm	ppm	ppm
Detection Limit	0.01	20	1	2	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GSKM-02	0.07	< 20	< 1	< 2	< 10
GSKM-03	< 0.01	< 20	2	< 2	< 10
GSKM-04	< 0.01	< 20	< 1	< 2	< 10
GSKM-06	< 0.01	< 20	< 1	< 2	< 10
GSKM-07	< 0.01	< 20	< 1	< 2	< 10
GSKM-08	< 0.01	< 20	< 1	< 2	< 10
GSKM-09	< 0.01	< 20	< 1	< 2	< 10

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Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	V	W	Y	Zr	Ag
Unit Symbol	ppm	ppm	ppm	ppm	g/tonne
Detection Limit	1	10	1	1	3
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-GRA
A17-63	74	< 10	7	2	
A17-64	47	< 10	4	< 1	
A17-65	146	< 10	6	6	
A17-66	117	< 10	5	5	
A17-67	136	< 10	6	12	
A17-68	36	< 10	20	1	
A17-69	42	< 10	18	2	
A17-70	67	< 10	22	4	
A17-71	22	< 10	6	2	
A17-72	17	< 10	5	2	
A17-73	107	< 10	5	2	
A17-74	146	< 10	6	3	
A17-75	82	< 10	4	2	
A17-76	104	< 10	3	3	
A17-77	109	< 10	7	3	
A17-78	69	< 10	5	2	
A17-79	47	< 10	2	1	
A17-80	92	< 10	5	2	
A17-81	87	< 10	5	3	
A17-82	72	< 10	< 1	< 1	
A17-83	29	< 10	4	2	
A17-84	115	< 10	6	6	
A17-85	162	< 10	5	7	
A17-86	114	< 10	6	7	
A17-87	506	< 10	6	10	
A17-88	98	< 10	6	5	
A17-89	45	< 10	2	2	
A17-95	23	< 10	6	2	
A17-96	8	< 10	5	1	
A17-97	14	< 10	7	3	
A17-98	67	< 10	7	3	

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Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	V	W	Y	Zr	Ag
Unit Symbol	ppm	ppm	ppm	ppm	g/tonne
Detection Limit	1	10	1	1	3
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-GRA
A17-99	50	< 10	5	3	
A17-100	30	< 10	6	2	
A17-101	112	< 10	7	4	
A17-102	12	< 10	5	< 1	
A17-103	17	< 10	5	1	
A17-109	41	< 10	3	3	
A17-110	7	< 10	1	2	
A17-111	2	< 10	< 1	2	136
A17-112	2	1880	4	3	
A17-113	8	24	9	< 1	
A17-114	11	11	1	1	
A17-115	155	< 10	13	12	
A17-116	18	< 10	9	2	
A17-117	6	< 10	< 1	3	
A17-118	37	< 10	22	1	
A17-119	18	< 10	9	1	
A17-120	28	< 10	6	6	
A17-121	26	< 10	8	6	
A17-122	9	< 10	6	7	
A17-123	11	< 10	7	5	
A17-124	19	< 10	12	2	
DM-62	10	< 10	1	3	
DM-63	9	< 10	6	4	
DM-64	2	< 10	< 1	< 1	
DM-65	26	< 10	7	< 1	
DM-66	18	< 10	7	< 1	
DM-67	15	< 10	6	< 1	
DM-68	18	< 10	8	2	
DM-69	19	< 10	4	24	
DM-70	11	< 10	2	3	
DM-71	17	< 10	5	2	

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Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	V	W	Y	Zr	Ag
Unit Symbol	ppm	ppm	ppm	ppm	g/tonne
Detection Limit	1	10	1	1	3
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-GRA
DM-72	7	< 10	4	3	
DM-73	22	< 10	5	10	
DM-86	2	< 10	5	5	
DM-87	3	< 10	5	6	
DM-88	6	< 10	10	< 1	
DM-89	20	< 10	8	2	
DM-90	43	< 10	2	3	
DM-91	3	28	1	4	
DM-92	2	< 10	4	6	
DM-93	2	< 10	< 1	< 1	
DM-94	26	< 10	7	3	
DM-95	10	< 10	5	11	
DM-96	21	< 10	8	3	
DM-97	14	< 10	7	< 1	
DM-98	5	< 10	9	11	
DM-99	1	< 10	5	1	
DM-100	77	16	6	3	
DM-101	4	< 10	8	1	
DM-102	16	40	7	3	
DM-103	11	< 10	< 1	1	
DM-104	28	< 10	9	3	
DM-105	2	< 10	12	< 1	
DM-106	36	< 10	9	2	
DM-107	98	< 10	2	1	
DM-108	5	< 10	< 1	1	
DM-109	75	< 10	6	5	
DM-110	26	< 10	8	< 1	
SGKM-01	4	< 10	4	2	
SGKM-02	38	< 10	4	2	
SGKM-03	5	< 10	7	4	
SGKM-04	2	< 10	2	< 1	

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Analyte Symbol	V	W	Y	Zr	Ag
Unit Symbol	ppm	ppm	ppm	ppm	g/tonne
Detection Limit	1	10	1	1	3
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-GRA
SGKM-05	27	< 10	13	5	
SGKM-06	10	30	3	2	
SGKM-07	6	< 10	4	< 1	
SGKM-08	11	< 10	19	< 1	
SGKM-09	61	< 10	5	2	
SGKM-10	< 1	< 10	3	13	
SGKM-11	51	< 10	13	3	
SGKM-12	8	< 10	2	6	
SGKM-13	6	< 10	2	4	
SGKM-14	< 1	< 10	3	6	
SGKM-15	28	< 10	2	6	
SGKM-16	< 1	< 10	7	18	
SGKM-17	4	< 10	12	< 1	
SGKM-18	11	< 10	10	5	
LGKM-01	8	< 10	5	< 1	
LGKM-02	12	< 10	8	1	
LGKM-03	5	< 10	2	4	
LGKM-04	6	< 10	3	2	
LGKM-05	16	< 10	10	3	
LGKM-06	5	< 10	8	< 1	
LGKM-07	8	< 10	3	11	
LGKM-08	1	< 10	6	< 1	
LGKM-09	11	< 10	10	2	
LGKM-10	17	< 10	8	< 1	
LGKM-11	45	< 10	6	1	
LGKM-12	16	< 10	4	1	
LGKM-13	140	< 10	11	7	
LGKM-14	14	< 10	7	1	
LGKM-15	7	< 10	5	8	
LGKM-16	130	< 10	11	6	
LGKM-17	9	< 10	7	3	

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Report Date: 9/11/2017

Analyte Symbol	V	W	Y	Zr	Ag
Unit Symbol	ppm	ppm	ppm	ppm	g/tonne
Detection Limit	1	10	1	1	3
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-GRA
LGKM-18	37	< 10	10	11	
LGKM-19	39	< 10	2	5	
LGKM-20	19	< 10	3	5	
LGKM-21	34	13	3	4	
LGKM-22	11	< 10	5	5	
GVKM-01	23	< 10	6	5	
GVKM-02	11	< 10	3	8	
GVKM-03	26	< 10	4	12	
GVKM-04	80	< 10	10	2	
GVKM-05	11	< 10	3	13	
GVKM-06	7	< 10	2	< 1	
GVKM-07	7	< 10	10	2	
GVKM-08	7	< 10	18	1	
GVKM-09	2	< 10	4	4	
GVKM-10	5	< 10	6	1	
GVKM-11	6	< 10	5	2	
GVKM-12	13	< 10	6	< 1	
GVKM-13	19	< 10	4	< 1	
GVKM-14	68	1680	7	2	
GVKM-15	6	27	5	1	
GVKM-16	2	< 10	5	13	
GVKM-17	10	< 10	6	2	
GVKM-18	55	< 10	9	5	
GVKM-19	7	< 10	2	2	
GVKM-20	26	< 10	5	1	
GVKM-21	3	< 10	12	3	
GVKM-22	4	< 10	2	4	
GVKM-23	85	< 10	6	3	
GVKM-24	14	< 10	11	13	
GVKM-25	36	< 10	9	1	
GSKM-01	60	< 10	8	1	

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Analyte Symbol	V	W	Y	Zr	Ag
Unit Symbol	ppm	ppm	ppm	ppm	g/tonne
Detection Limit	1	10	1	1	3
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-GRA
GSKM-02	65	< 10	7	2	
GSKM-03	8	< 10	5	< 1	
GSKM-04	18	< 10	5	< 1	
GSKM-06	4	< 10	< 1	< 1	
GSKM-07	16	< 10	7	< 1	
GSKM-08	10	< 10	9	< 1	
GSKM-09	14	< 10	6	< 1	

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Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Cu	Pb	Zn	Au
Unit Symbol	%	%	%	g/tonne
Detection Limit	0.001	0.003	0.001	0.03
Analysis Method	ICP-OES	ICP-OES	ICP-OES	FA-GRA
A17-63	1.54			
A17-64	1.51			
A17-65	1.29			
A17-66				
A17-67				
A17-68	1.51			9.98
A17-69				
A17-70				
A17-71				
A17-72				
A17-73				
A17-74				
A17-75				
A17-76				
A17-77				
A17-78				
A17-79	4.15			
A17-80				
A17-81				
A17-82	4.43			
A17-83	1.14			22.7
A17-84				
A17-85				
A17-86				
A17-87	2.42			
A17-88	4.4			
A17-89	2.39			
A17-95				
A17-96				
A17-97				
A17-98				

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Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Cu	Pb	Zn	Au
Unit Symbol	%	%	%	g/tonne
Detection Limit	0.001	0.003	0.001	0.03
Analysis Method	ICP-OES	ICP-OES	ICP-OES	FA-GRA

A17-99				
A17-100				
A17-101				
A17-102				
A17-103		0.836		
A17-109				
A17-110				
A17-111				5.69
A17-112				
A17-113				
A17-114				
A17-115				
A17-116		1.95		
A17-117				
A17-118		1.51		
A17-119				
A17-120		2.35	3.51	
A17-121				
A17-122			1.26	
A17-123				
A17-124				
DM-62				
DM-63				
DM-64				
DM-65				
DM-66				
DM-67				
DM-68		1.16		
DM-69				
DM-70				
DM-71				

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Activation Laboratories

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Analyte Symbol	Cu	Pb	Zn	Au
Unit Symbol	%	%	%	g/tonne
Detection Limit	0.001	0.003	0.001	0.03
Analysis Method	ICP-OES	ICP-OES	ICP-OES	FA-GRA

DM-72				
DM-73				
DM-86				
DM-87				
DM-88				
DM-89				
DM-90				
DM-91				
DM-92				
DM-93		1.8		
DM-94				
DM-95				
DM-96				
DM-97				
DM-98				
DM-99				
DM-100				
DM-101				
DM-102			3.09	
DM-103		0.816		
DM-104				
DM-105				
DM-106				
DM-107				
DM-108			0.988	
DM-109				
DM-110				
SGKM-01				
SGKM-02				
SGKM-03				
SGKM-04				

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Report Date: 9/11/2017

Analyte Symbol	Cu	Pb	Zn	Au
Unit Symbol	%	%	%	g/tonne
Detection Limit	0.001	0.003	0.001	0.03
Analysis Method	ICP-OES	ICP-OES	ICP-OES	FA-GRA

SGKM-05

SGKM-06

1.26

SGKM-07

SGKM-08

SGKM-09

SGKM-10

SGKM-11

SGKM-12

SGKM-13

SGKM-14

SGKM-15

SGKM-16

SGKM-17

SGKM-18

1.11

LGKM-01

LGKM-02

LGKM-03

LGKM-04

LGKM-05

LGKM-06

LGKM-07

LGKM-08

LGKM-09

LGKM-10

LGKM-11

LGKM-12

LGKM-13

LGKM-14

LGKM-15

LGKM-16

LGKM-17

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Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Cu	Pb	Zn	Au
Unit Symbol	%	%	%	g/tonne
Detection Limit	0.001	0.003	0.001	0.03
Analysis Method	ICP-OES	ICP-OES	ICP-OES	FA-GRA

LGKM-18

LGKM-19

LGKM-20

LGKM-21

LGKM-22

GVKM-01

GVKM-02

GVKM-03

GVKM-04

GVKM-05

GVKM-06

GVKM-07

GVKM-08

GVKM-09

GVKM-10

GVKM-11

GVKM-12

GVKM-13

GVKM-14

GVKM-15

GVKM-16

GVKM-17

GVKM-18

GVKM-19

GVKM-20

GVKM-21

GVKM-22

GVKM-23

GVKM-24

GVKM-25

GSKM-01

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Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Cu	Pb	Zn	Au
Unit Symbol	%	%	%	g/tonne
Detection Limit	0.001	0.003	0.001	0.03
Analysis Method	ICP-OES	ICP-OES	ICP-OES	FA-GRA

GSKM-02

GSKM-03

GSKM-04

GSKM-06

GSKM-07

GSKM-08

GSKM-09

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Report Number: A17-10632

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Analyte Symbol	Au	Ag	Cd	Cu	Mn
Unit Symbol	ppb	ppm	ppm	ppm	ppm
Detection Limit	5	0.2	0.5	1	5
Analysis Method	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-1 Meas		26.1	2.3	1000	712
GXR-1 Cert		31	3.3	1110	852
GXR-4 Meas		3.5	< 0.5	6420	140
GXR-4 Cert		4	0.86	6520	155
GXR-4 Meas		3.2	< 0.5	6150	144
GXR-4 Cert		4	0.86	6520	155
GXR-6 Meas		0.4	< 0.5	67	1010
GXR-6 Cert		1.3	1	66	1010
GXR-6 Meas		0.2	< 0.5	61	1030
GXR-6 Cert		1.3	1	66	1010
MP-1b Meas					
MP-1b Cert					
OxQ75 Meas					
OxQ75 Cert					
CZN-4 Meas					
CZN-4 Cert					
SQ47 Meas					
SQ47 Cert					
OxK110 Meas					
OxK110 Cert					
OREAS 922 (AQUA REGIA) Meas		1	< 0.5	2230	764
OREAS 922 (AQUA REGIA) Cert		0.851	0.28	2176	730
OREAS 922 (AQUA REGIA) Meas		1	< 0.5	2180	813
OREAS 922 (AQUA REGIA) Cert		0.851	0.28	2176	730
OREAS 923 (AQUA REGIA) Meas		2	0.6	4480	904
OREAS 923 (AQUA REGIA) Cert		1.62	0.4	4248	850
OREAS 923 (AQUA REGIA) Meas		1.3	< 0.5	3960	880
OREAS 923 (AQUA REGIA) Cert		1.62	0.4	4248	850
OXN117 Meas					
OXN117 Cert					
OREAS 930 (AQUA REGIA) Meas					

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Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Au	Ag	Cd	Cu	Mn
Unit Symbol	ppb	ppm	ppm	ppm	ppm
Detection Limit	5	0.2	0.5	1	5
Analysis Method	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP
<hr/>					
OREAS 930 (AQUA REGIA) Cert					
CCU-1e Meas					
CCU-1e Cert					
OREAS 214 Meas	2860				
OREAS 214 Cert	3030				
OREAS 214 Meas	3020				
OREAS 214 Cert	3030				
OREAS 214 Meas	2930				
OREAS 214 Cert	3030				
OREAS 218 Meas	537				
OREAS 218 Cert	531				
OREAS 218 Meas	533				
OREAS 218 Cert	531				
OREAS 218 Meas	539				
OREAS 218 Cert	531				
OREAS 218 Meas	532				
OREAS 218 Cert	531				
OREAS 218 Meas	556				
OREAS 218 Cert	531				
OREAS 218 Meas	548				
OREAS 218 Cert	531				
OREAS 224 (Fire Assay) Meas	2200				
OREAS 224 (Fire Assay) Cert	2150				
A17-72 Orig	8				
A17-72 Dup	9				
A17-75 Orig		0.6	< 0.5	1460	874
A17-75 Dup		0.7	< 0.5	1470	861
A17-82 Orig	36				
A17-82 Dup	39				
A17-89 Orig		21.4	< 0.5	> 10000	851
A17-89 Dup		20.6	< 0.5	> 10000	852

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Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Au	Ag	Cd	Cu	Mn
Unit Symbol	ppb	ppm	ppm	ppm	ppm
Detection Limit	5	0.2	0.5	1	5
Analysis Method	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-96 Orig	8				
A17-96 Dup	7				
A17-112 Orig		4.9	1.3	20	8480
A17-112 Dup		5.1	1.9	18	8500
A17-116 Orig	24				
A17-116 Dup	21				
A17-122 Orig	1110	32.7	111	17	8400
A17-122 Split PREP DUP	1020	32	113	15	8010
DM-62 Orig		8.4	12.6	22	579
DM-62 Dup		8.8	12.9	24	604
DM-63 Orig	< 5				
DM-63 Dup	< 5				
DM-73 Orig	5				
DM-73 Dup	< 5				
DM-93 Orig					
DM-93 Dup					
DM-97 Orig		25.1	9.7	119	150
DM-97 Dup		25.1	10.1	119	151
DM-100 Orig	10				
DM-100 Dup	7				
DM-109 Orig	5				
DM-109 Dup	5				
SGKM-01 Orig		< 0.2	< 0.5	3	552
SGKM-01 Dup		< 0.2	< 0.5	3	572
SGKM-10 Orig	< 5				
SGKM-10 Dup	< 5				
SGKM-11 Orig	< 5	2.9	6.5	65	4000
SGKM-11 Split PREP DUP	< 5	3	6.6	69	4010
SGKM-13 Orig		0.4	4.5	1	4370
SGKM-13 Dup		0.6	4.8	1	4600
LGKM-07 Orig	18				

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Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Au	Ag	Cd	Cu	Mn
Unit Symbol	ppb	ppm	ppm	ppm	ppm
Detection Limit	5	0.2	0.5	1	5
Analysis Method	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP
LGKM-07 Dup	16				
LGKM-09 Orig		< 0.2	< 0.5	1	3540
LGKM-09 Dup		< 0.2	< 0.5	2	3580
LGKM-16 Orig	13				
LGKM-16 Dup	10				
GVKM-03 Orig		1.6	< 0.5	10	46
GVKM-03 Dup		1.7	< 0.5	11	48
GVKM-05 Orig	6				
GVKM-05 Dup	6				
GVKM-17 Orig		2.4	4.7	89	52
GVKM-17 Dup		2.5	4.6	92	52
GVKM-19 Orig	52				
GVKM-19 Dup	49				
GVKM-21 Orig	< 5	1.2	26.9	4	397
GVKM-21 Split PREP DUP	< 5	1.3	25	5	407
GSKM-03 Orig	< 5				
GSKM-03 Dup	< 5				
GSKM-04 Orig		0.5	< 0.5	28	599
GSKM-04 Dup		0.5	< 0.5	29	602
Method Blank		< 0.2	< 0.5	< 1	< 5
Method Blank		< 0.2	< 0.5	< 1	< 5
Method Blank		< 0.2	< 0.5	< 1	< 5
Method Blank					
Method Blank	< 5				
Method Blank	< 5				
Method Blank	< 5				
Method Blank	< 5				
Method Blank	< 5				
Method Blank	< 5				
Method Blank	< 5				
Method Blank	< 5				

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Analyte Symbol	Au	Ag	Cd	Cu	Mn
Unit Symbol	ppb	ppm	ppm	ppm	ppm
Detection Limit	5	0.2	0.5	1	5
Analysis Method	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP
Method Blank	< 5				
Method Blank	< 5				
Method Blank	< 5				
Method Blank					
Method Blank					
Method Blank	< 5				
Method Blank	< 5				

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Activation Laboratories

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Analyte Symbol	Mo	Ni	Pb	Zn	Al
Unit Symbol	ppm	ppm	ppm	ppm	%
Detection Limit	1	1	2	2	0.01
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-1 Meas	12	27	617	580	0.6
GXR-1 Cert	18	41	730	760	3.52
GXR-4 Meas	306	37	48	70	2.76
GXR-4 Cert	310	42	52	73	7.2
GXR-4 Meas	290	33	37	66	2.65
GXR-4 Cert	310	42	52	73	7.2
GXR-6 Meas	1	21	96	116	7.14
GXR-6 Cert	2.4	27	101	118	17.7
GXR-6 Meas	1	18	77	110	6.85
GXR-6 Cert	2.4	27	101	118	17.7
MP-1b Meas					
MP-1b Cert					
OxQ75 Meas					
OxQ75 Cert					
CZN-4 Meas					
CZN-4 Cert					
SQ47 Meas					
SQ47 Cert					
OxK110 Meas					
OxK110 Cert					
OREAS 922 (AQUA REGIA) Meas	2	31	66	244	2.98
OREAS 922 (AQUA REGIA) Cert	0.69	34.3	60	256	2.72
OREAS 922 (AQUA REGIA) Meas	2	31	51	248	2.9
OREAS 922 (AQUA REGIA) Cert	0.69	34.3	60	256	2.72
OREAS 923 (AQUA REGIA) Meas	< 1	34	85	323	3.04
OREAS 923 (AQUA REGIA) Cert	0.84	32.7	81	335	2.8
OREAS 923 (AQUA REGIA) Meas	< 1	28	68	303	2.72
OREAS 923 (AQUA REGIA) Cert	0.84	32.7	81	335	2.8
OXN117 Meas					
OXN117 Cert					
OREAS 930 (AQUA REGIA) Meas					

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Analyte Symbol	Mo	Ni	Pb	Zn	Al
Unit Symbol	ppm	ppm	ppm	ppm	%
Detection Limit	1	1	2	2	0.01
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
OREAS 930 (AQUA REGIA) Cert					
CCU-1e Meas					
CCU-1e Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 224 (Fire Assay) Meas					
OREAS 224 (Fire Assay) Cert					
A17-72 Orig					
A17-72 Dup					
A17-75 Orig	< 1	18	10	122	1
A17-75 Dup	< 1	16	10	122	0.97
A17-82 Orig					
A17-82 Dup					
A17-89 Orig	< 1	5	< 2	37	1.24
A17-89 Dup	< 1	2	< 2	37	1.23

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Analyte Symbol	Mo	Ni	Pb	Zn	Al
Unit Symbol	ppm	ppm	ppm	ppm	%
Detection Limit	1	1	2	2	0.01
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-96 Orig					
A17-96 Dup					
A17-112 Orig	1	4	103	105	0.17
A17-112 Dup	1	4	105	102	0.18
A17-116 Orig					
A17-116 Dup					
A17-122 Orig	2	3	3330	> 10000	0.57
A17-122 Split PREP DUP	2	3	3360	> 10000	0.56
DM-62 Orig	8	3	271	1030	0.11
DM-62 Dup	9	2	281	1070	0.11
DM-63 Orig					
DM-63 Dup					
DM-73 Orig					
DM-73 Dup					
DM-93 Orig					
DM-93 Dup					
DM-97 Orig	4	2	3960	1280	0.59
DM-97 Dup	4	2	4000	1290	0.59
DM-100 Orig					
DM-100 Dup					
DM-109 Orig					
DM-109 Dup					
SGKM-01 Orig	3	2	12	63	0.51
SGKM-01 Dup	3	3	12	66	0.55
SGKM-10 Orig					
SGKM-10 Dup					
SGKM-11 Orig	2	2	82	1330	0.57
SGKM-11 Split PREP DUP	2	3	87	1380	0.58
SGKM-13 Orig	16	3	121	202	0.08
SGKM-13 Dup	16	5	126	213	0.08
LGKM-07 Orig					

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Analyte Symbol	Mo	Ni	Pb	Zn	Al
Unit Symbol	ppm	ppm	ppm	ppm	%
Detection Limit	1	1	2	2	0.01
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
LGKM-07 Dup					
LGKM-09 Orig	< 1	3	4	34	0.46
LGKM-09 Dup	< 1	3	4	36	0.46
LGKM-16 Orig					
LGKM-16 Dup					
GVKM-03 Orig	4	3	19	10	0.39
GVKM-03 Dup	4	4	18	10	0.39
GVKM-05 Orig					
GVKM-05 Dup					
GVKM-17 Orig	9	3	119	432	0.84
GVKM-17 Dup	9	3	121	437	0.84
GVKM-19 Orig					
GVKM-19 Dup					
GVKM-21 Orig	6	3	47	5560	0.45
GVKM-21 Split PREP DUP	5	3	47	5150	0.46
GSKM-03 Orig					
GSKM-03 Dup					
GSKM-04 Orig	3	19	11	39	0.72
GSKM-04 Dup	3	19	12	38	0.73
Method Blank	< 1	< 1	< 2	< 2	< 0.01
Method Blank	< 1	< 1	< 2	< 2	< 0.01
Method Blank	< 1	< 1	< 2	< 2	< 0.01
Method Blank					
Method Blank					
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Analyte Symbol	Mo	Ni	Pb	Zn	Al
Unit Symbol	ppm	ppm	ppm	ppm	%
Detection Limit	1	1	2	2	0.01
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP

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Analyte Symbol	As	B	Ba	Be	Bi
Unit Symbol	ppm	ppm	ppm	ppm	ppm
Detection Limit	2	10	10	0.5	2
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-1 Meas	336	11	181	0.8	1500
GXR-1 Cert	427	15	750	1.22	1380
GXR-4 Meas	101	< 10	22	1.5	34
GXR-4 Cert	98	4.5	1640	1.9	19
GXR-4 Meas	94	< 10	25	1.4	13
GXR-4 Cert	98	4.5	1640	1.9	19
GXR-6 Meas	194	< 10	1110	1	< 2
GXR-6 Cert	330	9.8	1300	1.4	0.29
GXR-6 Meas	187	< 10	924	0.9	< 2
GXR-6 Cert	330	9.8	1300	1.4	0.29
MP-1b Meas					
MP-1b Cert					
OxQ75 Meas					
OxQ75 Cert					
CZN-4 Meas					
CZN-4 Cert					
SQ47 Meas					
SQ47 Cert					
OxK110 Meas					
OxK110 Cert					
OREAS 922 (AQUA REGIA) Meas	3		90	0.8	< 2
OREAS 922 (AQUA REGIA) Cert	6.12		70	0.65	10.3
OREAS 922 (AQUA REGIA) Meas	7		81	0.8	2
OREAS 922 (AQUA REGIA) Cert	6.12		70	0.65	10.3
OREAS 923 (AQUA REGIA) Meas	4		76	0.7	11
OREAS 923 (AQUA REGIA) Cert	7.07		54	0.61	21.8
OREAS 923 (AQUA REGIA) Meas	4		60	0.6	12
OREAS 923 (AQUA REGIA) Cert	7.07		54	0.61	21.8
OXN117 Meas					
OXN117 Cert					
OREAS 930 (AQUA REGIA) Meas					

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Analyte Symbol	As	B	Ba	Be	Bi
Unit Symbol	ppm	ppm	ppm	ppm	ppm
Detection Limit	2	10	10	0.5	2
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
OREAS 930 (AQUA REGIA) Cert					
CCU-1e Meas					
CCU-1e Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 224 (Fire Assay) Meas					
OREAS 224 (Fire Assay) Cert					
A17-72 Orig					
A17-72 Dup					
A17-75 Orig	< 2	< 10	474	< 0.5	< 2
A17-75 Dup	< 2	< 10	481	< 0.5	< 2
A17-82 Orig					
A17-82 Dup					
A17-89 Orig	2	< 10	30	< 0.5	6
A17-89 Dup	< 2	< 10	30	< 0.5	< 2

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Analyte Symbol	As	B	Ba	Be	Bi
Unit Symbol	ppm	ppm	ppm	ppm	ppm
Detection Limit	2	10	10	0.5	2
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-96 Orig					
A17-96 Dup					
A17-112 Orig	> 10000	< 10	15	< 0.5	5
A17-112 Dup	> 10000	< 10	15	< 0.5	4
A17-116 Orig					
A17-116 Dup					
A17-122 Orig	5350	< 10	< 10	< 0.5	< 2
A17-122 Split PREP DUP	5450	< 10	< 10	< 0.5	< 2
DM-62 Orig	75	< 10	< 10	< 0.5	< 2
DM-62 Dup	75	< 10	< 10	< 0.5	< 2
DM-63 Orig					
DM-63 Dup					
DM-73 Orig					
DM-73 Dup					
DM-93 Orig					
DM-93 Dup					
DM-97 Orig	71	< 10	26	< 0.5	< 2
DM-97 Dup	73	< 10	20	< 0.5	< 2
DM-100 Orig					
DM-100 Dup					
DM-109 Orig					
DM-109 Dup					
SGKM-01 Orig	6	< 10	144	< 0.5	< 2
SGKM-01 Dup	6	< 10	152	< 0.5	< 2
SGKM-10 Orig					
SGKM-10 Dup					
SGKM-11 Orig	37	< 10	31	< 0.5	< 2
SGKM-11 Split PREP DUP	34	< 10	37	< 0.5	4
SGKM-13 Orig	47	14	74	2.5	10
SGKM-13 Dup	45	14	81	2.6	6
LGKM-07 Orig					

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Analyte Symbol	As	B	Ba	Be	Bi
Unit Symbol	ppm	ppm	ppm	ppm	ppm
Detection Limit	2	10	10	0.5	2
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
LGKM-07 Dup					
LGKM-09 Orig	9	< 10	581	< 0.5	2
LGKM-09 Dup	5	< 10	579	< 0.5	< 2
LGKM-16 Orig					
LGKM-16 Dup					
GVKM-03 Orig	8	< 10	35	< 0.5	< 2
GVKM-03 Dup	9	< 10	23	< 0.5	3
GVKM-05 Orig					
GVKM-05 Dup					
GVKM-17 Orig	188	< 10	28	< 0.5	5
GVKM-17 Dup	196	< 10	31	< 0.5	2
GVKM-19 Orig					
GVKM-19 Dup					
GVKM-21 Orig	52	< 10	171	< 0.5	< 2
GVKM-21 Split PREP DUP	57	< 10	173	< 0.5	< 2
GSKM-03 Orig					
GSKM-03 Dup					
GSKM-04 Orig	28	< 10	121	< 0.5	< 2
GSKM-04 Dup	29	< 10	122	< 0.5	5
Method Blank	< 2	< 10	< 10	< 0.5	< 2
Method Blank	< 2	< 10	< 10	< 0.5	< 2
Method Blank	< 2	< 10	< 10	< 0.5	< 2
Method Blank					
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Analyte Symbol	As	B	Ba	Be	Bi
Unit Symbol	ppm	ppm	ppm	ppm	ppm
Detection Limit	2	10	10	0.5	2
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP

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Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Ca	Co	Cr	Fe	Ga
Unit Symbol	%	ppm	ppm	%	ppm
Detection Limit	0.01	1	1	0.01	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-1 Meas	0.68	4	6	19.9	< 10
GXR-1 Cert	0.96	8.2	12	23.6	13.8
GXR-4 Meas	0.81	12	54	3.12	10
GXR-4 Cert	1.01	14.6	64	3.09	20
GXR-4 Meas	0.78	12	54	2.8	10
GXR-4 Cert	1.01	14.6	64	3.09	20
GXR-6 Meas	0.16	12	79	5.52	20
GXR-6 Cert	0.18	13.8	96	5.58	35
GXR-6 Meas	0.16	11	75	4.93	20
GXR-6 Cert	0.18	13.8	96	5.58	35
MP-1b Meas					
MP-1b Cert					
OxQ75 Meas					
OxQ75 Cert					
CZN-4 Meas					
CZN-4 Cert					
SQ47 Meas					
SQ47 Cert					
OxK110 Meas					
OxK110 Cert					
OREAS 922 (AQUA REGIA) Meas	0.39	17	45	5.2	< 10
OREAS 922 (AQUA REGIA) Cert	0.324	19.4	40.7	5.05	7.62
OREAS 922 (AQUA REGIA) Meas	0.38	18	46	4.95	< 10
OREAS 922 (AQUA REGIA) Cert	0.324	19.4	40.7	5.05	7.62
OREAS 923 (AQUA REGIA) Meas	0.39	21	44	6.08	< 10
OREAS 923 (AQUA REGIA) Cert	0.326	22.2	39.4	5.91	8.01
OREAS 923 (AQUA REGIA) Meas	0.36	19	40	5.34	< 10
OREAS 923 (AQUA REGIA) Cert	0.326	22.2	39.4	5.91	8.01
OXN117 Meas					
OXN117 Cert					
OREAS 930 (AQUA REGIA) Meas					

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Analyte Symbol	Ca	Co	Cr	Fe	Ga
Unit Symbol	%	ppm	ppm	%	ppm
Detection Limit	0.01	1	1	0.01	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
OREAS 930 (AQUA REGIA) Cert					
CCU-1e Meas					
CCU-1e Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 224 (Fire Assay) Meas					
OREAS 224 (Fire Assay) Cert					
A17-72 Orig					
A17-72 Dup					
A17-75 Orig	2.13	14	15	3.28	< 10
A17-75 Dup	2.12	14	15	3.25	< 10
A17-82 Orig					
A17-82 Dup					
A17-89 Orig	> 10.0	6	3	0.99	< 10
A17-89 Dup	> 10.0	5	3	0.98	< 10

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Analyte Symbol	Ca	Co	Cr	Fe	Ga
Unit Symbol	%	ppm	ppm	%	ppm
Detection Limit	0.01	1	1	0.01	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-96 Orig					
A17-96 Dup					
A17-112 Orig	0.31	1	15	6.51	< 10
A17-112 Dup	0.31	2	15	6.56	< 10
A17-116 Orig					
A17-116 Dup					
A17-122 Orig	0.41	9	7	5.69	< 10
A17-122 Split PREP DUP	0.41	10	9	5.41	< 10
DM-62 Orig	0.06	3	40	3.93	< 10
DM-62 Dup	0.06	3	39	4.14	< 10
DM-63 Orig					
DM-63 Dup					
DM-73 Orig					
DM-73 Dup					
DM-93 Orig					
DM-93 Dup					
DM-97 Orig	0.29	8	17	1.57	< 10
DM-97 Dup	0.29	8	18	1.57	< 10
DM-100 Orig					
DM-100 Dup					
DM-109 Orig					
DM-109 Dup					
SGKM-01 Orig	0.54	1	21	0.9	< 10
SGKM-01 Dup	0.56	1	22	0.94	< 10
SGKM-10 Orig					
SGKM-10 Dup					
SGKM-11 Orig	7.36	7	9	3.25	< 10
SGKM-11 Split PREP DUP	7.46	7	12	3.19	< 10
SGKM-13 Orig	2.72	< 1	13	16.3	< 10
SGKM-13 Dup	2.84	< 1	17	17.2	< 10
LGKM-07 Orig					

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Analyte Symbol	Ca	Co	Cr	Fe	Ga
Unit Symbol	%	ppm	ppm	%	ppm
Detection Limit	0.01	1	1	0.01	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
LGKM-07 Dup					
LGKM-09 Orig	3.81	4	14	2.32	< 10
LGKM-09 Dup	3.96	4	12	2.36	< 10
LGKM-16 Orig					
LGKM-16 Dup					
GVKM-03 Orig	0.07	5	20	2.05	< 10
GVKM-03 Dup	0.07	5	21	2.11	< 10
GVKM-05 Orig					
GVKM-05 Dup					
GVKM-17 Orig	0.31	14	18	2.52	< 10
GVKM-17 Dup	0.32	14	18	2.56	< 10
GVKM-19 Orig					
GVKM-19 Dup					
GVKM-21 Orig	0.12	3	38	1.16	< 10
GVKM-21 Split PREP DUP	0.15	3	27	1.14	< 10
GSKM-03 Orig					
GSKM-03 Dup					
GSKM-04 Orig	1.55	4	40	2.61	< 10
GSKM-04 Dup	1.56	4	42	2.63	< 10
Method Blank	< 0.01	< 1	< 1	< 0.01	< 10
Method Blank	< 0.01	< 1	< 1	< 0.01	< 10
Method Blank	< 0.01	< 1	< 1	< 0.01	< 10
Method Blank					
Method Blank					
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Analyte Symbol	Ca	Co	Cr	Fe	Ga
Unit Symbol	%	ppm	ppm	%	ppm
Detection Limit	0.01	1	1	0.01	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP

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Analyte Symbol	Hg	K	La	Mg	Na
Unit Symbol	ppm	%	ppm	%	%
Detection Limit	1	0.01	10	0.01	0.001
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-1 Meas	1	0.04	< 10	0.14	0.062
GXR-1 Cert	3.9	0.050	7.5	0.217	0.052
GXR-4 Meas	< 1	1.61	49	1.54	0.127
GXR-4 Cert	0.11	4.01	64.5	1.66	0.564
GXR-4 Meas	< 1	1.57	49	1.48	0.12
GXR-4 Cert	0.11	4.01	64.5	1.66	0.564
GXR-6 Meas	2	1.09	10	0.39	0.092
GXR-6 Cert	0.068	1.87	13.9	0.609	0.104
GXR-6 Meas	< 1	1.03	< 10	0.36	0.086
GXR-6 Cert	0.068	1.87	13.9	0.609	0.104
MP-1b Meas					
MP-1b Cert					
OxQ75 Meas					
OxQ75 Cert					
CZN-4 Meas					
CZN-4 Cert					
SQ47 Meas					
SQ47 Cert					
OxK110 Meas					
OxK110 Cert					
OREAS 922 (AQUA REGIA) Meas		0.46	39	1.32	0.028
OREAS 922 (AQUA REGIA) Cert		0.376	32.5	1.33	0.021
OREAS 922 (AQUA REGIA) Meas		0.46	39	1.3	0.029
OREAS 922 (AQUA REGIA) Cert		0.376	32.5	1.33	0.021
OREAS 923 (AQUA REGIA) Meas		0.39	37	1.46	
OREAS 923 (AQUA REGIA) Cert		0.322	30.0	1.43	
OREAS 923 (AQUA REGIA) Meas		0.35	33	1.31	
OREAS 923 (AQUA REGIA) Cert		0.322	30.0	1.43	
OXN117 Meas					
OXN117 Cert					
OREAS 930 (AQUA REGIA) Meas					

Final Report
Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Hg	K	La	Mg	Na
Unit Symbol	ppm	%	ppm	%	%
Detection Limit	1	0.01	10	0.01	0.001
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
OREAS 930 (AQUA REGIA) Cert					
CCU-1e Meas					
CCU-1e Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 224 (Fire Assay) Meas					
OREAS 224 (Fire Assay) Cert					
A17-72 Orig					
A17-72 Dup					
A17-75 Orig	< 1	0.22	< 10	0.94	0.108
A17-75 Dup	< 1	0.21	< 10	0.93	0.104
A17-82 Orig					
A17-82 Dup					
A17-89 Orig	1	0.1	< 10	0.47	0.025
A17-89 Dup	< 1	0.1	< 10	0.47	0.026

Final Report
Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Hg	K	La	Mg	Na
Unit Symbol	ppm	%	ppm	%	%
Detection Limit	1	0.01	10	0.01	0.001
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-96 Orig					
A17-96 Dup					
A17-112 Orig	< 1	0.12	< 10	0.28	0.019
A17-112 Dup	< 1	0.12	< 10	0.28	0.02
A17-116 Orig					
A17-116 Dup					
A17-122 Orig	< 1	0.37	< 10	0.29	0.02
A17-122 Split PREP DUP	< 1	0.36	< 10	0.28	0.019
DM-62 Orig	< 1	0.07	< 10	0.03	0.017
DM-62 Dup	< 1	0.07	< 10	0.03	0.016
DM-63 Orig					
DM-63 Dup					
DM-73 Orig					
DM-73 Dup					
DM-93 Orig					
DM-93 Dup					
DM-97 Orig	1	0.43	19	0.02	0.03
DM-97 Dup	< 1	0.43	18	0.02	0.027
DM-100 Orig					
DM-100 Dup					
DM-109 Orig					
DM-109 Dup					
SGKM-01 Orig	< 1	0.34	19	0.07	0.03
SGKM-01 Dup	< 1	0.36	19	0.07	0.045
SGKM-10 Orig					
SGKM-10 Dup					
SGKM-11 Orig	2	0.35	< 10	0.07	0.027
SGKM-11 Split PREP DUP	4	0.35	10	0.06	0.025
SGKM-13 Orig	< 1	< 0.01	< 10	0.34	0.014
SGKM-13 Dup	< 1	< 0.01	< 10	0.36	0.018
LGKM-07 Orig					

Final Report
Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Hg	K	La	Mg	Na
Unit Symbol	ppm	%	ppm	%	%
Detection Limit	1	0.01	10	0.01	0.001
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP

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Final Report
Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	P	S	Sb	Sc	Sr
Unit Symbol	%	%	ppm	ppm	ppm
Detection Limit	0.001	0.01	2	1	1
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-1 Meas	0.037	0.17	72	1	135
GXR-1 Cert	0.065	0.257	122	1.58	275
GXR-4 Meas	0.119	1.73	5	7	59
GXR-4 Cert	0.12	1.77	4.8	7.7	221
GXR-4 Meas	0.115	1.72	3	7	73
GXR-4 Cert	0.12	1.77	4.8	7.7	221
GXR-6 Meas	0.031	0.01	3	21	31
GXR-6 Cert	0.035	0.016	3.6	27.6	35
GXR-6 Meas	0.029	0.01	6	20	37
GXR-6 Cert	0.035	0.016	3.6	27.6	35
MP-1b Meas					
MP-1b Cert					
OxQ75 Meas					
OxQ75 Cert					
CZN-4 Meas					
CZN-4 Cert					
SQ47 Meas					
SQ47 Cert					
OxK110 Meas					
OxK110 Cert					
OREAS 922 (AQUA REGIA) Meas	0.06	0.36	3	4	13
OREAS 922 (AQUA REGIA) Cert	0.063	0.386	0.57	3.15	15.0
OREAS 922 (AQUA REGIA) Meas	0.058	0.37	< 2	4	17
OREAS 922 (AQUA REGIA) Cert	0.063	0.386	0.57	3.15	15.0
OREAS 923 (AQUA REGIA) Meas	0.06	0.68	3	4	12
OREAS 923 (AQUA REGIA) Cert	0.061	0.684	0.58	3.09	13.6
OREAS 923 (AQUA REGIA) Meas	0.053	0.63	4	3	14
OREAS 923 (AQUA REGIA) Cert	0.061	0.684	0.58	3.09	13.6
OXN117 Meas					
OXN117 Cert					
OREAS 930 (AQUA REGIA) Meas					

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Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	P	S	Sb	Sc	Sr
Unit Symbol	%	%	ppm	ppm	ppm
Detection Limit	0.001	0.01	2	1	1
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
OREAS 930 (AQUA REGIA) Cert					
CCU-1e Meas					
CCU-1e Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 224 (Fire Assay) Meas					
OREAS 224 (Fire Assay) Cert					
A17-72 Orig					
A17-72 Dup					
A17-75 Orig	0.032	0.03	2	6	88
A17-75 Dup	0.031	0.03	< 2	6	87
A17-82 Orig					
A17-82 Dup					
A17-89 Orig	0.023	0.28	2	2	93
A17-89 Dup	0.024	0.3	3	2	95

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Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	P	S	Sb	Sc	Sr
Unit Symbol	%	%	ppm	ppm	ppm
Detection Limit	0.001	0.01	2	1	1
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-96 Orig					
A17-96 Dup					
A17-112 Orig	0.006	1.9	32	< 1	21
A17-112 Dup	0.006	1.93	29	< 1	21
A17-116 Orig					
A17-116 Dup					
A17-122 Orig	0.063	2.64	37	3	25
A17-122 Split PREP DUP	0.062	2.56	35	3	25
DM-62 Orig	0.015	3.61	18	< 1	7
DM-62 Dup	0.016	3.85	18	1	6
DM-63 Orig					
DM-63 Dup					
DM-73 Orig					
DM-73 Dup					
DM-93 Orig					
DM-93 Dup					
DM-97 Orig	0.117	0.87	23	3	25
DM-97 Dup	0.119	0.86	24	3	25
DM-100 Orig					
DM-100 Dup					
DM-109 Orig					
DM-109 Dup					
SGKM-01 Orig	0.018	0.03	< 2	< 1	17
SGKM-01 Dup	0.018	0.03	2	< 1	17
SGKM-10 Orig					
SGKM-10 Dup					
SGKM-11 Orig	0.036	0.47	13	6	217
SGKM-11 Split PREP DUP	0.037	0.48	12	6	228
SGKM-13 Orig	0.011	0.06	16	< 1	182
SGKM-13 Dup	0.012	0.07	17	< 1	190
LGKM-07 Orig					

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Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	P	S	Sb	Sc	Sr
Unit Symbol	%	%	ppm	ppm	ppm
Detection Limit	0.001	0.01	2	1	1
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP

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Final Report
Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Ti	Th	Te	Tl	U
Unit Symbol	%	ppm	ppm	ppm	ppm
Detection Limit	0.01	20	1	2	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-1 Meas	< 0.01	< 20	8	< 2	29
GXR-1 Cert	0.036	2.44	13	0.39	34.9
GXR-4 Meas	0.14	< 20	< 1	< 2	< 10
GXR-4 Cert	0.29	22.5	0.97	3.2	6.2
GXR-4 Meas	0.13	< 20	< 1	< 2	< 10
GXR-4 Cert	0.29	22.5	0.97	3.2	6.2
GXR-6 Meas		< 20	< 1	< 2	< 10
GXR-6 Cert		5.3	0.018	2.2	1.54
GXR-6 Meas		< 20	< 1	< 2	< 10
GXR-6 Cert		5.3	0.018	2.2	1.54
MP-1b Meas					
MP-1b Cert					
OxQ75 Meas					
OxQ75 Cert					
CZN-4 Meas					
CZN-4 Cert					
SQ47 Meas					
SQ47 Cert					
OxK110 Meas					
OxK110 Cert					
OREAS 922 (AQUA REGIA) Meas		< 20		< 2	< 10
OREAS 922 (AQUA REGIA) Cert		14.5		0.14	1.98
OREAS 922 (AQUA REGIA) Meas		< 20		< 2	< 10
OREAS 922 (AQUA REGIA) Cert		14.5		0.14	1.98
OREAS 923 (AQUA REGIA) Meas		< 20		< 2	< 10
OREAS 923 (AQUA REGIA) Cert		14.3		0.12	1.80
OREAS 923 (AQUA REGIA) Meas		< 20		< 2	< 10
OREAS 923 (AQUA REGIA) Cert		14.3		0.12	1.80
OXN117 Meas					
OXN117 Cert					
OREAS 930 (AQUA REGIA) Meas					

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Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Ti	Th	Te	Tl	U
Unit Symbol	%	ppm	ppm	ppm	ppm
Detection Limit	0.01	20	1	2	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
OREAS 930 (AQUA REGIA) Cert					
CCU-1e Meas					
CCU-1e Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 224 (Fire Assay) Meas					
OREAS 224 (Fire Assay) Cert					
A17-72 Orig					
A17-72 Dup					
A17-75 Orig	0.02	< 20	< 1	< 2	< 10
A17-75 Dup	0.02	< 20	< 1	< 2	< 10
A17-82 Orig					
A17-82 Dup					
A17-89 Orig	0.06	< 20	3	< 2	< 10
A17-89 Dup	0.07	< 20	3	< 2	< 10

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Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Ti	Th	Te	Tl	U
Unit Symbol	%	ppm	ppm	ppm	ppm
Detection Limit	0.01	20	1	2	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-96 Orig					
A17-96 Dup					
A17-112 Orig	< 0.01	< 20	3	< 2	< 10
A17-112 Dup	< 0.01	< 20	3	< 2	< 10
A17-116 Orig					
A17-116 Dup					
A17-122 Orig	< 0.01	< 20	< 1	< 2	< 10
A17-122 Split PREP DUP	< 0.01	< 20	< 1	< 2	< 10
DM-62 Orig	< 0.01	< 20	< 1	< 2	< 10
DM-62 Dup	< 0.01	< 20	< 1	< 2	< 10
DM-63 Orig					
DM-63 Dup					
DM-73 Orig					
DM-73 Dup					
DM-93 Orig					
DM-93 Dup					
DM-97 Orig	< 0.01	< 20	< 1	< 2	< 10
DM-97 Dup	< 0.01	< 20	< 1	< 2	< 10
DM-100 Orig					
DM-100 Dup					
DM-109 Orig					
DM-109 Dup					
SGKM-01 Orig	< 0.01	< 20	< 1	< 2	< 10
SGKM-01 Dup	< 0.01	< 20	< 1	< 2	< 10
SGKM-10 Orig					
SGKM-10 Dup					
SGKM-11 Orig	0.05	< 20	< 1	< 2	< 10
SGKM-11 Split PREP DUP	0.05	< 20	< 1	< 2	< 10
SGKM-13 Orig	< 0.01	< 20	< 1	< 2	< 10
SGKM-13 Dup	< 0.01	< 20	< 1	< 2	< 10
LGKM-07 Orig					

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Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Ti	Th	Te	Tl	U
Unit Symbol	%	ppm	ppm	ppm	ppm
Detection Limit	0.01	20	1	2	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP

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Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	V	W	Y	Zr	Ag
Unit Symbol	ppm	ppm	ppm	ppm	g/tonne
Detection Limit	1	10	1	1	3
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-GRA
GXR-1 Meas	71	138	22	8	
GXR-1 Cert	80	164	32	38	
GXR-4 Meas	79	14	12	4	
GXR-4 Cert	87	30.8	14	186	
GXR-4 Meas	70	13	11	7	
GXR-4 Cert	87	30.8	14	186	
GXR-6 Meas	166	< 10	6	4	
GXR-6 Cert	186	1.9	14	110	
GXR-6 Meas	142	< 10	5	5	
GXR-6 Cert	186	1.9	14	110	
MP-1b Meas					
MP-1b Cert					
OxQ75 Meas					145
OxQ75 Cert					153.9
CZN-4 Meas					
CZN-4 Cert					
SQ47 Meas					120
SQ47 Cert					122.3
OxK110 Meas					
OxK110 Cert					
OREAS 922 (AQUA REGIA) Meas	37	< 10	22	10	
OREAS 922 (AQUA REGIA) Cert	29.4	1.12	16.0	22.3	
OREAS 922 (AQUA REGIA) Meas	32	< 10	20	13	
OREAS 922 (AQUA REGIA) Cert	29.4	1.12	16.0	22.3	
OREAS 923 (AQUA REGIA) Meas	36	< 10	20	17	
OREAS 923 (AQUA REGIA) Cert	30.6	1.96	14.3	22.5	
OREAS 923 (AQUA REGIA) Meas	29	< 10	17	22	
OREAS 923 (AQUA REGIA) Cert	30.6	1.96	14.3	22.5	
OXN117 Meas					
OXN117 Cert					
OREAS 930 (AQUA REGIA) Meas					

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Activation Laboratories

Report Number: A17-10632

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Analyte Symbol	V	W	Y	Zr	Ag
Unit Symbol	ppm	ppm	ppm	ppm	g/tonne
Detection Limit	1	10	1	1	3
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-GRA

OREAS 930 (AQUA REGIA) Cert

CCU-1e Meas

CCU-1e Cert

OREAS 214 Meas

OREAS 214 Cert

OREAS 214 Meas

OREAS 214 Cert

OREAS 214 Meas

OREAS 214 Cert

OREAS 218 Meas

OREAS 218 Cert

OREAS 218 Meas

OREAS 218 Cert

OREAS 218 Meas

OREAS 218 Cert

OREAS 218 Meas

OREAS 218 Cert

OREAS 218 Meas

OREAS 218 Cert

OREAS 218 Meas

OREAS 218 Cert

OREAS 224 (Fire Assay) Meas

OREAS 224 (Fire Assay) Cert

A17-72 Orig

A17-72 Dup

A17-75 Orig

A17-75 Dup

A17-82 Orig

A17-82 Dup

A17-89 Orig

A17-89 Dup

83	< 10	4	2
82	< 10	4	2
45	< 10	2	2
45	< 10	2	2

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Activation Laboratories

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Analyte Symbol	V	W	Y	Zr	Ag
Unit Symbol	ppm	ppm	ppm	ppm	g/tonne
Detection Limit	1	10	1	1	3
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-GRA
A17-96 Orig					
A17-96 Dup					
A17-112 Orig	2	1860	4	3	
A17-112 Dup	2	1900	4	3	
A17-116 Orig					
A17-116 Dup					
A17-122 Orig	9	< 10	6	7	
A17-122 Split PREP DUP	9	< 10	6	7	
DM-62 Orig	9	< 10	1	3	
DM-62 Dup	10	< 10	1	3	
DM-63 Orig					
DM-63 Dup					
DM-73 Orig					
DM-73 Dup					
DM-93 Orig					
DM-93 Dup					
DM-97 Orig	14	< 10	7	< 1	
DM-97 Dup	14	< 10	7	< 1	
DM-100 Orig					
DM-100 Dup					
DM-109 Orig					
DM-109 Dup					
SGKM-01 Orig	4	< 10	4	2	
SGKM-01 Dup	4	< 10	5	2	
SGKM-10 Orig					
SGKM-10 Dup					
SGKM-11 Orig	51	< 10	13	3	
SGKM-11 Split PREP DUP	50	< 10	13	3	
SGKM-13 Orig	6	< 10	2	4	
SGKM-13 Dup	6	< 10	2	4	
LGKM-07 Orig					

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Activation Laboratories

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Analyte Symbol	V	W	Y	Zr	Ag
Unit Symbol	ppm	ppm	ppm	ppm	g/tonne
Detection Limit	1	10	1	1	3
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-GRA
LGKM-07 Dup					
LGKM-09 Orig	12	< 10	10	2	
LGKM-09 Dup	11	< 10	11	2	
LGKM-16 Orig					
LGKM-16 Dup					
GVKM-03 Orig	27	< 10	3	13	
GVKM-03 Dup	26	< 10	4	11	
GVKM-05 Orig					
GVKM-05 Dup					
GVKM-17 Orig	10	< 10	6	2	
GVKM-17 Dup	10	< 10	6	2	
GVKM-19 Orig					
GVKM-19 Dup					
GVKM-21 Orig	3	< 10	12	3	
GVKM-21 Split PREP DUP	4	< 10	12	4	
GSKM-03 Orig					
GSKM-03 Dup					
GSKM-04 Orig	18	< 10	5	< 1	
GSKM-04 Dup	18	< 10	5	< 1	
Method Blank	< 1	< 10	< 1	< 1	
Method Blank	< 1	< 10	< 1	< 1	
Method Blank	< 1	< 10	< 1	< 1	
Method Blank					< 3
Method Blank					
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Activation Laboratories

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Analyte Symbol	V	W	Y	Zr	Ag
Unit Symbol	ppm	ppm	ppm	ppm	g/tonne
Detection Limit	1	10	1	1	3
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-GRA

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Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Cu	Pb	Zn	Au
Unit Symbol	%	%	%	g/tonne
Detection Limit	0.001	0.003	0.001	0.03
Analysis Method	ICP-OES	ICP-OES	ICP-OES	FA-GRA
GXR-1 Meas				
GXR-1 Cert				
GXR-4 Meas				
GXR-4 Cert				
GXR-4 Meas				
GXR-4 Cert				
GXR-6 Meas				
GXR-6 Cert				
GXR-6 Meas				
GXR-6 Cert				
MP-1b Meas	3.18	2.14	17.2	
MP-1b Cert	3.07	2.09	16.7	
OxQ75 Meas				
OxQ75 Cert				
CZN-4 Meas	0.404	0.182	56.5	
CZN-4 Cert	0.403	0.1861	55.07	
SQ47 Meas				
SQ47 Cert				
OxK110 Meas				3.65
OxK110 Cert				3.602
OREAS 922 (AQUA REGIA) Meas				
OREAS 922 (AQUA REGIA) Cert				
OREAS 922 (AQUA REGIA) Meas				
OREAS 922 (AQUA REGIA) Cert				
OREAS 923 (AQUA REGIA) Meas				
OREAS 923 (AQUA REGIA) Cert				
OREAS 923 (AQUA REGIA) Meas				
OREAS 923 (AQUA REGIA) Cert				
OXN117 Meas				7.46
OXN117 Cert				7.679
OREAS 930 (AQUA REGIA) Meas	2.53	0.013	0.048	

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Activation Laboratories

Report Number: A17-10632

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Analyte Symbol	Cu	Pb	Zn	Au
Unit Symbol	%	%	%	g/tonne
Detection Limit	0.001	0.003	0.001	0.03
Analysis Method	ICP-OES	ICP-OES	ICP-OES	FA-GRA
OREAS 930 (AQUA REGIA) Cert	2.51	0.0142	0.0488	
CCU-1e Meas		0.685	2.96	
CCU-1e Cert		0.703	3.02	
OREAS 214 Meas				
OREAS 214 Cert				
OREAS 214 Meas				
OREAS 214 Cert				
OREAS 214 Meas				
OREAS 214 Cert				
OREAS 218 Meas				
OREAS 218 Cert				
OREAS 218 Meas				
OREAS 218 Cert				
OREAS 218 Meas				
OREAS 218 Cert				
OREAS 218 Meas				
OREAS 218 Cert				
OREAS 218 Meas				
OREAS 218 Cert				
OREAS 218 Meas				
OREAS 218 Cert				
OREAS 224 (Fire Assay) Meas				
OREAS 224 (Fire Assay) Cert				
A17-72 Orig				
A17-72 Dup				
A17-75 Orig				
A17-75 Dup				
A17-82 Orig				
A17-82 Dup				
A17-89 Orig				
A17-89 Dup				

Final Report
Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Cu	Pb	Zn	Au
Unit Symbol	%	%	%	g/tonne
Detection Limit	0.001	0.003	0.001	0.03
Analysis Method	ICP-OES	ICP-OES	ICP-OES	FA-GRA

A17-96 Orig

A17-96 Dup

A17-112 Orig

A17-112 Dup

A17-116 Orig

A17-116 Dup

A17-122 Orig

1.26

A17-122 Split PREP DUP

1.34

DM-62 Orig

DM-62 Dup

DM-63 Orig

DM-63 Dup

DM-73 Orig

DM-73 Dup

DM-93 Orig

1.82

DM-93 Dup

1.79

DM-97 Orig

DM-97 Dup

DM-100 Orig

DM-100 Dup

DM-109 Orig

DM-109 Dup

SGKM-01 Orig

SGKM-01 Dup

SGKM-10 Orig

SGKM-10 Dup

SGKM-11 Orig

SGKM-11 Split PREP DUP

SGKM-13 Orig

SGKM-13 Dup

LGKM-07 Orig

Final Report
Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Cu	Pb	Zn	Au
Unit Symbol	%	%	%	g/tonne
Detection Limit	0.001	0.003	0.001	0.03
Analysis Method	ICP-OES	ICP-OES	ICP-OES	FA-GRA

LGKM-07 Dup

LGKM-09 Orig

LGKM-09 Dup

LGKM-16 Orig

LGKM-16 Dup

GVKM-03 Orig

GVKM-03 Dup

GVKM-05 Orig

GVKM-05 Dup

GVKM-17 Orig

GVKM-17 Dup

GVKM-19 Orig

GVKM-19 Dup

GVKM-21 Orig

GVKM-21 Split PREP DUP

GSKM-03 Orig

GSKM-03 Dup

GSKM-04 Orig

GSKM-04 Dup

Method Blank

Method Blank

Method Blank

Method Blank

Method Blank < 0.001

Method Blank < 0.003

Method Blank < 0.001

Method Blank

Method Blank

Method Blank

Method Blank

Method Blank

Method Blank

Final Report
Activation Laboratories

Report Number: A17-10632

Report Date: 9/11/2017

Analyte Symbol	Cu	Pb	Zn	Au
Unit Symbol	%	%	%	g/tonne
Detection Limit	0.001	0.003	0.001	0.03
Analysis Method	ICP-OES	ICP-OES	ICP-OES	FA-GRA
Method Blank				
Method Blank				
Method Blank				
Method Blank				< 0.03
Method Blank				< 0.03
Method Blank				
Method Blank				

