

**TECHNICAL REPORT ON THE  
Golden Wonder Property  
SOUTH OF NEW HAZELTON, BRITISH COLUMBIA, CANADA**

**Prepared for Blue Lagoon Resources Inc.  
Report for NI 43-101**

**Author:**

JEFFREY J. REEDER, P.GEO

**Effective Date: May 21, 2019**

**JEFFREY J. REEDER, P.GEO.**

1240 FLEET STREET, MISSISSAUGA, ONTARIO L5H 3P5, CANADA

TEL: +1 6473023290 | JEFFREYREEDER@HOTMAIL.COM

**TABLE OF CONTENTS**

1	Summary .....	6
1.1	Property Description.....	6
1.2	Mineral Tenure .....	6
1.3	Geology and Mineralization.....	6
1.4	Exploration.....	7
1.5	Development and Operations .....	7
1.6	Conclusions and Recommendations.....	7
2	Introduction.....	8
3	Reliance on Other Experts .....	9
4	Property Description and Location.....	11
4.1	Location .....	11
4.2	Mineral Tenure .....	11
4.3	Environmental Liabilities .....	15
4.4	Surface Rights .....	15
4.5	Crown Grants .....	15
4.6	Permits.....	16
4.7	Other Significant Factors and Risks.....	16
5	Accessibility, Climate, Local Resources, Infrastructure, and Physiography.....	17
5.1	Topography, Elevation, and Vegetation .....	17
5.2	Infrastructure and Local Resources .....	17
5.3	Climate.....	18
6	History.....	19
6.1	Previous Exploration and Development .....	19
6.1.1	Three Hills (Claim 1052710) .....	21
6.1.2	Golden Wonder (Claim 1047950) .....	21
6.1.3	West’s Knoll (Claim 1047951) .....	24
6.1.4	Daley West (Claim 1047950).....	24
6.1.5	Black Prince/Blue Lake/Silvertip Glacier (1047952).....	24
6.1.6	Hecla/Bluebird (Claim 1047952) .....	25
6.1.7	Recent Exploration .....	28
7	Geological Setting and Mineralization .....	43
7.1	Regional Geology .....	43
7.2	Property Geology& Mineralization.....	45
7.2.1	Three Hills.....	45

7.2.2	Golden Wonder .....	45
7.2.3	West's Knoll .....	47
7.2.4	Daley West.....	47
7.2.5	Black Prince/Blue Lake/Silvertip Glacier.....	47
7.2.6	Hecla/Bluebird.....	48
8	Deposit Type .....	49
9	Exploration .....	50
10	Drilling.....	51
11	Sample Preparation, Analyses, and Security.....	52
11.1	Sampling Method and Approach .....	52
11.1.1	Stream Pan Concentrate Samples.....	52
11.1.2	Rock Samples .....	52
11.1.3	Soil Samples .....	53
11.2	Laboratory Sample Preparation and Analysis .....	53
11.2.1	Code 8– 4 Acid ICP-OES and Code 8 – 4 Acid ICP-MS .....	53
11.2.2	Ultratrace 4: Near Total Digestion ICP/MS .....	53
11.2.3	1A2-ICP - (1A2-ICP-30 or 50) Au Fire Assay - ICP .....	54
11.3	Assay Results and Interpretation .....	54
12	Data Verification.....	55
13	Mineral Processing and Metallurgical Testing.....	56
14	Mineral Resource Estimates.....	57
15 TO 22	– Not Applicable (Early Stage Property).....	58
23	Adjacent Properties.....	59
24	Other Relevant Data and Information .....	61
25	Interpretation and Conclusions .....	62
26	Recommendations.....	63
27	References.....	65
28	Date and Signature Page .....	67
29	Certificate of Qualified Person.....	68

**LIST OF FIGURES**

Figure 4-1. Location Map of the Golden Wonder Property .....	10
Figure 4-2. Golden Wonder Property mineral claims map .....	13
Figure 6-1. Historic exploration highlights for Golden Wonder Property and area .....	23
Figure 6-2. Total Magnetics: 2007 Fugro DIGHEM survey (fr. Burgoyne & Kikauka, 2007).....	26
Figure 6-3. Resistivity (7200 Hz): 2007 Fugro DIGHEM survey (fr. Burgoyne & Kikauka, 2007) .....	27
Figure 6-4 Stream Pan Concentrate Sample Locations on the Property .....	31
Figure 6-5 Index Map for Rock and Soil Sample Locations .....	32
Figure 6-6 Golden Wonder Area Rock Samples - Au Results .....	33
Figure 6-7 Golden Wonder Area Rock Samples - Ag Results.....	34
Figure 6-8 Golden Wonder Area Rock Samples - Cu Results.....	35
Figure 6-9 Golden Wonder Area Rock Samples - Co Results.....	36
Figure 6-10 West Knoll Area Rock Samples Locations .....	37
Figure 6-11 Black Prince and Hecla Area Rock Sample Locations.....	37
Figure 6-12 Daley West Area Rock Sample Locations .....	38
Figure 6-13 2018 East and West Soil Grids and Sample Locations .....	38
Figure 6-14 2018 East Soil Grid - Au Results .....	39
Figure 6-15 2018 East Soil Grid - Au Results .....	40
Figure 6-16 2018 West Soil Grid - Au Results .....	41
Figure 6-17 2018 West Soil Grid - Ag Results.....	42
Figure 7-1. Regional geology of the Golden Wonder Property.....	44
Figure 7-2. Golden Wonder Property geology map.....	46
Figure 23-1. Adjacent Property Map .....	60

**LIST OF TABLES**

Table 4-1. Mineral Tenure Work Requirements in BC.....	11
Table 4-2. Mineral Tenure Cash-in-Lieu in BC.....	11
Table 4-3. Details of the Golden Wonder Property Claims.....	12
Table 4-4. Title Overlap Report Summary .....	14
Table 4-5. Expired Crown Grants on the Golden Wonder Property.....	15

Table 6-1. Summary of Previous Exploration and Development.....	19
Table 6-2. Summary of Rock Samples Collected in 2017 and 2018.....	28
Table 6-3. Rock samples with significant Au, Ag, Co, and Cu assay results.....	28
Table 12-1. Samples taken by the Author .....	55
Table 26-1. Phase 1 Estimated Budget for Detailed Ground Magnetic Survey and Soil Sample Program .....	63
Table 26-2 Phase 2 Estimated Budget for 500 m Diamond Drill Program .....	64

#### **LIST OF APPENDICES**

Appendix 1 Assay Certificates from Dahrouge Geological Samples .....	at end
Appendix 2 Assay Certificates from Authors' QP Samples .....	at end

## LIST OF ABBREVIATIONS

Abbreviation	Definition	Abbreviation	Definition
$\mu$	micron	kWh	kilowatt-hour
$^{\circ}\text{C}$	degrees Celsius	L	liter
$\mu\text{g}$	microgram	LREE	light rare earth elements
A	ampere	LREO	light rare earth oxides
a	annum	m	metre
Ag	silver	M	mega (million)
Au	gold	$\text{m}^2$	square metre
C\$	Canadian dollars	$\text{m}^3$	cubic metre
cal	calorie	Ma	million years
cfm	cubic feet per minute	MASL	metres above sea level
cm	centimetre	min	minute
$\text{cm}^2$	square centimetre	mm	millimetre
Co	cobalt	mph	miles per hour
Cu	copper	MVA	megavolt-amperes
dia.	diameter	MW	megawatt
dmt	dry metric tonne	MWh	megawatt-hour
dwt	dead-weight ton	$\text{m}^3/\text{h}$	cubic metres per hour
ft	foot	opt, oz/st	ounce per short ton
ft/s	foot per second	oz	Troy ounce (31.1035g)
$\text{ft}^2$	square foot	oz/dmt	ounce per dry metric tonne
$\text{ft}^3$	cubic foot	pop.	population
g	gram	ppb	part per billion
G	giga (billion)	ppm	part per million
Gal	Imperial gallon	QA	quality assurance
g/L	gram per litre	QC	quality control
g/t	gram per tonne	REE	rare earth elements
$\text{gr}/\text{ft}^3$	grain per cubic foot	s	second
$\text{gr}/\text{m}^3$	grain per cubic metre	st	short ton
hr	hour	stpa	short ton per year
ha	hectare	Stpd	short ton per day
hp	horsepower	T	metric tonne
HREE	heavy rare earth	Th equiv.	equivalent; gamma counts
HREO	heavy rare earth	Tpa	metric tonne per year
in	inch	Tpd	metric tonne per day
$\text{in}^2$	square inch	TREO	total rare earth element
J	joule	Tpa	metric tonne per year
k	kilo (thousand)	Tpd	metric tonne per day
kcal	kilocalorie	US\$	United States dollar
kg	kilogram	USg	United States gallon
km	kilometre	USgpm	US gallon per minute
km/h	kilometre per hour	V	volt
$\text{km}^2$	square kilometre	W	watt
kPa	kilopascal	Wmt	wet metric tonne
kVA	kilovolt-amperes	$\text{yd}^3$	cubic yard
kW	kilowatt	Yr	year

## **1 SUMMARY**

Blue Lagoon Resources Inc. (“Blue Lagoon”) has retained Jeff Reeder, P.Geo., to prepare an independent Technical Report on the Golden Wonder Property (“the Property”), located in British Columbia, Canada to comply with regulatory disclosure and reporting requirements outlined in Canadian National Instrument 43-101 (“NI 43-101”), companion policy NI 43-101CP, and Form 43-101F. The Property was previously called the RD Cobalt Property by Primary Energy Metals Inc., (formerly named Primary Cobalt Corp.) with a primary focus on cobalt. Jeff Reeder, P.Geo. was the author of a NI 43-101 technical report entitled “Technical Report on the RD Cobalt Property, British Columbia, Canada” with an effective date of November 18, 2017 prepared for Primary Cobalt Corp. (the “2017 Report”) and available under Primary Energy Metals Inc.’s SEDAR profile. The purpose of this report is to update the 2017 Report with results of the 2018 exploration work and the revised primary commodity.

### **1.1 PROPERTY DESCRIPTION**

The Golden Wonder Property (previously called the RD Cobalt Property) is located in west central British Columbia, Canada, in the Hazelton area. The area lies at the north end of the Rocher Déboulé Range, near the junction of the Bulkley and Skeena Rivers. The geographic centre of the Property is at 55°11'N, 127°36'W.

The Property is approximately 1 km south of the Yellowhead Highway, a major interprovincial highway in western Canada. The west end of the Property (the Golden Wonder area) can be reached by a gravel road that links to highway southwest of Sealey Lake Provincial Park; ATV trails run east from this road, both north and south of Denys Lake. The northern section of the Property (West’s Knoll, Daley West areas) is mostly accessible from the highway by ATV along trails or by foot. Access to the south-central area of the Property (Black Prince, Blue Lake, Silvertip Glacier, and Hecla areas) is limited to helicopter.

### **1.2 MINERAL TENURE**

The Property comprises five contiguous mineral claims that cover an area of approximately 7,182.93 ha. The claims are currently held in trust by Jody Dahrouge for Primary Energy Metals Inc. Blue Lagoon recently signed a purchase agreement with Primary Energy Metals Inc. for the Property that is subject to the following conditions: 1) Cash - payment of \$15,000 to PEM upon execution of the agreement and \$10,000 to PEM within three days of the final receipt for Blue Lagoon’s prospectus; and 2) Shares - 200,000 shares to be issued to the PEM within 10 business day after Blue Lagoon’s share commence trading on the Canadian Stock Exchange.

### **1.3 GEOLOGY AND MINERALIZATION**

The Golden Wonder Property is situated in the Intermontane tectonic province of the Canadian Cordillera and is underlain by rocks of the Late Paleozoic Stikine volcanic arc terrane. The Rocher Deboule area lies within the Skeena Arch, an east-northeast-trending belt of Jurassic and older, mostly volcanic rocks that straddle the Skeena Terrane, a volcanic arc complex. The

Rocher Déboulé Range is underlain by the upper two divisions of the Hazelton Group (Red Rose and Brian Boru formations) and is intruded by the Rocher Debole stock, predominantly a porphyritic granodiorite and lesser quartz monzonite.

Most of the areas of interest on the Property are associated with mineralized vein fillings and shear zones near the margin of the Rocher Debole intrusion into sedimentary and volcanic rocks. Heat from the intrusion of the Rocher Debole stock created a hornfelsic aureole in the surrounding Hazelton rocks.

#### **1.4 EXPLORATION**

The Technical Report summarizes the historic exploration and presents the results of the most recent exploration in 2017 and 2018. Dahrouge Geological Consulting Ltd. conducted exploration on the Property on behalf of Primary Energy Metals Inc. (previously called Primary Cobalt Corp.). The work included rock sampling, soil sampling, stream pan concentrate sampling and geological mapping of targeted areas. At total of 180 rock samples and 287 soils samples were collected, with the main focus on the Golden Wonder showing.

#### **1.5 DEVELOPMENT AND OPERATIONS**

There is currently no mining infrastructure on the Golden Wonder Property. The Black Prince showing reportedly produced 120,338g silver and 619 kg lead from 19 tonnes in 1915.

#### **1.6 CONCLUSIONS AND RECOMMENDATIONS**

The 2018 exploration program focused on investigating the precious metal potential of the Property, by extensively and systemically sampling the Golden Wonder area and other target areas. The results of the exploration program indicate that the Golden Wonder Property exhibits favourable geologic characteristics and sufficient potential to warrant further exploration for gold, silver, copper and cobalt. The recommendation is based on a two-phase exploration program, with Phase 2 contingent on the positive results of Phase 1.

Phase 1 work includes a detailed ground magnetic survey to further determine the geophysical characteristics of the mineralization in the area of the Golden Wonder showing located at the west end of the Property. Also, the Golden Wonder area soil grid area should be expanded, and additional soil sampling should be conducted over the other showings on the Property. Phase 2 work should include a 500 m diamond drilling exploration program, using the targets identified in Phase 1.



## 2 INTRODUCTION

Jeff J. Reeder, P.Geol., has been retained by Blue Lagoon Resources Inc. (“Blue Lagoon”) to prepare an independent Technical Report on the Golden Wonder Property (“the Property”). Historically, this Property was referred to as the RD Cobalt Property. Subsequent to Blue Lagoon entering into the purchase agreement to acquire the Property from Primary Energy Metals Inc. (“Primary Energy Metals”), the property name was changed to ‘Golden Wonder’. The Property is located in west-central British Columbia, Canada (Figure 3-1). The Property is comprised of five contiguous mineral claims that cover an area of approximately 7,182.93 ha. Blue Lagoon will have a 100% interest in the Property subject to the terms outlined in the purchase agreement with Primary Energy Metals.

This report was commissioned by Blue Lagoon to comply with regulatory disclosure and reporting requirements outlined in Canadian National Instrument 43-101 (“NI 43-101”), companion policy NI 43-101CP, and Form 43-101F. The Qualified Person responsible for this report is Jeffrey J. Reeder, P.Geol., an independent consulting geologist with 31 years of experience working with precious and base metal mineralization deposits. Mr. Reeder has no prior involvement with the Property besides the writing of the 2017 Report and is responsible for all items in this report. The purpose of this report is to update the 2017 Report with results of the 2018 exploration work and the revised primary commodity.

Information, conclusions, and recommendations contained in this report are based on field observations as well as on published and unpublished data (Section 27: References).

Mr. Reeder visited the Property on May 22, 2017. During the visit, the author reviewed exposed outcrop, subcrop, and float, and collected seven rock samples from two historic showings: Golden Wonder and the Black Prince. While at the Property, the author reviewed and discussed sampling techniques with Dahrouge Geological personnel. The author has reviewed the work and data collected in 2018 by Dahrouge Geological. The author has not conducted a site visit to review the 2018 exploration program but is in the opinion that the work is of high quality and can be relied on.

### **3 RELIANCE ON OTHER EXPERTS**

For the purpose of this report, the author has relied on ownership information provided by Blue Lagoon and Dahrouge Geological. Titles of the claims were verified through the British Columbia Government Mineral Titles Online System at:

<https://www.mtonline.gov.bc.ca>

While the title documents were reviewed for this report, it does not constitute, nor is it intended to represent, a legal, or any other opinion as to title.

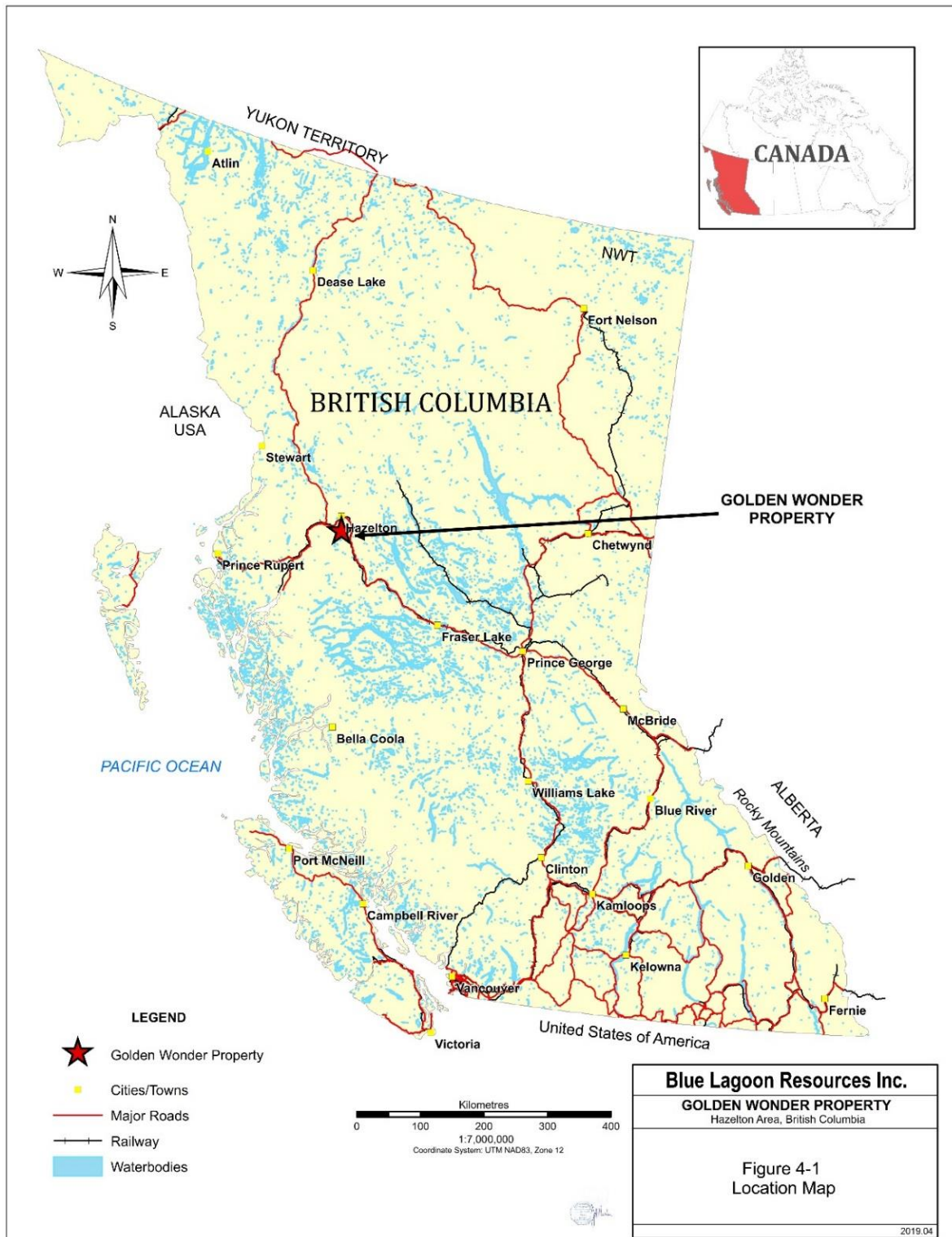


Figure 3-1. Location Map of the Golden Wonder Property

## 4 PROPERTY DESCRIPTION AND LOCATION

### 4.1 LOCATION

The Golden Wonder Property is located in west-central British Columbia, Canada, on NTS map sheet 093M03 (BCGS map sheets 093M012, 013, 022, and 023). The area lies at the north end of the Rocher Déboulé Range, near the junction of the Bulkley and Skeena rivers. The Property is 1 km south of the Municipality of New Hazelton and 65 km southeast of Smithers, BC.

The geographic centre of the Property is located at 55°11'N, 127°36'W (Figure 3-1). The Property comprises five contiguous mineral claims that cover an area of approximately 7,182.93 ha (Figure 4-1).

### 4.2 MINERAL TENURE

Mineral claims in British Columbia are subdivided into two major categories: placer and mineral claims. Mineral claims are acquired through the Government of British Columbia's interactive online mineral tenure system, Mineral Titles Online (MTO). A Free Miner Certificate (FMC) is required to acquire and maintain mineral claims; this is available to both individuals and corporations, and can be attained through MTO.

Once registered, a claim remains in good standing until the "Expiry Date" (Anniversary Date), one year from the date of registration. In order to maintain the mineral tenure for each subsequent year (anniversary year), exploration and development work must be carried out and registered, or a cash-in-lieu payment registered with MTO. The minimum value of the work per hectare required to maintain a mineral claim for one year is shown in Table 4-1 and the amount of cash-in-lieu per hectare required to be paid, if work is not registered, is outlined in Table 4-2.

**Table 4-1. Mineral Tenure Work Requirements in BC**

Anniversary Year	Work Requirement
1 and 2	\$5/hectare
3 and 4	\$10/hectare
5 and 6	\$15/hectare
7 and subsequent	\$20/hectare

**Table 4-2. Mineral Tenure Cash-in-Lieu in BC**

Anniversary Year	Work Requirement
1 and 2	\$10/hectare
3 and 4	\$20/hectare
5 and 6	\$30/hectare
7 and subsequent	\$40/hectare

The Golden Wonder Property is comprised of five mineral claims that are registered under and subject to the Mineral Tenure Act (MTA) of the Province of British Columbia (Table 4-3). The title overlap report generated with the claim registration is summarized in Table 4-4.

All claims are currently in good standing. The mineral claims are currently held in trust by Jody Dahrouge (DG Resource Management Ltd.) for Primary Energy Metals Inc. (“PEM”) (previously called Primary Cobalt Corp). On April 18, 2019, Blue Lagoon entered into a purchase agreement with PEM for the Property. The agreement will grant Blue Lagoon 100% interest in all claims and is subject to fulfillment of the following conditions:

- a) Cash: payment of \$15,000 to PEM upon execution of the agreement and \$10,000 to PEM within three days of the final receipt for Blue Lagoon’s prospectus; and
- b) Shares: 200,000 shares to be issued to the PEM within 10 business day after Blue Lagoon’s share commence trading on the Canadian Stock Exchange.

Also, as part of the purchase agreement, DG Resource Management Ltd., the original vendor, will retain a 2% net smelter royalty (NSR) of which 1% can be purchased by Blue Lagoon for \$1,000,000 at any time before commencement of Commercial Production. The NSR is only subject to the original 4 tenures with a Recorded Date of November 18, 2016 (excludes tenure 1061406). Tenure 1061406 was staked by Jody Dahrouge and held in trust directly for PEM; it was not subject to any other agreement and as such, is excluded from the NSR.

**Table 4-3. Details of the Golden Wonder Property Claims**

<b>Tenure Number</b>	<b>Tenure Name</b>	<b>Holder</b>	<b>Area (ha)</b>	<b>NTS Sheet</b>	<b>Record Date</b>	<b>Anniversary Date</b>
1047950	Chicago	Jody Dahrouge	1809.67	093M	2016/Nov/18	2021/Aug/25
1047951	Station	Jody Dahrouge	1826.87	093M	2016/Nov/18	2021/Aug/25
1047952	Mudflat	Jody Dahrouge	1846.82	093M	2016/Nov/18	2021/Aug/25
1047953	Bunker	Jody Dahrouge	369.17	093M	2016/Nov/18	2021/Aug/25
1061406	Three Hills	Jody Dahrouge	1330.40	093M	2018/Jun/24	2022/Aug/25



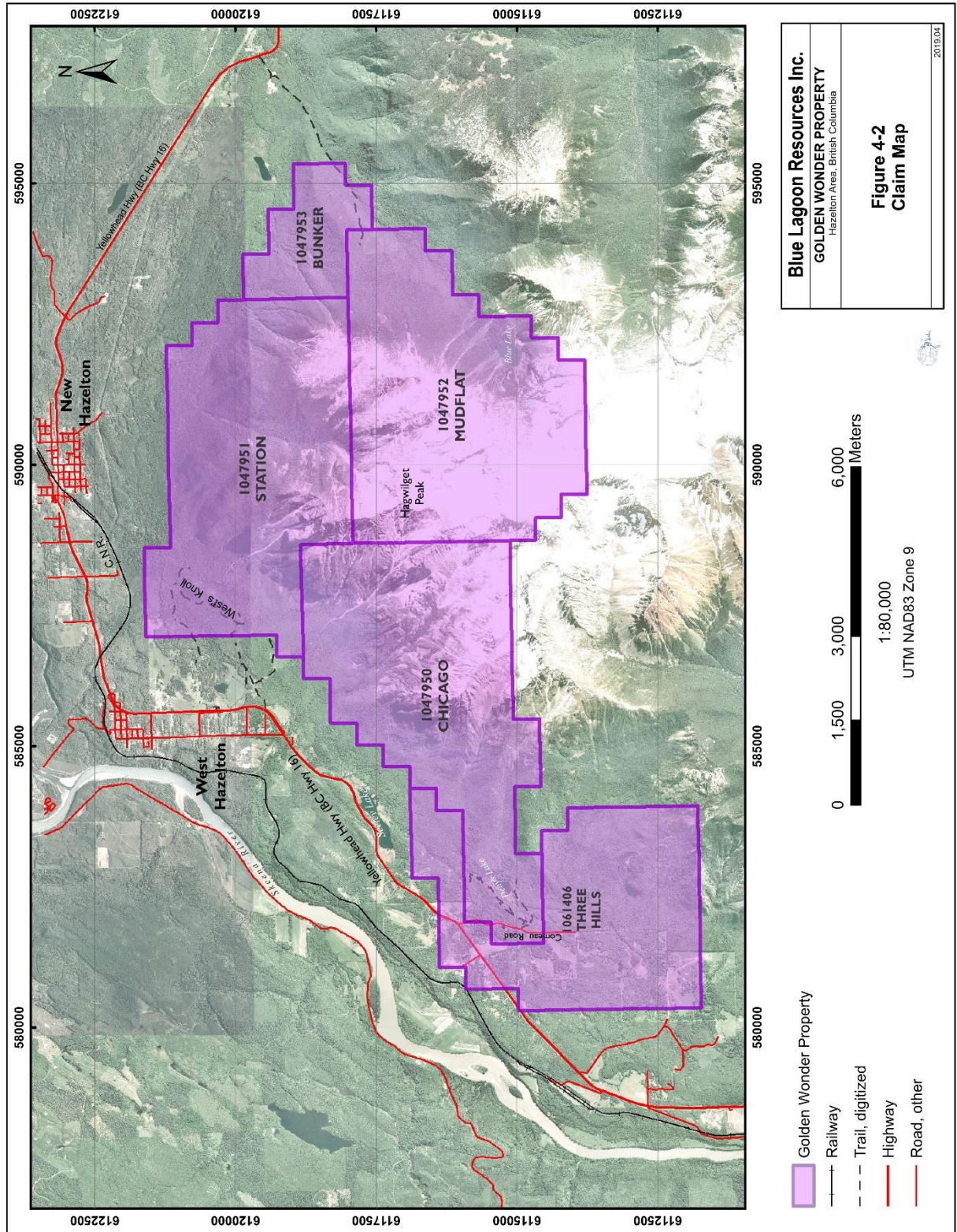


Figure 4-1. Golden Wonder Property mineral claims map

**Table 4-4. Title Overlap Report Summary**

	None	1047950	1047951	1047952	1047953	1061406
<b>First Nations Interests</b>						
• Indian Reserve	X					
• First Nations Treaty Lands	X					
• Treaty Related Lands	X					
• Consultative Areas: Gitksan Hereditary Chiefs		X	X	X	X	X
<b>Legal and Administrative Interests</b>						
• Permitting Region: Skeena Natural Resource Region		X	X	X	X	X
<u>Reserves:</u>						
• 1002842 Uranium and Thorium Reserve, Mineral and Placer – No Staking)		X	X	X	X	X
• 333110 (Post 1988 Crown Grants Reserve, Mineral and Placer – No Staking)		X	X	X	X	X
• Federal Transfer of Administration and Control	X					
<u>Agricultural Land Reserve:</u>						
• 1692539.0		X				
• 1693387.0		X	X			
• 2210939.0						X
• 2211787.0						X
• Parks/Protected Areas	X					
• Municipality	X					
• Land Title District: Cassiar District		X	X	X	X	X
• Forest District: Skeena Stikine Natural Resource District		X	X	X	X	X
<u>Strategic Land Resource Plan:</u>						
•Kispiox Land and Resource Management Plan (LRMP)		X	X	X	X	X
•Kispiox Sustainable Resource Management Plan (SRMP)		X	X	X	X	X
•Atlin-Taku Strategic Land Resource Plan	X					
<b>Tenure Overlap</b>						
<u>Sub-surface (does not include crown grants):</u>						
• Mineral: None	X					
• Placer: None	X					
• Coal: None	X					
• Surface (does not include crown grants) – Crown Land Leases	X					
<b>Other Resource Interests Overlap</b>						

• Ungulate Winter Range: u-6-006		X	X	X		X
• Wildlife Habitat Area	X					
• Wildlife Management Area	X					

The author makes no further assertion regarding the legal status of the Property. The Property has not been legally surveyed to date and no requirement to do so has existed.

There are no other royalties or back-in rights to undertake exploration on the Property.

#### 4.3 ENVIRONMENTAL LIABILITIES

There are no other known environmental liabilities associated with the Property.

#### 4.4 SURFACE RIGHTS

Surface rights overlap the west and east ends of the Property. Surface rights are not included with mineral claims in British Columbia.

Notification must be provided before entering private land for any mining or exploration activity, including non-intrusive forms of mineral exploration such as mapping surface features and collecting rock, water, or soil samples. Notification may be hand delivered, mailed, emailed, or faxed to the owner shown on the British Columbia Assessment Authority records or the Land Title Office records. Mining activities cannot start sooner than eight days after notice has been served. Notice must include a description or map of where the work will be conducted and a description of what type of work will be done, when it will take place, and approximately how many people will be on the site.

#### 4.5 CROWN GRANTS

Historic Crown Grants on the Property were researched using British Columbia's Mineral Title Online to determine their status. The results indicate that any Crown Grants for the claims have expired (Table 4-5).

**Table 4-5. Expired Crown Grants on the Golden Wonder Property**

District Lot Number	Claim Name
513	Chicago
514	Chalco
601	Summit
602	Crooked Fraction
606	Skeena
710	Islander
3307	Mammoth
3309	Homestake
3314	Mascot
3316	Cork Fraction



3322	Golden Wonder
4273	Mandon

#### 4.6 PERMITS

Any work on a mineral claim in British Columbia that disturbs the surface requires a Notice of Work (NOW) permit under the Mines Act of British Columbia, which governs exploration and mining activities. The owner must receive written approval from a Provincial Mines Inspector prior to undertaking such work. Work requiring a NOW includes, but is not limited to drilling, access construction, trenching, excavating, blasting, camp construction/demolition, induced polarization surveys using exposed electrodes, and reclamation.

Exploration activities that do not require a NOW permit include prospecting with hand tools, geological/geochemical surveys, airborne geophysical surveys, ground geophysics without exposed electrodes, hand trenching, and the establishment of grids.

The Chief Inspector of Mines decides whether land access will be granted and authorizes the Ministry of Forests, Lands and Natural Resources (FLNRO) to issue a "Special Use Permit" that specifies terms and conditions under which the work can proceed. The FLNRO and the Ministry of Energy and Mines (MEM) collaborate to determine land access details such as the location, design, and maintenance provisions of approved access routes.

Notice must be provided to land owners before entering private land for any mining or exploration activity. This notice must describe where the work will be conducted and what type of work will be conducted; when the work will take place; and how many people will be on site.

The issuer does not hold any permits pertaining to exploration work on the Property.

#### 4.7 OTHER SIGNIFICANT FACTORS AND RISKS

As determined from Table 4-4, the Property lies within the Gitksan Hereditary Chiefs traditional territory, therefore, it is recommended that the First Nation should be addressed in open discussions with all parties involved moving forward. Following the decision made on the Tsilhqot'in Aboriginal Title Case, a risk factor is warranted. Given the Property lies on traditional territory, title and the right to perform work may be a factor if the Property area is subject to Aboriginal title. This title would grant the First Nation group(s) the right to control the land and its economic benefits, including resources. No such title case has been put forward as of the writing of this report.

The author is not aware of any additional significant factors or risks that may affect access, title, or the right or ability to perform work on the Golden Wonder Property.

## **5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY**

The Golden Wonder Property is located approximately 1 km south of the Yellowhead Highway, a major interprovincial highway in western Canada. The Yellowhead Highway (BC Highway 16) is part of the Trans-Canada Highway System, a transcontinental federal-provincial highway system that travels through all ten provinces of Canada from the west to east coast.

The west end of the Property (the Golden Wonder area) can be reached by Comeau Road, a gravel road that links to BC Highway 16 southwest of Sealey Lake Provincial Park. ATV trails run east from Comeau Road, north for ~1,400 m and south for ~1100 m of Denys Lake.

The northern section of the Property (West's Knoll and Daley West areas) is accessible from BC Highway 16 by ATV along trails or by foot. Access to the south-central area of the Property above the treeline (Black Prince, Blue Lake, Silvertip Glacier and Hecla areas) is limited by topography to helicopter.

### **5.1 TOPOGRAPHY, ELEVATION, AND VEGETATION**

The Property is in rugged and glaciated mountainous terrain with deeply incised valleys. It includes Hagwilget Peak (1,879 m) and the north half of the Sawmill Glacier (1,927 m).

Elevations on the Property range from 300 m to 2200 m, with steep slopes, bare rock, and talus aprons, separated by bog and streams that flow into the Skeena and Bulkley rivers.

Vegetation is sparse above the tree line (~1,100 m) consisting mainly of heather and fir in protected areas and depressions. Below the tree line, vegetation is predominantly pine, spruce, and fir, with Labrador tea, moss, and ferns. The Property lies within the BC Ministry of Environment's Nass Range: Cranberry Upland ecoregion classification. The ecoregion is described as having four main types of ecosystems:

- wet, Coastal Western Hemlock forest (valleys and lower slopes: west)
- wet transitional Mountain Hemlock subalpine and alpine forests (upper slopes: west)
- cold interior Cedar-Hemlock forest (valley bottoms lower slopes: east)
- cold Engelmann Spruce-Subalpine Fir forest (middle to upper slopes: east)

Deer, moose, and mountain goats inhabit the area, as well as carnivorous animals such as cougars, black bears, wolves, coyotes, and wolverines.

### **5.2 INFRASTRUCTURE AND LOCAL RESOURCES**

The nearest population centre to the Property is the Hazelton area, which includes two municipalities (the Village of Hazelton and the District of New Hazelton), three unincorporated settlements, and four First Nations' villages (combined population of about 8,000). New Hazelton is located about 1 km north of the Property's north boundary.

The town of Smithers (population 10,607), about 65 km southeast of the Property, has a branch of the Ministry of Energy and Mines and currently provides services for exploration and mining activities in the area, including helicopter, drilling, expediting, and heavy equipment operators.

Paved and gravel roads, rail, and power transmission lines run adjacent to the northern edge of Property.

The New Hazelton railway station, served by Via Rail's Jasper-Prince Rupert train, is on the Canadian National Railway mainline, which runs approximately 250 m north of the Property's boundary. BC Highway 16 runs within several kilometres of the north property boundary, through New Hazelton and South Hazelton.

The BC Hydro 138 kV supply line for the region passes through the Property, with a secured substation at New Hazelton.

The nearest airport to the Property is Smithers Regional Airport, where daily commercial flights are available to Vancouver.

### **5.3 CLIMATE**

The Property experiences a mix of coastal and interior weather patterns owing to its location. The nearest active Environment Canada weather station is at the Smithers Regional Airport, approximately 45 m southeast of the Property at an elevation of 522 m. Elevations on the Property reach 2,200 m, and consequently, weather at the higher elevations will likely be more severe.

The lower elevations experience a humid continental climate: the driest month is March, and the wettest month is October.

Higher elevations often have heavy winter snow accumulations. In spring, snow melting can be rapid and result in heavy spring runoff. Although much of the Property is free of snow by July, some higher elevations have permanent snowfield.

Summers are hot and dry with intermittent storms. In the Hazelton area, the daytime temperature in summer can exceed 30°C, but be as low as -2°C; the average temperature range in July is 8°C to 20.9°C.

Winters are cold but can be moderated by Pacific air masses. In the Hazelton area, the average temperature in January is -6.9°C, but Arctic air masses can push the temperature below -33°C.

The Property's lower elevations can be explored from May through October, but exploration of the higher elevations should be restricted to summers between July and September.

## 6 HISTORY

The Property is in an area with an extensive history of mineral exploration, including production from the nearby CAP, Victoria (Hazelton View), Roche DeBoule, Red Rose, and Highland Boy mines in the early to middle 1900s.

Historic showings on the Property, listed on British Columbia's MINFILE database, include Golden Wonder, Daley West, Hecla, Black Prince, Blue Lake, and Silvertip Glacier (Figure 6-1). Another area of interest mentioned in historical reports is West's Knoll.

### 6.1 PREVIOUS EXPLORATION AND DEVELOPMENT

Exploration on the Property started in the early 1900s. Most of the showings previously belonged to other claim blocks and properties, and information can be difficult to delineate as names varied with ownership. Historical exploration and development for each showing are described below and summarized in Table 6-1. The information is predominantly derived from the British Columbia Geological Survey MINFILE reports and from British Columbia's Assessment Report Indexing Service (ARIS).

**Table 6-1. Summary of Previous Exploration and Development**

Year	Company/ Individual	Work	Results
<b>Three Hills and Area (claim 1061406):</b>			
1951- 1955	Alfred LeToile, D.R. Willemar & E.H. Harbottle	▪trenching; one shallow trench perpendicular to rock drumlin.	▪two chip samples: trace Au, 0.3% Ag, 0.058% Cu; and trace Au, trace Ag, 0.61% Cu; noted two major shear zones.
1955- 1956	Silver Standard Mines Ltd.	▪shallow drilling and stripping	▪no record of results
<b>Golden Wonder and Area (claim 1047950):</b>			
1912	Messrs. Harris & Corneau	▪ sunk a 6 m shaft and excavated open cuts	
1917- 1918	M.W. Sutherland & J.B. Tyrell	▪ sunk 3 more shafts, conducted trenching and excavated pits	▪ deepest shaft was 30.4 m
1959- 1960	G.L. Oates	▪ electromagnetic induction survey in Golden Wonder area	
1970- 1971	Chapparral Mines Ltd.	▪ 32-line kilometres of IP and aeromagnetic surveys; soil sampling; mapping; trenching; and 1000 m diamond drilling and 314 m of percussion drilling on the Loudel claim.	▪0.3 m drillhole intersection at 13% Cu

1980	ASARCO Exploration Company Inc	<ul style="list-style-type: none"> <li>geological mapping, rock sampling and a ground magnetic survey on the Golden Wonder and Shamrock claims.</li> </ul>	<ul style="list-style-type: none"> <li>weighted average assay of 13 g/t Ag, 1.01% Cu, 0.016% Pb, 0.017% Zn, 0.09% Co, 0.08% W; Several narrow, mineralized shear zones were noted</li> </ul>
2006	Ranex Exploration Ltd.	<ul style="list-style-type: none"> <li>prospecting and rock sampling on the Golden Wonder claim.</li> </ul>	<ul style="list-style-type: none"> <li>20 g/t Au, 180 g/t Ag, 8% Cu, 0.1% Co, 0.6% W, 0.3% Zn</li> </ul>
2011	American Manganese Inc.	<ul style="list-style-type: none"> <li>soil sampling and rock sampling on the Golden Wonder claim.</li> </ul>	<ul style="list-style-type: none"> <li>soil sample results of interest at 40E 5800N: 1.585 g/t Au, 214 g/t Ag and 40E 5875N: 11.4 g/t Au. Rock samples of interest: 0.2 m chip sample: 21.9 g/t Au, 104 g/t Ag, 3.1 % Cu, 1.21% Co; grab sample: 1.29 g/t Au, 6.69 g/t Ag, 0.234% Cu</li> </ul>
<b><u>West's Knoll (1047951):</u></b>			
2011	American Manganese Inc.	<ul style="list-style-type: none"> <li>soil sampling and rock sampling.</li> </ul>	<ul style="list-style-type: none"> <li>boulder with 61 g/t Au</li> </ul>
<b><u>Daley West and Area (1047951):</u></b>			
1916	Spokane Rocher Deboule Mining and Copper Company	<ul style="list-style-type: none"> <li>sunk 2 adits (47 m and 72 m, now caved), excavated open cuts and collected rock samples</li> </ul>	<ul style="list-style-type: none"> <li>noted a silicified shear zone (up to 1.5 m wide) with vein quartz (0.15 to 1.0 m wide) over 100 m length; and a 38 cm channel sample: 1.4 g/t Au, 47 g/t Ag, 1.92% Cu</li> </ul>
1981	A. L'Orsa	<ul style="list-style-type: none"> <li>rock sampling on the Judi claim</li> </ul>	<ul style="list-style-type: none"> <li>a grab sample with 2.14 g/t Au, 15.6 g/t Ag, 1.06% Cu, 0.1% Co, 0.66% W (15% ± arsenopyrite); second grab sample with 0.13 g/t Au, 0.5 g/t Ag, 0.59% Cu, 0.44% Co (15% ± arsenopyrite)</li> </ul>
2011	American Manganese Inc.	<ul style="list-style-type: none"> <li>rock sampling, soil sampling and stream sediment sampling on the Daley West claim</li> </ul>	<ul style="list-style-type: none"> <li>chip sample with 6.32 g/t Au, 215 g/t Ag, 7% Cu, anomalous Co, Bi and As.</li> </ul>
<b><u>Black Prince (1047952):</u></b>			
1915	unknown	<ul style="list-style-type: none"> <li>production</li> </ul>	<ul style="list-style-type: none"> <li>19 tonnes with 120,338 g Ag and 619 g Pb</li> </ul>
1916	Black Diamond Exploration	<ul style="list-style-type: none"> <li>prospecting</li> </ul>	<ul style="list-style-type: none"> <li>no details available</li> </ul>
1944-1945 and 1951-1953	Privateer Mining Company	<ul style="list-style-type: none"> <li>underground work</li> </ul>	<ul style="list-style-type: none"> <li>no details available</li> </ul>
1954	Geological Survey of Canada	<ul style="list-style-type: none"> <li>rock sampling and mapping</li> </ul>	<ul style="list-style-type: none"> <li>7.6 m sample with 1.0 g/t Au, 2.37% WO<sub>3</sub>, 0.8% Sn and 0.33% equivalent U</li> </ul>
1960	BC Department of Mines	<ul style="list-style-type: none"> <li>rock sampling</li> </ul>	<ul style="list-style-type: none"> <li>0.6 m sample with 6.9 g/t Au, 0.36% Cu, 0.82% WO<sub>3</sub> and 0.10% MoS<sub>2</sub></li> </ul>

1979	Group VIII Ventures	▪ rock sampling and trenching	▪ 0.59 m sample with 3.4 g/t Ag, 1.15% Cu, 0.02% WO <sub>3</sub> , 0.34% molybdenum
<b>Blue Lake (1047952):</b>			
1954	Geological Survey of Canada	▪ rock sampling and mapping	▪ up to 0.25 m sample: up to 10% tetrahedrite and minor chalcopryrite; a grab sample with 0.85% Mo, 1.0% WO <sub>3</sub> and 0.004% equivalent U; a grab sample with 2.74 g/t Au, 11.31% WO <sub>3</sub> , 0.06% Mo and 0.003% equivalent U; a grab sample with 0.7 g/t Au and 1,900 g/t Ag
<b>Hecla/Bluebird (1047952):</b>			
1954	unknown	▪ rock sampling	▪ grab sample from a 2.7 m aplite dike with trace Au, 34.3 g/t Ag and 0.22% Cu; grab sample from a 1.8 m pegmatite dike with trace Au, 18.2 g/t Ag and 0.39% Cu

### 6.1.1 Three Hills (Claim 1052710)

Three Hills Property was originally staked in 1951 by Alfred LeToile; the property consisted of 6 claims. In 1955, D.R. Willemar and E.H. Harbottle re-staked the claims with LeToile. They conducted trenching across a drumlin; one chip sample returned values of 0.3% Ag and 0.058% Cu, and a second sample returned 0.61% Cu (Sutherland Brown, 1960).

In 1955 and 1956, Silver Standard Mines Ltd. optioned the property and conducted diamond drilling and some stripping (Sutherland Brown, 1960); no record of results available.

### 6.1.2 Golden Wonder (Claim 1047950)

Exploration in the area of the current Golden Wonder claim area (historic claims Loudel, Mandon and Shamrock) began in 1912 with investigations focused on the 'Golden Wonder' showing at the far west end of the current Property. Messrs, Harris and Comeau made several surface cuts and sank a 6 m shaft on the claim (Minister of Mines, B.C., MINFILE 093M 074). The initial targets of exploration were two shear zones, one occurring at the south end and the second occurring at the north end of a large drumlin (Sutherland Brown, 1960). The southern shear zone strikes 275° and dips 80°N, has been traced for over 150 m and is up to 1 m thick. Mineralization in the southern shear zone includes predominantly lenses of pyrrhotite with lesser chalcopryrite, arsenopyrite and pyrite. The northern shear zone strikes 290° and dips 75°S, is up to 1.2 m thick and is exposed in open cuts for over 60 m. Mineralization in the northern shear zone is dominantly lenses of pyrite and chalcopryrite. These shear zones were the focus of the early work, many shafts and surface cuts were made in these areas.

Between 1917 and 1918, M.W. Sutherland and J.B. Tyrell, optioned the claims and conducted work on the claims including excavation of pits and trenches and sinking of several shafts; the deepest shaft was 30.4 m and sunk into the south shear zone (Minister of Mines, B.C., MINFILE 093M 074).

In 1918, J.B. Tyrell acquired five claims including Golden Wonder, Golden Chief, Golden Potlatch, Crescent and Maple Leaf. (Minister of Mines, B.C., MINFILE 093M 074).

In 1951, National Exploration Company Ltd. acquired the Golden Wonder claim but did not report any work on the claim.

Between 1959 and 1960, G.L. Oates held the Golden Wonder and Mandon claims (both hosting the Golden Wonder showing) and reported an electromagnetic induction survey (Oates, 1960).

In 1970, the claim was acquired by Chapparal Mines Ltd. ("Chapparal") as part of a larger claim block. Chapparal carried out an IP and magnetometer survey, geochemical soil sampling, mapping, trenching and drilling. A total of 6 percussion, totalling 314 m, and 10 diamond drill holes totalling approximately 1,000 m were drilled on the Loudel claim near Denys Lake (Olson, 1980). One drillhole is reported to have intersected 0.3 m of 13% Cu (Ethier and Pinsent, 2011).

In 1980, ASARCO Exploration Company Inc. (ASARCO) acquired the Golden Wonder claim and optioned the Shamrock claims from R.H. Dieter. ASARCO conducted a ground magnetic survey, detailed geological mapping and rock sampling on the claims. Results identified three areas of significant sulfide copper mineralization: quartz-calcite with chalcopyrite and pyrrhotite veining; quartz-calcite veining with chalcopyrite, pyrrhotite, pyrite and arsenopyrite and quartz-calcite-tourmaline veins with chalcopyrite, pyrrhotite, pyrite and lesser arsenopyrite and sphalerite. All mineralization is associated with shear zones within and near to the feldspar porphyry dike. A weighted average of assays from one of the mineralized zones is 13 g/t Ag, 1.5 g/t Au and 1.01% Cu (Olson, 1980).

In 2006, Ranex Exploration Ltd., carried out prospecting and mapping of the mineralization zones; they reported a rock sample with 20 g/t Au, 124 g/t Ag, 0.6% W, 0.3% Zn, up to 8% Cu (McInnis, 2006).

In 2011, American Manganese reported results from a soil survey and rock sampling program they undertook on the claim. They obtained samples from the south and north shear zones, and from another area of interest about 450 m from the main pit on the southwest side that showed similar characteristics to the other areas. Results for two of the geochemical soil survey samples indicated one sample with 1.585 g/t Au, 214 g/t Ag, and another sample with 11.4 g/t Au. A rock grab sample from the higher-grade main pit area assayed 21.9 g/t Au, 104 g/t Ag, 3.1%Cu, and 1.215%Co. A 0.2 m chip sample from other area of interest (450 m SW of the main pit) assayed 1.29 g/t Au, 6.69 g/t Ag, and 0.234% Cu (Ethier and Pinsent, 2011).



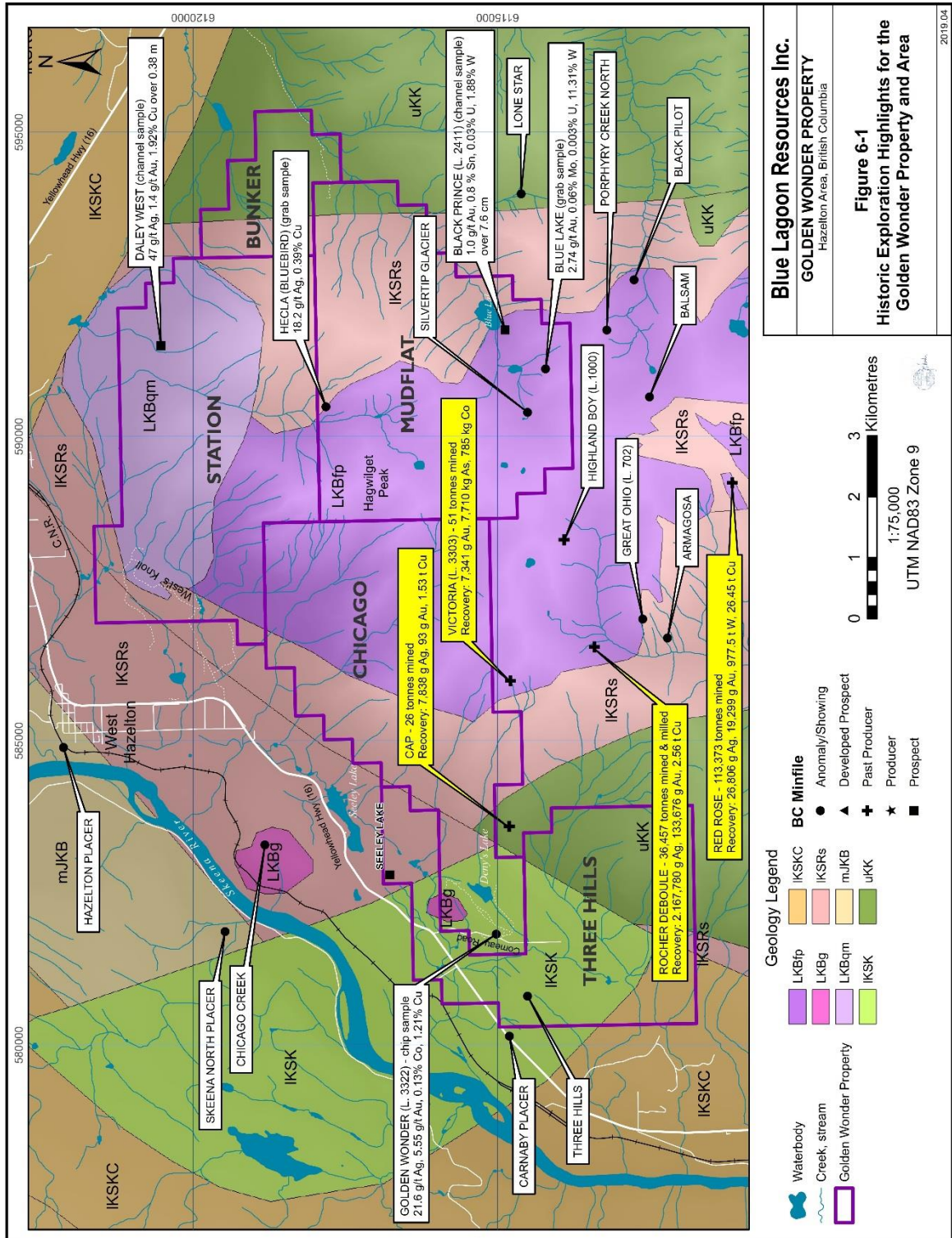


Figure 6-1. Historic exploration highlights for Golden Wonder Property and area



### **6.1.3 West's Knoll (Claim 1047951)**

American Manganese's soil survey and rock sampling program in 2011 extended to West's Knoll, an area of interest west of the Daley West showing, where loose, rusty rocks containing arsenopyrite were found at the base of a cliff near a swamp. A grab sample indicated 61 g/t gold (Ethier and Pinsent, 2011).

### **6.1.4 Daley West (Claim 1047950)**

In 1916, the Spokane Rocher Deboule Mining and Copper Company Ltd. developed two adits (subsequently caved) and open cuts that exposed a silicified shear zone. The shear zone strikes at 020° and dips 65°NW (Burgoyne and Kikgoldka, 2007), and contains small amounts of vein quartz and sulphides that reaches up to 1.5 m in width (Ethier and Pinsent, 2011). The vein was reported as containing pyrite, arsenopyrite, pyrrhotite, and chalcopyrite, with minor scheelite, sphalerite, galena, and calcite. It is exposed in several trenches for over 100 m, and reaches up to 1 m in several places, with an average thickness of 15 cm. A 38 cm channel sample assayed 1.4 g/t Au, 47 g/t Ag, and 1.92% Cu (Kindle, 1954).

In 1981, A. L'Orsa carried out prospecting and geological mapping on his Judi claims which covered part of the Daley West area, reporting two grab samples from the shear zone. The samples contained arsenopyrite, with lesser amounts of chalcopyrite, pyrite, pyrrhotite, scheelite, sphalerite, galena, tetrahedrite, quartz, and calcite. One sample assayed: 2.14 g/t Au, 15.6g/t Ag, 1.06% Cu, 0.66% tungsten, 0.10% Co± 15% arsenopyrite; the other sample assayed 0.13 g/t Au, 0.5 g/t Ag, 0.59% Cu, 0.44% Co ± 80% arsenopyrite (L'Orsa, 1981).

In 2011, American Manganese Inc. conducted a soil survey and rock sampling program that included work at Daley West. They reported finding chalcopyrite and molybdenite in a porphyritic quartz monzonite within narrow quartz veins on the north, east, and west sides of the previous workings. Analysis of a chip sample from above the main adit produced results of 6.32 g/t Au, 215 g/t Ag, 7% Cu, and anomalous Co, Bi, and As (Ethier and Pinsent, 2011).

### **6.1.5 Black Prince/Blue Lake/Silvertip Glacier (1047952)**

The Black Prince, Blue Lake, and Silvertip Glacier showings are in a cluster near the southeast boundary of the Property. The Black Prince showing is on the ridge between Mudflat and Porphyry creeks. The Blue Lake showing is immediately southwest of the Black Prince property and they were historically considered one property. The Silvertip Glacier showing is west of the other two showings.