Final Report
Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Au	Ag	Cd	Cu	Mn
Unit Symbol	ppb	ppm	ppm	ppm	ppm
Detection Limit	5	0.2	0.5	1	5
Analysis Method	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP
LJ-1	< 5	1.3	< 0.5	52	194
LJ-2	< 5	1.7	< 0.5	37	32
LJ-3	< 5	0.5	< 0.5	9	22
LJ-4	< 5	< 0.2	< 0.5	5	393
LJ-5	< 5	0.9	< 0.5	17	1010
LJ-6	< 5	0.5	< 0.5	5	32
LJ-7	< 5	1.8	< 0.5	13	37
LJ-8	< 5	1.7	< 0.5	13	1050
A17-35	8	4.8	1.4	18	4960
A17-36	7	1.2	9.8	45	655
A17-37	< 5	< 0.2	0.8	12	639
A17-38	6	0.2	< 0.5	55	437
A17-39	22	3.7	1.8	27	845
A17-90	< 5	0.8	< 0.5	12	137
A17-91	< 5	< 0.2	< 0.5	10	1290
A17-92	< 5	1.8	< 0.5	27	47
A17-93	< 5	< 0.2	0.8	16	1670
A17-94	< 5	6	1.1	23	73
A17-104	< 5	< 0.2	1.5	11	124
A17-105	71	3.4	10.8	48	192
A17-106	139	0.3	0.5	4	1820
A17-107	1180	3.2	< 0.5	3	7720
A17-108	< 5	0.6	< 0.5	1560	1300
A17-125	7	0.3	< 0.5	29	346
A17-126	< 5	< 0.2	< 0.5	10	1140
A17-127	< 5	0.4	< 0.5	21	282
A17-128	< 5	< 0.2	< 0.5	11	75
A17-129	< 5	< 0.2	< 0.5	26	191
A17-130	< 5	< 0.2	< 0.5	15	668
A17-131	< 5	< 0.2	< 0.5	33	743
A17-132	28	10.6	129	15	7980

Final Report
Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Au	Ag	Cd	Cu	Mn
Unit Symbol	ppb	ppm	ppm	ppm	ppm
Detection Limit	5	0.2	0.5	1	5
Analysis Method	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-133	27	33.5	0.7	24	123
A17-134	102	1.9	8.1	10	738
A17-135	< 5	10.3	30.4	12	10900
A17-136	< 5	16.4	97.9	30	11100
A17-137	< 5	0.5	2.9	24	1600
A17-138	< 5	1.3	3.6	13	7010
A17-139	< 5	< 0.2	< 0.5	19	1370
A17-140	6	0.6	1.9	31	711
A17-141	< 5	1.2	42.1	8	4010
A17-142	347	8.7	4.6	14	6110
A17-143	60	1.6	18.5	1	29200
A17-144	183	> 100	238	232	3470
A17-145	8	0.3	0.6	56	1370
A17-146	9	1.4	6.4	28	1020
A17-147	< 5	4.3	< 0.5	3	68
A17-148	< 5	0.9	2.7	9	554
DM-41	< 5	< 0.2	< 0.5	6	732
DM-42	26	< 0.2	< 0.5	15	2870
DM-43	< 5	< 0.2	< 0.5	3	1460
DM-44	< 5	< 0.2	< 0.5	24	2310
DM-45	< 5	< 0.2	< 0.5	2	1340
DM-46	1880	24.9	0.6	> 10000	247
DM-47	< 5	< 0.2	< 0.5	22	972
DM-48	41	0.9	1.4	54	258
DM-49	75	1.7	< 0.5	39	650
DM-50	14	0.8	< 0.5	169	1000
DM-51	< 5	< 0.2	< 0.5	38	2060
DM-52	< 5	0.3	0.6	132	979
DM-53	< 5	0.6	1.4	108	512
DM-54	11	0.2	< 0.5	69	773
DM-55	< 5	< 0.2	< 0.5	4	349

Final Report
Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Au	Ag	Cd	Cu	Mn
Unit Symbol	ppb	ppm	ppm	ppm	ppm
Detection Limit	5	0.2	0.5	1	5
Analysis Method	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM-56	< 5	< 0.2	< 0.5	26	302
DM-57	< 5	< 0.2	< 0.5	15	1720
DM-58	> 5000	4.6	320	845	67
DM-59	9	< 0.2	0.6	19	3150
DM-60	9	< 0.2	< 0.5	30	2570
DM-61	55	< 0.2	< 0.5	4	1880
DM-74	7	< 0.2	< 0.5	8	1510
DM-75	56	< 0.2	< 0.5	1	4010
DM-76	12	1.5	< 0.5	3880	2080
DM-77	< 5	< 0.2	< 0.5	4	1100
DM-78	< 5	0.2	< 0.5	49	152
DM-79	< 5	< 0.2	< 0.5	183	438
DM-80	< 5	< 0.2	< 0.5	21	888
DM-81	< 5	< 0.2	< 0.5	19	705
DM-82	< 5	0.2	< 0.5	221	595
DM-83	< 5	< 0.2	< 0.5	28	766
DM-84	< 5	0.2	< 0.5	71	185
DM-85	< 5	0.2	< 0.5	217	239
DM-111	< 5	< 0.2	< 0.5	10	2080
DM-112	< 5	< 0.2	< 0.5	57	281
DM-113	< 5	< 0.2	< 0.5	45	397
DM-114	< 5	< 0.2	< 0.5	< 1	241
DM-115	< 5	< 0.2	< 0.5	64	2150
DM-116	< 5	< 0.2	< 0.5	86	2960
DM-117	< 5	< 0.2	< 0.5	1	280
DM-118	< 5	< 0.2	< 0.5	26	556
DM-119	< 5	< 0.2	8	43	601
DM-120	< 5	< 0.2	< 0.5	8	301
DM-121	6	22.4	3.3	121	40
DM-122	< 5	2.9	0.6	8	178
DM-123	5	5.9	0.6	16	679

Final Report
Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Au	Ag	Cd	Cu	Mn
Unit Symbol	ppb	ppm	ppm	ppm	ppm
Detection Limit	5	0.2	0.5	1	5
Analysis Method	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM-124	3010	5.7	10.5	120	691
DM-125	31	6.6	< 0.5	54	151
DM-126	> 5000	47.1	< 0.5	> 10000	320
DM-127	> 5000	> 100	318	> 10000	125
DM-128	1640	1.5	0.9	34	5620
DM-129	> 5000	17.2	28.7	261	1180
DM-130	638	> 100	246	212	469
DM-131	732	5.2	3.4	29	2550
DM-132	1650	> 100	542	714	1060
DM-133	12	1.8	18.1	30	6460
DM-134	< 5	1.7	4.6	5	4140
DM-135	< 5	1.1	< 0.5	15	900
DM-136	< 5	< 0.2	0.6	6	244
DM-137	6	0.2	13.3	37	2970
DM-138	< 5	< 0.2	0.6	4	2610
DM-139	3620	15.1	2.1	361	79
DM-140	16	0.7	< 0.5	13	365
DM-141	8	1.4	4.9	233	1740
DM-142	5	0.9	1.1	10	3370
DM-143	8	0.4	< 0.5	16	327
AGKM-01	144	9.5	3.1	96	4620
AGKM-02	< 5	< 0.2	2.3	25	3160
AGKM-03	< 5	7.7	12.7	5	762
AGKM-04	< 5	< 0.2	< 0.5	24	1450
AGKM-05	< 5	0.3	< 0.5	26	75
AGKM-06	< 5	0.3	20.6	9	1710
AGKM-07	< 5	< 0.2	< 0.5	2	899
AGKM-08	< 5	0.2	0.6	14	377
AGKM-09	< 5	0.2	7	8	1400
AGKM-10	5	0.6	0.8	11	704
AGKM-11	< 5	0.4	4.6	14	767

Final Report
Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Au	Ag	Cd	Cu	Mn
Unit Symbol	ppb	ppm	ppm	ppm	ppm
Detection Limit	5	0.2	0.5	1	5
Analysis Method	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP
AGKM-12	< 5	1.8	14.4	17	2940
AGKM-13	< 5	0.5	1.3	6	3730
AGKM-14	< 5	0.8	32.4	15	5100
AGKM-15	7	0.8	0.7	11	883
AGKM-16	< 5	< 0.2	1.2	51	1880
AGKM-17	< 5	< 0.2	1.4	22	1530
AGKM-12a	< 5	< 0.2	0.9	3	4950
AGKM-14a	< 5	4.5	8.5	12	316
GGKM-01	< 5	< 0.2	< 0.5	3	859
GGKM-02	117	8.9	< 0.5	116	367
GGKM-03	< 5	< 0.2	< 0.5	56	86
GGKM-04	12	8.2	< 0.5	20	39
GGKM-05	31	3	< 0.5	24	1360
GGKM-06	< 5	0.3	< 0.5	9	6000
GGKM-07	< 5	< 0.2	< 0.5	13	2510
GGKM-08	< 5	< 0.2	< 0.5	30	4150
GGKM-09	670	0.9	< 0.5	173	3760
GGKM-10	< 5	0.4	< 0.5	5	2260
GGKM-11	30	0.6	< 0.5	5	60
GGKM-12	114	10.9	383	215	1610
GGKM-13	91	1.3	< 0.5	2	26
GGKM-14	381	16.1	0.8	219	73
GGKM-15	17	0.3	< 0.5	6	67
GGKM-16	1930	15.4	1.1	59	466
GGKM-17	8	1.1	1	54	2020
GGKM-18	191	1.2	0.6	9	713
RRKM-01	8	< 0.2	< 0.5	11	4130
RRKM-02	8	< 0.2	< 0.5	23	3100
RRKM-03	8	< 0.2	< 0.5	13	4570
RRKM-04	6	< 0.2	< 0.5	6	3550
RRKM-05	9	< 0.2	< 0.5	247	4440

Final Report
Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Au	Ag	Cd	Cu	Mn
Unit Symbol	ppb	ppm	ppm	ppm	ppm
Detection Limit	5	0.2	0.5	1	5
Analysis Method	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP
RRKM-06	13	0.7	1.4	23	2830
RRKM-07	< 5	0.5	0.9	38	603
RRKM-08	< 5	1.2	11.1	8	2240
RRKM-09	10	< 0.2	< 0.5	5	3130
RRKM-10	< 5	< 0.2	< 0.5	32	2260
RRKM-11	6	< 0.2	< 0.5	74	1610
RRKM-12	< 5	< 0.2	< 0.5	< 1	840
RRKM-13	< 5	< 0.2	< 0.5	11	5320
RRKM-14	< 5	< 0.2	< 0.5	35	2330
RRKM-31	< 5	< 0.2	< 0.5	2	481
RRKM-32	< 5	< 0.2	< 0.5	3	342
RRKM-33	< 5	< 0.2	< 0.5	32	182
RRKM-34	< 5	< 0.2	< 0.5	15	557
RRKM-35	< 5	< 0.2	< 0.5	18	826
RRKM-36	< 5	< 0.2	< 0.5	12	1380
RRKM-37	< 5	< 0.2	< 0.5	97	566
RRKM-38	< 5	< 0.2	< 0.5	13	552
VKM-01	< 5	1.2	1	2	2490
VKM-02	< 5	1.6	0.7	9	194
VKM-03	< 5	0.4	< 0.5	6	233
VKM-04	< 5	5	0.6	11	125
VKM-05	< 5	1.7	10.4	15	167
VKM-06	< 5	0.4	< 0.5	5	139
VKM-07	< 5	9.6	1.5	22	57
VKM-08	< 5	0.2	0.9	6	787
VKM-09	< 5	2.1	< 0.5	28	45
VKM-16	< 5	2.1	< 0.5	7	41
VKM-17	14	4.2	< 0.5	5	30
VKM-18	31	8.8	0.6	70	48
VKM-19	< 5	0.9	< 0.5	6	63
RSKM-01	9	0.3	< 0.5	76	1100

Final Report
Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Mo	Ni	Pb	Zn	Al
Unit Symbol	ppm	ppm	ppm	ppm	%
Detection Limit	1	1	2	2	0.01
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
LJ-1	15	< 1	41	13	0.76
LJ-2	32	< 1	43	8	0.84
LJ-3	5	< 1	26	5	0.68
LJ-4	2	< 1	12	14	1.02
LJ-5	3	1	33	11	0.75
LJ-6	4	1	16	13	1.59
LJ-7	3	1	23	12	0.99
LJ-8	6	< 1	22	25	0.87
A17-35	4	< 1	17	44	0.26
A17-36	27	70	12	686	0.86
A17-37	1	12	17	88	1.59
A17-38	2	118	10	147	2.98
A17-39	2	4	10	217	1.49
A17-90	3	1	28	15	0.76
A17-91	10	< 1	6	102	0.67
A17-92	6	< 1	126	68	0.75
A17-93	< 1	13	12	380	1.9
A17-94	4	< 1	52	202	0.55
A17-104	2	1	15	157	0.58
A17-105	14	< 1	788	2080	1.03
A17-106	2	3	6	97	0.19
A17-107	< 1	2	140	128	0.26
A17-108	< 1	2	4	41	2.19
A17-125	12	< 1	18	19	0.35
A17-126	1	< 1	< 2	21	0.03
A17-127	3	2	32	38	1.85
A17-128	2	< 1	3	10	0.34
A17-129	3	2	16	27	1.4
A17-130	< 1	3	5	50	1.27
A17-131	1	5	15	142	1.49
A17-132	340	< 1	1380	8940	0.03

Final Report
Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Mo	Ni	Pb	Zn	Al
Unit Symbol	ppm	ppm	ppm	ppm	%
Detection Limit	1	1	2	2	0.01
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-133	44	4	410	179	0.88
A17-134	8	2	122	745	0.89
A17-135	36	< 1	117	2980	0.07
A17-136	99	2	1810	7480	0.07
A17-137	2	28	148	423	0.47
A17-138	15	24	97	293	0.67
A17-139	1	5	4	64	0.61
A17-140	3	7	21	188	0.72
A17-141	11	6	570	6000	0.39
A17-142	3	1	558	1290	0.85
A17-143	< 1	2	134	2930	0.37
A17-144	1	2	> 5000	> 10000	0.38
A17-145	< 1	11	18	176	0.68
A17-146	4	2	364	1180	0.76
A17-147	1	< 1	105	16	0.02
A17-148	2	3	64	351	1.02
DM-41	3	1	< 2	19	1.58
DM-42	1	18	6	23	1.81
DM-43	3	2	< 2	10	0.4
DM-44	< 1	13	< 2	21	2.37
DM-45	3	< 1	11	22	0.39
DM-46	2	7	5	35	0.37
DM-47	5	< 1	< 2	13	0.73
DM-48	4	11	13	153	0.45
DM-49	34	24	63	23	1.08
DM-50	2	1	5	21	0.18
DM-51	< 1	12	3	25	1.24
DM-52	4	13	8	49	0.51
DM-53	2	5	67	80	0.32
DM-54	1	49	12	53	1.85
DM-55	4	< 1	3	15	0.65

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Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Mo	Ni	Pb	Zn	Al
Unit Symbol	ppm	ppm	ppm	ppm	%
Detection Limit	1	1	2	2	0.01
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM-56	2	9	< 2	14	0.36
DM-57	< 1	12	< 2	16	0.98
DM-58	2	4	347	> 10000	0.11
DM-59	< 1	9	3	101	0.47
DM-60	< 1	14	< 2	37	1.14
DM-61	< 1	6	2	35	0.58
DM-74	1	< 1	3	36	0.36
DM-75	< 1	< 1	8	12	0.37
DM-76	< 1	< 1	5	47	0.58
DM-77	< 1	< 1	4	22	0.28
DM-78	1	< 1	5	5	0.3
DM-79	1	< 1	< 2	7	0.25
DM-80	2	< 1	7	12	0.52
DM-81	2	< 1	2	7	0.29
DM-82	1	1	< 2	7	0.35
DM-83	2	< 1	2	8	0.24
DM-84	1	< 1	3	6	0.31
DM-85	1	< 1	2	7	0.37
DM-111	9	3	8	13	0.34
DM-112	5	2	9	3	0.43
DM-113	6	< 1	< 2	6	1
DM-114	< 1	< 1	< 2	5	0.15
DM-115	2	2	< 2	7	0.05
DM-116	3	1	< 2	4	0.03
DM-117	4	< 1	< 2	8	1.1
DM-118	2	11	2	81	0.64
DM-119	< 1	28	12	1100	1.94
DM-120	3	< 1	< 2	11	1.42
DM-121	5	4	419	346	0.86
DM-122	9	1	122	124	0.47
DM-123	10	< 1	161	49	0.72

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Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Mo	Ni	Pb	Zn	Al
Unit Symbol	ppm	ppm	ppm	ppm	%
Detection Limit	1	1	2	2	0.01
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM-124	5	< 1	1440	769	0.76
DM-125	47	2	155	146	0.82
DM-126	395	11	663	155	0.45
DM-127	20	3	> 5000	> 10000	0.21
DM-128	3	4	104	81	0.09
DM-129	3	2	2240	1250	0.36
DM-130	2	2	2240	> 10000	0.05
DM-131	5	2	69	298	0.04
DM-132	1	3	3120	> 10000	0.08
DM-133	6	3	312	1960	0.07
DM-134	16	4	717	473	0.06
DM-135	2	< 1	25	45	0.58
DM-136	3	< 1	19	83	0.32
DM-137	1	1	8	771	0.95
DM-138	3	< 1	12	23	0.04
DM-139	< 1	6	102	13	0.27
DM-140	7	3	24	31	0.06
DM-141	2	1	21	312	0.07
DM-142	< 1	5	208	433	0.24
DM-143	2	2	5	23	0.18
AGKM-01	2	2	72	140	0.03
AGKM-02	2	< 1	10	14	0.03
AGKM-03	2	< 1	2220	5670	0.36
AGKM-04	< 1	9	11	67	1.97
AGKM-05	14	9	20	47	1.57
AGKM-06	4	< 1	24	1590	0.34
AGKM-07	2	< 1	4	67	0.18
AGKM-08	6	11	16	211	1.39
AGKM-09	1	6	9	377	1.3
AGKM-10	4	1	18	214	0.85
AGKM-11	2	< 1	14	218	0.12

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Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Mo	Ni	Pb	Zn	Al
Unit Symbol	ppm	ppm	ppm	ppm	%
Detection Limit	1	1	2	2	0.01
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
AGKM-12	45	5	401	1430	1.18
AGKM-13	24	4	22	134	1.32
AGKM-14	8	4	902	7260	1.11
AGKM-15	4	3	152	195	0.54
AGKM-16	6	24	5	148	1.36
AGKM-17	4	7	20	166	0.99
AGKM-12a	8	2	29	113	0.71
AGKM-14a	22	1	2140	1070	0.19
GGKM-01	2	< 1	10	34	0.19
GGKM-02	27	10	415	58	0.81
GGKM-03	4	2	9	12	0.24
GGKM-04	28	2	407	15	0.57
GGKM-05	20	4	319	94	0.29
GGKM-06	< 1	< 1	37	143	0.39
GGKM-07	1	3	14	60	0.44
GGKM-08	2	< 1	8	17	0.3
GGKM-09	2	1	14	35	0.74
GGKM-10	5	3	67	110	0.3
GGKM-11	12	< 1	28	4	0.24
GGKM-12	2	2	128	> 10000	0.39
GGKM-13	8	< 1	58	35	0.35
GGKM-14	62	7	166	62	0.44
GGKM-15	12	1	15	25	0.28
GGKM-16	31	8	664	144	0.36
GGKM-17	2	2	18	116	0.67
GGKM-18	2	2	46	57	0.09
RRKM-01	6	9	< 2	52	0.82
RRKM-02	< 1	14	< 2	9	0.6
RRKM-03	< 1	19	< 2	6	0.6
RRKM-04	< 1	3	< 2	7	0.2
RRKM-05	< 1	14	< 2	3	0.72

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Analyte Symbol	Mo	Ni	Pb	Zn	Al
Unit Symbol	ppm	ppm	ppm	ppm	%
Detection Limit	1	1	2	2	0.01
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
RRKM-06	69	53	86	87	0.49
RRKM-07	13	23	317	75	0.32
RRKM-08	6	12	3080	581	0.27
RRKM-09	2	11	16	15	0.36
RRKM-10	1	13	2	6	0.31
RRKM-11	2	31	4	12	0.52
RRKM-12	4	2	< 2	11	0.57
RRKM-13	< 1	5	< 2	5	0.12
RRKM-14	2	17	< 2	10	0.53
RRKM-31	2	< 1	< 2	16	0.88
RRKM-32	5	< 1	8	29	0.65
RRKM-33	4	3	11	27	1.72
RRKM-34	< 1	3	9	82	1.52
RRKM-35	< 1	3	8	76	1.64
RRKM-36	< 1	6	< 2	22	2.92
RRKM-37	< 1	4	20	86	2.06
RRKM-38	< 1	2	5	51	1.49
VKM-01	38	3	202	69	0.14
VKM-02	3	2	61	100	0.57
VKM-03	3	2	29	49	0.61
VKM-04	13	2	227	64	0.36
VKM-05	18	3	445	558	1.14
VKM-06	3	8	22	89	1.53
VKM-07	3	4	492	149	1.65
VKM-08	< 1	7	43	190	2.72
VKM-09	1	< 1	297	81	0.9
VKM-16	2	< 1	70	55	0.87
VKM-17	14	1	284	25	0.82
VKM-18	20	3	208	46	0.38
VKM-19	4	< 1	75	18	0.45
RSKM-01	4	41	5	34	1.45

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Analyte Symbol	As	B	Ba	Be	Bi
Unit Symbol	ppm	ppm	ppm	ppm	ppm
Detection Limit	2	10	10	0.5	2
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
LJ-1	75	< 10	210	< 0.5	< 2
LJ-2	45	< 10	46	< 0.5	< 2
LJ-3	159	< 10	160	< 0.5	< 2
LJ-4	8	< 10	178	0.6	< 2
LJ-5	35	< 10	61	< 0.5	< 2
LJ-6	9	12	78	0.8	< 2
LJ-7	29	< 10	56	< 0.5	< 2
LJ-8	33	< 10	99	0.5	< 2
A17-35	30	< 10	87	< 0.5	< 2
A17-36	75	< 10	19	< 0.5	< 2
A17-37	27	< 10	134	0.5	< 2
A17-38	13	11	326	0.9	< 2
A17-39	70	< 10	307	0.6	< 2
A17-90	23	< 10	262	< 0.5	< 2
A17-91	4	< 10	174	< 0.5	< 2
A17-92	64	< 10	46	< 0.5	< 2
A17-93	3	< 10	177	< 0.5	< 2
A17-94	46	< 10	49	< 0.5	< 2
A17-104	2	< 10	101	< 0.5	< 2
A17-105	7	< 10	186	< 0.5	< 2
A17-106	2720	< 10	30	< 0.5	< 2
A17-107	> 10000	< 10	50	< 0.5	< 2
A17-108	16	23	708	1.1	< 2
A17-125	63	< 10	202	< 0.5	< 2
A17-126	4	< 10	470	< 0.5	< 2
A17-127	129	< 10	54	< 0.5	< 2
A17-128	15	< 10	183	< 0.5	< 2
A17-129	80	< 10	66	< 0.5	< 2
A17-130	24	10	18	< 0.5	< 2
A17-131	32	13	236	1.2	< 2
A17-132	145	< 10	29	< 0.5	< 2

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Analyte Symbol	As	B	Ba	Be	Bi
Unit Symbol	ppm	ppm	ppm	ppm	ppm
Detection Limit	2	10	10	0.5	2
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-133	734	13	34	< 0.5	< 2
A17-134	1510	< 10	49	< 0.5	< 2
A17-135	39	< 10	52	< 0.5	< 2
A17-136	228	< 10	38	< 0.5	< 2
A17-137	19	< 10	96	< 0.5	< 2
A17-138	12	< 10	100	< 0.5	< 2
A17-139	13	< 10	114	< 0.5	< 2
A17-140	11	< 10	70	< 0.5	< 2
A17-141	296	< 10	26	< 0.5	< 2
A17-142	283	< 10	94	< 0.5	< 2
A17-143	462	< 10	49	< 0.5	< 2
A17-144	47	< 10	33	< 0.5	< 2
A17-145	51	< 10	157	< 0.5	< 2
A17-146	54	< 10	135	< 0.5	< 2
A17-147	8	< 10	13	< 0.5	3
A17-148	18	15	52	0.7	< 2
DM-41	4	< 10	123	0.7	< 2
DM-42	71	10	122	< 0.5	< 2
DM-43	35	< 10	86	< 0.5	< 2
DM-44	< 2	< 10	45	< 0.5	< 2
DM-45	< 2	< 10	50	< 0.5	< 2
DM-46	29	< 10	20	< 0.5	< 2
DM-47	6	11	127	< 0.5	< 2
DM-48	47	< 10	175	< 0.5	< 2
DM-49	295	< 10	119	< 0.5	< 2
DM-50	22	< 10	87	< 0.5	< 2
DM-51	3	< 10	102	< 0.5	< 2
DM-52	3	< 10	38	< 0.5	< 2
DM-53	< 2	< 10	36	< 0.5	< 2
DM-54	72	< 10	60	0.5	< 2
DM-55	7	< 10	116	< 0.5	< 2

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Analyte Symbol	As	B	Ba	Be	Bi
Unit Symbol	ppm	ppm	ppm	ppm	ppm
Detection Limit	2	10	10	0.5	2
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM-56	3	< 10	25	< 0.5	< 2
DM-57	4	< 10	44	< 0.5	< 2
DM-58	4910	< 10	< 10	< 0.5	< 2
DM-59	15	< 10	46	< 0.5	< 2
DM-60	9	< 10	65	< 0.5	< 2
DM-61	366	< 10	66	< 0.5	< 2
DM-74	2	< 10	312	< 0.5	< 2
DM-75	41	< 10	72	< 0.5	< 2
DM-76	< 2	< 10	43	< 0.5	3
DM-77	3	< 10	88	< 0.5	< 2
DM-78	< 2	< 10	457	< 0.5	< 2
DM-79	< 2	< 10	264	< 0.5	< 2
DM-80	9	< 10	301	< 0.5	< 2
DM-81	< 2	< 10	136	< 0.5	< 2
DM-82	< 2	< 10	279	< 0.5	< 2
DM-83	< 2	< 10	83	< 0.5	< 2
DM-84	< 2	< 10	118	< 0.5	< 2
DM-85	< 2	< 10	201	< 0.5	< 2
DM-111	26	< 10	40	< 0.5	< 2
DM-112	37	< 10	43	< 0.5	< 2
DM-113	61	17	116	0.8	< 2
DM-114	< 2	< 10	417	< 0.5	< 2
DM-115	2	< 10	373	< 0.5	< 2
DM-116	9	< 10	73	< 0.5	< 2
DM-117	< 2	< 10	96	0.5	< 2
DM-118	21	< 10	124	< 0.5	< 2
DM-119	< 2	< 10	68	< 0.5	< 2
DM-120	24	14	211	0.7	< 2
DM-121	149	< 10	< 10	< 0.5	< 2
DM-122	127	< 10	28	< 0.5	< 2
DM-123	41	11	89	1.9	6

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Analyte Symbol	As	B	Ba	Be	Bi
Unit Symbol	ppm	ppm	ppm	ppm	ppm
Detection Limit	2	10	10	0.5	2
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM-124	31	< 10	121	0.5	< 2
DM-125	188	< 10	38	< 0.5	< 2
DM-126	738	< 10	< 10	< 0.5	< 2
DM-127	3980	< 10	15	< 0.5	98
DM-128	550	< 10	13	< 0.5	< 2
DM-129	5000	< 10	154	< 0.5	7
DM-130	6310	< 10	< 10	< 0.5	247
DM-131	312	< 10	32	< 0.5	25
DM-132	791	< 10	< 10	< 0.5	290
DM-133	88	< 10	59	< 0.5	< 2
DM-134	36	< 10	95	< 0.5	< 2
DM-135	5	< 10	179	< 0.5	4
DM-136	2	< 10	202	< 0.5	< 2
DM-137	19	< 10	91	< 0.5	< 2
DM-138	24	< 10	537	< 0.5	< 2
DM-139	> 10000	< 10	< 10	< 0.5	101
DM-140	509	< 10	44	< 0.5	< 2
DM-141	14	< 10	50	< 0.5	6
DM-142	91	< 10	88	< 0.5	< 2
DM-143	20	< 10	54	< 0.5	< 2
AGKM-01	247	< 10	19	< 0.5	38
AGKM-02	15	< 10	581	< 0.5	< 2
AGKM-03	10	< 10	293	< 0.5	6
AGKM-04	5	< 10	305	< 0.5	< 2
AGKM-05	3	< 10	80	0.6	< 2
AGKM-06	353	< 10	106	< 0.5	< 2
AGKM-07	377	< 10	55	< 0.5	< 2
AGKM-08	53	< 10	37	< 0.5	< 2
AGKM-09	10	< 10	50	< 0.5	< 2
AGKM-10	13	< 10	32	< 0.5	< 2
AGKM-11	81	< 10	55	< 0.5	< 2

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Analyte Symbol	As	B	Ba	Be	Bi
Unit Symbol	ppm	ppm	ppm	ppm	ppm
Detection Limit	2	10	10	0.5	2
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
AGKM-12	298	< 10	39	0.6	< 2
AGKM-13	347	< 10	37	< 0.5	< 2
AGKM-14	374	< 10	43	< 0.5	< 2
AGKM-15	97	< 10	80	< 0.5	< 2
AGKM-16	8	< 10	114	< 0.5	< 2
AGKM-17	23	< 10	61	< 0.5	< 2
AGKM-12a	244	< 10	29	< 0.5	< 2
AGKM-14a	31	< 10	113	< 0.5	< 2
GGKM-01	4	< 10	139	< 0.5	< 2
GGKM-02	389	< 10	< 10	< 0.5	< 2
GGKM-03	15	< 10	259	< 0.5	< 2
GGKM-04	1520	< 10	24	< 0.5	< 2
GGKM-05	382	< 10	34	< 0.5	< 2
GGKM-06	9	< 10	110	< 0.5	< 2
GGKM-07	242	< 10	102	< 0.5	< 2
GGKM-08	< 2	10	937	< 0.5	< 2
GGKM-09	124	< 10	73	< 0.5	< 2
GGKM-10	28	< 10	1220	0.9	< 2
GGKM-11	71	< 10	134	< 0.5	< 2
GGKM-12	125	< 10	33	< 0.5	21
GGKM-13	48	< 10	350	< 0.5	< 2
GGKM-14	244	< 10	< 10	< 0.5	< 2
GGKM-15	33	< 10	200	< 0.5	< 2
GGKM-16	645	< 10	< 10	< 0.5	25
GGKM-17	12	< 10	190	< 0.5	< 2
GGKM-18	114	< 10	46	< 0.5	3
RRKM-01	6	< 10	140	< 0.5	< 2
RRKM-02	3	< 10	88	< 0.5	< 2
RRKM-03	4	< 10	79	< 0.5	< 2
RRKM-04	< 2	< 10	25	< 0.5	< 2
RRKM-05	12	< 10	66	< 0.5	< 2

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Analyte Symbol	As	B	Ba	Be	Bi
Unit Symbol	ppm	ppm	ppm	ppm	ppm
Detection Limit	2	10	10	0.5	2
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
RRKM-06	26	< 10	82	< 0.5	< 2
RRKM-07	23	< 10	38	< 0.5	< 2
RRKM-08	5	< 10	94	< 0.5	< 2
RRKM-09	8	< 10	106	< 0.5	< 2
RRKM-10	18	< 10	48	< 0.5	< 2
RRKM-11	15	< 10	103	< 0.5	< 2
RRKM-12	7	< 10	91	< 0.5	< 2
RRKM-13	< 2	< 10	30	< 0.5	< 2
RRKM-14	5	< 10	55	< 0.5	< 2
RRKM-31	4	< 10	263	< 0.5	< 2
RRKM-32	133	15	116	< 0.5	< 2
RRKM-33	159	20	68	< 0.5	< 2
RRKM-34	49	18	85	< 0.5	< 2
RRKM-35	28	21	19	0.5	< 2
RRKM-36	4	< 10	1120	0.9	< 2
RRKM-37	10	18	225	0.8	< 2
RRKM-38	28	12	30	< 0.5	< 2
VKM-01	22	< 10	482	1	< 2
VKM-02	137	< 10	28	< 0.5	< 2
VKM-03	105	< 10	30	< 0.5	< 2
VKM-04	228	< 10	21	< 0.5	< 2
VKM-05	89	< 10	11	< 0.5	< 2
VKM-06	58	24	504	1.1	< 2
VKM-07	589	58	< 10	1.8	< 2
VKM-08	8	23	582	1.9	< 2
VKM-09	206	16	276	0.7	< 2
VKM-16	48	20	621	1.1	< 2
VKM-17	268	18	39	0.7	< 2
VKM-18	121	< 10	< 10	< 0.5	< 2
VKM-19	103	< 10	68	< 0.5	< 2
RSKM-01	7	< 10	77	0.7	< 2

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Analyte Symbol	Ca	Co	Cr	Fe	Ga
Unit Symbol	%	ppm	ppm	%	ppm
Detection Limit	0.01	1	1	0.01	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
LJ-1	0.04	< 1	3	2.4	< 10
LJ-2	0.05	4	3	1.94	< 10
LJ-3	< 0.01	< 1	3	1.92	< 10
LJ-4	0.07	2	1	1.61	< 10
LJ-5	0.29	7	6	2.23	< 10
LJ-6	0.05	2	1	1.6	< 10
LJ-7	0.07	2	4	1.69	< 10
LJ-8	0.12	5	7	2.32	< 10
A17-35	> 10.0	3	2	2.33	< 10
A17-36	1.78	7	13	3.6	< 10
A17-37	0.79	9	7	3.73	< 10
A17-38	0.4	17	92	5.29	< 10
A17-39	0.16	5	4	5.17	< 10
A17-90	0.02	< 1	6	2.41	< 10
A17-91	1.27	4	4	2.42	< 10
A17-92	0.19	2	6	2.11	< 10
A17-93	4.7	24	86	6.3	< 10
A17-94	0.02	2	11	2.1	< 10
A17-104	0.1	2	17	1.11	< 10
A17-105	0.17	3	11	2.14	< 10
A17-106	0.09	2	20	2.39	< 10
A17-107	3.76	5	7	8.7	< 10
A17-108	1.81	5	10	3.68	< 10
A17-125	0.41	5	9	2.37	< 10
A17-126	> 10.0	< 1	< 1	0.09	< 10
A17-127	0.02	1	7	4.39	10
A17-128	0.63	< 1	11	1.13	< 10
A17-129	0.05	4	10	3.74	< 10
A17-130	1.13	9	7	4.68	< 10
A17-131	0.39	13	7	4.14	< 10
A17-132	8.95	5	7	1.32	< 10

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Analyte Symbol	Ca	Co	Cr	Fe	Ga
Unit Symbol	%	ppm	ppm	%	ppm
Detection Limit	0.01	1	1	0.01	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-133	0.24	14	3	4	< 10
A17-134	0.34	10	6	2.71	< 10
A17-135	> 10.0	6	2	0.96	< 10
A17-136	> 10.0	12	2	1.33	< 10
A17-137	6.14	7	13	4.18	< 10
A17-138	> 10.0	6	16	3.92	< 10
A17-139	1.48	3	12	2.55	< 10
A17-140	1.03	5	24	2.47	< 10
A17-141	9.51	11	10	3.35	< 10
A17-142	0.04	3	9	3.59	< 10
A17-143	0.12	< 1	4	14.9	< 10
A17-144	1.8	4	6	2.52	< 10
A17-145	3.61	9	14	3.67	< 10
A17-146	0.07	3	5	2.38	< 10
A17-147	0.03	< 1	15	0.35	< 10
A17-148	2.51	8	8	1.8	< 10
DM-41	0.43	2	5	2.69	< 10
DM-42	9.81	4	22	4.76	< 10
DM-43	3.56	1	6	1.42	< 10
DM-44	> 10.0	4	18	4.94	< 10
DM-45	4.98	< 1	7	2.53	< 10
DM-46	0.38	6	10	3.84	< 10
DM-47	1.97	2	9	1.76	< 10
DM-48	0.08	5	17	1.48	< 10
DM-49	0.12	14	10	7.65	< 10
DM-50	1.19	< 1	13	2.19	< 10
DM-51	> 10.0	5	12	3.27	< 10
DM-52	6.78	3	17	2.17	< 10
DM-53	1.2	3	19	1.71	< 10
DM-54	1.19	12	49	4.11	< 10
DM-55	0.06	1	7	2.39	< 10

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Analyte Symbol	Ca	Co	Cr	Fe	Ga
Unit Symbol	%	ppm	ppm	%	ppm
Detection Limit	0.01	1	1	0.01	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM-56	0.13	2	28	1.11	< 10
DM-57	5.39	6	33	2.43	< 10
DM-58	0.01	2	24	3.95	< 10
DM-59	> 10.0	2	10	2.21	< 10
DM-60	8.86	7	40	4.86	< 10
DM-61	5.17	3	16	1.6	< 10
DM-74	1.96	5	10	2.61	< 10
DM-75	> 10.0	4	7	2.63	< 10
DM-76	4.05	3	6	1.82	< 10
DM-77	0.56	2	11	1.42	< 10
DM-78	0.08	2	11	0.89	< 10
DM-79	0.41	1	15	1.09	< 10
DM-80	0.43	3	11	1.32	< 10
DM-81	0.72	1	18	1.44	< 10
DM-82	1.1	< 1	13	0.88	< 10
DM-83	1.36	1	23	1.47	< 10
DM-84	0.24	1	11	1.05	< 10
DM-85	0.22	2	16	0.96	< 10
DM-111	5.17	5	7	3.58	< 10
DM-112	0.91	7	14	2.27	< 10
DM-113	1.25	2	3	1.43	< 10
DM-114	1.41	< 1	< 1	0.24	< 10
DM-115	> 10.0	< 1	1	2.26	< 10
DM-116	> 10.0	< 1	2	3.33	< 10
DM-117	1.72	< 1	3	2.93	< 10
DM-118	1.76	5	28	1.71	< 10
DM-119	1.65	7	52	3.32	< 10
DM-120	0.27	3	5	2.8	< 10
DM-121	0.54	1	8	14.5	< 10
DM-122	0.01	< 1	5	10.7	< 10
DM-123	> 10.0	< 1	7	2.6	< 10

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Analyte Symbol	Ca	Co	Cr	Fe	Ga
Unit Symbol	%	ppm	ppm	%	ppm
Detection Limit	0.01	1	1	0.01	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM-124	1.3	6	6	0.99	< 10
DM-125	0.05	10	4	3.78	< 10
DM-126	0.05	40	2	17.8	< 10
DM-127	0.03	2	21	1.34	< 10
DM-128	0.09	12	9	15.7	< 10
DM-129	0.1	2	24	2.16	< 10
DM-130	0.02	14	18	5.86	< 10
DM-131	0.01	10	27	4.5	< 10
DM-132	0.05	9	19	6.85	< 10
DM-133	9.76	3	4	8.92	< 10
DM-134	4.24	< 1	9	15.9	< 10
DM-135	2.03	3	6	1.61	< 10
DM-136	0.31	< 1	22	0.79	< 10
DM-137	8.67	10	18	3.62	< 10
DM-138	4.73	2	21	1.01	< 10
DM-139	0.07	29	4	20.1	< 10
DM-140	0.45	8	53	2.98	< 10
DM-141	2.97	3	16	5.16	< 10
DM-142	4.76	14	9	5.34	< 10
DM-143	0.1	2	21	0.96	< 10
AGKM-01	6.39	9	7	5.52	< 10
AGKM-02	> 10.0	< 1	7	0.9	< 10
AGKM-03	0.42	3	15	1.54	< 10
AGKM-04	5.14	10	9	3.42	< 10
AGKM-05	0.34	11	4	2.67	< 10
AGKM-06	6	3	12	2.42	< 10
AGKM-07	2.4	1	18	2.38	< 10
AGKM-08	0.36	8	4	3.36	< 10
AGKM-09	4.17	16	3	5.87	< 10
AGKM-10	3.49	9	3	3.13	< 10
AGKM-11	1.79	< 1	18	0.92	< 10

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Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Ca	Co	Cr	Fe	Ga
Unit Symbol	%	ppm	ppm	%	ppm
Detection Limit	0.01	1	1	0.01	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
AGKM-12	5.81	16	10	11.5	< 10
AGKM-13	7.64	8	2	6.4	< 10
AGKM-14	> 10.0	16	13	4.97	< 10
AGKM-15	0.33	4	11	4.11	< 10
AGKM-16	> 10.0	6	3	5.72	< 10
AGKM-17	8.32	6	2	4.16	< 10
AGKM-12a	> 10.0	6	3	4.15	< 10
AGKM-14a	0.39	9	14	1.64	< 10
GGKM-01	1.43	1	11	0.64	< 10
GGKM-02	0.34	63	4	11.5	< 10
GGKM-03	0.1	1	26	0.54	< 10
GGKM-04	0.01	4	8	2.55	< 10
GGKM-05	0.25	23	20	3.41	< 10
GGKM-06	> 10.0	8	2	5.46	< 10
GGKM-07	3.36	15	7	3.69	< 10
GGKM-08	8.27	3	13	1.39	< 10
GGKM-09	8.29	7	4	3.22	< 10
GGKM-10	3.96	3	10	12.4	< 10
GGKM-11	0.03	1	13	1.2	< 10
GGKM-12	0.57	15	12	4.16	< 10
GGKM-13	< 0.01	< 1	7	0.69	< 10
GGKM-14	< 0.01	43	7	8.71	< 10
GGKM-15	< 0.01	2	15	0.66	< 10
GGKM-16	0.02	106	6	10.5	< 10
GGKM-17	1.54	7	13	2.26	< 10
GGKM-18	0.02	8	17	3.05	< 10
RRKM-01	> 10.0	4	8	6.31	< 10
RRKM-02	> 10.0	5	6	7.05	< 10
RRKM-03	> 10.0	5	8	7.84	< 10
RRKM-04	> 10.0	2	1	6.05	< 10
RRKM-05	> 10.0	7	17	5.52	< 10

Final Report
Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Ca	Co	Cr	Fe	Ga
Unit Symbol	%	ppm	ppm	%	ppm
Detection Limit	0.01	1	1	0.01	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
RRKM-06	9.93	7	9	5.84	< 10
RRKM-07	2.74	6	18	2.79	< 10
RRKM-08	> 10.0	6	3	5.68	< 10
RRKM-09	9.21	5	12	4.71	< 10
RRKM-10	> 10.0	7	13	2.99	< 10
RRKM-11	> 10.0	9	16	2.9	< 10
RRKM-12	6.68	2	6	3.92	< 10
RRKM-13	> 10.0	2	4	8.16	< 10
RRKM-14	9.61	5	9	5.88	< 10
RRKM-31	0.7	< 1	5	2.09	< 10
RRKM-32	0.44	1	4	2.13	< 10
RRKM-33	0.09	3	9	4.53	10
RRKM-34	0.32	4	7	4.86	10
RRKM-35	0.79	11	8	4.77	< 10
RRKM-36	5.8	9	7	7.58	10
RRKM-37	0.78	11	11	4.72	10
RRKM-38	0.57	5	8	4.49	< 10
VKM-01	3.41	< 1	6	21.8	< 10
VKM-02	0.02	5	10	2.89	< 10
VKM-03	0.06	2	23	3.4	< 10
VKM-04	0.01	16	16	3.37	< 10
VKM-05	0.1	8	9	8.65	10
VKM-06	0.06	1	16	1.41	< 10
VKM-07	< 0.01	15	24	5.29	< 10
VKM-08	0.62	7	26	5.91	10
VKM-09	0.1	< 1	8	3.7	< 10
VKM-16	0.15	1	10	1.94	< 10
VKM-17	< 0.01	< 1	14	6.43	< 10
VKM-18	0.04	< 1	8	10.8	< 10
VKM-19	0.17	2	9	3.35	< 10
RSKM-01	0.73	11	24	4.7	< 10

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Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Hg	K	La	Mg	Na
Unit Symbol	ppm	%	ppm	%	%
Detection Limit	1	0.01	10	0.01	0.001
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
LJ-1	< 1	0.52	20	0.04	0.059
LJ-2	< 1	0.56	12	0.04	0.056
LJ-3	< 1	0.5	15	0.03	0.038
LJ-4	< 1	0.61	15	0.05	0.065
LJ-5	< 1	0.44	18	0.06	0.104
LJ-6	< 1	0.98	22	0.09	0.02
LJ-7	< 1	0.65	13	0.05	0.058
LJ-8	< 1	0.48	20	0.06	0.111
A17-35	< 1	0.14	< 10	0.07	0.02
A17-36	< 1	0.39	< 10	0.5	0.06
A17-37	< 1	0.4	19	0.21	0.042
A17-38	< 1	0.58	17	1.81	0.048
A17-39	< 1	0.48	33	0.16	0.027
A17-90	< 1	0.57	12	0.05	0.052
A17-91	< 1	0.32	15	0.1	0.117
A17-92	< 1	0.45	20	0.04	0.072
A17-93	< 1	0.39	< 10	0.87	0.036
A17-94	< 1	0.39	14	0.03	0.078
A17-104	< 1	0.21	< 10	0.14	0.128
A17-105	2	0.41	57	0.26	0.093
A17-106	< 1	0.1	< 10	0.04	0.021
A17-107	< 1	0.18	< 10	0.38	0.02
A17-108	< 1	1.55	13	0.33	0.025
A17-125	< 1	0.05	< 10	0.02	0.225
A17-126	< 1	0.02	< 10	0.27	0.027
A17-127	< 1	0.16	< 10	1.76	0.11
A17-128	< 1	0.16	< 10	0.1	0.126
A17-129	< 1	0.17	24	1.07	0.155
A17-130	< 1	0.25	13	1.2	0.117
A17-131	< 1	0.93	20	0.3	0.052
A17-132	2	0.02	< 10	0.05	0.016

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Report Date: 1/12/2017

Analyte Symbol	Hg	K	La	Mg	Na
Unit Symbol	ppm	%	ppm	%	%
Detection Limit	1	0.01	10	0.01	0.001
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-133	5	0.73	12	0.03	0.023
A17-134	7	0.55	14	0.14	0.054
A17-135	4	0.06	< 10	0.06	0.018
A17-136	12	0.05	< 10	0.05	0.018
A17-137	< 1	0.24	< 10	1.42	0.043
A17-138	< 1	0.3	< 10	0.4	0.037
A17-139	< 1	0.13	< 10	0.48	0.077
A17-140	< 1	0.11	11	0.38	0.121
A17-141	3	0.02	< 10	0.1	0.015
A17-142	< 1	0.53	16	0.04	0.022
A17-143	< 1	0.28	11	0.26	0.019
A17-144	9	0.28	< 10	0.44	0.033
A17-145	< 1	0.4	< 10	0.26	0.034
A17-146	< 1	0.38	29	0.04	0.085
A17-147	< 1	0.01	< 10	< 0.01	0.021
A17-148	< 1	0.62	18	0.17	0.042
DM-41	< 1	0.43	39	0.45	0.057
DM-42	< 1	0.39	12	1.15	0.019
DM-43	< 1	0.22	25	0.03	0.078
DM-44	< 1	0.06	< 10	2.46	0.016
DM-45	< 1	0.12	17	0.07	0.059
DM-46	< 1	0.15	< 10	0.12	0.022
DM-47	< 1	0.42	32	0.15	0.065
DM-48	< 1	0.15	17	0.07	0.027
DM-49	< 1	0.48	< 10	0.09	0.019
DM-50	< 1	0.08	< 10	0.08	0.018
DM-51	< 1	0.29	11	0.92	0.024
DM-52	< 1	0.07	< 10	0.45	0.024
DM-53	< 1	0.05	< 10	0.16	0.025
DM-54	< 1	0.17	19	1.36	0.081
DM-55	< 1	0.34	30	0.05	0.102

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Analyte Symbol	Hg	K	La	Mg	Na
Unit Symbol	ppm	%	ppm	%	%
Detection Limit	1	0.01	10	0.01	0.001
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM-56	< 1	0.05	< 10	0.2	0.043
DM-57	< 1	0.1	< 10	0.81	0.048
DM-58	2	0.05	< 10	< 0.01	0.018
DM-59	< 1	0.12	< 10	0.35	0.028
DM-60	< 1	0.25	< 10	2.47	0.037
DM-61	< 1	0.14	< 10	0.32	0.03
DM-74	< 1	0.2	23	0.06	0.117
DM-75	< 1	0.14	< 10	0.22	0.027
DM-76	< 1	0.12	10	0.3	0.11
DM-77	< 1	0.27	27	0.02	0.03
DM-78	< 1	0.31	29	0.01	0.026
DM-79	< 1	0.3	20	< 0.01	0.027
DM-80	< 1	0.45	30	0.04	0.021
DM-81	< 1	0.29	30	0.02	0.021
DM-82	< 1	0.37	29	0.03	0.024
DM-83	< 1	0.29	20	0.04	0.022
DM-84	< 1	0.35	29	0.01	0.021
DM-85	< 1	0.36	39	0.02	0.021
DM-111	< 1	0.11	17	2.03	0.095
DM-112	< 1	0.3	13	0.16	0.044
DM-113	< 1	0.58	25	0.15	0.048
DM-114	< 1	0.01	< 10	0.15	0.02
DM-115	< 1	0.02	< 10	4.21	0.02
DM-116	< 1	0.02	< 10	3.7	0.016
DM-117	< 1	0.28	30	0.84	0.091
DM-118	< 1	0.09	< 10	0.46	0.039
DM-119	< 1	0.12	< 10	1.61	0.087
DM-120	< 1	0.42	32	0.37	0.07
DM-121	< 1	0.97	< 10	0.02	0.036
DM-122	< 1	1.87	57	0.03	0.087
DM-123	< 1	0.44	32	0.37	1.21

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Analyte Symbol	Hg	K	La	Mg	Na
Unit Symbol	ppm	%	ppm	%	%
Detection Limit	1	0.01	10	0.01	0.001
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM-124	< 1	0.54	27	0.06	0.026
DM-125	< 1	0.68	12	0.05	0.019
DM-126	< 1	0.36	11	0.03	0.017
DM-127	4	0.09	< 10	0.01	0.016
DM-128	< 1	0.05	< 10	0.16	0.014
DM-129	< 1	0.2	< 10	0.01	0.021
DM-130	< 1	0.03	< 10	< 0.01	0.016
DM-131	< 1	0.02	< 10	< 0.01	0.015
DM-132	< 1	0.04	< 10	0.03	0.015
DM-133	< 1	0.05	< 10	0.19	0.014
DM-134	< 1	0.04	< 10	0.25	0.014
DM-135	< 1	0.45	19	0.07	0.068
DM-136	< 1	0.24	24	0.02	0.095
DM-137	< 1	0.45	< 10	0.49	0.04
DM-138	< 1	0.02	< 10	0.01	0.022
DM-139	< 1	0.18	< 10	< 0.01	0.017
DM-140	< 1	0.03	< 10	0.02	0.02
DM-141	< 1	0.04	< 10	0.03	0.022
DM-142	< 1	0.15	< 10	0.09	0.019
DM-143	< 1	0.11	< 10	0.02	0.023
AGKM-01	< 1	0.02	< 10	0.02	0.015
AGKM-02	< 1	0.02	< 10	0.03	0.02
AGKM-03	3	0.13	< 10	0.06	0.08
AGKM-04	< 1	0.46	13	0.68	0.036
AGKM-05	< 1	0.72	24	0.19	0.044
AGKM-06	< 1	0.15	12	0.08	0.025
AGKM-07	< 1	0.08	< 10	0.03	0.039
AGKM-08	< 1	0.57	13	0.32	0.037
AGKM-09	< 1	0.22	< 10	0.83	0.07
AGKM-10	< 1	0.48	10	0.18	0.053
AGKM-11	< 1	0.05	< 10	0.01	0.029

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Analyte Symbol	Hg	K	La	Mg	Na
Unit Symbol	ppm	%	ppm	%	%
Detection Limit	1	0.01	10	0.01	0.001
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
AGKM-12	< 1	< 0.01	< 10	0.53	0.015
AGKM-13	< 1	0.26	< 10	0.63	0.017
AGKM-14	4	0.01	< 10	0.43	0.018
AGKM-15	< 1	0.27	11	0.07	0.036
AGKM-16	< 1	0.21	< 10	2.27	0.03
AGKM-17	< 1	0.24	< 10	0.51	0.032
AGKM-12a	< 1	0.06	< 10	0.43	0.021
AGKM-14a	3	0.1	< 10	0.01	0.068
GGKM-01	< 1	0.11	< 10	0.01	0.023
GGKM-02	< 1	0.62	< 10	0.06	0.02
GGKM-03	< 1	0.33	21	< 0.01	0.024
GGKM-04	< 1	0.51	11	0.03	0.019
GGKM-05	< 1	0.22	< 10	0.01	0.019
GGKM-06	< 1	0.31	< 10	1.89	0.02
GGKM-07	< 1	0.42	< 10	0.58	0.025
GGKM-08	< 1	0.16	< 10	0.09	0.028
GGKM-09	< 1	0.52	< 10	0.21	0.018
GGKM-10	< 1	0.08	< 10	0.16	0.027
GGKM-11	< 1	0.33	12	< 0.01	0.025
GGKM-12	< 1	0.27	< 10	0.06	0.031
GGKM-13	< 1	0.39	44	< 0.01	0.024
GGKM-14	< 1	0.4	15	0.02	0.019
GGKM-15	< 1	0.33	23	< 0.01	0.025
GGKM-16	< 1	0.33	13	< 0.01	0.021
GGKM-17	< 1	0.44	14	0.19	0.026
GGKM-18	< 1	0.06	< 10	< 0.01	0.022
RRKM-01	< 1	0.18	< 10	1.43	0.022
RRKM-02	< 1	0.23	< 10	2.71	0.024
RRKM-03	< 1	0.16	< 10	1.87	0.026
RRKM-04	< 1	0.01	18	4.39	0.023
RRKM-05	< 1	0.13	< 10	3.36	0.021

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Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Hg	K	La	Mg	Na
Unit Symbol	ppm	%	ppm	%	%
Detection Limit	1	0.01	10	0.01	0.001
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
RRKM-06	< 1	0.22	11	2.54	0.034
RRKM-07	< 1	0.11	< 10	0.6	0.049
RRKM-08	< 1	0.08	30	2.08	0.018
RRKM-09	< 1	0.1	< 10	1	0.04
RRKM-10	< 1	0.11	< 10	0.57	0.019
RRKM-11	< 1	0.17	< 10	0.3	0.023
RRKM-12	< 1	0.24	18	0.23	0.08
RRKM-13	< 1	0.05	13	2.13	0.017
RRKM-14	< 1	0.21	10	1.9	0.028
RRKM-31	< 1	0.22	29	0.5	0.167
RRKM-32	< 1	0.32	32	0.13	0.11
RRKM-33	< 1	0.32	< 10	1.85	0.097
RRKM-34	< 1	0.26	15	1.58	0.125
RRKM-35	< 1	0.24	14	1.76	0.115
RRKM-36	< 1	0.57	22	1.38	0.032
RRKM-37	< 1	0.21	14	1.54	0.102
RRKM-38	< 1	0.2	12	1.3	0.112
VKM-01	< 1	0.05	< 10	0.03	0.022
VKM-02	< 1	0.54	16	0.03	0.036
VKM-03	< 1	0.32	12	0.11	0.029
VKM-04	< 1	0.37	18	0.01	0.033
VKM-05	< 1	0.28	17	0.31	0.023
VKM-06	< 1	0.78	< 10	0.11	0.02
VKM-07	< 1	1.01	< 10	0.16	0.02
VKM-08	< 1	0.84	19	0.71	0.021
VKM-09	< 1	0.7	18	0.07	0.029
VKM-16	< 1	0.59	26	0.06	0.03
VKM-17	1	0.93	< 10	0.07	0.031
VKM-18	< 1	0.31	< 10	0.01	0.025
VKM-19	< 1	0.42	16	0.02	0.033
RSKM-01	< 1	0.42	16	0.6	0.027

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Analyte Symbol	P	S	Sb	Sc	Sr
Unit Symbol	%	%	ppm	ppm	ppm
Detection Limit	0.001	0.01	2	1	1
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
LJ-1	0.047	0.25	3	2	13
LJ-2	0.041	1.47	< 2	2	9
LJ-3	0.02	0.45	2	1	54
LJ-4	0.047	0.32	< 2	2	10
LJ-5	0.048	0.82	2	2	27
LJ-6	0.048	0.92	< 2	2	10
LJ-7	0.046	1	< 2	1	14
LJ-8	0.048	0.76	< 2	2	16
A17-35	0.025	0.92	12	3	392
A17-36	0.101	2.79	32	8	64
A17-37	0.062	0.03	11	3	17
A17-38	0.104	0.32	2	8	53
A17-39	0.056	0.14	17	4	14
A17-90	0.039	0.29	< 2	2	8
A17-91	0.042	< 0.01	< 2	3	53
A17-92	0.036	1.35	< 2	2	25
A17-93	0.055	0.03	3	23	234
A17-94	0.023	1.18	< 2	1	24
A17-104	0.024	0.01	< 2	< 1	14
A17-105	0.078	0.04	2	2	66
A17-106	0.007	0.27	3	< 1	11
A17-107	0.013	1.76	12	2	238
A17-108	0.115	0.11	10	10	49
A17-125	0.136	0.1	< 2	3	127
A17-126	0.047	0.12	< 2	< 1	3510
A17-127	0.03	0.48	5	8	13
A17-128	0.071	0.04	< 2	< 1	138
A17-129	0.023	0.81	2	6	16
A17-130	0.11	2.7	< 2	8	66
A17-131	0.081	0.06	6	6	19
A17-132	0.006	0.87	15	6	338

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Analyte Symbol	P	S	Sb	Sc	Sr
Unit Symbol	%	%	ppm	ppm	ppm
Detection Limit	0.001	0.01	2	1	1
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-133	0.202	1.99	84	3	15
A17-134	0.091	1.55	31	2	20
A17-135	0.012	0.57	7	1	665
A17-136	0.011	0.94	32	< 1	481
A17-137	0.07	0.14	< 2	3	315
A17-138	0.04	0.26	5	3	256
A17-139	0.029	0.14	< 2	2	81
A17-140	0.052	0.72	< 2	5	52
A17-141	0.012	1.1	5	1	440
A17-142	0.027	0.03	5	2	6
A17-143	0.018	0.06	13	1	46
A17-144	0.02	2.76	98	< 1	35
A17-145	0.085	0.06	28	5	112
A17-146	0.019	0.09	< 2	3	10
A17-147	< 0.001	0.01	< 2	< 1	1
A17-148	0.043	1.28	8	2	112
DM-41	0.036	0.02	< 2	2	10
DM-42	0.081	0.58	< 2	10	243
DM-43	0.027	0.04	< 2	5	166
DM-44	0.03	0.11	< 2	4	1280
DM-45	0.028	0.01	< 2	8	55
DM-46	0.016	2.63	< 2	< 1	23
DM-47	0.036	0.06	< 2	3	83
DM-48	0.013	0.15	2	2	12
DM-49	0.132	0.09	12	6	17
DM-50	0.018	0.13	< 2	1	24
DM-51	0.04	0.11	< 2	3	938
DM-52	0.023	0.05	< 2	2	622
DM-53	0.013	< 0.01	< 2	< 1	45
DM-54	0.108	0.26	4	6	60
DM-55	0.026	0.02	< 2	2	8

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Analyte Symbol	P	S	Sb	Sc	Sr
Unit Symbol	%	%	ppm	ppm	ppm
Detection Limit	0.001	0.01	2	1	1
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM-56	0.019	< 0.01	< 2	< 1	11
DM-57	0.049	0.01	< 2	5	428
DM-58	0.003	5.13	47	< 1	4
DM-59	0.02	0.02	< 2	3	475
DM-60	0.062	0.06	< 2	11	441
DM-61	0.024	0.09	3	1	249
DM-74	0.07	0.26	2	6	146
DM-75	0.021	1.19	< 2	5	685
DM-76	0.04	0.33	< 2	6	259
DM-77	0.031	< 0.01	< 2	3	9
DM-78	0.024	0.12	2	1	9
DM-79	0.024	0.38	< 2	2	12
DM-80	0.022	0.21	4	2	10
DM-81	0.027	0.5	< 2	2	19
DM-82	0.024	0.18	< 2	2	74
DM-83	0.025	0.72	< 2	2	70
DM-84	0.025	0.5	2	1	15
DM-85	0.027	0.38	2	1	14
DM-111	0.047	1.11	< 2	7	140
DM-112	0.012	1.67	< 2	2	53
DM-113	0.056	0.5	< 2	4	60
DM-114	0.002	0.13	< 2	< 1	2790
DM-115	0.008	0.06	< 2	< 1	1110
DM-116	0.004	0.89	< 2	< 1	943
DM-117	0.055	0.02	< 2	5	71
DM-118	0.025	< 0.01	< 2	1	131
DM-119	0.091	0.05	< 2	5	162
DM-120	0.059	0.21	< 2	4	50
DM-121	0.011	16.2	57	< 1	12
DM-122	0.172	3.06	12	1	132
DM-123	0.081	0.56	9	5	158