Between 1911 and 1912, these showings were first located.

In 1915, the Black Prince showing reportedly produced 120,338 g Ag and 619 kg Pb from 19 tonnes (Minister of Mines, B.C., MINFILE 093M 057); however, the age of this information suggests this data should not be relied upon.

In 1916, Black Diamond Exploration conducted work in the area. No details were available.

Between 1944 and 1945, and again between 1951 and 1953, unground work was conducted by Privateer Mining Company in the area. This work was possibly the result of the wartime demand for tungsten (Meyers, 1980).

In 1954, the Geological Survey of Canada conducted work on the Black Prince and Blue Lake showings. At Black Prince they noted a quartz vein situated approximately 250 m east of the main zone contained areas of massive chalcopyrite and scheelite, and lesser pyrite, bornite, cassiterite, and uraninite. A sample taken over 7.6 cm assayed 1.0 g/t gold, 2.37% tungsten, 0.8% tin, and 0.033% equivalent uranium (Kindle, 1954). Previous work on the Blue Lake showing indicates four veins (Kindle, 1954). Samples from three of the veins assayed:

- 0.85% molybdenum, 1.0% tungsten, and 0.004% equivalent uranium
- 2.74 g/t gold, 11.31% WO<sub>3</sub>, 0.06% molybdenum, and 0.003% equivalent uranium
- 0.7 g/t gold and 1,900 g/t silver

In 1960, the BC Department of Mines conducted sampling of the main fracture zone at the Black Prince showing and reported a 0.6 m sample with 6.9 g/t Ag, 0.36% Cu, 0.82% tungsten and 0.10% molybdenum (Sutherland Brown, 1960).

In 1979, Group VIII Ventures staked all three showings as part of a larger group of claims (CRO claims) and completed work including trenching and drifting (~50 m), and limited sampling. A 59 cm sample from an intermediate vein indicated 3.4 g/t Ag, 1.15% Cu, 0.02% tungsten, and 0.34% molybdenum (Meyers, 1980).

No record of previous work on the Silvertip Glacier showing is available (Minister of Mines, B.C., MINFILE 093M 055).

#### **6.1.6 Hecla/Bluebird (Claim 1047952)**

The Hecla showing is a porphyritic granodiorite (Rocher Debole stock) approximately half way between the Daley West and Silvertip Glacier showings, on the north edge of the Mudflat claim. The granodiorite is cut by a 2.7 m aplite dike and a 1.8 m pegmatite dike. A grab sample of a 1.2 m wide mineralized zone in the aplite dike contained quartz veins with small amounts of pyrite and chalcopyrite (assayed trace Au, 34.3g/t Ag, 0.22% Cu). Another grab sample from the mineralized pegmatite dike assayed trace Au, 18.2 g/t Ag, and 0.39% Cu (Sutherland Brown, 1960).

In 2007, Rocher Debole Minerals Corp. contracted Fugro Airborne Survey Corp. to conduct a 1,089 line-km DIGHEM geophysical survey (electromagnetic, magnetic, and radiometric survey) over the Roche Debole property (Figure 6-2; Figure 6-3). This survey covered a significant part of the current Golden Wonder Property. Results indicated a strong positive anomaly over the central part of the Property.

There are no significant historical mineral resource or reserve estimates on the Golden Wonder Property.

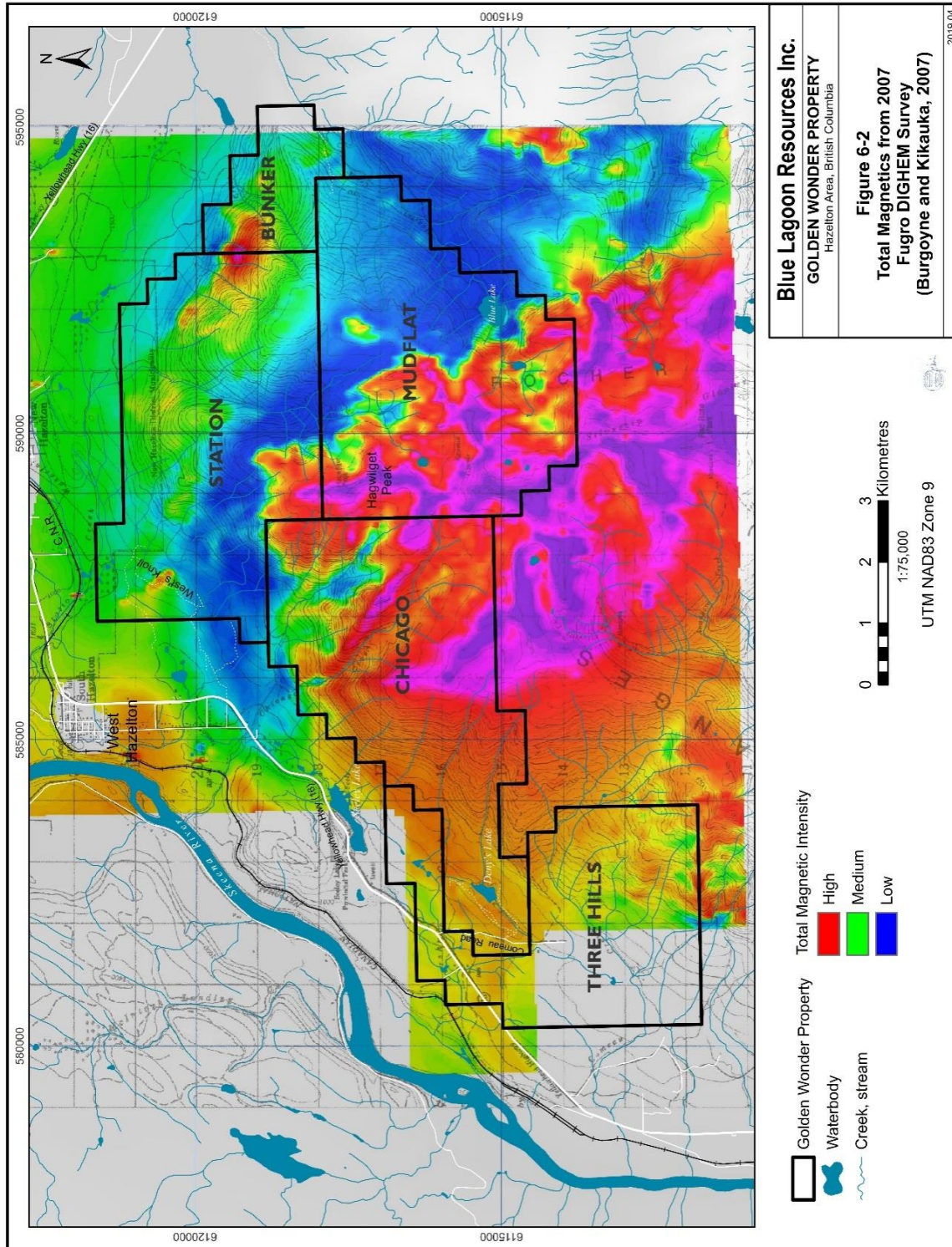


Figure 6-2. Total Magnetics: 2007 Fugro DIGHEM survey (fr. Burgoyne & Kikauka, 2007)





### 6.1.7 Recent Exploration

Exploration on the Property was conducted in May 2017 and June 2018 by Dahrouge Geological Consulting Ltd. (Dahrouge), on behalf of PEM. The 2017 program focused on investigating historic showings and confirming assay results, identifying new targets, and determining field conditions. This program consisted of stream pan concentrate sampling and rock sampling. The 2018 program focused on further investigation of the Golden Wonder area as well as prospecting to delineate the source of five magnetic anomalies identified in the Natural Resources of Canada's aeromagnetic survey. This program consisted of rock and soil sampling, and geological mapping with focus on the Chicago claim. Section 6.1.7 of the report summarizes the Assessment Report by Salame (2019) regarding the exploration completed by Dahrouge Geological regarding the 2018 exploration program. A helicopter was utilized to access high elevation areas of interest on the Property.

#### 6.1.7.1 Stream Pan Concentrate Sampling

A total of 19 stream sediment samples were collected from the Property in 2017 (Figure 6-4). The collected samples produced no significant Au results.

#### 6.1.7.2 Rock Sampling

A total of 180 rock samples were collected during the 2017 and 2018 field programs (Table 6-2; Figure 6-5 through Figure 6-12). Collected samples were primarily from outcrop and boulders and included 18 thickness representative samples at various favourable locations of shearing and veining. Rock samples with elevated Au, Ag, Co and Cu results are summarized in Table 6-3.

**Table 6-2. Summary of Rock Samples Collected in 2017 and 2018**

Year	Outcrop	Boulder	Float	Total
2017	69	23	3	95
2018	72	4	9	85

**Total Collected: 180**

One mineralized boulder sample (sample 128231) from one of the targeted areas with anomalous magnetic values returned 2% Cu on the assay; however, the boulder source has not been identified. No other samples from the magnetic anomaly areas, even though they were sulphide-bearing, produced significant analytical results.

**Table 6-3. Rock samples with significant Au, Ag, Co, and Cu assay results**

Sample ID	Year	Sample Type	Easting	Northing	Au (g/t)	Ag (g/t)	Co (%)	Cu (%)	Description
122364	2017	Chip	581843	6115199	6.39	2.79	0.38	0.15	10 cm wide vein with sulphides (~80%), Qtz, and mudstone.

122365	2017	Grab	581811	6115183	15.2	77.2	0.09	4.95	10 cm wide massive sulphide vein (Ccp, Py) with secondary Apy(?) on weathering surface.
122368	2017	Grab	582295	6115355	17.8	18.2	<.01	0.05	Mudstone o/c (1 m × 1 m) with minor sulphur-rich coating and rusty joints.
122426	2017	Grab	582134	6115247	0.3	32.5	0.01	0.81	Black siltstone/greywacke float with 2 mm-wide sulphide (Ccp, Py) veins, quartz coating, and rusty weathering.
122427	2017	Grab	582131	6115246	8.75	18.5	0.53	0.53	Dark grey siltstone/greywacke float brecciated by Apy and cut by Py/Ccp veins.
122428	2017	Chip	582135	6115236	1.69	45.6	0.05	0.99	Siltstone/greywacke o/c brecciated by sulphides; friable and rusty.
122430	2017	Chip	582075	6115220	2.14	3.42	0.05	0.02	Siltstone/greywacke o/c brecciated by Apy veins (up to 60% of rock).
128240	2018	Chip	581814	6115164	18.2	36.9	0.054	1.91	Up to 30 cm wide vein mainly Py, Cpy, Apy, bornite. Black and weathered on surface, hosted within andesite dyke.
128241	2018	Chip	581853	6115196	11	4.06	0.667	0.41	Flat 3 m tall vertical outcrop, 2 cm wide vein within black grey argillite.
128272	2018	Chip	581943	6115204	4.68	17.6	0.215	0.28	Mudstone/siltstone outcrop hosting vein-style mineralization consisting of Py, Cpy, Apy.
128278	2018	Chip	582130	6115245	18.7	>100	0.653	0.97	Highly oxidized mudstone with a 1.5 m breccia zone and local quartz flooding. Vein-style massive sulphide

									mineralization (Py, Cpy, Apy, possible Po)
128283	2018	Chip	582074	6115224	7.14	4.25	0.256	0.02	Argillite outcrop crosscut by a centimeter-scale, highly oxidized black vein with strong sulphide mineralization (Py, Apy).
128288	2018	Chip	582198	6115326	20	16.4	0.194	0.03	Highly oxidized breccia with massive sugary Apy veins up to 2 cm wide.

#### 6.1.7.3 Soil Sampling

A total of 287 soil samples were collected from the Golden Wonder showing area in 2018. The grids were concentrated over two resistivity anomalies on the eastern and western side of Deny Lake (Figure 6-5; Figure 6-13 to Figure 6-17). The purpose of the soil sampling was to identify any potential trends (drill targets) in areas with poor outcrop exposure. Topographically low and wet areas on the eastern edge of Deny Lake prevented some grid samples from being collected.

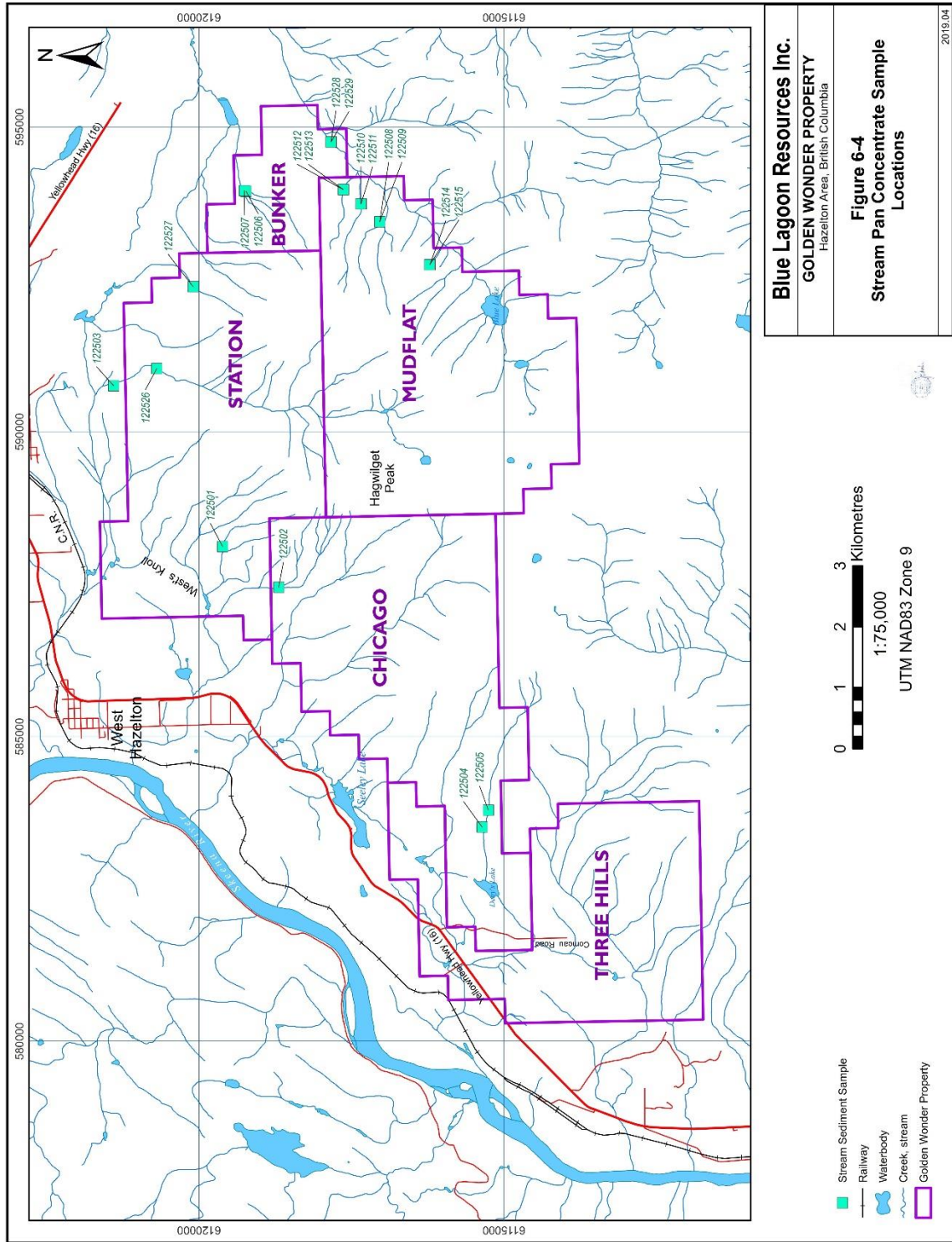
The elevated Au results from the soil sampling further reinforce the approximately 500 m mineralized trend in the Golden Wonder showing area, as several samples located between mapped outcrops, reported values of up to 3.97 g/t and 5.89 g/t Au.

#### 6.1.7.4 Geological Mapping

Geological mapping was carried out during the 2018 field program; it focused on collecting information in the Golden Wonder area, including the south shear zone between the Comeau Road to Deny Lake.

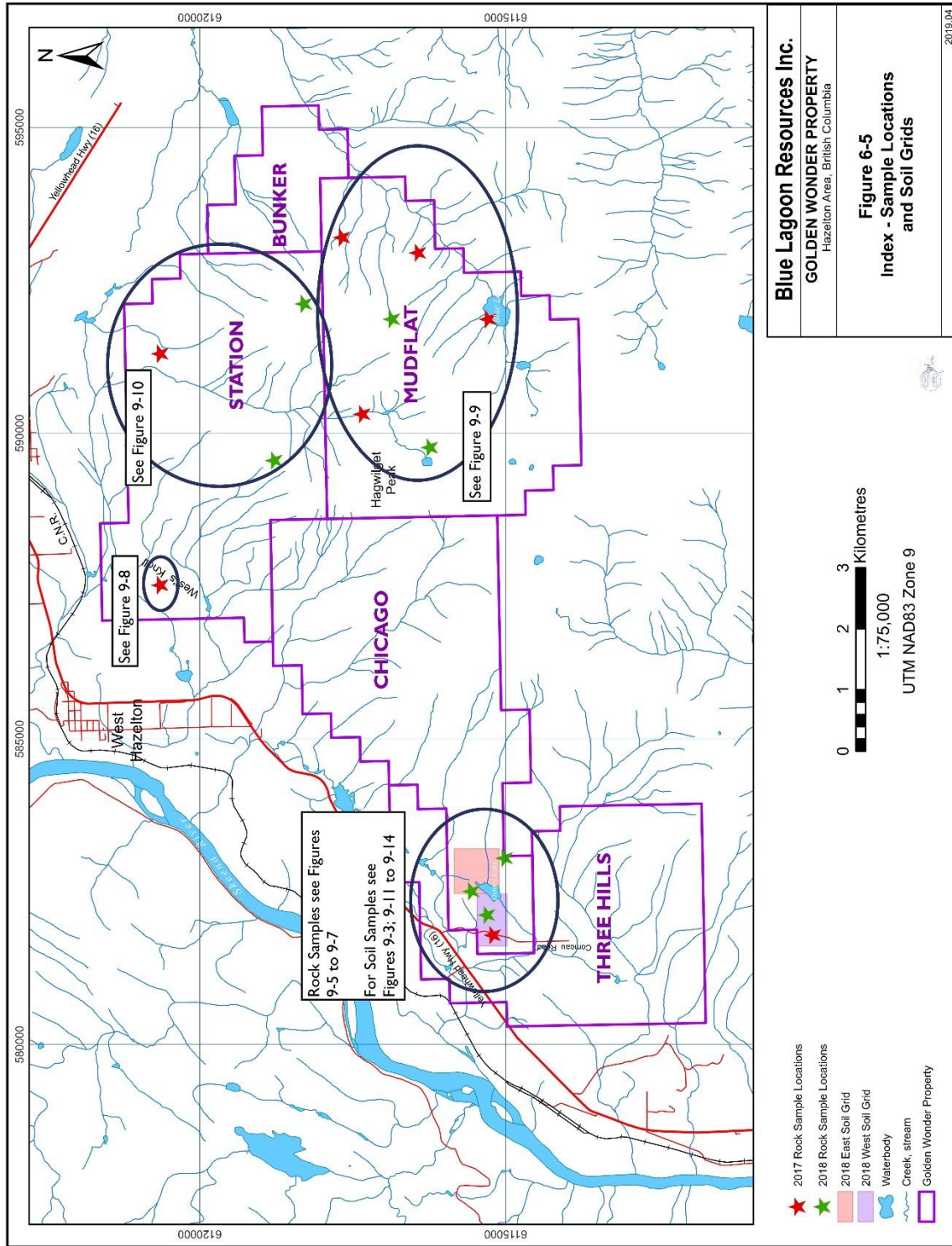
According to Dahrouge, it was concluded that structural features including joints, veins and shearing, generally strike to the west and dip between 70-90° to the north. Bedding is locally visible in the area and is generally striking north-south and has a sub-vertical dip. Bedrock geology of the area consists mainly of argillites, siltstone, greywackes, felsic to intermediate volcanics/dykes, as well as abundant feldspar-hornblende porphyritic volcanic/intrusive units, including andesites, porphyritic andesites, quartz monzonites, and possibly granodiorites.





**Figure 6-4. Stream Pan Concentrate Sample Locations on the Property**





**Figure 6-5. Index Map for Rock and Soil Sample Locations**

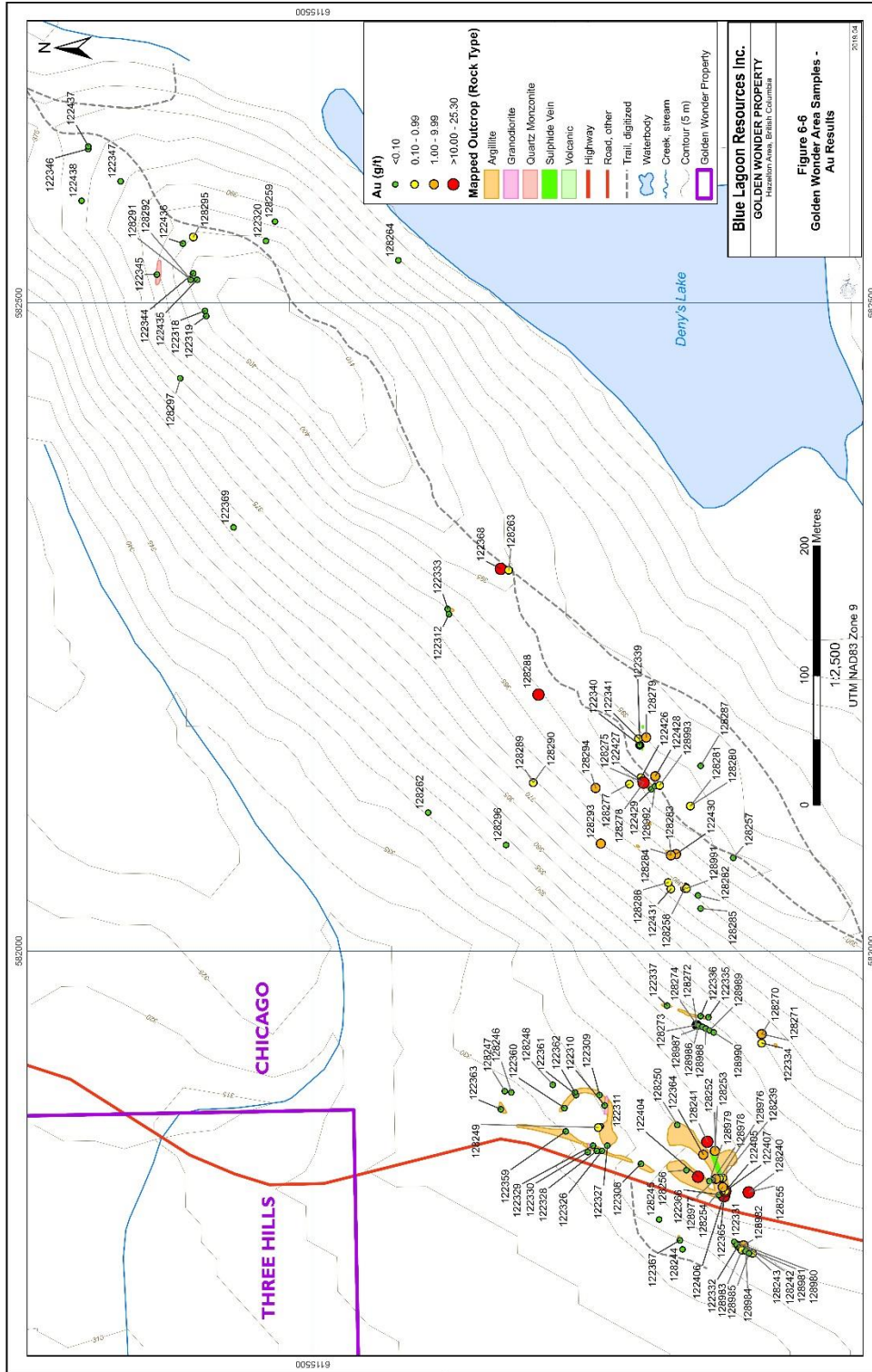


Figure 6-6. Golden Wonder Area Rock Samples - Au Results

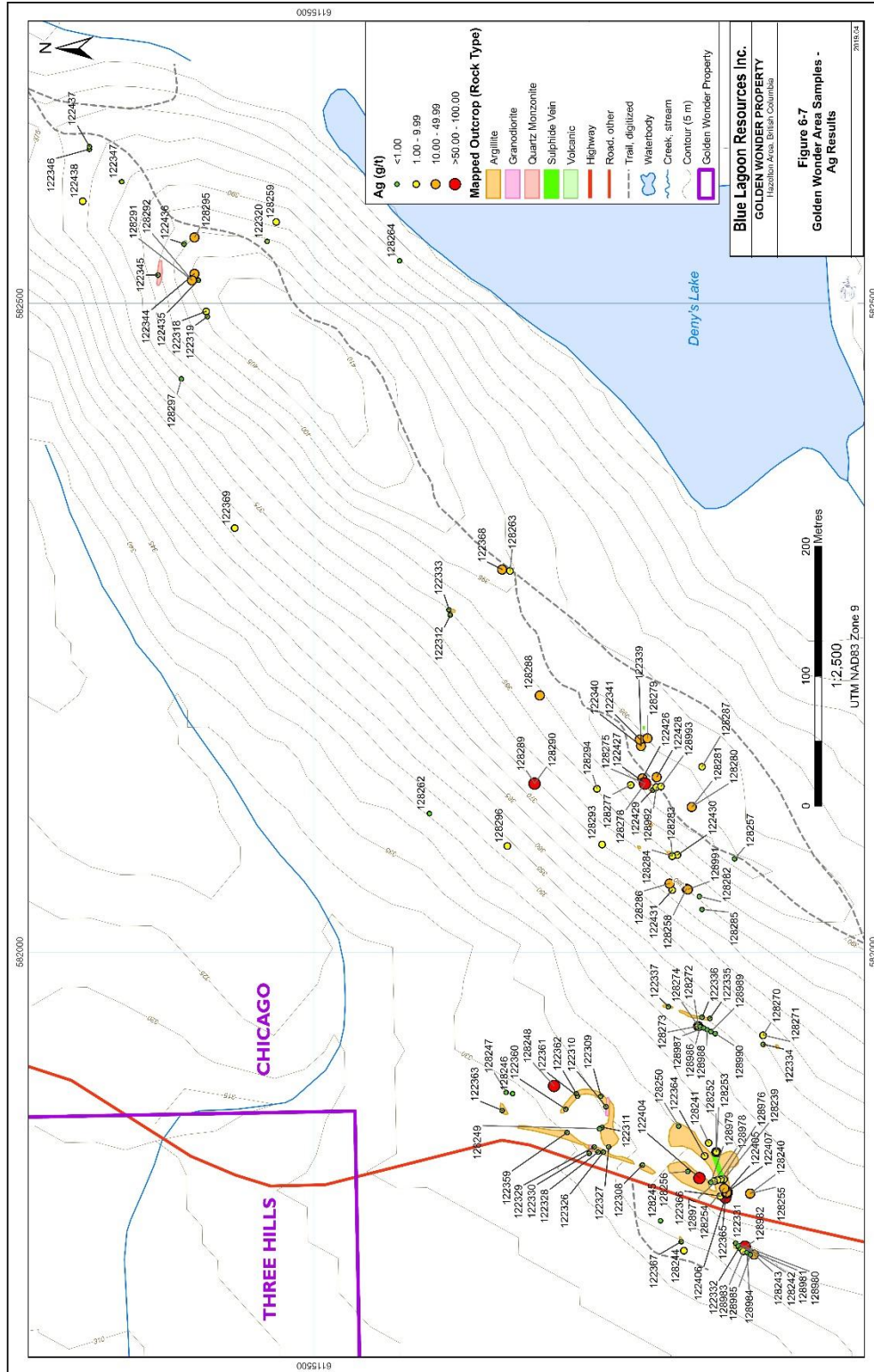


Figure 6-7. Golden Wonder Area Rock Samples - Ag Results



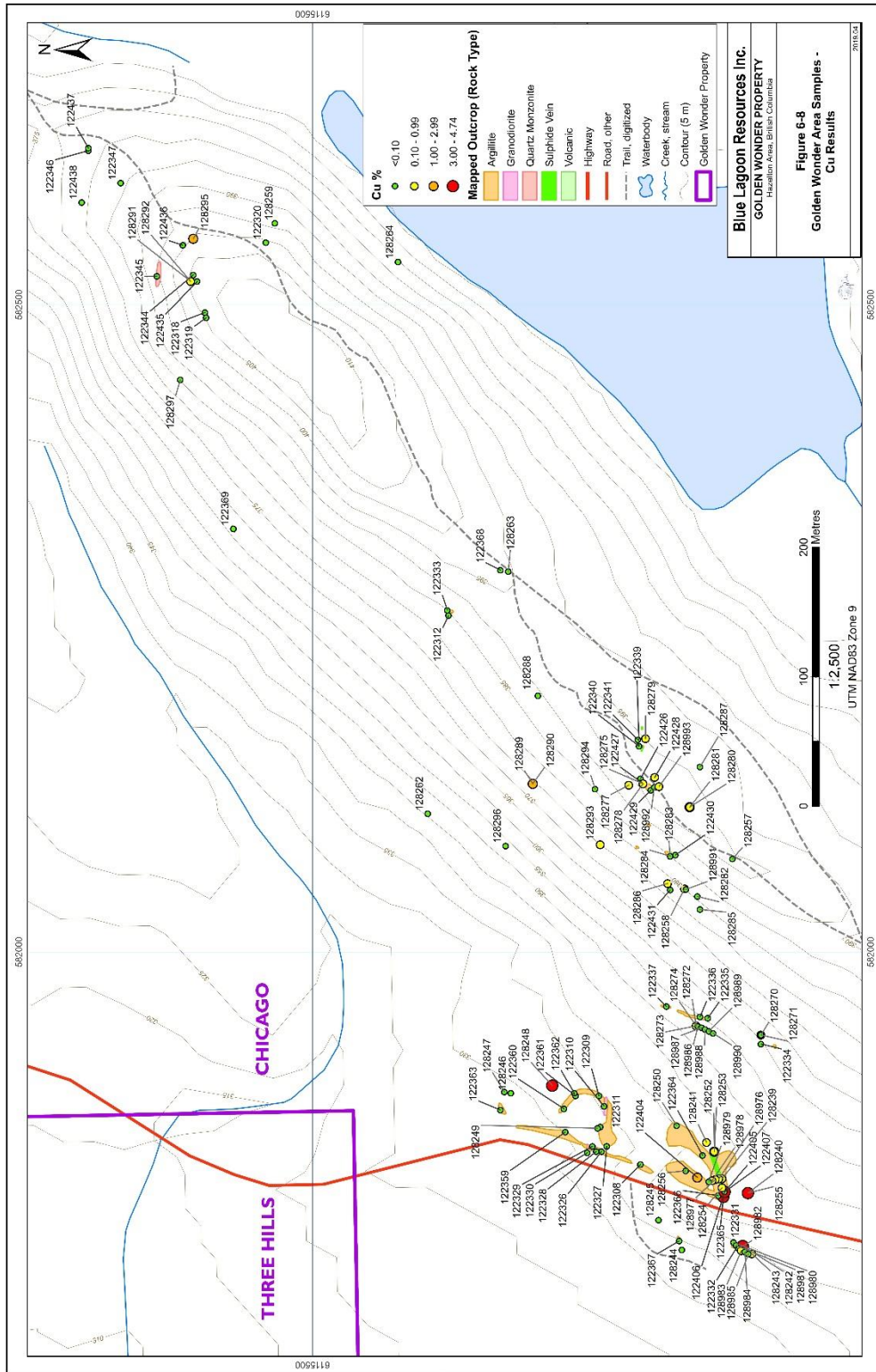


Figure 6-8. Golden Wonder Area Rock Samples - Cu Results

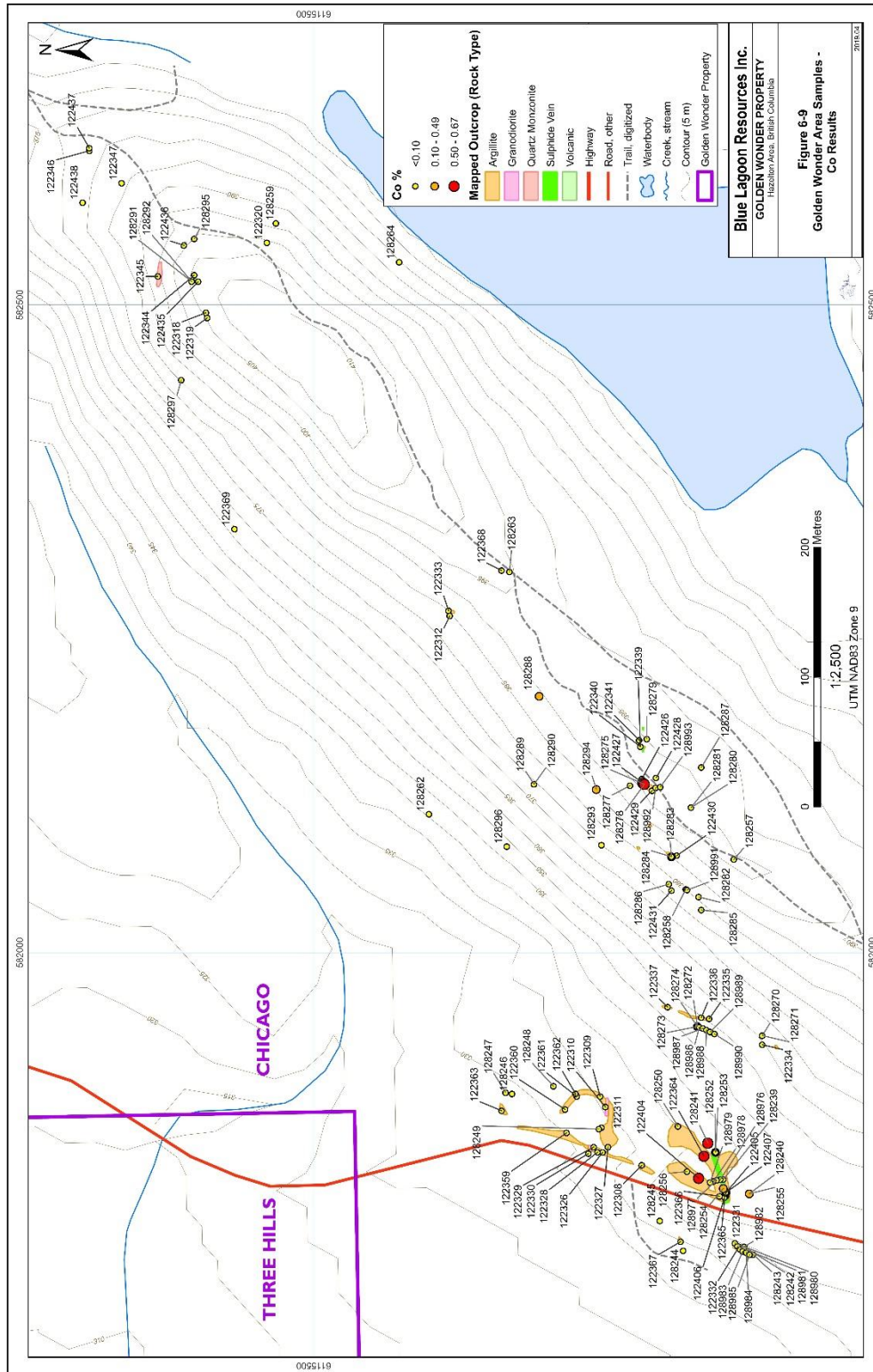


Figure 6-9. Golden Wonder Area Rock Samples - Co Results





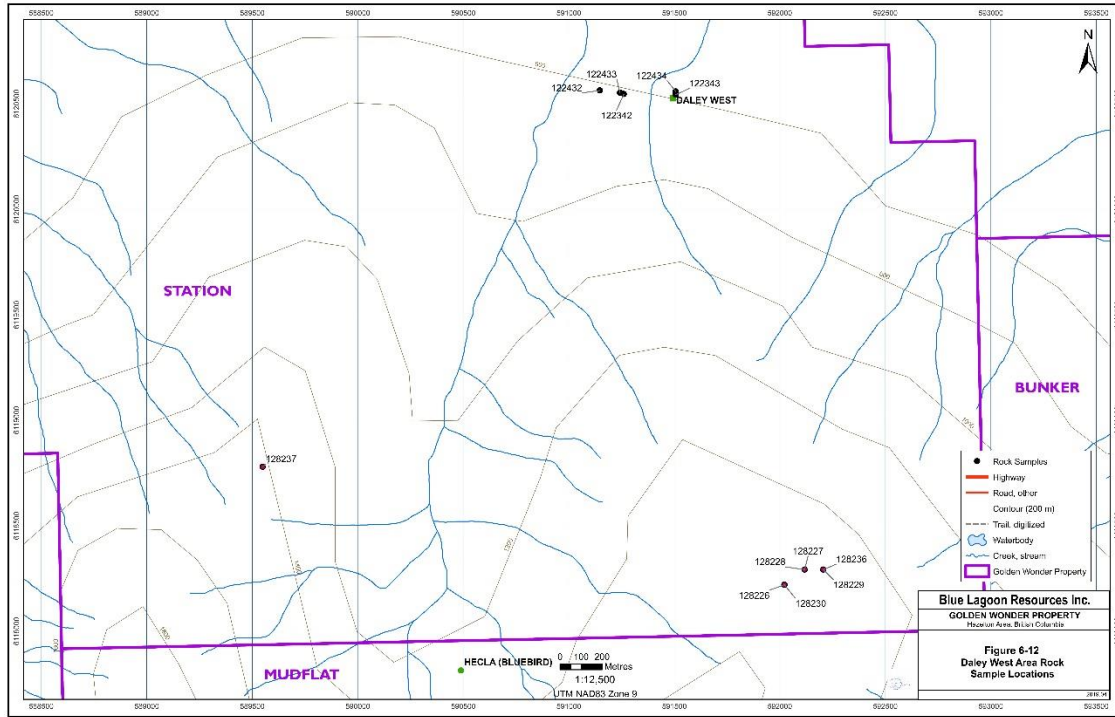


Figure 6-12. Daley West Area Rock Sample Locations

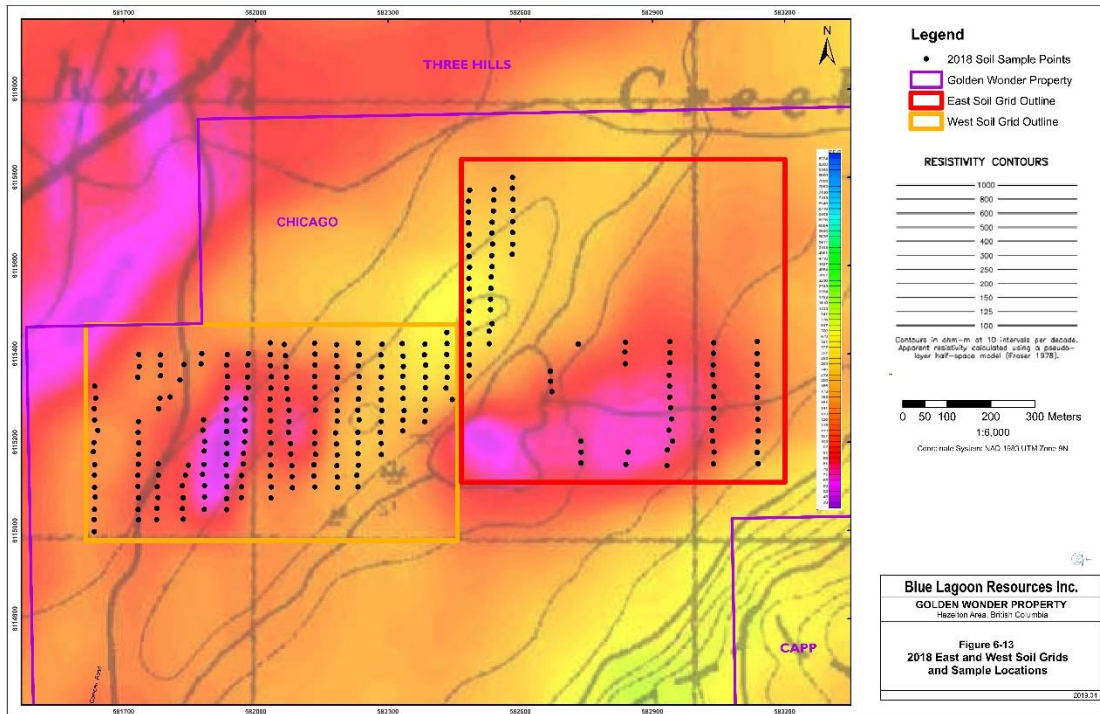


Figure 6-13. 2018 East and West Soil Grids and Sample Locations

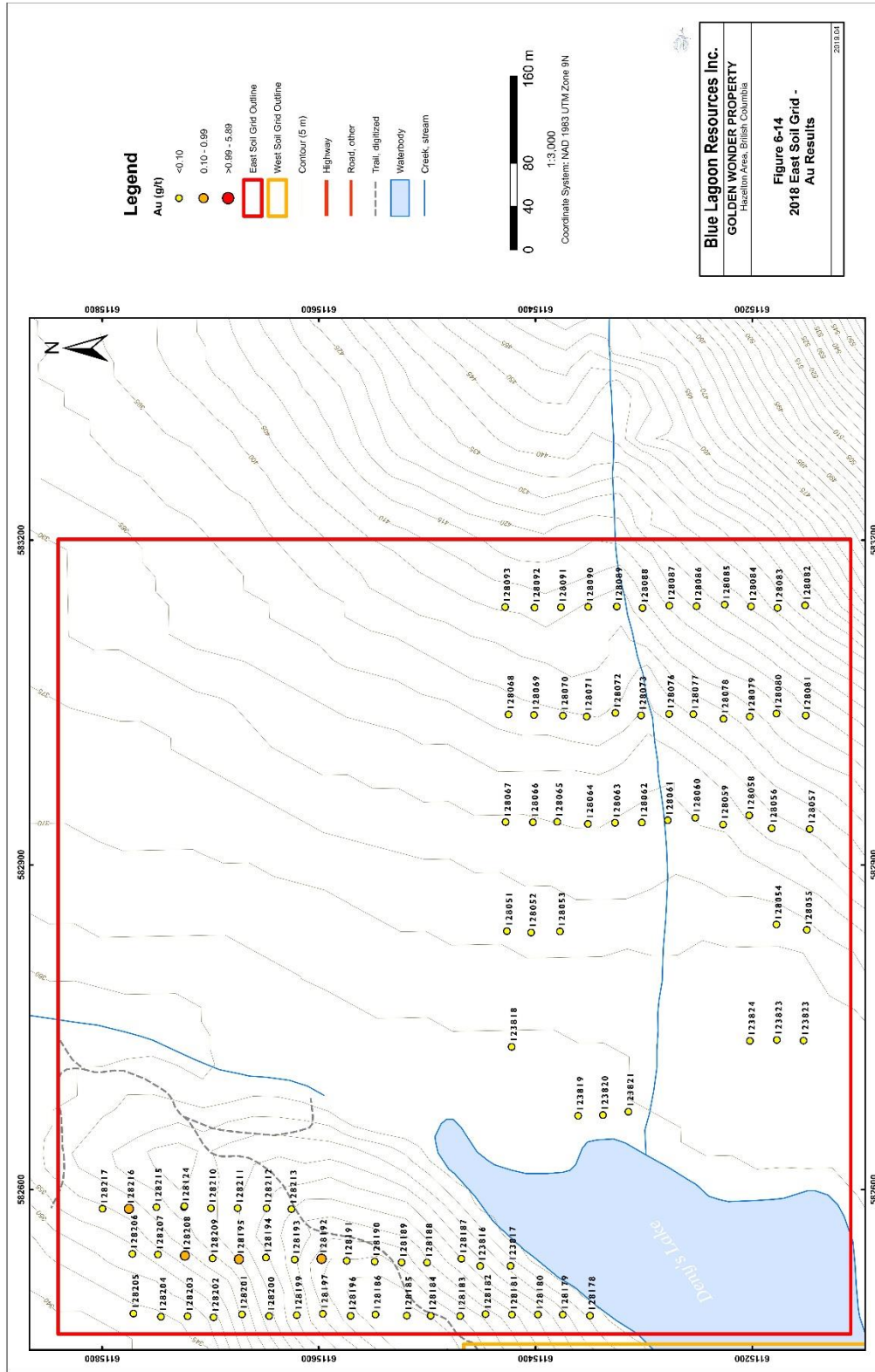


Figure 6-14. 2018 East Soil Grid - Au Results



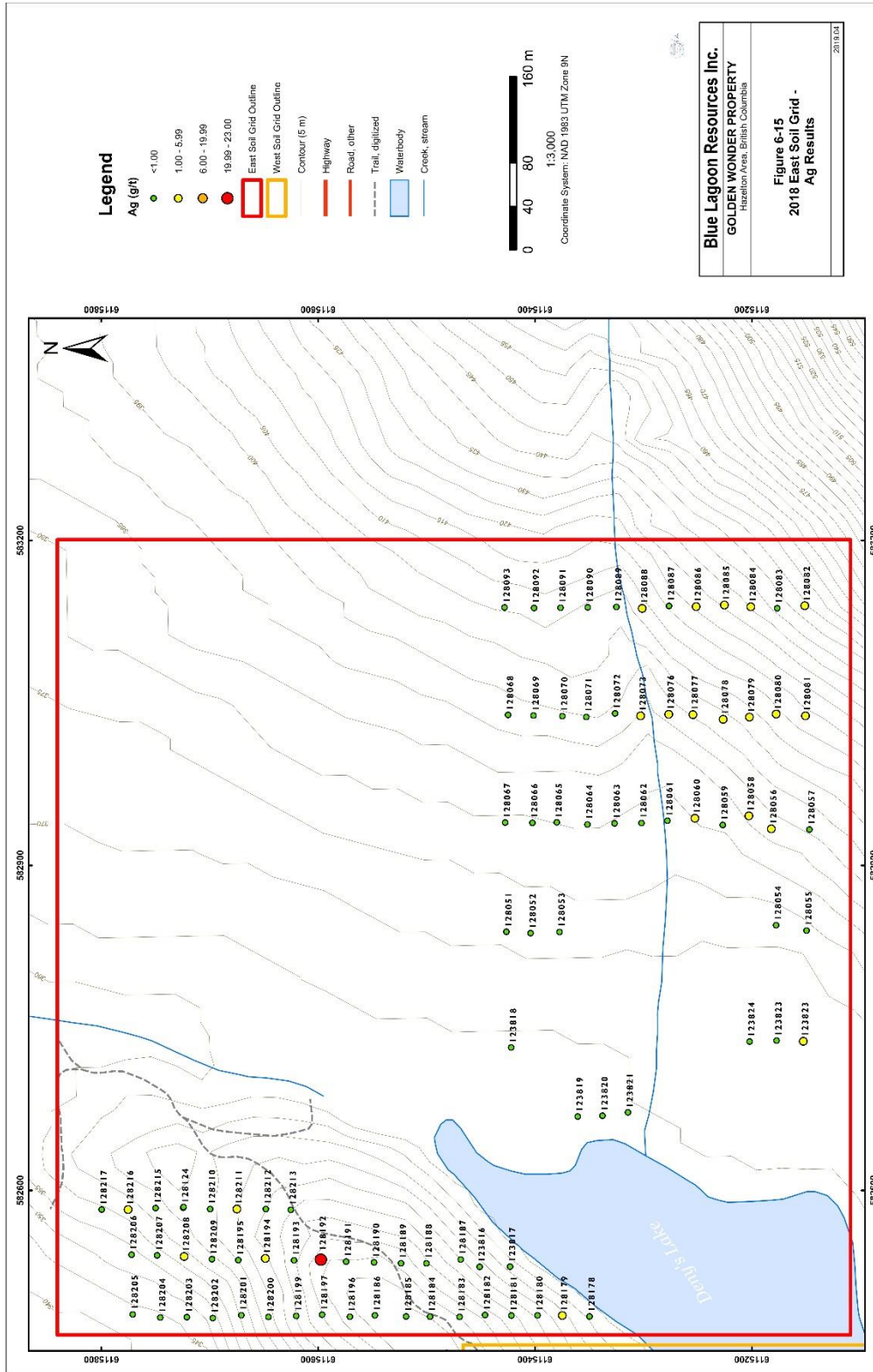


Figure 6-15. 2018 East Soil Grid - Au Results

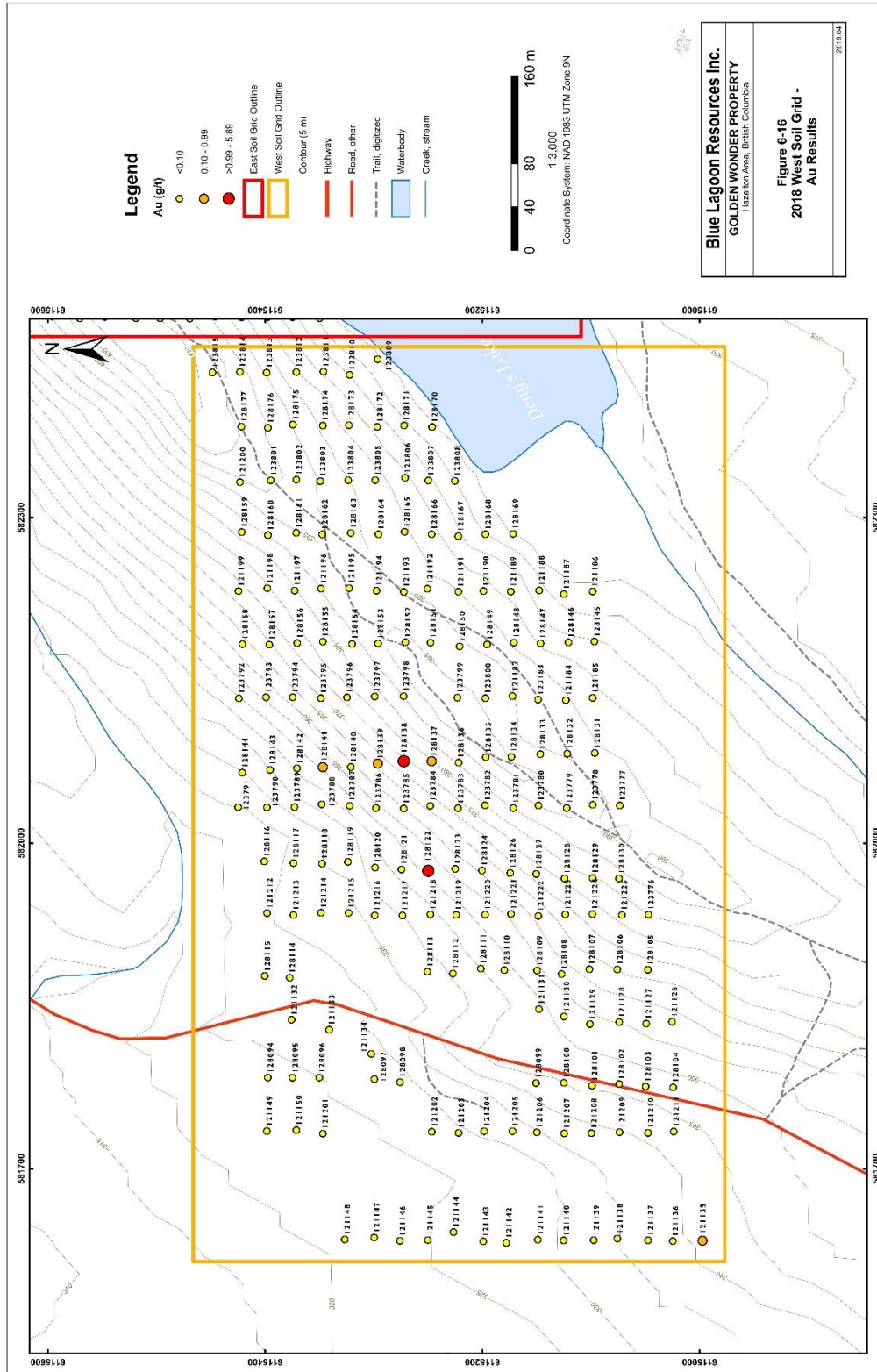


Figure 6-16. 2018 West Soil Grid - Au Results

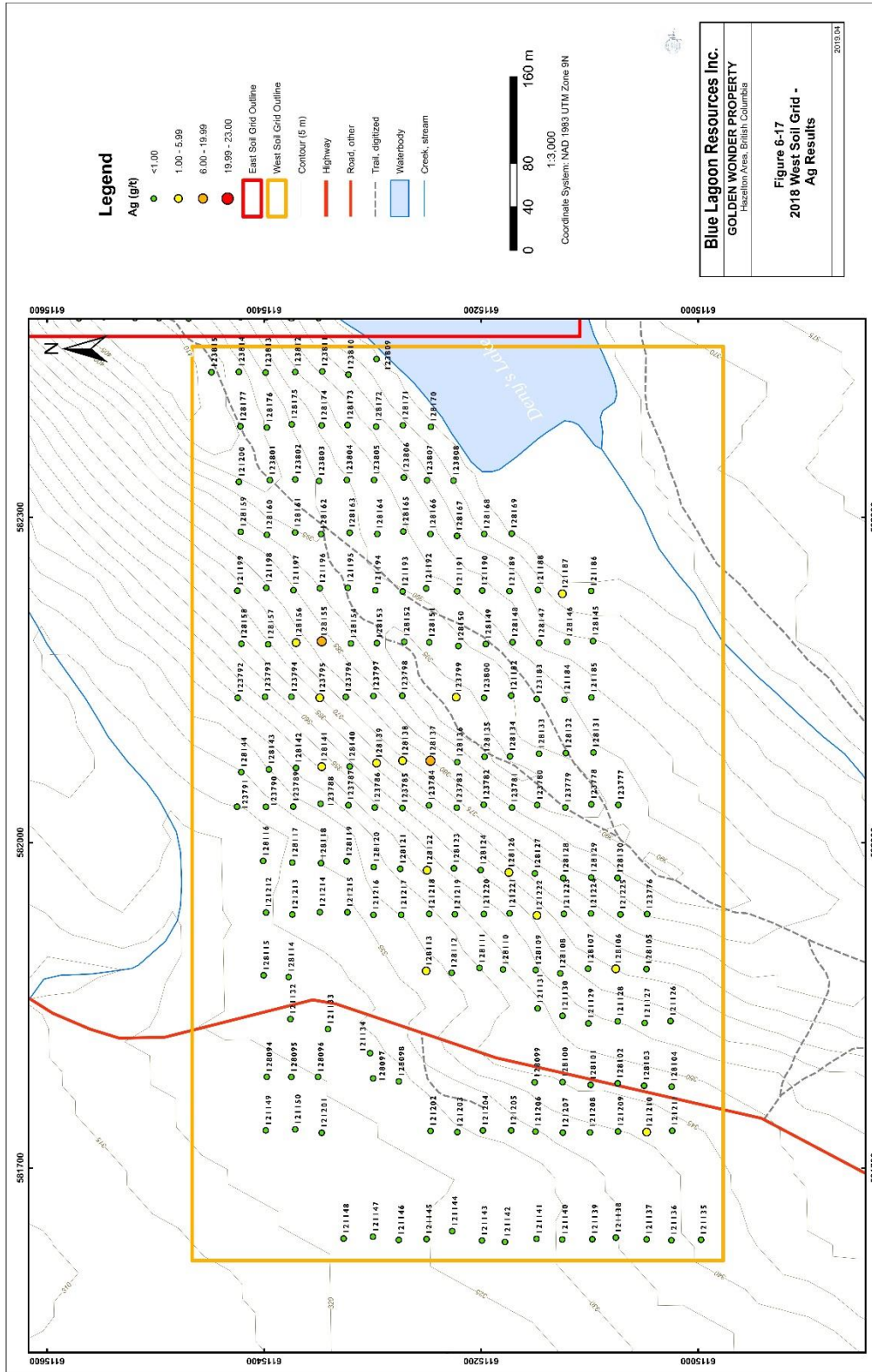


Figure 6-17. 2018 West Soil Grid - Ag Results

## 7 GEOLOGICAL SETTING AND MINERALIZATION

### 7.1 REGIONAL GEOLOGY

The Golden Wonder Property is situated in the Intermontane tectonic province of the Canadian Cordillera and is underlain by rocks of the Late Paleozoic Stikine volcanic arc terrane, the largest terrane in BC. The Stikine terrane was accreted to the Quesnel and Cache Creek terranes, and then to the North American margin in the Middle Jurassic before being intruded by coeval and younger plutonic rocks, and overlain by younger volcanic and sedimentary units (Kyba, 2017; Figure 7-1).