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Analyte Symbol	P	S	Sb	Sc	Sr
Unit Symbol	%	%	ppm	ppm	ppm
Detection Limit	0.001	0.01	2	1	1
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM-124	0.006	0.32	7	< 1	61
DM-125	0.029	1.36	11	1	13
DM-126	0.051	14	47	1	5
DM-127	0.011	2.69	> 10000	< 1	23
DM-128	0.003	3.04	47	2	3
DM-129	0.017	0.22	436	2	16
DM-130	0.001	4.7	44	< 1	1
DM-131	< 0.001	1.45	21	< 1	8
DM-132	0.002	5.01	206	< 1	2
DM-133	0.013	0.26	27	< 1	743
DM-134	0.017	0.5	11	< 1	287
DM-135	0.052	0.24	< 2	1	78
DM-136	0.005	< 0.01	3	< 1	15
DM-137	0.062	0.87	< 2	10	294
DM-138	0.006	0.1	5	< 1	360
DM-139	0.024	13.8	107	< 1	6
DM-140	0.01	0.92	11	< 1	112
DM-141	0.003	1.21	6	< 1	145
DM-142	0.042	0.01	9	3	83
DM-143	0.015	< 0.01	17	1	7
AGKM-01	0.01	2.13	11	< 1	247
AGKM-02	0.013	0.09	6	< 1	317
AGKM-03	0.03	0.1	4	< 1	21
AGKM-04	0.129	0.12	< 2	3	285
AGKM-05	0.192	0.78	< 2	3	28
AGKM-06	0.043	0.1	3	3	610
AGKM-07	0.019	< 0.01	< 2	2	24
AGKM-08	0.055	1.24	5	3	17
AGKM-09	0.115	1.31	4	7	154
AGKM-10	0.07	1.87	4	2	124
AGKM-11	0.014	0.05	3	< 1	150

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Analyte Symbol	P	S	Sb	Sc	Sr
Unit Symbol	%	%	ppm	ppm	ppm
Detection Limit	0.001	0.01	2	1	1
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
AGKM-12	0.02	1.7	6	4	320
AGKM-13	0.057	1.8	5	2	605
AGKM-14	0.024	1.2	4	3	352
AGKM-15	0.085	0.8	16	2	37
AGKM-16	0.187	0.78	< 2	5	602
AGKM-17	0.049	0.84	3	3	462
AGKM-12a	0.033	1.35	3	1	648
AGKM-14a	0.067	0.28	3	1	567
GGKM-01	0.024	0.01	< 2	1	35
GGKM-02	0.056	10.9	14	2	17
GGKM-03	0.003	0.09	2	< 1	14
GGKM-04	0.048	2.02	28	1	9
GGKM-05	0.051	1.23	8	2	12
GGKM-06	0.03	0.65	< 2	4	482
GGKM-07	0.061	0.49	2	6	100
GGKM-08	0.05	0.02	< 2	5	463
GGKM-09	0.07	0.84	7	6	386
GGKM-10	0.011	0.03	19	1	160
GGKM-11	0.002	0.71	< 2	< 1	7
GGKM-12	0.031	1.76	3	1	11
GGKM-13	0.008	0.08	< 2	< 1	7
GGKM-14	0.003	9.37	9	< 1	2
GGKM-15	0.004	0.11	2	< 1	4
GGKM-16	0.006	10.9	14	< 1	3
GGKM-17	0.055	0.07	12	3	32
GGKM-18	0.007	1.33	3	< 1	5
RRKM-01	0.026	0.11	3	3	352
RRKM-02	0.028	0.06	< 2	3	485
RRKM-03	0.025	0.05	3	4	460
RRKM-04	0.006	0.02	< 2	7	713
RRKM-05	0.021	0.14	< 2	10	483

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Analyte Symbol	P	S	Sb	Sc	Sr
Unit Symbol	%	%	ppm	ppm	ppm
Detection Limit	0.001	0.01	2	1	1
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
RRKM-06	0.094	0.66	6	3	360
RRKM-07	0.045	0.49	3	3	185
RRKM-08	0.012	0.13	3	12	507
RRKM-09	0.043	0.06	3	4	184
RRKM-10	0.01	0.51	< 2	2	398
RRKM-11	0.019	0.15	3	2	520
RRKM-12	0.048	0.02	< 2	9	62
RRKM-13	0.008	0.01	< 2	14	204
RRKM-14	0.035	0.04	3	4	266
RRKM-31	0.047	0.27	< 2	4	139
RRKM-32	0.052	0.19	< 2	3	84
RRKM-33	0.023	0.96	< 2	8	16
RRKM-34	0.112	0.7	< 2	10	33
RRKM-35	0.11	2.66	< 2	14	38
RRKM-36	0.093	0.11	3	8	209
RRKM-37	0.084	0.45	< 2	14	84
RRKM-38	0.112	1.56	< 2	13	45
VKM-01	0.01	0.05	15	< 1	216
VKM-02	0.008	1.94	22	2	8
VKM-03	0.022	1.76	22	3	10
VKM-04	0.02	2.62	25	1	8
VKM-05	0.063	5.56	48	3	16
VKM-06	0.032	0.02	12	5	9
VKM-07	0.008	5.39	87	10	13
VKM-08	0.112	0.04	5	16	118
VKM-09	0.13	0.38	21	3	24
VKM-16	0.121	0.18	12	4	20
VKM-17	0.015	1.32	157	7	13
VKM-18	0.063	12	20	1	9
VKM-19	0.112	0.95	12	3	17
RSKM-01	0.067	0.04	4	6	30

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Analyte Symbol	Ti	Th	Te	Tl	U
Unit Symbol	%	ppm	ppm	ppm	ppm
Detection Limit	0.01	20	1	2	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
LJ-1	< 0.01	< 20	< 1	< 2	< 10
LJ-2	< 0.01	< 20	< 1	< 2	< 10
LJ-3	< 0.01	< 20	< 1	< 2	< 10
LJ-4	< 0.01	< 20	< 1	< 2	< 10
LJ-5	< 0.01	< 20	< 1	< 2	< 10
LJ-6	< 0.01	< 20	< 1	< 2	< 10
LJ-7	< 0.01	< 20	< 1	< 2	< 10
LJ-8	< 0.01	< 20	< 1	< 2	< 10
A17-35	< 0.01	< 20	< 1	< 2	< 10
A17-36	< 0.01	< 20	< 1	4	< 10
A17-37	< 0.01	< 20	< 1	< 2	< 10
A17-38	< 0.01	< 20	< 1	< 2	< 10
A17-39	< 0.01	< 20	< 1	< 2	< 10
A17-90	< 0.01	< 20	< 1	< 2	< 10
A17-91	< 0.01	< 20	< 1	< 2	< 10
A17-92	< 0.01	< 20	< 1	< 2	< 10
A17-93	< 0.01	< 20	< 1	< 2	< 10
A17-94	< 0.01	< 20	< 1	< 2	< 10
A17-104	0.02	< 20	< 1	< 2	< 10
A17-105	0.03	< 20	2	< 2	< 10
A17-106	< 0.01	< 20	< 1	< 2	< 10
A17-107	< 0.01	< 20	< 1	< 2	< 10
A17-108	0.06	< 20	< 1	< 2	< 10
A17-125	< 0.01	< 20	< 1	< 2	< 10
A17-126	< 0.01	< 20	< 1	< 2	< 10
A17-127	< 0.01	< 20	< 1	< 2	< 10
A17-128	< 0.01	< 20	< 1	< 2	< 10
A17-129	< 0.01	< 20	< 1	< 2	< 10
A17-130	< 0.01	< 20	< 1	< 2	< 10
A17-131	< 0.01	< 20	4	< 2	< 10
A17-132	< 0.01	< 20	< 1	< 2	< 10

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Analyte Symbol	Ti	Th	Te	Tl	U
Unit Symbol	%	ppm	ppm	ppm	ppm
Detection Limit	0.01	20	1	2	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-133	< 0.01	< 20	< 1	7	< 10
A17-134	< 0.01	< 20	< 1	3	< 10
A17-135	< 0.01	< 20	< 1	3	< 10
A17-136	< 0.01	< 20	< 1	< 2	< 10
A17-137	< 0.01	< 20	< 1	< 2	< 10
A17-138	< 0.01	< 20	< 1	< 2	< 10
A17-139	< 0.01	< 20	< 1	< 2	< 10
A17-140	0.02	< 20	< 1	< 2	< 10
A17-141	< 0.01	< 20	< 1	5	< 10
A17-142	< 0.01	< 20	3	< 2	< 10
A17-143	< 0.01	< 20	< 1	4	< 10
A17-144	< 0.01	< 20	1	< 2	< 10
A17-145	< 0.01	< 20	< 1	< 2	< 10
A17-146	< 0.01	< 20	< 1	< 2	< 10
A17-147	< 0.01	< 20	< 1	< 2	< 10
A17-148	< 0.01	< 20	< 1	< 2	< 10
DM-41	< 0.01	< 20	< 1	< 2	< 10
DM-42	< 0.01	< 20	< 1	< 2	< 10
DM-43	< 0.01	< 20	1	< 2	< 10
DM-44	< 0.01	< 20	< 1	< 2	< 10
DM-45	< 0.01	< 20	< 1	< 2	< 10
DM-46	< 0.01	< 20	< 1	< 2	< 10
DM-47	< 0.01	< 20	2	< 2	< 10
DM-48	< 0.01	< 20	< 1	< 2	< 10
DM-49	< 0.01	< 20	< 1	< 2	< 10
DM-50	< 0.01	< 20	< 1	< 2	< 10
DM-51	< 0.01	< 20	< 1	< 2	< 10
DM-52	< 0.01	< 20	< 1	< 2	< 10
DM-53	< 0.01	< 20	< 1	< 2	< 10
DM-54	< 0.01	< 20	< 1	< 2	< 10
DM-55	< 0.01	< 20	< 1	< 2	< 10

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Analyte Symbol	Ti	Th	Te	Tl	U
Unit Symbol	%	ppm	ppm	ppm	ppm
Detection Limit	0.01	20	1	2	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM-56	< 0.01	< 20	< 1	< 2	< 10
DM-57	< 0.01	< 20	2	< 2	< 10
DM-58	< 0.01	< 20	< 1	< 2	< 10
DM-59	< 0.01	< 20	3	< 2	< 10
DM-60	< 0.01	< 20	< 1	< 2	< 10
DM-61	< 0.01	< 20	2	< 2	< 10
DM-74	0.03	< 20	< 1	< 2	< 10
DM-75	< 0.01	< 20	< 1	< 2	< 10
DM-76	< 0.01	< 20	3	< 2	< 10
DM-77	< 0.01	< 20	< 1	< 2	< 10
DM-78	< 0.01	< 20	< 1	< 2	< 10
DM-79	< 0.01	< 20	< 1	< 2	< 10
DM-80	< 0.01	< 20	< 1	< 2	< 10
DM-81	< 0.01	< 20	< 1	< 2	< 10
DM-82	< 0.01	< 20	4	< 2	< 10
DM-83	< 0.01	< 20	< 1	< 2	< 10
DM-84	< 0.01	< 20	1	< 2	< 10
DM-85	< 0.01	< 20	2	< 2	< 10
DM-111	< 0.01	< 20	< 1	< 2	< 10
DM-112	< 0.01	< 20	< 1	< 2	< 10
DM-113	< 0.01	< 20	< 1	< 2	< 10
DM-114	< 0.01	< 20	1	< 2	< 10
DM-115	< 0.01	< 20	< 1	< 2	< 10
DM-116	< 0.01	< 20	< 1	< 2	< 10
DM-117	< 0.01	< 20	< 1	< 2	< 10
DM-118	< 0.01	< 20	< 1	< 2	< 10
DM-119	< 0.01	< 20	< 1	< 2	< 10
DM-120	< 0.01	< 20	< 1	< 2	< 10
DM-121	< 0.01	< 20	< 1	< 2	< 10
DM-122	0.02	< 20	1	< 2	< 10
DM-123	< 0.01	< 20	< 1	< 2	< 10

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Analyte Symbol	Ti	Th	Te	Tl	U
Unit Symbol	%	ppm	ppm	ppm	ppm
Detection Limit	0.01	20	1	2	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM-124	< 0.01	< 20	2	< 2	< 10
DM-125	< 0.01	< 20	< 1	2	< 10
DM-126	< 0.01	< 20	< 1	7	< 10
DM-127	< 0.01	< 20	3	< 2	< 10
DM-128	< 0.01	< 20	5	< 2	< 10
DM-129	< 0.01	< 20	< 1	< 2	< 10
DM-130	< 0.01	< 20	6	< 2	< 10
DM-131	< 0.01	< 20	< 1	< 2	< 10
DM-132	< 0.01	< 20	5	< 2	< 10
DM-133	< 0.01	< 20	< 1	< 2	< 10
DM-134	< 0.01	< 20	3	< 2	< 10
DM-135	0.05	< 20	< 1	< 2	< 10
DM-136	< 0.01	< 20	< 1	< 2	< 10
DM-137	< 0.01	< 20	< 1	< 2	< 10
DM-138	< 0.01	< 20	2	< 2	< 10
DM-139	< 0.01	< 20	< 1	< 2	< 10
DM-140	< 0.01	< 20	2	< 2	< 10
DM-141	< 0.01	< 20	4	< 2	< 10
DM-142	< 0.01	< 20	< 1	< 2	< 10
DM-143	< 0.01	< 20	< 1	< 2	< 10
AGKM-01	< 0.01	< 20	< 1	< 2	< 10
AGKM-02	< 0.01	< 20	< 1	< 2	< 10
AGKM-03	< 0.01	< 20	< 1	< 2	< 10
AGKM-04	< 0.01	< 20	< 1	< 2	< 10
AGKM-05	< 0.01	< 20	1	< 2	< 10
AGKM-06	< 0.01	< 20	< 1	< 2	< 10
AGKM-07	< 0.01	< 20	< 1	< 2	< 10
AGKM-08	< 0.01	< 20	2	< 2	< 10
AGKM-09	< 0.01	< 20	< 1	< 2	< 10
AGKM-10	< 0.01	< 20	< 1	< 2	< 10
AGKM-11	< 0.01	< 20	< 1	< 2	< 10

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Analyte Symbol	Ti	Th	Te	Tl	U
Unit Symbol	%	ppm	ppm	ppm	ppm
Detection Limit	0.01	20	1	2	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
AGKM-12	0.02	< 20	< 1	< 2	< 10
AGKM-13	< 0.01	< 20	< 1	3	< 10
AGKM-14	< 0.01	< 20	< 1	7	< 10
AGKM-15	< 0.01	< 20	< 1	< 2	< 10
AGKM-16	< 0.01	< 20	< 1	< 2	< 10
AGKM-17	< 0.01	< 20	< 1	< 2	< 10
AGKM-12a	< 0.01	< 20	< 1	< 2	< 10
AGKM-14a	< 0.01	< 20	< 1	2	< 10
GGKM-01	< 0.01	< 20	< 1	< 2	< 10
GGKM-02	< 0.01	< 20	< 1	5	< 10
GGKM-03	< 0.01	< 20	< 1	< 2	< 10
GGKM-04	< 0.01	< 20	< 1	28	< 10
GGKM-05	< 0.01	< 20	< 1	8	< 10
GGKM-06	< 0.01	< 20	< 1	< 2	< 10
GGKM-07	< 0.01	< 20	1	< 2	< 10
GGKM-08	< 0.01	< 20	2	< 2	< 10
GGKM-09	< 0.01	< 20	1	< 2	< 10
GGKM-10	< 0.01	< 20	3	< 2	< 10
GGKM-11	< 0.01	< 20	< 1	< 2	< 10
GGKM-12	< 0.01	< 20	< 1	< 2	< 10
GGKM-13	< 0.01	< 20	3	< 2	< 10
GGKM-14	< 0.01	< 20	6	3	< 10
GGKM-15	< 0.01	< 20	< 1	< 2	< 10
GGKM-16	< 0.01	< 20	2	< 2	< 10
GGKM-17	< 0.01	< 20	< 1	< 2	< 10
GGKM-18	< 0.01	< 20	< 1	< 2	< 10
RRKM-01	< 0.01	< 20	< 1	< 2	< 10
RRKM-02	< 0.01	< 20	< 1	< 2	< 10
RRKM-03	< 0.01	< 20	< 1	< 2	< 10
RRKM-04	< 0.01	< 20	< 1	< 2	< 10
RRKM-05	< 0.01	< 20	< 1	< 2	< 10

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Analyte Symbol	Ti	Th	Te	Tl	U
Unit Symbol	%	ppm	ppm	ppm	ppm
Detection Limit	0.01	20	1	2	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
RRKM-06	< 0.01	< 20	< 1	< 2	< 10
RRKM-07	< 0.01	< 20	< 1	< 2	< 10
RRKM-08	< 0.01	< 20	< 1	< 2	< 10
RRKM-09	< 0.01	< 20	< 1	< 2	< 10
RRKM-10	< 0.01	< 20	< 1	< 2	< 10
RRKM-11	< 0.01	< 20	< 1	< 2	< 10
RRKM-12	< 0.01	< 20	3	< 2	< 10
RRKM-13	< 0.01	< 20	< 1	< 2	< 10
RRKM-14	< 0.01	< 20	< 1	< 2	< 10
RRKM-31	< 0.01	< 20	< 1	< 2	< 10
RRKM-32	< 0.01	< 20	< 1	< 2	< 10
RRKM-33	< 0.01	< 20	< 1	< 2	< 10
RRKM-34	0.15	< 20	< 1	< 2	< 10
RRKM-35	0.32	< 20	< 1	< 2	< 10
RRKM-36	0.02	< 20	< 1	< 2	< 10
RRKM-37	0.34	< 20	< 1	< 2	< 10
RRKM-38	0.34	< 20	3	< 2	< 10
VKM-01	< 0.01	< 20	< 1	< 2	< 10
VKM-02	< 0.01	< 20	< 1	< 2	< 10
VKM-03	< 0.01	< 20	< 1	2	< 10
VKM-04	< 0.01	< 20	< 1	< 2	< 10
VKM-05	< 0.01	< 20	< 1	< 2	< 10
VKM-06	< 0.01	< 20	< 1	< 2	< 10
VKM-07	< 0.01	< 20	< 1	5	< 10
VKM-08	< 0.01	< 20	< 1	< 2	< 10
VKM-09	< 0.01	< 20	< 1	< 2	< 10
VKM-16	< 0.01	< 20	1	< 2	< 10
VKM-17	< 0.01	< 20	< 1	< 2	< 10
VKM-18	< 0.01	< 20	< 1	6	< 10
VKM-19	< 0.01	< 20	< 1	< 2	< 10
RSKM-01	< 0.01	< 20	< 1	< 2	< 10

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Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	V	W	Y	Zr	Au
Unit Symbol	ppm	ppm	ppm	ppm	g/tonne
Detection Limit	1	10	1	1	0.03
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-GRA
LJ-1	3	< 10	5	8	
LJ-2	4	< 10	5	13	
LJ-3	3	< 10	3	10	
LJ-4	3	< 10	5	7	
LJ-5	3	< 10	10	10	
LJ-6	5	< 10	5	11	
LJ-7	3	< 10	5	12	
LJ-8	3	< 10	7	12	
A17-35	11	< 10	16	4	
A17-36	101	< 10	11	6	
A17-37	37	< 10	6	5	
A17-38	68	< 10	8	3	
A17-39	33	< 10	5	3	
A17-90	4	< 10	4	9	
A17-91	3	< 10	9	5	
A17-92	2	< 10	5	8	
A17-93	105	< 10	8	2	
A17-94	2	< 10	3	10	
A17-104	9	< 10	2	11	
A17-105	18	< 10	6	4	
A17-106	1	< 10	1	2	
A17-107	5	< 10	10	10	
A17-108	94	< 10	8	4	
A17-125	18	< 10	5	4	
A17-126	29	< 10	2	< 1	
A17-127	132	< 10	2	3	
A17-128	15	< 10	1	2	
A17-129	84	< 10	5	5	
A17-130	59	< 10	6	8	
A17-131	33	< 10	8	4	
A17-132	2	< 10	5	< 1	

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Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	V	W	Y	Zr	Au
Unit Symbol	ppm	ppm	ppm	ppm	g/tonne
Detection Limit	1	10	1	1	0.03
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-GRA
A17-133	42	< 10	5	4	
A17-134	18	< 10	4	7	
A17-135	6	< 10	4	< 1	
A17-136	4	< 10	5	1	
A17-137	18	< 10	12	2	
A17-138	19	< 10	7	2	
A17-139	8	< 10	4	1	
A17-140	40	< 10	5	2	
A17-141	10	< 10	4	2	
A17-142	7	< 10	4	11	
A17-143	3	< 10	10	11	
A17-144	5	< 10	4	9	
A17-145	26	< 10	7	1	
A17-146	5	< 10	7	9	
A17-147	< 1	99	< 1	< 1	
A17-148	17	< 10	6	14	
DM-41	2	< 10	10	10	
DM-42	45	< 10	17	2	
DM-43	< 1	< 10	26	10	
DM-44	48	< 10	14	1	
DM-45	4	< 10	17	5	
DM-46	2	< 10	3	4	
DM-47	3	< 10	9	8	
DM-48	21	< 10	3	< 1	
DM-49	53	< 10	5	3	
DM-50	6	< 10	11	2	
DM-51	35	< 10	8	1	
DM-52	32	< 10	5	1	
DM-53	11	< 10	2	< 1	
DM-54	95	< 10	8	3	
DM-55	2	< 10	5	9	

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Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	V	W	Y	Zr	Au
Unit Symbol	ppm	ppm	ppm	ppm	g/tonne
Detection Limit	1	10	1	1	0.03
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-GRA
DM-56	14	< 10	< 1	< 1	
DM-57	37	< 10	5	1	
DM-58	3	< 10	< 1	1	6.92
DM-59	16	< 10	11	< 1	
DM-60	44	< 10	10	1	
DM-61	8	< 10	6	< 1	
DM-74	20	< 10	8	4	
DM-75	5	< 10	27	2	
DM-76	9	< 10	20	7	
DM-77	2	< 10	5	13	
DM-78	2	< 10	3	11	
DM-79	< 1	< 10	4	15	
DM-80	5	< 10	6	16	
DM-81	2	< 10	6	18	
DM-82	2	< 10	6	14	
DM-83	1	< 10	5	14	
DM-84	2	< 10	4	14	
DM-85	3	< 10	5	16	
DM-111	33	< 10	20	7	
DM-112	12	< 10	3	2	
DM-113	2	< 10	12	8	
DM-114	4	< 10	< 1	< 1	
DM-115	4	< 10	3	< 1	
DM-116	29	< 10	6	< 1	
DM-117	5	< 10	15	10	
DM-118	23	< 10	4	2	
DM-119	80	< 10	8	2	
DM-120	3	< 10	11	7	
DM-121	23	< 10	3	13	
DM-122	30	< 10	2	7	
DM-123	68	< 10	27	18	

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Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	V	W	Y	Zr	Au
Unit Symbol	ppm	ppm	ppm	ppm	g/tonne
Detection Limit	1	10	1	1	0.03
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-GRA
DM-124	1	< 10	7	28	
DM-125	12	< 10	5	30	
DM-126	9	< 10	5	15	12.4
DM-127	2	< 10	< 1	1	25.3
DM-128	6	< 10	4	5	
DM-129	7	< 10	2	2	15.2
DM-130	1	< 10	< 1	2	
DM-131	1	< 10	< 1	1	
DM-132	2	< 10	< 1	2	
DM-133	5	< 10	7	3	
DM-134	10	< 10	2	5	
DM-135	7	< 10	7	10	
DM-136	2	< 10	5	29	
DM-137	40	< 10	8	2	
DM-138	17	< 10	2	< 1	
DM-139	7	1550	1	7	
DM-140	11	< 10	< 1	1	
DM-141	1	< 10	2	1	
DM-142	13	< 10	12	2	
DM-143	7	< 10	1	< 1	
AGKM-01	12	< 10	2	2	
AGKM-02	9	< 10	3	< 1	
AGKM-03	6	< 10	2	3	
AGKM-04	18	< 10	7	2	
AGKM-05	15	< 10	5	2	
AGKM-06	8	< 10	8	2	
AGKM-07	6	< 10	5	2	
AGKM-08	19	< 10	5	5	
AGKM-09	97	< 10	10	3	
AGKM-10	17	< 10	7	7	
AGKM-11	5	< 10	6	< 1	

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Report Date: 1/12/2017

Analyte Symbol	V	W	Y	Zr	Au
Unit Symbol	ppm	ppm	ppm	ppm	g/tonne
Detection Limit	1	10	1	1	0.03
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-GRA
AGKM-12	73	< 10	5	4	
AGKM-13	21	< 10	7	6	
AGKM-14	38	11	6	2	
AGKM-15	11	< 10	5	5	
AGKM-16	63	< 10	14	3	
AGKM-17	24	< 10	8	3	
AGKM-12a	12	< 10	7	4	
AGKM-14a	6	< 10	2	3	
GGKM-01	2	< 10	4	3	
GGKM-02	23	< 10	4	19	
GGKM-03	< 1	< 10	3	23	
GGKM-04	14	< 10	2	10	
GGKM-05	6	< 10	6	12	
GGKM-06	32	< 10	12	3	
GGKM-07	21	< 10	5	5	
GGKM-08	8	< 10	21	1	
GGKM-09	21	< 10	16	2	
GGKM-10	53	< 10	5	4	
GGKM-11	< 1	< 10	1	17	
GGKM-12	10	13	3	8	
GGKM-13	1	< 10	3	52	
GGKM-14	2	< 10	3	31	
GGKM-15	< 1	< 10	3	23	
GGKM-16	2	< 10	4	49	
GGKM-17	19	< 10	5	4	
GGKM-18	2	91	1	2	
RRKM-01	24	< 10	14	2	
RRKM-02	25	< 10	17	2	
RRKM-03	24	< 10	15	2	
RRKM-04	10	< 10	16	1	
RRKM-05	32	< 10	15	1	

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Report Number: A17-10633

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Analyte Symbol	V	W	Y	Zr	Au
Unit Symbol	ppm	ppm	ppm	ppm	g/tonne
Detection Limit	1	10	1	1	0.03
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-GRA
RRKM-06	77	< 10	20	4	
RRKM-07	29	< 10	9	2	
RRKM-08	21	< 10	64	1	
RRKM-09	26	< 10	13	1	
RRKM-10	8	< 10	8	< 1	
RRKM-11	16	< 10	7	< 1	
RRKM-12	8	< 10	25	6	
RRKM-13	18	< 10	23	2	
RRKM-14	20	< 10	12	2	
RRKM-31	5	< 10	11	12	
RRKM-32	3	< 10	9	9	
RRKM-33	117	< 10	2	4	
RRKM-34	95	< 10	9	13	
RRKM-35	115	< 10	14	19	
RRKM-36	87	< 10	16	4	
RRKM-37	127	< 10	15	13	
RRKM-38	95	< 10	13	20	
VKM-01	16	< 10	5	6	
VKM-02	19	< 10	2	13	
VKM-03	27	< 10	3	10	
VKM-04	10	< 10	1	11	
VKM-05	49	< 10	6	19	
VKM-06	61	< 10	5	3	
VKM-07	100	< 10	2	17	
VKM-08	136	< 10	12	6	
VKM-09	43	< 10	4	6	
VKM-16	53	< 10	6	6	
VKM-17	109	< 10	< 1	3	
VKM-18	19	< 10	3	24	
VKM-19	34	< 10	3	4	
RSKM-01	55	< 10	11	2	

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Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Ag	Cu	Pb	Zn
Unit Symbol	g/tonne	%	%	%
Detection Limit	3	0.001	0.003	0.001
Analysis Method	FA-GRA	ICP-OES	ICP-OES	ICP-OES

LJ-1

LJ-2

LJ-3

LJ-4

LJ-5

LJ-6

LJ-7

LJ-8

A17-35

A17-36

A17-37

A17-38

A17-39

A17-90

A17-91

A17-92

A17-93

A17-94

A17-104

A17-105

A17-106

A17-107

A17-108

A17-125

A17-126

A17-127

A17-128

A17-129

A17-130

A17-131

A17-132

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Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Ag	Cu	Pb	Zn
Unit Symbol	g/tonne	%	%	%
Detection Limit	3	0.001	0.003	0.001
Analysis Method	FA-GRA	ICP-OES	ICP-OES	ICP-OES

A17-133				
A17-134				
A17-135				
A17-136				
A17-137				
A17-138				
A17-139				
A17-140				
A17-141				
A17-142				
A17-143				
A17-144	95		6.27	3.01
A17-145				
A17-146				
A17-147				
A17-148				
DM-41				
DM-42				
DM-43				
DM-44				
DM-45				
DM-46		3.21		
DM-47				
DM-48				
DM-49				
DM-50				
DM-51				
DM-52				
DM-53				
DM-54				
DM-55				

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Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Ag	Cu	Pb	Zn
Unit Symbol	g/tonne	%	%	%
Detection Limit	3	0.001	0.003	0.001
Analysis Method	FA-GRA	ICP-OES	ICP-OES	ICP-OES

DM-56

DM-57

DM-58

4.15

DM-59

DM-60

DM-61

DM-74

DM-75

DM-76

DM-77

DM-78

DM-79

DM-80

DM-81

DM-82

DM-83

DM-84

DM-85

DM-111

DM-112

DM-113

DM-114

DM-115

DM-116

DM-117

DM-118

DM-119

DM-120

DM-121

DM-122

DM-123

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Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Ag	Cu	Pb	Zn
Unit Symbol	g/tonne	%	%	%
Detection Limit	3	0.001	0.003	0.001
Analysis Method	FA-GRA	ICP-OES	ICP-OES	ICP-OES

DM-124				
DM-125				
DM-126		1.34		
DM-127	210	1.79	6.94	1.71
DM-128				
DM-129				
DM-130	110			1.47
DM-131				
DM-132	171			3.35
DM-133				
DM-134				
DM-135				
DM-136				
DM-137				
DM-138				
DM-139				
DM-140				
DM-141				
DM-142				
DM-143				
AGKM-01				
AGKM-02				
AGKM-03				
AGKM-04				
AGKM-05				
AGKM-06				
AGKM-07				
AGKM-08				
AGKM-09				
AGKM-10				
AGKM-11				

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Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Ag	Cu	Pb	Zn
Unit Symbol	g/tonne	%	%	%
Detection Limit	3	0.001	0.003	0.001
Analysis Method	FA-GRA	ICP-OES	ICP-OES	ICP-OES

AGKM-12

AGKM-13

AGKM-14

AGKM-15

AGKM-16

AGKM-17

AGKM-12a

AGKM-14a

GGKM-01

GGKM-02

GGKM-03

GGKM-04

GGKM-05

GGKM-06

GGKM-07

GGKM-08

GGKM-09

GGKM-10

GGKM-11

GGKM-12

2.24

GGKM-13

GGKM-14

GGKM-15

GGKM-16

GGKM-17

GGKM-18

RRKM-01

RRKM-02

RRKM-03

RRKM-04

RRKM-05

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Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Ag	Cu	Pb	Zn
Unit Symbol	g/tonne	%	%	%
Detection Limit	3	0.001	0.003	0.001
Analysis Method	FA-GRA	ICP-OES	ICP-OES	ICP-OES

RRKM-06

RRKM-07

RRKM-08

RRKM-09

RRKM-10

RRKM-11

RRKM-12

RRKM-13

RRKM-14

RRKM-31

RRKM-32

RRKM-33

RRKM-34

RRKM-35

RRKM-36

RRKM-37

RRKM-38

VKM-01

VKM-02

VKM-03

VKM-04

VKM-05

VKM-06

VKM-07

VKM-08

VKM-09

VKM-16

VKM-17

VKM-18

VKM-19

RSKM-01

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Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Au	Ag	Cd	Cu	Mn
Unit Symbol	ppb	ppm	ppm	ppm	ppm
Detection Limit	5	0.2	0.5	1	5
Analysis Method	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-1 Meas		25.6	2.1	1030	790
GXR-1 Cert		31	3.3	1110	852
GXR-1 Meas		29.8	2.4	1090	822
GXR-1 Cert		31	3.3	1110	852
GXR-4 Meas		3	< 0.5	6080	134
GXR-4 Cert		4	0.86	6520	155
GXR-4 Meas		3.2	< 0.5	6530	146
GXR-4 Cert		4	0.86	6520	155
GXR-6 Meas		0.2	< 0.5	62	1000
GXR-6 Cert		1.3	1	66	1010
GXR-6 Meas		0.3	< 0.5	65	1070
GXR-6 Cert		1.3	1	66	1010
CDN-SE-1 Meas					
CDN-SE-1 Cert					
CDN-SE-1 Meas					
CDN-SE-1 Cert					
MP-1b Meas					
MP-1b Cert					
OxQ75 Meas					
OxQ75 Cert					
OxQ75 Meas					
OxQ75 Cert					
OxQ75 Meas					
OxQ75 Cert					
CPB-2 Meas					
CPB-2 Cert					
CZN-4 Meas					
CZN-4 Cert					
SQ47 Meas					
SQ47 Cert					
OxK110 Meas					

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Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Au	Ag	Cd	Cu	Mn
Unit Symbol	ppb	ppm	ppm	ppm	ppm
Detection Limit	5	0.2	0.5	1	5
Analysis Method	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP
OxK110 Cert					
OXN117 Meas					
OXN117 Cert					
SdAR-M2 (U.S.G.S.) Meas			5.1	239	
SdAR-M2 (U.S.G.S.) Cert			5.1	236.0000	
CCU-1e Meas					
CCU-1e Cert					
OREAS 214 Meas	2910				
OREAS 214 Cert	3030				
OREAS 214 Meas	2900				
OREAS 214 Cert	3030				
OREAS 214 Meas	3040				
OREAS 214 Cert	3030				
OREAS 214 Meas	2870				
OREAS 214 Cert	3030				
OREAS 218 Meas	526				
OREAS 218 Cert	531				
OREAS 218 Meas	511				
OREAS 218 Cert	531				
OREAS 218 Meas	537				
OREAS 218 Cert	531				
OREAS 218 Meas	530				
OREAS 218 Cert	531				
OREAS 218 Meas	512				
OREAS 218 Cert	531				
OREAS 218 Meas	525				
OREAS 218 Cert	531				
A17-36 Orig	7				
A17-36 Dup	6				
A17-39 Orig		3.8	1.8	27	855
A17-39 Dup		3.6	1.8	27	835

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Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Au	Ag	Cd	Cu	Mn
Unit Symbol	ppb	ppm	ppm	ppm	ppm
Detection Limit	5	0.2	0.5	1	5
Analysis Method	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-126 Orig	< 5				
A17-126 Dup	< 5				
A17-128 Orig		< 0.2	< 0.5	10	72
A17-128 Dup		< 0.2	< 0.5	11	78
A17-131 Orig	< 5				
A17-131 Dup	5				
A17-141 Orig		1.2	42.4	8	4030
A17-141 Dup		1.1	41.7	8	3990
A17-146 Orig	9				
A17-146 Dup	8				
DM-43 Orig	< 5	< 0.2	< 0.5	3	1460
DM-43 Split PREP DUP	< 5	< 0.2	< 0.5	2	1430
DM-46 Orig		24.8	0.6	> 10000	246
DM-46 Dup		24.9	0.6	> 10000	248
DM-52 Orig	< 5				
DM-52 Dup	< 5				
DM-57 Orig	< 5				
DM-57 Dup	< 5				
DM-81 Orig		< 0.2	< 0.5	19	710
DM-81 Dup		< 0.2	< 0.5	20	699
DM-84 Orig	< 5				
DM-84 Dup	< 5				
DM-120 Orig		< 0.2	< 0.5	8	301
DM-120 Dup		< 0.2	< 0.5	7	301
DM-124 Orig	3210				
DM-124 Dup	2800				
DM-127 Orig					
DM-127 Dup					
DM-129 Orig	> 5000				
DM-129 Dup	> 5000				
DM-130 Orig	638	> 100	246	212	469

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Report Date: 1/12/2017

Analyte Symbol	Au	Ag	Cd	Cu	Mn
Unit Symbol	ppb	ppm	ppm	ppm	ppm
Detection Limit	5	0.2	0.5	1	5
Analysis Method	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM-130 Split PREP DUP	544	> 100	208	172	398
DM-130 Orig					
DM-130 Split PREP DUP					
DM-132 Orig		> 100	546	719	1070
DM-132 Dup		> 100	539	709	1060
DM-143 Orig	5				
DM-143 Dup	11				
AGKM-03 Orig		7.7	12.7	5	758
AGKM-03 Dup		7.7	12.8	5	765
AGKM-15 Orig	7				
AGKM-15 Dup	6				
GGKM-01 Orig	< 5				
GGKM-01 Dup	< 5				
GGKM-02 Orig		8.9	< 0.5	116	369
GGKM-02 Dup		8.9	< 0.5	116	365
GGKM-12 Orig					
GGKM-12 Dup					
GGKM-16 Orig	1940	15.6	1.2	59	469
GGKM-16 Dup	1910	15.3	1	59	463
GGKM-18 Orig	191	1.2	0.6	9	713
GGKM-18 Split PREP DUP	248	1.6	< 0.5	8	724
RRKM-10 Orig		< 0.2	< 0.5	32	2280
RRKM-10 Dup		< 0.2	< 0.5	32	2240
RRKM-12 Orig	< 5				
RRKM-12 Dup	< 5				
RRKM-33 Orig	< 5				
RRKM-33 Dup	< 5				
VKM-02 Orig		1.5	0.7	9	192
VKM-02 Dup		1.6	0.8	10	197
VKM-16 Orig	< 5				
VKM-16 Dup	< 5				

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Analyte Symbol	Au	Ag	Cd	Cu	Mn
Unit Symbol	ppb	ppm	ppm	ppm	ppm
Detection Limit	5	0.2	0.5	1	5
Analysis Method	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP
RSKM-01 Orig		0.3	< 0.5	78	1120
RSKM-01 Dup		0.3	< 0.5	75	1080
Method Blank	< 5				
Method Blank	< 5				
Method Blank	< 5				
Method Blank	< 5				
Method Blank	< 5				
Method Blank	< 5				
Method Blank	< 5				
Method Blank	< 5				
Method Blank	< 5				
Method Blank	< 5				
Method Blank	< 5				
Method Blank	< 5				
Method Blank		< 0.2	< 0.5	2	< 5
Method Blank		< 0.2	< 0.5	< 1	< 5
Method Blank		< 0.2	< 0.5	< 1	< 5
Method Blank		< 0.2	< 0.5	< 1	< 5
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					

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Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Mo	Ni	Pb	Zn	Al
Unit Symbol	ppm	ppm	ppm	ppm	%
Detection Limit	1	1	2	2	0.01
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-1 Meas	12	29	579	637	0.31
GXR-1 Cert	18	41	730	760	3.52
GXR-1 Meas	13	36	603	659	0.33
GXR-1 Cert	18	41	730	760	3.52
GXR-4 Meas	290	33	39	65	2.55
GXR-4 Cert	310	42	52	73	7.2
GXR-4 Meas	308	36	42	70	2.75
GXR-4 Cert	310	42	52	73	7.2
GXR-6 Meas	1	18	86	114	6.37
GXR-6 Cert	2.4	27	101	118	17.7
GXR-6 Meas	1	20	89	119	6.76
GXR-6 Cert	2.4	27	101	118	17.7
CDN-SE-1 Meas					
CDN-SE-1 Cert					
CDN-SE-1 Meas					
CDN-SE-1 Cert					
MP-1b Meas					
MP-1b Cert					
OxQ75 Meas					
OxQ75 Cert					
OxQ75 Meas					
OxQ75 Cert					
OxQ75 Meas					
OxQ75 Cert					
CPB-2 Meas					
CPB-2 Cert					
CZN-4 Meas					
CZN-4 Cert					
SQ47 Meas					
SQ47 Cert					
OxK110 Meas					

Final Report
Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Mo	Ni	Pb	Zn	Al
Unit Symbol	ppm	ppm	ppm	ppm	%
Detection Limit	1	1	2	2	0.01
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
OxK110 Cert					
OXN117 Meas					
OXN117 Cert					
SdAR-M2 (U.S.G.S.) Meas	13	44	794	823	
SdAR-M2 (U.S.G.S.) Cert	13	49	808	760	
CCU-1e Meas					
CCU-1e Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
A17-36 Orig					
A17-36 Dup					
A17-39 Orig	2	4	11	218	1.51
A17-39 Dup	2	4	10	215	1.47

Final Report
Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Mo	Ni	Pb	Zn	Al
Unit Symbol	ppm	ppm	ppm	ppm	%
Detection Limit	1	1	2	2	0.01
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-126 Orig					
A17-126 Dup					
A17-128 Orig	2	< 1	3	10	0.34
A17-128 Dup	2	< 1	3	10	0.35
A17-131 Orig					
A17-131 Dup					
A17-141 Orig	11	5	575	6030	0.4
A17-141 Dup	11	8	565	5960	0.39
A17-146 Orig					
A17-146 Dup					
DM-43 Orig	3	2	< 2	10	0.4
DM-43 Split PREP DUP	3	< 1	5	10	0.46
DM-46 Orig	2	7	5	35	0.36
DM-46 Dup	2	6	6	35	0.38
DM-52 Orig					
DM-52 Dup					
DM-57 Orig					
DM-57 Dup					
DM-81 Orig	2	< 1	2	7	0.3
DM-81 Dup	2	1	2	7	0.29
DM-84 Orig					
DM-84 Dup					
DM-120 Orig	3	< 1	< 2	11	1.41
DM-120 Dup	3	< 1	< 2	11	1.43
DM-124 Orig					
DM-124 Dup					
DM-127 Orig					
DM-127 Dup					
DM-129 Orig					
DM-129 Dup					
DM-130 Orig	2	2	2240	> 10000	0.05

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Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Mo	Ni	Pb	Zn	Al
Unit Symbol	ppm	ppm	ppm	ppm	%
Detection Limit	1	1	2	2	0.01
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM-130 Split PREP DUP	1	1	1950	> 10000	0.06
DM-130 Orig					
DM-130 Split PREP DUP					
DM-132 Orig	1	2	3140	> 10000	0.08
DM-132 Dup	1	4	3100	> 10000	0.07
DM-143 Orig					
DM-143 Dup					
AGKM-03 Orig	2	< 1	2210	5660	0.36
AGKM-03 Dup	2	1	2240	5680	0.36
AGKM-15 Orig					
AGKM-15 Dup					
GGKM-01 Orig					
GGKM-01 Dup					
GGKM-02 Orig	27	11	415	58	0.8
GGKM-02 Dup	27	9	415	58	0.82
GGKM-12 Orig					
GGKM-12 Dup					
GGKM-16 Orig	31	8	671	145	0.36
GGKM-16 Dup	31	9	658	142	0.36
GGKM-18 Orig	2	2	46	57	0.09
GGKM-18 Split PREP DUP	2	2	50	45	0.09
RRKM-10 Orig	1	13	3	6	0.31
RRKM-10 Dup	1	13	2	7	0.3
RRKM-12 Orig					
RRKM-12 Dup					
RRKM-33 Orig					
RRKM-33 Dup					
VKM-02 Orig	3	2	61	99	0.56
VKM-02 Dup	4	1	62	102	0.58
VKM-16 Orig					
VKM-16 Dup					

Final Report
Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Mo	Ni	Pb	Zn	Al
Unit Symbol	ppm	ppm	ppm	ppm	%
Detection Limit	1	1	2	2	0.01
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
RSKM-01 Orig	4	43	5	34	1.47
RSKM-01 Dup	4	40	5	35	1.43
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank	< 1	< 1	< 2	< 2	< 0.01
Method Blank	< 1	< 1	< 2	< 2	< 0.01
Method Blank	< 1	< 1	< 2	< 2	< 0.01
Method Blank	< 1	< 1	< 2	< 2	< 0.01
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					

Final Report
Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	As	B	Ba	Be	Bi
Unit Symbol	ppm	ppm	ppm	ppm	ppm
Detection Limit	2	10	10	0.5	2
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-1 Meas	341	< 10	192	0.7	1280
GXR-1 Cert	427	15	750	1.22	1380
GXR-1 Meas	367	< 10	172	0.8	1360
GXR-1 Cert	427	15	750	1.22	1380
GXR-4 Meas	91	< 10	36	1.3	17
GXR-4 Cert	98	4.5	1640	1.9	19
GXR-4 Meas	99	< 10	40	1.4	12
GXR-4 Cert	98	4.5	1640	1.9	19
GXR-6 Meas	222	< 10	882	0.9	< 2
GXR-6 Cert	330	9.8	1300	1.4	0.29
GXR-6 Meas	233	< 10	952	0.9	< 2
GXR-6 Cert	330	9.8	1300	1.4	0.29
CDN-SE-1 Meas					
CDN-SE-1 Cert					
CDN-SE-1 Meas					
CDN-SE-1 Cert					
MP-1b Meas					
MP-1b Cert					
OxQ75 Meas					
OxQ75 Cert					
OxQ75 Meas					
OxQ75 Cert					
OxQ75 Meas					
OxQ75 Cert					
CPB-2 Meas					
CPB-2 Cert					
CZN-4 Meas					
CZN-4 Cert					
SQ47 Meas					
SQ47 Cert					
OxK110 Meas					

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Analyte Symbol	As	B	Ba	Be	Bi
Unit Symbol	ppm	ppm	ppm	ppm	ppm
Detection Limit	2	10	10	0.5	2
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
OxK110 Cert					
OXN117 Meas					
OXN117 Cert					
SdAR-M2 (U.S.G.S.) Meas			121	4.7	< 2
SdAR-M2 (U.S.G.S.) Cert			990	6.6	1.05
CCU-1e Meas					
CCU-1e Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
A17-36 Orig					
A17-36 Dup					
A17-39 Orig	72	< 10	314	0.6	< 2
A17-39 Dup	69	< 10	301	0.6	< 2

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Activation Laboratories

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Analyte Symbol	As	B	Ba	Be	Bi
Unit Symbol	ppm	ppm	ppm	ppm	ppm
Detection Limit	2	10	10	0.5	2
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-126 Orig					
A17-126 Dup					
A17-128 Orig	15	< 10	181	< 0.5	< 2
A17-128 Dup	15	< 10	186	< 0.5	< 2
A17-131 Orig					
A17-131 Dup					
A17-141 Orig	298	< 10	25	< 0.5	< 2
A17-141 Dup	295	< 10	26	< 0.5	< 2
A17-146 Orig					
A17-146 Dup					
DM-43 Orig	35	< 10	86	< 0.5	< 2
DM-43 Split PREP DUP	37	< 10	98	< 0.5	< 2
DM-46 Orig	29	< 10	17	< 0.5	12
DM-46 Dup	30	< 10	22	< 0.5	< 2
DM-52 Orig					
DM-52 Dup					
DM-57 Orig					
DM-57 Dup					
DM-81 Orig	< 2	< 10	125	< 0.5	< 2
DM-81 Dup	2	< 10	147	< 0.5	< 2
DM-84 Orig					
DM-84 Dup					
DM-120 Orig	25	14	210	0.7	< 2
DM-120 Dup	24	14	211	0.7	< 2
DM-124 Orig					
DM-124 Dup					
DM-127 Orig					
DM-127 Dup					
DM-129 Orig					
DM-129 Dup					
DM-130 Orig	6310	< 10	< 10	< 0.5	247

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Analyte Symbol	As	B	Ba	Be	Bi
Unit Symbol	ppm	ppm	ppm	ppm	ppm
Detection Limit	2	10	10	0.5	2
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM-130 Split PREP DUP	5700	< 10	< 10	< 0.5	219
DM-130 Orig					
DM-130 Split PREP DUP					
DM-132 Orig	794	< 10	< 10	< 0.5	293
DM-132 Dup	787	< 10	< 10	< 0.5	288
DM-143 Orig					
DM-143 Dup					
AGKM-03 Orig	10	< 10	292	< 0.5	6
AGKM-03 Dup	9	< 10	295	< 0.5	6
AGKM-15 Orig					
AGKM-15 Dup					
GGKM-01 Orig					
GGKM-01 Dup					
GGKM-02 Orig	389	< 10	< 10	< 0.5	< 2
GGKM-02 Dup	390	< 10	< 10	< 0.5	< 2
GGKM-12 Orig					
GGKM-12 Dup					
GGKM-16 Orig	651	< 10	< 10	< 0.5	25
GGKM-16 Dup	640	< 10	< 10	< 0.5	25
GGKM-18 Orig	114	< 10	46	< 0.5	3
GGKM-18 Split PREP DUP	107	< 10	57	< 0.5	6
RRKM-10 Orig	18	< 10	48	< 0.5	< 2
RRKM-10 Dup	17	< 10	48	< 0.5	< 2
RRKM-12 Orig					
RRKM-12 Dup					
RRKM-33 Orig					
RRKM-33 Dup					
VKM-02 Orig	134	< 10	26	< 0.5	< 2
VKM-02 Dup	140	< 10	30	< 0.5	< 2
VKM-16 Orig					
VKM-16 Dup					

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Analyte Symbol	As	B	Ba	Be	Bi
Unit Symbol	ppm	ppm	ppm	ppm	ppm
Detection Limit	2	10	10	0.5	2
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
RSKM-01 Orig	7	< 10	78	0.7	< 2
RSKM-01 Dup	7	< 10	76	0.7	< 2
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank	< 2	< 10	< 10	< 0.5	< 2
Method Blank	< 2	< 10	< 10	< 0.5	< 2
Method Blank	< 2	< 10	< 10	< 0.5	< 2
Method Blank	< 2	< 10	< 10	< 0.5	< 2
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					

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Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Ca	Co	Cr	Fe	Ga
Unit Symbol	%	ppm	ppm	%	ppm
Detection Limit	0.01	1	1	0.01	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-1 Meas	0.71	4	6	20.1	< 10
GXR-1 Cert	0.96	8.2	12	23.6	13.8
GXR-1 Meas	0.74	5	6	21.6	< 10
GXR-1 Cert	0.96	8.2	12	23.6	13.8
GXR-4 Meas	0.81	12	52	2.8	< 10
GXR-4 Cert	1.01	14.6	64	3.09	20
GXR-4 Meas	0.87	12	56	3.02	10
GXR-4 Cert	1.01	14.6	64	3.09	20
GXR-6 Meas	0.16	11	74	5.02	20
GXR-6 Cert	0.18	13.8	96	5.58	35
GXR-6 Meas	0.17	12	79	5.27	20
GXR-6 Cert	0.18	13.8	96	5.58	35
CDN-SE-1 Meas					
CDN-SE-1 Cert					
CDN-SE-1 Meas					
CDN-SE-1 Cert					
MP-1b Meas					
MP-1b Cert					
OxQ75 Meas					
OxQ75 Cert					
OxQ75 Meas					
OxQ75 Cert					
OxQ75 Meas					
OxQ75 Cert					
CPB-2 Meas					
CPB-2 Cert					
CZN-4 Meas					
CZN-4 Cert					
SQ47 Meas					
SQ47 Cert					
OxK110 Meas					

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Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Ca	Co	Cr	Fe	Ga
Unit Symbol	%	ppm	ppm	%	ppm
Detection Limit	0.01	1	1	0.01	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
OxK110 Cert					
OXN117 Meas					
OXN117 Cert					
SdAR-M2 (U.S.G.S.) Meas		12	9		< 10
SdAR-M2 (U.S.G.S.) Cert		12.4	49.6		17.6
CCU-1e Meas					
CCU-1e Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
A17-36 Orig					
A17-36 Dup					
A17-39 Orig	0.17	5	5	5.21	< 10
A17-39 Dup	0.16	5	4	5.14	< 10

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Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Ca	Co	Cr	Fe	Ga
Unit Symbol	%	ppm	ppm	%	ppm
Detection Limit	0.01	1	1	0.01	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-126 Orig					
A17-126 Dup					
A17-128 Orig	0.62	< 1	10	1.12	< 10
A17-128 Dup	0.64	< 1	11	1.14	< 10
A17-131 Orig					
A17-131 Dup					
A17-141 Orig	9.54	11	10	3.36	< 10
A17-141 Dup	9.47	11	10	3.34	< 10
A17-146 Orig					
A17-146 Dup					
DM-43 Orig	3.56	1	6	1.42	< 10
DM-43 Split PREP DUP	3.52	< 1	5	1.45	< 10
DM-46 Orig	0.38	6	10	3.83	< 10
DM-46 Dup	0.38	6	11	3.84	< 10
DM-52 Orig					
DM-52 Dup					
DM-57 Orig					
DM-57 Dup					
DM-81 Orig	0.73	1	16	1.46	< 10
DM-81 Dup	0.71	1	19	1.41	< 10
DM-84 Orig					
DM-84 Dup					
DM-120 Orig	0.27	3	5	2.79	< 10
DM-120 Dup	0.27	3	5	2.81	< 10
DM-124 Orig					
DM-124 Dup					
DM-127 Orig					
DM-127 Dup					
DM-129 Orig					
DM-129 Dup					
DM-130 Orig	0.02	14	18	5.86	< 10

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Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Ca	Co	Cr	Fe	Ga
Unit Symbol	%	ppm	ppm	%	ppm
Detection Limit	0.01	1	1	0.01	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM-130 Split PREP DUP	0.02	13	12	5.29	< 10
DM-130 Orig					
DM-130 Split PREP DUP					
DM-132 Orig	0.05	9	18	6.87	< 10
DM-132 Dup	0.05	9	19	6.82	< 10
DM-143 Orig					
DM-143 Dup					
AGKM-03 Orig	0.42	3	14	1.53	< 10
AGKM-03 Dup	0.42	3	15	1.55	< 10
AGKM-15 Orig					
AGKM-15 Dup					
GGKM-01 Orig					
GGKM-01 Dup					
GGKM-02 Orig	0.34	63	5	11.5	< 10
GGKM-02 Dup	0.34	63	4	11.5	< 10
GGKM-12 Orig					
GGKM-12 Dup					
GGKM-16 Orig	0.02	107	5	10.5	< 10
GGKM-16 Dup	0.02	106	6	10.4	< 10
GGKM-18 Orig	0.02	8	17	3.05	< 10
GGKM-18 Split PREP DUP	0.02	7	15	2.86	< 10
RRKM-10 Orig	> 10.0	7	13	3.02	< 10
RRKM-10 Dup	> 10.0	7	13	2.96	< 10
RRKM-12 Orig					
RRKM-12 Dup					
RRKM-33 Orig					
RRKM-33 Dup					
VKM-02 Orig	0.02	5	10	2.84	< 10
VKM-02 Dup	0.02	5	10	2.94	< 10
VKM-16 Orig					
VKM-16 Dup					

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Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Ca	Co	Cr	Fe	Ga
Unit Symbol	%	ppm	ppm	%	ppm
Detection Limit	0.01	1	1	0.01	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
RSKM-01 Orig	0.74	11	25	4.78	< 10
RSKM-01 Dup	0.71	11	24	4.62	< 10
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank	< 0.01	< 1	< 1	< 0.01	< 10
Method Blank	< 0.01	< 1	< 1	< 0.01	< 10
Method Blank	< 0.01	< 1	< 1	< 0.01	< 10
Method Blank	< 0.01	< 1	< 1	< 0.01	< 10
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					

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Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Hg	K	La	Mg	Na
Unit Symbol	ppm	%	ppm	%	%
Detection Limit	1	0.01	10	0.01	0.001
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-1 Meas	2	0.03	< 10	0.12	0.043
GXR-1 Cert	3.9	0.050	7.5	0.217	0.052
GXR-1 Meas	2	0.03	< 10	0.12	0.044
GXR-1 Cert	3.9	0.050	7.5	0.217	0.052
GXR-4 Meas	< 1	1.58	44	1.44	0.125
GXR-4 Cert	0.11	4.01	64.5	1.66	0.564
GXR-4 Meas	< 1	1.71	48	1.55	0.135
GXR-4 Cert	0.11	4.01	64.5	1.66	0.564
GXR-6 Meas	< 1	1	11	0.35	0.07
GXR-6 Cert	0.068	1.87	13.9	0.609	0.104
GXR-6 Meas	< 1	1.08	11	0.38	0.074
GXR-6 Cert	0.068	1.87	13.9	0.609	0.104
CDN-SE-1 Meas					
CDN-SE-1 Cert					
CDN-SE-1 Meas					
CDN-SE-1 Cert					
MP-1b Meas					
MP-1b Cert					
OxQ75 Meas					
OxQ75 Cert					
OxQ75 Meas					
OxQ75 Cert					
OxQ75 Meas					
OxQ75 Cert					
CPB-2 Meas					
CPB-2 Cert					
CZN-4 Meas					
CZN-4 Cert					
SQ47 Meas					
SQ47 Cert					
OxK110 Meas					

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Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Hg	K	La	Mg	Na
Unit Symbol	ppm	%	ppm	%	%
Detection Limit	1	0.01	10	0.01	0.001
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
OxK110 Cert					
OXN117 Meas					
OXN117 Cert					
SdAR-M2 (U.S.G.S.) Meas	< 1		43		
SdAR-M2 (U.S.G.S.) Cert	1.44		46.6		
CCU-1e Meas					
CCU-1e Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
A17-36 Orig					
A17-36 Dup					
A17-39 Orig	< 1	0.49	34	0.16	0.029
A17-39 Dup	< 1	0.47	33	0.16	0.026

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Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Hg	K	La	Mg	Na
Unit Symbol	ppm	%	ppm	%	%
Detection Limit	1	0.01	10	0.01	0.001
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-126 Orig					
A17-126 Dup					
A17-128 Orig	< 1	0.16	< 10	0.1	0.124
A17-128 Dup	< 1	0.16	< 10	0.1	0.127
A17-131 Orig					
A17-131 Dup					
A17-141 Orig	3	0.02	< 10	0.1	0.015
A17-141 Dup	3	0.02	< 10	0.1	0.016
A17-146 Orig					
A17-146 Dup					
DM-43 Orig	< 1	0.22	25	0.03	0.078
DM-43 Split PREP DUP	< 1	0.25	23	0.04	0.089
DM-46 Orig	< 1	0.14	< 10	0.12	0.022
DM-46 Dup	< 1	0.15	< 10	0.12	0.021
DM-52 Orig					
DM-52 Dup					
DM-57 Orig					
DM-57 Dup					
DM-81 Orig	< 1	0.3	30	0.02	0.021
DM-81 Dup	< 1	0.29	30	0.02	0.021
DM-84 Orig					
DM-84 Dup					
DM-120 Orig	< 1	0.43	32	0.36	0.069
DM-120 Dup	< 1	0.42	32	0.37	0.071
DM-124 Orig					
DM-124 Dup					
DM-127 Orig					
DM-127 Dup					
DM-129 Orig					
DM-129 Dup					
DM-130 Orig	< 1	0.03	< 10	< 0.01	0.016

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Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Hg	K	La	Mg	Na
Unit Symbol	ppm	%	ppm	%	%
Detection Limit	1	0.01	10	0.01	0.001
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM-130 Split PREP DUP	< 1	0.03	< 10	< 0.01	0.018
DM-130 Orig					
DM-130 Split PREP DUP					
DM-132 Orig	< 1	0.04	< 10	0.03	0.016
DM-132 Dup	< 1	0.04	< 10	0.03	0.014
DM-143 Orig					
DM-143 Dup					
AGKM-03 Orig	2	0.13	< 10	0.06	0.08
AGKM-03 Dup	3	0.13	< 10	0.06	0.08
AGKM-15 Orig					
AGKM-15 Dup					
GGKM-01 Orig					
GGKM-01 Dup					
GGKM-02 Orig	< 1	0.61	< 10	0.06	0.021
GGKM-02 Dup	< 1	0.62	< 10	0.06	0.02
GGKM-12 Orig					
GGKM-12 Dup					
GGKM-16 Orig	< 1	0.33	13	< 0.01	0.021
GGKM-16 Dup	< 1	0.34	13	< 0.01	0.021
GGKM-18 Orig	< 1	0.06	< 10	< 0.01	0.022
GGKM-18 Split PREP DUP	< 1	0.05	< 10	< 0.01	0.021
RRKM-10 Orig	< 1	0.11	< 10	0.58	0.019
RRKM-10 Dup	< 1	0.11	< 10	0.56	0.019
RRKM-12 Orig					
RRKM-12 Dup					
RRKM-33 Orig					
RRKM-33 Dup					
VKM-02 Orig	< 1	0.53	16	0.03	0.036
VKM-02 Dup	< 1	0.55	17	0.03	0.036
VKM-16 Orig					
VKM-16 Dup					