The Rocher Deboule Range lies within the Skeena Arch, and east-northeast trending belt of Jurassic and older, mostly volcanic rocks. Uplift of the arch, thought to have been occurred in the Middle Jurassic, resulted in the separation of the Bowser and Nechako Basins (MacIntyre, 2006). Exposed rocks along the Skeena Arch represent a long-lived magmatic arc that has produced a range of geological settings and resulted in a diverse range of mineral deposits.

The Skeena Arch straddles the Skeena Terrane, a volcanic arc complex that formed offshore before accreting to the west coast of North America. The Skeena Terrane is made up of two cycles of volcanic and related intrusions, as well as overlying sedimentary rock on a metamorphosed volcanic rock and limestone basement (Kyba, 2017).

The Rocher Deboulé Range is underlain by the upper two divisions of the Hazelton group and intruded by the Rocher Deboule stock.

The upper two divisions of the Hazelton group (Jurassic to Cretaceous) are:

1. Red Rose Formation (2,300 to 2,400 m marine and non-marine sedimentary greywackes)
2. Brian Boru Formation (1,500 to 1,800 m porphyritic andesite breccias and massive flows with minor hornblende porphyry andesite flows and some pyroclastic rocks).

The Rocher Deboule stock, a member of the Late Cretaceous Bulkley Plutonic Suite, is predominantly a porphyritic granodiorite, but also includes what is thought to be a younger fine-grained quartz monzonite. The Roche Deboule stock is thought to have been emplaced after folding of the Hazelton group, between the mid-Lower and late Upper Cretaceous. Heat from the intrusion of the Rocher Deboule stock created a hornfelsic aureole in the surrounding Hazelton rocks (Sutherland Brown, 1960).

The adjacent valley contains late Jurassic to early Tertiary successor basin assemblages of the Bowser Lake, Skeena, and Sustut Groups.



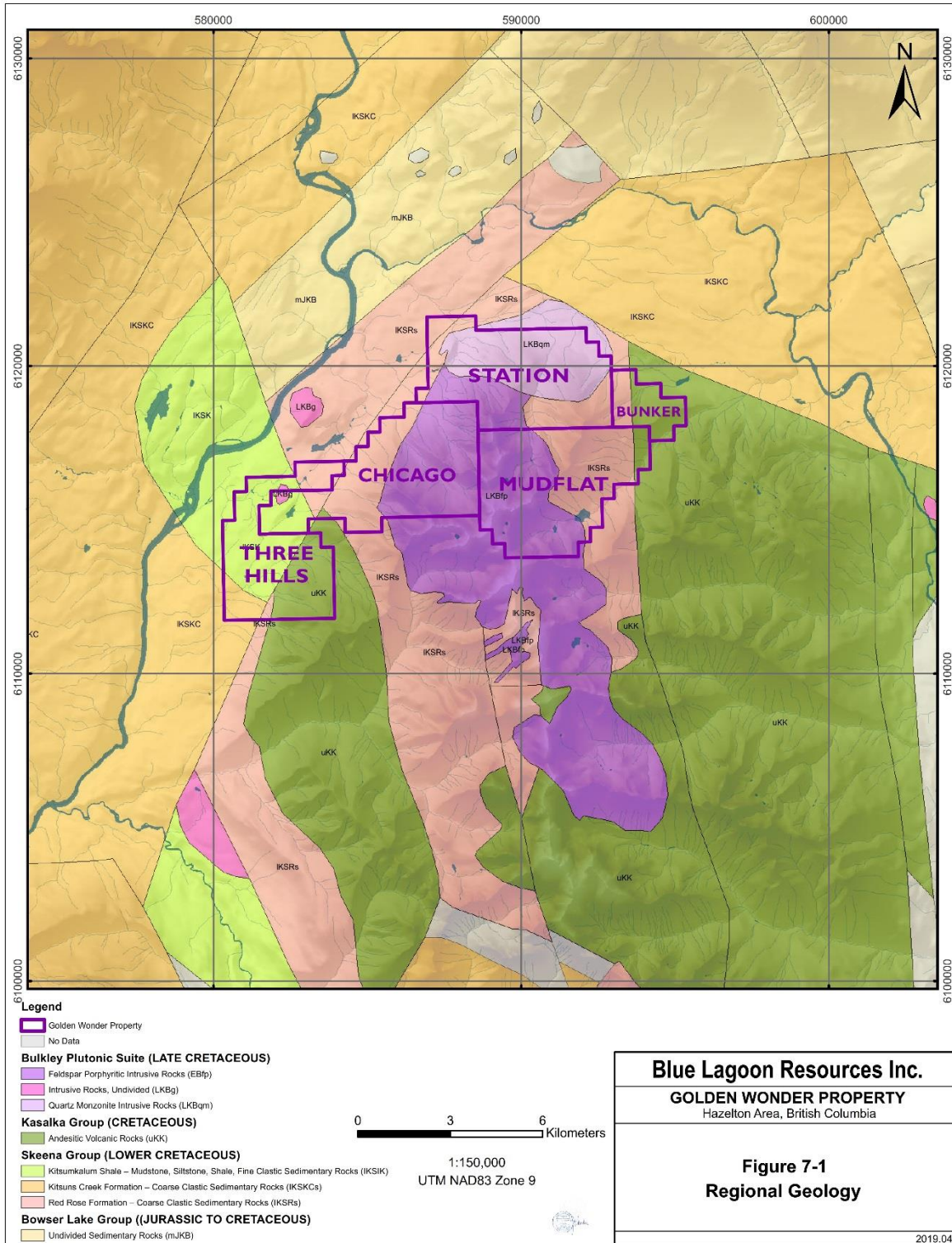


Figure 7-1. Regional geology of the Golden Wonder Property



## 7.2 PROPERTY GEOLOGY & MINERALIZATION

Mineralized showings on the Golden Wonder Property are associated with the contact between the Rocher Debole stock and the surrounding Hazelton rocks. Several joint sets have been observed on the property: one parallel to the contact at  $015^{\circ}/65^{\circ}W$ ; one sub-horizontal cross-joint set at  $085^{\circ}/5^{\circ}W$ ; one radial, vertical and less well-developed at  $060^{\circ}/65^{\circ}NW$ ; and another less well-developed at  $055^{\circ}/55^{\circ}SE$  (Sutherland Brown, 1960). According to Burgoyne and Kikauka (2007) the joint pattern may be indicative of orthogonal fracturing due to contraction on cooling. The radial fractures appear to host most of the vein mineralization, and they are thought to be responsible for introducing fluids into the rock, causing alteration, quartz-hornblende pegmatite vein development, and mineralization. Details on the geology of the showings and workings on the Property are described below (Figure 7-2).

### 7.2.1 *Three Hills*

The Three Hills area is predominantly characterized by hornfelsic argillites (mudstone, siltstone, shale and fine clastic rocks) of the Kitsumkalum Shale and the andesitic volcanic rocks of the Kasalka Group. The southwest corner lies within the coarse, clastic sedimentary rocks of the Kitsuns Creek and Red Rose formations.

Mineralization occurs within a rock drumlin that is approximately 37 m wide by 111 m long and rises almost 8 m above the flat surrounding drift. This drumlin is along the same trend as mineralization at the Golden Wonder and West's Knoll area; it strikes  $035^{\circ}$  and dips  $40^{\circ}$  NW on the southeast side, and has an obscured dip elsewhere (Sutherland Brown, 1960). No details on the mineralization was available.

### 7.2.2 *Golden Wonder*

The Golden Wonder area lies approximately 5 km northwest of the historic Rocher Debole mine site. The area is predominantly characterized by rocks of the Kitsumkalum Shale. Mineralization occurs at the contact between the porphyritic granodiorite and the pyritic hornfelsed argillites in a rock drumlin. This drumlin is presumed to be parallel to the Skeena Fault (Ethier and Pinsent, 2011) and is along trend with the Three Hills (to southwest) and West's Knoll area drumlins (to the northeast). Additionally, two shear zones approximately 300 m apart have been noted with mineralization in the area (Ethier and Pinsent, 2011). The first, referred to as the south shear zone, strikes  $085^{\circ}$  and dips  $80^{\circ}N$ , is up to ~1 m wide and has been traced for 150 m; semi-massive sulphide veins and crystals (chalcopyrite, pyrite, pyrrhotite, and some magnetite, goethite); and silicified fine quartz stringers occur within this shear zone. The second shear zone, referred to as the north shear zone, strikes  $290^{\circ}$  and dips  $75^{\circ}S$ , is up to 1.2 m wide and is exposed for a few hundred metres in open cuts at the north end of the drumlin. This north shear is occupied by a post-mineralization porphyry dyke with small quartz stringers and sulphide lenses (pyrite, chalcopyrite).

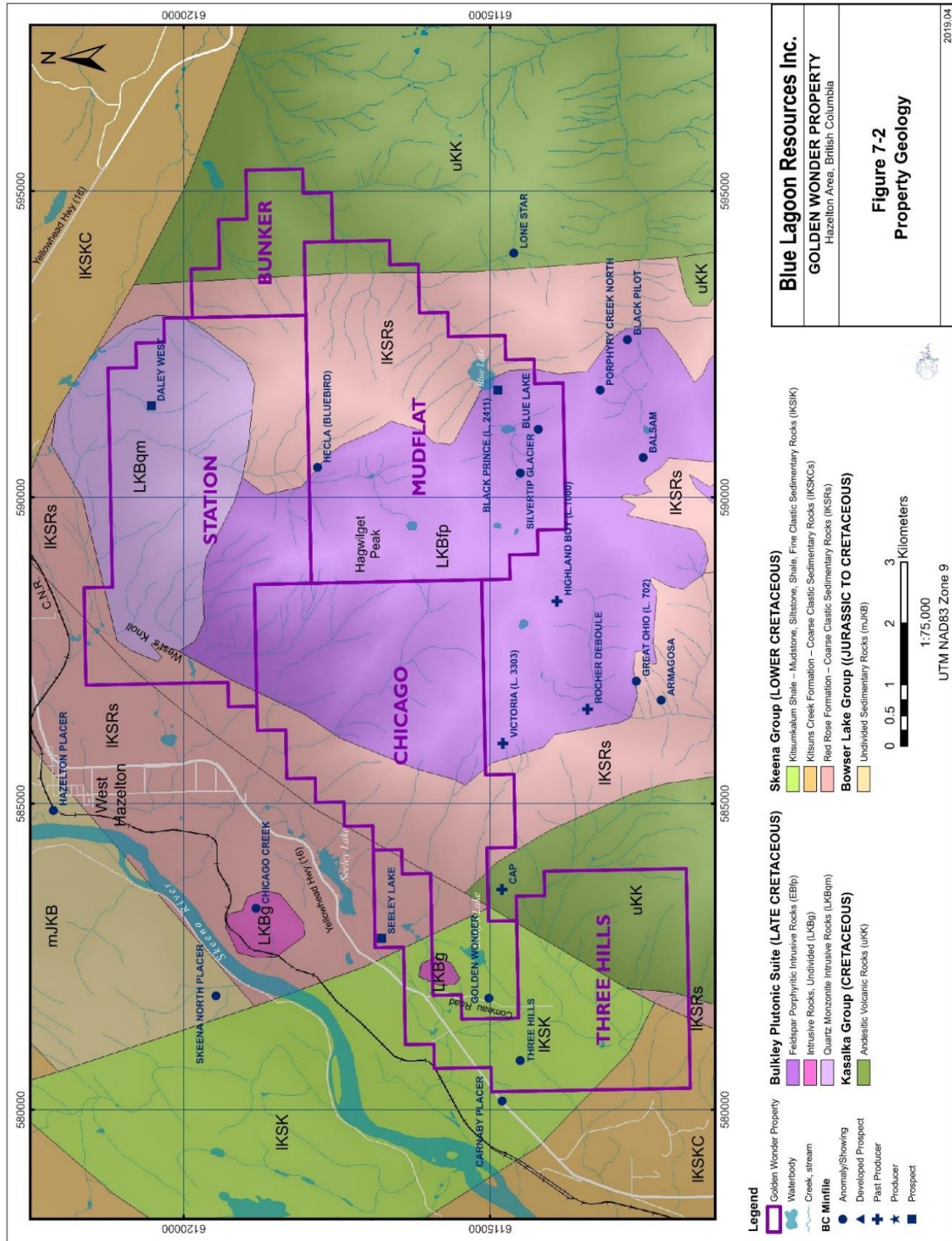


Figure 7-2. Golden Wonder Property geology map

### **7.2.3 West's Knoll**

The West's Knoll area is near the approximate contact between the quartz monzonite rocks of the Bulkley Plutonic Suite and the coarse clastic sedimentary rocks of the Red Rose Formation. The area of interest consists of a rock drumlin that lies along the same trend as the Golden Wonder showing and the historic Three Hills showing. At the base of the drumlin, near a contact between the feldspar porphyry and quartz monzonite, arsenopyrite has been found in loose rocks (Ethier and Pinsent, 2011).

No significant mineralization has been found in the West's Knoll area. One fine-grained mudstone boulder sample showed minor disseminated sulphides and rusty weathering.

### **7.2.4 Daley West**

The Daley West area is characterized by the fine-grained quartz monzonite phase of the Rocher Deboule stock. Mineralization was reported in a silicified shear zone trending  $020^{\circ}/65^{\circ}\text{NW}$  and containing small amounts of vein quartz. Masses of arsenopyrite and pyrrhotite, pyrite, and some chalcopyrite occur in the shear zone, as well as minor scheelite, sphalerite, galena, and calcite (Sutherland Brown, 1960). Molybdenite was reported in scattered narrow quartz veins near old workings (Ethier and Pinsent, 2011).

No significant mineralization has been found in the Daley West area.

### **7.2.5 Black Prince/Blue Lake/Silvertip Glacier**

The Black Prince, Blue Lake, and Silvertip Glacier showings are clustered near the southeast boundary of the Property, in the feldspar porphyritic granodiorites of the Roche Deboule stock. The Black Prince showing occurs on the ridge between Mudflat and Porphyry creeks. The Blue Lake showing is approximately 1,600 m southwest of the Black Prince showing. The Silvertip Glacier showing is west of the Black Prince and Blue Lake showings. The Black Prince and Blue Lake showings both consist of parallel quartz veins in the intensely jointed Rocher Deboule stock (Ethier and Pinsent, 2011).

Historically, mineralization has been noted in the argillic rocks and parallel quartz veins in fracture zones at the Black Prince showing. The argillic rocks contain oxidized disseminated sulphides (mostly pyrite) interspersed with areas of non-sulphide-bearing host rock. The main fracture zone, trending  $150^{\circ}/65^{\circ}\text{SW}$ , comprises quartz veins with scheelite, pyrite, chalcopyrite, molybdenite, wolframite, ferberite, and erythrite; this fracture zone is up to 2.4 m wide and over 300 m long. A second fracture zone, approximately 250 m east of the main fracture zone, hosts a parallel quartz vein (trending  $150^{\circ}/65^{\circ}\text{SW}$ ) containing zones of massive chalcopyrite and scheelite, with lesser pyrite, bornite, cassiterite, and uraninite. A third fracture zone hosts an intermediate vein, 150 m east of the main fracture zone; this vein trends  $160^{\circ}/70^{\circ}\text{SW}$ .

At the Blue Lake showing several mineralized veins have been reported (Sutherland Brown, 1960). Vein No. 1, occurs at the east end of the showing, trends  $105^{\circ}/65^{\circ}\text{NE}$  and is up to 25 cm wide; it is a quartz vein with up to 10% tetrahedrite and minor chalcopyrite. Vein No. 2, 30 m west of Vein No.1, trends  $155^{\circ}/70^{\circ}\text{SW}$ ; it is a quartz vein with chalcopyrite, pyrite, molybdenite,

tetrahedrite, scheelite, and likely uraninite. Vein No. 3, approximately 600 m northwest of the other veins, trends 165°/75°W; it is a quartz vein with scheelite, molybdenite, chalcopyrite, and ferberite. Approximately, 90 m below vein No. 3, occurs a 23 m milky white quartz vein with tetrahedrite; the vein is up to 3 m wide.

Limited information is available on the Silvertip Glacier showing. According to MINEFILE 093M 055, the showing hosts Cu-Mo mineralization.

#### **7.2.6 Hecla/Bluebird**

The Hecla/Bluebird showing occurs on the east side of the Rocher Deboule stock, where it is in contact with the sedimentary rocks of the Red Rose Formation. The showing is at the head of Station Creek and mineralization is visible in both a silicified aplite and a pegmatite dike, that have been cut by quartz veinlets containing pyrite and chalcopyrite (Sutherland Brown, 1960). The aplite dike is 2.7 m wide and has a 1.2 m wide mineralized zone; a grab sample assayed 0.22% Cu, trace Au and 34.3 g/t Ag. The pegmatite dike is 1.8 m wide; a grab sample assayed 0.39% Cu, trace Au, and 18.2 g/t Ag. Also noted are other areas with rusty oxidized surfaces and boulders with some visible sulphides.

## 8 DEPOSIT TYPE

The Skeena Arch is rich in metallic mineral deposits; over 800 occurrences are listed in the BC Geological Survey's MINFILE database, with the majority of the deposit types in the area related to plutonic suites (McIntyre, 2006) including:

- Polymetallic veins Ag-Pb-Zn-Au
- Subvolcanic Cu-Ag-Au (As-Sb)
- Porphyry Cu Mo Au
- Volcanic redbed Cu
- Porphyry Mo (low F- type)
- Intrusion-related Au pyrrhotite veins

Sutherland Brown (1960) described three phases of vein mineralization that appear to overlap in some spots, with precious metals present in a variety of minerals and dominated by iron-cobalt sulphides, tetrahedrite, and chalcopyrite.

Previous assessments of the Golden Wonder Property and surrounding area suggest an epithermal, high-sulphidation Au-Ag and base metals deposit, potentially a vein/replacement type Iron Oxide Copper Gold (IOCG) deposit and possibly part of a porphyry Cu-Au deposit at depth (Burgoyne and Kikauka, 2007).

A more likely deposit type for the Golden Wonder Property is a Besshi-type Gold rich Volcanogenic Massive Sulphide (VMS) deposits. VMS deposits form in submarine volcanic environments at or near the sea floor and typically occur as lenses of massive sulphide. Besshi-type Cu-Zn deposits are a subtype of VMS deposits that typically occur in clastic rocks in rifted basins and oceanic regimes (pelites and turbidites) associated with mafic volcanic and intrusive rocks. The mafic volcanic rocks and ore are usually enclosed within a thick sequence of continental clastic sediment.

Besshi-type deposits are tabular, stratiform sulphide bodies characterized by a wide spread of turbidites in ore-bearing strata, Co-rich Cu-Zn ores, subvolcanic sills, sheet-like ore bodies, and a lack of clear structural control. Examples of these deposits are the Besshi deposits in Japan and Windy Craggy, in British Columbia.

An alternative deposit classification is the Blackbird Sediment-hosted Cu-Cobalt model, similar to the Blackbird Mine in the Idaho cobalt area. These deposits are characterized by the presence of massive and disseminated pyrite, pyrrhotite, arsenopyrite, cobaltite, chalcopyrite, and magnetite found in stratabound lenses and/or stringers, or in breccia pipes (Earhart, 1986). Textures can include fine-grained, thinly bedded turbidite sequences and graded beds, indicative of a marine turbidite depositional environment. They are sometimes associated with Besshi-type massive sulphide deposits, and are enriched in iron, arsenic, boron, cobalt, copper, gold, silver, and manganese.



## **9 EXPLORATION**

No exploration on the Property has been conducted by Blue Lagoon.

## **10 DRILLING**

No drilling has been completed on the Property by Blue Lagoon.

## 11 SAMPLE PREPARATION, ANALYSES, AND SECURITY

### 11.1 SAMPLING METHOD AND APPROACH

Dahrouge staff collected and prepared the stream pan concentrates, soil samples and rock samples for analysis. Sampling methods were obtained from internal communications with Dahrouge staff and further reviewed and observed by the author in the field in May 2017 when he visited the Property in connection with the 2017 Report. From personal communications with Dahrouge, the author has been advised that the same sampling procedures were applied to sampling during the 2018 exploration program.

#### 11.1.1 *Stream Pan Concentrate Samples*

Stream pan concentrate samples were collected from accessible streams with sufficient alluvial sediment beds. All samples were described in situ, including stream flow, contents, and mineralogy. All sample locations were obtained using a handheld Garmin 60 series GPS.

For each sample, between  $\frac{1}{2}$  and  $\frac{2}{3}$  of a 5-gallon pail of stream silt was collected and passed through a  $\frac{1}{4}$ " sieve followed by a  $\frac{1}{12}$ " sieve. The fine fraction was then processed pans to concentrate the heavy fraction, yielding some tens of grams per sample. For five of the samples, intermediate fractions were collected and analyzed to capture the arsenopyrite and lighter minerals. The heavy fraction was then carefully transferred to pre-labeled sample bags with the corresponding sample book tag. Sample numbers were also written on flagging tape which was also inserted into the sample bag. The bags were sealed with zip ties or flagging tape and catalogued before being packaged in pails and transported to Dahrouge head office, where they were shipped to the Activation Laboratories Ltd. for analysis.

#### 11.1.2 *Rock Samples*

Grab samples were selected from available outcrops; several pieces were chipped from the outcrop for each sample. Float samples and boulder samples were taken where outcrop was covered by overburden or talus. Every lithology or variation of lithology encountered was sampled; some lithologies were sampled on different locations to test for unobserved changes. Sample locations were obtained using a handheld Garmin 60 series GPS.

All samples were described in situ, including sample type (grab, chip, float, boulder), rock type, mineralogy, and structural measurements. Samples were bagged, in the field, in pre-labelled poly ore sample bags with the corresponding sample book tag. Sample numbers were also written on flagging tape that was also inserted into the sample bag. The bags were sealed with zip ties or flagging tape and catalogued before being packaged in pails and transported to Dahrouge head office, where they were shipped to the Activation Laboratories Ltd. for analysis.

A standard quartz blank was inserted into the rock samples during both field programs to test for contamination during the sample preparation process.

### **11.1.3 Soil Samples**

Soil samples were collected from two grids, one on the east and another on the west side of Denys Lake. Soil lines were spaced 50 m apart and soil samples were spaced 25 m apart. Sample locations were obtained using a handheld Garmin 60 series GPS.

All soil samples were collected from the B-horizon; sample depths varied with vegetation and overburden thickness. Samples were placed in pre-labeled bags with the corresponding sample book tag number and a piece of flagging tape with same number. The bags were sealed with zip ties or flagging tape and catalogued before being packaged in pails and transported to Dahrourge head office, where they were shipped to the Activation Laboratories Ltd. for analysis.

## **11.2 LABORATORY SAMPLE PREPARATION AND ANALYSIS**

Sample preparation and analyses were conducted by Activation Laboratories Ltd. (ActLabs) in Kamloops, British Columbia. Actlabs is a commercial laboratory and is completely independent of Blue Lagoon. The Actlabs Kamloops facility is ISO/IEC 17025 accredited.

Samples were analyzed for major and trace elements by inductively coupled plasma (ICP) and ICP-mass spectrography (MS). Rock samples also underwent fire assays.

### **11.2.1 Code 8- 4 Acid ICP-OES and Code 8 - 4 Acid ICP-MS**

Assay packages for base metal using 4 acid digestion and ICP-OES or ICP-MS. A 0.5 g sample is digested using 4 acid digestion and diluted volumetrically to 100 mL. CANMET reference materials for the appropriate elements are digested the same way and are used as a verification standard(s). Samples are analyzed on a Varian Vista 735 ICP-OES.

### **11.2.2 Ultratrace 4: Near Total Digestion ICP/MS**

A 0.25 g sample is digested with four acids beginning with hydrofluoric, followed by a mixture of nitric and perchloric acids, heated using precise programmer-controlled heating in several ramping and holding cycles, which takes the samples to dryness. After dryness is attained, samples are brought back into solution using hydrochloric and nitric acids. This digestion may not be completely total if resistate minerals are present. As, Sb, and Cr may be partially volatilized.

An in-lab standard (traceable to certified reference materials) or certified reference materials is used for quality control.

Digested samples are diluted and analyzed by Perkin Elmer Sciex ELAN 6000, 6100, or 9000 ICP/MS. One blank is run for every 40 samples. In-house control is run every 20 samples. Digested standards are run every 80 samples. After every 15 samples, a digestion duplicate is analyzed. The instrument is recalibrated every 80 samples.



**11.2.3 1A2-ICP - (1A2-ICP-30 or 50) Au Fire Assay - ICP****Fire Assay**

A 0.25 g sample is digested with four acids beginning with hydrofluoric, followed by a mixture of nitric and perchloric acids, heated using precise programmer-controlled heating in several ramping and holding cycles, which takes the samples to dryness. After dryness is attained, samples are brought back into solution using hydrochloric and nitric acids. This digestion may not be completely total if resistate minerals are present. As, Sb, and Cr may be partially volatilized. A sample size of 5 to 50 g can be used but the routine size is 30 g for rock pulps, soils or sediments (exploration samples). The sample is mixed with fire assay fluxes (borax, soda ash, silica, litharge) and with Ag added as a collector and the mixture is placed in a fire clay crucible, the mixture is preheated at 850°C, intermediate 950°C and finish 1060°C, the entire fusion process should last 60 minutes. The crucibles are then removed from the assay furnace and the molten slag (lighter material) is carefully poured from the crucible into a mould, leaving a lead button at the base of the mould. The lead button is then placed in a preheated cupel, which absorbs the lead when cupelled at 950°C to recover the Ag (doré bead) + Au.

**ICP-OES**

The Ag doré bead is digested in hot (95°C) HNO<sub>3</sub> + HCl. After cooling for 2 hours, the sample solution is analyzed for Au by ICP-OES using a Varian 735 ICP.

It is the author's opinion that the adequacy of sample preparation, security and analytical procedures are sufficient for this stage of exploration on the Golden Wonder Property.

**11.3 ASSAY RESULTS AND INTERPRETATION**

The results of the assays from both the 2017 and 2018 programs indicate significantly elevated values for gold, silver, copper and cobalt for the samples collected on the Golden Wonder Property. These results are discussed in further detail in Section 6.1.7, Recent Exploration.

## 12 DATA VERIFICATION

The author of this report, Mr. Jeff Reeder, visited the Property on May 22, 2017. During the visit, the author reviewed exposed outcrop, subcrop, and float, and collected seven rock samples from two historic showings: the Golden Wonder and the Black Prince. Samples 122401 to 122403 were collected on the Black Prince zone, whereas samples 122404 to 122407 were collected from the Golden Wonder zone (Table 12-1).

**Table 12-1. Samples taken by the Author**

Sample ID	Easting	Northing	Au (ppb)	Ag (g/t)	Cobalt ppm	Cu ppm
122401	592043	6115038	4	0.08	174	463
122402	591917	6114894	118	0.72	134	58.1
122403	591971	6115434	<2	0.1	10.9	33.3
122404	581826	6115203	10300	53.9	3010	27100
122405	581815	6115182	1110	2.9	5	957
122406	581815	6115182	25300	65.7	1290	32900
122407	581815	6115182	112	12.9	119	7510

Samples collected by Mr. Reeder in 2017 were packaged and prepared for shipment under his supervision.

A standard quartz blank was inserted into the samples to test for contamination during the sample preparation process. The quartz sample, #122375, was inserted between samples with relatively higher grades for Au, Ag, Co and Cu; results for the sample showed no indication of any significant or systemic cross contamination. The assay results for the blank sample were below the detection limit for both Au and Ag but were above the detection limit for Co (assayed 0.5 ppm, with a detection limit of 0.1 ppm) and Cu (assayed 3.2 ppm, with a detection limit of 0.2 ppm).

All assay certificates from 2017 and 2018 exploration programs and historic documents have been made available to the author. All sample locations were obtained using a handheld Garmin 60 series GPS for both 2017 and 2018 exploration programs.

It is the author's opinion that the data produced meets the standards required for the purposes of this technical report. The work conducted by Dahrouge Geological is considered professional and can be relied on.

### **13 MINERAL PROCESSING AND METALLURGICAL TESTING**

No mineral processing or metallurgical testing has been completed on the Property.

## **14 MINERAL RESOURCE ESTIMATES**

No mineral resource estimation has been completed on the Property.

## **15 TO 22 – NOT APPLICABLE (EARLY STAGE PROPERTY)**

The Golden Wonder Property is an early-stage exploration project. Sections 15 through 22, as defined by NI 43-101, are not relevant to this report and have been omitted.



## 23 ADJACENT PROPERTIES

The information in this section was obtained from publicly available BC Mineral Assessment Reports.

The Roucher Deboule Property lies adjacent to the south of the Golden Wonder Property and consists of two mineral claims covering 997.76 ha of land, which are owned 100% by American Manganese Inc. Their property covers several historic past-producing mineral showings, including the Victoria, Roucher Deboule, Highland Boy, and Cap showings, in addition to several less advanced mineral showings. The Roucher Deboule Property has recorded occurrences of “gold-silver-copper-(zinc-lead-cobalt)” mineralization (Kikauka, 2016). Recent work done by American Manganese Inc. involved six diamond drill holes at the Highland Boy showing, an airborne geophysical survey, and several surface prospecting programs. In 2016, American Manganese Inc. sampled fissure vein mineralization near the Cap showing, highlighted by a sample with 9280 ppb Au, 40 ppm Ag, and 57026 ppm Cu (Kikauka, 2016).

The Porphyry Creek Property lies just south and adjacent to the Roucher Deboule Property and Golden Wonder Property. This property covers 5,568.82 ha, with ownership split three ways amongst Doug Warkentin (60%), Timothy Johnson (20%), and Kyler Hardy (20%) (Warkentin, 2017). Several historic mineral showings occur within the property’s boundaries, including a past producer (Brunswick) and an early-stage prospect (Sultana). Commodities of interest include, but are not limited to, Cu, Mo, Ag, Au, Pb, and Zn. The most recent publicly disclosed work program consisted of prospecting and soil sampling in 2016 (Warkentin, 2017).

There are numerous other mineral tenures surrounding the Property that are registered to companies or individuals, and they are not described in this report. The author has been unable to verify the information on any of these adjacent properties and they are not necessarily indicative of the mineralization present of the Golden Wonder Property.

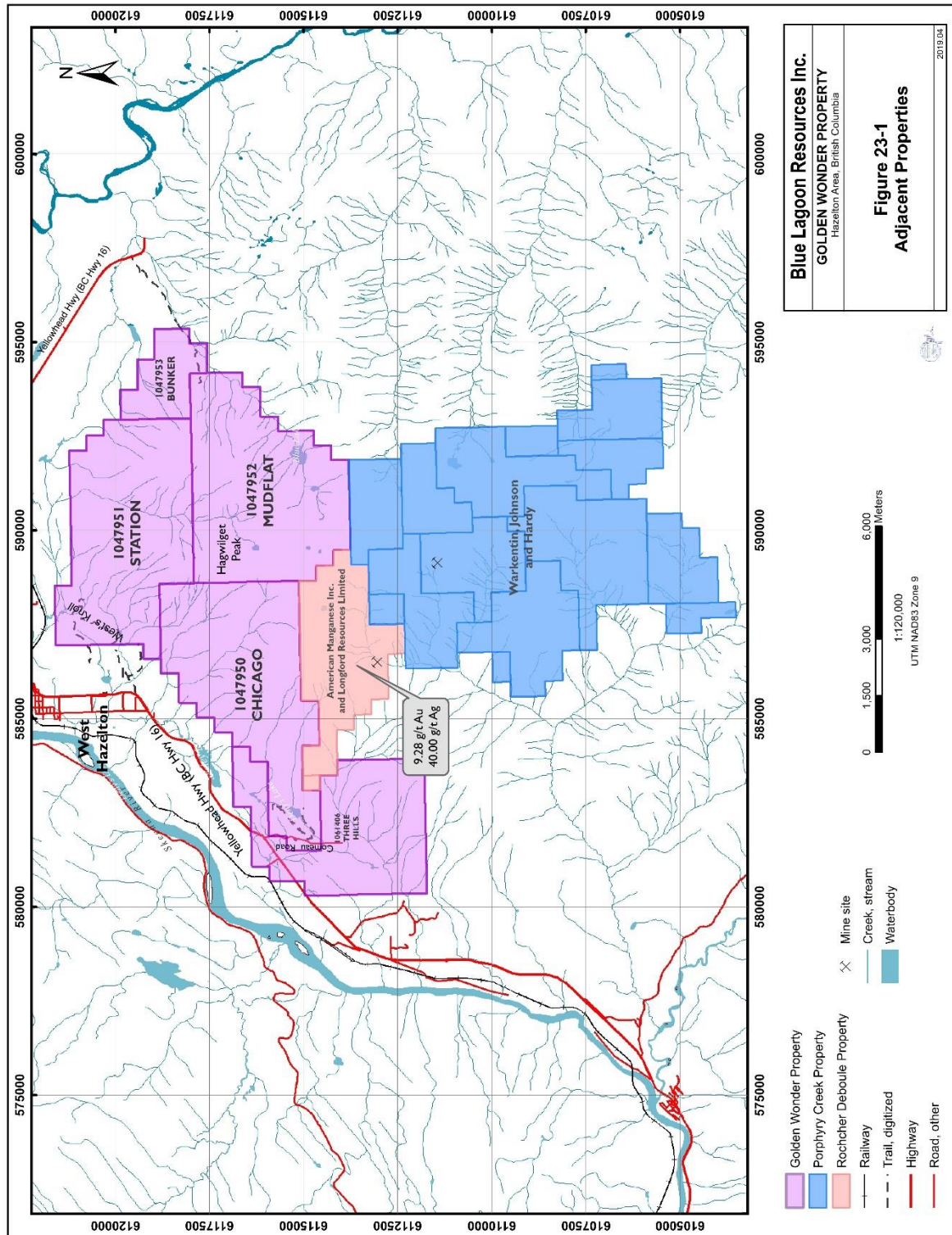


Figure 23-1. Adjacent Property Map

## **24 OTHER RELEVANT DATA AND INFORMATION**

The author is unaware of any other relevant data.

## 25 INTERPRETATION AND CONCLUSIONS

The 2017 exploration program focused on cobalt mineral potential while the 2018 exploration program focused on gold mineral potential at the Golden Wonder Property. Additionally, the mineral potential of silver and copper were evaluated, all by confirming historic assay results and determining field conditions. The 2017 program included rock sampling and stream pan concentrate sampling; the 2018 program included rock sampling and soil sampling, with a focus on the Golden Wonder area.

Soil and rock analytical results indicate that there is significant mineralization at the Golden Wonder area, in massive to narrow sulphide veins and in the surrounding argillite/mudstone. Elevated gold values in both the soil and rock samples occur along an approximate 500 m strike length at Golden Wonder. A high proportion of the rock samples displayed anomalous Au values, with 33 of the 180 samples returning greater than 0.5 g/t Au.

Subsequent work is essential to further develop the Golden Wonder area. A ground magnetometer survey and subsequent diamond drilling would be beneficial to further understand the underlying geology and mineralized structures/trends in areas with cover.

## 26 RECOMMENDATIONS

Based on the results of the 2017 and 2018 exploration programs reported in this document, the author confirms that the Golden Wonder Property exhibits favourable geologic characteristics and sufficient potential to warrant further exploration for gold, silver, copper and cobalt. The author recommends a two-phase exploration program, with phase 2 being contingent upon positive results from Phase 1.

Phase 1 would involve a detailed ground magnetic survey to determine the geophysical characteristics of the mineralization in the area of the Golden Wonder showing, at the west end of the Property. Several soil sample grids should be completed over the other showings on the Property as well. The total estimated budget for Phase 1 work, along with a 10% contingency, is \$115,610 (Table 26-1).

Phase 2 work would involve a 500 m diamond drilling program, using targets identified in the first phase. The total estimated cost for Phase 2 work, along with a 25% contingency, would be about \$285,500 (Table 26-2).

**Table 26-1. Phase 1 Estimated Budget for Detailed Ground Magnetic Survey and Soil Sample Program**

Permitting, Title Maintenance and Social Planning		\$3,000
Planning and Logistics		\$10,000
Personnel	4 persons for 20 days @ \$600/day	\$48,000
Transportation	4 persons for 2 days @ \$600/day	\$4,800
Accommodation	4 persons for 21 days @ \$200/day	\$16,800
Geophysical Services	6 days @ \$2,500.00/day	\$15,000
Supplies and Communication		\$7,500
Contingency (10%)		\$10,510
	<b>TOTAL</b>	<b>\$115,610</b>



**Table 26-2. Phase 2 Estimated Budget for 500 m Diamond Drill Program**

Project Planning and Logistics		\$4,000
Program Oversight and Office Support	1 person for 2 day@ \$800/day	\$1,600
Drill Program Personnel	1 person for 7 days @ \$800/day 1 person for 7 days @ \$700/day	\$10,500
Transportation	2 persons for 2 days @ \$600/day	\$2,400
Accommodation	2 persons for 7 days @ \$200/day	\$2,800
Drill Equipment Mobilization		\$7,500
Drilling (500 m)	Incl. coring, drill moves, casing, cementing, water truck, core boxes, drilling crew travel, etc.	\$81,500
Road Construction		\$65,900
Geophysical Downhole Survey		\$30,000
Analytical (Core Samples)	Est. 250 samples @ \$72/sample	\$18,000
Supplies and Communication		\$4,200
Contingency (25%)		\$57,100
	<b>TOTAL</b>	<b>\$285,500</b>

## 27 REFERENCES

- Burgoyne, A.A., Kikauka, A., 2007, Technical report on the Rocher Deboule Property, B.C, Min. Energy, Mines, Petr. Res. Assessment report 29338, 239 p., 17 fig., 2 appendices.
- E. Meyers Consulting, 1980, Geological report on the CRO Tungsten-Molybdenum claims, New Hazelton Area, British Columbia, B.C, Min. Energy, Mines, Petr. Res. Assessment report 7903, 32 p., 6 fig.
- Ethier, D. and Pinsent, R.H., 2011, Prospecting and geochemical report on the Rocher Deboule property, B.C, Min. Energy, Mines, Petr. Res. Assessment report 33297, 366 p., 25 fig., 7 appendices.
- Fominoff, P.J., 1971, Report on an induced polarization survey, Hazelton Area, British Columbia on behalf of Chapparral Mines Limited, B.C, Min. Energy, Mines, Petr. Res. Assessment report 3463, 8 p., 5 fig.
- Harivel, C., 1984, Report on the King mineral claim, Rocher Deboule Mountain, Hazelton Area, British Columbia, B.C, Min. Energy, Mines, Petr. Res. Assessment report 12133, 16 p., 5 fig., 2 appendices.
- Kikauka, A., 2016, Geological & Geochemical Report on the Rocher Deboule Mineral Property, Cap Mineral Occurrences, Hazelton, B.C., B.C, Min. Energy, Mines, Petr. Res. Assessment report 36089, 37 p., 8 fig., 4 appendices.
- Kindle, E.D., 1954, Mineral resources, Hazelton and Smithers Areas, Cassiar and Coast Districts, British Columbia, Canada Dept. of Mines and Technical Surveys, GSC Memoir 223, 159 p., 12 fig.
- Kyba, J., 2017, National Instrument 43-101 Technical Report on the Cobalt Mountain Property, Omineca Mining Region, British Columbia, NI 43-101 Technical Report, May 24, 2017, 62 p., 13 fig., 2 appendices.
- L'Orsa, A., 1981, Prospecting report Judi 1 to 6 mineral claims, New Hazelton Area, British Columbia, B.C, Min. Energy, Mines, Petr. Res. Assessment report 8837, 11 p., 2 fig.
- MacIntyre, D.G., 2006, Geology and Mineral Resources of the Skeena Arch, West-Central British Columbia: A Geoscience BC Digital Data Compilation Project (parts of NTS 093E, L, M, 094D, 103I, and 103P) in Geological Field work 2005, B.C. Ministry of Energy, Mines and Petroleum Resources, Paper 2006-1, pages 303-312.
- McInnis, D., 2006, Assessment report on exploration activities, the Golden Wonder, Hazelton, British Columbia, B.C, Min. Energy, Mines, Petr. Res. Assessment report 28625, 12 p., 2 fig., 4 appendices.
- McLeod, J.W., 1979, Report on the King Mineral Claim, Rocher Deboule Mountain, Hazelton Area, British Columbia, B.C, Min. Energy, Mines, Petr. Res. Assessment report 7779, 9 p., 2 fig.

- Meyers, E., 1980, Geological report on the CRO tungsten-molybdenum claims, New Hazelton Area, British Columbia, B.C, Min. Energy, Mines, Petr. Res. Assessment report 7903, 32 p., 6 fig., 2 appendices.
- Minister of Mines, B.C., MINFILE Reports 093M 053, 093M 055, 093M 056, 093M 057, 093M 073, 093M 074, and 093M 113.
- Oats, G.L., 1960, Report of geophysical survey, Strike and Ridge Groups, B.C., Min. Energy, Mines, Petr. Res. Assessment report 324, 13 p., 2 fig.
- Olson, D.H., 1980, Report on geology and magnetic survey Golden Wonder prospect, B.C, Min. Energy, Mines, Petr. Res. Assessment report 8521, 23 p., 5 fig.
- Reeder., J., 2017, Technical Report on the RD Cobalt Property, British Columbia, Canada, NI 43-101 Technical Report, SEDAR.
- Salame, C., 2019, 2018 Geochemical Rock and Soil Sampling of the RD Cobalt Property, Rocher DéBoulé Range, Near New Hazelton British Columbia.
- Sutherland Brown, A., 1960, Geology of the Rocher Deboule Range, British Columbia Department of Mines and Petroleum Resources, Bulletin 43, 85 p., 15 fig., 14 plates.
- Warkentin, D., 2017, Prospecting and Geochemical Testing Assessment Report on the Porphyry Creek Property, Omineca Mining Division, British Columbia, B.C, Min. Energy, Mines, Petr. Res. Assessment report 36512, 31 p., 10 fig., 2 appendices.

## **28 DATE AND SIGNATURE PAGE**

This report, entitled “**Technical Report on the Golden Wonder Property**” and with an effective date of May 21, 2019, was prepared on behalf of Blue Lagoon Resources Inc. and is signed by the author, Jeffrey J. Reeder, P.Ge.

*/s/ Jeffrey J. Reeder*

---

**Jeffrey J. Reeder, P.Ge.**

**APEGBC License #19945**

## 29 CERTIFICATE OF QUALIFIED PERSON

I, Jeffrey J. Reeder, P.Geol, do hereby certify that:

1. I am a Professional Geoscientist with a business address at **1240 Fleet Street, Mississauga, Ontario L5H 3P5**.
2. I am the author of the technical report entitled "**Technical Report on the Golden Wonder Property**", prepared on behalf of Blue Lagoon Resources Inc. and with an effective date of May 21, 2019.
3. I graduated in 1988 with a B.S.c with specialization in Geology from the University of Alberta.
4. I am a Registered Professional Geologist (P.Geol.) with the Association of Engineers and Geoscientists of British Columbia with License #19945.
5. I have been employed as a Professional Geoscientist continuously since November 1992. I have been practicing my profession since 1988 and worked primarily in Cordilleran Geology exploring for precious and base metal deposits in North and South America.
6. I am a Qualified Person for purposes of National Instrument 43-101.
7. I inspected the Golden Wonder Property on May 22, 2017.
8. I am responsible for the preparation and take responsibility for all sections of the report entitled "**Technical Report on the Golden Wonder Property**", prepared on behalf of Blue Lagoon Resources Inc. and with an effective date of May 21, 2019.
9. I am independent of the issuer of this report.
10. Besides writing the 2017 Report, I have not had prior involvement with the Property that is the subject of this report.
11. I have read National Instrument 43-101 and the report entitled "**Technical Report on the Golden Wonder Property**" has been prepared in compliance with this Instrument.
12. On the effective date of the report, May 21, 2019, to the best of my knowledge, information, and belief, this technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Jeffrey Reeder, P.Geol, APEGBC License #19945



## **APPENDIX 1**

### **Assay Certificates from Dahrouge Geological Samples – 2017 and 2018**



**Date Submitted:** 07-Jun-17  
**Invoice No.:** A17-05700  
**Invoice Date:** 05-Jul-17  
**Your Reference:** Roche-DeBoule

**Dahrouge Geological Consulting Ltd.**  
**10509-81 Ave.**  
**Suite 18**  
**Edmonton AB T6E 1X7**  
**Canada**

**ATTN: Jody Dahrouge**

## CERTIFICATE OF ANALYSIS

107 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1A2-ICP Kamloops Au-Fire Assay ICPOES 30g  
Code Sieve Report-Kamloops Internal Sieve Report Internal  
Code UT-4-Kamloops Total Digestion ICP/MS

REPORT      **A17-05700**

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

Notes:

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

CERTIFIED BY:

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

Emmanuel Esemé , Ph.D.  
Quality Control

**ACTIVATION LABORATORIES LTD.**  
9989 Dallas Drive, Kamloops, British Columbia, Canada, V2C 6T4  
TELEPHONE +250 573-4484 or +1.888.228.5227 FAX +1.905.648.9613  
E-MAIL Kamloops@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

## Results

## Activation Laboratories Ltd.

## Report: A17-05700

Analyte Symbol	Co	Cu	Au	B	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Ni	Er	Be	Ho	Hg	Ag	Cs
Unit Symbol	%	%	ppb	ppm	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm
Lower Limit	0.003	0.001	2	1	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	0.5	1	0.01	0.1	0.5	0.1	0.1	0.1	10	0.05	0.05
Method Code	4Acid ICPOE S	4Acid ICPOE S	FA-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
122301			< 2	6	15.5	2.73	1.20	7.36	2.63	2.66	< 0.1	54	35.8	507	3.62	0.4	15.1	1.7	1.4	0.6	30	0.08	2.63
122302			< 2	1	12.9	2.86	0.78	6.47	1.29	1.96	0.2	48	26.0	237	1.79	0.4	10.2	1.5	1.3	0.5	10	0.25	1.64
122303			< 2	4	11.9	> 3.00	0.78	7.96	1.91	2.42	< 0.1	76	31.0	303	4.01	0.4	12.3	1.6	1.5	0.5	50	0.20	2.04
122304			< 2	< 1	17.1	> 3.00	1.10	7.51	2.40	2.62	< 0.1	50	41.6	325	3.40	0.4	17.6	1.3	1.5	0.4	10	< 0.05	2.37
122305			< 2	< 1	57.6	1.54	1.02	7.70	1.40	0.70	< 0.1	142	66.9	237	3.92	2.0	41.1	1.3	1.1	0.4	30	< 0.05	3.52
122306			< 2	19	38.0	2.16	1.85	9.61	1.66	1.95	< 0.1	155	58.0	376	4.45	2.4	54.5	1.6	1.2	0.5	40	0.25	3.27
122307			< 2	39	27.6	1.32	1.37	9.37	1.95	4.17	< 0.1	97	46.1	189	5.43	1.6	28.9	1.0	1.1	0.3	30	0.80	5.76
122308			11	1440	76.2	1.18	2.38	8.47	1.63	1.38	0.1	244	117	1990	9.46	2.3	65.3	2.2	1.3	0.7	< 10	0.17	6.66
122309			< 2	38	48.5	1.57	2.09	8.19	1.95	1.21	0.1	231	151	491	6.08	2.1	96.5	1.9	1.2	0.7	20	0.46	8.68
122310			3	10	64.0	1.48	2.22	6.96	1.34	3.25	0.2	149	69.7	841	7.60	1.6	81.8	2.0	1.1	0.7	50	0.22	3.98
122311			< 2	< 1	48.2	1.35	1.60	7.10	1.64	7.13	0.1	164	104	1690	4.95	1.8	101	2.6	1.2	0.9	< 10	0.16	5.68
122312			3	< 1	23.8	2.12	1.82	5.44	2.46	0.67	0.2	66	182	319	4.26	0.8	111	1.2	1.2	0.4	30	< 0.05	4.28
122313			< 2	< 1	9.1	> 3.00	0.93	8.43	0.90	2.94	0.1	60	26.6	493	3.36	0.2	23.0	0.8	0.8	0.3	20	< 0.05	1.31
122314			< 2	< 1	11.7	2.87	0.69	7.83	1.72	2.38	< 0.1	49	23.9	323	2.92	0.4	13.4	1.2	0.9	0.4	20	< 0.05	1.78
122315			< 2	< 1	15.0	2.89	1.10	9.39	1.82	1.22	< 0.1	68	17.5	505	4.86	1.3	14.9	1.0	1.0	0.4	20	< 0.05	2.07
122316			< 2	2	18.0	1.86	1.51	8.13	0.23	4.07	0.2	69	33.1	646	4.58	0.4	24.6	1.2	0.9	0.4	50	< 0.05	0.89
122317			< 2	5	15.8	2.76	1.81	8.30	0.28	3.64	0.1	69	30.5	717	4.48	0.4	21.9	1.2	0.9	0.4	20	1.02	1.13
122318			5	4610	20.1	0.76	1.98	7.01	1.29	0.76	0.1	175	164	1460	6.68	1.9	92.0	1.7	1.6	0.5	30	6.90	5.64
122319			< 2	18	33.1	0.86	2.94	6.03	4.01	1.14	0.1	164	145	517	9.93	1.8	43.1	1.4	0.8	0.6	20	0.23	19.5
122320			2	7	7.4	0.65	2.21	7.60	0.09	0.43	< 0.1	87	132	101	3.61	1.2	40.3	1.5	1.0	0.4	10	0.53	0.25
122326			< 2	5	60.7	1.49	2.21	8.60	2.58	0.89	< 0.1	211	102	2350	5.56	2.0	137	2.1	1.8	0.7	40	0.08	7.49
122327			2	4	96.4	0.97	3.11	7.37	1.38	1.75	< 0.1	213	101	2620	9.23	1.9	85.7	3.0	1.3	1.1	20	0.13	6.60
122328			2	4	61.5	1.44	2.45	8.31	2.39	1.28	< 0.1	232	118	2260	6.62	2.1	157	2.8	1.8	1.0	< 10	0.38	7.45
122329			3	4	66.3	1.44	2.62	8.37	1.98	2.22	1.1	241	118	2160	7.26	2.3	117	2.3	1.7	0.8	20	0.67	8.13
122330			2	4	52.6	2.31	2.49	7.37	2.07	2.47	0.1	145	102	1160	6.14	1.6	57.5	1.7	1.3	0.6	< 10	0.06	2.65
122331			35	7	2.6	0.12	0.20	2.63	2.15	0.23	0.9	20	23.1	127	37.4	0.6	43.2	0.7	0.2	0.2	< 10	3.17	1.40
122332			727	26	32.1	1.74	1.94	8.42	3.46	0.59	< 0.1	220	105	169	6.59	2.0	75.6	1.6	1.5	0.5	< 10	2.51	8.63
122333			12	206	32.7	2.18	1.85	6.62	2.38	0.68	0.1	68	201	354	5.60	0.7	118	1.3	1.4	0.4	20	0.12	3.01
122334			464	5	41.4	0.34	2.12	7.76	2.27	0.26	0.2	191	116	827	14.3	1.9	45.7	1.3	0.8	0.4	< 10	0.88	1.81
122335			7	6	27.1	2.00	2.13	8.95	4.01	0.64	< 0.1	204	117	350	5.69	2.1	94.8	1.4	1.5	0.4	< 10	0.22	8.52
122336			8	5	26.1	2.10	2.53	9.73	3.67	0.71	< 0.1	224	127	252	4.92	2.1	78.1	1.5	1.4	0.5	< 10	0.73	9.38
122337			16	13	40.7	2.21	2.38	8.41	2.35	0.44	0.1	190	136	332	6.50	1.9	40.2	1.5	1.2	0.4	< 10	0.33	2.54
122338			8	7	29.9	> 3.00	1.75	9.37	2.47	2.18	0.2	82	32.5	754	5.55	0.2	20.8	1.1	1.3	0.4	10	0.39	2.86
122339			327	9	17.4	0.47	1.35	6.25	1.62	0.16	0.1	124	198	817	10.4	1.2	54.7	0.9	0.6	0.4	10	1.67	4.00
122340			95	18	7.6	0.48	1.07	6.02	0.69	0.22	0.2	124	204	174	8.43	1.2	68.2	1.0	0.8	0.4	10	14.3	1.86
122341			181	2190	14.5	0.47	1.71	6.45	0.79	0.26	0.6	144	297	1240	12.8	1.3	86.4	1.1	0.9	0.4	< 10	19.1	2.19
122342			< 2	30	19.7	> 3.00	0.33	9.51	4.05	0.89	< 0.1	21	27.2	774	2.13	0.6	6.0	1.4	2.5	0.5	< 10	1.95	4.32
122343			< 2	40	24.9	> 3.00	0.28	9.38	4.16	0.84	< 0.1	15	25.5	626	2.01	0.4	2.5	1.2	2.0	0.4	< 10	0.27	4.88
122344			21	4180	8.1	0.41	1.06	8.12	2.07	0.25	< 0.1	116	81.6	340	8.53	1.8	25.2	1.0	1.2	0.3	< 10	15.9	1.76
122345			4	10	27.0	1.87	1.34	9.00	> 5.00	0.43	< 0.1	87	43.9	1150	5.19	2.0	19.2	1.0	1.1	0.3	50	0.22	2.56
122346			5	11	7.7	0.79	2.48	8.63	0.10	0.46	< 0.1	96	172	125	4.21	1.5	65.1	1.2	1.4	0.3	20	0.61	0.19