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Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Hg	K	La	Mg	Na
Unit Symbol	ppm	%	ppm	%	%
Detection Limit	1	0.01	10	0.01	0.001
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
RSKM-01 Orig	< 1	0.42	16	0.61	0.027
RSKM-01 Dup	< 1	0.41	16	0.59	0.026
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank	< 1	< 0.01	< 10	< 0.01	0.013
Method Blank	< 1	< 0.01	< 10	< 0.01	0.011
Method Blank	< 1	< 0.01	< 10	< 0.01	0.011
Method Blank	< 1	< 0.01	< 10	< 0.01	0.012
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					

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Report Date: 1/12/2017

Analyte Symbol	P	S	Sb	Sc	Sr
Unit Symbol	%	%	ppm	ppm	ppm
Detection Limit	0.001	0.01	2	1	1
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-1 Meas	0.036	0.17	63	< 1	146
GXR-1 Cert	0.065	0.257	122	1.58	275
GXR-1 Meas	0.039	0.17	68	1	155
GXR-1 Cert	0.065	0.257	122	1.58	275
GXR-4 Meas	0.115	1.54	2	6	72
GXR-4 Cert	0.12	1.77	4.8	7.7	221
GXR-4 Meas	0.124	1.66	< 2	7	77
GXR-4 Cert	0.12	1.77	4.8	7.7	221
GXR-6 Meas	0.031	0.01	4	22	33
GXR-6 Cert	0.035	0.016	3.6	27.6	35
GXR-6 Meas	0.033	0.01	3	24	36
GXR-6 Cert	0.035	0.016	3.6	27.6	35
CDN-SE-1 Meas					
CDN-SE-1 Cert					
CDN-SE-1 Meas					
CDN-SE-1 Cert					
MP-1b Meas					
MP-1b Cert					
OxQ75 Meas					
OxQ75 Cert					
OxQ75 Meas					
OxQ75 Cert					
OxQ75 Meas					
OxQ75 Cert					
CPB-2 Meas					
CPB-2 Cert					
CZN-4 Meas					
CZN-4 Cert					
SQ47 Meas					
SQ47 Cert					
OxK110 Meas					

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Analyte Symbol	P	S	Sb	Sc	Sr
Unit Symbol	%	%	ppm	ppm	ppm
Detection Limit	0.001	0.01	2	1	1
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
OxK110 Cert					
OXN117 Meas					
OXN117 Cert					
SdAR-M2 (U.S.G.S.) Meas				2	22
SdAR-M2 (U.S.G.S.) Cert				4.1	144
CCU-1e Meas					
CCU-1e Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
A17-36 Orig					
A17-36 Dup					
A17-39 Orig	0.057	0.14	17	4	15
A17-39 Dup	0.055	0.14	16	4	14

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Analyte Symbol	P	S	Sb	Sc	Sr
Unit Symbol	%	%	ppm	ppm	ppm
Detection Limit	0.001	0.01	2	1	1
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-126 Orig					
A17-126 Dup					
A17-128 Orig	0.07	0.04	< 2	< 1	137
A17-128 Dup	0.071	0.04	< 2	< 1	139
A17-131 Orig					
A17-131 Dup					
A17-141 Orig	0.012	1.08	5	1	439
A17-141 Dup	0.012	1.11	5	1	441
A17-146 Orig					
A17-146 Dup					
DM-43 Orig	0.027	0.04	< 2	5	166
DM-43 Split PREP DUP	0.026	0.04	< 2	5	166
DM-46 Orig	0.016	2.55	2	< 1	23
DM-46 Dup	0.016	2.71	< 2	< 1	24
DM-52 Orig					
DM-52 Dup					
DM-57 Orig					
DM-57 Dup					
DM-81 Orig	0.028	0.51	< 2	2	20
DM-81 Dup	0.027	0.5	< 2	2	19
DM-84 Orig					
DM-84 Dup					
DM-120 Orig	0.059	0.21	< 2	4	50
DM-120 Dup	0.059	0.21	< 2	4	49
DM-124 Orig					
DM-124 Dup					
DM-127 Orig					
DM-127 Dup					
DM-129 Orig					
DM-129 Dup					
DM-130 Orig	0.001	4.7	44	< 1	1

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Analyte Symbol	P	S	Sb	Sc	Sr
Unit Symbol	%	%	ppm	ppm	ppm
Detection Limit	0.001	0.01	2	1	1
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM-130 Split PREP DUP	0.002	4.16	46	< 1	< 1
DM-130 Orig					
DM-130 Split PREP DUP					
DM-132 Orig	0.002	5.16	208	< 1	2
DM-132 Dup	0.002	4.86	205	< 1	2
DM-143 Orig					
DM-143 Dup					
AGKM-03 Orig	0.029	0.1	4	< 1	21
AGKM-03 Dup	0.03	0.1	4	< 1	21
AGKM-15 Orig					
AGKM-15 Dup					
GGKM-01 Orig					
GGKM-01 Dup					
GGKM-02 Orig	0.056	10.9	15	2	17
GGKM-02 Dup	0.056	10.9	13	2	17
GGKM-12 Orig					
GGKM-12 Dup					
GGKM-16 Orig	0.006	10.9	15	< 1	3
GGKM-16 Dup	0.006	10.8	14	< 1	3
GGKM-18 Orig	0.007	1.33	3	< 1	5
GGKM-18 Split PREP DUP	0.007	1.25	4	< 1	5
RRKM-10 Orig	0.01	0.51	< 2	2	401
RRKM-10 Dup	0.009	0.51	< 2	2	395
RRKM-12 Orig					
RRKM-12 Dup					
RRKM-33 Orig					
RRKM-33 Dup					
VKM-02 Orig	0.008	1.9	22	2	8
VKM-02 Dup	0.009	1.98	23	2	8
VKM-16 Orig					
VKM-16 Dup					

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Analyte Symbol	Ti	Th	Te	Tl	U
Unit Symbol	%	ppm	ppm	ppm	ppm
Detection Limit	0.01	20	1	2	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-1 Meas	< 0.01	< 20	13	< 2	26
GXR-1 Cert	0.036	2.44	13	0.39	34.9
GXR-1 Meas	< 0.01	< 20	13	< 2	28
GXR-1 Cert	0.036	2.44	13	0.39	34.9
GXR-4 Meas	0.12	< 20	< 1	< 2	< 10
GXR-4 Cert	0.29	22.5	0.97	3.2	6.2
GXR-4 Meas	0.13	< 20	< 1	< 2	< 10
GXR-4 Cert	0.29	22.5	0.97	3.2	6.2
GXR-6 Meas		< 20	< 1	< 2	< 10
GXR-6 Cert		5.3	0.018	2.2	1.54
GXR-6 Meas		< 20	< 1	< 2	< 10
GXR-6 Cert		5.3	0.018	2.2	1.54
CDN-SE-1 Meas					
CDN-SE-1 Cert					
CDN-SE-1 Meas					
CDN-SE-1 Cert					
MP-1b Meas					
MP-1b Cert					
OxQ75 Meas					
OxQ75 Cert					
OxQ75 Meas					
OxQ75 Cert					
OxQ75 Meas					
OxQ75 Cert					
CPB-2 Meas					
CPB-2 Cert					
CZN-4 Meas					
CZN-4 Cert					
SQ47 Meas					
SQ47 Cert					
OxK110 Meas					

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Analyte Symbol	Ti	Th	Te	Tl	U
Unit Symbol	%	ppm	ppm	ppm	ppm
Detection Limit	0.01	20	1	2	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
OxK110 Cert					
OXN117 Meas					
OXN117 Cert					
SdAR-M2 (U.S.G.S.) Meas		< 20			< 10
SdAR-M2 (U.S.G.S.) Cert		14.2			2.53
CCU-1e Meas					
CCU-1e Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
A17-36 Orig					
A17-36 Dup					
A17-39 Orig	< 0.01	< 20	3	< 2	< 10
A17-39 Dup	< 0.01	< 20	< 1	< 2	< 10

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Analyte Symbol	Ti	Th	Te	Tl	U
Unit Symbol	%	ppm	ppm	ppm	ppm
Detection Limit	0.01	20	1	2	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
A17-126 Orig					
A17-126 Dup					
A17-128 Orig	< 0.01	< 20	< 1	< 2	< 10
A17-128 Dup	< 0.01	< 20	< 1	< 2	< 10
A17-131 Orig					
A17-131 Dup					
A17-141 Orig	< 0.01	< 20	< 1	5	< 10
A17-141 Dup	< 0.01	< 20	1	5	< 10
A17-146 Orig					
A17-146 Dup					
DM-43 Orig	< 0.01	< 20	1	< 2	< 10
DM-43 Split PREP DUP	< 0.01	< 20	< 1	< 2	< 10
DM-46 Orig	< 0.01	< 20	< 1	< 2	< 10
DM-46 Dup	< 0.01	< 20	< 1	< 2	< 10
DM-52 Orig					
DM-52 Dup					
DM-57 Orig					
DM-57 Dup					
DM-81 Orig	< 0.01	< 20	< 1	< 2	< 10
DM-81 Dup	< 0.01	< 20	< 1	< 2	< 10
DM-84 Orig					
DM-84 Dup					
DM-120 Orig	< 0.01	< 20	< 1	< 2	< 10
DM-120 Dup	< 0.01	< 20	< 1	< 2	< 10
DM-124 Orig					
DM-124 Dup					
DM-127 Orig					
DM-127 Dup					
DM-129 Orig					
DM-129 Dup					
DM-130 Orig	< 0.01	< 20	6	< 2	< 10

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Analyte Symbol	Ti	Th	Te	Tl	U
Unit Symbol	%	ppm	ppm	ppm	ppm
Detection Limit	0.01	20	1	2	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM-130 Split PREP DUP	< 0.01	< 20	3	< 2	< 10
DM-130 Orig					
DM-130 Split PREP DUP					
DM-132 Orig	< 0.01	< 20	4	< 2	< 10
DM-132 Dup	< 0.01	< 20	5	< 2	< 10
DM-143 Orig					
DM-143 Dup					
AGKM-03 Orig	< 0.01	< 20	1	< 2	< 10
AGKM-03 Dup	< 0.01	< 20	< 1	< 2	< 10
AGKM-15 Orig					
AGKM-15 Dup					
GGKM-01 Orig					
GGKM-01 Dup					
GGKM-02 Orig	< 0.01	< 20	< 1	5	< 10
GGKM-02 Dup	< 0.01	< 20	3	5	< 10
GGKM-12 Orig					
GGKM-12 Dup					
GGKM-16 Orig	< 0.01	< 20	2	3	< 10
GGKM-16 Dup	< 0.01	< 20	1	< 2	< 10
GGKM-18 Orig	< 0.01	< 20	< 1	< 2	< 10
GGKM-18 Split PREP DUP	< 0.01	< 20	< 1	< 2	< 10
RRKM-10 Orig	< 0.01	< 20	< 1	< 2	< 10
RRKM-10 Dup	< 0.01	< 20	< 1	< 2	< 10
RRKM-12 Orig					
RRKM-12 Dup					
RRKM-33 Orig					
RRKM-33 Dup					
VKM-02 Orig	< 0.01	< 20	< 1	< 2	< 10
VKM-02 Dup	< 0.01	< 20	< 1	< 2	< 10
VKM-16 Orig					
VKM-16 Dup					

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Analyte Symbol	Ti	Th	Te	Tl	U
Unit Symbol	%	ppm	ppm	ppm	ppm
Detection Limit	0.01	20	1	2	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
RSKM-01 Orig	< 0.01	< 20	< 1	< 2	< 10
RSKM-01 Dup	< 0.01	< 20	< 1	< 2	< 10
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank	< 0.01	< 20	< 1	< 2	< 10
Method Blank	< 0.01	< 20	< 1	< 2	< 10
Method Blank	< 0.01	< 20	< 1	< 2	< 10
Method Blank	< 0.01	< 20	< 1	< 2	< 10
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					

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Report Number: A17-10633

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Analyte Symbol	V	W	Y	Zr	Au
Unit Symbol	ppm	ppm	ppm	ppm	g/tonne
Detection Limit	1	10	1	1	0.03
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-GRA
GXR-1 Meas	71	115	22	12	
GXR-1 Cert	80	164	32	38	
GXR-1 Meas	76	122	23	13	
GXR-1 Cert	80	164	32	38	
GXR-4 Meas	72	< 10	11	8	
GXR-4 Cert	87	30.8	14	186	
GXR-4 Meas	78	< 10	12	9	
GXR-4 Cert	87	30.8	14	186	
GXR-6 Meas	155	< 10	6	14	
GXR-6 Cert	186	1.9	14	110	
GXR-6 Meas	164	< 10	7	16	
GXR-6 Cert	186	1.9	14	110	
CDN-SE-1 Meas					
CDN-SE-1 Cert					
CDN-SE-1 Meas					
CDN-SE-1 Cert					
MP-1b Meas					
MP-1b Cert					
OxQ75 Meas					
OxQ75 Cert					
OxQ75 Meas					
OxQ75 Cert					
OxQ75 Meas					
OxQ75 Cert					
CPB-2 Meas					
CPB-2 Cert					
CZN-4 Meas					
CZN-4 Cert					
SQ47 Meas					
SQ47 Cert					
OxK110 Meas					

3.65

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Report Date: 1/12/2017

Analyte Symbol	V	W	Y	Zr	Au
Unit Symbol	ppm	ppm	ppm	ppm	g/tonne
Detection Limit	1	10	1	1	0.03
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-GRA
OxK110 Cert					3.602
OXN117 Meas					7.46
OXN117 Cert					7.679
SdAR-M2 (U.S.G.S.) Meas	17	< 10	17	7	
SdAR-M2 (U.S.G.S.) Cert	25.2	2.8	32.7	259	
CCU-1e Meas					
CCU-1e Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 214 Meas					
OREAS 214 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
A17-36 Orig					
A17-36 Dup					
A17-39 Orig	33	< 10	5	3	
A17-39 Dup	32	< 10	5	3	

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Analyte Symbol	V	W	Y	Zr	Au
Unit Symbol	ppm	ppm	ppm	ppm	g/tonne
Detection Limit	1	10	1	1	0.03
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-GRA
A17-126 Orig					
A17-126 Dup					
A17-128 Orig	15	< 10	1	2	
A17-128 Dup	15	< 10	1	2	
A17-131 Orig					
A17-131 Dup					
A17-141 Orig	10	< 10	4	2	
A17-141 Dup	9	< 10	4	2	
A17-146 Orig					
A17-146 Dup					
DM-43 Orig	< 1	< 10	26	10	
DM-43 Split PREP DUP	< 1	< 10	26	10	
DM-46 Orig	2	< 10	3	4	
DM-46 Dup	1	< 10	3	4	
DM-52 Orig					
DM-52 Dup					
DM-57 Orig					
DM-57 Dup					
DM-81 Orig	2	< 10	6	17	
DM-81 Dup	2	< 10	6	18	
DM-84 Orig					
DM-84 Dup					
DM-120 Orig	4	< 10	11	7	
DM-120 Dup	3	< 10	11	7	
DM-124 Orig					
DM-124 Dup					
DM-127 Orig					
DM-127 Dup					
DM-129 Orig					
DM-129 Dup					
DM-130 Orig	1	< 10	< 1	2	

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Analyte Symbol	V	W	Y	Zr	Au
Unit Symbol	ppm	ppm	ppm	ppm	g/tonne
Detection Limit	1	10	1	1	0.03
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-GRA
DM-130 Split PREP DUP	1	< 10	< 1	2	
DM-130 Orig					
DM-130 Split PREP DUP					
DM-132 Orig	2	< 10	< 1	2	
DM-132 Dup	2	< 10	< 1	2	
DM-143 Orig					
DM-143 Dup					
AGKM-03 Orig	6	< 10	2	3	
AGKM-03 Dup	6	< 10	2	3	
AGKM-15 Orig					
AGKM-15 Dup					
GGKM-01 Orig					
GGKM-01 Dup					
GGKM-02 Orig	23	< 10	4	19	
GGKM-02 Dup	24	< 10	4	19	
GGKM-12 Orig					
GGKM-12 Dup					
GGKM-16 Orig	2	< 10	4	49	
GGKM-16 Dup	2	< 10	4	49	
GGKM-18 Orig	2	91	1	2	
GGKM-18 Split PREP DUP	1	64	1	1	
RRKM-10 Orig	8	< 10	8	< 1	
RRKM-10 Dup	8	< 10	8	< 1	
RRKM-12 Orig					
RRKM-12 Dup					
RRKM-33 Orig					
RRKM-33 Dup					
VKM-02 Orig	19	< 10	2	12	
VKM-02 Dup	20	< 10	2	13	
VKM-16 Orig					
VKM-16 Dup					

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Analyte Symbol	V	W	Y	Zr	Au
Unit Symbol	ppm	ppm	ppm	ppm	g/tonne
Detection Limit	1	10	1	1	0.03
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-GRA
RSKM-01 Orig	56	< 10	11	2	
RSKM-01 Dup	55	< 10	11	2	
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank	< 1	< 10	< 1	< 1	
Method Blank	< 1	< 10	< 1	< 1	
Method Blank	< 1	< 10	< 1	< 1	
Method Blank	< 1	< 10	< 1	< 1	
Method Blank					< 0.03
Method Blank					< 0.03
Method Blank					
Method Blank					
Method Blank					
Method Blank					
Method Blank					

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Analyte Symbol	Ag	Cu	Pb	Zn
Unit Symbol	g/tonne	%	%	%
Detection Limit	3	0.001	0.003	0.001
Analysis Method	FA-GRA	ICP-OES	ICP-OES	ICP-OES
GXR-1 Meas				
GXR-1 Cert				
GXR-1 Meas				
GXR-1 Cert				
GXR-4 Meas				
GXR-4 Cert				
GXR-4 Meas				
GXR-4 Cert				
GXR-6 Meas				
GXR-6 Cert				
GXR-6 Meas				
GXR-6 Cert				
CDN-SE-1 Meas	638			
CDN-SE-1 Cert	712			
CDN-SE-1 Meas	740			
CDN-SE-1 Cert	712			
MP-1b Meas		3.07	2.16	17
MP-1b Cert		3.07	2.09	16.7
OxQ75 Meas	157			
OxQ75 Cert	153.9			
OxQ75 Meas	154			
OxQ75 Cert	153.9			
OxQ75 Meas	167			
OxQ75 Cert	153.9			
CPB-2 Meas		0.123	63.9	5.93
CPB-2 Cert		0.1213	63.52	6.04
CZN-4 Meas		0.416	0.181	56.1
CZN-4 Cert		0.403	0.1861	55.07
SQ47 Meas	130			
SQ47 Cert	122.3			
OxK110 Meas				

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Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Ag	Cu	Pb	Zn
Unit Symbol	g/tonne	%	%	%
Detection Limit	3	0.001	0.003	0.001
Analysis Method	FA-GRA	ICP-OES	ICP-OES	ICP-OES

OxK110 Cert

OXN117 Meas

OXN117 Cert

SdAR-M2 (U.S.G.S.) Meas

SdAR-M2 (U.S.G.S.) Cert

CCU-1e Meas

0.671

2.92

CCU-1e Cert

0.703

3.02

OREAS 214 Meas

OREAS 214 Cert

OREAS 214 Meas

OREAS 214 Cert

OREAS 214 Meas

OREAS 214 Cert

OREAS 214 Meas

OREAS 214 Cert

OREAS 218 Meas

OREAS 218 Cert

OREAS 218 Meas

OREAS 218 Cert

OREAS 218 Meas

OREAS 218 Cert

OREAS 218 Meas

OREAS 218 Cert

OREAS 218 Meas

OREAS 218 Cert

OREAS 218 Meas

OREAS 218 Cert

A17-36 Orig

A17-36 Dup

A17-39 Orig

A17-39 Dup

Final Report
Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Ag	Cu	Pb	Zn
Unit Symbol	g/tonne	%	%	%
Detection Limit	3	0.001	0.003	0.001
Analysis Method	FA-GRA	ICP-OES	ICP-OES	ICP-OES
A17-126 Orig				
A17-126 Dup				
A17-128 Orig				
A17-128 Dup				
A17-131 Orig				
A17-131 Dup				
A17-141 Orig				
A17-141 Dup				
A17-146 Orig				
A17-146 Dup				
DM-43 Orig				
DM-43 Split PREP DUP				
DM-46 Orig				
DM-46 Dup				
DM-52 Orig				
DM-52 Dup				
DM-57 Orig				
DM-57 Dup				
DM-81 Orig				
DM-81 Dup				
DM-84 Orig				
DM-84 Dup				
DM-120 Orig				
DM-120 Dup				
DM-124 Orig				
DM-124 Dup				
DM-127 Orig	211			
DM-127 Dup	208			
DM-129 Orig				
DM-129 Dup				
DM-130 Orig	110	0.021	0.208	1.47

Final Report
Activation Laboratories

Report Number: A17-10633

Report Date: 1/12/2017

Analyte Symbol	Ag	Cu	Pb	Zn
Unit Symbol	g/tonne	%	%	%
Detection Limit	3	0.001	0.003	0.001
Analysis Method	FA-GRA	ICP-OES	ICP-OES	ICP-OES
DM-130 Split PREP DUP	92	0.015	0.175	1.16
DM-130 Orig	118			
DM-130 Split PREP DUP	92			
DM-132 Orig				
DM-132 Dup				
DM-143 Orig				
DM-143 Dup				
AGKM-03 Orig				
AGKM-03 Dup				
AGKM-15 Orig				
AGKM-15 Dup				
GGKM-01 Orig				
GGKM-01 Dup				
GGKM-02 Orig				
GGKM-02 Dup				
GGKM-12 Orig		0.02	0.013	2.23
GGKM-12 Dup		0.02	0.013	2.25
GGKM-16 Orig				
GGKM-16 Dup				
GGKM-18 Orig				
GGKM-18 Split PREP DUP				
RRKM-10 Orig				
RRKM-10 Dup				
RRKM-12 Orig				
RRKM-12 Dup				
RRKM-33 Orig				
RRKM-33 Dup				
VKM-02 Orig				
VKM-02 Dup				
VKM-16 Orig				
VKM-16 Dup				

Final Report
Activation Laboratories

Report Number: A17-11741

Report Date: 9/11/2017

Analyte Symbol	Au	Ag	Cd	Cu	Mn
Unit Symbol	ppb	ppm	ppm	ppm	ppm
Detection Limit	5	0.2	0.5	1	5
Analysis Method	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM169	32	0.7	< 0.5	28	914
DM170	106	8.8	1.5	520	2030
DM171	> 5000	64.3	9.1	251	88
DM172	51	18.1	5.6	118	1150
DM173	18	0.4	< 0.5	5	1710
A17-149	52	2.5	67.4	14	10900
A17-150	51	7.1	1.1	61	1720
A17-151	30	6.4	12.4	22	3960
A17-152	62	11.7	10.7	38	8680

Final Report
Activation Laboratories

Report Number: A17-11741

Report Date: 9/11/2017

Analyte Symbol	Mo	Ni	Pb	Zn	Al
Unit Symbol	ppm	ppm	ppm	ppm	%
Detection Limit	1	1	2	2	0.01
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM169	2	3	19	44	0.67
DM170	< 1	4	21	95	0.92
DM171	5	3	> 5000	1160	0.14
DM172	2	5	822	190	1.39
DM173	2	3	82	33	0.84
A17-149	8	2	394	> 10000	0.85
A17-150	2	33	97	149	0.99
A17-151	< 1	3	614	1350	0.08
A17-152	< 1	13	980	957	0.36

Final Report
Activation Laboratories

Report Number: A17-11741

Report Date: 9/11/2017

Analyte Symbol	As	B	Ba	Be	Bi
Unit Symbol	ppm	ppm	ppm	ppm	ppm
Detection Limit	2	10	10	0.5	2
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM169	75	< 10	63	< 0.5	< 2
DM170	26	< 10	462	< 0.5	< 2
DM171	439	< 10	94	< 0.5	48
DM172	6	< 10	26	< 0.5	31
DM173	113	< 10	20	< 0.5	< 2
A17-149	7	< 10	132	< 0.5	3
A17-150	65	< 10	< 10	< 0.5	3
A17-151	3	< 10	13	< 0.5	5
A17-152	101	< 10	34	< 0.5	< 2

Final Report
Activation Laboratories

Report Number: A17-11741

Report Date: 9/11/2017

Analyte Symbol	Ca	Co	Cr	Fe	Ga
Unit Symbol	%	ppm	ppm	%	ppm
Detection Limit	0.01	1	1	0.01	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM169	0.91	5	29	2.65	< 10
DM170	9.58	8	12	4.71	< 10
DM171	0.01	< 1	24	1.85	< 10
DM172	2.87	12	16	2.79	< 10
DM173	2.65	22	5	1.93	< 10
A17-149	0.13	4	9	4.77	< 10
A17-150	3.52	8	5	11.8	< 10
A17-151	5.87	< 1	15	3.23	< 10
A17-152	6.81	3	15	7.42	< 10

Final Report
Activation Laboratories

Report Number: A17-11741

Report Date: 9/11/2017

Analyte Symbol	Hg	K	La	Mg	Na
Unit Symbol	ppm	%	ppm	%	%
Detection Limit	1	0.01	10	0.01	0.001
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM169	< 1	0.55	18	0.39	0.046
DM170	2	0.36	14	0.49	0.057
DM171	2	0.17	< 10	< 0.01	0.029
DM172	< 1	0.7	< 10	0.35	0.049
DM173	< 1	0.59	< 10	0.08	0.033
A17-149	3	0.55	25	0.06	0.025
A17-150	5	0.49	< 10	0.14	0.021
A17-151	2	0.02	< 10	1.21	0.017
A17-152	2	0.15	< 10	1.34	0.021

Final Report
Activation Laboratories

Report Number: A17-11741

Report Date: 9/11/2017

Analyte Symbol	P	S	Sb	Sc	Sr
Unit Symbol	%	%	ppm	ppm	ppm
Detection Limit	0.001	0.01	2	1	1
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM169	0.071	0.64	< 2	4	49
DM170	0.066	0.03	64	12	224
DM171	0.004	0.57	190	< 1	9
DM172	0.048	0.95	4	3	138
DM173	0.093	1.41	5	3	159
A17-149	0.028	0.12	4	2	68
A17-150	0.109	14	89	2	76
A17-151	0.007	0.32	5	2	303
A17-152	0.055	2.01	25	2	458

Final Report
Activation Laboratories

Report Number: A17-11741

Report Date: 9/11/2017

Analyte Symbol	Ti	Th	Te	Tl	U
Unit Symbol	%	ppm	ppm	ppm	ppm
Detection Limit	0.01	20	1	2	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
DM169	0.01	< 20	2	< 2	< 10
DM170	0.1	< 20	2	< 2	< 10
DM171	< 0.01	< 20	5	< 2	< 10
DM172	0.03	< 20	4	< 2	< 10
DM173	0.08	< 20	5	< 2	< 10
A17-149	< 0.01	< 20	7	< 2	< 10
A17-150	< 0.01	< 20	< 1	< 2	< 10
A17-151	< 0.01	< 20	1	< 2	< 10
A17-152	< 0.01	< 20	5	< 2	< 10

Final Report
Activation Laboratories

Report Number: A17-11741

Report Date: 9/11/2017

Analyte Symbol	V	W	Y	Zr	Au
Unit Symbol	ppm	ppm	ppm	ppm	g/tonne
Detection Limit	1	10	1	1	0.03
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-GRA
DM169	23	< 10	8	2	
DM170	104	< 10	15	3	
DM171	2	< 10	< 1	2	6.8
DM172	25	419	6	4	
DM173	12	< 10	14	4	
A17-149	4	< 10	8	6	
A17-150	12	< 10	7	7	
A17-151	3	< 10	14	1	
A17-152	9	< 10	9	3	

Final Report
Activation Laboratories

Report Number: A17-11741

Report Date: 9/11/2017

Analyte Symbol	Au	Ag	Cd	Cu	Mn
Unit Symbol	ppb	ppm	ppm	ppm	ppm
Detection Limit	5	0.2	0.5	1	5
Analysis Method	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-4 Meas		3.9	< 0.5	6400	153
GXR-4 Cert		4	0.86	6520	155
GXR-4 Meas		3.9	< 0.5	6560	152
GXR-4 Cert		4	0.86	6520	155
GXR-6 Meas		0.3	< 0.5	70	1100
GXR-6 Cert		1.3	1	66	1010
GXR-6 Meas		0.3	0.9	69	1080
GXR-6 Cert		1.3	1	66	1010
OREAS 923 (AQUA REGIA) Meas		1.7	< 0.5	4460	900
OREAS 923 (AQUA REGIA) Cert		1.62	0.4	4248	850
OREAS 923 (AQUA REGIA) Meas		1.6	< 0.5	4420	938
OREAS 923 (AQUA REGIA) Cert		1.62	0.4	4248	850
OxL118 Meas					
OxL118 Cert					
OxK119 Meas	3520				
OxK119 Cert	3604.000				
OxP116 Meas					
OxP116 Cert					
OREAS 218 Meas	512				
OREAS 218 Cert	531				
A17-152 Orig		11.6	10.6	38	8590
A17-152 Dup		11.7	10.8	39	8770
Method Blank		< 0.2	< 0.5	< 1	< 5
Method Blank		< 0.2	< 0.5	< 1	< 5
Method Blank		< 0.2	< 0.5	< 1	< 5
Method Blank					
Method Blank					