## Results

## Activation Laboratories Ltd.

## Report: A17-05700

Analyte Symbol	Co	Cu	Au	B	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Ni	Er	Be	Ho	Hg	Ag	Cs
Unit Symbol	%	%	ppb	ppm	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm
Lower Limit	0.003	0.001	2	1	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	0.5	1	0.01	0.1	0.5	0.1	0.1	0.1	10	0.05	0.05
Method Code	4Acid ICPOE S	4Acid ICPOE S	FA-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
122347			< 2	12	6.8	0.80	2.41	8.49	0.09	0.47	< 0.1	98	199	116	4.53	1.0	64.1	0.7	1.1	0.2	20	< 0.05	0.14
122351			< 2	11	25.3	> 3.00	1.46	8.54	3.55	3.22	< 0.1	33	40.6	630	4.20	0.3	16.9	1.7	1.9	0.6	40	0.37	3.19
122352			< 2	10	18.4	> 3.00	1.09	8.83	3.03	3.30	< 0.1	52	39.7	493	3.90	0.3	16.6	1.7	1.7	0.6	30	0.23	4.33
122353			3	10	22.6	2.98	1.42	8.30	3.30	2.90	< 0.1	47	49.6	559	3.64	0.2	18.8	1.7	1.4	0.6	10	0.34	2.72
122354			100	62	11.7	2.49	1.00	7.65	3.25	1.99	< 0.1	82	45.2	267	5.66	0.4	20.0	1.0	1.3	0.4	< 10	0.97	2.53
122355			23	70	9.3	1.50	0.40	7.84	> 5.00	1.07	0.2	80	48.1	209	4.09	0.6	14.9	0.7	1.0	0.2	10	1.83	5.89
122356			5	27	14.5	2.91	1.06	8.71	3.67	2.11	< 0.1	90	59.3	308	4.14	0.6	19.1	1.0	1.4	0.3	< 10	0.46	3.54
122357			805	9	3.7	0.31	0.07	4.53	> 5.00	0.05	< 0.1	22	29.5	82	11.1	< 0.1	55.2	< 0.1	< 0.1	< 0.1	< 10	16.9	2.72
122358			14	10	18.5	2.82	1.06	8.52	4.21	1.93	< 0.1	95	51.8	256	4.72	0.5	17.3	0.9	1.6	0.3	< 10	0.88	4.90
122359			13	17	75.2	0.36	3.40	6.60	0.17	3.66	1.1	201	86.1	3240	12.4	1.3	183	3.1	0.6	1.3	< 10	0.64	0.56
122360			8	11	42.4	0.30	1.07	2.71	0.55	2.90	0.7	69	70.8	836	7.16	0.5	175	1.8	0.5	0.7	20	0.17	1.70
122361			52	10	60.6	0.20	1.59	2.45	0.19	1.91	2.2	71	47.6	793	14.3	0.4	229	1.7	0.2	0.7	50	< 0.05	0.56
122362			< 2	18	71.6	1.33	2.35	> 10.0	2.94	0.29	0.1	258	100	348	6.60	2.2	155	2.1	1.7	0.7	20	0.38	7.91
122363			21	> 6000	58.2	0.75	3.23	9.73	1.54	0.71	< 0.1	254	149	443	9.08	1.9	50.5	1.2	1.4	0.4	< 10	0.35	4.00
122364	0.384		6390	5870	11.4	0.42	1.05	4.89	0.21	0.67	0.2	86	25.7	236	43.0	0.7	212	2.2	0.5	0.8	20	2.79	0.21
122365	0.094	4.95	15200	49	1.7	< 0.01	0.29	0.13	0.04	0.13	10.5	5	15.8	226	> 50.0	< 0.1	49.4	0.2	< 0.1	< 0.1	< 10	77.2	0.09
122366			36	24	39.0	1.77	1.20	> 10.0	> 5.00	0.93	< 0.1	66	16.1	694	8.17	3.1	1.7	2.2	1.2	0.8	< 10	1.02	3.84
122367			19	36	105	0.76	4.32	> 10.0	0.49	0.70	0.9	230	89.1	571	16.6	1.5	324	2.5	1.1	0.9	30	0.71	0.47
122368			17800	23	17.4	0.64	2.16	7.73	0.32	0.34	0.3	164	193	290	9.35	1.3	169	1.1	1.4	0.3	< 10	18.2	0.50
122369			24	22	4.7	0.53	1.47	6.42	0.72	0.23	0.1	132	205	148	10.1	1.1	43.7	0.6	1.0	0.2	20	3.40	1.36
122370			3	20	55.6	1.25	1.37	> 10.0	2.01	0.65	0.3	116	44.4	913	8.32	1.7	15.9	2.4	1.2	0.8	< 10	1.08	1.36
122371			< 2	19	18.7	2.46	1.99	> 10.0	0.22	5.96	0.1	92	46.2	1040	5.72	0.5	24.6	1.3	1.2	0.5	40	0.34	0.65
122372			358	19	12.6	1.62	0.64	9.49	2.29	3.81	< 0.1	85	41.4	429	6.11	0.7	5.4	1.7	1.0	0.6	20	17.5	1.28
122373			< 2	23	23.9	> 3.00	0.36	> 10.0	4.36	0.97	< 0.1	15	21.5	640	2.13	0.3	2.6	1.6	2.8	0.5	30	0.06	4.22
122374			4	32	45.4	2.21	1.65	> 10.0	1.42	3.75	0.1	113	62.2	907	7.00	0.2	29.4	1.3	1.2	0.5	10	0.19	3.64
122375			< 2	19	7.9	0.02	0.01	0.06	0.03	0.02	< 0.1	4	54.6	35	0.26	< 0.1	1.8	< 0.1	< 0.1	< 0.1	30	< 0.05	< 0.05
122426			299	25	33.4	0.30	2.41	5.88	0.12	0.28	1.2	123	162	850	14.8	1.0	139	1.0	0.7	0.4	< 10	32.5	0.39
122427	0.534		8750	30	4.7	0.66	2.08	7.61	0.49	0.41	0.5	134	105	1800	26.0	1.0	1060	5.1	1.2	1.8	< 10	18.5	1.09
122428		0.993	1690	26	35.8	0.42	1.86	8.05	2.27	0.27	1.0	169	172	757	20.9	1.6	162	1.3	1.2	0.5	50	45.6	4.16
122429			41	18	27.9	2.77	2.82	> 10.0	> 5.00	1.15	< 0.1	191	201	804	8.89	1.7	110	1.5	1.7	0.5	< 10	0.59	14.7
122430	0.049		2140	36	33.1	0.12	1.82	5.43	1.24	0.28	2.6	119	136	1240	25.3	1.4	97.2	1.5	0.6	0.6	< 10	3.42	4.08
122431			444	796	7.3	1.01	2.29	9.51	0.16	0.33	0.2	188	137	197	14.4	2.3	69.1	1.3	1.3	0.3	40	5.70	0.17
122432			4	19	27.4	> 3.00	0.40	> 10.0	4.77	1.02	< 0.1	20	23.9	780	2.29	0.4	4.2	1.6	2.9	0.6	20	0.54	3.27
122433			< 2	25	22.7	> 3.00	0.41	> 10.0	4.72	1.01	< 0.1	22	56.4	652	2.29	0.5	12.0	1.8	3.1	0.6	< 10	0.57	4.26
122434			< 2	46	24.3	> 3.00	0.37	> 10.0	4.42	1.05	< 0.1	18	27.7	782	2.19	0.3	3.2	1.5	2.7	0.5	< 10	0.15	4.09
122435			8	515	21.5	0.07	0.40	> 10.0	4.75	0.18	0.1	111	67.0	4210	11.7	2.4	42.4	1.5	1.5	0.5	< 10	0.77	6.63
122436			< 2	22	15.3	0.07	0.45	> 10.0	4.90	0.06	< 0.1	135	47.9	8230	13.3	2.3	40.1	1.0	1.4	0.3	30	0.14	4.78
122437			8	19	10.6	1.03	3.70	> 10.0	0.09	0.64	< 0.1	106	168	116	4.29	1.5	81.8	1.4	2.1	0.3	30	0.47	0.12
122438			29	17	12.5	0.58	2.06	6.77	0.08	0.28	< 0.1	114	157	154	3.51	0.9	37.9	1.4	1.4	0.4	< 10	8.15	0.16
122439			6	17	18.7	> 3.00	0.68	8.98	2.41	1.40	< 0.1	25	56.6	211	1.88	0.5	9.2	1.8	1.7	0.6	40	0.48	3.06
122440			< 2	16	3.3	0.03	1.59	6.65	0.03	26.3	0.3	108	46.8	6640	10.5	1.5	45.6	1.4	1.4	0.5	30	< 0.05	0.06

Analyte Symbol	Co	Cu	Au	B	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Ni	Er	Be	Ho	Hg	Ag	Cs
Unit Symbol	%	%	ppb	ppm	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm
Lower Limit	0.003	0.001	2	1	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	0.5	1	0.01	0.1	0.5	0.1	0.1	0.1	10	0.05	0.05
Method Code	4Acid ICPOE S	4Acid ICPOE S	FA-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
122441			< 2	17	30.4	> 3.00	2.79	> 10.0	0.71	7.61	0.2	86	16.8	1880	7.85	0.7	3.0	2.7	1.1	0.9	20	< 0.05	1.65
122442			< 2	26	16.7	> 3.00	0.52	9.90	4.87	0.58	< 0.1	27	28.8	350	2.71	0.4	3.3	1.5	2.4	0.5	30	0.17	2.72
122443			< 2	1230	17.7	2.51	1.40	9.09	4.01	1.99	< 0.1	90	55.9	392	5.11	0.8	20.5	1.1	1.5	0.4	20	0.26	3.87
122444			6	29	8.4	2.55	0.17	7.93	> 5.00	0.69	< 0.1	19	37.9	121	0.95	1.1	6.1	0.3	1.0	< 0.1	50	0.28	1.86
122445			50	16	28.3	> 3.00	2.17	9.95	3.46	3.31	0.1	93	59.3	662	6.17	0.3	31.2	1.7	1.8	0.6	20	1.73	4.97
122446			15	15	23.8	> 3.00	1.98	9.16	2.54	2.31	< 0.1	100	55.0	507	5.04	1.0	25.1	2.4	2.1	0.9	20	0.58	1.94
122501				13	6.7	0.30	0.91	1.12	0.29	2.45	0.1	> 1000	523	3280	48.6	1.7	50.5	4.7	0.7	1.6	< 10	2.63	0.70
122502				14	5.2	0.23	0.71	0.77	0.21	1.74	< 0.1	> 1000	712	2680	> 50.0	1.2	61.6	3.3	0.4	1.1	10	1.28	0.42
122503				12	5.9	0.57	0.91	1.99	0.39	2.00	< 0.1	> 1000	481	4020	42.0	1.8	48.7	4.4	0.6	1.6	30	0.58	0.77
122504				14	11.6	0.50	1.03	5.58	0.41	2.24	0.3	364	336	4820	30.2	0.8	33.4	6.3	0.4	2.1	50	3.41	1.06
122505				13	7.6	0.34	0.84	4.76	0.28	1.80	0.3	476	430	5050	35.5	0.9	35.8	6.2	0.4	2.1	30	0.24	0.84
122506				25	2.8	0.20	0.52	1.04	0.19	1.46	0.1	799	499	5650	46.8	1.4	47.3	5.0	0.2	1.8	30	0.07	0.58
122507				54	5.0	0.21	0.62	1.33	0.20	1.47	0.2	538	284	6830	35.8	2.1	31.1	5.5	0.1	2.0	30	0.29	0.81
122508				205	9.9	0.32	0.51	1.37	0.29	1.14	0.1	> 1000	560	3160	40.1	2.2	59.3	3.1	0.5	1.3	10	2.41	1.05
122509				108	27.4	1.34	0.98	5.96	1.03	1.46	0.1	137	176	1830	17.0	0.1	33.4	3.1	0.9	1.2	20	< 0.05	3.39
122510				14	15.9	0.44	0.73	3.46	0.51	1.32	0.2	300	666	2550	34.9	1.7	152	4.6	0.6	2.0	40	0.19	2.15
122511				13	33.7	1.24	0.97	7.51	1.33	1.24	0.2	113	100	1170	10.5	0.7	29.3	2.9	1.1	1.1	60	< 0.05	4.39
122512				13	4.2	0.28	0.48	1.30	0.26	1.17	< 0.1	922	613	3540	45.6	2.2	64.2	3.4	0.2	1.2	30	0.17	0.66
122513				13	11.0	0.91	0.69	3.54	0.76	1.35	< 0.1	348	296	2260	28.5	1.2	43.1	2.9	0.6	1.1	40	< 0.05	1.60
122514				21	1.6	0.10	0.27	0.66	0.10	0.49	0.4	373	235	1940	20.6	1.1	28.3	1.7	0.1	0.7	30	0.33	0.44
122515				68	22.8	1.40	1.20	5.94	1.21	1.68	0.2	133	151	1800	15.0	0.3	34.7	2.9	1.0	1.1	60	0.19	3.22
122526				102	7.5	0.59	1.25	2.15	0.43	2.23	< 0.1	665	401	3220	37.3	0.6	46.1	4.8	0.8	1.6	30	0.20	0.76
122527				51	10.0	0.88	0.74	2.44	0.83	1.99	0.2	652	239	3550	25.7	1.1	29.5	8.0	1.3	2.9	20	0.46	2.65
122528				86	9.0	0.20	0.52	1.56	0.32	0.81	0.4	792	559	1980	41.9	1.5	78.0	2.7	0.7	1.0	80	0.74	1.90
122529				88	30.7	1.12	1.02	5.63	1.19	0.99	0.5	275	253	1110	17.9	0.5	59.7	2.6	1.2	0.9	130	0.51	5.23



## Results

## Activation Laboratories Ltd.

## Report: A17-05700

Analyte Symbol	Co	Eu	Bi	Se	Zn	Ga	As	Rb	Y	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
Lower Limit	0.1	0.05	0.02	0.1	0.2	0.1	0.1	0.2	0.1	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	
122301	13.1	0.79	0.04	0.4	46.5	19.4	3.2	89.5	16.5	10	6.6	1.00	< 0.1	< 1	0.3	< 0.1	773	21.5	41.3	5.1	18.2	3.3	3.0	
122302	5.3	0.71	0.08	0.4	33.6	15.2	13.9	55.4	15.9	10	7.9	15.0	< 0.1	< 1	0.5	< 0.1	318	15.8	34.6	4.5	16.2	3.0	2.7	
122303	8.5	0.72	0.13	0.3	36.1	20.8	4.1	65.5	16.2	11	6.5	0.84	< 0.1	< 1	0.6	< 0.1	422	18.4	39.3	5.0	17.5	3.1	2.9	
122304	11.3	0.73	0.04	0.4	23.5	21.2	1.8	92.7	13.8	13	6.7	3.07	< 0.1	< 1	0.1	< 0.1	897	19.6	36.6	4.5	16.3	2.9	2.7	
122305	12.2	0.58	0.18	2.0	9.3	22.2	2.0	41.6	11.8	97	4.1	3.79	< 0.1	< 1	0.6	< 0.1	698	12.5	26.8	3.7	14.7	2.9	2.5	
122306	20.3	0.73	0.50	1.1	26.3	26.0	26.0	65.8	15.0	120	6.9	2.68	< 0.1	< 1	0.6	< 0.1	634	15.7	32.9	4.3	16.2	3.0	2.7	
122307	15.3	0.48	< 0.02	0.4	29.9	24.5	1.8	99.1	9.0	68	1.5	0.43	< 0.1	< 1	0.1	< 0.1	362	2.2	5.1	0.8	3.3	0.8	1.0	
122308	15.2	1.30	0.29	3.6	125	24.7	11.4	70.1	22.3	108	6.9	1.93	0.1	2	2.5	0.1	582	20.9	42.6	5.5	20.9	4.1	4.3	
122309	22.4	1.02	0.28	2.6	110	23.7	18.4	81.5	19.9	119	6.7	2.40	< 0.1	< 1	1.6	< 0.1	668	21.8	43.0	5.8	22.0	4.2	3.9	
122310	27.4	1.18	0.53	2.3	95.7	18.7	21.2	67.8	20.9	73	6.3	2.62	< 0.1	< 1	1.3	< 0.1	342	22.4	42.7	5.5	20.9	3.9	3.9	
122311	22.9	1.28	0.23	2.7	54.6	19.1	18.6	74.6	28.0	85	5.9	1.40	< 0.1	< 1	1.5	< 0.1	486	20.6	40.3	5.4	20.6	4.1	4.3	
122312	7.3	0.27	0.16	< 0.1	56.7	15.2	38.7	111	11.9	35	1.4	0.54	< 0.1	< 1	0.2	< 0.1	575	8.0	15.9	2.1	8.2	1.6	2.0	
122313	18.0	0.90	0.03	0.4	100	21.6	6.1	16.6	9.1	8	1.1	0.29	< 0.1	< 1	0.3	< 0.1	604	13.2	29.3	4.2	17.0	3.0	2.6	
122314	9.6	0.82	0.04	0.2	66.2	21.4	4.0	50.5	11.9	15	3.4	0.81	< 0.1	< 1	0.3	< 0.1	1080	21.9	44.9	5.7	20.6	3.5	3.0	
122315	12.4	0.86	0.06	0.3	73.7	24.3	3.6	42.5	11.3	58	0.9	0.05	< 0.1	< 1	< 0.1	< 0.1	1020	10.9	27.3	3.8	15.3	3.0	2.8	
122316	17.6	0.85	0.12	0.2	105	21.7	7.8	6.6	12.4	14	0.9	0.30	< 0.1	< 1	0.2	< 0.1	177	13.8	29.4	4.1	16.5	3.1	2.8	
122317	16.6	0.68	< 0.02	0.3	105	22.0	3.2	6.2	11.2	18	1.1	0.24	< 0.1	< 1	0.3	< 0.1	184	12.4	26.2	3.8	15.0	2.8	2.5	
122318	11.0	0.52	11.3	0.5	35.0	24.0	338	68.3	14.8	83	4.7	5.66	< 0.1	0.4	5	2.2	< 0.1	284	12.8	26.5	3.4	12.7	2.3	2.3
122319	17.8	1.10	0.18	0.8	52.1	18.7	5.1	201	14.4	77	5.5	1.75	< 0.1	2	2.3	< 0.1	721	19.3	38.4	5.2	21.1	4.2	3.9	
122320	4.3	0.23	6.84	0.2	24.3	26.0	55.0	2.7	12.8	60	3.4	2.95	0.2	4	0.7	< 0.1	21	1.8	3.0	0.3	1.3	0.3	0.6	
122326	26.4	0.81	0.26	0.8	124	26.2	26.5	88.7	18.8	97	4.7	1.25	< 0.1	< 1	0.8	< 0.1	867	22.1	45.9	5.8	21.4	4.0	3.8	
122327	14.6	1.41	0.25	3.7	116	22.1	11.3	65.1	33.7	89	6.4	1.81	< 0.1	< 1	2.6	< 0.1	355	22.8	47.9	6.2	24.5	5.4	6.5	
122328	32.8	1.19	0.46	3.7	101	25.5	28.6	90.6	32.1	99	6.9	2.13	< 0.1	< 1	1.5	< 0.1	736	23.6	49.6	6.4	24.5	5.3	6.0	
122329	25.9	1.24	0.31	1.8	364	24.6	14.6	81.4	23.5	105	7.3	2.10	0.1	1	1.6	< 0.1	544	25.6	51.5	6.5	24.3	4.5	4.5	
122330	19.9	0.92	0.13	0.8	114	20.9	7.9	74.2	16.5	75	5.3	1.51	< 0.1	< 1	2.6	< 0.1	791	16.5	31.6	4.2	15.9	3.1	3.2	
122331	53.1	0.31	0.91	7.6	108	5.2	154	52.5	6.3	35	4.1	1.31	0.2	1	0.6	< 0.1	36	4.1	12.4	2.0	8.2	1.6	1.4	
122332	25.3	0.55	4.09	1.6	9.8	24.8	590	137	14.6	95	5.8	1.69	0.6	< 1	5.4	< 0.1	1040	19.1	39.2	4.9	18.1	3.2	2.9	
122333	10.4	0.52	1.48	0.5	45.8	17.2	27.2	99.1	12.7	32	1.0	0.33	< 0.1	< 1	0.2	< 0.1	455	14.3	27.1	3.6	13.1	2.3	2.3	
122334	182	0.23	64.3	1.1	63.6	30.3	9170	72.5	11.6	107	6.8	3.81	0.3	1	11.4	1.0	891	5.4	9.7	1.2	4.7	1.1	1.6	
122335	13.2	0.49	2.06	1.6	34.0	25.8	168	155	13.0	97	6.3	2.71	< 0.1	< 1	6.2	< 0.1	944	17.6	34.4	4.4	16.4	2.9	2.8	
122336	18.2	0.64	0.62	1.5	12.2	28.3	268	143	14.4	104	5.1	2.17	< 0.1	< 1	7.4	< 0.1	692	21.5	41.6	5.5	20.8	3.8	3.5	
122337	7.7	0.32	0.67	1.2	55.2	25.7	67.2	85.3	13.1	89	4.5	2.55	< 0.1	< 1	1.2	< 0.1	764	10.1	19.9	2.5	9.5	1.7	2.0	
122338	17.4	0.94	0.42	0.6	92.2	29.2	15.2	58.4	11.3	8	2.3	0.55	< 0.1	< 1	0.2	< 0.1	1040	16.3	35.4	5.0	19.3	3.6	3.1	
122339	43.7	0.80	1.14	0.6	74.1	25.5	1040	58.8	9.9	57	4.7	2.11	0.4	2	2.1	0.2	369	68.3	119	14.0	47.5	7.5	5.8	
122340	127	0.94	1.36	1.8	46.6	26.0	6050	29.8	10.4	67	5.5	3.41	2.3	6	7.5	0.6	67	91.9	156	17.6	59.4	9.2	6.9	
122341	44.2	0.76	3.26	1.7	188	28.5	1570	26.6	11.6	78	6.0	4.58	2.0	5	5.8	0.3	131	67.7	115	13.3	44.6	7.2	5.6	
122342	3.7	0.65	0.11	0.3	84.6	26.0	24.8	128	14.2	19	13.0	2.83	< 0.1	3	0.3	< 0.1	1200	25.6	51.2	5.8	19.4	3.1	2.8	
122343	2.3	0.68	0.09	0.3	68.4	25.6	16.0	128	12.9	14	13.8	3.64	< 0.1	< 1	0.3	< 0.1	1230	25.0	49.3	5.6	19.0	3.1	2.7	
122344	9.6	0.19	210	2.6	18.4	21.3	83.0	78.0	8.3	76	8.6	6.72	0.6	13	4.4	0.5	298	3.9	6.5	0.8	2.7	0.5	0.7	
122345	9.9	0.65	0.88	0.2	126	31.3	8.4	167	9.9	99	7.9	3.51	< 0.1	1	3.3	< 0.1	1990	18.2	31.2	3.5	12.4	2.1	2.0	
122346	4.4	0.19	3.92	0.8	15.5	28.5	26.5	2.6	9.6	67	1.6	1.81	0.2	7	0.8	< 0.1	29	1.8	3.3	0.4	1.5	0.3	0.5	
122347	3.5	0.16	0.28	0.5	11.3	23.8	8.6	1.7	6.0	52	1.7	1.46	0.1	6	0.7	< 0.1	26	3.0	5.1	0.6	2.0	0.3	0.4	

## Results

## Activation Laboratories Ltd.

## Report: A17-05700

Analyte Symbol	Co	Eu	Bi	Se	Zn	Ga	As	Rb	Y	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.1	0.05	0.02	0.1	0.2	0.1	0.1	0.2	0.1	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
122351	14.4	0.78	0.14	0.3	61.5	23.1	4.2	115	17.3	9	2.7	0.78	< 0.1	< 1	< 0.1	< 0.1	725	20.0	37.9	4.6	16.4	3.0	3.1
122352	15.0	0.82	0.07	0.6	47.5	22.5	6.0	97.1	17.8	9	5.1	0.90	< 0.1	< 1	0.5	< 0.1	636	22.3	41.7	5.1	18.0	3.3	3.2
122353	13.1	0.77	0.11	0.3	59.2	21.8	4.0	98.8	17.6	7	3.6	0.62	< 0.1	< 1	0.1	< 0.1	714	18.7	36.9	4.6	16.9	3.1	3.1
122354	121	0.63	1.13	2.2	13.8	21.3	22.3	127	10.0	14	8.5	74.0	< 0.1	1	0.4	0.4	792	18.8	31.7	3.6	12.8	2.2	2.2
122355	92.9	0.50	1.11	1.4	32.2	23.5	13.6	234	7.1	21	11.6	6.09	< 0.1	2	5.3	0.5	1160	58.0	66.2	5.7	16.3	2.0	1.8
122356	31.5	0.60	0.49	0.7	16.3	24.3	7.8	142	10.1	21	12.3	12.6	< 0.1	1	0.8	< 0.1	947	17.6	31.3	3.6	13.0	2.2	2.2
122357	351	0.10	4.12	9.5	13.3	14.1	27.1	176	0.8	6	2.3	560	0.4	1	12.8	1.4	1020	7.2	7.9	0.6	1.7	0.2	0.2
122358	79.4	0.60	0.51	0.8	18.7	25.5	6.0	158	9.7	17	11.6	39.8	< 0.1	1	1.1	< 0.1	1010	21.3	33.6	3.6	12.5	2.1	2.1
122359	55.2	1.39	0.63	12.1	638	21.3	9.3	5.7	39.0	70	4.5	1.76	0.3	< 1	0.7	< 0.1	43	22.8	47.5	6.5	27.7	6.8	9.1
122360	34.8	1.04	0.25	4.0	224	7.8	6.9	18.8	22.6	25	1.6	3.75	< 0.1	< 1	0.9	< 0.1	155	13.4	26.9	4.0	16.4	3.7	4.7
122361	84.5	1.08	0.50	7.6	913	8.1	28.5	6.8	22.2	22	1.6	1.69	0.1	< 1	1.1	0.3	66	28.8	55.6	7.2	28.5	5.9	6.5
122362	25.3	0.86	0.40	3.4	94.6	27.0	8.0	99.2	19.1	111	6.7	1.82	< 0.1	1	0.8	< 0.1	657	20.1	38.5	5.3	20.3	3.8	3.4
122363	9.5	0.90	3.01	7.9	42.9	27.5	80.0	68.7	13.0	84	6.0	3.49	0.2	2	2.7	< 0.1	230	35.5	73.5	9.4	34.2	5.3	4.3
122364	> 500	0.53	79.0	18.0	51.2	18.3	> 10000	4.2	19.4	97	2.0	43.4	0.4	1	122	9.3	73	31.9	52.8	5.9	19.9	3.5	3.8
122365	> 500	< 0.05	1890	15.3	1880	0.4	> 10000	0.8	1.7	29	0.7	1.20	10.3	2	62.3	4.1	5	0.2	0.6	< 0.1	0.5	0.2	0.3
122366	7.4	1.43	4.35	0.6	37.8	33.1	73.4	201	21.8	174	14.7	2.82	< 0.1	< 1	1.6	< 0.1	2370	34.7	64.1	7.9	29.3	5.2	5.3
122367	55.6	1.39	3.62	14.4	406	32.3	22.6	14.0	23.7	59	4.2	1.85	0.3	3	3.8	0.8	219	21.8	44.7	5.8	22.9	4.7	5.2
122368	25.3	0.17	31.8	5.4	215	27.5	1290	8.2	8.3	58	7.0	48.3	0.6	4	17.9	0.9	44	3.7	6.6	0.8	2.9	0.6	0.9
122369	3.7	0.15	2.54	2.4	9.4	21.2	352	22.6	4.3	49	5.0	3.03	2.4	3	4.1	0.1	34	2.5	4.2	0.5	1.9	0.4	0.4
122370	22.7	0.86	0.15	0.5	131	27.2	4.7	44.4	20.6	72	1.5	0.17	< 0.1	< 1	0.1	< 0.1	489	10.0	24.8	3.2	13.4	3.1	3.6
122371	20.6	0.85	0.20	0.4	133	23.7	10.2	3.7	12.1	19	1.1	0.38	< 0.1	< 1	0.3	< 0.1	161	12.2	26.3	3.8	15.0	2.8	2.8
122372	3.5	0.68	10.6	4.5	27.8	26.7	49.5	78.1	18.3	30	2.2	2.54	0.6	< 1	0.9	1.5	417	19.7	38.4	5.1	19.4	3.6	3.5
122373	2.6	0.74	0.51	0.4	33.8	25.8	15.6	130	15.8	10	0.8	1.23	< 0.1	< 1	0.1	< 0.1	1190	27.3	51.7	6.2	20.5	3.4	3.1
122374	23.4	0.98	0.07	0.3	135	27.3	6.0	31.9	12.0	9	1.1	0.37	< 0.1	< 1	< 0.1	< 0.1	549	11.6	25.6	3.7	15.0	3.0	2.9
122375	0.5	< 0.05	< 0.02	0.1	4.8	0.2	2.4	0.3	< 0.1	< 1	< 0.1	3.32	< 0.1	< 1	0.1	< 0.1	5	< 0.1	0.1	< 0.1	< 0.1	< 0.1	< 0.1
122426	127	0.45	3.97	4.7	193	26.4	4400	3.0	9.1	51	4.4	5.80	5.5	2	8.0	0.6	31	30.8	54.3	6.4	22.4	3.7	3.4
122427	> 500	1.16	47.0	18.0	92.7	27.3	> 10000	16.9	44.7	202	5.5	40.7	2.5	3	128	19.3	30	80.4	136	15.6	55.1	9.7	10.4
122428	488	0.99	64.3	5.6	196	27.1	> 10000	84.6	13.9	94	7.8	5.35	4.7	2	22.8	2.6	409	70.5	122	14.5	50.6	8.2	6.8
122429	40.7	0.44	0.67	0.3	61.7	24.3	1180	248	14.0	74	4.6	1.75	< 0.1	< 1	1.1	< 0.1	1310	19.6	34.0	4.1	14.9	2.7	2.9
122430	> 500	0.72	85.5	5.6	390	19.7	> 10000	42.1	12.7	180	6.4	2.04	0.3	< 1	145	0.6	71	55.2	97.0	11.4	39.5	6.7	5.9
122431	83.8	0.10	13.8	5.3	96.0	33.6	> 10000	2.9	8.0	111	7.9	7.53	0.8	3	22.9	1.1	43	0.9	1.5	0.2	0.7	0.2	0.5
122432	3.2	0.76	0.17	< 0.1	71.8	23.9	57.6	122	14.2	15	12.9	3.44	< 0.1	< 1	0.3	< 0.1	1300	25.4	49.9	5.8	19.7	3.2	3.1
122433	4.7	0.81	0.12	< 0.1	58.8	23.9	29.6	127	15.7	17	8.9	3.04	< 0.1	1	0.2	< 0.1	1200	26.2	52.9	6.1	21.1	3.5	3.5
122434	2.6	0.79	0.11	< 0.1	67.1	24.1	18.7	115	13.5	12	11.4	2.39	< 0.1	< 1	0.3	< 0.1	1270	25.3	48.8	5.7	19.8	3.2	3.2
122435	14.0	1.86	1.76	0.6	46.3	20.5	28.9	183	12.2	89	11.2	7.30	0.4	5	6.4	< 0.1	503	67.9	135	15.9	53.1	7.2	5.7
122436	5.5	1.29	0.23	0.1	35.9	19.2	19.3	202	8.1	88	10.5	11.7	0.5	3	8.8	< 0.1	342	42.7	80.7	9.5	32.4	4.8	3.7
122437	3.8	0.15	1.26	0.5	15.5	28.0	22.8	1.7	9.8	61	0.7	1.07	0.3	9	0.4	< 0.1	23	1.5	2.6	0.3	1.0	0.2	0.4
122438	2.5	0.44	21.0	1.0	37.9	15.7	52.5	1.7	10.5	35	0.6	3.55	1.0	9	0.6	< 0.1	27	6.9	12.6	1.6	6.2	1.3	1.3
122439	5.8	1.03	0.23	< 0.1	24.2	18.8	6.4	121	14.7	12	1.7	0.66	< 0.1	2	0.1	< 0.1	448	30.8	61.0	7.5	25.3	4.2	4.0
122440	24.9	0.97	0.15	< 0.1	169	12.6	10.8	0.4	12.3	67	1.6	0.72	0.2	2	0.5	< 0.1	39	8.0	15.8	2.3	10.1	2.2	2.5
122441	16.0	1.09	0.09	0.6	129	23.4	8.7	20.9	22.9	33	0.5	0.28	0.1	< 1	0.3	< 0.1	336	14.6	32.0	4.7	19.5	4.1	4.5
122442	1.7	0.69	0.91	0.2	41.3	25.6	8.9	154	14.1	13	10.6	9.28	< 0.1	< 1	0.5	< 0.1	1320	25.4	48.5	5.8	20.1	3.3	3.2

Analyte Symbol	Co	Eu	Bi	Se	Zn	Ga	As	Rb	Y	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.1	0.05	0.02	0.1	0.2	0.1	0.1	0.2	0.1	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
122443	76.9	0.64	0.43	0.3	20.4	24.5	6.1	152	9.9	24	11.2	7.38	< 0.1	4	2.0	< 0.1	919	19.0	33.4	3.9	13.4	2.3	2.2
122444	2.5	0.45	0.09	< 0.1	27.5	24.8	3.7	123	2.7	40	6.0	3.30	< 0.1	< 1	0.3	< 0.1	2110	10.5	14.7	1.4	4.2	0.6	0.6
122445	16.9	0.90	0.29	0.8	62.3	26.4	8.5	139	16.0	16	6.7	22.4	0.1	< 1	0.5	< 0.1	1090	18.9	36.4	4.5	16.8	3.1	3.3
122446	38.6	1.45	0.37	0.6	72.4	23.8	9.7	126	23.0	47	7.5	8.85	< 0.1	2	1.0	< 0.1	876	213	328	29.9	84.8	9.4	8.0
122501	44.0	0.97	0.24	0.8	50.0	25.8	8.4	10.0	42.0	47	82.3	13.6	< 0.1	1	0.5	< 0.1	498	126	214	22.8	74.2	10.9	10.7
122502	47.6	0.87	0.10	0.7	69.8	29.3	4.2	5.9	29.1	34	58.3	3.73	< 0.1	< 1	0.2	< 0.1	47	80.6	141	15.4	50.8	7.6	7.5
122503	38.1	1.21	22.7	0.7	113	24.8	15.0	10.4	38.9	51	29.2	3.23	< 0.1	< 1	0.3	< 0.1	141	127	236	27.2	89.0	13.1	12.0
122504	28.1	1.29	0.51	1.2	198	21.6	3.4	10.6	55.0	31	2.6	0.57	< 0.1	1	0.1	< 0.1	175	82.4	133	14.2	46.0	7.5	9.7
122505	33.5	1.21	0.21	1.1	137	22.5	2.6	6.9	52.8	30	2.2	0.98	< 0.1	< 1	0.1	< 0.1	106	85.3	139	14.6	48.2	7.5	9.5
122506	40.6	1.40	1.05	1.4	245	26.9	6.9	6.4	46.6	48	0.5	1.86	0.1	< 1	0.2	< 0.1	71	171	333	37.9	126	18.5	16.4
122507	35.1	1.66	7.78	1.5	296	25.5	4.1	7.4	51.3	74	1.6	2.07	0.2	2	1.2	< 0.1	90	206	409	46.5	154	22.1	18.6
122508	39.2	2.08	0.42	1.3	9.1	21.9	81.6	6.7	27.4	77	102	5.26	< 0.1	2	0.8	< 0.1	110	156	306	35.3	125	19.3	16.7
122509	23.2	1.96	0.39	1.3	81.4	20.3	42.3	41.2	30.7	7	0.8	0.17	< 0.1	< 1	< 0.1	< 0.1	374	120	219	26.4	92.8	14.5	12.7
122510	37.4	4.33	0.73	1.6	105	22.3	1.5	19.7	48.0	68	1.2	4.62	0.1	< 1	0.1	< 0.1	185	327	610	71.1	253	39.1	31.3
122511	20.9	1.87	0.31	0.4	78.8	20.2	66.9	50.1	26.6	28	3.1	0.37	< 0.1	< 1	0.3	< 0.1	471	96.9	188	22.4	79.8	12.8	10.6
122512	32.7	1.28	0.11	0.8	75.2	25.2	0.4	7.6	28.6	72	9.8	1.48	< 0.1	2	0.1	< 0.1	92	127	214	23.6	77.3	11.0	10.4
122513	20.1	1.08	0.24	0.5	67.2	21.5	0.1	25.6	25.7	41	1.0	0.33	< 0.1	< 1	< 0.1	< 0.1	287	67.3	128	15.7	55.9	9.3	8.8
122514	20.2	0.84	0.95	0.4	61.8	11.8	0.8	2.9	15.8	36	6.5	1.37	< 0.1	< 1	0.1	< 0.1	40	76.1	143	16.9	58.2	8.8	7.6
122515	24.2	1.47	0.57	0.7	86.2	20.2	26.1	40.8	27.8	13	0.2	0.18	< 0.1	< 1	< 0.1	< 0.1	481	103	187	22.1	75.6	11.6	10.5
122526	37.4	1.12	0.51	1.0	113	22.2	9.1	13.5	41.8	21	0.6	0.60	< 0.1	< 1	< 0.1	< 0.1	165	97.0	179	21.0	70.0	10.7	10.9
122527	47.5	1.80	63.8	2.5	156	19.3	2180	28.3	68.9	41	9.0	1.67	0.1	< 1	0.9	< 0.1	1060	165	338	39.3	135	20.9	19.8
122528	52.0	1.43	0.48	0.5	288	23.5	2.5	13.2	23.7	75	0.3	1.86	0.1	1	0.2	< 0.1	341	94.6	174	20.6	72.3	11.2	10.3
122529	31.8	1.49	0.26	0.9	198	20.0	51.4	47.7	22.5	26	1.5	1.15	< 0.1	< 1	0.3	< 0.1	543	57.2	109	13.4	48.9	8.5	8.0

Analyte Symbol	Tb	Dy	Cu	Ge	Tm	Yb	Lu	Ta	Sr	W	Re	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.001	0.05	0.5	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
122301	0.4	2.8	5.1	0.7	0.3	1.9	0.3	0.5	349	0.3	< 0.001	0.48	6.9	10.5	3.6
122302	0.4	2.5	76.5	0.6	0.2	1.8	0.3	0.7	308	0.7	0.004	0.31	20.8	10.2	2.5
122303	0.4	2.6	9.0	0.7	0.3	1.9	0.3	0.6	356	0.3	< 0.001	0.33	6.8	14.7	4.7
122304	0.3	2.2	37.1	0.6	0.2	1.4	0.2	0.4	430	0.5	< 0.001	0.41	4.9	7.8	2.8
122305	0.3	2.0	46.9	0.2	0.2	1.7	0.3	0.2	215	0.5	0.002	0.29	2.0	3.2	2.2
122306	0.4	2.4	67.2	0.9	0.3	1.9	0.3	0.3	358	0.8	< 0.001	0.46	3.1	4.0	2.3
122307	0.2	1.3	29.5	0.9	0.2	1.4	0.2	< 0.1	319	0.1	0.002	0.95	1.3	2.4	1.3
122308	0.6	3.6	225	0.8	0.3	2.6	0.4	0.4	216	2.0	0.001	0.77	14.4	6.3	2.1
122309	0.5	3.2	45.4	0.8	0.3	2.2	0.3	0.4	175	0.9	0.002	0.83	3.9	5.6	2.7
122310	0.5	3.4	143	0.5	0.3	2.1	0.3	0.2	294	2.3	< 0.001	0.62	11.2	5.5	2.8
122311	0.6	4.2	59.0	0.6	0.4	2.7	0.4	0.3	695	1.0	< 0.001	0.62	6.4	4.5	2.3
122312	0.3	1.8	14.7	0.3	0.2	1.4	0.2	< 0.1	202	0.5	< 0.001	0.98	3.5	4.7	1.9
122313	0.3	1.7	132	0.5	0.1	0.8	< 0.1	< 0.1	741	< 0.1	< 0.001	0.13	10.8	2.0	0.7
122314	0.4	2.3	29.3	0.7	0.2	1.1	0.2	0.2	511	< 0.1	< 0.001	0.28	8.4	5.6	1.0
122315	0.3	2.0	18.6	0.5	0.1	0.9	0.1	< 0.1	512	< 0.1	< 0.001	0.29	7.1	2.7	1.3
122316	0.4	2.2	22.4	0.6	0.2	1.2	0.2	< 0.1	656	0.3	< 0.001	0.06	8.6	2.6	0.9
122317	0.3	2.1	17.7	0.6	0.2	1.2	0.2	< 0.1	508	0.1	< 0.001	0.06	7.9	2.2	0.8
122318	0.3	2.2	371	0.7	0.3	2.1	0.3	0.2	129	4.6	< 0.001	0.78	13.3	5.9	2.9
122319	0.5	3.0	< 0.2	1.3	0.2	1.5	0.2	0.3	206	0.2	< 0.001	2.66	3.5	4.9	2.1
122320	0.1	1.3	51.1	0.7	0.3	2.4	0.4	0.2	139	6.3	0.004	0.08	6.6	4.3	2.6
122326	0.5	3.4	149	0.9	0.3	2.3	0.3	0.3	181	0.6	< 0.001	0.75	3.2	7.3	2.3
122327	0.9	5.8	108	0.3	0.5	2.8	0.4	0.4	208	0.9	< 0.001	0.81	9.9	6.2	2.1
122328	0.8	5.3	97.1	0.3	0.4	2.6	0.4	0.4	199	1.0	< 0.001	0.85	8.5	6.6	2.4
122329	0.6	3.9	131	0.4	0.3	2.5	0.4	0.4	262	1.0	0.004	0.90	7.3	7.3	2.5
122330	0.4	2.8	29.6	0.7	0.2	1.7	0.2	0.3	410	0.6	< 0.001	0.68	5.1	5.6	2.1
122331	0.2	1.1	1470	0.3	< 0.1	0.6	0.1	0.2	27.6	> 200	< 0.001	0.43	4.8	0.4	0.6
122332	0.4	2.5	926	0.6	0.2	1.9	0.3	< 0.1	150	> 200	< 0.001	1.22	2.6	6.3	2.4
122333	0.3	2.0	26.0	0.3	0.2	1.3	0.2	< 0.1	207	0.6	< 0.001	0.87	3.3	4.0	1.7
122334	0.2	2.0	314	0.2	0.2	1.7	0.3	0.4	72.0	> 200	0.009	0.54	4.3	5.6	5.4
122335	0.3	2.1	302	0.6	0.3	1.6	0.3	0.3	166	17.1	< 0.001	1.40	6.6	6.7	3.4
122336	0.4	2.5	93.8	0.5	0.2	1.7	0.3	0.2	172	6.6	0.001	1.30	3.3	7.0	2.9
122337	0.3	1.9	77.6	0.9	0.2	1.8	0.3	0.3	176	6.5	< 0.001	0.75	8.2	6.4	3.1
122338	0.4	2.2	69.2	0.5	0.2	1.0	0.1	0.1	675	1.8	< 0.001	0.42	11.2	4.6	1.3
122339	0.6	2.5	1520	0.7	0.1	1.1	0.2	0.2	77.7	12.4	< 0.001	0.55	3.4	3.8	3.0
122340	0.6	2.6	2600	0.3	0.2	1.3	0.2	0.3	102	19.2	< 0.001	0.31	6.3	3.4	3.2
122341	0.6	2.6	5720	0.5	0.2	1.3	0.2	0.3	94.3	36.9	< 0.001	0.39	46.4	3.7	5.5
122342	0.4	2.4	20.5	0.6	0.2	1.4	0.2	0.8	171	1.9	< 0.001	0.65	14.3	10.3	2.3
122343	0.4	2.2	27.9	0.6	0.2	1.2	0.2	0.8	171	1.2	< 0.001	0.69	14.3	9.4	2.1
122344	0.1	1.0	863	0.6	0.2	1.5	0.3	0.6	75.5	9.8	< 0.001	0.84	43.5	6.9	3.6
122345	0.3	1.7	< 0.2	0.6	0.2	1.1	0.1	0.5	121	2.1	< 0.001	1.55	7.8	9.8	4.0
122346	< 0.1	0.9	42.8	0.6	0.2	2.1	0.4	< 0.1	144	2.3	< 0.001	0.06	17.9	3.9	2.4
122347	< 0.1	0.6	14.1	0.6	0.2	1.4	0.3	0.1	156	2.0	< 0.001	< 0.05	2.9	3.0	1.9

Analyte Symbol	Tb	Dy	Cu	Ge	Tm	Yb	Lu	Ta	Sr	W	Re	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.001	0.05	0.5	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
122351	0.4	2.8	117	0.4	0.3	1.9	0.3	0.3	354	0.9	< 0.001	0.55	8.3	11.1	5.1
122352	0.4	2.8	175	0.6	0.3	1.9	0.3	0.4	325	0.3	< 0.001	0.49	9.3	12.9	5.5
122353	0.4	2.7	78.8	0.5	0.2	1.6	0.2	0.2	501	0.3	< 0.001	0.46	7.5	9.5	2.2
122354	0.3	1.8	1030	0.2	0.1	0.9	0.1	0.5	323	> 200	0.010	0.50	5.2	7.3	3.3
122355	0.2	1.1	786	0.2	< 0.1	0.6	< 0.1	0.7	120	67.7	< 0.001	1.00	6.0	6.9	16.0
122356	0.3	1.7	237	0.4	0.1	1.0	0.1	0.8	316	51.5	< 0.001	0.62	5.5	8.2	4.5
122357	< 0.1	0.1	9720	0.3	< 0.1	< 0.1	< 0.1	< 0.1	67.5	144	0.003	0.73	5.0	1.1	2.4
122358	0.3	1.6	366	0.2	0.1	0.9	0.1	0.7	293	> 200	0.002	0.74	9.7	7.2	3.7
122359	1.2	7.3	501	0.3	0.4	2.2	0.3	0.3	105	6.4	< 0.001	0.13	13.2	4.0	1.6
122360	0.7	4.1	127	0.3	0.2	1.2	0.2	< 0.1	107	1.8	< 0.001	0.21	17.4	1.6	1.5
122361	0.8	4.7	388	0.3	0.2	1.2	0.2	< 0.1	116	1.7	< 0.001	0.11	30.2	1.7	0.7
122362	0.5	3.1	97.4	0.3	0.3	2.3	0.3	0.4	93.6	2.1	0.002	0.83	13.8	5.8	4.1
122363	0.5	2.4	146	0.6	0.2	1.4	0.2	0.4	126	12.8	< 0.001	0.69	25.1	5.0	2.2
122364	0.6	3.6	1500	0.4	0.3	2.2	0.3	0.2	76.9	8.6	< 0.001	0.35	24.0	2.0	101
122365	< 0.1	0.4	> 10000	2.1	< 0.1	< 0.1	< 0.1	< 0.1	4.1	> 200	0.008	0.23	30.6	< 0.1	0.3
122366	0.7	4.0	170	0.5	0.3	2.1	0.3	0.8	241	13.9	< 0.001	1.55	3.6	5.5	2.6
122367	0.7	4.3	483	0.4	0.4	2.6	0.4	0.3	150	7.1	< 0.001	0.27	113	4.2	1.6
122368	0.1	1.2	459	0.3	0.2	1.7	0.3	0.3	111	12.1	< 0.001	0.19	30.7	3.2	9.1
122369	< 0.1	0.6	682	0.6	0.1	1.1	0.2	0.2	99.3	9.8	< 0.001	0.31	7.2	3.8	1.7
122370	0.6	3.8	28.8	0.9	0.4	2.7	0.4	< 0.1	340	0.8	< 0.001	0.35	9.9	2.5	1.0
122371	0.4	2.4	20.2	0.9	0.2	1.3	0.2	< 0.1	679	0.6	< 0.001	0.06	9.7	2.7	1.0
122372	0.4	2.8	1420	1.0	0.3	1.6	0.3	0.2	650	1.7	< 0.001	0.63	8.4	4.8	1.9
122373	0.4	2.8	15.4	0.6	0.2	1.4	0.2	0.6	172	0.5	< 0.001	0.72	10.6	9.5	3.0
122374	0.4	2.3	49.9	0.6	0.2	1.2	0.2	< 0.1	551	0.5	< 0.001	0.30	9.9	2.8	1.0
122375	< 0.1	< 0.1	3.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	2.3	0.3	< 0.001	< 0.05	< 0.5	< 0.1	< 0.1
122426	0.4	2.0	8120	0.2	0.1	1.1	0.2	0.3	51.8	> 200	0.014	0.11	12.6	3.1	2.7
122427	1.4	9.0	5290	0.5	0.7	5.2	0.6	0.3	108	> 200	0.028	0.31	30.9	3.4	106
122428	0.7	3.2	> 10000	0.4	0.2	1.4	0.2	0.5	53.6	177	< 0.001	0.84	28.6	5.2	7.6
122429	0.4	2.3	7.9	0.9	0.2	1.7	0.3	0.3	242	11.5	< 0.001	2.62	3.6	6.4	3.1
122430	0.6	3.3	246	0.4	0.2	1.5	0.2	0.3	23.7	77.5	< 0.001	0.60	43.6	4.6	5.0
122431	0.1	1.0	1050	0.2	0.2	2.1	0.4	0.6	169	47.4	< 0.001	0.19	37.7	4.6	8.2
122432	0.4	2.8	57.4	0.4	0.2	1.5	0.2	0.8	163	4.2	< 0.001	0.67	13.8	10.2	2.7
122433	0.5	3.1	23.3	0.6	0.3	1.8	0.2	0.6	177	3.4	< 0.001	0.85	12.7	11.7	3.7
122434	0.4	2.7	3.6	0.7	0.2	1.3	0.2	0.7	175	2.7	< 0.001	0.69	13.1	10.2	2.0
122435	0.6	2.9	2390	0.6	0.2	1.6	0.3	0.8	10.1	11.5	< 0.001	2.14	7.2	12.0	5.7
122436	0.4	1.9	75.1	0.6	0.2	1.1	0.2	0.8	11.3	14.0	< 0.001	2.06	2.1	11.3	6.5
122437	< 0.1	1.0	13.9	0.5	0.3	2.5	0.4	< 0.1	151	2.1	< 0.001	0.09	6.2	5.1	2.4
122438	0.2	1.5	314	0.4	0.3	2.1	0.4	< 0.1	70.5	> 200	< 0.001	< 0.05	13.2	5.2	4.9
122439	0.5	3.1	367	0.4	0.3	1.9	0.3	< 0.1	215	2.2	< 0.001	0.56	5.4	5.4	5.6
122440	0.3	2.3	30.2	0.8	0.2	1.2	0.2	< 0.1	78.8	2.6	< 0.001	< 0.05	2.8	1.7	0.8
122441	0.6	4.3	20.3	0.5	0.4	2.7	0.4	< 0.1	734	1.0	< 0.001	0.22	6.7	2.4	0.9
122442	0.4	2.7	134	0.7	0.2	1.3	0.2	0.6	146	1.4	< 0.001	1.08	5.8	9.3	2.7



Analyte Symbol	Tb	Dy	Cu	Ge	Tm	Yb	Lu	Ta	Sr	W	Re	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.001	0.05	0.5	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
122443	0.3	1.8	16.8	0.6	0.2	1.0	0.2	0.6	241	19.7	< 0.001	0.73	4.7	7.8	3.0
122444	< 0.1	0.4	292	0.2	< 0.1	0.4	< 0.1	0.7	222	2.1	< 0.001	0.63	8.6	13.0	3.1
122445	0.4	2.8	585	0.7	0.2	1.6	0.2	0.5	420	1.4	< 0.001	0.70	16.0	8.3	3.3
122446	0.8	4.7	572	0.9	0.4	2.2	0.3	0.5	353	16.2	< 0.001	0.60	2.8	11.0	4.8
122501	1.3	7.8	55.1	0.8	0.7	4.4	0.7	4.6	59.9	125	< 0.001	0.07	31.6	117	27.5
122502	0.9	5.5	< 0.2	0.7	0.5	3.3	0.5	3.7	33.1	118	< 0.001	< 0.05	4.2	56.5	14.8
122503	1.3	7.8	144	0.7	0.6	4.2	0.6	1.2	84.3	12.3	< 0.001	0.07	6.6	96.2	30.9
122504	1.5	9.9	19.6	0.5	0.9	6.2	0.9	< 0.1	108	1.7	< 0.001	0.08	9.4	12.0	3.1
122505	1.4	9.6	95.8	0.5	0.9	6.3	0.9	< 0.1	76.3	0.7	< 0.001	< 0.05	9.9	5.4	2.8
122506	1.8	9.9	78.8	0.7	0.7	4.6	0.7	< 0.1	39.5	0.8	< 0.001	0.05	10.3	17.1	18.8
122507	2.0	11.0	87.4	0.8	0.8	4.8	0.7	< 0.1	40.5	0.9	< 0.001	< 0.05	7.2	16.1	5.2
122508	1.7	7.9	< 0.2	1.3	0.4	2.7	0.4	6.9	51.4	> 200	< 0.001	0.09	6.2	15.9	12.2
122509	1.3	7.0	42.6	0.5	0.4	2.8	0.4	< 0.1	188	1.2	< 0.001	0.33	6.9	7.1	13.3
122510	3.0	13.2	96.7	1.0	0.6	3.7	0.6	< 0.1	98.7	1.3	< 0.001	0.17	8.9	13.5	11.2
122511	1.1	6.0	49.7	0.6	0.4	2.5	0.4	0.2	197	4.1	< 0.001	0.42	7.9	8.8	4.5
122512	1.2	6.4	2.2	0.6	0.5	3.1	0.5	0.5	47.3	1.1	< 0.001	0.07	102	13.3	8.2
122513	1.0	5.7	17.6	0.4	0.4	2.6	0.4	< 0.1	129	0.5	< 0.001	0.17	10.9	16.9	4.5
122514	0.8	3.9	19.8	0.4	0.2	1.5	0.2	0.4	20.0	1.4	< 0.001	< 0.05	3.2	4.0	2.4
122515	1.1	6.1	40.8	0.5	0.4	2.6	0.4	< 0.1	227	0.4	< 0.001	0.29	7.6	25.4	4.4
122526	1.3	8.0	35.9	0.5	0.7	4.5	0.7	< 0.1	91.2	0.7	< 0.001	0.09	5.8	18.7	5.2
122527	2.5	14.6	71.7	0.8	1.1	6.9	1.0	0.3	101	15.0	< 0.001	0.20	17.7	24.4	5.6
122528	1.1	5.9	63.1	0.6	0.4	2.2	0.3	< 0.1	46.7	0.6	< 0.001	0.12	23.9	17.8	4.6
122529	0.9	5.1	69.3	0.5	0.3	2.2	0.3	< 0.1	157	1.3	< 0.001	0.40	18.6	7.2	9.0

Analyte Symbol	Co	Cu	Au	B	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Ni	Er	Be	Ho	Hg	Ag	Cs
Unit Symbol	%	%	ppb	ppm	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm
Lower Limit	0.003	0.001	2	1	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	0.5	1	0.01	0.1	0.5	0.1	0.1	0.1	10	0.05	0.05
Method Code	4Acid ICPOE S	4Acid ICPOE S	FA-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
GXR-1 Meas				12	7.7	0.04	0.23	2.31	0.05	0.81	2.6	77	17.5	807	22.6	0.4	36.3		0.8		230	28.6	2.91
GXR-1 Cert				15.0	8.20	0.0520	0.217	3.52	0.050	0.960	3.30	80.0	12.0	852	23.6	0.960	41.0		1.22		3900	31.0	3.00
GXR-4 Meas				13	11.6	0.50	1.89	6.56	3.95	0.95	< 0.1	84	44.1	133	3.02	1.2	38.6		2.0		50	3.01	2.62
GXR-4 Cert				4.50	11.1	0.564	1.66	7.20	4.01	1.01	0.860	87.0	64.0	155	3.09	6.30	42.0		1.90		110	4.00	2.80
SDC-1 Meas				12	33.1	1.35	0.95	6.92	2.57	0.96		27	47.9	700	4.51	0.6	36.6	3.3	2.8	1.2	60		3.95
SDC-1 Cert				13.00	34.0	1.52	1.02	8.34	2.72	1.00		102.00	64.00	880.00	4.82	8.30	38.0	4.10	3.00	1.50	200.00		4.00
GXR-6 Meas				13	42.4	0.10	0.67	> 10.0	1.97	0.19	< 0.1	107	65.3	1080	5.96	1.5	32.2		1.2		30	0.29	4.11
GXR-6 Cert				9.80	32.0	0.104	0.609	17.7	1.87	0.180	1.00	186	96.0	1010	5.58	4.30	27.0		1.40		68.0	1.30	4.20
MP-1b Meas		3.12																					
MP-1b Cert		3.07																					
HiSilP1 Meas			12400																				
HiSilP1 Cert			12050.00																				
HiSilP1 Meas			12000																				
HiSilP1 Cert			12050.00																				
CZN-4 Meas	0.010	0.412																					
CZN-4 Cert	0.009	0.403																					
PTC-1b Meas	0.320	7.71																					
PTC-1b Cert	0.325	7.97																					
SdAR-M2 (U.S.G.S.) Meas					18.8						5.0	26	40.3			3.0	47.7	2.9	7.0	1.0	50		1.77
SdAR-M2 (U.S.G.S.) Cert					17.9						5.1	25.2	49.6			7.29	48.8	3.58	6.6	1.21	1440.00		1.82
OxL118 Meas			5970																				
OxL118 Cert			5828.00																				
OxL118 Meas			5880																				
OxL118 Cert			5828.00																				
CCU-1e Meas	0.031																						
CCU-1e Cert	0.0301																						
122306 Orig			< 2																				
122306 Dup			< 2																				
122317 Orig			< 2																				
122317 Dup			< 2																				
122332 Orig				9	31.1	1.71	1.93	8.61	3.37	0.57	< 0.1	223	103	168	6.43	2.0	74.0	1.6	1.4	0.5	< 10	2.45	8.66
122332 Dup				43	33.2	1.76	1.95	8.22	3.55	0.60	< 0.1	217	107	170	6.76	1.9	77.1	1.6	1.5	0.5	< 10	2.56	8.60
122334 Orig			459																				
122334 Dup			468																				
122346 Orig			6																				
122346 Dup			5																				

Analyte Symbol	Co	Cu	Au	B	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Ni	Er	Be	Ho	Hg	Ag	Cs
Unit Symbol	%	%	ppb	ppm	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm
Lower Limit	0.003	0.001	2	1	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	0.5	1	0.01	0.1	0.5	0.1	0.1	0.1	10	0.05	0.05
Method Code	4Acid ICPOE S	4Acid ICPOE S	FA-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
122358 Orig			14	10	18.5	2.82	1.06	8.52	4.21	1.93	< 0.1	95	51.8	256	4.72	0.5	17.3	0.9	1.6	0.3	< 10	0.88	4.90
122358 Split PREP DUP			12	9	16.5	2.81	1.08	8.64	4.39	1.99	< 0.1	93	51.9	269	4.83	0.5	18.4	1.0	1.6	0.3	< 10	0.80	4.94
122359 Orig			12	16	75.4	0.36	3.37	6.56	0.17	3.56	1.1	201	89.8	3240	12.2	1.3	182	3.1	0.8	1.3	20	0.81	0.56
122359 Dup			13	17	75.0	0.37	3.44	6.65	0.17	3.76	1.1	201	82.4	3250	12.6	1.2	184	3.2	0.4	1.3	< 10	0.46	0.56
122371 Orig			2																				
122371 Dup			< 2																				
122373 Dup				23	23.9	> 3.00	0.36	> 10.0	4.36	0.97	< 0.1	15	21.5	640	2.13	0.3	2.6	1.6	2.8	0.5	30	0.06	4.22
122430 Orig	0.049																						
122430 Dup	0.049																						
122433 Orig			2																				
122433 Dup			< 2																				
122444 Orig			6																				
122444 Dup			6																				
122502 Orig				15	5.4	0.20	0.67	0.75	0.19	1.67	< 0.1	> 1000	734	2650	> 50.0	1.1	61.3	3.2	0.5	1.1	20	1.37	0.41
122502 Dup				14	5.0	0.25	0.74	0.80	0.22	1.82	< 0.1	> 1000	690	2710	> 50.0	1.2	61.9	3.3	0.3	1.2	10	1.19	0.43
122511 Orig				13	33.7	1.24	0.97	7.51	1.33	1.24	0.2	113	100	1170	10.5	0.7	29.3	2.9	1.1	1.1	60	< 0.05	4.39
122511 Split PREP DUP				13	34.2	1.24	1.00	7.33	1.36	1.32	0.2	121	105	1390	12.1	0.6	31.7	2.9	1.2	1.1	20	0.52	4.28
122515 Orig				15	20.5	1.36	1.18	5.67	1.13	1.69	0.2	186	166	1810	16.0	0.5	35.4	3.1	0.8	1.2	60	0.19	2.98
122515 Dup				121	25.1	1.43	1.23	6.21	1.29	1.68	0.1	81	137	1780	13.9	0.1	33.9	2.8	1.2	1.0	60	0.19	3.45
Method Blank			< 2																				
Method Blank			< 2																				
Method Blank			< 2																				
Method Blank			< 2																				
Method Blank			< 2																				
Method Blank				< 1	< 0.5	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.1	< 1	< 0.5	< 1	< 0.01	< 0.1	< 0.5	< 0.1	0.2	< 0.1	< 10	< 0.05	< 0.05
Method Blank	< 0.003	< 0.001																					

Analyte Symbol	Co	Eu	Bi	Se	Zn	Ga	As	Rb	Y	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.1	0.05	0.02	0.1	0.2	0.1	0.1	0.2	0.1	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
GXR-1 Meas	7.1	0.54	1420	14.5	776	11.9	409	2.4	25.7	24	1.0	17.1	0.8	36	45.8	9.1	638	7.0	13.8		7.9	2.4	3.8
GXR-1 Cert	8.20	0.690	1380	16.6	760	13.8	427	14.0	32.0	38.0	0.800	18.0	0.770	54.0	122	13.0	750	7.50	17.0		18.0	2.70	4.20
GXR-4 Meas	14.0	1.25	17.1	5.9	64.7	20.5	95.4	137	12.2	56	8.6	309	0.2	6	3.3	0.7	1280	57.3	104		38.2	5.2	4.6
GXR-4 Cert	14.6	1.63	19.0	5.60	73.0	20.0	98.0	160	14.0	186	10.0	310	0.270	5.60	4.80	0.970	1640	64.5	102		45.0	6.60	5.25
SDC-1 Meas	17.2	1.33			109	21.5	0.5	114		31	0.3			< 1	< 0.1		559	38.1	80.5		36.8	6.3	6.5
SDC-1 Cert	18.0	1.70			103.00	21.00	0.220	127.00		290.00	21.00			3.00	0.54		630	42.00	93.00		40.00	8.20	7.00
GXR-6 Meas	13.8	0.55	0.19	1.4	136	35.0	257	73.1	11.5	70	0.8	0.44	< 0.1	< 1	0.4	< 0.1	1220	11.8	31.6		11.6	2.1	2.4
GXR-6 Cert	13.8	0.760	0.290	0.940	118	35.0	330	90.0	14.0	110	7.50	2.40	0.260	1.70	3.60	0.0180	1300	13.9	36.0		13.0	2.67	2.97
MP-1b Meas																							
MP-1b Cert																							
HiSilP1 Meas																							
HiSilP1 Cert																							
HiSilP1 Meas																							
HiSilP1 Cert																							
CZN-4 Meas																							
CZN-4 Cert																							
PTC-1b Meas																							
PTC-1b Cert																							
SdAR-M2 (U.S.G.S.) Meas	13.0	1.20	0.98		803	19.0		139	23.5	127	14.6	11.5					881	43.5	92.0	10.4	35.5	5.6	5.4
SdAR-M2 (U.S.G.S.) Cert	12.4	1.44	1.05		760	17.6		149	32.7	259	26.2	13.3					990	46.6	98.8	11.0	39.4	7.18	6.28
OxL118 Meas																							
OxL118 Cert																							
OxL118 Meas																							
OxL118 Cert																							
CCU-1e Meas																							
CCU-1e Cert																							
122306 Orig																							
122306 Dup																							
122317 Orig																							
122317 Dup																							
122332 Orig	25.6	0.55	4.07	1.8	8.5	25.3	610	136	14.7	101	6.8	1.79	0.6	< 1	6.6	0.3	1050	19.0	39.2	4.9	18.0	3.2	3.0
122332 Dup	25.0	0.56	4.11	1.4	11.2	24.4	570	138	14.6	90	4.8	1.58	0.6	< 1	4.2	< 0.1	1030	19.1	39.2	4.9	18.2	3.2	2.9
122334 Orig																							
122334 Dup																							
122346 Orig																							
122346 Dup																							
122358 Orig	79.4	0.60	0.51	0.8	18.7	25.5	6.0	158	9.7	17	11.6	39.8	< 0.1	1	1.1	< 0.1	1010	21.3	33.6	3.6	12.5	2.1	2.1
122358 Split PREP DUP	90.5	0.60	0.52	0.8	20.8	25.4	5.8	162	10.1	17	10.2	19.7	< 0.1	1	1.1	< 0.1	957	21.8	34.2	3.7	12.6	2.2	2.1
122359 Orig	54.5	1.38	0.65	12.5	639	21.0	9.9	5.9	37.8	71	4.6	1.77	0.3	1	0.7	< 0.1	44	23.1	48.0	6.5	27.8	6.8	9.1
122359 Dup	56.0	1.39	0.60	11.7	637	21.5	8.6	5.6	40.2	69	4.4	1.75	0.3	< 1	0.7	< 0.1	41	22.5	47.0	6.4	27.5	6.8	9.1

Analyte Symbol	Co	Eu	Bi	Se	Zn	Ga	As	Rb	Y	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.1	0.05	0.02	0.1	0.2	0.1	0.1	0.2	0.1	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
122371 Orig																							
122371 Dup																							
122373 Dup	2.6	0.74	0.51	0.4	33.8	25.8	15.6	130	15.8	10	0.8	1.23	< 0.1	< 1	0.1	< 0.1	1190	27.3	51.7	6.2	20.5	3.4	3.1
122430 Orig																							
122430 Dup																							
122433 Orig																							
122433 Dup																							
122444 Orig																							
122444 Dup																							
122502 Orig	47.0	0.89	0.11	0.8	68.8	29.5	4.2	5.6	29.1	32	59.2	3.82	< 0.1	1	0.2	< 0.1	44	76.9	137	15.1	50.3	7.6	7.4
122502 Dup	48.2	0.84	0.10	0.7	70.8	29.2	4.1	6.2	29.2	36	57.4	3.65	< 0.1	< 1	0.2	< 0.1	50	84.4	146	15.6	51.3	7.5	7.6
122511 Orig	20.9	1.87	0.31	0.4	78.8	20.2	66.9	50.1	26.6	28	3.1	0.37	< 0.1	< 1	0.3	< 0.1	471	96.9	188	22.4	79.8	12.8	10.6
122511 Split PREP DUP	22.9	1.81	0.40	0.8	107	20.7	86.3	48.6	27.7	25	3.8	0.54	0.1	< 1	0.4	< 0.1	459	95.5	186	23.5	85.6	14.2	12.2
122515 Orig	22.4	1.41	0.54	0.8	84.0	20.6	3.2	37.8	28.7	19	0.3	0.24	< 0.1	< 1	< 0.1	< 0.1	455	111	197	23.0	77.5	11.7	10.7
122515 Dup	26.1	1.53	0.59	0.7	88.4	19.7	49.0	43.9	26.9	6	0.1	0.12	< 0.1	< 1	< 0.1	< 0.1	508	95.3	177	21.2	73.7	11.5	10.2
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank	< 0.1	< 0.05	< 0.02	< 0.1	< 0.2	< 0.1	< 0.1	< 0.2	< 0.1	< 1	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	< 1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Method Blank																							

Analyte Symbol	Tb	Dy	Cu	Ge	Tm	Yb	Lu	Ta	Sr	W	Re	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.001	0.05	0.5	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
GXR-1 Meas	0.6	4.3	1090		0.3	2.0	0.3	< 0.1	279	139		0.30	755	2.6	31.6
GXR-1 Cert	0.830	4.30	1110		0.430	1.90	0.280	0.175	275	164		0.390	730	2.44	34.9
GXR-4 Meas	0.5	2.6	6370		0.2	0.9	0.1	0.5	220	29.8		2.86	48.0	21.9	5.4
GXR-4 Cert	0.360	2.60	6520		0.210	1.60	0.170	0.790	221	30.8		3.20	52.0	22.5	6.20
SDC-1 Meas	0.9	5.6	28.3		0.5	2.9		< 0.1	171	0.3		0.50	23.0	10.6	2.5
SDC-1 Cert	1.20	6.70	30.000		0.65	4.00		1.20	180.00	0.80		0.70	25.00	12.00	3.10
GXR-6 Meas	0.3	2.3	77.5			1.6	0.3	< 0.1	39.9	0.5		1.83	98.7	5.2	1.4
GXR-6 Cert	0.415	2.80	66.0			2.40	0.330	0.485	35.0	1.90		2.20	101	5.30	1.54
MP-1b Meas															
MP-1b Cert															
HiSilP1 Meas															
HiSilP1 Cert															
HiSilP1 Meas															
HiSilP1 Cert															
CZN-4 Meas															
CZN-4 Cert															
PTC-1b Meas															
PTC-1b Cert															
SdAR-M2 (U.S.G.S.) Meas	0.7	4.8	233		0.4	2.7	0.4	0.7	142	1.9			813	13.8	2.4
SdAR-M2 (U.S.G.S.) Cert	0.97	5.88	236.00 00		0.54	3.63	0.54	1.8	144	2.8			808	14.2	2.53
OxL118 Meas															
OxL118 Cert															
OxL118 Meas															
OxL118 Cert															
CCU-1e Meas															
CCU-1e Cert															
122306 Orig															
122306 Dup															
122317 Orig															
122317 Dup															
122332 Orig	0.4	2.6	870	0.7	0.2	1.8	0.3	0.3	150	> 200	< 0.001	1.20	2.4	6.2	2.4
122332 Dup	0.4	2.4	983	0.5	0.3	1.9	0.3	< 0.1	150	> 200	0.001	1.24	2.7	6.3	2.4
122334 Orig															
122334 Dup															
122346 Orig															
122346 Dup															
122358 Orig	0.3	1.6	366	0.2	0.1	0.9	0.1	0.7	293	> 200	0.002	0.74	9.7	7.2	3.7
122358 Split PREP DUP	0.3	1.7	396	0.2	0.1	1.0	0.1	0.5	291	> 200	0.002	0.73	9.1	7.6	4.1
122359 Orig	1.2	7.3	497	0.3	0.4	2.2	0.3	0.3	104	6.9	< 0.001	0.14	13.0	4.0	1.6
122359 Dup	1.2	7.3	504	0.3	0.4	2.3	0.3	0.2	106	5.9	< 0.001	0.12	13.5	4.0	1.7



Analyte Symbol	Tb	Dy	Cu	Ge	Tm	Yb	Lu	Ta	Sr	W	Re	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.001	0.05	0.5	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
122371 Orig															
122371 Dup															
122373 Dup	0.4	2.8	15.4	0.6	0.2	1.4	0.2	0.6	172	0.5	< 0.001	0.72	10.6	9.5	3.0
122430 Orig															
122430 Dup															
122433 Orig															
122433 Dup															
122444 Orig															
122444 Dup															
122502 Orig	0.9	5.4	0.8	0.8	0.5	3.3	0.5	3.9	29.6	144	< 0.001	< 0.05	4.1	43.9	12.1
122502 Dup	0.9	5.7	< 0.2	0.7	0.5	3.3	0.5	3.5	36.6	92.4	< 0.001	< 0.05	4.2	69.2	17.5
122511 Orig	1.1	6.0	49.7	0.6	0.4	2.5	0.4	0.2	197	4.1	< 0.001	0.42	7.9	8.8	4.5
122511 Split PREP DUP	1.3	6.7	52.4	0.6	0.4	2.6	0.4	0.3	192	14.4	< 0.001	0.43	9.2	11.2	40.9
122515 Orig	1.1	6.1	34.2	0.5	0.4	2.7	0.4	< 0.1	217	0.5	< 0.001	0.27	6.8	11.9	3.3
122515 Dup	1.1	6.0	47.4	0.4	0.4	2.5	0.4	< 0.1	237	0.3	< 0.001	0.31	8.3	38.8	5.5
Method Blank															
Method Blank															
Method Blank															
Method Blank															
Method Blank															
Method Blank	< 0.1	< 0.1	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.2	< 0.1	0.003	< 0.05	< 0.5	< 0.1	< 0.1
Method Blank															



**Date Submitted:** 07-Jun-17  
**Invoice No.:** A17-05700 (i)  
**Invoice Date:** 12-Jul-17  
**Your Reference:**

**Dahrouge Geological Consulting Ltd.**  
**10509-81 Ave.**  
**Suite 18**  
**Edmonton AB T6E 1X7**  
**Canada**

**ATTN: Jody Dahrouge**

## CERTIFICATE OF ANALYSIS

107 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1A2-ICP Kamloops Au-Fire Assay ICPOES 30g  
Code Sieve Report-Kamloops Internal Sieve Report Internal  
Code UT-4-Kamloops Total Digestion ICP/MS

REPORT **A17-05700 (i)**

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

Notes:

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

Note: Au values might be off because of the low sample weight for 122504, 122509, 122513, 122527, 122528, 122529.

CERTIFIED BY:

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

Emmanuel Esemé , Ph.D.  
Quality Control

**ACTIVATION LABORATORIES LTD.**  
9989 Dallas Drive, Kamloops, British Columbia, Canada, V2C 6T4  
TELEPHONE +250 573-4484 or +1.888.228.5227 FAX +1.905.648.9613  
E-MAIL Kamloops@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	2
Method Code	FA-ICP
122501	254
122502	< 2
122503	< 2
122504	17
122505	8
122506	23
122507	1440
122508	136
122509	< 2
122510	3
122511	4
122512	577
122513	65
122514	5
122515	28
122526	20
122527	185
122528	44
122529	29

Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	2
Method Code	FA-ICP
OxK110 Meas	3600
OxK110 Cert	3602.0 00
122502 Orig	3
122502 Dup	< 2
Method Blank	< 2



**Date Submitted:** 05-Jul-18  
**Invoice No.:** A18-08798-Assays  
**Invoice Date:** 13-Aug-18  
**Your Reference:** RD Cobalt Property

**Dahrouge Geological Consulting Ltd.**  
**10509-81 Ave.**  
**Suite 18**  
**Edmonton AB T6E 1X7**  
**Canada**

**ATTN: Jody Dahrouge**

## CERTIFICATE OF ANALYSIS

85 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code UT-4-Kamloops Total Digestion ICP/MS

REPORT **A18-08798-Assays**

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

Notes:

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

CERTIFIED BY:

A handwritten signature in black ink, consisting of several loops and a vertical line, positioned above a horizontal line.

Emmanuel Esemé, Ph.D.  
Quality Control

**ACTIVATION LABORATORIES LTD.**  
9989 Dallas Drive, Kamloops, British Columbia, Canada, V2C 6T4  
TELEPHONE +250 573-4484 or +1.888.228.5227 FAX +1.905.648.9613  
E-MAIL Kamloops@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Co	Cu
Unit Symbol	%	%
Lower Limit	0.003	0.001
Method Code	4Acid ICPOE S	4Acid ICPOE S
128231		2.06
128233	0.073	
128240	0.054	1.91
128241	0.667	
128242		3.55
128243		0.869
128248		4.74
128252	0.132	1.52
128253	0.081	
128254	0.176	0.935
128255	0.103	3.04
128258	0.072	
128270	0.056	
128272	0.215	
128278	0.653	0.969
128279	0.079	
128280		1.24
128283	0.256	
128288	0.194	
128290		1.76
128293	0.099	
128294	0.170	
128295		1.26
128977	0.068	



Analyte Symbol	Co	Cu
Unit Symbol	%	%
Lower Limit	0.003	0.001
Method Code	4Acid ICPOE S	4Acid ICPOE S
MP-1b Meas		3.11
MP-1b Cert		3.07
CZN-4 Meas	0.010	0.403
CZN-4 Cert	0.009	0.403
PTC-1b Meas	0.314	7.70
PTC-1b Cert	0.325	7.97
CCU-1e Meas	0.031	22.9
CCU-1e Cert	0.0301	22.9
128270 Orig	0.055	0.101
128270 Dup	0.056	0.100
128280 Orig	0.005	1.24
128280 Split PREP DUP	0.004	1.18
Method Blank	< 0.003	< 0.001



**Date Submitted:** 05-Jul-18  
**Invoice No.:** A18-08798  
**Invoice Date:** 01-Aug-18  
**Your Reference:** RD Cobalt Property

**Dahrouge Geological Consulting Ltd.**  
**10509-81 Ave.**  
**Suite 18**  
**Edmonton AB T6E 1X7**  
**Canada**

**ATTN: Jody Dahrouge**

## CERTIFICATE OF ANALYSIS

85 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1A2-ICP Kamloops Au-Fire Assay ICPOES 30g  
Code Sieve Report-Kamloops Internal Sieve Report Internal  
Code UT-4-Kamloops Total Digestion ICP/MS

REPORT      **A18-08798**

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

Notes:

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

CERTIFIED BY:

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

Emmanuel Esemé , Ph.D.  
Quality Control

**ACTIVATION LABORATORIES LTD.**  
9989 Dallas Drive, Kamloops, British Columbia, Canada, V2C 6T4  
TELEPHONE +250 573-4484 or +1.888.228.5227 FAX +1.905.648.9613  
E-MAIL Kamloops@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

## Results

## Activation Laboratories Ltd.

## Report: A18-08798

Analyte Symbol	Au	B	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Ni	Er	Be	Ho	Hg	Ag	Cs	Co	Eu
Unit Symbol	ppb	ppm	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm
Lower Limit	2	20	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	1	1	0.01	0.1	0.5	0.1	0.1	0.1	10	0.05	0.05	0.1	0.05
Method Code	FA-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
128226	< 2	930	37.5	0.47	1.89	8.68	0.20	0.89	0.1	156	30	1550	14.5	1.0	20.1	2.1	0.5	0.7	20	0.13	0.35	20.2	0.62
128227	8	20	40.4	0.46	1.05	7.71	2.00	3.71	0.2	111	49	1310	16.2	0.8	15.1	3.0	1.1	1.1	30	0.44	13.7	19.8	2.47
128228	12	< 20	12.3	0.02	0.61	6.66	0.04	7.93	1.1	125	35	1130	7.58	< 0.1	22.5	4.3	0.7	1.4	20	0.22	0.68	13.5	2.45
128229	26	< 20	27.8	0.24	1.13	6.78	0.57	7.35	0.3	138	71	2490	18.9	0.9	34.4	3.8	0.8	1.3	< 10	0.14	2.45	20.8	4.77
128230	< 2	< 20	28.4	2.30	0.57	7.14	1.85	2.74	< 0.1	39	10	285	1.48	< 0.1	11.3	0.8	1.2	0.2	40	0.09	11.9	4.6	0.51
128231	266	< 20	8.1	1.00	0.26	8.86	3.99	0.26	0.4	49	15	86	10.6	0.6	73.4	0.5	1.1	0.2	480	5.55	4.58	307	0.78
128232	57	30	6.8	> 3.00	0.25	9.42	1.72	2.92	< 0.1	57	28	211	4.03	0.8	18.6	1.9	1.7	0.6	190	2.16	17.7	87.6	1.03
128233	54	1390	9.1	0.70	0.70	6.78	4.01	2.37	< 0.1	105	38	317	15.0	0.5	49.4	0.7	1.1	0.2	190	0.48	4.84	> 500	0.53
128234	9	80	15.5	2.41	1.00	6.11	2.39	2.99	< 0.1	87	38	472	5.14	0.9	24.4	0.9	1.2	0.3	160	0.50	3.02	111	0.46
128235	< 2	170	38.6	1.57	1.51	6.89	2.22	4.43	1.9	71	26	744	4.06	0.6	14.6	0.8	1.2	0.3	30	0.26	6.90	12.4	0.74
128236	13	40	32.3	0.84	0.93	> 10.0	1.85	0.34	< 0.1	42	18	272	3.24	0.5	20.0	2.2	0.9	0.7	40	0.06	3.17	15.3	1.07
128237	< 2	< 20	5.7	2.57	0.08	> 10.0	1.76	1.82	0.2	3	19	229	0.59	0.2	2.7	0.2	1.4	< 0.1	20	0.10	4.21	2.9	0.69
128238	4	< 20	45.8	0.91	2.33	8.02	1.62	0.50	< 0.1	215	42	638	14.8	< 0.1	7.5	1.1	0.7	0.4	20	0.85	3.98	4.8	0.74
128239	100	< 20	8.1	0.14	0.20	4.30	3.56	0.26	1.0	19	4	178	38.9	0.9	39.8	1.6	0.4	0.5	40	5.74	1.96	103	0.43
128240	18200	< 20	1.8	0.01	0.28	0.14	0.04	0.24	3.5	< 1	3	296	> 50.0	< 0.1	35.8	0.1	< 0.1	< 0.1	1030	36.9	0.09	> 500	0.06
128241	11000	90	23.2	0.37	1.17	5.91	0.54	1.82	0.3	81	17	1060	33.3	0.6	346	1.9	0.6	0.6	20	4.06	0.52	> 500	0.49
128242	1160	610	27.7	0.43	1.27	7.01	2.67	0.33	0.7	159	80	271	14.0	1.6	115	1.1	0.7	0.3	140	55.6	0.75	77.1	0.31
128243	142	3620	14.5	0.66	1.94	8.70	0.43	0.46	0.3	212	136	272	9.19	1.6	52.2	1.1	1.1	0.3	90	34.4	0.12	25.7	0.21
128244	89	4680	57.4	0.67	2.48	7.08	0.61	1.86	2.9	200	89	447	12.8	1.3	381	1.8	1.1	0.6	70	1.00	3.49	69.4	1.37
128245	17	< 20	125	1.48	2.01	8.96	0.91	1.65	< 0.1	190	97	789	12.5	1.8	152	1.9	1.3	0.7	50	0.41	10.00	39.5	1.74
128246	12	< 20	32.9	1.03	1.17	5.53	1.43	19.9	< 0.1	127	66	1360	2.83	1.3	75.2	1.6	0.9	0.5	< 10	0.13	2.59	9.9	1.03
128247	2	< 20	71.9	0.85	2.01	7.09	1.47	2.02	0.2	190	99	442	10.1	1.3	307	3.0	0.7	1.0	30	0.22	3.75	67.1	1.17
128248	3	< 20	53.9	0.53	2.10	6.35	2.66	2.67	5.9	137	50	637	16.9	0.8	471	1.4	0.5	0.4	10	50.6	1.33	107	0.39
128249	422	< 20	66.3	1.26	2.12	6.27	0.76	10.0	< 0.1	115	77	1620	5.29	1.1	28.4	1.3	0.8	0.4	< 10	0.28	2.24	16.9	1.06
128250	< 2	< 20	37.8	2.90	1.26	9.95	1.91	2.72	0.1	108	72	482	3.81	2.5	65.7	1.8	1.6	0.5	< 10	0.23	4.18	7.6	1.04
128252	3790	20	30.0	0.37	1.22	6.03	0.35	0.32	0.7	117	61	273	25.4	1.0	101	1.3	0.9	0.4	380	28.3	0.63	> 500	0.25
128253	1070	590	15.1	0.47	1.21	6.25	0.46	0.48	< 0.1	97	75	329	31.6	1.7	89.5	1.1	0.6	0.3	20	6.49	0.26	> 500	0.27
128254	2180	90	10.8	0.13	0.19	3.00	2.09	0.23	1.8	12	4	171	41.2	0.6	206	0.5	0.2	0.2	660	12.0	0.70	> 500	0.19
128255	16000	< 20	2.2	< 0.01	0.26	0.12	0.02	0.18	5.1	< 1	3	280	> 50.0	< 0.1	72.6	0.2	< 0.1	< 0.1	1350	49.1	0.11	> 500	< 0.05
128256	10	< 20	43.6	> 3.00	1.11	> 10.0	2.04	2.81	0.2	66	7	578	5.24	2.2	4.4	1.8	1.6	0.6	20	0.59	2.88	14.0	1.32
128257	55	< 20	31.6	0.13	2.03	6.40	3.17	0.13	0.6	115	204	758	7.85	1.0	76.0	0.9	0.5	0.3	20	0.46	0.86	8.6	1.16
128258	1710	20	6.9	0.68	1.56	7.70	0.16	0.31	1.1	159	128	168	12.0	1.0	245	1.2	1.0	0.3	30	10.3	0.18	> 500	0.11
128259	47	< 20	7.5	0.50	2.02	7.26	0.05	0.46	< 0.1	119	132	107	2.61	0.9	57.6	0.8	0.5	0.2	30	6.64	0.20	4.3	0.24
128260	159	< 20	17.9	0.31	1.14	6.05	0.67	0.14	< 0.1	132	38	1230	12.5	0.8	88.1	3.5	0.9	2.2	170	4.45	2.64	6.1	22.3
128261	4	< 20	22.5	0.27	1.36	7.61	4.80	0.22	< 0.1	75	48	1010	6.08	0.5	28.5	1.0	0.9	0.3	< 10	0.33	2.82	12.7	0.74
128262	73	< 20	24.3	> 3.00	1.11	9.53	2.24	0.63	0.1	40	7	270	4.00	1.7	17.8	1.4	1.0	0.4	20	0.47	0.88	61.1	0.36
128263	383	1150	4.6	0.41	1.30	5.36	0.09	0.33	0.2	110	128	250	8.06	1.2	224	1.4	0.4	0.4	50	3.17	0.26	13.7	0.15
128264	3	< 20	19.0	2.27	1.36	8.60	2.09	2.25	0.3	61	45	648	4.17	0.1	19.5	1.8	1.4	0.6	30	0.26	1.78	16.5	0.95
128265	5	220	13.2	1.02	1.18	8.77	1.90	1.64	1.6	132	10	971	3.80	3.3	8.1	2.2	1.5	0.7	60	0.63	2.94	17.3	0.67
128266	< 2	< 20	19.0	0.85	1.54	9.28	2.77	2.44	1.5	153	7	1740	3.97	2.3	4.4	2.3	1.5	0.7	10	0.68	3.80	10.2	0.77
128270	2070	< 20	18.9	0.28	1.42	5.62	0.30	0.17	0.1	139	101	406	12.8	1.0	117	0.8	0.6	0.2	60	3.12	0.65	> 500	0.15
128271	3310	< 20	11.2	0.26	0.95	4.21	0.17	0.13	0.1	108	93	240	9.80	0.6	61.3	0.6	0.5	0.1	20	5.52	0.48	231	0.12

## Results

## Activation Laboratories Ltd.

## Report: A18-08798

Analyte Symbol	Au	B	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Ni	Er	Be	Ho	Hg	Ag	Cs	Co	Eu
Unit Symbol	ppb	ppm	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm
Lower Limit	2	20	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	1	1	0.01	0.1	0.5	0.1	0.1	0.1	10	0.05	0.05	0.1	0.05
Method Code	FA-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
128272	4680	< 20	4.2	0.16	0.43	3.45	0.78	0.12	0.1	78	90	255	10.5	0.5	488	2.9	0.4	1.0	350	17.6	0.91	> 500	0.67
128273	418	50	30.2	0.51	2.45	8.20	1.29	0.85	0.7	211	114	433	9.64	1.2	104	2.1	1.2	0.6	40	19.7	0.58	29.1	0.38
128274	99	30	52.9	0.51	3.01	9.03	2.18	0.22	1.4	120	99	822	7.44	0.9	68.0	2.1	1.1	0.5	30	4.36	0.77	32.9	0.24
128275	96	660	30.4	0.90	2.21	8.86	1.72	0.41	1.2	108	119	504	5.32	1.2	52.9	2.1	1.4	0.5	40	6.22	2.33	20.4	0.25
128277	217	3330	6.5	0.36	1.03	5.67	0.59	0.20	< 0.1	112	201	225	7.48	1.1	50.8	1.1	0.8	0.3	60	7.43	2.38	7.3	0.74
128278	18700	2710	3.5	0.29	0.70	3.71	0.14	0.15	0.7	64	79	719	23.1	0.7	994	5.5	0.7	2.0	990	> 100	0.51	> 500	2.24
128279	2010	30	25.3	0.23	1.38	6.30	1.33	0.23	0.6	136	138	819	15.8	1.3	147	1.5	0.7	0.5	210	31.2	3.25	> 500	0.94
128280	208	30	23.2	0.43	2.16	7.17	0.23	0.41	1.4	157	141	1440	13.0	1.5	108	1.8	0.8	0.6	60	35.8	0.39	41.6	0.96
128281	256	20	34.4	0.35	2.74	7.57	0.09	0.37	0.8	163	152	2230	17.5	1.6	294	1.7	0.7	0.6	< 10	18.1	0.40	47.3	1.19
128282	27	< 20	21.5	0.13	0.88	8.58	> 5.00	0.12	1.7	194	114	472	8.93	2.4	54.2	1.5	1.1	0.4	20	0.66	4.52	23.1	0.25
128283	7140	30	9.2	0.32	1.19	4.74	0.30	0.21	2.4	114	62	1040	22.5	0.7	504	3.0	0.7	1.0	40	4.25	1.23	> 500	0.41
128284	1690	190	15.8	0.43	1.69	6.46	0.30	0.34	0.9	142	91	634	13.3	0.7	67.2	1.6	0.6	0.5	400	3.45	1.13	248	0.47
128285	54	250	38.8	0.22	2.45	5.96	0.96	3.91	0.4	138	107	1140	11.6	1.6	65.3	1.6	0.9	0.5	40	0.75	4.23	40.8	0.47
128286	784	5220	6.6	0.58	1.27	6.36	0.12	0.29	0.6	142	104	182	11.5	1.4	199	1.9	1.0	0.5	130	22.2	0.27	399	0.16
128287	35	2530	10.7	0.36	0.92	4.24	0.13	0.15	< 0.1	111	143	516	13.1	1.1	76.0	3.1	0.9	0.9	40	5.28	0.30	11.8	0.19
128288	20000	560	17.3	0.25	1.14	4.20	0.09	0.35	< 0.1	84	107	257	11.9	< 0.1	672	2.0	0.6	0.6	90	16.4	0.43	> 500	0.23
128289	191	20	22.5	0.18	2.51	5.50	0.12	0.24	0.2	134	164	877	11.1	1.7	63.2	1.7	0.4	0.7	990	16.5	0.48	118	2.95
128290	620	20	24.7	0.17	2.33	5.38	0.08	0.15	0.6	137	162	989	12.9	1.3	33.1	3.0	0.4	1.5	10	77.8	0.53	62.0	7.70
128291	53	20	11.1	0.51	1.97	7.95	0.04	0.39	0.1	109	27	83	3.39	2.1	53.5	1.0	1.0	0.3	30	2.48	0.17	30.8	0.25
128292	43	20	9.6	0.52	1.33	6.93	0.25	0.30	0.2	126	106	167	6.67	1.4	30.3	1.0	1.2	0.2	< 10	23.0	0.43	16.5	0.26
128293	4490	20	41.4	0.18	2.97	5.48	0.15	0.25	0.4	144	121	588	15.3	0.2	310	2.1	0.6	0.9	30	8.34	0.48	> 500	2.23
128294	9890	20	54.1	0.08	2.56	4.58	0.13	0.22	0.1	103	110	464	15.3	1.0	213	2.3	0.7	1.1	60	3.60	1.25	> 500	1.96
128295	120	850	20.4	0.38	1.22	5.71	0.18	0.37	0.6	120	73	1530	10.4	1.3	54.3	1.0	0.6	0.3	160	25.6	0.87	10.8	0.44
128296	44	2720	28.2	0.69	2.48	7.65	2.17	0.29	< 0.1	158	141	476	10.4	2.1	28.3	1.7	0.8	0.5	30	1.54	4.48	11.7	1.39
128297	25	790	38.1	1.20	1.79	7.31	1.80	0.47	0.1	148	91	1510	13.6	2.3	71.9	1.6	1.2	0.6	30	0.73	2.03	171	2.03
128976	292	< 20	29.1	0.98	0.84	8.37	4.69	1.08	0.3	52	< 1	517	15.3	2.0	19.3	1.9	0.8	0.6	1220	3.27	4.50	115	1.10
128977	2330	< 20	44.8	1.65	0.78	8.77	4.31	0.83	0.2	55	7	367	7.28	2.2	34.9	1.8	1.2	0.6	50	7.17	4.28	> 500	1.10
128978	75	20	30.8	1.52	1.70	9.31	2.71	0.99	0.3	159	96	358	6.06	2.6	66.9	2.0	1.5	0.6	60	2.67	3.21	61.2	0.61
128979	4	< 20	35.5	2.01	0.79	8.60	3.30	1.34	0.1	49	1	398	9.62	2.3	1.5	1.8	1.3	0.6	< 10	0.51	5.58	3.5	1.23
128980	4	< 20	38.3	1.37	2.17	9.42	2.57	0.58	< 0.1	227	125	475	4.95	2.5	114	2.0	1.9	0.6	< 10	0.19	10.9	20.2	0.93
128981	4	< 20	37.1	1.28	2.01	9.18	2.80	0.32	< 0.1	229	114	323	4.92	2.5	105	1.7	1.4	0.5	10	0.16	9.21	19.0	0.87
128982	3	< 20	29.6	1.49	2.13	9.15	2.08	0.80	< 0.1	128	103	321	4.74	0.4	101	1.7	1.6	0.5	30	< 0.05	11.0	19.2	0.81
128983	273	50	32.6	1.61	1.93	8.25	2.87	1.38	< 0.1	218	100	306	5.91	1.7	103	1.7	1.6	0.5	60	3.38	9.16	40.5	0.81
128984	4	90	33.5	1.58	2.07	9.14	1.97	0.56	< 0.1	168	115	216	4.78	1.2	114	1.6	1.7	0.5	< 10	0.14	12.3	20.8	0.79
128985	3	570	28.7	1.55	1.91	8.81	2.60	1.00	< 0.1	230	126	335	5.13	2.6	95.7	1.9	1.7	0.6	40	0.16	10.6	19.1	0.80
128986	7	< 20	25.6	1.66	1.84	7.62	2.26	0.73	0.4	170	116	292	4.99	2.0	113	1.3	1.4	0.4	20	0.18	9.00	22.9	0.78
128987	5	< 20	19.6	1.79	1.70	7.89	2.56	0.77	< 0.1	179	106	212	4.02	2.0	124	1.3	1.3	0.4	< 10	0.20	8.90	16.2	0.68
128988	6	< 20	19.1	2.19	1.70	8.70	2.50	1.24	< 0.1	155	109	274	3.74	2.1	85.5	1.5	1.9	0.5	< 10	0.09	8.33	14.0	0.62
128989	7	< 20	17.1	1.84	1.69	8.78	2.21	0.86	< 0.1	169	99	249	3.56	2.2	86.1	1.5	1.7	0.4	< 10	0.12	9.83	16.8	0.62
128990	5	< 20	18.1	1.57	1.77	8.64	1.89	0.65	< 0.1	121	107	269	3.94	1.7	69.1	1.5	1.5	0.5	< 10	0.20	7.94	12.5	0.63
128991	534	1230	23.2	0.50	1.68	7.71	1.27	0.46	10.0	198	155	511	10.2	2.3	41.7	2.6	1.1	0.8	180	18.3	2.69	28.1	0.76
128992	24	100	32.8	0.60	1.96	7.01	1.91	0.31	0.2	102	155	920	8.94	0.4	110	1.4	0.8	0.4	30	1.91	5.40	36.0	0.52

**Results**

**Activation Laboratories Ltd.**

**Report: A18-08798**

Analyte Symbol	Au	B	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Ni	Er	Be	Ho	Hg	Ag	Cs	Co	Eu
Unit Symbol	ppb	ppm	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm
Lower Limit	2	20	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	1	1	0.01	0.1	0.5	0.1	0.1	0.1	10	0.05	0.05	0.1	0.05
Method Code	FA-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
128993	245	370	31.3	0.12	1.65	6.15	2.05	0.16	0.7	133	166	1160	11.6	0.7	120	1.0	0.7	0.3	410	9.12	2.03	207	0.42

## Results

## Activation Laboratories Ltd.

## Report: A18-08798

Analyte Symbol	Bi	Se	Zn	Ga	As	Rb	Y	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.02	0.1	0.2	0.1	0.1	0.2	0.1	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
128226	0.21	1.2	87.7	16.0	12.4	7.3	18.6	37	0.2	0.33	0.1	< 1	0.6	< 0.1	69	4.0	9.6	1.4	6.5	2.2	3.1	0.5	3.5
128227	2.05	6.3	77.5	19.7	7.7	132	27.7	25	1.9	0.94	1.5	21	3.1	< 0.1	330	28.0	54.1	6.5	27.7	7.0	7.6	1.1	6.6
128228	6.07	2.4	398	11.6	10.7	2.0	43.6	< 1	< 0.1	0.76	1.3	6	4.5	< 0.1	11	10.6	23.5	3.3	16.4	5.2	7.7	1.2	8.0
128229	1.50	2.0	155	16.4	3.1	6.4	38.8	30	0.1	0.55	2.2	6	2.1	< 0.1	177	28.6	54.5	6.6	27.6	6.3	7.4	1.1	6.9
128230	0.28	0.8	31.2	11.9	10.1	74.9	7.2	8	0.4	3.54	< 0.1	< 1	0.2	< 0.1	1270	11.7	21.9	2.3	8.5	1.6	1.6	0.2	1.4
128231	1.05	2.6	29.7	16.4	29.8	173	4.9	17	< 0.1	38.2	0.3	3	3.4	0.1	15	23.1	51.8	5.8	20.2	3.1	2.0	0.2	1.0
128232	0.89	2.5	9.9	15.3	9.7	112	18.1	19	10.2	10.3	0.1	2	3.3	0.3	81	15.7	32.0	3.7	14.4	3.2	3.3	0.5	3.6
128233	2.25	3.2	6.0	20.2	17.7	121	6.8	11	5.3	12.9	< 0.1	10	1.8	1.1	24	13.4	22.6	2.3	8.3	1.6	1.5	0.2	1.3
128234	1.11	1.1	23.3	16.5	5.9	60.2	6.8	23	2.7	65.1	< 0.1	1	0.5	0.5	106	5.3	15.0	1.6	6.7	1.5	1.5	0.2	1.5
128235	0.33	1.1	455	15.0	11.6	82.9	7.8	37	1.3	17.3	< 0.1	1	6.9	< 0.1	847	18.4	36.0	4.0	14.6	2.7	2.1	0.3	1.6
128236	0.16	1.6	71.0	24.7	5.7	59.6	19.4	21	< 0.1	0.06	< 0.1	< 1	< 0.1	< 0.1	720	13.6	30.6	4.1	17.6	4.0	3.7	0.6	3.7
128237	0.14	0.4	44.9	12.3	1.9	58.7	2.1	4	< 0.1	0.06	< 0.1	< 1	< 0.1	< 0.1	289	8.3	13.3	1.3	4.1	0.6	0.5	< 0.1	0.4
128238	2.43	2.8	58.2	35.7	3.0	138	10.3	30	3.0	0.50	0.3	2	1.0	< 0.1	183	47.0	95.2	9.9	36.4	7.3	5.3	0.6	2.9
128239	3.46	9.3	218	5.3	1140	86.1	17.4	45	5.5	1.33	1.1	< 1	1.5	< 0.1	9	3.3	13.6	2.3	10.9	2.3	2.3	0.4	2.7
128240	1810	14.7	772	0.6	6570	1.1	1.6	9	0.5	0.57	4.8	< 1	12.1	2.7	19	0.4	0.8	0.1	0.5	0.2	0.3	< 0.1	0.3
128241	105	20.5	101	17.6	> 10000	10.8	18.0	138	1.6	52.5	0.7	2	252	18.7	16	20.7	41.1	4.3	16.5	3.2	3.1	0.5	3.1
128242	11.1	10.6	95.3	12.9	1640	58.6	9.8	70	6.6	2.06	7.1	2	5.2	0.5	14	1.3	5.8	1.0	4.3	1.0	1.2	0.2	1.5
128243	1.88	5.9	55.8	26.4	422	7.8	9.4	63	3.8	2.94	1.9	2	2.1	0.1	63	7.3	14.3	1.6	5.8	1.1	1.2	0.2	1.3
128244	3.20	12.4	1140	21.7	20.4	10.8	16.1	52	3.3	2.16	0.4	4	4.8	1.2	47	9.2	24.1	3.2	14.4	4.1	4.3	0.6	3.8
128245	0.60	8.8	96.8	19.4	25.3	41.1	20.5	79	3.7	0.74	< 0.1	2	0.9	< 0.1	31	23.1	48.8	5.9	23.5	5.2	4.8	0.6	3.9
128246	1.29	1.6	0.5	11.5	22.4	56.5	16.7	51	3.6	0.96	< 0.1	< 1	8.7	< 0.1	409	7.3	15.8	2.0	8.3	2.0	2.5	0.4	2.8
128247	0.87	7.4	51.3	14.9	6.9	70.6	34.1	61	4.2	3.60	< 0.1	< 1	0.9	0.3	58	29.6	68.3	8.4	35.2	8.1	7.8	1.0	6.0
128248	2.98	22.1	1420	13.8	989	53.8	13.7	36	3.6	86.9	10.5	2	4.9	0.9	15	3.6	11.4	1.7	7.4	1.7	2.0	0.3	2.2
128249	0.12	1.2	59.2	13.8	4.8	34.0	13.7	48	0.7	1.36	< 0.1	< 1	0.5	< 0.1	1380	11.7	24.2	2.9	11.4	2.4	2.5	0.4	2.4
128250	0.46	2.0	40.9	20.5	8.4	74.9	17.6	109	1.6	0.65	< 0.1	< 1	0.7	< 0.1	745	17.3	37.5	4.6	18.6	3.8	3.5	0.5	3.0
128252	194	11.5	144	17.6	> 10000	14.5	11.2	68	3.0	4.68	4.6	3	46.9	2.8	20	5.6	11.6	1.3	5.2	1.1	1.4	0.2	1.8
128253	16.5	9.6	14.2	18.7	> 10000	9.4	10.1	93	5.0	5.09	1.3	2	20.1	1.5	14	4.4	9.0	1.0	3.9	0.9	1.0	0.2	1.4
128254	16.3	17.4	356	3.6	> 10000	44.7	5.6	56	1.5	4.15	3.2	< 1	52.6	4.8	6	0.8	3.6	0.8	4.1	1.0	1.0	0.1	1.0
128255	546	16.2	1090	0.4	> 10000	0.6	2.6	16	1.0	1.27	6.6	1	65.3	4.8	9	0.2	0.5	< 0.1	0.6	0.3	0.5	< 0.1	0.5
128256	0.92	2.2	39.8	22.4	85.5	65.2	19.4	106	12.6	2.99	< 0.1	< 1	1.2	< 0.1	638	26.7	55.9	6.6	25.7	5.3	4.6	0.6	3.8
128257	2.80	1.5	260	16.0	53.6	75.0	8.7	41	4.2	1.64	0.2	< 1	2.2	< 0.1	724	51.0	103	11.8	43.5	7.9	5.4	0.6	2.5
128258	26.2	6.1	190	26.4	> 10000	3.6	8.7	80	1.7	7.38	1.7	3	38.3	4.0	67	0.9	1.7	0.2	0.9	0.3	0.6	0.1	1.2
128259	14.7	1.5	44.5	18.9	108	1.7	6.5	35	< 0.1	63.6	0.2	4	1.1	< 0.1	24	2.1	4.2	0.5	1.8	0.4	0.5	< 0.1	0.8
128260	31.7	9.2	49.4	18.1	112	21.6	51.3	34	2.4	1.48	1.4	11	4.5	0.2	287	1060	1790	171	588	> 100	76.8	7.1	24.7
128261	1.51	1.7	69.5	13.8	25.0	167	9.0	25	2.1	1.66	0.1	3	1.2	< 0.1	1210	19.4	38.7	4.2	15.3	2.9	2.5	0.3	2.0
128262	1.13	3.7	30.4	14.1	3280	72.5	11.5	111	0.8	2.83	< 0.1	< 1	4.3	0.3	1270	10.2	20.8	2.4	9.3	2.0	2.1	0.3	2.1
128263	2.42	4.7	80.7	17.3	74.2	3.1	12.7	43	4.1	4.31	0.5	3	3.4	< 0.1	23	1.1	2.2	0.3	1.1	0.3	0.8	0.2	1.7
128264	0.63	1.1	123	15.6	43.1	72.2	16.7	12	0.8	0.74	0.1	1	0.5	< 0.1	1210	19.9	40.8	4.6	17.4	3.5	3.1	0.4	3.0
128265	1.59	3.1	260	18.2	383	88.4	21.0	147	12.6	0.71	< 0.1	2	2.6	0.2	542	10.1	25.3	3.1	13.5	3.5	3.6	0.5	3.7
128266	3.99	2.9	296	17.4	106	110	20.8	97	9.2	0.32	< 0.1	2	5.2	0.1	636	14.8	33.3	4.1	17.3	3.8	4.0	0.6	3.9
128270	828	6.3	43.2	23.0	> 10000	10.0	5.5	79	0.9	4.98	0.6	2	55.4	4.6	87	5.7	11.2	1.2	4.5	1.0	0.9	0.1	0.9
128271	> 2000	7.8	28.1	17.8	> 10000	5.6	4.7	64	0.6	11.9	0.5	2	108	2.5	42	3.6	6.9	0.8	2.9	0.6	0.6	0.1	0.7



## Results

## Activation Laboratories Ltd.

## Report: A18-08798

Analyte Symbol	Bi	Se	Zn	Ga	As	Rb	Y	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.02	0.1	0.2	0.1	0.1	0.2	0.1	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
128272	41.1	9.4	27.8	11.5	> 10000	36.4	27.0	79	0.8	22.9	0.9	2	50.7	8.3	47	38.8	72.8	7.6	28.1	5.5	5.6	0.8	5.5
128273	30.6	7.6	185	23.5	3630	32.1	18.3	54	4.9	3.69	5.5	2	9.8	1.0	56	4.0	9.8	1.4	6.7	2.1	3.0	0.5	3.1
128274	1.16	1.6	294	18.7	653	54.7	16.7	42	< 0.1	0.21	1.1	< 1	0.3	< 0.1	1480	3.4	7.2	0.8	3.4	0.9	1.4	0.3	2.2
128275	1.97	1.5	234	19.7	342	55.5	17.4	46	< 0.1	0.40	1.5	< 1	< 0.1	< 0.1	1350	2.7	5.9	0.7	2.7	0.8	1.2	0.3	2.3
128277	2.85	2.0	4.1	18.8	94.8	25.1	9.1	43	5.0	2.33	0.7	3	1.9	< 0.1	71	55.0	101	10.7	38.6	6.9	4.7	0.5	2.4
128278	1470	24.0	74.6	14.4	> 10000	6.0	52.6	175	0.9	20.3	4.1	3	203	23.6	24	143	261	28.2	103	19.8	17.2	2.3	13.1
128279	60.3	5.1	145	21.3	> 10000	60.7	13.5	71	3.9	5.29	2.7	2	28.6	3.4	32	59.6	116	12.7	46.0	8.4	6.4	0.7	3.6
128280	9.98	2.8	291	26.7	1460	7.5	15.6	57	4.8	11.3	4.1	5	5.9	0.3	41	55.4	110	12.0	43.5	8.3	6.3	0.7	3.9
128281	6.58	3.0	201	29.9	1120	3.2	15.5	63	5.8	7.79	2.0	4	5.4	0.2	32	78.5	149	16.0	57.5	10.7	7.8	0.9	4.1
128282	5.83	2.1	318	13.5	875	172	11.1	94	6.6	4.26	0.1	1	3.6	< 0.1	196	6.9	16.2	2.0	7.8	1.7	1.7	0.3	2.0
128283	119	13.1	353	16.8	> 10000	11.7	28.0	181	1.4	4.14	0.4	2	285	9.7	44	20.4	39.7	4.4	16.0	3.3	4.2	0.8	5.4
128284	96.2	2.8	169	25.3	> 10000	11.6	13.9	67	1.1	2.16	0.3	3	70.6	0.6	68	33.8	65.0	7.0	25.2	4.9	4.0	0.5	2.9
128285	2.63	1.3	125	17.3	1680	39.0	15.4	68	3.9	1.61	0.1	1	3.2	< 0.1	188	9.5	19.8	2.4	9.5	2.4	2.4	0.4	2.5
128286	118	6.9	105	24.4	> 10000	3.3	16.3	84	1.5	21.2	1.6	4	51.4	2.0	51	1.8	3.1	0.4	1.6	0.6	1.2	0.3	2.5
128287	27.0	5.6	253	15.8	336	4.5	29.6	41	3.6	2.93	0.2	2	2.2	0.3	94	1.9	3.4	0.4	1.6	0.6	1.7	0.4	3.8
128288	104	15.3	234	18.3	> 10000	4.4	19.4	90	0.1	63.4	0.3	2	91.9	29.0	14	4.6	9.5	1.1	4.7	1.3	2.2	0.4	3.2
128289	3.01	3.4	69.2	25.6	5690	5.6	18.5	69	5.9	3.04	2.0	4	11.3	0.8	340	195	407	43.4	153	25.5	17.0	1.6	6.5
128290	4.28	6.8	86.2	26.3	2060	4.1	36.0	50	8.1	26.6	7.2	7	5.6	0.6	35	579	1180	123	426	68.9	45.1	4.2	15.5
128291	15.7	4.3	9.5	18.7	172	1.2	8.6	74	6.3	5.81	0.2	6	1.3	0.4	35	4.0	7.8	0.8	3.0	0.6	0.7	0.1	1.2
128292	205	5.3	23.0	16.7	184	7.9	6.8	48	4.2	18.6	0.7	20	3.8	0.9	106	4.7	9.2	1.0	3.6	0.7	0.7	0.1	0.9
128293	10.1	14.9	80.9	26.8	> 10000	6.2	21.6	76	0.4	31.3	1.3	1	23.8	11.0	77	192	398	42.4	150	26.4	18.1	1.8	7.5
128294	17.2	15.2	41.7	22.5	> 10000	5.0	27.7	67	4.2	22.9	0.2	1	41.8	6.3	43	251	535	57.6	204	34.3	23.2	2.3	9.9
128295	362	4.5	167	16.9	250	6.0	8.0	51	2.6	83.8	3.6	15	6.5	0.3	85	15.6	29.6	3.2	11.4	2.2	1.9	0.2	1.5
128296	2.43	5.2	18.8	22.5	162	90.9	13.6	83	2.0	40.0	0.2	3	0.4	< 0.1	853	65.6	136	14.6	51.1	9.0	6.0	0.7	3.3
128297	5.07	4.5	85.9	18.5	112	56.6	14.1	73	8.8	5.98	0.1	5	1.1	0.5	64	57.9	119	13.3	49.4	9.7	7.7	0.9	4.1
128976	2.60	3.9	67.9	15.8	1390	150	16.4	84	6.4	2.67	0.5	< 1	5.7	0.3	21	17.5	51.5	6.8	27.5	5.6	5.0	0.7	3.7
128977	23.4	3.5	42.1	15.3	7390	131	15.1	98	6.7	2.71	0.9	< 1	22.5	1.6	144	28.9	61.0	7.1	27.4	5.3	4.4	0.6	3.3
128978	1.62	1.6	78.7	20.6	1200	82.8	15.6	102	8.8	3.00	0.9	3	4.9	0.2	155	19.3	41.8	4.8	18.2	3.6	3.3	0.4	2.9
128979	0.86	0.9	28.5	12.8	69.7	119	15.0	94	10.1	2.76	< 0.1	< 1	1.1	< 0.1	1460	24.7	52.3	6.2	24.1	4.7	4.1	0.5	3.4
128980	0.44	1.5	18.9	18.0	27.4	99.9	14.7	91	2.8	1.47	< 0.1	< 1	4.2	< 0.1	882	19.8	45.1	5.5	21.5	4.4	3.8	0.5	3.2
128981	2.04	1.5	14.1	17.3	51.9	105	13.0	89	3.4	1.69	< 0.1	< 1	4.3	< 0.1	902	16.9	38.3	4.7	18.2	3.7	3.4	0.4	2.8
128982	0.73	1.3	12.4	16.1	22.9	89.7	13.1	17	0.4	0.27	< 0.1	1	1.4	< 0.1	836	17.6	40.3	4.8	18.5	3.9	3.3	0.5	2.8
128983	3.47	2.4	21.9	15.5	462	139	14.0	67	5.5	2.13	0.6	< 1	5.6	0.2	291	20.5	47.8	5.6	21.9	4.7	4.4	0.5	3.1
128984	0.86	1.4	7.8	17.6	33.1	93.3	12.2	47	0.3	0.28	< 0.1	< 1	0.8	< 0.1	806	19.5	46.2	5.4	20.9	4.2	3.6	0.5	2.7
128985	0.99	1.3	25.7	16.2	125	127	14.7	98	2.2	1.40	< 0.1	< 1	3.0	< 0.1	1160	28.4	61.2	6.9	26.1	5.3	4.2	0.5	3.1
128986	0.57	1.7	5.2	16.4	231	96.0	11.5	74	6.7	2.17	< 0.1	< 1	4.9	< 0.1	691	18.1	39.2	4.9	19.2	3.9	3.3	0.4	2.4
128987	0.94	2.2	2.1	16.8	92.8	113	11.8	76	6.7	2.49	< 0.1	< 1	5.3	< 0.1	638	18.7	39.8	4.9	18.8	3.8	3.4	0.4	2.5
128988	0.93	1.5	36.7	17.1	242	122	12.6	76	0.5	1.45	< 0.1	< 1	2.7	< 0.1	772	17.8	37.9	4.6	18.3	3.6	3.3	0.4	2.5
128989	1.44	1.6	8.1	17.2	411	101	12.2	81	1.0	1.49	< 0.1	< 1	5.0	< 0.1	824	17.3	36.5	4.4	17.0	3.4	3.1	0.4	2.4
128990	1.00	1.8	19.7	19.5	55.4	87.2	13.1	59	< 0.1	0.41	< 0.1	< 1	1.0	< 0.1	790	17.6	37.2	4.5	17.2	3.3	3.0	0.4	2.5
128991	1330	8.7	1630	21.0	1630	54.8	21.7	98	3.7	6.71	0.4	2	13.3	0.1	410	35.9	68.7	7.7	29.7	6.1	5.5	0.7	4.0
128992	1.48	0.7	85.7	18.7	597	73.7	11.8	24	< 0.1	0.38	0.3	< 1	0.1	< 0.1	1440	23.1	46.3	5.4	20.5	3.8	3.1	0.4	2.3