Final Report
Activation Laboratories

Report Number: A17-11741

Report Date: 9/11/2017

Analyte Symbol	Mo	Ni	Pb	Zn	Al
Unit Symbol	ppm	ppm	ppm	ppm	%
Detection Limit	1	1	2	2	0.01
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-4 Meas	315	39	42	70	3.06
GXR-4 Cert	310	42	52	73	7.2
GXR-4 Meas	312	41	42	70	3.06
GXR-4 Cert	310	42	52	73	7.2
GXR-6 Meas	2	25	100	115	7.63
GXR-6 Cert	2.4	27	101	118	17.7
GXR-6 Meas	< 1	25	97	112	7.45
GXR-6 Cert	2.4	27	101	118	17.7
OREAS 923 (AQUA REGIA) Meas	1	32	84	338	3.1
OREAS 923 (AQUA REGIA) Cert	0.84	32.7	81	335	2.8
OREAS 923 (AQUA REGIA) Meas	< 1	33	83	328	3.15
OREAS 923 (AQUA REGIA) Cert	0.84	32.7	81	335	2.8
OxL118 Meas					
OxL118 Cert					
OxK119 Meas					
OxK119 Cert					
OxP116 Meas					
OxP116 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
A17-152 Orig	< 1	13	977	954	0.36
A17-152 Dup	< 1	13	982	960	0.36
Method Blank	< 1	< 1	< 2	< 2	< 0.01
Method Blank	< 1	< 1	< 2	< 2	< 0.01
Method Blank	< 1	2	< 2	< 2	< 0.01
Method Blank					
Method Blank					

Final Report
Activation Laboratories

Report Number: A17-11741

Report Date: 9/11/2017

Analyte Symbol	As	B	Ba	Be	Bi
Unit Symbol	ppm	ppm	ppm	ppm	ppm
Detection Limit	2	10	10	0.5	2
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-4 Meas	109	< 10	13	1.6	21
GXR-4 Cert	98	4.5	1640	1.9	19
GXR-4 Meas	113	< 10	15	1.6	25
GXR-4 Cert	98	4.5	1640	1.9	19
GXR-6 Meas	195	< 10	937	0.9	< 2
GXR-6 Cert	330	9.8	1300	1.4	0.29
GXR-6 Meas	191	< 10	951	0.9	< 2
GXR-6 Cert	330	9.8	1300	1.4	0.29
OREAS 923 (AQUA REGIA) Meas	3		68	0.7	21
OREAS 923 (AQUA REGIA) Cert	7.07		54	0.61	21.8
OREAS 923 (AQUA REGIA) Meas	5		55	0.7	20
OREAS 923 (AQUA REGIA) Cert	7.07		54	0.61	21.8
OxL118 Meas					
OxL118 Cert					
OxK119 Meas					
OxK119 Cert					
OxP116 Meas					
OxP116 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
A17-152 Orig	100	< 10	34	< 0.5	< 2
A17-152 Dup	102	< 10	33	< 0.5	3
Method Blank	< 2	< 10	< 10	< 0.5	< 2
Method Blank	< 2	< 10	< 10	< 0.5	< 2
Method Blank	< 2	< 10	< 10	< 0.5	< 2
Method Blank					
Method Blank					

Final Report
Activation Laboratories

Report Number: A17-11741

Report Date: 9/11/2017

Analyte Symbol	Ca	Co	Cr	Fe	Ga
Unit Symbol	%	ppm	ppm	%	ppm
Detection Limit	0.01	1	1	0.01	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-4 Meas	0.91	15	59	3.23	10
GXR-4 Cert	1.01	14.6	64	3.09	20
GXR-4 Meas	0.89	14	57	3.28	10
GXR-4 Cert	1.01	14.6	64	3.09	20
GXR-6 Meas	0.15	13	81	5.9	20
GXR-6 Cert	0.18	13.8	96	5.58	35
GXR-6 Meas	0.15	12	78	5.8	20
GXR-6 Cert	0.18	13.8	96	5.58	35
OREAS 923 (AQUA REGIA) Meas	0.41	22	43	6.3	< 10
OREAS 923 (AQUA REGIA) Cert	0.326	22.2	39.4	5.91	8.01
OREAS 923 (AQUA REGIA) Meas	0.41	22	43	6.14	< 10
OREAS 923 (AQUA REGIA) Cert	0.326	22.2	39.4	5.91	8.01
OxL118 Meas					
OxL118 Cert					
OxK119 Meas					
OxK119 Cert					
OxP116 Meas					
OxP116 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
A17-152 Orig	6.74	3	16	7.33	< 10
A17-152 Dup	6.87	4	15	7.5	< 10
Method Blank	< 0.01	< 1	< 1	< 0.01	< 10
Method Blank	< 0.01	< 1	< 1	< 0.01	< 10
Method Blank	< 0.01	< 1	< 1	< 0.01	< 10
Method Blank					
Method Blank					

Final Report
Activation Laboratories

Report Number: A17-11741

Report Date: 9/11/2017

Analyte Symbol	Hg	K	La	Mg	Na
Unit Symbol	ppm	%	ppm	%	%
Detection Limit	1	0.01	10	0.01	0.001
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-4 Meas	< 1	1.76	50	1.72	0.148
GXR-4 Cert	0.11	4.01	64.5	1.66	0.564
GXR-4 Meas	1	1.76	45	1.72	0.151
GXR-4 Cert	0.11	4.01	64.5	1.66	0.564
GXR-6 Meas	4	1.18	< 10	0.42	0.109
GXR-6 Cert	0.068	1.87	13.9	0.609	0.104
GXR-6 Meas	3	1.16	< 10	0.41	0.107
GXR-6 Cert	0.068	1.87	13.9	0.609	0.104
OREAS 923 (AQUA REGIA) Meas		0.42	38	1.55	
OREAS 923 (AQUA REGIA) Cert		0.322	30.0	1.43	
OREAS 923 (AQUA REGIA) Meas		0.41	37	1.51	
OREAS 923 (AQUA REGIA) Cert		0.322	30.0	1.43	
OxL118 Meas					
OxL118 Cert					
OxK119 Meas					
OxK119 Cert					
OxP116 Meas					
OxP116 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
A17-152 Orig	2	0.14	< 10	1.32	0.021
A17-152 Dup	2	0.15	< 10	1.35	0.022
Method Blank	< 1	< 0.01	< 10	< 0.01	0.012
Method Blank	< 1	< 0.01	< 10	< 0.01	0.012
Method Blank	< 1	< 0.01	< 10	< 0.01	0.014
Method Blank					
Method Blank					

Final Report
Activation Laboratories

Report Number: A17-11741

Report Date: 9/11/2017

Analyte Symbol	P	S	Sb	Sc	Sr
Unit Symbol	%	%	ppm	ppm	ppm
Detection Limit	0.001	0.01	2	1	1
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-4 Meas	0.124	1.74	4	7	77
GXR-4 Cert	0.12	1.77	4.8	7.7	221
GXR-4 Meas	0.126	1.75	3	7	76
GXR-4 Cert	0.12	1.77	4.8	7.7	221
GXR-6 Meas	0.031	0.01	4	18	35
GXR-6 Cert	0.035	0.016	3.6	27.6	35
GXR-6 Meas	0.031	0.01	< 2	18	35
GXR-6 Cert	0.035	0.016	3.6	27.6	35
OREAS 923 (AQUA REGIA) Meas	0.063	0.66	3	4	16
OREAS 923 (AQUA REGIA) Cert	0.061	0.684	0.58	3.09	13.6
OREAS 923 (AQUA REGIA) Meas	0.059	0.65	3	4	16
OREAS 923 (AQUA REGIA) Cert	0.061	0.684	0.58	3.09	13.6
OxL118 Meas					
OxL118 Cert					
OxK119 Meas					
OxK119 Cert					
OxP116 Meas					
OxP116 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
A17-152 Orig	0.055	1.98	25	2	454
A17-152 Dup	0.056	2.04	25	2	462
Method Blank	< 0.001	< 0.01	< 2	< 1	< 1
Method Blank	< 0.001	< 0.01	< 2	< 1	< 1
Method Blank	< 0.001	< 0.01	< 2	< 1	< 1
Method Blank					
Method Blank					

Final Report
Activation Laboratories

Report Number: A17-11741

Report Date: 9/11/2017

Analyte Symbol	Ti	Th	Te	Tl	U
Unit Symbol	%	ppm	ppm	ppm	ppm
Detection Limit	0.01	20	1	2	10
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-4 Meas	0.14	< 20	3	2	< 10
GXR-4 Cert	0.29	22.5	0.97	3.2	6.2
GXR-4 Meas	0.15	< 20	3	4	< 10
GXR-4 Cert	0.29	22.5	0.97	3.2	6.2
GXR-6 Meas		< 20	< 1	< 2	< 10
GXR-6 Cert		5.3	0.018	2.2	1.54
GXR-6 Meas		< 20	< 1	< 2	< 10
GXR-6 Cert		5.3	0.018	2.2	1.54
OREAS 923 (AQUA REGIA) Meas		< 20		< 2	< 10
OREAS 923 (AQUA REGIA) Cert		14.3		0.12	1.80
OREAS 923 (AQUA REGIA) Meas		< 20		< 2	< 10
OREAS 923 (AQUA REGIA) Cert		14.3		0.12	1.80
OxL118 Meas					
OxL118 Cert					
OxK119 Meas					
OxK119 Cert					
OxP116 Meas					
OxP116 Cert					
OREAS 218 Meas					
OREAS 218 Cert					
A17-152 Orig	< 0.01	< 20	7	< 2	< 10
A17-152 Dup	< 0.01	< 20	4	< 2	< 10
Method Blank	< 0.01	< 20	< 1	< 2	< 10
Method Blank	< 0.01	< 20	4	< 2	< 10
Method Blank	< 0.01	< 20	< 1	< 2	< 10
Method Blank					
Method Blank					

Final Report
Activation Laboratories

Report Number: A17-11741

Report Date: 9/11/2017

Analyte Symbol	V	W	Y	Zr	Au
Unit Symbol	ppm	ppm	ppm	ppm	g/tonne
Detection Limit	1	10	1	1	0.03
Analysis Method	AR-ICP	AR-ICP	AR-ICP	AR-ICP	FA-GRA
GXR-4 Meas	83	13	12	8	
GXR-4 Cert	87	30.8	14	186	
GXR-4 Meas	84	12	12	7	
GXR-4 Cert	87	30.8	14	186	
GXR-6 Meas	168	< 10	5	6	
GXR-6 Cert	186	1.9	14	110	
GXR-6 Meas	164	< 10	5	5	
GXR-6 Cert	186	1.9	14	110	
OREAS 923 (AQUA REGIA) Meas	38	< 10	20	21	
OREAS 923 (AQUA REGIA) Cert	30.6	1.96	14.3	22.5	
OREAS 923 (AQUA REGIA) Meas	36	< 10	21	17	
OREAS 923 (AQUA REGIA) Cert	30.6	1.96	14.3	22.5	
OxL118 Meas					5.69
OxL118 Cert					5.828
OxK119 Meas					
OxK119 Cert					
OxP116 Meas					14.8
OxP116 Cert					14.92
OREAS 218 Meas					
OREAS 218 Cert					
A17-152 Orig	9	< 10	9	3	
A17-152 Dup	9	< 10	9	3	
Method Blank	< 1	< 10	< 1	< 1	
Method Blank	< 1	< 10	< 1	< 1	
Method Blank	< 1	< 10	< 1	< 1	
Method Blank					< 0.03
Method Blank					< 0.03

Final Report
Activation Laboratories

Report Number: A17-11741

Report Date: 12/12/2017

Analyte Symbol	Pb	Zn
Unit Symbol	%	%
Detection Limit	0.003	0.001
Analysis Method	ICP-OES	ICP-OES
DM171	2.27	
A17-149		1.24

Final Report
Activation Laboratories

Report Number: A17-11741

Report Date: 12/12/2017

Analyte Symbol	Pb	Zn
Unit Symbol	%	%
Detection Limit	0.003	0.001
Analysis Method	ICP-OES	ICP-OES
MP-1b Meas	2.09	17.1
MP-1b Cert	2.09	16.7
CPB-2 Meas	64.9	6.46
CPB-2 Cert	63.52	6.04
CZN-4 Meas	0.185	55.2
CZN-4 Cert	0.1861	55.07
PTC-1b Meas	0.084	0.219
PTC-1b Cert	0.08	0.2083
OREAS 930 (AQUA REGIA) Meas	0.016	0.054
OREAS 930 (AQUA REGIA) Cert	0.0142	0.0488
OREAS 930 (AQUA REGIA) Meas	0.014	0.053
OREAS 930 (AQUA REGIA) Cert	0.0142	0.0488
CCU-1e Meas	0.69	3.03
CCU-1e Cert	0.703	3.02
Method Blank	< 0.003	< 0.001

Appendix II
Sample Locations and Descriptions

Sample #	Coordinates (NAD 83)		Sample type	Description
	Easting	Northing		
A17-95	464087	6222644	float	Angular boulder 0.8 x 0.4 m of very strongly silicified rock with 2-3% pyrite and trace of gray sulphide.
A17-96	463991	6222498	float	Fist size float of quartz vein with abundant limonite and minor sphalerite.
A17-97	463991	6222498	float	Fragment of quartz-carbonate vein 5 cm wide with abundant limonite and minor galena.
A17-98	463991	6222498	float	Fist size float of dark gray recrystallized limestone with some disseminated pyrite and minor gray sulphide.
A17-99	463962	6222454	float	Large angular float (1.0 x 0.5m in size) or possibly outcrop of a rock partly replaced by quartz. Some limonite stain.
A17-100	463963	6222473	float	Angular boulder 0.2 x 0.1m of completely altered rock cut by quartz stockwork, 1-2% pyrrhotite plus minor chalcopyrite.
A17-101	463909	6222476	grab	Lens of recrystallized dark gray limestone 0.5 m long hosted within siltstone, minor pyrrhotite and pyrite
A17-102	464102	6222843	float	Angular float 0.2x0.15m of very strongly silicified rock with minor fine grained gal. and pyrite.
A17-103	464106	6222854	float	Boulder 1.0 x 0.5m of strongly silicified rock with 0.5-1.0% galena cut by barren quartz veinlets.
A17-109	463163	6223730	float	Angular float 15 x 15 cm of almost black chalcedonic quartz with 2-3% pyrite.
A17-110	463046	6223628	float	Angular float 10 cm across of quartz vein fragment with 1-2% very fine grained arsenopyrite ? and < 1% pyrite which form veinlets and streaks.
A17-111	462848	6223632	float	Angular, fist size boulder of quartz vein fragment with 2-3% arsenopyrite and <1% pyrite.
A17-112	462651	6223592	float	Angular, fist size boulder of quartz vein fragment with 1% arsenopyrite and <1% pyrite. It most likely came from outcrops above as it was found within rock slide.
A17-113	463001	6222536	float	Angular boulder 40 x 20 cm, fragment of quartz-carbonate-limonite vein, trace to minor pyrite and galena.
A17-114	462931	6222434	float	Fist size float of quartz with minor sphalerite and pyrite, trace chalcopyrite (?).
A17-115	462884	6222405	float	Rounded, fist size boulder of andesite crystall tuff with minor chalcopyrite and malachite stain. No quartz or carbonates.
A17-116	462987	6222338	float	Angular, fist size float of completely quartz-sericite altered vuggy rock, abundant limonite, minor galena.
A17-117	462947	6222323	float	Fist size boulder of quartz with abundant disseminated extremely fined graine pyrite and gray sulphide.
A17-118	463340	6223523	float	Angular float 20 x 10 cm of greenish aphanitic rhyolite with 1-2% of combined galena, chalcopyrite and sphalerite accompanied by carbonates and quartz. Mineralization is disseminated lesser as small blebs and patches.

A17-119	463340	6223523	float	Boulder 20 x 10 cm of limonite cemented felsic breccia.
A17-120	463297	6223504	float	Small float of sericite-quartz altered rock with minor galena.
A17-121	463297	6223519	float	Angular boulder 20 x 10 cm in size of sericite-quartz altered rock with abundant limonite, up to 5% pyrite and minor chalcopyrite.
A17-122	463250	6223507	float	Angular float 50 x 40 x 20 cm of completely sericite-quartz-chlorite altered rock cut by 1 to 10 mm wide quartz-carbonate veinlets. The rock contains 2-3 % pyrite, minor galena and arsenopyrite.
Sample #	Coordinates (NAD 83)		Sample type	Description
	Easting	Northing		
A17-123	462548	6223394	float	Boulder 25 x 20 cm of completely quartz-sericite altered rock cut by vein of coarse carbonate. The rock contains 1-2% disseminated arsenopyrite.
A17-124	463388	6223623	float	Angular float 60 x 50 x 20 cm of strongly altered andesitic rock in most part replaced by quartz which form veins and irregular replacements, locally 2-3% pyrrhotite.
A17-149	463318	6221598	float	Semirounded boulder 30x20 cm in size of sericite-chlorite altered andesitic rock , abundant limonite, 1-2% sphalerite and minor pyrite.
A17-150	463405	6221538	grab	3-5 cm wide sericite replaced shear zone, locally 5-10% pyrite. Orientation 10/v.
A17-151	463351	6221613	grab	Quartz-limonite vein 10-15 cm wide, sporadically minor galena. Vein orientation 50/50S.
A17-152	463352	6221608	grab	Carbonate-quartz vein 2-5cm wide with 1-2% of combined pyrite and sphalerite. Orient. 40/v.

Sample #	Coordinates (NAD 83)		Sample type	Description
	Easting	Northing		
DM62	464168	6223026	Float	Cobble of black matrix Breccia with trace fine grained galena.
DM63	464162	6223022	Float	Cobble of sericite altered intrusive with trace galena on fractures.
DM64	464139	6222995	Float	Cobble of friable carbonaceous rock with 0.5% pyrite on fractures.
DM65	464139	6222995	Float	Cobble of black matrix Breccia with trace sphalerite.
DM66	464136	6222990	Float	Small cobble of black matrix Breccia with trace galena and sphalerite.
DM67	464122	6222971	Float	Small cobble of black matrix Breccia with trace galena.
DM68	464124	6222973	Float	Cobble of grey intusive with fine quartz stockwork. 1% galena in host rock not stockwork.
DM69	464116	6222969	Float	Small boulder of Dacite with attached band of carbonate sericite alteration containing a band of fine grained pyrite. Sample 10% pyrite.

DM70	464092	6222934	Float	Cobble of carbonate sericite altered rock with very fine trace sulphides.
DM71	464090	6222918	Float	Cobble of black matrix Breccia with fine grained masses of galena.
DM72	464082	6222903	Float	Cobble of black matrix Breccia with trace galena.
DM73	464092	6222922	Float	Cobble of black matrix Breccia with 2% fine grained masses of pyrite.
DM86	463422	6223773	Float	Cobble of pale grey fine grained intrusive. Silica flooded showing disseminated pyrite. Later quartz veining contains traces of sphalerite.
DM87	463418	6223771	Float	Boulder of similar composition as DM86. Quartz veining contains small pods of pyrite sphalerite and disseminated arsenopyrite (?). 2% sulphides.
DM88	463367	6223743	Float	Cobble of similar composition as DM86. Trace sulphides disseminated throughout.
DM89	463297	6223734	Float	Small boulder of medium grey aphanitic intrusive, foliated. Disseminations of pyrite mostly on calcite healed fractures. Thin quartz veinlets contain trace sphalerite. 0.5% sulphides.
DM90	463194	6223701	Float	Cobble of quartz healed Breccia with blueish grey staining. No visible sulphides.
DM91	462922	6223603	Float	Cobble of quartz with coarse accumulations of pyrite chalcopyrite and arsenopyrite. 10% sulphides mostly at outer edged on both sides. Vein 25cm wide.
DM92	462898	6223587	Float	Cobble of light grey intrusive with limonitic fractures and pockets. Trace very fine disseminated sulphides.
DM93	463246	6222514	Float	Cobble of quartz vein with arsenopyrite on fractures.
DM94	463246	6222514	Float	Cobble of quartz healed Breccia. Shaly fragments contain disseminated arsenopyrite while quartz shows pyrite chalcopyrite and arsenopyrite.
DM95	463251	6222494	Float	Boulder of green grey very silicious intrusive with quartz stockwork. Block scale fractures are coated with medium grained pyrite.
Sample #	Coordinates (NAD 83)		Sample type	Description
	Easting	Northing		

DM96	463251	6222494	Float	Boulder of medium grey aphanitic intrusive with quartz stockwork. Hematite staining along quartz veinlets. Pyrite and arsenopyrite in stockwork and host rock. 0.25% sulphides.
DM97	463036	6222413	Float	Small boulder of grey quartz healed Breccia with trace galena arsenopyrite and pyrite.
DM98	463036	6222413	Float	Cobble of black matrix quartz Breccia with traces of disseminated galena and pyrite.
DM99	463036	6222413	Float	Cobble of black matrix quartz Breccia with traces of pyrite.
DM100	463036	6222413	Float	Cobble of quartz vein and grey aphanitic intrusive. Quartz vein contains coarse pyrite and wall rock contains 2% disseminated cubic pyrite.
DM101	463817	6223657	Float	Cobble of carbonaceous Breccia with traces of galena arsenopyrite and possibly sphalerite.
DM102	463778	6223652	Float	Large boulder of Andesite with fracture zone containing lumps of massive fine pyrite.
DM103	463759	6223633	Float	Cobble of light grey andesitic rock with quartz carbonate veinlets contains trace galena.
DM104	463742	6223622	Float	Cobble of dark grey chert with disseminated pyrite and pyrite encrustations locally. Trace galena. 2% sulphides.
DM105	463724	6223619	Float	Small boulder of quartz carbonate with trace pyrite in quartz and trace galena in carbonate.
DM106	463615	6223596	Float	Boulder of grey green Ash Tuff with pyrite healed fractures.
DM107	463575	6223595	Float	Cobble of quartz Breccia with minor galena.
DM108	463575	6223580	Float	Small boulder of dark grey to black Chert. With very fine disseminated pyrite and galena.
DM109	463475	6223568	Float	Cobble of crudely banded grey and red chert with thin bands and disseminations of pyrite.
DM110	463421	6223543	Float	Large boulder of Shale with Andesite dike. Andesite is brecciated with local disseminations of arsenopyrite. Dike is 1.5m to 2m wide. 0.5% sulphides.
DM169	463099	6221841	Grab	Medium grey granular Ash Tuff with local quartz stockwork. Some gossanous weathering. Pyrite in bands and fine disseminations. 0.1% pyrite in sample.

DM170	463115	6221767	Float	Boulder from cliff above. Hematite rich Ash Tuff with quartz stockwork. Coating of Azurite and malachite. Trace sphalerite.
DM171	463123	6221801	Grab	Late vuggy quartz vein crosscutting stockwork in Ash Tuff. Medium to coarse grained galena in quartz. 0.1% sulphides.
DM172	463193	6222023	Float	Boulders in area contain planar thin (2-3cm) quartz veins with coarse cubic pyrite and second fine silvery sulphide. Host is grey green Ash Tuff. 1% sulphides.
DM173	463220	6221995	Float	Boulder of grey green Ash Tuff with quartz stockwork. Dusty yellow pyrite and possibly spalerite in fractures in host. Reddish brown sphalerite in quartz. 1% sulphides.

Sample Label	UTM Coordinates		Sample Type	Description
	Easting	Northing		
GVKM-01	464,322	6,222,957	Float	Small boulder of strongly siliceous dacite/andesite with blebs, cubes and stringers of Py 1-5%
GVKM-02	464,303	6,222,804	Float	A few small boulders of andesite/dacite lapilli tuff with strong chalcedony/chert replacement with Py 3-5%
GVKM-03	464,234	6,222,804	Float	Small boulder of dark grey, strongly siliceous dacite(?); irregular thin stringers and fine diss Py 2-5%
GVKM-04	464,204	6,222,749	Grab	Bleached/weathered, yellowish dacite tuff, slightly sheared and foliated; diss Py 2-3%
GVKM-05	464,155	6,222,717	Float	Lateral moraine (southern slope of the valley); several small boulders of greyish, strongly silicified dacite(?); diss + blebs Py 5-10%
GVKM-06	464,137	6,222,577	Float	Boulder of quartz vein, at least 20 cm wide, white, coarse crystalline, massive; Py tr.-1%
GVKM-07	464,148	6,222,554	Float	Boulders of gossaneous volcanoclastics, polymict composition (redeposited?) lapilli tuff grade with incipient stockwork of thin quartz-carbonate veins (3-15 mm thick); tr.-1% Py, specularite hematite 1-3%
GVKM-08	464,175	6,222,459	Float	A boulder of andesite/dacite volcanoclastic rock with a fragment of quartz vein along its edge; quartz vein is at least 10 cm wide, white to yellowish, coarse crystalline, massive; Py tr.-1%

GVKM-09	464,190	6,222,416	Float	Pebble to cobble size fragments of quartz vein material, white, massive with some green epidote; tr. Py
GVKM-10	464,054	6,222,389	Float	Boulders of dark grey to black turbidites and tuffaceous(?) mudstone with veins of white to yellowish quartz-carbonate, massive, coarse crystalline; Py 1-1.5%, tr. Cpy
GVKM-11	464,038	6,222,307	Float	Boulder of irregular quartz-carbonate pod in andesite/dacite volcanic rock; tr.-1% Py
GVKM-12	463,950	6,222,270	Grab	3-5 cm wide quartz vein with admixture of carbonate (calcite), coarse crystalline, white to slightly yellowish, in black tuffaceous mudstone/siltstone; Py 3-4% locally
GVKM-13	463,912	6,222,375	Grab	1.5 metre thick vein of white, coarse crystalline quartz cutting through the black tuffaceous(?) mudstone and turbidite; Py tr.-0.5%
GVKM-14	463,900	6,222,466	Grab	Irregular quartz-(carbonate) pods up to 50-80 cm wide and veins within a sequence of black fine grained sediments (partly turbiditic); locally semimassive blebs of Py 2-5%, stringers of Po tr.-1%
GVKM-15	463,145	6,222,485	Float	Base/lateral moraine float material: subangular fragment of quartz vein, white, coarse crystalline; Py 1-1.5%, tr. Cpy
GVKM-16	463,064	6,222,469	Float	Base/lateral moraine float material: chalcedony-chert-felsic volcanic crackle-type breccia, dark grey, abundant goethite; Py 1%
GVKM-17	462,955	6,222,438	Float	Base/lateral moraine float material: 0.5 metre boulder of maroonish-grey dacitic(?) volcanic rock, sheared, with quartz veins; Py blebs+coarse crystalline 5-6%, Sph 0.5%, tr. Ga
GVKM-18	462,916	6,222,423	Float	Small boulder of dark grey banded chert/tuff with incipient precipitation of Py in very thin laminae, py-quartz veinlets
GVKM-19	462,780	6,222,433	Float	Lateral moraine material: subangular fragment of quartz vein 7-10 cm thick; abundant Py 10%, tr. Cpy, tr. Ga
GVKM-20	463,623	6,222,388	Float	Lateral moraine material: banded brownish-red jasperoid with incipient brecciation and "bubbling" textures; Py 1%, tr. Ga, hematite
GVKM-21	462,531	6,222,346	Float	Lateral moraine material: yellowish-creamy dacite, slightly silicified; diss Py 1-2%

GVKM-22	462,455	6,222,336	Float	Boulder of incipient black-matrix felsic (rhyodacite?) breccia, strongly siliceous; tr.-1% Py
GVKM-23	462,455	6,222,336	Float	Boulder of maroon-to-gray banded cherty tuff/chert; no visible sulphides
GVKM-24	462,311	6,222,305	Grab	Yellowish-grey, slightly gossaneous felsic volcanic rock, silicified, cloudy, locally brecciated: diss Py 1-3%
GVKM-25	462,510	6,222,324	Float	Small subangular boulder of dark grey to black, banded mudstone-cherty exhalite; no visible sulphides
LGKM-11	463,545	6,223,823	Float	Valley floor, river bed float material: 1 meter size boulder of greenish andesite (epiclastic?) with numerous quartz veinlets and pods; coarse crystalline and blebs of Py 3-4%
LGKM-12	463,545	6,223,823	Float	Valley floor, river bed float material: 0.8 metre boulder of dark grey andesite tuff to tuffaceous mudstone with thin quartz veins; Py tr.-1%
LGKM-13	463,545	6,223,835	Float	Valley floor, river bed float material: Greenish andesite tuff, partly strongly silicified; diss + stringers Py 1-1.5%
LGKM-14	463,545	6,223,835	Float	Valley floor, river bed float material: rusty/gossaneous epiclastic(?) andesite/dacite; Py 1-3%, tr. Sph, Cpy
LGKM-15	463,535	6,223,849	Float	Valley floor, river bed float material: yellowish to greenish andesite/dacite, fine grained to aphanitic with numerous sheeted veins of quartz; Po-Py 3-4%
LGKM-16	463,535	6,223,849	Float	Valley floor, river bed float material: a 0.5 metre boulder of dark greenish-grey gossaneous andesite tuff with diss Py-Po 3-7%, Cpy 1-1.5%
LGKM-17	463,525	6,223,861	Float	Greenish fine-grained andesite with stockwork of quartz veinlets; fine diss Py 1-2%, tr. Ga
LGKM-18	463,434	6,223,848	Float	Lateral moraine/talus material: maroon-to-greenish volcanoclastic rock with common jasperoid/chert diffuse laminae and small quartz pods; coarse crystalline Py 3-5%, hematite
LGKM-19	463,328	6,223,803	Float	Dark greenish-grey thin bedded andesite tuff; diss and cubed Py 5-15%
LGKM-20	463,192	6,223,705	Float	Dark brownish banded chert (Exhalite?); tr diss Py
LGKM-21	463,199	6,223,663	Float	Thick banded brownish-black chert/exhalite, partially brecciated; Py in blebs, diss and fractures/stringers 0.5-1.5%

LGKM-22	463,310	6,223,665	Float	Reddish-brown laminated jasperoid with some very thin brownish laminae, strongly magnetic, scattered coarser quartz crystals/amygdules; magnetite 5-7%, tr. Sph?
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Abbreviations: Py - pyrite, Po - pyrrhotite, Cpy - chalcopyrite, Ga - galena, Sph - Sphalerite; diss - disseminated, tr. - trace