**Results**

**Activation Laboratories Ltd.**

**Report: A18-08798**

Analyte Symbol	Bi	Se	Zn	Ga	As	Rb	Y	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.02	0.1	0.2	0.1	0.1	0.2	0.1	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
128993	11.7	2.3	183	16.9	5980	63.4	8.4	44	0.8	3.30	1.0	< 1	13.1	0.9	197	20.5	40.8	4.7	17.4	3.3	2.6	0.3	1.8

Analyte Symbol	Cu	Ge	Tm	Yb	Lu	Ta	Sr	W	Re	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.001	0.05	0.5	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
128226	21.2	0.6	0.3	2.1	0.3	< 0.1	66.0	< 0.1	< 0.001	0.05	1.6	1.7	0.8
128227	515	0.6	0.4	2.5	0.3	< 0.1	124	0.6	0.001	1.63	6.0	2.5	0.9
128228	116	0.2	0.6	3.3	0.4	< 0.1	235	0.3	< 0.001	< 0.05	19.1	1.5	0.6
128229	8.7	0.7	0.5	3.0	0.4	< 0.1	187	< 0.1	< 0.001	0.08	2.4	2.5	1.6
128230	32.9	< 0.1	0.1	0.8	0.1	< 0.1	495	< 0.1	0.001	0.61	5.4	11.2	3.2
128231	> 10000	0.2	< 0.1	0.5	< 0.1	< 0.1	35.7	> 200	0.005	1.00	2.1	1.1	8.6
128232	6050	0.1	0.3	1.7	0.2	0.8	220	161	0.003	0.94	3.4	8.4	3.7
128233	126	0.2	0.1	0.8	0.1	0.4	93.0	154	0.002	0.61	0.6	3.1	11.6
128234	489	0.1	0.1	1.0	0.1	< 0.1	325	199	0.005	0.48	4.6	3.1	5.0
128235	49.6	0.4	0.1	0.8	0.1	< 0.1	345	1.4	0.001	0.65	9.1	5.8	3.3
128236	16.3	0.1	0.3	2.0	0.3	< 0.1	240	0.2	0.001	0.56	5.6	2.6	1.2
128237	8.4	< 0.1	< 0.1	0.2	< 0.1	< 0.1	217	0.1	< 0.001	0.51	2.1	1.0	0.8
128238	570	0.4	0.2	1.4	0.3	< 0.1	110	0.9	0.001	0.70	5.6	0.5	4.8
128239	4450	0.4	0.2	1.2	0.2	0.3	19.9	48.7	0.001	0.59	1.8	0.3	1.4
128240	> 10000	0.6	< 0.1	< 0.1	< 0.1	< 0.1	4.9	> 200	0.016	0.21	25.4	< 0.1	0.2
128241	4140	2.1	0.3	1.8	0.3	< 0.1	126	23.8	0.002	0.29	6.3	1.4	72.9
128242	> 10000	0.2	0.2	1.3	0.2	0.3	32.6	130	0.004	0.87	0.9	0.6	2.3
128243	> 10000	0.1	0.2	1.4	0.3	0.2	120	38.7	0.004	0.27	< 0.5	2.9	2.1
128244	950	0.4	0.2	1.5	0.2	0.3	157	4.9	0.001	0.43	54.2	1.7	1.3
128245	315	0.4	0.3	1.7	0.3	< 0.1	228	0.9	< 0.001	1.32	4.8	4.2	1.8
128246	72.9	< 0.1	0.2	1.4	0.2	0.1	1120	2.2	0.003	0.47	< 0.5	3.3	1.6
128247	374	0.3	0.4	2.3	0.3	0.2	141	3.7	0.004	0.57	21.5	3.7	1.7
128248	> 10000	0.4	0.2	1.4	0.2	0.2	75.2	10.2	0.001	0.43	27.4	0.7	34.7
128249	38.7	0.5	0.2	1.1	0.2	< 0.1	568	0.4	0.001	0.29	1.9	3.6	1.9
128250	137	0.5	0.3	1.9	0.3	< 0.1	411	0.3	0.003	0.60	2.8	5.0	2.8
128252	> 10000	0.7	0.2	1.3	0.2	< 0.1	63.0	> 200	0.012	0.73	15.1	1.6	13.7
128253	6850	0.5	0.2	1.4	0.2	0.3	72.0	15.1	0.002	0.19	3.0	1.7	31.2
128254	> 10000	0.8	< 0.1	0.4	< 0.1	< 0.1	11.4	> 200	0.012	0.37	4.2	0.2	1.2
128255	> 10000	1.0	< 0.1	0.1	< 0.1	< 0.1	4.1	> 200	0.026	0.13	18.7	< 0.1	0.1
128256	178	0.3	0.3	1.6	0.2	0.6	514	23.6	< 0.001	0.60	6.9	4.7	1.8
128257	156	0.5	0.1	0.8	0.1	0.1	44.7	16.8	< 0.001	0.50	3.3	3.2	1.3
128258	5800	0.7	0.2	1.7	0.3	< 0.1	153	34.1	0.003	0.16	37.0	5.5	8.8
128259	67.6	0.3	0.1	1.1	0.2	< 0.1	105	2.7	0.014	< 0.05	26.7	2.6	1.7
128260	2530	2.5	0.3	1.7	0.3	< 0.1	86.5	193	0.004	0.12	3.9	7.9	4.4
128261	47.0	0.3	0.1	0.8	0.1	< 0.1	76.4	5.7	< 0.001	1.31	4.6	7.2	2.7
128262	113	0.3	0.2	1.5	0.3	< 0.1	192	4.4	< 0.001	0.56	4.5	4.6	3.1
128263	945	0.1	0.2	1.5	0.2	< 0.1	86.5	5.8	0.001	0.11	18.1	3.4	6.8
128264	57.8	0.3	0.3	1.8	0.3	< 0.1	344	1.3	0.002	0.78	14.6	10.1	4.4
128265	24.3	0.3	0.3	2.0	0.3	0.6	111	2.5	< 0.001	1.22	47.1	5.5	1.9
128266	2.3	0.3	0.3	2.0	0.3	0.5	104	1.7	< 0.001	1.65	28.5	4.1	1.7
128270	1080	0.7	0.1	1.1	0.2	< 0.1	59.6	67.0	0.001	0.17	27.7	3.7	4.1
128271	786	0.7	0.1	0.9	0.2	< 0.1	53.8	28.6	0.001	0.06	84.5	2.6	3.5

Analyte Symbol	Cu	Ge	Tm	Yb	Lu	Ta	Sr	W	Re	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.001	0.05	0.5	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
128272	2760	1.1	0.4	2.3	0.3	< 0.1	35.8	> 200	0.006	0.24	28.2	1.7	10.2
128273	8060	0.3	0.3	2.4	0.4	0.2	92.4	18.6	0.001	0.33	61.2	4.2	5.0
128274	3180	0.3	0.3	2.5	0.4	< 0.1	88.9	2.0	< 0.001	0.41	4.1	5.9	4.0
128275	2960	0.3	0.4	2.6	0.4	< 0.1	134	1.4	< 0.001	0.59	4.6	5.3	4.4
128277	2130	0.2	0.2	1.2	0.2	0.3	75.4	20.3	< 0.001	0.25	7.5	3.6	2.1
128278	> 10000	2.9	0.7	3.8	0.5	< 0.1	65.4	> 200	0.023	0.28	161	2.7	20.2
128279	7790	0.6	0.2	1.5	0.3	0.2	40.4	134	0.004	0.57	24.3	4.2	6.0
128280	> 10000	0.4	0.3	1.7	0.3	0.3	97.7	95.7	0.002	0.25	6.7	4.1	6.3
128281	5870	0.5	0.2	1.6	0.3	0.4	85.1	47.7	0.002	0.14	16.3	4.2	5.9
128282	178	0.3	0.2	1.8	0.3	0.3	72.3	38.9	0.001	1.40	18.9	4.4	4.4
128283	154	2.5	0.4	2.5	0.4	< 0.1	68.6	39.3	0.001	0.27	47.5	2.9	7.1
128284	188	0.6	0.2	1.5	0.3	< 0.1	102	> 200	0.006	0.18	41.6	3.8	6.8
128285	295	0.2	0.2	1.7	0.3	< 0.1	148	31.9	0.003	0.37	10.9	4.4	2.9
128286	6130	0.5	0.3	2.0	0.4	< 0.1	144	34.0	0.001	0.15	96.1	4.3	9.5
128287	364	0.5	0.5	2.9	0.4	0.2	74.8	10.8	0.001	0.14	80.5	1.8	1.9
128288	345	1.4	0.3	1.9	0.3	< 0.1	62.8	19.7	0.002	0.10	18.8	1.3	9.8
128289	2180	0.7	0.2	1.5	0.2	0.4	46.0	> 200	0.023	0.05	3.6	4.9	3.5
128290	> 10000	1.5	0.3	1.9	0.3	0.4	44.7	57.8	0.003	0.18	4.7	5.3	9.5
128291	346	0.1	0.2	1.3	0.2	0.7	88.4	23.7	0.002	< 0.05	7.5	6.6	3.5
128292	1660	0.2	0.2	1.4	0.2	0.3	115	14.9	0.002	0.07	70.5	3.6	2.4
128293	3440	1.5	0.3	1.7	0.3	< 0.1	39.1	24.9	0.001	0.23	24.8	5.5	13.1
128294	539	1.3	0.3	1.5	0.2	< 0.1	30.8	11.0	< 0.001	1.42	8.2	3.8	16.0
128295	> 10000	0.2	0.2	1.3	0.2	< 0.1	88.9	11.8	0.002	0.11	128	3.6	6.7
128296	357	0.8	0.3	2.0	0.4	< 0.1	100	4.4	< 0.001	0.75	2.6	5.2	14.9
128297	132	0.6	0.2	1.5	0.2	0.6	166	19.2	0.001	0.71	10.4	7.3	3.7
128976	2190	0.4	0.2	1.5	0.2	0.2	108	> 200	0.035	1.25	1.4	1.0	2.0
128977	4700	0.4	0.2	1.6	0.2	0.2	160	58.7	0.001	1.12	6.0	4.3	2.8
128978	1960	0.3	0.3	2.3	0.4	0.6	206	45.7	0.005	0.85	3.4	4.9	5.6
128979	147	0.4	0.3	1.7	0.2	0.4	265	28.0	< 0.001	1.09	3.3	5.2	2.1
128980	44.6	0.7	0.3	2.0	0.3	< 0.1	119	7.7	0.003	0.81	1.8	7.5	2.9
128981	61.9	0.6	0.3	1.8	0.3	< 0.1	86.1	6.7	0.004	0.81	3.6	6.3	2.7
128982	55.9	0.5	0.3	1.8	0.3	< 0.1	145	4.5	0.002	1.12	0.7	6.4	2.5
128983	2020	0.3	0.3	1.7	0.3	0.2	211	24.3	0.003	1.50	1.4	6.3	2.6
128984	82.7	0.4	0.3	1.8	0.3	< 0.1	124	3.9	0.002	1.33	1.7	6.8	2.5
128985	81.1	0.7	0.3	2.0	0.3	< 0.1	171	7.8	0.002	1.49	0.8	7.7	2.8
128986	97.7	0.3	0.2	1.3	0.2	0.5	161	2.3	0.003	1.22	2.6	5.8	2.4
128987	90.3	0.3	0.2	1.4	0.2	0.5	162	3.6	0.002	1.29	3.2	6.1	2.6
128988	68.7	0.6	0.2	1.6	0.3	< 0.1	229	0.8	0.002	1.32	3.0	7.2	3.1
128989	45.8	0.6	0.2	1.5	0.3	< 0.1	165	1.0	0.002	1.32	2.9	7.0	3.1
128990	104	0.4	0.2	1.6	0.3	< 0.1	147	0.4	0.001	1.04	2.3	6.7	3.0
128991	244	0.4	0.4	2.8	0.5	< 0.1	87.0	10.7	0.002	0.55	967	6.0	4.7
128992	509	0.4	0.2	1.4	0.2	< 0.1	88.4	0.4	0.003	1.00	4.8	5.2	3.6

**Results****Activation Laboratories Ltd.****Report: A18-08798**

Analyte Symbol	Cu	Ge	Tm	Yb	Lu	Ta	Sr	W	Re	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.001	0.05	0.5	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
128993	2150	0.5	0.2	1.1	0.2	< 0.1	36.8	26.0	0.002	0.58	11.4	4.5	3.8

Analyte Symbol	Au	B	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Ni	Er	Be	Ho	Hg	Ag	Cs	Co	Eu
Unit Symbol	ppb	ppm	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm
Lower Limit	2	20	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	1	1	0.01	0.1	0.5	0.1	0.1	0.1	10	0.05	0.05	0.1	0.05
Method Code	FA-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
SDC-1 Meas		< 20	41.3	1.54	1.08	9.27	2.06	1.14		39	36	864	5.21	0.3	38.5	4.1	3.2	1.3	30		4.40	19.8	1.61
SDC-1 Cert		13.00	34.0	1.52	1.02	8.34	2.72	1.00		102.00	64.00	880.00	4.82	8.30	38.0	4.10	3.00	1.50	200.00		4.00	18.0	1.70
GXR-6 Meas		< 20	42.2	0.10	0.66	> 10.0	1.56	0.23	< 0.1	90	33	903	5.11	1.5	22.4		1.2		50	0.24	3.76	12.5	0.55
GXR-6 Cert		9.80	32.0	0.104	0.609	17.7	1.87	0.180	1.00	186	96.0	1010	5.58	4.30	27.0		1.40		68.0	1.30	4.20	13.8	0.760
DNC-1a Meas			4.4							129	135				256							54.3	0.49
DNC-1a Cert			5.2							148	270				247							57	0.59
OREAS 214 Meas	3070																						
OREAS 214 Cert	3030																						
OREAS 218 Meas	553																						
OREAS 218 Cert	531																						
OREAS 218 Meas	526																						
OREAS 218 Cert	531																						
OREAS 218 Meas	516																						
OREAS 218 Cert	531																						
OREAS 218 Meas	537																						
OREAS 218 Cert	531																						
OREAS 224 (Fire Assay) Meas	2100																						
OREAS 224 (Fire Assay) Cert	2150																						
OREAS 224 (Fire Assay) Meas	2180																						
OREAS 224 (Fire Assay) Cert	2150																						
OREAS 923 (4 Acid) Meas			32.0	0.33	1.70	7.84	1.68	0.49	0.4	91	69	847	6.73	1.5	38.0	2.6	2.2	0.8		1.43	6.39	23.6	1.11
OREAS 923 (4 Acid) Cert			31.4	0.324	1.69	7.29	2.51	0.473	0.420	91.0	71.0	950	6.43	3.42	35.8	2.86	2.42	0.960		1.60	6.70	23.1	1.37
128231 Orig	245																						
128231 Dup	287																						
128238 Orig		< 20	46.6	0.93	2.40	8.19	1.66	0.51	0.1	216	41	640	15.0	< 0.1	7.5	1.1	0.6	0.4	20	0.79	3.89	4.9	0.73
128238 Dup		< 20	45.1	0.89	2.27	7.85	1.58	0.50	< 0.1	214	43	635	14.6	0.3	7.5	1.2	0.7	0.4	30	0.91	4.06	4.8	0.75
128242 Orig	1270																						
128242 Dup	1050																						
128253 Orig		210	15.2	0.47	1.21	6.25	0.46	0.47	0.1	96	75	310	31.3	1.7	89.0	1.1	0.6	0.3	30	6.41	0.26	> 500	0.27
128253 Dup		970	15.1	0.47	1.21	6.25	0.47	0.49	< 0.1	98	75	349	31.9	1.7	90.1	1.2	0.6	0.3	20	6.58	0.26	> 500	0.27
128255 Orig	17100																						
128255 Dup	14800																						
128270 Orig	2120																						
128270 Dup	2020																						
128280 Orig	208	30	23.2	0.43	2.16	7.17	0.23	0.41	1.4	157	141	1440	13.0	1.5	108	1.8	0.8	0.6	60	35.8	0.39	41.6	0.96
128280 Split PREP DUP	194	20	23.6	0.44	2.19	7.38	0.22	0.45	1.4	159	133	1510	13.0	1.4	104	1.7	0.9	0.6	40	36.9	0.40	34.9	0.90
128281 Orig	265	20	34.8	0.35	2.77	7.68	0.09	0.38	0.7	165	152	2240	17.7	1.6	298	1.7	0.7	0.6	40	18.6	0.40	47.2	1.20

Analyte Symbol	Au	B	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Ni	Er	Be	Ho	Hg	Ag	Cs	Co	Eu
Unit Symbol	ppb	ppm	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm
Lower Limit	2	20	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	1	1	0.01	0.1	0.5	0.1	0.1	0.1	10	0.05	0.05	0.1	0.05
Method Code	FA-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
128281 Dup	246	20	34.1	0.34	2.72	7.47	0.09	0.37	0.8	162	152	2220	17.3	1.6	291	1.6	0.7	0.6	< 10	17.7	0.39	47.5	1.17
128293 Orig	4390																						
128293 Dup	4580																						
128295 Orig		450	19.8	0.38	1.20	5.61	0.17	0.35	0.7	118	73	1500	10.3	1.2	52.9	1.0	0.5	0.3	140	25.5	0.86	10.7	0.42
128295 Dup		1250	20.9	0.39	1.24	5.81	0.18	0.38	0.6	122	73	1560	10.6	1.3	55.7	1.1	0.7	0.3	180	25.7	0.88	10.9	0.45
128983 Orig	278																						
128983 Dup	268																						
Method Blank	< 2																						
Method Blank	4																						
Method Blank	< 2																						
Method Blank	< 2																						
Method Blank	< 2																						
Method Blank		< 20	< 0.5	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.1	< 1	< 1	9	< 0.01	< 0.1	< 0.5	< 0.1	< 0.1	< 0.1	60	< 0.05	< 0.05	< 0.1	< 0.05
Method Blank	< 2																						



Analyte Symbol	Bi	Se	Zn	Ga	As	Rb	Y	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.02	0.1	0.2	0.1	0.1	0.2	0.1	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
SDC-1 Meas			120	19.9	1.4	92.0		17	< 0.1			< 1	< 0.1		733	43.8	101		44.2	8.4	7.6	1.1	7.2
SDC-1 Cert			103.00	21.00	0.220	127.00		290.00	21.00			3.00	0.54		630	42.00	93.00		40.00	8.20	7.00	1.20	6.70
GXR-6 Meas	0.17	1.2	123	32.6	189	64.0	10.8	57	< 0.1	0.37	< 0.1	< 1	0.3	< 0.1	1670	11.1	32.0		11.3	2.3	2.2	0.3	2.1
GXR-6 Cert	0.290	0.940	118	35.0	330	90.0	14.0	110	7.50	2.40	0.260	1.70	3.60	0.0180	1300	13.9	36.0		13.0	2.67	2.97	0.415	2.80
DNC-1a Meas			58.5	11.6		3.1	14.2	31	< 0.1				< 0.1		100	3.1			4.4				
DNC-1a Cert			70	15		5	18.0	38.0	3				0.96		118	3.6			5.20				
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 224 (Fire Assay) Meas																							
OREAS 224 (Fire Assay) Cert																							
OREAS 224 (Fire Assay) Meas																							
OREAS 224 (Fire Assay) Cert																							
OREAS 923 (4 Acid) Meas	24.0	6.2	381	18.3	5.7	104	23.9	73	2.7	0.82	0.4	13	0.9		411	37.6	80.8	9.2	33.7	6.1	5.4	0.7	4.7
OREAS 923 (4 Acid) Cert	21.4	6.54	345	20.3	7.61	166	26.4	116	14.1	0.930	0.520	13.3	1.29		434	42.2	83.0	9.58	35.4	6.64	5.73	0.850	5.05
128231 Orig																							
128231 Dup																							
128238 Orig	2.30	3.0	62.4	35.9	2.7	140	10.4	9	2.3	0.49	0.3	2	0.9	< 0.1	179	46.7	94.6	9.8	35.9	7.2	5.2	0.6	3.0
128238 Dup	2.56	2.6	54.1	35.5	3.4	136	10.1	51	3.6	0.50	0.3	2	1.1	< 0.1	187	47.4	95.8	10.1	37.0	7.4	5.4	0.6	2.9
128242 Orig																							
128242 Dup																							
128253 Orig	16.4	10.0	12.5	18.6	> 10000	9.3	10.0	91	5.0	5.00	1.3	1	22.0	1.5	12	4.4	9.1	1.0	3.9	0.9	1.0	0.2	1.4
128253 Dup	16.6	9.1	15.9	18.9	> 10000	9.5	10.2	95	5.0	5.19	1.3	2	18.3	1.5	15	4.4	9.0	1.0	3.9	0.8	1.0	0.2	1.4
128255 Orig																							
128255 Dup																							
128270 Orig																							
128270 Dup																							
128280 Orig	9.98	2.8	291	26.7	1460	7.5	15.6	57	4.8	11.3	4.1	5	5.9	0.3	41	55.4	110	12.0	43.5	8.3	6.3	0.7	3.9
128280 Split PREP DUP	6.22	2.5	294	27.4	1310	7.3	16.0	57	4.9	11.4	4.2	5	6.5	0.2	41	53.4	104	11.1	41.2	7.7	6.0	0.7	3.8
128281 Orig	6.61	3.1	201	30.3	1110	3.3	15.6	63	5.8	7.87	2.1	4	6.0	0.3	36	80.1	151	16.3	58.5	10.8	8.0	0.9	4.1

Analyte Symbol	Bi	Se	Zn	Ga	As	Rb	Y	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.02	0.1	0.2	0.1	0.1	0.2	0.1	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
128281 Dup	6.55	2.9	201	29.5	1120	3.1	15.4	63	5.8	7.70	2.0	4	4.9	0.2	28	76.8	147	15.7	56.5	10.5	7.5	0.8	4.0
128293 Orig																							
128293 Dup																							
128295 Orig	348	4.4	163	16.7	249	5.9	7.9	50	2.5	82.7	3.5	15	6.0	0.3	83	15.1	28.7	3.1	11.0	2.2	1.8	0.2	1.5
128295 Dup	376	4.6	172	17.0	250	6.1	8.1	51	2.7	84.8	3.6	15	7.1	0.2	86	16.1	30.5	3.3	11.9	2.3	1.9	0.3	1.6
128983 Orig																							
128983 Dup																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank	< 0.02	0.6	1.3	< 0.1	< 0.1	< 0.2	< 0.1	< 1	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	< 1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Method Blank																							

Analyte Symbol	Cu	Ge	Tm	Yb	Lu	Ta	Sr	W	Re	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.001	0.05	0.5	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
SDC-1 Meas	33.9		0.6	3.8		< 0.1	176	2.4		0.61	26.7	13.1	3.5
SDC-1 Cert	30.000		0.65	4.00		1.20	180.00	0.80		0.70	25.00	12.00	3.10
GXR-6 Meas	60.2			1.5	0.2	< 0.1	43.3	1.6		1.46	86.6	5.4	1.4
GXR-6 Cert	66.0			2.40	0.330	0.485	35.0	1.90		2.20	101	5.30	1.54
DNC-1a Meas	95.4			1.7			124				5.7		
DNC-1a Cert	100			2.0			144				6.3		
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 224 (Fire Assay) Meas													
OREAS 224 (Fire Assay) Cert													
OREAS 224 (Fire Assay) Meas													
OREAS 224 (Fire Assay) Cert													
OREAS 923 (4 Acid) Meas	4850		0.4	2.5	0.4	< 0.1	38.5	1.7		0.68	81.1	16.0	3.2
OREAS 923 (4 Acid) Cert	4230		0.410	2.57	0.390	1.11	43.0	4.85		0.860	83.0	16.5	3.06
128231 Orig													
128231 Dup													
128238 Orig	575	0.4	0.2	1.3	0.3	< 0.1	110	0.7	0.001	0.66	6.3	0.5	4.8
128238 Dup	565	0.3	0.2	1.4	0.3	< 0.1	110	1.0	0.001	0.73	5.0	0.5	4.8
128242 Orig													
128242 Dup													
128253 Orig	6780	0.5	0.2	1.3	0.2	0.3	71.9	18.3	0.001	0.21	3.1	1.7	31.4
128253 Dup	6920	0.5	0.2	1.5	0.2	0.3	72.1	11.9	0.002	0.18	2.9	1.7	30.9
128255 Orig													
128255 Dup													
128270 Orig													
128270 Dup													
128280 Orig	> 10000	0.4	0.3	1.7	0.3	0.3	97.7	95.7	0.002	0.25	6.7	4.1	6.3
128280 Split PREP DUP	> 10000	0.3	0.2	1.7	0.3	0.3	105	75.9	0.003	0.22	6.7	3.8	5.9
128281 Orig	5910	0.5	0.2	1.7	0.3	0.4	86.3	49.4	0.003	0.14	15.9	4.2	5.8

Analyte Symbol	Cu	Ge	Tm	Yb	Lu	Ta	Sr	W	Re	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.001	0.05	0.5	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
128281 Dup	5820	0.5	0.2	1.6	0.3	0.4	83.9	46.0	0.002	0.14	16.7	4.1	5.9
128293 Orig													
128293 Dup													
128295 Orig	> 10000	0.3	0.2	1.3	0.2	< 0.1	87.5	11.7	0.002	0.15	126	3.5	6.5
128295 Dup	> 10000	0.2	0.2	1.3	0.2	< 0.1	90.4	12.0	0.002	0.08	131	3.8	6.9
128983 Orig													
128983 Dup													
Method Blank													
Method Blank													
Method Blank													
Method Blank													
Method Blank													
Method Blank	0.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.2	< 0.1	< 0.001	< 0.05	< 0.5	< 0.1	< 0.1
Method Blank													



**Date Submitted:** 05-Jul-18  
**Invoice No.:** A18-08799  
**Invoice Date:** 01-Aug-18  
**Your Reference:** RD Cobalt Property

**Dahrouge Geological Consulting Ltd.**  
**10509-81 Ave.**  
**Suite 18**  
**Edmonton AB T6E 1X7**  
**Canada**

**ATTN: Jody Dahrouge**

## CERTIFICATE OF ANALYSIS

287 Soil samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1A2-ICP Kamloops Au-Fire Assay ICPOES 30g

Code UT-4-Kamloops Total Digestion ICP/MS

REPORT      **A18-08799**

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

Notes:

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

CERTIFIED BY:

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

Emmanuel Esemé , Ph.D.  
Quality Control

**ACTIVATION LABORATORIES LTD.**  
9989 Dallas Drive, Kamloops, British Columbia, Canada, V2C 6T4  
TELEPHONE +250 573-4484 or +1.888.228.5227 FAX +1.905.648.9613  
E-MAIL Kamloops@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

## Results

## Activation Laboratories Ltd.

## Report: A18-08799

Analyte Symbol	Au	B	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Ni	Er	Be	Ho	Hg	Ag	Cs	Co	Eu
Unit Symbol	ppb	ppm	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm
Lower Limit	2	20	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	1	1	0.01	0.1	0.5	0.1	0.1	0.1	10	0.05	0.05	0.1	0.05
Method Code	FA-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
121126	< 2	< 20	22.4	2.31	0.67	7.35	1.01	1.01	0.3	65	24	516	3.42	< 0.1	27.5	1.5	0.9	0.5	30	0.21	2.11	11.7	0.73
121127	< 2	< 20	24.7	2.12	0.56	6.90	0.98	0.96	0.6	87	24	656	3.39	< 0.1	29.1	1.4	0.9	0.4	50	0.33	2.45	13.4	0.66
121128	2	< 20	21.5	2.12	0.55	6.48	0.94	0.87	0.5	39	19	530	2.91	< 0.1	22.4	1.3	0.8	0.4	40	0.29	1.87	11.0	0.65
121129	< 2	< 20	30.7	1.92	0.69	8.11	0.96	0.88	0.1	29	34	431	3.96	0.5	32.1	2.0	1.1	0.7	40	0.47	2.59	12.6	1.20
121130	< 2	< 20	24.6	2.09	0.68	7.64	1.05	0.81	0.1	24	31	441	3.96	0.4	26.7	1.4	1.0	0.4	20	0.22	2.26	12.6	0.63
121131	< 2	< 20	24.7	2.01	0.63	7.41	1.00	0.70	0.2	47	34	733	3.88	1.4	33.3	1.3	0.8	0.4	< 10	0.25	2.06	12.9	0.63
121132	< 2	< 20	24.7	1.93	0.55	7.09	0.94	1.08	0.3	34	37	415	4.22	0.9	24.2	1.3	1.0	0.4	< 10	0.21	2.08	11.7	0.61
121133	4	< 20	29.6	2.12	0.64	7.85	1.05	0.68	0.2	21	35	375	4.34	0.9	30.5	1.4	0.7	0.4	20	0.18	2.17	13.9	0.56
121134	4	< 20	23.5	2.04	0.62	7.60	0.97	1.01	0.4	99	21	617	3.95	< 0.1	39.0	1.5	0.9	0.4	30	0.20	2.23	12.8	0.70
121135	105	< 20	18.3	1.59	0.53	5.72	0.84	1.68	0.6	68	32	687	3.09	< 0.1	18.8	1.1	0.6	0.3	50	0.36	1.67	9.8	0.53
121136	< 2	< 20	23.9	2.06	0.71	7.72	1.08	0.87	0.3	59	35	593	4.08	< 0.1	29.2	1.6	1.2	0.5	20	0.08	2.07	12.9	0.79
121137	< 2	< 20	26.5	2.14	0.53	7.56	1.04	0.91	0.4	78	42	716	3.84	0.1	21.5	1.5	0.9	0.4	< 10	0.18	2.35	11.9	0.75
121138	< 2	< 20	23.9	2.10	0.69	7.64	1.09	0.76	0.3	70	41	663	4.02	1.4	25.9	1.4	0.9	0.4	< 10	0.11	2.01	12.0	0.76
121139	< 2	< 20	23.6	2.14	0.78	7.62	1.09	0.95	0.2	59	39	769	4.11	1.5	23.5	1.8	1.0	0.6	< 10	0.07	2.04	12.1	0.95
121140	< 2	< 20	31.6	1.92	0.66	7.57	1.01	0.99	0.4	48	43	1440	3.99	1.4	28.2	2.0	1.1	0.6	< 10	0.41	2.73	15.1	1.13
121141	< 2	< 20	25.3	2.08	0.74	7.44	1.08	0.95	0.2	41	38	669	4.36	0.2	24.6	1.7	0.8	0.5	< 10	0.21	2.15	12.8	0.80
121142	< 2	< 20	26.2	2.06	0.55	7.08	0.95	1.05	0.7	39	37	967	4.06	< 0.1	20.8	1.8	0.9	0.6	40	0.24	2.32	15.9	0.97
121143	3	20	26.5	1.93	0.54	6.81	0.90	0.73	0.2	43	42	356	3.99	0.1	18.0	1.2	0.7	0.3	60	0.05	1.92	10.0	0.53
121144	2	< 20	26.5	2.10	0.75	7.58	1.02	0.91	< 0.1	57	35	468	3.74	1.7	21.8	1.9	0.9	0.6	60	0.11	1.98	9.6	1.04
121145	< 2	< 20	22.3	2.06	0.54	6.94	0.97	0.76	0.2	16	28	363	3.40	0.6	18.3	1.1	0.7	0.3	< 10	0.07	1.85	10.2	0.54
121146	< 2	< 20	24.2	2.00	0.60	7.21	1.00	0.86	0.4	56	46	808	3.60	1.5	21.6	1.3	0.8	0.4	< 10	0.22	2.11	11.5	0.62
121147	< 2	< 20	22.9	2.03	0.41	6.07	0.98	0.81	0.8	101	41	1490	3.67	1.8	16.3	1.1	0.8	0.3	< 10	0.21	2.14	11.8	0.50
121148	2	< 20	23.8	2.02	0.60	6.57	1.06	0.89	1.0	107	43	1510	4.20	1.9	23.9	1.3	1.0	0.4	< 10	0.38	2.14	14.2	0.65
121149	< 2	< 20	24.7	2.02	0.62	7.41	0.99	0.69	0.3	68	43	466	4.12	1.7	23.6	1.3	0.8	0.4	< 10	0.21	2.00	11.1	0.66
121150	< 2	< 20	24.8	2.04	0.60	7.37	0.95	0.64	0.1	28	34	395	3.79	1.0	22.3	1.2	0.8	0.4	< 10	0.32	1.78	12.8	0.60
121181	4	< 20	31.2	1.92	0.62	8.18	0.87	0.62	0.2	80	39	403	3.95	1.1	44.4	1.5	1.2	0.5	< 10	1.10	3.78	14.4	0.75
121182	4	< 20	25.8	2.26	0.51	6.74	0.95	0.93	0.1	27	29	437	2.40	0.7	19.1	1.4	0.8	0.4	< 10	0.38	2.30	10.3	0.69
121183	< 2	< 20	23.0	2.09	0.63	7.15	0.86	0.64	0.1	35	29	469	3.43	< 0.1	25.6	1.5	0.8	0.4	30	0.26	2.25	10.7	0.65
121184	< 2	< 20	24.6	2.11	0.56	6.99	0.83	0.72	< 0.1	82	42	469	2.86	2.0	22.0	1.4	0.8	0.4	< 10	0.53	2.60	9.0	0.72
121185	13	< 20	21.8	2.11	0.60	6.73	0.78	0.75	0.1	79	35	384	3.02	2.0	25.4	1.3	0.7	0.4	< 10	0.23	2.43	10.2	0.66
121186	9	< 20	26.8	2.11	0.55	6.58	1.02	0.79	0.2	89	40	604	3.67	1.6	23.4	1.2	1.2	0.4	< 10	0.62	2.50	12.1	0.57
121187	< 2	< 20	27.0	2.27	0.55	6.94	1.18	1.08	0.2	96	41	592	3.40	1.6	22.6	1.3	1.0	0.4	< 10	1.28	2.73	9.9	0.65
121188	7	< 20	23.0	2.20	0.60	6.91	1.21	1.18	0.2	84	38	682	3.12	1.5	30.5	1.3	1.0	0.4	< 10	0.52	2.78	11.8	0.71
121189	< 2	< 20	28.6	2.17	0.49	6.54	0.86	0.75	0.2	39	37	524	2.55	1.1	18.9	1.3	0.7	0.4	< 10	0.25	2.59	9.1	0.64
121190	< 2	< 20	27.7	2.07	0.48	6.47	0.84	0.82	0.2	41	38	430	2.69	1.5	22.0	1.3	0.7	0.4	< 10	0.24	2.30	9.2	0.57
121191	< 2	< 20	29.0	2.19	0.60	7.40	0.89	0.74	0.3	49	36	504	3.44	< 0.1	27.8	1.5	1.0	0.4	< 10	0.27	2.49	11.4	0.71
121192	< 2	< 20	24.2	2.22	0.61	7.17	0.85	0.73	< 0.1	36	26	318	2.72	< 0.1	18.8	1.6	0.6	0.5	40	0.13	2.29	6.8	0.78
121193	< 2	< 20	26.9	2.11	0.60	7.01	0.82	0.74	0.2	42	28	494	3.44	< 0.1	28.1	1.4	1.0	0.4	20	0.30	2.85	11.1	0.69
121194	2	< 20	23.3	2.04	0.54	6.63	0.79	0.86	0.3	75	13	785	2.91	< 0.1	23.9	1.4	0.8	0.4	30	0.35	2.47	11.2	0.64
121195	3	< 20	29.6	1.99	0.67	7.08	0.95	1.00	0.3	102	43	523	3.72	1.8	38.4	1.4	0.9	0.4	< 10	0.60	3.39	14.9	0.66
121196	< 2	< 20	28.0	1.88	0.49	7.25	0.81	0.71	0.3	97	38	955	3.45	1.8	30.2	1.3	0.9	0.4	< 10	0.53	3.67	14.4	0.62
121197	< 2	< 20	21.1	1.90	0.50	5.88	0.69	0.58	0.1	77	39	578	3.22	1.8	25.5	1.1	0.8	0.3	< 10	0.60	2.48	11.4	0.47

## Results

## Activation Laboratories Ltd.

## Report: A18-08799

Analyte Symbol	Au	B	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Ni	Er	Be	Ho	Hg	Ag	Cs	Co	Eu
Unit Symbol	ppb	ppm	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm
Lower Limit	2	20	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	1	1	0.01	0.1	0.5	0.1	0.1	0.1	10	0.05	0.05	0.1	0.05
Method Code	FA-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
121198	< 2	< 20	31.9	1.85	0.62	7.99	0.85	0.61	< 0.1	114	50	403	4.00	1.8	43.8	1.4	1.1	0.4	< 10	0.20	3.81	14.4	0.70
121199	3	< 20	27.3	1.70	0.65	7.42	0.80	0.83	0.2	109	73	654	4.60	0.9	36.7	1.4	0.9	0.4	< 10	0.44	3.80	14.1	0.65
121200	2	< 20	29.4	2.07	0.52	7.36	0.89	0.79	0.5	65	36	423	3.18	0.2	21.8	1.3	0.8	0.4	< 10	0.43	2.86	10.4	0.63
121201	< 2	< 20	31.1	2.03	0.74	7.98	0.92	0.90	< 0.1	27	29	560	3.99	0.9	24.2	1.3	0.9	0.4	< 10	0.12	2.01	9.5	0.60
121202	< 2	< 20	28.3	1.68	0.48	7.17	0.89	0.52	0.2	32	33	288	4.71	0.9	55.4	1.3	0.7	0.3	50	0.23	2.55	9.2	0.49
121203	3	< 20	24.2	2.00	0.56	6.48	0.97	0.61	0.2	56	44	395	3.73	1.6	26.4	1.2	0.8	0.3	30	0.53	2.05	10.8	0.49
121204	< 2	< 20	24.8	1.90	0.42	5.93	0.89	1.08	0.6	67	45	821	2.60	1.7	21.8	1.2	0.7	0.4	< 10	0.37	2.43	10.2	0.59
121205	< 2	< 20	25.3	1.96	0.53	5.74	0.94	0.77	0.6	102	48	1020	3.64	2.0	33.9	1.2	1.1	0.4	< 10	0.30	2.31	14.6	0.55
121206	< 2	< 20	26.9	2.03	0.61	6.61	0.95	0.87	0.6	99	43	742	3.88	1.7	23.9	1.3	0.7	0.3	< 10	0.18	2.33	12.1	0.60
121207	< 2	< 20	24.6	1.96	0.71	7.39	1.07	0.83	0.3	96	32	706	4.01	1.7	32.1	1.4	0.9	0.4	< 10	0.13	2.16	13.3	0.73
121208	4	< 20	24.1	2.04	0.64	6.93	0.97	0.89	0.6	52	42	500	3.35	< 0.1	35.5	1.3	1.1	0.4	< 10	0.14	2.53	12.0	0.71
121209	< 2	< 20	23.3	1.98	0.64	7.03	0.98	0.99	0.7	88	18	705	3.58	< 0.1	27.8	1.6	0.9	0.5	20	0.20	2.28	11.3	0.73
121210	4	< 20	43.5	1.36	0.77	7.63	1.00	1.46	0.6	82	62	1460	5.54	0.4	48.5	2.8	1.4	0.9	10	5.72	3.83	16.6	1.58
121211	< 2	< 20	26.0	1.95	0.60	6.50	0.86	0.90	0.3	26	27	485	3.13	0.2	23.4	1.3	0.8	0.4	20	0.14	2.27	12.4	0.64
121212	< 2	< 20	25.0	1.94	0.59	7.34	0.98	0.84	0.6	81	49	895	3.91	< 0.1	25.7	1.4	0.9	0.4	60	0.20	2.28	12.9	0.66
121213	< 2	20	22.6	1.96	0.59	5.80	0.97	0.71	0.2	75	40	524	3.93	1.7	27.4	1.2	0.9	0.3	10	0.11	1.74	12.3	0.51
121214	< 2	< 20	25.4	1.96	0.63	7.31	1.04	0.76	0.2	97	32	758	3.86	1.8	24.5	1.3	0.9	0.4	< 10	0.16	2.10	12.9	0.66
121215	4	< 20	27.4	1.94	0.64	6.95	1.01	0.84	0.1	85	35	588	3.99	1.8	24.3	1.7	1.0	0.5	< 10	0.11	2.20	10.9	0.84
121216	< 2	< 20	23.7	1.94	0.59	6.61	0.97	0.78	0.1	109	37	602	3.93	1.8	26.5	1.2	0.9	0.4	< 10	0.24	1.86	12.2	0.55
121217	4	< 20	34.3	1.87	0.68	6.94	1.01	1.25	0.3	100	84	1000	4.86	1.6	36.2	2.0	0.9	0.6	< 10	0.28	2.60	12.1	1.14
121218	3	< 20	27.6	1.95	0.60	7.10	1.02	0.80	0.4	55	40	662	3.73	1.4	35.8	1.5	0.9	0.5	< 10	0.29	2.38	10.8	0.83
121219	5	< 20	28.7	1.98	0.65	7.33	1.06	0.99	0.8	106	64	758	4.32	< 0.1	41.9	1.5	1.1	0.4	< 10	0.31	3.00	16.8	0.71
121220	15	< 20	37.6	1.58	0.84	7.14	1.19	0.86	0.9	113	46	1370	4.18	< 0.1	104	1.4	1.7	0.4	< 10	0.51	9.44	38.6	0.63
121221	3	< 20	26.5	2.00	0.72	7.24	0.99	0.87	0.2	44	37	557	3.62	0.1	61.7	1.3	1.1	0.4	30	0.34	4.73	18.7	0.63
121222	55	60	22.6	1.60	0.51	6.57	0.85	0.68	0.4	100	50	820	7.85	< 0.1	24.2	1.2	0.9	0.3	10	3.32	3.83	16.4	0.48
121223	5	30	28.1	2.12	0.51	6.66	0.96	0.81	0.5	52	43	736	3.06	1.2	32.1	1.4	1.0	0.4	20	0.41	2.96	18.6	0.68
121224	12	< 20	21.7	2.03	0.62	6.40	0.91	0.79	0.5	89	41	518	3.02	1.7	28.9	1.3	0.8	0.4	< 10	0.34	2.31	10.1	0.64
121225	3	< 20	25.5	1.97	0.45	6.12	0.88	0.94	1.3	82	32	1550	2.49	1.9	20.3	1.2	0.7	0.4	< 10	0.52	2.58	11.0	0.61
123776	4	< 20	25.9	1.94	0.52	6.74	0.84	0.68	0.3	94	42	402	3.29	1.9	30.1	1.3	0.8	0.4	< 10	0.61	2.39	11.2	0.57
123777	< 2	< 20	28.4	2.02	0.53	6.75	0.90	0.83	0.3	91	70	798	3.05	1.9	29.3	1.3	0.9	0.4	< 10	0.83	2.89	11.9	0.63
123778	2	< 20	38.4	1.85	0.53	6.05	0.90	1.05	0.8	56	44	3300	2.47	1.4	30.2	1.3	0.7	0.4	< 10	0.56	3.55	18.3	0.66
123779	4	< 20	29.5	1.94	0.74	6.95	1.08	0.84	0.4	66	43	507	3.56	0.9	41.9	1.4	0.8	0.4	< 10	0.14	4.98	15.4	0.70
123780	3	< 20	28.5	1.96	0.61	7.07	1.00	0.78	0.6	60	29	1040	3.55	< 0.1	56.7	1.5	1.0	0.4	30	0.19	5.75	19.2	0.73
123781	< 2	< 20	29.7	1.97	0.77	7.95	1.00	0.79	0.2	54	43	629	4.49	< 0.1	109	1.5	1.2	0.4	60	0.59	6.22	24.4	0.64
123782	3	40	34.7	1.80	0.59	7.35	0.91	0.64	0.6	59	48	1400	4.07	0.2	68.4	1.4	1.0	0.4	50	0.64	6.40	31.8	0.58
123783	4	70	37.7	1.78	0.45	6.24	0.79	1.10	0.8	42	47	2240	2.62	1.4	48.1	1.3	0.7	0.4	70	0.66	5.02	29.7	0.59
123784	< 2	< 20	34.0	1.86	0.59	7.54	0.85	0.66	0.2	110	51	416	3.94	2.1	78.6	1.3	1.1	0.4	< 10	0.56	4.87	21.1	0.59
123785	15	< 20	52.3	0.93	0.75	6.76	0.86	1.20	1.3	130	68	4470	6.38	1.2	97.7	1.0	1.8	0.3	< 10	0.49	12.4	76.6	0.58
123786	95	< 20	23.6	2.03	0.56	6.90	0.97	0.98	0.5	95	39	1900	3.12	1.8	32.4	1.3	0.9	0.4	< 10	0.34	3.37	15.4	0.68
123787	< 2	< 20	27.1	2.00	0.56	7.22	0.96	0.73	0.2	50	42	417	3.74	1.4	32.3	1.4	0.8	0.4	< 10	0.20	2.37	10.1	0.63
123788	< 2	< 20	30.7	2.15	0.53	7.14	0.94	0.74	0.1	27	45	448	3.12	1.1	28.7	1.4	0.8	0.4	< 10	0.13	2.65	11.1	0.66
123789	< 2	< 20	26.9	2.01	0.67	7.71	0.99	0.79	0.3	83	40	675	4.16	0.5	29.6	1.5	1.0	0.4	< 10	0.10	2.44	13.5	0.72



## Results

## Activation Laboratories Ltd.

## Report: A18-08799

Analyte Symbol	Au	B	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Ni	Er	Be	Ho	Hg	Ag	Cs	Co	Eu
Unit Symbol	ppb	ppm	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm
Lower Limit	2	20	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	1	1	0.01	0.1	0.5	0.1	0.1	0.1	10	0.05	0.05	0.1	0.05
Method Code	FA-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
123790	< 2	< 20	31.3	1.95	0.61	8.03	1.03	0.78	0.4	117	52	509	4.77	1.7	34.5	1.5	1.1	0.4	< 10	0.27	2.54	14.4	0.66
123791	< 2	< 20	23.9	2.15	0.82	7.66	1.06	0.90	0.1	40	40	621	4.10	< 0.1	25.5	1.8	0.8	0.5	20	< 0.05	2.05	12.4	1.02
123792	< 2	20	24.9	2.08	0.54	6.95	0.99	0.85	0.2	53	51	535	3.21	1.6	28.1	1.4	0.9	0.4	30	0.23	2.46	12.4	0.64
123793	< 2	< 20	28.2	2.02	0.59	7.76	1.02	0.74	0.3	83	52	793	4.13	1.8	27.4	1.5	1.1	0.4	< 10	0.22	2.48	13.3	0.68
123794	< 2	< 20	21.5	2.21	0.65	7.16	1.03	1.00	0.3	94	39	509	3.21	1.7	29.0	1.4	1.0	0.4	< 10	0.28	2.28	11.7	0.70
123795	8	< 20	27.1	2.11	0.49	6.92	0.91	1.00	0.3	83	31	451	2.73	1.7	26.4	1.3	0.7	0.4	< 10	1.68	2.79	14.1	0.74
123796	7	< 20	26.2	1.98	0.58	7.42	0.86	0.73	0.2	63	38	621	3.43	1.5	41.4	1.3	0.9	0.4	< 10	0.57	4.02	13.2	0.67
123797	9	< 20	26.9	2.05	0.51	7.20	0.70	0.55	0.1	29	31	362	3.16	1.0	32.1	1.2	0.9	0.4	< 10	0.59	2.82	24.5	0.56
123798	28	< 20	26.1	1.59	0.50	7.25	0.84	0.53	0.3	80	51	940	4.60	1.2	36.5	1.3	1.0	0.4	< 10	0.85	3.72	19.5	0.75
123799	42	< 20	29.5	1.36	0.47	5.96	0.90	0.79	0.4	55	42	469	3.45	< 0.1	28.4	1.3	0.8	0.4	20	3.49	3.37	6.6	0.63
123800	2	< 20	27.7	2.21	0.66	7.41	0.95	0.99	0.3	66	39	588	3.37	0.5	30.2	1.6	1.0	0.5	< 10	0.44	2.86	12.3	0.78
123801	< 2	< 20	23.7	2.01	0.65	6.82	0.98	1.06	0.6	68	21	836	3.18	< 0.1	29.2	1.4	0.9	0.4	60	0.35	2.81	12.6	0.69
123802	< 2	60	25.0	2.08	0.67	6.66	0.97	1.08	0.6	62	41	1270	2.85	< 0.1	25.2	1.5	0.8	0.4	60	0.38	2.85	11.8	0.74
123803	5	< 20	27.2	2.06	0.50	6.31	0.84	0.73	0.4	55	42	611	2.77	1.7	18.6	1.3	0.7	0.4	< 10	0.40	3.07	9.1	0.64
123804	< 2	< 20	27.4	2.02	0.45	6.77	0.89	0.75	0.3	73	41	736	2.77	1.7	25.2	1.3	0.9	0.4	< 10	0.69	2.68	12.4	0.70
123805	< 2	< 20	16.0	2.53	0.75	7.40	1.39	1.43	< 0.1	64	38	519	3.07	1.5	26.5	1.6	1.1	0.5	< 10	0.21	2.43	10.4	0.84
123806	< 2	< 20	23.3	2.15	0.65	6.96	1.19	1.11	0.3	49	37	536	3.15	1.4	32.6	1.4	1.0	0.4	< 10	0.36	2.68	10.8	0.70
123807	< 2	< 20	28.2	2.00	0.63	7.22	1.10	0.99	0.4	58	49	565	3.85	1.6	42.2	1.5	1.1	0.4	< 10	0.34	3.06	11.9	0.67
123808	< 2	< 20	22.2	2.11	0.65	7.19	1.10	0.89	0.2	29	41	410	3.44	1.1	27.1	1.3	0.8	0.4	< 10	0.17	2.19	11.2	0.61
123809	< 2	< 20	17.0	2.24	0.73	6.97	1.15	1.15	0.2	16	32	474	3.08	0.8	28.3	1.5	1.1	0.5	< 10	0.09	2.72	11.8	0.76
123810	< 2	< 20	23.8	2.03	0.58	6.73	1.10	1.08	0.4	44	37	496	3.34	0.1	29.3	1.5	1.0	0.4	30	0.28	3.36	11.0	0.70
123811	13	30	18.9	2.14	0.65	6.90	1.10	1.39	0.5	72	28	525	3.54	< 0.1	48.6	1.5	1.1	0.4	60	0.60	3.25	13.6	0.79
123812	< 2	60	25.2	2.14	0.64	6.25	1.41	1.40	0.5	53	50	1790	2.92	1.4	28.8	1.5	1.2	0.4	20	0.59	3.56	12.3	0.69
123813	< 2	< 20	33.9	2.01	0.64	7.11	1.09	1.05	0.6	54	53	1080	3.23	1.5	36.1	1.6	1.0	0.5	< 10	0.43	3.94	15.9	0.75
123814	3	< 20	47.7	1.94	0.56	6.97	0.98	1.01	0.6	58	46	1080	3.12	1.7	36.7	1.4	1.1	0.4	< 10	0.66	4.04	18.8	0.64
123815	< 2	< 20	33.5	2.06	0.54	6.73	1.01	0.97	0.6	67	43	1480	2.79	1.6	32.9	1.5	0.9	0.4	< 10	0.44	3.63	15.4	0.75
123816	< 2	< 20	25.3	1.86	0.70	6.82	1.09	0.90	0.3	69	46	1780	3.89	1.4	35.5	1.5	1.3	0.4	< 10	0.26	7.04	16.2	0.78
123817	< 2	< 20	22.1	2.08	0.69	7.20	1.13	1.12	0.5	64	48	609	3.93	1.5	30.0	1.6	1.1	0.5	< 10	0.19	3.71	14.3	0.78
123818	< 2	< 20	0.8	0.07	0.19	0.52	0.04	3.40	1.1	45	5	3780	11.1	< 0.1	8.4	0.3	0.2	< 0.1	30	0.14	0.30	49.5	0.18
123819	< 2	< 20	20.5	1.61	0.44	5.17	1.05	1.85	1.1	62	38	2790	2.50	0.2	11.5	1.1	0.6	0.3	30	0.28	2.75	10.8	0.53
123820	< 2	< 20	27.2	2.09	0.64	7.14	1.18	1.03	0.4	88	32	858	3.81	< 0.1	18.3	1.7	1.1	0.5	20	0.19	3.27	10.3	0.80
123821	2	< 20	16.9	1.91	0.55	5.86	1.21	1.72	0.3	48	27	755	2.65	0.1	12.9	1.1	0.8	0.3	< 10	0.08	2.17	8.6	0.56
123822	5	40	84.3	1.15	0.61	6.72	0.77	2.64	5.0	96	36	835	4.61	0.6	39.7	1.4	0.9	0.5	50	1.69	3.57	17.4	0.94
123823	< 2	< 20	22.0	1.86	0.60	6.89	1.07	1.25	1.0	80	32	577	3.10	2.0	17.8	1.3	0.9	0.4	< 10	0.26	2.50	11.0	0.68
123824	< 2	< 20	19.2	2.21	0.56	6.68	1.24	1.29	0.8	52	41	957	3.05	1.3	20.2	1.4	0.8	0.4	< 10	0.22	2.02	11.0	0.72
123825	< 2	< 20	15.7	2.19	0.70	6.78	1.15	1.11	0.2	30	34	509	2.98	1.0	27.4	1.5	0.8	0.4	< 10	0.11	2.77	11.1	0.71
128051	8	< 20	24.3	1.40	0.80	8.14	1.05	1.39	0.1	64	29	687	3.81	0.6	20.3	1.5	0.9	0.5	< 10	0.32	6.42	13.9	1.01
128052	9	< 20	26.2	1.19	0.68	7.91	1.27	1.37	0.5	124	49	744	4.15	0.8	14.5	1.3	1.0	0.4	< 10	0.32	7.15	12.9	0.79
128053	19	< 20	26.9	1.08	0.74	8.26	1.00	1.13	0.3	45	32	699	4.09	0.4	20.3	1.5	0.8	0.4	20	0.29	6.55	15.2	0.84
128054	4	< 20	47.8	1.66	0.65	6.49	1.11	2.05	1.0	47	38	602	3.24	0.9	23.0	1.6	0.9	0.5	< 10	0.64	3.21	9.5	0.82
128055	3	< 20	41.0	1.26	0.57	6.07	0.89	2.46	1.1	58	32	933	3.42	0.6	21.6	1.3	0.9	0.4	50	0.66	3.36	12.8	0.81
128056	37	130	48.8	0.75	0.63	6.61	1.17	1.65	16.5	100	41	> 10000	6.38	0.2	121	1.4	1.2	0.4	100	2.45	7.12	35.8	0.72

## Results

## Activation Laboratories Ltd.

## Report: A18-08799

Analyte Symbol	Au	B	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Ni	Er	Be	Ho	Hg	Ag	Cs	Co	Eu
Unit Symbol	ppb	ppm	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm
Lower Limit	2	20	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	1	1	0.01	0.1	0.5	0.1	0.1	0.1	10	0.05	0.05	0.1	0.05
Method Code	FA-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
128057	2	< 20	52.3	1.78	0.67	7.46	1.14	1.57	1.1	87	48	1800	5.07	1.5	32.3	1.5	1.3	0.5	< 10	0.98	4.66	14.0	0.83
128058	8	< 20	46.1	0.84	0.59	6.95	0.98	1.77	42.0	101	29	> 10000	7.37	1.2	81.2	3.1	1.1	1.1	< 10	1.88	8.84	84.4	2.08
128059	4	< 20	31.0	2.09	0.89	7.74	1.56	1.88	0.3	117	78	792	4.42	1.2	21.5	1.7	1.1	0.5	< 10	0.48	3.68	12.7	0.88
128060	6	< 20	18.1	1.76	0.55	6.62	1.42	1.72	0.8	79	42	1030	3.72	1.1	13.4	1.2	0.8	0.4	< 10	1.02	4.03	6.6	0.67
128061	< 2	< 20	29.5	1.74	0.54	6.14	1.05	1.79	0.9	105	37	> 10000	4.96	1.1	19.1	3.1	1.5	1.1	< 10	0.40	2.70	34.8	1.96
128062	9	< 20	23.8	1.20	0.76	7.93	1.07	1.20	0.3	86	36	873	4.02	0.4	22.5	1.5	1.0	0.5	< 10	0.44	5.77	14.9	0.91
128063	12	< 20	28.1	1.18	0.84	8.75	1.29	1.37	0.3	121	38	1030	4.94	0.6	22.6	1.6	1.1	0.5	< 10	0.37	7.85	17.5	0.90
128064	9	< 20	25.6	1.27	0.77	8.16	1.22	1.25	0.1	79	33	698	4.01	0.3	19.4	1.4	1.0	0.5	< 10	0.17	6.28	14.7	0.91
128065	8	< 20	24.8	1.27	0.80	8.57	1.13	1.24	0.1	61	31	782	4.35	0.3	22.4	1.5	0.9	0.5	< 10	0.11	6.20	15.9	0.94
128066	13	70	27.1	1.04	0.75	8.58	1.22	1.17	0.5	126	14	1090	4.40	< 0.1	19.6	1.5	0.9	0.5	20	0.43	8.48	17.5	0.95
128067	12	< 20	29.3	1.04	0.79	8.73	1.16	1.21	0.3	91	39	883	4.92	0.5	22.3	1.7	1.0	0.5	10	0.43	6.75	17.3	1.03
128068	8	< 20	26.2	1.35	0.85	8.67	1.24	1.33	0.2	117	36	824	4.39	0.7	24.5	1.5	0.9	0.5	< 10	0.19	6.62	16.4	0.92
128069	3	< 20	25.8	1.13	0.78	8.63	1.20	1.32	0.3	119	36	991	4.65	0.7	22.5	1.7	0.9	0.5	< 10	0.21	5.33	15.2	0.96
128070	6	< 20	27.4	1.43	0.83	8.88	1.25	1.51	0.2	141	40	880	4.63	0.9	21.8	1.5	1.1	0.5	< 10	0.48	7.16	16.2	0.96
128071	< 2	< 20	27.5	1.16	0.73	8.29	1.14	1.34	0.2	130	37	948	4.55	0.9	18.4	1.4	0.8	0.5	< 10	0.35	6.97	14.6	0.89
128072	3	< 20	24.7	1.16	0.76	8.66	1.23	1.24	0.2	122	37	663	4.91	0.8	19.0	1.3	0.9	0.4	< 10	0.42	7.22	12.5	0.83
128073	2	< 20	35.6	1.23	0.67	7.69	1.52	1.00	0.9	133	31	1620	6.07	0.3	14.5	1.4	1.0	0.4	< 10	1.09	7.35	9.6	0.66
128074	< 2	< 20	33.5	2.01	0.79	7.78	1.44	1.73	0.4	49	44	708	4.45	0.5	20.7	1.7	1.0	0.5	< 10	0.48	4.02	11.4	0.88
128075	3	< 20	23.0	1.93	0.60	7.17	1.06	1.23	0.7	61	40	531	3.26	1.2	21.1	1.5	1.0	0.4	< 10	0.20	2.47	12.0	0.71
128076	3	230	33.4	1.14	0.73	8.14	1.62	0.79	0.8	160	40	826	8.76	0.2	13.5	1.5	1.1	0.4	40	1.70	8.37	8.6	0.73
128077	6	< 20	25.6	0.97	0.75	7.54	1.73	1.14	2.3	152	44	3970	8.75	1.4	14.9	1.2	0.8	0.4	< 10	2.25	8.52	12.4	0.61
128078	< 2	< 20	34.9	1.23	0.68	6.86	1.37	1.64	0.5	124	40	3070	7.56	1.3	23.7	1.1	0.9	0.3	< 10	1.53	5.31	7.7	0.63
128079	< 2	< 20	29.7	1.16	0.73	7.69	1.61	0.66	1.2	146	62	856	10.1	2.2	24.3	1.3	0.9	0.4	< 10	1.56	7.73	8.6	0.70
128080	5	< 20	35.2	0.77	0.73	7.34	1.45	1.04	2.8	145	87	1740	9.53	1.5	19.6	1.2	1.0	0.4	< 10	1.88	9.60	12.3	0.64
128081	9	< 20	37.8	0.84	0.69	7.12	1.26	1.27	3.4	120	66	1980	6.76	1.3	17.3	1.2	1.0	0.4	< 10	2.00	8.32	13.4	0.67
128082	4	< 20	40.5	0.89	0.61	7.12	1.29	0.82	1.0	137	39	1110	12.7	< 0.1	14.5	1.1	0.9	0.3	< 10	1.65	9.47	9.8	0.56
128083	< 2	< 20	39.0	1.33	0.65	8.10	1.52	0.88	0.9	111	51	1500	7.04	0.5	23.2	1.3	1.1	0.4	< 10	0.95	8.48	13.1	0.69
128084	< 2	< 20	34.4	1.02	0.81	8.66	1.90	0.94	0.8	166	38	3110	9.02	1.1	14.7	1.4	1.2	0.4	< 10	1.71	8.88	13.4	0.71
128085	< 2	210	34.3	0.95	0.79	8.75	1.79	0.75	0.4	134	28	980	8.23	< 0.1	11.9	1.5	1.0	0.4	80	1.17	7.83	8.4	0.71
128086	6	< 20	33.5	1.07	0.77	8.73	1.97	0.64	0.4	158	41	718	7.77	1.2	11.6	1.4	1.2	0.4	< 10	1.14	7.91	7.9	0.72
128087	< 2	< 20	31.6	1.32	0.74	8.19	1.67	1.15	0.3	124	34	709	5.24	1.4	12.9	1.2	0.9	0.4	< 10	0.73	6.13	9.5	0.75
128088	32	< 20	46.2	1.26	0.60	8.19	1.60	0.62	0.5	127	49	1640	5.73	2.1	12.0	1.4	1.4	0.4	< 10	1.10	6.77	11.4	0.76
128089	22	< 20	33.1	1.18	0.80	8.75	1.22	1.11	0.2	139	44	771	5.06	1.0	20.5	1.5	1.1	0.4	< 10	0.55	8.32	14.7	0.89
128090	27	< 20	30.9	1.36	0.79	8.67	1.22	1.31	0.1	116	38	758	4.90	0.8	21.5	1.5	1.2	0.5	< 10	0.41	5.87	16.4	0.85
128091	8	< 20	27.3	1.35	0.79	8.90	1.36	1.41	0.2	105	40	938	4.71	0.7	15.9	1.6	1.0	0.5	< 10	0.22	6.22	13.4	0.93
128092	6	< 20	26.6	1.49	0.85	9.04	1.25	1.42	0.2	63	35	725	4.39	0.4	21.6	1.7	1.1	0.5	< 10	0.38	6.49	15.6	0.96
128093	8	< 20	29.2	1.37	0.84	8.98	1.26	1.34	0.2	120	34	893	4.52	< 0.1	22.4	1.6	1.0	0.5	< 10	0.38	7.30	16.9	0.97
128094	< 2	< 20	27.9	2.06	0.60	7.78	1.02	0.71	0.2	67	40	480	3.69	0.2	21.4	1.5	1.0	0.4	< 10	0.22	2.18	11.5	0.65
128095	< 2	20	25.8	2.13	0.66	7.78	1.01	0.65	0.2	75	40	562	3.81	< 0.1	27.6	1.5	0.9	0.4	< 10	0.13	1.96	12.6	0.66
128096	< 2	< 20	29.3	1.97	0.57	7.52	0.78	0.51	0.1	98	38	367	4.38	1.6	22.0	1.2	0.7	0.3	< 10	0.16	1.86	11.9	0.49
128097	2	< 20	21.6	1.91	0.37	6.32	0.73	0.55	0.1	53	55	268	3.06	1.3	17.9	1.1	0.6	0.3	< 10	0.23	2.19	5.2	0.48
128098	< 2	< 20	28.2	1.99	0.65	7.72	1.02	0.88	0.7	111	38	1090	4.08	1.7	26.6	1.5	1.1	0.4	10	0.31	2.65	14.8	0.71

## Results

## Activation Laboratories Ltd.

## Report: A18-08799

Analyte Symbol	Au	B	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Ni	Er	Be	Ho	Hg	Ag	Cs	Co	Eu
Unit Symbol	ppb	ppm	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm
Lower Limit	2	20	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	1	1	0.01	0.1	0.5	0.1	0.1	0.1	10	0.05	0.05	0.1	0.05
Method Code	FA-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
128099	< 2	< 20	28.4	1.99	0.72	7.85	1.00	0.81	0.3	111	44	735	4.22	1.9	32.8	1.6	1.0	0.5	< 10	0.24	2.38	14.7	0.76
128100	27	< 20	25.2	2.10	0.74	7.68	1.07	0.79	0.2	90	36	787	4.03	1.7	28.1	1.7	1.0	0.5	< 10	0.23	2.27	14.7	0.81
128101	3	< 20	25.6	2.07	0.67	7.76	1.06	0.76	0.3	93	46	676	3.92	1.8	27.0	1.4	1.1	0.4	< 10	0.17	2.12	13.1	0.72
128102	3	< 20	27.3	2.04	0.66	7.45	1.06	0.94	0.6	99	54	1010	3.86	1.6	30.0	1.6	1.0	0.5	< 10	0.16	2.27	14.0	0.70
128103	< 2	< 20	24.7	1.93	0.67	7.20	1.00	0.84	0.3	57	40	866	3.94	1.1	25.8	1.5	0.8	0.4	< 10	0.34	2.14	13.6	0.68
128104	2	< 20	24.9	1.97	0.69	7.43	1.00	0.97	0.3	27	35	691	3.31	0.6	27.4	2.0	1.1	0.6	< 10	0.34	2.47	12.0	1.05
128105	< 2	< 20	26.7	2.09	0.55	6.97	0.92	0.84	0.6	43	32	610	2.96	0.9	24.7	1.6	0.7	0.4	< 10	0.49	2.97	10.2	0.76
128106	4	30	25.8	1.96	0.68	7.45	0.96	0.82	0.5	90	21	675	3.86	< 0.1	50.7	1.5	0.9	0.5	< 10	1.17	3.34	17.6	0.72
128107	< 2	< 20	27.1	2.19	0.75	7.76	1.06	0.92	0.3	78	46	543	3.81	1.5	38.8	1.6	1.0	0.5	< 10	0.28	2.77	15.5	0.77
128108	< 2	< 20	21.8	2.10	0.70	7.15	0.93	0.86	0.2	61	34	569	3.40	1.7	29.7	1.6	0.9	0.5	< 10	0.17	2.30	11.4	0.80
128109	< 2	< 20	24.9	2.09	0.49	6.49	0.86	0.77	0.4	51	55	468	3.24	1.2	26.9	1.3	0.7	0.4	< 10	0.46	2.34	15.0	0.68
128110	< 2	< 20	19.6	2.27	0.72	6.83	1.01	0.95	< 0.1	25	32	476	3.08	1.1	23.8	1.5	0.8	0.5	< 10	0.08	2.12	10.4	0.76
128111	< 2	< 20	24.2	2.11	0.69	7.41	0.92	0.86	0.3	45	41	1130	3.80	1.6	47.2	1.8	1.0	0.6	< 10	0.17	2.78	14.5	0.99
128112	2	< 20	23.5	2.06	0.71	7.43	0.98	0.82	0.2	54	36	746	3.87	1.1	36.2	1.7	0.8	0.5	< 10	0.14	3.23	15.1	0.93
128113	< 2	< 20	25.8	2.14	0.73	7.72	1.02	0.83	0.3	52	44	850	3.98	0.7	33.5	1.7	0.9	0.5	< 10	1.27	2.75	15.2	0.88
128114	< 2	< 20	21.2	1.76	0.59	6.51	0.90	0.69	0.1	26	26	499	3.40	0.8	26.7	1.3	0.7	0.4	< 10	0.57	1.80	10.7	0.66
128115	3	< 20	25.8	1.96	0.52	7.35	0.80	0.63	0.1	21	31	283	3.59	0.8	21.5	1.2	0.7	0.4	< 10	0.17	1.66	9.4	0.58
128116	< 2	20	21.1	2.20	0.60	6.74	1.00	0.96	0.8	60	27	1600	2.73	< 0.1	19.8	1.6	0.7	0.5	60	0.13	2.11	10.1	0.78
128117	2	< 20	24.8	2.11	0.67	7.55	1.00	0.72	0.2	59	42	572	3.86	1.5	24.9	1.5	0.8	0.4	< 10	0.39	2.12	11.3	0.74
128118	< 2	< 20	28.0	2.00	0.66	7.90	1.04	0.71	0.3	93	45	547	4.40	1.9	31.2	1.5	0.9	0.4	< 10	0.32	2.40	13.6	0.65
128119	< 2	< 20	35.4	1.84	0.59	7.53	0.98	0.94	1.1	72	49	2370	3.87	1.6	40.9	2.2	1.2	0.7	< 10	0.65	3.43	16.2	1.38
128120	< 2	< 20	26.4	2.17	0.72	7.85	1.07	0.76	0.2	48	60	560	3.84	1.5	31.0	1.5	0.9	0.5	< 10	0.23	2.17	12.3	0.75
128121	< 2	< 20	24.3	2.23	0.47	6.38	0.95	0.97	0.7	30	37	1600	2.15	0.3	14.3	1.4	0.7	0.4	< 10	0.35	1.86	9.5	0.75
128122	3970	< 20	39.0	1.10	1.24	7.75	0.74	1.04	2.4	158	80	4810	9.58	< 0.1	73.1	1.4	1.2	0.4	< 10	4.23	7.10	171	0.87
128123	3	< 20	29.5	2.11	0.62	6.85	0.86	0.83	0.3	21	42	601	3.24	0.4	36.8	1.5	1.0	0.4	40	0.34	3.18	19.8	0.68
128124	< 2	< 20	26.8	2.13	0.64	7.25	0.93	0.81	0.2	27	40	896	3.31	0.9	80.4	1.4	0.9	0.4	< 10	0.25	3.88	17.6	0.74
128125	3	20	28.6	1.97	0.62	7.66	1.00	0.69	0.2	95	48	572	4.29	0.1	32.7	1.5	0.9	0.4	20	0.22	2.35	13.9	0.65
128126	37	< 20	27.6	1.88	0.55	7.08	0.83	0.69	0.4	47	53	539	4.44	1.0	49.8	1.3	1.0	0.4	< 10	1.29	4.10	18.0	0.65
128127	3	< 20	24.2	2.23	0.66	7.34	0.91	0.79	0.3	81	47	547	3.40	1.9	39.8	1.5	0.9	0.5	< 10	0.71	2.58	12.8	0.70
128128	< 2	< 20	22.4	2.10	0.57	6.40	0.78	0.75	0.3	39	34	656	2.70	1.5	22.9	1.3	0.6	0.4	< 10	0.42	2.30	8.7	0.63
128129	4	< 20	26.6	2.16	0.60	7.22	0.93	0.85	0.6	86	46	815	3.40	1.8	40.3	1.5	1.0	0.5	< 10	0.61	2.96	16.0	0.74
128130	23	< 20	29.1	2.06	0.63	6.63	0.92	0.80	0.3	60	49	517	3.13	1.5	33.1	1.4	0.7	0.4	< 10	0.32	2.77	13.1	0.68
128131	3	< 20	23.3	2.10	0.56	6.52	0.87	0.86	0.2	28	33	463	2.70	0.6	22.5	1.3	0.8	0.4	20	0.42	2.32	10.2	0.67
128132	3	< 20	21.4	2.20	0.60	6.73	0.89	0.86	0.1	19	31	445	2.82	0.2	23.1	1.5	0.9	0.4	30	0.28	2.16	10.6	0.73
128133	< 2	< 20	19.9	2.22	0.67	7.03	1.07	1.25	0.2	59	34	629	3.05	< 0.1	34.2	1.6	0.8	0.5	< 10	0.28	2.39	11.3	0.83
128134	3	< 20	23.5	1.89	0.60	7.04	0.84	0.73	0.2	76	28	437	3.27	0.2	29.2	1.3	0.8	0.4	< 10	0.31	2.77	12.4	0.65
128135	10	40	25.2	1.73	0.63	7.44	0.77	0.53	0.2	83	48	728	3.96	1.0	44.4	1.4	0.9	0.4	70	0.63	3.92	13.2	0.64
128136	5	< 20	26.7	1.83	0.40	6.95	0.66	0.51	0.2	76	45	613	3.19	1.7	43.2	1.3	0.8	0.4	< 10	0.55	2.89	14.8	0.54
128137	532	< 20	26.6	1.14	0.60	6.00	0.75	0.38	0.5	127	78	1030	12.3	1.5	35.9	1.1	0.8	0.3	190	16.1	4.97	32.5	0.60
128138	5890	< 20	35.1	1.43	0.70	6.45	0.74	0.56	0.6	120	70	686	7.36	1.6	54.6	1.3	1.0	0.4	< 10	2.38	3.83	82.6	0.66
128139	505	< 20	36.5	1.76	0.59	7.64	0.78	0.55	0.4	120	66	613	6.09	2.0	133	1.5	1.3	0.4	< 10	1.16	6.78	87.9	0.69
128140	< 2	< 20	32.6	2.11	0.64	7.26	0.89	0.71	0.2	52	45	394	3.61	1.4	34.5	1.3	0.8	0.4	< 10	0.44	3.51	17.1	0.61

## Results

## Activation Laboratories Ltd.

## Report: A18-08799

Analyte Symbol	Au	B	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Ni	Er	Be	Ho	Hg	Ag	Cs	Co	Eu
Unit Symbol	ppb	ppm	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm
Lower Limit	2	20	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	1	1	0.01	0.1	0.5	0.1	0.1	0.1	10	0.05	0.05	0.1	0.05
Method Code	FA-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
128141	221	< 20	42.8	1.43	0.64	6.60	0.93	0.84	1.4	115	63	1810	5.50	1.8	79.7	1.3	1.0	0.4	< 10	1.42	7.01	88.6	0.62
128142	3	< 20	28.6	1.92	0.53	6.67	0.97	1.00	1.0	89	43	2430	3.73	0.1	31.0	1.3	0.8	0.4	20	0.35	3.44	16.7	0.61
128143	< 2	< 20	29.0	2.03	0.70	7.35	0.97	0.76	0.2	37	38	558	3.93	0.4	37.5	1.6	0.7	0.5	< 10	0.23	2.38	12.2	0.78
128144	< 2	< 20	23.7	2.24	0.63	6.90	0.97	0.86	0.2	24	39	519	3.05	0.2	31.0	1.5	0.8	0.5	< 10	0.26	2.18	11.3	0.76
128145	3	30	23.2	2.12	0.51	6.26	0.93	0.86	0.2	35	34	574	2.43	1.3	17.4	1.4	0.7	0.4	30	0.25	2.45	9.3	0.68
128146	< 2	< 20	25.9	2.05	0.54	6.68	0.81	0.75	0.1	55	39	406	2.94	0.4	22.2	1.5	0.8	0.4	< 10	0.28	2.64	9.9	0.70
128147	< 2	< 20	26.6	2.09	0.58	7.29	0.85	0.76	0.2	89	44	705	3.31	2.0	26.4	1.4	0.9	0.4	< 10	0.41	2.91	11.4	0.72
128148	2	< 20	24.1	2.19	0.62	6.91	0.83	0.79	0.2	79	33	503	3.09	1.8	24.4	1.5	0.9	0.5	< 10	0.32	2.36	11.0	0.78
128149	< 2	< 20	30.8	2.16	0.52	6.81	0.83	0.75	0.1	31	32	552	2.15	1.4	24.8	1.7	0.9	0.5	< 10	0.52	3.22	7.4	0.99
128150	2	< 20	18.4	2.21	0.64	7.05	1.11	1.05	0.2	48	36	433	3.04	1.3	32.3	1.5	1.1	0.5	< 10	0.48	2.16	10.4	0.77
128151	4	< 20	24.4	1.94	0.66	6.96	0.88	0.92	0.8	85	40	1100	3.42	0.1	38.5	1.4	1.0	0.4	< 10	0.53	2.92	22.9	0.67
128152	53	< 20	21.0	2.13	0.81	7.05	1.00	1.10	0.2	71	44	552	3.67	< 0.1	39.8	1.7	1.0	0.5	< 10	0.64	2.90	15.3	0.87
128153	2	< 20	27.9	1.94	0.42	6.41	0.77	0.74	0.3	45	36	419	2.82	< 0.1	18.7	1.4	0.6	0.4	< 10	0.47	2.37	10.2	0.65
128154	20	< 20	26.5	1.88	0.65	7.54	0.83	0.68	0.2	60	43	628	3.82	< 0.1	41.3	1.5	1.1	0.4	40	0.86	3.61	17.7	0.70
128155	97	50	28.3	1.49	0.53	6.53	0.63	0.69	0.2	97	43	1230	4.30	0.2	40.0	1.2	0.7	0.4	60	15.9	2.82	29.1	0.56
128156	4	< 20	30.0	2.22	0.41	6.77	0.77	0.67	0.2	28	39	368	2.56	1.4	33.3	1.2	0.7	0.4	< 10	1.09	2.93	13.2	0.61
128157	< 2	< 20	29.9	2.11	0.63	6.40	0.92	0.92	0.4	28	31	962	2.74	0.9	26.9	1.3	0.7	0.4	< 10	0.42	2.92	16.4	0.71
128158	< 2	< 20	29.6	1.95	0.63	7.51	0.98	0.77	0.7	104	51	662	4.36	1.7	43.9	1.4	1.0	0.4	< 10	0.33	3.08	16.6	0.62
128159	12	< 20	26.5	1.95	0.43	6.70	0.60	0.49	0.2	23	27	316	2.65	0.6	21.0	1.2	0.7	0.4	< 10	0.55	2.45	10.1	0.55
128160	< 2	< 20	30.1	1.70	0.51	6.54	0.82	0.78	0.4	68	25	915	3.65	0.1	52.0	1.3	0.9	0.4	30	0.55	7.97	25.7	0.62
128161	5	< 20	24.8	1.99	0.52	6.93	0.79	0.65	0.2	40	35	423	3.39	0.1	28.1	1.3	0.9	0.4	30	0.39	3.08	12.3	0.61
128162	15	< 20	22.9	2.07	0.68	7.31	0.87	0.72	0.2	47	43	488	3.45	< 0.1	39.5	1.5	0.9	0.4	50	0.33	3.21	14.6	0.71
128163	8	< 20	26.5	2.22	0.49	6.57	1.02	1.09	0.4	46	21	1200	2.64	< 0.1	22.4	1.4	0.8	0.4	40	0.66	3.09	13.5	0.70
128164	< 2	50	24.8	2.20	0.59	6.73	0.98	0.92	0.3	56	48	694	2.95	1.5	25.8	1.4	0.8	0.4	20	0.39	2.38	12.4	0.68
128165	< 2	< 20	29.6	2.04	0.58	7.06	0.91	0.74	0.3	40	48	558	3.52	1.2	30.5	1.3	0.9	0.4	< 10	0.54	2.91	12.4	0.62
128166	9	< 20	19.4	2.31	0.72	6.80	1.24	1.26	0.1	43	39	642	3.01	1.1	25.3	1.4	0.9	0.4	< 10	0.31	2.36	10.1	0.74
128167	2	< 20	25.0	2.21	0.41	5.89	0.86	0.76	0.1	41	39	450	2.34	1.5	13.5	1.2	0.6	0.4	< 10	0.37	2.15	6.3	0.58
128168	< 2	< 20	21.0	2.24	0.64	6.68	1.11	1.06	0.2	38	44	768	3.12	1.2	26.2	1.3	0.9	0.4	< 10	0.25	2.46	9.7	0.70
128169	< 2	< 20	28.4	2.37	0.49	6.47	1.10	0.91	0.2	20	44	507	2.59	0.7	16.5	1.3	0.8	0.4	< 10	0.31	2.64	8.4	0.64
128170	7	< 20	23.5	2.16	0.50	6.27	1.00	0.90	0.4	18	39	383	2.59	1.0	20.1	1.2	0.6	0.4	< 10	0.32	1.95	8.5	0.58
128171	2	< 20	19.9	2.43	0.69	6.74	1.11	1.15	0.3	19	34	537	2.86	0.1	27.5	1.5	0.9	0.5	20	0.19	2.33	9.3	0.75
128172	2	< 20	25.2	2.13	0.56	6.52	1.01	1.14	0.8	53	18	652	3.02	< 0.1	23.4	1.5	1.0	0.4	30	0.38	2.48	10.1	0.70
128173	< 2	< 20	27.5	2.09	0.55	6.56	1.01	1.10	1.1	71	21	2570	3.28	< 0.1	27.2	1.5	0.9	0.4	50	0.50	3.35	14.0	0.73
128174	< 2	60	17.5	2.34	0.63	5.91	1.14	1.14	0.1	46	44	571	2.77	1.2	24.1	1.3	0.7	0.4	30	0.15	2.19	9.4	0.63
128175	4	< 20	24.5	2.16	0.56	6.29	0.92	0.82	0.2	46	39	597	2.71	1.4	21.9	1.4	0.7	0.4	< 10	0.31	2.03	10.1	0.67
128176	< 2	< 20	27.2	2.15	0.63	6.79	0.97	0.90	0.3	93	42	672	3.33	1.9	31.5	1.5	0.9	0.4	< 10	0.42	3.04	12.6	0.74
128177	< 2	< 20	24.8	2.03	0.76	6.74	1.13	1.05	0.3	88	53	862	3.54	1.6	38.8	1.5	0.9	0.4	< 10	0.40	3.09	13.4	0.76
128178	2	< 20	22.1	1.31	0.64	5.82	0.91	1.29	2.6	89	56	5120	3.74	1.4	80.3	1.5	1.0	0.5	< 10	0.74	8.95	32.5	0.82
128179	5	< 20	23.2	1.37	0.42	5.08	0.81	0.62	0.2	62	42	1030	3.21	0.6	32.2	1.2	0.7	0.3	< 10	1.30	4.28	10.1	0.57
128180	< 2	< 20	23.9	1.91	0.58	6.55	0.85	0.68	0.2	30	31	550	3.70	0.7	43.3	1.2	0.8	0.4	< 10	0.55	5.22	18.1	0.57
128181	< 2	< 20	22.7	2.00	0.59	6.53	1.01	0.98	0.8	30	35	893	3.29	0.3	63.7	1.4	1.0	0.4	< 10	0.57	7.70	20.4	0.85
128182	< 2	< 20	18.5	2.15	0.71	6.61	1.11	1.13	0.2	30	40	610	3.32	0.9	40.9	1.4	1.0	0.4	< 10	0.24	4.20	15.0	0.72

## Results

## Activation Laboratories Ltd.

Report: A18-08799

Analyte Symbol	Au	B	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Ni	Er	Be	Ho	Hg	Ag	Cs	Co	Eu
Unit Symbol	ppb	ppm	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm
Lower Limit	2	20	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	1	1	0.01	0.1	0.5	0.1	0.1	0.1	10	0.05	0.05	0.1	0.05
Method Code	FA-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
128183	5	< 20	23.0	1.91	0.71	7.08	0.97	0.80	0.3	29	42	558	3.72	< 0.1	61.8	1.5	1.2	0.4	50	0.43	4.39	17.6	0.76
128184	< 2	50	21.4	1.86	0.46	4.64	0.82	0.71	0.3	80	43	1640	3.23	1.6	46.6	1.1	0.9	0.3	50	0.71	4.21	18.5	0.44
128185	2	< 20	27.5	1.65	0.59	6.33	0.79	0.68	0.2	96	49	1370	3.75	1.8	60.4	1.4	1.0	0.4	< 10	0.53	6.62	21.4	0.66
128186	3	< 20	31.9	1.59	0.56	7.00	0.72	0.56	0.3	107	56	1200	4.16	2.0	46.0	1.4	1.3	0.4	< 10	0.59	7.31	13.4	0.79
128187	3	< 20	23.2	1.71	0.71	6.61	1.00	0.90	0.3	95	54	2230	4.20	1.8	54.4	1.5	1.4	0.5	< 10	0.82	5.30	27.0	0.84
128188	3	< 20	17.6	2.37	0.74	6.85	1.11	1.06	< 0.1	40	34	505	3.08	1.2	38.7	1.5	0.9	0.5	< 10	0.33	4.17	13.3	0.80
128189	< 2	< 20	28.4	2.11	0.57	6.92	0.96	0.83	0.2	54	38	654	3.26	1.3	44.5	1.5	0.9	0.5	< 10	0.56	6.36	14.7	0.81
128190	4	< 20	24.4	1.96	0.72	7.21	1.02	0.93	0.2	35	39	721	3.61	0.7	46.3	1.6	1.0	0.5	20	0.47	3.83	13.1	0.78
128191	9	< 20	20.5	2.00	0.70	7.26	0.96	0.69	0.1	31	46	490	3.71	0.5	31.4	1.5	1.0	0.5	< 10	0.31	2.87	12.9	0.73
128192	250	< 20	16.2	1.09	0.61	7.32	1.64	0.48	0.4	90	35	2790	7.98	1.6	47.5	1.8	1.0	0.7	30	23.0	5.48	33.0	2.60
128193	4	< 20	28.1	2.02	0.50	6.68	0.91	0.81	0.2	69	34	1090	3.47	< 0.1	20.8	1.4	0.9	0.4	< 10	0.99	3.57	10.7	0.69
128194	6	200	29.3	2.01	0.57	6.50	0.85	0.96	0.5	52	34	760	3.22	0.2	22.0	1.5	0.7	0.4	30	1.36	2.78	11.5	0.76
128195	162	120	20.0	1.87	0.53	4.68	0.82	0.63	0.2	85	48	654	3.75	1.6	26.3	0.9	0.8	0.3	30	0.92	2.77	16.5	0.37
128196	4	< 20	33.4	1.41	0.35	5.73	0.64	0.61	0.4	106	40	1950	4.35	1.5	28.6	1.2	0.9	0.4	< 10	0.84	6.31	15.9	0.65
128197	2	< 20	20.1	2.01	0.64	5.99	0.88	0.81	0.1	62	45	600	3.74	1.6	37.4	1.4	0.9	0.4	< 10	0.40	3.29	14.7	0.69
128198	3	< 20	21.5	2.00	0.68	7.03	0.92	0.69	0.1	37	37	476	3.60	1.4	31.9	1.5	1.0	0.5	< 10	0.20	2.85	12.7	0.77
128199	< 2	< 20	21.0	2.05	0.62	6.41	0.89	0.87	0.1	19	32	615	2.98	0.3	21.8	1.3	0.7	0.4	60	0.20	2.60	9.6	0.66
128200	< 2	< 20	24.4	2.09	0.67	6.79	1.02	0.95	0.1	22	38	555	3.79	0.2	46.3	1.3	1.1	0.4	20	0.19	4.43	9.9	0.68
128201	< 2	< 20	23.0	2.07	0.58	6.34	0.96	0.91	0.2	65	32	425	3.28	< 0.1	24.2	1.5	0.8	0.4	60	0.23	2.69	11.4	0.72
128202	< 2	< 20	33.1	1.63	0.49	6.60	0.63	0.61	2.5	51	38	1020	3.57	< 0.1	40.5	1.3	0.8	0.4	50	0.31	4.58	13.1	0.58
128203	7	460	21.5	0.75	0.43	4.63	0.95	1.26	3.3	86	80	> 10000	6.65	< 0.1	64.8	1.1	1.1	0.4	100	0.57	15.0	75.8	0.83
128204	< 2	40	32.3	1.80	0.55	4.71	0.83	0.57	0.3	115	65	593	4.28	2.2	29.4	1.1	1.1	0.3	30	0.30	4.24	15.4	0.37
128205	< 2	< 20	22.9	2.00	0.62	6.82	0.89	0.67	0.2	38	34	569	3.60	0.5	24.9	1.3	0.8	0.4	< 10	0.17	2.47	12.2	0.65
128206	2	< 20	31.0	1.77	0.63	6.67	0.94	0.84	0.8	111	48	1620	4.36	1.8	31.6	1.3	1.0	0.4	< 10	0.42	5.63	18.3	0.68
128207	2	< 20	25.6	1.93	0.57	7.01	0.90	0.75	0.6	105	44	774	5.51	2.2	63.5	1.4	1.2	0.4	< 10	0.54	3.46	49.6	0.68
128208	296	< 20	44.4	0.92	0.53	5.91	0.70	0.51	0.9	102	74	2510	10.9	1.7	172	2.8	1.4	1.0	< 10	4.77	10.8	76.6	1.91
128209	10	< 20	26.9	1.71	0.44	6.08	0.70	0.65	0.2	35	47	397	3.46	0.9	26.8	1.3	0.9	0.4	< 10	0.52	3.67	9.1	0.57
128210	< 2	< 20	16.7	2.14	0.55	6.37	0.93	0.89	< 0.1	20	78	377	2.83	0.3	22.6	1.3	0.8	0.4	10	0.15	2.00	9.4	0.65
128211	11	< 20	22.6	1.70	0.46	6.39	0.76	0.72	0.1	67	24	621	3.84	< 0.1	22.2	1.4	1.0	0.4	30	1.28	2.86	7.0	0.60
128212	3	< 20	21.0	2.07	0.53	6.52	0.92	0.91	0.1	50	31	571	3.25	< 0.1	21.5	1.4	0.9	0.4	30	0.26	2.50	9.9	0.64
128213	4	< 20	20.6	2.15	0.58	6.50	0.90	0.85	0.1	53	31	462	3.06	< 0.1	23.4	1.5	0.9	0.4	10	0.26	2.34	11.0	0.70
128214	< 2	170	32.1	0.91	0.39	5.15	0.69	0.40	0.5	114	85	1060	9.77	< 0.1	30.3	1.0	1.0	0.3	70	0.54	6.86	24.8	0.92
128215	< 2	50	22.9	2.23	0.42	4.35	0.81	0.77	0.2	91	45	353	2.98	1.8	21.1	1.0	0.8	0.3	10	0.52	2.03	11.5	0.35
128216	288	< 20	24.9	1.68	0.57	6.59	0.84	0.63	0.4	64	44	699	5.53	< 0.1	31.8	1.3	0.9	0.4	50	1.49	3.95	16.8	0.86
128217	< 2	< 20	29.9	1.97	0.46	6.64	0.89	0.55	0.5	44	43	1100	3.87	0.3	19.9	1.3	0.9	0.4	20	0.24	3.18	10.9	0.56

## Results

## Activation Laboratories Ltd.

## Report: A18-08799

Analyte Symbol	Bi	Se	Zn	Ga	As	Rb	Y	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.02	0.1	0.2	0.1	0.1	0.2	0.1	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
121126	0.28	0.8	124	11.8	11.1	34.7	13.1	2	< 0.1	0.08	< 0.1	< 1	< 0.1	< 0.1	572	14.2	33.3	3.8	14.6	2.9	2.7	0.4	2.5
121127	0.31	0.7	207	13.1	8.7	36.4	12.3	< 1	< 0.1	0.78	< 0.1	< 1	< 0.1	< 0.1	640	13.7	30.7	3.5	13.2	2.5	2.3	0.3	2.2
121128	0.21	0.7	191	11.6	4.8	35.0	11.9	2	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	601	12.9	29.1	3.3	12.9	2.5	2.4	0.3	2.2
121129	0.20	0.7	85.5	14.4	8.8	38.9	19.1	19	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	547	18.5	36.3	5.1	21.0	4.6	4.4	0.6	3.6
121130	0.12	0.6	78.4	13.1	8.6	40.1	12.0	19	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	579	11.6	29.3	3.0	11.6	2.3	2.1	0.3	2.2
121131	0.15	0.8	97.8	13.3	10.2	37.6	11.2	53	< 0.1	0.08	< 0.1	< 1	< 0.1	< 0.1	557	11.3	26.0	3.1	12.3	2.4	2.2	0.3	2.0
121132	0.15	0.6	65.1	12.7	9.3	33.4	11.2	34	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	506	12.3	28.6	3.2	12.1	2.4	2.1	0.3	2.0
121133	0.15	0.5	103	14.0	9.3	36.5	11.0	38	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	568	12.3	26.3	3.1	11.6	2.3	2.0	0.3	2.0
121134	0.15	1.3	262	12.2	6.8	34.5	12.4	3	< 0.1	0.47	< 0.1	< 1	< 0.1	< 0.1	572	12.6	32.7	3.3	12.7	2.6	2.5	0.4	2.4
121135	0.13	1.0	203	10.5	7.9	29.6	9.5	3	< 0.1	0.19	< 0.1	< 1	< 0.1	< 0.1	504	9.6	22.6	2.6	10.3	2.0	1.9	0.3	1.8
121136	0.14	0.7	134	13.3	11.0	35.2	13.9	4	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	582	14.2	36.1	3.7	14.1	3.0	2.8	0.4	2.6
121137	0.19	1.4	234	14.2	7.7	42.6	13.3	10	< 0.1	0.12	< 0.1	< 1	< 0.1	< 0.1	622	14.0	29.6	3.7	14.1	2.8	2.4	0.4	2.5
121138	0.13	1.0	153	13.7	10.8	35.9	12.4	55	< 0.1	0.18	< 0.1	< 1	< 0.1	< 0.1	626	12.7	30.4	3.5	14.1	2.9	2.5	0.4	2.3
121139	0.12	1.2	95.6	12.3	11.9	33.6	15.4	58	< 0.1	0.10	< 0.1	< 1	< 0.1	< 0.1	572	15.7	34.0	4.2	16.8	3.6	3.5	0.5	3.1
121140	0.18	1.3	126	13.6	13.8	39.0	18.9	54	< 0.1	0.26	< 0.1	< 1	< 0.1	< 0.1	591	16.0	36.0	4.6	18.6	4.3	4.2	0.6	3.7
121141	0.17	0.8	117	12.7	9.4	37.8	13.9	9	< 0.1	0.07	< 0.1	< 1	< 0.1	< 0.1	608	15.0	35.5	3.7	14.5	2.9	2.8	0.4	2.7
121142	0.16	1.2	220	13.5	9.3	38.6	16.8	6	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	551	15.4	34.4	4.3	17.3	3.7	3.5	0.5	3.1
121143	0.15	0.6	158	12.4	8.0	33.4	9.9	10	< 0.1	0.05	< 0.1	< 1	< 0.1	< 0.1	494	11.3	23.8	2.8	10.7	2.1	1.9	0.3	1.8
121144	0.14	1.0	60.0	12.5	9.6	30.7	17.4	61	< 0.1	0.10	< 0.1	< 1	< 0.1	< 0.1	602	16.6	32.9	4.5	18.1	3.7	3.5	0.5	3.2
121145	0.12	0.6	119	12.1	5.5	36.8	9.7	25	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	559	11.2	24.3	2.9	10.8	2.0	1.8	0.3	1.8
121146	0.13	0.7	192	12.8	7.8	34.5	10.3	58	0.2	0.21	< 0.1	< 1	< 0.1	< 0.1	602	11.3	25.5	3.0	11.6	2.3	2.1	0.3	2.0
121147	0.15	0.7	260	13.7	7.3	21.7	8.6	68	2.4	0.98	< 0.1	< 1	0.2	< 0.1	649	8.1	19.3	2.3	9.5	2.0	1.8	0.3	1.8
121148	0.17	0.8	262	13.6	12.5	22.3	10.3	69	3.0	0.73	< 0.1	< 1	0.5	< 0.1	690	10.4	25.0	3.0	11.7	2.5	2.3	0.3	2.1
121149	0.13	1.3	179	13.2	10.9	29.9	10.9	61	0.5	0.32	< 0.1	< 1	< 0.1	< 0.1	699	12.9	27.7	3.2	12.5	2.5	2.2	0.3	2.2
121150	0.13	0.7	151	13.0	7.3	31.7	10.6	42	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	646	12.4	27.3	3.2	12.2	2.3	2.0	0.3	2.0
121181	0.36	0.6	144	14.1	23.1	42.3	12.7	43	0.1	0.32	< 0.1	< 1	< 0.1	< 0.1	542	14.2	31.4	3.7	14.4	2.9	2.6	0.4	2.5
121182	0.31	0.8	122	11.9	5.2	44.8	11.7	26	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	540	14.4	31.6	3.7	14.2	2.8	2.5	0.3	2.3
121183	0.17	1.1	79.9	11.3	10.2	32.0	11.6	3	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	514	12.0	29.7	3.1	12.0	2.4	2.2	0.3	2.3
121184	0.17	1.1	85.9	11.9	7.6	40.1	11.5	73	1.0	0.69	< 0.1	< 1	0.2	< 0.1	529	13.5	30.0	3.5	13.6	2.7	2.4	0.3	2.2
121185	0.16	0.7	76.8	11.6	9.4	32.7	11.0	71	1.2	0.54	< 0.1	< 1	0.2	< 0.1	503	13.9	30.7	3.6	13.8	2.7	2.3	0.3	2.1
121186	0.29	0.6	147	12.9	14.3	27.7	9.2	58	2.5	1.11	< 0.1	< 1	0.2	< 0.1	573	10.3	24.7	3.0	11.4	2.4	2.0	0.3	1.9
121187	1.09	0.5	70.2	12.9	16.4	47.3	10.4	57	2.9	1.22	< 0.1	< 1	0.2	< 0.1	614	15.3	33.1	3.8	14.3	2.6	2.3	0.3	2.1
121188	0.57	0.5	72.5	12.1	24.0	49.8	10.8	52	1.8	0.78	< 0.1	< 1	0.2	< 0.1	621	18.0	37.6	4.1	14.9	2.7	2.3	0.3	2.1
121189	0.17	0.5	87.9	12.1	2.3	47.0	10.8	39	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	521	13.5	29.4	3.5	13.6	2.7	2.2	0.3	2.0
121190	0.15	0.6	106	11.2	5.8	40.0	10.6	55	< 0.1	0.09	< 0.1	< 1	< 0.1	< 0.1	496	12.0	26.4	3.1	12.2	2.4	2.1	0.3	2.0
121191	0.18	1.1	169	13.8	6.1	42.5	12.4	9	< 0.1	0.05	< 0.1	< 1	< 0.1	< 0.1	575	13.1	28.9	3.5	13.2	2.6	2.4	0.4	2.3
121192	0.27	0.8	107	11.6	6.8	35.8	13.5	3	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	516	13.4	29.7	3.7	14.3	3.0	2.7	0.4	2.6
121193	0.19	0.7	119	12.6	6.3	49.1	11.7	7	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	573	12.4	28.0	3.3	12.7	2.5	2.4	0.3	2.2
121194	0.17	0.7	275	11.6	3.4	38.2	11.6	15	< 0.1	0.37	< 0.1	< 1	< 0.1	< 0.1	692	12.3	26.9	3.2	12.3	2.5	2.2	0.3	2.2
121195	0.81	0.6	243	13.9	20.7	42.8	11.4	64	7.6	0.93	< 0.1	1	0.7	< 0.1	703	15.7	32.8	3.8	14.2	2.8	2.4	0.3	2.1
121196	0.38	0.8	208	13.1	24.4	41.3	11.0	66	4.6	1.02	< 0.1	< 1	0.4	< 0.1	605	14.0	30.8	3.5	13.3	2.6	2.3	0.3	2.1
121197	0.21	0.7	99.0	12.3	16.8	13.9	8.1	67	2.0	0.67	< 0.1	< 1	0.3	< 0.1	484	7.8	20.3	2.3	9.1	1.9	1.7	0.3	1.8

## Results

## Activation Laboratories Ltd.

## Report: A18-08799

Analyte Symbol	Bi	Se	Zn	Ga	As	Rb	Y	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.02	0.1	0.2	0.1	0.1	0.2	0.1	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
121198	0.39	0.9	134	15.0	33.3	41.3	11.7	69	1.2	1.05	< 0.1	< 1	0.2	< 0.1	511	13.6	30.2	3.6	13.6	2.8	2.5	0.4	2.3
121199	0.94	0.7	103	14.6	215	33.0	11.3	44	0.5	1.18	< 0.1	< 1	0.5	< 0.1	545	16.0	34.7	4.1	15.5	3.0	2.5	0.3	2.2
121200	0.24	0.5	295	14.5	7.0	36.1	11.6	21	< 0.1	0.34	< 0.1	< 1	< 0.1	< 0.1	588	12.9	28.3	3.3	12.4	2.5	2.1	0.3	2.1
121201	0.11	1.0	70.8	14.1	10.9	32.5	11.4	33	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	583	11.1	25.9	2.8	10.7	2.2	2.0	0.3	2.1
121202	0.20	0.7	114	14.4	8.8	32.3	9.7	33	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	460	10.4	24.6	2.6	9.6	1.9	1.6	0.3	1.8
121203	0.14	0.9	121	12.7	11.6	26.4	9.2	64	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	531	8.6	19.9	2.4	9.3	1.9	1.8	0.3	1.7
121204	0.17	0.9	212	12.3	4.1	34.8	10.0	62	0.6	0.41	< 0.1	< 1	0.1	< 0.1	550	12.0	26.5	3.1	12.0	2.2	2.0	0.3	1.9
121205	0.17	0.9	349	13.9	10.6	13.7	8.9	77	5.9	0.85	< 0.1	< 1	0.4	< 0.1	562	7.8	20.8	2.4	9.8	2.2	2.1	0.3	2.0
121206	0.18	0.9	131	12.6	11.4	23.7	9.7	62	2.0	0.78	< 0.1	< 1	0.2	< 0.1	555	10.4	24.2	2.8	10.8	2.2	2.0	0.3	1.9
121207	0.13	0.9	132	13.8	13.6	34.7	12.2	63	0.2	0.49	< 0.1	< 1	< 0.1	< 0.1	610	13.1	32.2	3.4	13.0	2.7	2.6	0.4	2.3
121208	0.25	0.9	208	12.4	8.0	33.0	11.9	4	< 0.1	0.11	< 0.1	< 1	< 0.1	< 0.1	557	13.0	30.8	3.5	13.4	2.7	2.3	0.4	2.3
121209	0.22	0.7	263	13.4	4.1	33.0	13.2	< 1	< 0.1	0.70	< 0.1	< 1	< 0.1	< 0.1	652	13.2	33.9	3.5	14.0	2.8	2.7	0.4	2.5
121210	0.51	1.6	157	14.2	17.5	46.4	27.1	25	< 0.1	0.62	< 0.1	< 1	0.1	< 0.1	637	21.8	46.5	6.2	25.5	5.8	6.0	0.8	5.0
121211	0.19	0.8	93.0	11.4	7.9	34.1	11.7	15	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	478	13.9	29.5	3.3	12.3	2.5	2.3	0.3	2.1
121212	0.16	0.8	153	13.1	11.2	38.4	11.6	3	< 0.1	0.10	< 0.1	< 1	< 0.1	< 0.1	580	13.9	33.7	3.4	13.1	2.6	2.3	0.3	2.2
121213	0.13	0.7	100	12.8	13.9	15.4	8.3	66	0.2	0.14	< 0.1	< 1	< 0.1	< 0.1	544	5.5	18.1	1.9	7.9	1.8	1.8	0.3	1.9
121214	0.13	1.0	97.1	12.7	10.8	40.5	10.9	65	1.1	0.57	< 0.1	< 1	0.2	< 0.1	592	12.3	28.6	3.2	12.3	2.4	2.2	0.3	2.1
121215	0.16	1.3	56.2	13.2	15.7	21.5	12.7	62	1.2	0.73	< 0.1	< 1	0.2	< 0.1	584	12.4	31.3	3.7	14.4	3.0	2.9	0.4	2.7
121216	0.14	0.9	44.4	12.7	14.9	17.6	9.3	65	2.8	0.96	< 0.1	< 1	0.3	< 0.1	571	8.7	25.1	2.6	10.1	2.1	2.0	0.3	2.0
121217	0.29	1.6	65.6	13.1	18.4	37.6	19.7	60	1.6	0.41	< 0.1	< 1	0.3	< 0.1	582	20.8	39.0	5.1	20.2	4.3	4.2	0.6	3.7
121218	0.19	0.7	127	13.3	17.4	41.7	13.5	56	0.1	0.11	< 0.1	< 1	< 0.1	< 0.1	581	14.4	32.0	4.0	15.7	3.2	2.8	0.4	2.5
121219	0.23	1.0	205	13.9	18.7	40.2	12.2	4	0.5	0.72	< 0.1	< 1	0.3	< 0.1	635	13.6	31.5	3.5	13.6	2.7	2.5	0.4	2.3
121220	2.36	1.0	413	14.9	130	70.0	12.0	< 1	0.1	1.25	< 0.1	< 1	0.7	< 0.1	713	16.5	35.4	4.1	15.5	3.1	2.6	0.4	2.3
121221	2.13	0.6	113	13.7	157	51.6	11.0	6	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	565	15.0	31.7	3.7	14.0	2.6	2.3	0.3	2.0
121222	105	0.9	210	15.8	901	38.0	9.8	7	0.1	1.65	0.3	1	1.3	< 0.1	651	12.1	24.9	2.8	10.5	2.0	1.8	0.3	1.8
121223	0.66	1.1	249	12.4	26.6	35.3	11.0	48	< 0.1	0.27	< 0.1	< 1	< 0.1	< 0.1	578	16.1	33.3	3.7	13.6	2.5	2.3	0.3	2.2
121224	0.31	0.6	90.7	11.3	16.0	37.9	10.5	65	2.8	0.83	< 0.1	< 1	0.3	< 0.1	532	12.9	29.0	3.3	12.4	2.5	2.1	0.3	2.0
121225	0.27	1.4	204	11.3	8.8	40.2	10.1	66	4.8	1.20	< 0.1	< 1	0.6	< 0.1	614	12.5	28.0	3.2	12.2	2.3	2.0	0.3	1.9
123776	0.26	0.6	127	12.1	20.6	32.0	9.9	73	4.7	2.01	< 0.1	< 1	0.2	< 0.1	483	12.3	26.7	3.1	11.6	2.2	2.0	0.3	1.8
123777	0.25	0.5	163	12.0	12.9	49.5	10.5	72	4.6	1.39	< 0.1	1	0.5	< 0.1	548	12.7	29.0	3.3	12.3	2.4	2.2	0.3	2.0
123778	0.35	1.0	317	11.8	6.0	59.8	10.9	52	0.1	0.37	< 0.1	< 1	0.2	< 0.1	704	15.3	34.4	3.8	14.6	2.8	2.5	0.3	2.2
123779	0.59	0.8	239	13.4	39.3	62.1	11.8	36	< 0.1	0.22	< 0.1	< 1	< 0.1	< 0.1	594	14.9	33.0	3.8	14.9	2.9	2.5	0.3	2.3
123780	0.61	0.6	261	13.3	31.0	54.6	12.7	2	< 0.1	0.14	< 0.1	< 1	< 0.1	< 0.1	648	15.0	33.2	3.8	14.5	3.0	2.6	0.4	2.3
123781	0.90	0.9	179	14.3	76.7	52.1	12.1	4	< 0.1	0.09	< 0.1	< 1	< 0.1	< 0.1	590	15.0	32.8	3.8	14.2	2.8	2.5	0.4	2.3
123782	1.03	0.9	245	14.4	110	55.2	11.6	14	< 0.1	0.11	< 0.1	< 1	< 0.1	< 0.1	567	14.1	30.6	3.5	13.6	2.7	2.3	0.3	2.1
123783	0.74	1.0	309	13.1	17.3	45.7	11.2	56	< 0.1	0.14	< 0.1	< 1	< 0.1	< 0.1	644	13.0	28.8	3.3	12.7	2.5	2.2	0.3	2.2
123784	0.69	0.7	220	15.7	33.1	34.0	10.8	81	8.6	1.81	< 0.1	1	0.3	< 0.1	533	12.2	27.0	3.3	12.3	2.4	2.1	0.3	2.0
123785	1.48	1.2	299	13.6	241	70.6	8.8	47	5.7	4.48	0.1	< 1	4.5	0.4	647	26.0	60.2	6.5	23.6	4.0	2.9	0.3	1.9
123786	0.31	1.0	125	13.0	30.9	49.3	11.2	64	1.0	1.12	< 0.1	< 1	0.4	< 0.1	572	13.8	31.3	3.6	13.5	2.7	2.3	0.3	2.2
123787	0.16	0.7	105	14.3	72.5	43.6	11.2	54	< 0.1	0.12	< 0.1	< 1	< 0.1	< 0.1	512	13.8	29.3	3.4	12.7	2.4	2.2	0.3	2.0
123788	0.17	0.7	115	13.2	11.2	43.1	11.4	44	< 0.1	0.05	< 0.1	< 1	< 0.1	< 0.1	515	14.1	30.9	3.5	13.4	2.5	2.2	0.3	2.1
123789	0.15	0.8	218	13.5	9.5	41.5	12.6	33	< 0.1	0.49	< 0.1	< 1	< 0.1	< 0.1	673	14.3	32.2	3.8	14.2	2.8	2.7	0.4	2.4

## Results

## Activation Laboratories Ltd.

## Report: A18-08799

Analyte Symbol	Bi	Se	Zn	Ga	As	Rb	Y	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.02	0.1	0.2	0.1	0.1	0.2	0.1	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
123790	0.20	0.9	215	15.1	15.2	44.1	12.3	79	0.9	1.16	< 0.1	< 1	0.2	< 0.1	662	13.0	28.7	3.3	12.9	2.6	2.4	0.4	2.4
123791	0.12	0.7	69.0	12.9	11.6	33.4	15.6	4	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	559	18.4	46.1	5.3	20.4	3.8	3.7	0.5	3.2
123792	0.27	0.8	167	12.8	9.4	36.4	11.5	62	0.1	0.05	< 0.1	< 1	< 0.1	< 0.1	566	12.9	30.8	3.3	12.5	2.5	2.3	0.3	2.2
123793	0.24	0.7	154	14.4	15.2	37.8	11.7	63	0.3	0.39	< 0.1	< 1	0.1	< 0.1	591	13.4	29.6	3.5	13.3	2.7	2.4	0.3	2.3
123794	0.33	0.4	120	12.1	21.1	40.5	11.8	61	2.8	0.75	< 0.1	< 1	0.1	< 0.1	555	13.3	30.9	3.5	13.3	2.6	2.5	0.3	2.3
123795	0.73	0.6	147	13.3	84.4	44.5	11.4	62	0.9	0.52	< 0.1	1	0.2	< 0.1	559	16.0	34.7	4.1	15.3	2.9	2.6	0.3	2.2
123796	0.56	0.7	95.2	13.8	27.9	39.1	11.0	56	< 0.1	0.19	< 0.1	< 1	0.1	< 0.1	544	15.0	32.6	3.7	13.7	2.7	2.5	0.3	2.2
123797	0.32	1.3	141	12.3	23.1	32.8	10.1	35	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	475	12.7	27.2	3.1	11.7	2.2	2.0	0.3	1.9
123798	1.20	1.1	140	14.2	123	38.7	10.9	48	0.1	0.76	< 0.1	< 1	0.4	< 0.1	555	26.2	52.1	5.9	21.0	4.0	3.2	0.4	2.3
123799	9.86	0.5	259	13.9	101	35.1	10.7	1	< 0.1	0.66	0.3	< 1	0.6	< 0.1	523	16.4	34.6	4.0	14.8	2.9	2.5	0.3	2.0
123800	0.39	0.9	243	12.8	8.9	44.6	12.8	28	< 0.1	0.15	< 0.1	< 1	< 0.1	< 0.1	651	14.2	31.9	3.7	14.2	2.8	2.8	0.4	2.6
123801	0.43	0.4	335	12.6	4.5	40.4	12.2	3	< 0.1	0.18	< 0.1	< 1	< 0.1	< 0.1	649	13.6	30.2	3.5	13.4	2.6	2.4	0.4	2.4
123802	0.61	1.2	301	12.0	4.8	44.0	12.6	6	< 0.1	0.16	< 0.1	< 1	< 0.1	< 0.1	659	15.8	34.0	4.0	15.0	2.9	2.6	0.4	2.5
123803	0.33	0.6	278	12.2	5.9	44.3	10.4	61	< 0.1	0.24	< 0.1	< 1	< 0.1	< 0.1	507	13.5	29.2	3.4	12.9	2.5	2.1	0.3	2.0
123804	0.67	0.8	173	12.1	11.1	37.7	11.3	65	0.4	0.45	< 0.1	< 1	< 0.1	< 0.1	532	13.6	31.3	3.5	13.3	2.6	2.4	0.3	2.3
123805	0.87	0.8	39.1	11.7	23.5	44.5	13.1	48	0.7	0.17	< 0.1	< 1	0.1	< 0.1	660	16.9	39.0	4.2	16.1	3.2	3.0	0.4	2.7
123806	8.19	0.7	125	12.6	10.9	39.5	11.6	51	0.5	0.19	< 0.1	< 1	< 0.1	< 0.1	593	16.0	34.2	3.7	13.8	2.7	2.5	0.4	2.3
123807	0.59	1.1	169	14.9	13.2	41.4	11.2	61	0.1	0.25	< 0.1	< 1	< 0.1	< 0.1	573	13.8	30.3	3.5	13.3	2.5	2.3	0.3	2.1
123808	0.38	0.9	71.9	12.6	7.4	41.3	10.4	40	< 0.1	0.08	< 0.1	< 1	< 0.1	< 0.1	567	12.3	26.4	3.0	11.4	2.3	2.0	0.3	2.0
123809	0.53	0.5	55.8	11.4	10.4	40.3	12.7	27	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	580	16.3	38.3	4.1	15.4	3.1	2.8	0.4	2.5
123810	0.71	1.0	143	12.5	11.2	38.8	11.8	5	< 0.1	0.06	< 0.1	< 1	< 0.1	< 0.1	597	15.4	33.4	3.8	14.4	2.8	2.6	0.4	2.4
123811	1.20	0.9	129	12.6	22.8	37.5	12.5	3	< 0.1	0.12	< 0.1	< 1	< 0.1	< 0.1	653	14.5	34.7	3.7	14.3	2.8	2.8	0.4	2.5
123812	0.86	1.1	108	12.9	10.5	43.0	11.2	50	0.2	0.16	< 0.1	< 1	< 0.1	< 0.1	795	13.0	29.6	3.4	12.9	2.6	2.5	0.4	2.3
123813	1.48	0.8	280	13.8	8.8	52.5	12.1	51	0.1	0.26	< 0.1	< 1	< 0.1	< 0.1	656	16.0	35.0	4.0	15.3	3.0	2.8	0.4	2.6
123814	0.95	0.5	354	15.8	6.7	56.2	11.2	64	0.6	0.26	< 0.1	< 1	0.1	< 0.1	617	13.4	30.1	3.4	12.7	2.4	2.3	0.3	2.3
123815	1.15	0.9	346	13.1	9.6	58.5	11.2	57	0.1	0.21	< 0.1	< 1	0.1	< 0.1	642	15.1	33.7	3.8	14.3	2.8	2.5	0.4	2.3
123816	0.77	1.2	95.2	12.9	20.0	61.0	12.3	50	< 0.1	0.27	< 0.1	< 1	0.1	< 0.1	717	15.8	37.3	4.0	15.3	3.0	2.8	0.4	2.5
123817	0.56	1.3	160	13.7	11.3	48.4	13.3	57	< 0.1	0.19	< 0.1	< 1	< 0.1	< 0.1	683	15.5	35.7	4.1	15.8	3.1	2.9	0.4	2.7
123818	0.32	25.5	104	1.1	574	1.8	2.9	3	0.5	106	< 0.1	< 1	7.7	0.2	209	2.2	4.3	0.5	2.2	0.5	0.5	< 0.1	0.5
123819	0.18	1.1	248	11.0	4.1	66.2	9.1	9	< 0.1	0.50	< 0.1	< 1	0.1	< 0.1	636	13.9	28.9	3.1	11.7	2.1	2.0	0.3	1.8
123820	0.21	0.9	364	13.9	5.1	65.7	13.0	10	< 0.1	0.52	< 0.1	< 1	< 0.1	< 0.1	768	16.4	35.5	4.2	15.9	3.0	2.8	0.4	2.6
123821	0.14	0.6	121	12.5	4.9	58.0	9.7	6	< 0.1	0.09	< 0.1	< 1	< 0.1	< 0.1	545	11.2	24.4	2.8	10.5	2.2	2.0	0.3	1.8
123822	1.08	2.8	223	13.4	45.6	33.2	13.3	25	< 0.1	0.81	< 0.1	< 1	< 0.1	< 0.1	416	15.9	31.6	4.1	16.4	3.5	3.3	0.4	2.6
123823	0.22	1.1	311	13.8	7.2	44.5	10.6	76	2.0	0.48	< 0.1	< 1	0.2	< 0.1	550	12.7	27.9	3.3	12.8	2.6	2.3	0.3	2.2
123824	0.16	0.8	379	13.4	5.0	45.0	11.1	45	0.5	0.66	< 0.1	< 1	< 0.1	< 0.1	620	14.1	31.3	3.6	13.3	2.6	2.4	0.4	2.3
123825	0.51	0.7	49.8	11.6	11.3	39.6	11.7	36	< 0.1	0.09	< 0.1	< 1	0.1	< 0.1	558	14.9	35.3	3.8	14.4	2.8	2.5	0.4	2.4
128051	0.70	1.4	75.1	16.4	40.4	40.6	13.9	21	< 0.1	0.58	< 0.1	< 1	< 0.1	< 0.1	565	17.0	36.6	4.5	18.2	3.8	3.5	0.5	2.7
128052	1.73	1.5	150	16.4	39.3	69.3	10.9	32	0.5	3.73	< 0.1	2	0.6	< 0.1	636	15.9	33.8	4.0	15.1	3.1	2.7	0.4	2.2
128053	0.80	0.8	102	15.9	47.7	40.0	12.3	14	< 0.1	0.18	< 0.1	< 1	< 0.1	< 0.1	496	16.0	34.5	4.0	15.8	3.3	3.1	0.4	2.5
128054	0.52	2.1	180	13.0	13.6	51.5	14.5	34	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	481	16.8	36.1	4.2	16.5	3.3	3.1	0.4	2.7
128055	1.10	1.9	221	11.7	40.5	41.8	11.7	23	< 0.1	0.23	< 0.1	< 1	< 0.1	< 0.1	435	14.1	29.0	3.6	14.4	3.0	2.9	0.4	2.3
128056	8.83	2.3	1100	13.7	194	68.6	12.9	21	0.2	4.30	0.2	2	7.1	0.3	502	18.4	36.6	4.3	16.6	3.1	2.9	0.4	2.5



## Results

## Activation Laboratories Ltd.

## Report: A18-08799

Analyte Symbol	Bi	Se	Zn	Ga	As	Rb	Y	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.02	0.1	0.2	0.1	0.1	0.2	0.1	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
128057	1.57	1.4	648	14.7	85.7	49.9	13.2	55	0.2	0.43	< 0.1	< 1	0.3	< 0.1	481	15.4	35.7	4.0	15.6	3.1	2.9	0.4	2.7
128058	4.98	4.3	860	14.1	178	46.2	40.3	47	7.3	7.59	0.1	3	7.3	0.4	703	20.1	66.6	7.5	33.5	7.3	8.7	1.1	6.2
128059	1.25	1.6	165	15.1	42.8	62.2	14.3	37	3.3	0.72	< 0.1	1	0.3	< 0.1	628	20.4	46.6	4.9	18.8	3.7	3.5	0.5	2.9
128060	2.03	2.0	212	13.6	49.7	70.2	9.9	42	0.3	0.36	< 0.1	< 1	0.3	< 0.1	596	16.1	33.3	3.7	14.0	2.6	2.4	0.3	2.1
128061	0.64	3.5	113	12.2	36.5	46.4	44.3	38	0.8	1.70	< 0.1	< 1	1.6	0.2	587	32.7	52.8	8.4	33.2	6.4	8.1	1.0	6.1
128062	0.62	1.0	136	16.6	38.1	40.8	13.1	16	< 0.1	0.34	< 0.1	< 1	< 0.1	< 0.1	532	15.8	35.6	4.2	17.3	3.7	3.5	0.5	2.8
128063	1.11	1.5	131	16.9	54.9	54.5	13.4	22	< 0.1	2.84	< 0.1	1	1.4	< 0.1	626	16.5	35.9	4.2	16.8	3.5	3.4	0.5	2.8
128064	0.80	1.0	109	17.1	52.5	49.9	12.5	10	< 0.1	0.47	< 0.1	< 1	< 0.1	< 0.1	576	16.1	35.6	4.3	17.3	3.6	3.3	0.4	2.7
128065	0.67	1.1	99.5	17.0	56.8	44.9	13.4	14	< 0.1	0.21	< 0.1	< 1	< 0.1	< 0.1	548	17.5	38.2	4.5	18.4	3.7	3.4	0.5	2.8
128066	1.42	0.7	295	17.9	19.6	58.9	13.7	8	< 0.1	2.08	< 0.1	< 1	< 0.1	< 0.1	616	19.5	41.9	4.8	18.9	3.8	3.6	0.5	2.9
128067	1.29	1.3	134	17.3	60.3	44.4	14.5	18	< 0.1	0.75	< 0.1	< 1	0.1	< 0.1	586	18.3	38.7	4.6	18.1	3.9	3.6	0.5	3.0
128068	0.73	0.7	102	17.3	72.3	49.1	12.5	25	0.3	3.43	< 0.1	< 1	0.1	< 0.1	595	16.4	35.9	4.2	17.0	3.5	3.3	0.4	2.7
128069	0.72	2.0	106	16.7	57.2	44.6	14.7	26	0.6	0.96	< 0.1	< 1	0.2	< 0.1	548	17.2	37.0	4.3	17.2	3.6	3.5	0.5	3.0
128070	1.04	0.9	116	17.1	99.9	50.9	12.4	31	6.9	4.76	< 0.1	1	2.4	0.2	599	17.2	37.8	4.5	17.9	3.7	3.4	0.5	2.7
128071	1.26	1.6	103	16.4	61.4	50.9	12.3	32	4.2	4.00	< 0.1	1	1.9	0.1	579	19.0	39.3	4.5	17.6	3.6	3.2	0.4	2.7
128072	1.32	1.7	95.0	17.7	73.2	51.9	11.9	31	0.3	4.43	< 0.1	2	0.6	< 0.1	547	15.7	33.8	4.0	15.8	3.2	3.0	0.4	2.5
128073	7.70	1.1	374	18.0	57.4	73.0	11.1	34	0.1	1.70	< 0.1	< 1	0.7	0.2	847	18.9	38.0	4.2	15.7	2.8	2.5	0.3	2.2
128074	1.52	1.4	227	14.9	35.2	62.9	14.1	20	< 0.1	0.07	< 0.1	< 1	< 0.1	< 0.1	625	17.2	40.7	4.4	16.9	3.4	3.2	0.4	2.8
128075	0.25	0.9	318	13.3	6.5	42.0	11.1	43	< 0.1	0.22	< 0.1	< 1	0.2	< 0.1	550	13.8	30.5	3.5	13.4	2.6	2.4	0.4	2.3
128076	9.47	2.0	338	19.6	82.8	82.3	11.8	21	0.2	2.61	0.1	4	5.1	0.5	836	23.3	44.4	4.6	16.4	2.8	2.7	0.4	2.3
128077	11.3	3.8	525	17.7	117	89.4	10.1	70	4.5	3.11	0.1	4	7.1	0.5	371	21.9	41.6	4.3	14.8	2.6	2.3	0.3	2.0
128078	4.60	6.3	121	15.1	151	61.5	9.4	52	7.6	3.49	< 0.1	2	9.9	0.4	663	18.0	36.0	3.8	13.8	2.5	2.1	0.3	1.8
128079	5.51	3.9	397	17.9	218	73.7	10.4	89	8.1	3.19	0.2	4	4.6	0.4	627	20.3	40.4	4.3	15.9	2.9	2.6	0.3	2.2
128080	8.37	3.4	665	18.1	245	79.0	9.5	67	1.5	2.52	0.2	3	3.0	0.3	626	18.5	37.4	4.2	15.9	2.8	2.4	0.3	1.9
128081	15.9	2.7	732	16.0	190	71.3	9.7	54	0.3	2.16	0.2	2	3.9	0.2	615	16.9	35.0	4.0	15.1	2.7	2.4	0.3	2.0
128082	9.27	2.8	413	17.7	160	77.4	9.8	16	1.7	2.27	0.1	4	4.4	0.5	139	26.0	43.5	4.1	13.9	2.3	2.2	0.3	1.9
128083	5.01	1.7	357	19.5	53.8	84.9	11.5	29	< 0.1	0.70	0.1	1	0.3	< 0.1	777	19.4	38.6	4.2	15.3	2.8	2.4	0.3	2.2
128084	9.08	2.8	277	21.3	125	111	11.6	66	0.8	2.94	0.1	2	4.0	0.5	852	22.0	42.7	4.5	16.1	2.9	2.7	0.3	2.3
128085	6.65	1.8	201	19.4	76.3	98.3	11.7	10	< 0.1	1.62	0.1	5	3.0	< 0.1	1030	19.8	39.2	4.3	15.6	2.8	2.5	0.3	2.2
128086	6.17	3.2	196	19.8	104	114	10.8	62	2.2	3.07	0.1	3	2.8	0.2	1030	20.0	40.0	4.5	16.4	2.8	2.5	0.3	2.2
128087	3.93	2.4	136	17.2	55.3	82.0	10.2	55	2.3	2.21	< 0.1	3	0.3	< 0.1	710	19.3	40.2	4.6	17.0	3.1	2.7	0.3	2.0
128088	8.78	3.6	213	18.1	92.2	94.8	10.8	84	9.4	2.89	0.1	4	2.0	0.3	686	19.7	41.7	4.8	18.1	3.3	2.8	0.3	2.2
128089	1.46	1.7	135	19.0	65.3	57.1	12.2	37	6.0	6.84	< 0.1	2	2.6	0.2	572	17.0	36.5	4.3	16.8	3.3	3.0	0.4	2.5
128090	0.97	1.4	89.0	16.9	101	46.8	12.8	27	0.6	3.78	< 0.1	1	0.2	< 0.1	564	18.5	36.7	4.2	16.0	3.2	3.2	0.4	2.7
128091	1.23	1.0	147	18.0	39.0	57.0	13.5	25	0.1	1.24	< 0.1	< 1	0.1	< 0.1	592	18.7	39.0	4.5	17.5	3.5	3.3	0.4	2.8
128092	0.94	0.9	110	17.2	67.9	51.6	13.7	13	< 0.1	0.15	< 0.1	< 1	< 0.1	< 0.1	592	16.9	37.5	4.5	17.9	3.7	3.3	0.5	2.9
128093	0.98	1.4	141	17.1	63.0	53.4	13.4	3	0.1	1.45	< 0.1	1	0.3	< 0.1	625	18.8	41.0	4.7	18.7	3.9	3.5	0.5	2.9
128094	0.15	0.8	176	15.0	6.7	36.5	11.7	14	< 0.1	0.10	< 0.1	< 1	< 0.1	< 0.1	608	13.3	28.2	3.3	12.7	2.5	2.3	0.3	2.3
128095	0.15	1.1	183	13.9	9.7	34.1	12.1	10	< 0.1	0.06	< 0.1	< 1	< 0.1	< 0.1	648	11.8	26.2	3.1	12.1	2.3	2.2	0.3	2.3
128096	0.13	0.7	50.8	13.6	13.0	18.3	8.4	62	1.0	0.76	< 0.1	< 1	0.2	< 0.1	545	8.3	20.3	2.2	8.6	1.6	1.6	0.2	1.6
128097	0.18	0.4	48.5	13.8	6.5	27.0	9.1	49	0.1	0.23	< 0.1	< 1	0.1	< 0.1	407	11.1	24.0	2.8	10.5	2.0	1.8	0.2	1.7
128098	0.18	0.9	326	14.6	13.7	41.0	12.1	70	3.8	1.09	< 0.1	< 1	0.5	< 0.1	740	13.1	28.3	3.3	12.7	2.6	2.5	0.3	2.4

## Results

## Activation Laboratories Ltd.

## Report: A18-08799

Analyte Symbol	Bi	Se	Zn	Ga	As	Rb	Y	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.02	0.1	0.2	0.1	0.1	0.2	0.1	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
128099	0.21	0.8	159	15.4	12.6	40.3	12.8	73	0.6	0.61	< 0.1	< 1	< 0.1	< 0.1	635	13.3	29.3	3.5	13.7	2.7	2.5	0.4	2.4
128100	2.70	0.9	95.1	14.1	78.7	36.3	13.9	64	0.2	0.29	< 0.1	< 1	< 0.1	< 0.1	584	13.3	33.6	3.6	14.0	2.9	2.9	0.4	2.8
128101	0.22	0.7	167	15.1	10.9	37.3	12.4	70	0.3	0.42	< 0.1	< 1	< 0.1	< 0.1	624	15.3	33.5	3.7	13.7	2.7	2.4	0.4	2.4
128102	0.17	1.0	251	13.5	9.0	40.9	12.6	60	0.1	0.43	< 0.1	< 1	< 0.1	< 0.1	699	14.2	32.2	3.5	13.4	2.7	2.5	0.4	2.6
128103	0.16	0.8	119	14.3	8.2	44.2	11.9	44	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	579	12.7	27.7	3.2	12.5	2.4	2.3	0.4	2.3
128104	0.21	0.4	81.8	12.7	6.2	47.5	16.7	22	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	615	16.2	35.1	4.3	17.5	3.7	3.7	0.6	3.4
128105	1.26	0.9	135	13.8	10.0	46.8	12.6	35	< 0.1	0.06	< 0.1	< 1	< 0.1	< 0.1	562	14.5	32.4	3.8	14.6	2.8	2.6	0.4	2.5
128106	1.28	0.6	174	13.0	30.5	41.0	12.0	4	< 0.1	0.41	< 0.1	< 1	< 0.1	< 0.1	576	13.7	33.2	3.5	13.6	2.6	2.4	0.4	2.4
128107	0.38	0.8	149	13.3	26.8	36.7	12.6	55	0.1	0.30	< 0.1	< 1	0.1	< 0.1	585	15.9	35.2	4.0	15.4	3.0	2.7	0.4	2.5
128108	0.25	0.9	98.5	12.0	13.3	35.1	13.5	59	< 0.1	0.09	< 0.1	< 1	< 0.1	< 0.1	526	15.2	39.0	4.0	15.3	3.1	2.9	0.4	2.8
128109	0.56	0.7	84.5	14.1	24.4	30.7	10.3	49	0.2	0.32	< 0.1	< 1	< 0.1	< 0.1	501	12.0	28.3	3.3	12.8	2.5	2.2	0.3	2.0
128110	0.16	0.7	47.4	11.4	4.9	37.6	12.5	37	< 0.1	0.05	< 0.1	< 1	< 0.1	< 0.1	522	15.7	36.4	3.9	15.1	2.9	2.8	0.4	2.5
128111	0.21	1.1	135	13.3	12.1	36.2	15.3	55	< 0.1	0.11	< 0.1	< 1	< 0.1	< 0.1	558	16.5	37.1	4.3	17.1	3.4	3.4	0.5	3.3
128112	0.19	0.9	121	13.0	13.3	35.9	14.2	39	< 0.1	0.06	< 0.1	< 1	< 0.1	< 0.1	572	18.4	38.9	4.1	16.2	3.3	3.2	0.5	2.9
128113	0.22	1.2	139	13.0	16.6	36.5	13.9	33	< 0.1	0.09	< 0.1	2	< 0.1	< 0.1	577	14.4	36.3	3.8	15.1	3.0	3.0	0.4	2.9
128114	0.15	0.7	75.1	12.1	9.2	30.8	10.2	29	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	513	11.7	29.3	3.2	12.4	2.5	2.1	0.3	2.1
128115	0.14	0.4	55.7	12.8	6.0	28.3	10.1	30	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	487	11.3	24.4	2.8	11.0	2.2	1.9	0.3	1.9
128116	0.13	0.9	297	12.4	3.8	43.2	12.8	3	< 0.1	0.14	< 0.1	< 1	< 0.1	< 0.1	675	14.8	33.3	4.0	15.1	2.9	2.7	0.4	2.7
128117	0.13	0.9	110	14.3	9.9	39.6	12.1	59	0.2	0.11	< 0.1	< 1	< 0.1	< 0.1	598	14.1	30.9	3.5	13.4	2.6	2.4	0.4	2.4
128118	0.16	0.9	146	15.0	12.8	43.0	11.6	69	0.6	0.33	< 0.1	< 1	< 0.1	< 0.1	584	11.7	26.4	3.2	12.3	2.4	2.2	0.3	2.2
128119	0.24	1.1	201	15.1	35.1	59.7	21.8	59	0.5	0.36	< 0.1	< 1	0.3	< 0.1	625	20.4	35.1	5.6	23.1	4.9	5.0	0.7	4.1
128120	0.14	0.5	87.7	13.9	12.1	39.9	12.7	57	< 0.1	0.13	< 0.1	< 1	< 0.1	< 0.1	625	13.5	34.6	3.5	13.7	2.8	2.5	0.4	2.5
128121	0.20	0.7	238	11.8	1.6	39.6	11.8	16	< 0.1	0.11	< 0.1	< 1	< 0.1	< 0.1	586	15.9	33.5	3.9	14.6	2.8	2.5	0.3	2.4
128122	20.6	1.6	594	22.1	572	52.6	11.4	16	4.5	5.25	0.3	2	4.8	2.3	601	43.5	100	11.3	42.0	7.2	4.8	0.5	2.7
128123	0.36	0.7	128	13.7	62.3	39.4	11.9	15	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	545	14.4	30.8	3.6	13.8	2.6	2.4	0.3	2.3
128124	0.38	0.7	178	13.5	16.0	43.3	11.9	35	< 0.1	0.10	< 0.1	< 1	< 0.1	< 0.1	581	14.7	33.1	3.7	14.3	2.8	2.6	0.4	2.5
128125	0.17	0.6	149	15.6	13.7	41.8	11.3	10	< 0.1	0.16	< 0.1	< 1	< 0.1	< 0.1	556	12.9	28.0	3.3	12.7	2.5	2.2	0.3	2.2
128126	42.3	0.9	221	13.6	163	37.4	10.8	37	< 0.1	0.13	0.3	< 1	< 0.1	< 0.1	522	15.4	33.0	3.8	14.1	2.6	2.3	0.3	2.1
128127	0.38	0.7	164	13.2	16.4	35.6	11.7	69	0.3	0.34	< 0.1	< 1	< 0.1	< 0.1	565	13.6	32.3	3.5	13.8	2.7	2.3	0.3	2.3
128128	0.28	0.4	91.5	12.8	11.5	33.5	10.8	56	0.1	0.07	< 0.1	< 1	< 0.1	< 0.1	500	12.5	27.5	3.3	12.7	2.3	2.1	0.3	2.0
128129	0.84	1.3	291	14.2	45.3	39.9	12.2	71	0.6	0.45	< 0.1	< 1	< 0.1	< 0.1	608	15.2	34.5	3.9	15.1	3.0	2.6	0.4	2.4
128130	1.34	0.9	185	12.7	54.6	45.8	11.4	55	< 0.1	0.19	< 0.1	< 1	< 0.1	< 0.1	537	13.9	30.1	3.6	13.8	2.7	2.4	0.4	2.3
128131	0.22	0.6	116	12.8	5.4	39.9	11.4	26	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	520	14.4	31.4	3.6	13.5	2.5	2.2	0.3	2.2
128132	0.37	0.7	81.9	12.4	9.4	36.8	11.8	9	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	512	13.8	33.3	3.6	14.0	2.6	2.5	0.4	2.4
128133	0.47	0.6	156	13.4	15.5	44.1	13.8	5	< 0.1	0.20	< 0.1	< 1	< 0.1	< 0.1	615	15.9	38.2	4.2	16.2	3.3	3.1	0.4	2.7
128134	0.45	0.8	195	13.2	16.8	37.2	11.3	22	< 0.1	0.35	< 0.1	< 1	< 0.1	< 0.1	543	14.1	30.3	3.5	13.2	2.5	2.4	0.3	2.2
128135	2.76	0.9	208	14.5	94.7	36.8	11.1	52	< 0.1	0.22	< 0.1	< 1	< 0.1	< 0.1	498	14.2	30.7	3.5	13.5	2.5	2.3	0.3	2.1
128136	0.81	0.6	142	14.1	66.9	31.8	10.4	63	0.6	0.45	< 0.1	< 1	0.1	< 0.1	447	12.9	27.4	3.2	11.8	2.1	2.0	0.3	1.8
128137	47.1	2.2	114	16.5	3050	34.5	9.0	64	6.4	4.02	1.0	2	5.9	0.5	481	23.2	46.6	5.2	19.3	3.6	2.9	0.3	1.9
128138	9.54	1.5	234	17.1	2980	36.5	10.6	62	8.1	2.91	0.1	1	5.1	3.0	487	29.0	61.7	6.9	25.3	4.6	3.5	0.4	2.5
128139	3.05	0.9	214	15.7	2110	39.5	11.3	77	5.3	2.26	0.3	1	0.8	0.2	474	15.5	34.8	3.9	15.2	3.0	2.7	0.4	2.4
128140	0.43	0.7	154	15.1	76.1	49.9	11.2	56	0.2	0.10	< 0.1	< 1	< 0.1	< 0.1	540	14.1	30.6	3.5	13.4	2.5	2.2	0.3	2.1

## Results

## Activation Laboratories Ltd.

## Report: A18-08799

Analyte Symbol	Bi	Se	Zn	Ga	As	Rb	Y	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.02	0.1	0.2	0.1	0.1	0.2	0.1	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
128141	2.57	1.1	358	14.7	443	65.7	10.5	73	4.8	4.04	< 0.1	2	3.5	0.3	688	27.1	57.3	6.2	22.5	3.8	3.0	0.4	2.2
128142	0.28	0.7	197	14.3	27.1	50.9	10.6	9	< 0.1	0.99	< 0.1	< 1	< 0.1	< 0.1	632	13.0	27.7	3.2	12.3	2.3	2.0	0.3	2.0
128143	0.16	0.8	124	13.5	12.5	43.4	13.4	19	< 0.1	0.08	< 0.1	< 1	< 0.1	< 0.1	552	14.6	31.6	3.8	14.9	2.9	2.6	0.4	2.6
128144	0.23	0.8	115	11.9	16.2	50.7	12.6	11	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	541	15.0	34.3	3.8	15.0	2.9	2.6	0.4	2.5
128145	0.39	0.8	165	12.1	6.8	39.7	11.1	49	< 0.1	0.06	< 0.1	< 1	< 0.1	< 0.1	573	15.5	32.6	3.8	14.3	2.7	2.4	0.3	2.2
128146	0.19	0.8	130	12.6	6.6	40.8	11.8	22	< 0.1	0.07	< 0.1	< 1	< 0.1	< 0.1	517	15.5	33.0	3.8	14.3	2.7	2.4	0.3	2.3
128147	0.17	0.6	133	13.1	9.8	38.7	11.9	77	0.9	0.61	< 0.1	1	< 0.1	< 0.1	590	14.2	31.2	3.6	14.3	2.7	2.4	0.4	2.3
128148	0.15	1.0	130	12.6	8.0	40.2	12.7	68	0.2	0.38	< 0.1	< 1	< 0.1	< 0.1	533	14.7	33.3	3.8	15.3	3.0	2.7	0.4	2.5
128149	0.67	0.5	101	13.1	9.2	51.0	14.2	50	0.1	0.12	< 0.1	< 1	< 0.1	< 0.1	532	15.0	32.1	4.1	16.4	3.4	3.2	0.4	2.9
128150	0.42	0.7	122	12.3	15.7	46.7	12.5	47	< 0.1	0.06	< 0.1	< 1	< 0.1	< 0.1	599	15.1	33.7	3.8	14.6	2.9	2.7	0.4	2.5
128151	0.54	0.8	342	13.0	40.1	45.0	11.9	15	< 0.1	0.43	< 0.1	< 1	< 0.1	< 0.1	693	14.1	32.6	3.6	13.7	2.7	2.4	0.3	2.3
128152	0.75	0.8	160	13.1	63.5	40.7	14.0	3	< 0.1	0.13	< 0.1	< 1	< 0.1	< 0.1	623	16.2	37.4	4.3	16.8	3.4	3.0	0.4	2.8
128153	0.39	0.7	230	14.6	6.6	37.0	11.5	4	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	537	13.8	30.0	3.5	13.5	2.5	2.2	0.3	2.2
128154	0.89	0.6	203	14.8	40.1	40.3	11.9	3	< 0.1	0.06	< 0.1	< 1	< 0.1	< 0.1	569	14.7	32.4	3.8	14.0	2.7	2.4	0.4	2.3
128155	65.0	0.9	92.7	13.6	832	30.8	10.4	14	< 0.1	0.87	0.5	< 1	< 0.1	< 0.1	432	12.1	25.9	3.0	11.7	2.3	2.0	0.3	2.0
128156	0.36	0.9	218	13.4	7.6	42.9	10.8	54	< 0.1	0.12	< 0.1	< 1	< 0.1	< 0.1	461	13.5	29.0	3.4	12.8	2.4	2.1	0.3	2.0
128157	0.40	0.7	157	12.1	60.4	40.5	11.3	33	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	551	15.5	33.5	3.9	14.9	2.9	2.5	0.3	2.2
128158	0.32	0.9	290	15.8	18.7	48.5	11.8	66	0.2	0.56	< 0.1	1	< 0.1	< 0.1	553	13.0	28.5	3.3	12.7	2.4	2.1	0.3	2.2
128159	0.15	0.4	159	12.7	5.4	29.3	10.5	26	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	422	11.8	25.3	3.0	11.5	2.1	1.9	0.3	1.9
128160	0.59	0.6	191	13.9	39.3	44.2	10.8	5	< 0.1	0.25	< 0.1	< 1	0.2	< 0.1	523	15.9	33.3	3.8	14.3	2.6	2.2	0.3	2.0
128161	0.73	0.7	185	13.7	14.3	39.3	11.3	5	< 0.1	0.06	< 0.1	< 1	< 0.1	< 0.1	488	13.2	28.5	3.3	12.5	2.4	2.0	0.3	2.1
128162	0.48	0.7	187	13.7	28.4	37.8	13.2	3	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	590	14.4	34.2	3.7	13.8	2.8	2.5	0.4	2.5
128163	0.35	0.7	372	13.5	1.5	52.8	12.4	2	< 0.1	0.11	< 0.1	< 1	< 0.1	< 0.1	648	13.9	30.8	3.5	13.7	2.6	2.4	0.3	2.3
128164	0.64	0.5	191	13.3	9.1	42.2	12.1	59	0.1	0.13	< 0.1	< 1	< 0.1	< 0.1	555	13.8	30.5	3.5	13.3	2.6	2.3	0.3	2.3
128165	0.32	1.0	227	14.1	7.8	49.2	11.3	46	< 0.1	0.06	< 0.1	< 1	< 0.1	< 0.1	557	12.7	27.7	3.2	12.1	2.3	2.0	0.3	2.1
128166	0.67	1.1	46.7	11.9	14.6	60.0	12.1	39	0.1	0.09	< 0.1	< 1	< 0.1	< 0.1	589	15.5	35.2	3.9	14.8	3.0	2.7	0.4	2.3
128167	0.20	0.8	57.0	12.3	6.4	59.6	10.3	58	0.2	0.12	< 0.1	< 1	< 0.1	< 0.1	478	11.5	25.0	3.0	11.6	2.1	1.9	0.3	1.9
128168	1.23	0.6	71.6	12.5	14.2	50.7	11.8	43	< 0.1	0.07	< 0.1	< 1	< 0.1	< 0.1	633	16.2	34.2	3.8	14.4	2.7	2.4	0.3	2.2
128169	0.80	0.6	87.8	13.0	5.9	53.6	10.8	29	< 0.1	0.08	< 0.1	< 1	< 0.1	< 0.1	547	15.1	32.0	3.6	13.8	2.6	2.2	0.3	2.1
128170	0.42	0.5	83.9	12.3	4.4	35.4	10.5	35	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	509	13.1	28.8	3.3	12.4	2.3	2.0	0.3	2.0
128171	0.94	1.1	72.1	12.1	7.1	42.5	12.8	8	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	588	15.2	33.6	3.9	14.8	2.9	2.5	0.4	2.3
128172	0.97	0.8	140	13.6	4.0	38.6	12.6	3	< 0.1	0.10	< 0.1	< 1	< 0.1	< 0.1	647	14.8	32.2	3.7	14.2	2.7	2.5	0.4	2.4
128173	0.54	1.0	227	13.9	4.0	44.5	12.7	2	< 0.1	0.69	< 0.1	< 1	< 0.1	< 0.1	774	15.2	34.5	3.8	14.4	2.8	2.5	0.4	2.4
128174	0.68	1.0	50.3	12.2	10.1	33.1	10.4	45	0.1	0.13	< 0.1	< 1	< 0.1	< 0.1	602	9.8	23.0	2.8	10.9	2.2	2.1	0.3	2.1
128175	0.45	0.5	122	12.0	9.9	35.2	11.5	53	< 0.1	0.18	< 0.1	< 1	< 0.1	< 0.1	553	13.2	28.1	3.3	12.6	2.4	2.3	0.3	2.1
128176	0.58	0.8	135	12.0	16.7	49.3	12.1	67	2.6	0.83	< 0.1	1	0.1	< 0.1	605	14.4	31.8	3.7	14.2	2.8	2.6	0.4	2.4
128177	1.28	0.6	152	12.9	28.2	54.1	12.3	61	0.7	0.39	< 0.1	< 1	0.1	< 0.1	596	17.0	37.9	4.1	15.6	3.0	2.6	0.4	2.4
128178	1.15	0.9	279	12.8	92.4	53.7	13.4	57	6.3	1.67	< 0.1	< 1	2.9	< 0.1	1270	21.2	47.4	5.1	19.3	3.6	3.3	0.4	2.7
128179	3.56	1.2	105	11.5	104	33.3	9.7	23	< 0.1	0.20	< 0.1	< 1	< 0.1	< 0.1	437	15.5	32.0	3.6	13.4	2.5	2.2	0.3	1.9
128180	0.54	0.8	141	13.0	18.6	39.1	10.3	26	< 0.1	0.05	< 0.1	< 1	< 0.1	< 0.1	483	12.5	26.4	3.1	11.8	2.3	2.0	0.3	1.9
128181	0.60	0.8	341	12.6	12.7	51.0	12.2	15	< 0.1	0.07	< 0.1	< 1	< 0.1	< 0.1	642	18.8	41.2	4.7	17.5	3.4	2.8	0.4	2.4
128182	0.54	0.6	89.1	11.6	12.5	42.7	11.8	31	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	597	15.5	34.8	3.8	14.5	2.8	2.5	0.4	2.3

Analyte Symbol	Bi	Se	Zn	Ga	As	Rb	Y	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.02	0.1	0.2	0.1	0.1	0.2	0.1	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
128183	5.41	0.9	184	13.9	28.0	45.8	12.5	6	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	662	15.2	33.3	3.8	14.6	2.9	2.6	0.4	2.4
128184	2.60	0.3	122	12.0	28.4	25.3	7.1	62	5.9	0.86	< 0.1	< 1	0.8	< 0.1	596	5.1	12.8	1.7	6.7	1.5	1.6	0.3	1.6
128185	2.35	0.6	164	12.7	57.1	35.4	11.2	70	4.7	1.40	< 0.1	1	1.0	< 0.1	655	16.5	37.4	4.2	15.9	3.0	2.5	0.3	2.3
128186	15.9	1.1	181	14.2	128	35.5	11.4	73	4.0	1.53	< 0.1	1	0.5	< 0.1	495	17.6	37.1	4.3	16.6	3.1	2.6	0.4	2.3
128187	2.38	1.2	83.1	12.2	76.9	46.7	12.1	66	2.2	1.45	< 0.1	1	0.3	< 0.1	744	16.8	40.2	4.3	16.5	3.3	3.0	0.4	2.6
128188	0.82	0.6	60.3	12.3	13.6	41.5	13.2	43	< 0.1	0.07	< 0.1	< 1	< 0.1	< 0.1	656	17.6	39.3	4.3	16.8	3.2	2.8	0.4	2.6
128189	0.61	1.0	150	13.4	17.3	45.9	12.9	52	< 0.1	0.11	< 0.1	< 1	< 0.1	< 0.1	741	16.7	37.3	4.3	16.3	3.1	2.8	0.4	2.5
128190	1.08	0.8	161	13.8	63.5	44.9	13.7	27	< 0.1	0.08	< 0.1	< 1	< 0.1	< 0.1	639	15.8	35.9	4.2	16.1	3.3	2.9	0.4	2.8
128191	1.88	0.6	125	13.4	10.3	41.7	12.9	24	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	582	16.3	37.0	3.8	14.7	2.8	2.6	0.4	2.5
128192	84.0	3.9	114	14.3	129	59.6	14.9	59	0.6	10.3	1.1	4	1.6	0.2	939	90.6	200	19.9	72.0	13.3	9.8	1.0	4.8
128193	11.1	1.4	132	13.7	9.8	48.5	11.3	2	< 0.1	0.21	< 0.1	< 1	< 0.1	< 0.1	675	16.7	34.9	4.0	14.9	2.8	2.4	0.3	2.2
128194	107	1.2	185	14.1	30.8	41.9	12.8	10	< 0.1	0.12	< 0.1	< 1	< 0.1	< 0.1	578	15.6	32.8	3.8	14.5	2.9	2.5	0.4	2.4
128195	57.9	0.7	101	12.4	32.2	23.7	5.9	62	3.8	0.92	0.2	1	0.8	< 0.1	522	5.0	12.4	1.6	6.3	1.5	1.4	0.2	1.4
128196	1.46	0.3	174	13.8	44.3	28.7	10.1	61	5.4	1.81	< 0.1	< 1	1.1	< 0.1	460	16.4	35.1	4.0	15.0	2.8	2.4	0.3	2.0
128197	1.92	0.8	88.6	12.4	22.3	23.4	11.1	58	1.0	0.35	< 0.1	< 1	0.1	< 0.1	553	11.7	29.5	3.4	13.6	2.7	2.6	0.4	2.3
128198	1.86	1.0	122	12.3	11.8	39.9	13.0	56	< 0.1	0.06	< 0.1	< 1	< 0.1	< 0.1	565	15.3	34.8	3.8	14.6	2.9	2.6	0.4	2.6
128199	1.19	1.1	84.1	13.0	6.1	38.6	11.6	15	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	544	13.4	29.1	3.4	12.9	2.5	2.3	0.3	2.2
128200	1.21	0.7	90.7	14.0	14.6	42.8	11.6	11	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	653	15.4	32.6	3.7	14.1	2.7	2.4	0.3	2.1
128201	0.74	0.8	141	12.8	6.6	42.4	12.1	< 1	< 0.1	0.07	< 0.1	< 1	< 0.1	< 0.1	562	13.8	31.9	3.6	13.8	2.8	2.5	0.3	2.3
128202	0.57	0.9	281	12.8	12.7	37.5	10.5	3	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	654	16.9	36.4	4.2	15.7	2.9	2.5	0.3	2.1
128203	4.51	1.1	408	11.0	45.4	83.9	9.8	6	0.1	4.89	< 0.1	< 1	2.0	0.2	1610	37.9	85.9	9.0	32.6	5.4	4.0	0.5	2.4
128204	3.93	0.5	208	15.4	18.2	27.2	6.2	85	9.7	1.43	< 0.1	< 1	1.5	< 0.1	536	4.6	11.9	1.6	6.4	1.5	1.4	0.2	1.5
128205	0.21	0.3	118	13.1	17.1	39.7	10.7	22	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	539	11.4	26.8	3.0	11.5	2.3	2.2	0.3	2.1
128206	0.93	1.3	285	14.5	16.2	62.2	11.2	74	7.6	1.30	< 0.1	1	0.9	< 0.1	659	15.9	34.9	3.9	14.5	2.7	2.3	0.3	2.2
128207	4.99	1.1	196	13.8	32.8	42.6	11.1	83	6.0	2.35	< 0.1	1	0.6	0.1	619	13.9	30.0	3.5	13.3	2.6	2.3	0.3	2.2
128208	207	3.6	229	12.9	117	43.1	26.8	68	9.1	5.30	0.2	3	7.0	0.6	867	38.2	71.2	10.1	40.2	8.1	7.7	1.0	5.6
128209	3.94	0.4	132	13.5	7.5	33.2	10.1	34	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	554	15.3	31.4	3.5	13.1	2.5	2.1	0.3	1.9
128210	0.52	0.7	49.6	11.4	6.8	35.0	10.9	10	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	509	15.0	31.0	3.5	13.2	2.5	2.3	0.3	2.1
128211	3.16	0.3	95.0	13.2	18.1	30.7	11.0	2	< 0.1	0.13	< 0.1	< 1	< 0.1	< 0.1	435	13.9	29.0	3.3	12.5	2.3	2.2	0.3	2.1
128212	0.84	0.5	95.0	13.2	9.2	42.2	11.8	1	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	570	14.0	29.8	3.4	12.9	2.5	2.3	0.3	2.2
128213	0.43	0.6	86.4	12.0	10.4	39.2	12.3	1	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	541	14.2	33.3	3.6	13.9	2.7	2.4	0.4	2.4
128214	7.72	1.5	114	13.5	42.5	38.4	9.0	6	4.6	3.39	< 0.1	2	1.1	0.1	604	32.6	66.7	7.6	28.1	4.8	3.5	0.4	2.0
128215	0.72	0.3	87.0	12.7	10.2	19.2	5.5	65	7.9	0.95	< 0.1	< 1	0.8	< 0.1	545	3.3	9.1	1.2	5.2	1.3	1.3	0.2	1.4
128216	37.6	1.8	128	14.2	178	33.9	10.4	3	< 0.1	0.10	0.2	< 1	< 0.1	< 0.1	518	25.9	51.2	5.5	19.7	3.5	2.8	0.3	2.2
128217	5.14	0.6	143	14.0	13.4	50.0	10.3	22	< 0.1	0.11	< 0.1	< 1	< 0.1	< 0.1	547	13.1	28.3	3.3	12.5	2.2	1.9	0.3	1.9

Analyte Symbol	Cu	Ge	Tm	Yb	Lu	Ta	Sr	W	Re	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.001	0.05	0.5	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
121126	21.4	0.2	0.2	1.6	0.2	< 0.1	248	0.1	< 0.001	0.20	13.1	2.9	1.7
121127	16.8	0.4	0.2	1.4	0.2	< 0.1	242	0.2	< 0.001	0.20	9.5	3.0	1.4
121128	19.3	0.2	0.2	1.4	0.2	< 0.1	223	0.1	< 0.001	0.17	8.9	2.6	1.3
121129	35.8	0.2	0.3	1.8	0.3	< 0.1	238	0.1	< 0.001	0.22	12.8	3.8	2.8
121130	28.0	0.2	0.2	1.5	0.2	< 0.1	249	0.1	< 0.001	0.20	11.7	2.9	1.3
121131	17.7	0.3	0.2	1.4	0.2	< 0.1	234	0.1	< 0.001	0.21	11.7	3.4	1.3
121132	23.5	0.3	0.2	1.4	0.2	< 0.1	252	0.1	< 0.001	0.20	11.5	2.6	1.4
121133	23.6	0.2	0.2	1.6	0.2	< 0.1	252	0.2	< 0.001	0.22	13.5	3.1	1.5
121134	14.9	0.3	0.2	1.5	0.2	< 0.1	241	0.2	< 0.001	0.19	12.9	3.1	1.5
121135	19.4	0.3	0.2	1.2	0.2	< 0.1	273	0.2	< 0.001	0.17	10.4	2.4	1.3
121136	27.4	0.3	0.2	1.6	0.2	< 0.1	253	0.1	< 0.001	0.20	11.1	3.5	1.6
121137	14.3	0.4	0.2	1.5	0.2	< 0.1	261	0.1	< 0.001	0.20	9.3	3.0	1.5
121138	20.1	0.4	0.2	1.5	0.2	< 0.1	255	0.1	< 0.001	0.22	10.8	3.7	1.4
121139	25.8	0.4	0.3	1.7	0.3	< 0.1	260	0.1	< 0.001	0.21	9.6	3.8	1.4
121140	48.5	0.3	0.3	1.9	0.3	< 0.1	252	0.1	< 0.001	0.27	21.2	4.4	4.1
121141	26.4	0.3	0.2	1.7	0.3	< 0.1	269	0.1	< 0.001	0.23	13.5	3.4	2.2
121142	35.8	0.3	0.3	1.8	0.3	< 0.1	259	0.1	< 0.001	0.19	10.8	3.2	2.8
121143	13.8	0.3	0.2	1.3	0.2	< 0.1	219	0.1	< 0.001	0.18	10.1	2.5	1.3
121144	24.5	0.3	0.3	2.0	0.3	< 0.1	270	0.2	< 0.001	0.24	12.8	4.0	3.1
121145	14.0	0.2	0.2	1.2	0.2	< 0.1	249	0.1	< 0.001	0.20	8.9	2.4	1.2
121146	11.1	0.4	0.2	1.3	0.2	< 0.1	237	0.1	< 0.001	0.21	9.3	3.1	1.3
121147	13.6	0.6	0.2	1.3	0.2	< 0.1	234	0.3	< 0.001	0.22	10.9	2.5	1.1
121148	18.4	0.6	0.2	1.4	0.2	0.1	245	0.3	< 0.001	0.20	12.6	3.3	1.3
121149	12.4	0.5	0.2	1.4	0.2	< 0.1	240	0.2	< 0.001	0.21	9.2	3.4	1.4
121150	23.3	0.3	0.2	1.3	0.2	< 0.1	241	0.1	< 0.001	0.21	8.8	3.0	1.3
121181	40.9	0.5	0.2	1.5	0.2	< 0.1	199	0.1	< 0.001	0.26	11.8	3.5	1.7
121182	17.3	0.3	0.2	1.4	0.2	< 0.1	232	0.1	< 0.001	0.20	8.2	3.0	1.5
121183	25.7	0.3	0.2	1.5	0.2	< 0.1	224	< 0.1	< 0.001	0.19	9.2	2.8	1.5
121184	40.4	0.4	0.2	1.4	0.2	< 0.1	227	0.1	< 0.001	0.18	6.7	3.2	1.5
121185	12.4	0.6	0.2	1.4	0.2	< 0.1	224	0.1	< 0.001	0.18	6.2	3.5	1.5
121186	9.6	0.7	0.2	1.3	0.2	< 0.1	221	0.2	< 0.001	0.21	11.9	3.0	1.3
121187	9.6	0.7	0.2	1.4	0.2	< 0.1	251	0.2	< 0.001	0.23	8.9	3.3	1.5
121188	20.9	0.7	0.2	1.3	0.2	< 0.1	250	0.1	< 0.001	0.23	10.8	3.5	1.4
121189	8.5	0.4	0.2	1.4	0.2	< 0.1	227	< 0.1	< 0.001	0.18	6.3	2.7	1.4
121190	9.3	0.4	0.2	1.3	0.2	< 0.1	226	0.1	< 0.001	0.17	8.5	2.9	1.4
121191	13.1	0.4	0.2	1.6	0.2	< 0.1	238	0.1	< 0.001	0.20	9.2	3.0	1.5
121192	23.7	0.3	0.2	1.6	0.3	< 0.1	247	< 0.1	< 0.001	0.20	8.4	3.0	1.6
121193	26.2	0.4	0.2	1.5	0.2	< 0.1	235	0.1	< 0.001	0.18	8.3	2.7	1.4
121194	21.2	0.4	0.2	1.4	0.2	< 0.1	243	< 0.1	< 0.001	0.16	8.6	3.3	1.4
121195	21.9	0.3	0.2	1.5	0.2	0.4	224	1.2	< 0.001	0.23	9.2	4.4	1.6
121196	16.6	0.3	0.2	1.3	0.2	0.1	203	0.7	< 0.001	0.23	9.6	3.3	1.4
121197	22.1	0.7	0.2	1.1	0.2	< 0.1	190	0.2	< 0.001	0.20	10.3	2.5	1.2

Analyte Symbol	Cu	Ge	Tm	Yb	Lu	Ta	Sr	W	Re	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.001	0.05	0.5	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
121198	36.0	0.6	0.2	1.4	0.2	< 0.1	193	0.2	< 0.001	0.26	9.2	3.7	1.6
121199	38.5	0.4	0.2	1.4	0.2	< 0.1	193	0.2	< 0.001	0.30	12.6	4.3	1.7
121200	11.3	0.5	0.2	1.4	0.2	< 0.1	231	0.1	< 0.001	0.22	9.9	3.1	1.5
121201	14.9	0.3	0.2	1.4	0.2	< 0.1	258	< 0.1	< 0.001	0.21	8.3	2.6	1.3
121202	24.0	0.3	0.2	1.3	0.2	< 0.1	191	< 0.1	< 0.001	0.21	10.4	2.7	1.3
121203	15.4	0.4	0.2	1.3	0.2	< 0.1	219	0.1	< 0.001	0.20	11.7	2.5	1.2
121204	8.9	0.4	0.2	1.3	0.2	< 0.1	228	< 0.1	< 0.001	0.19	7.5	3.0	1.3
121205	16.7	0.7	0.2	1.3	0.2	0.3	207	0.5	< 0.001	0.21	7.5	2.4	1.1
121206	28.8	0.7	0.2	1.3	0.2	< 0.1	228	0.2	< 0.001	0.19	8.9	2.8	1.2
121207	35.0	0.5	0.2	1.5	0.2	< 0.1	240	0.1	< 0.001	0.19	9.1	3.3	1.3
121208	15.6	0.4	0.2	1.4	0.2	< 0.1	218	< 0.1	< 0.001	0.19	6.4	3.1	1.4
121209	17.9	0.3	0.2	1.5	0.2	< 0.1	243	0.1	< 0.001	0.20	7.4	3.0	1.5
121210	72.6	0.5	0.4	2.5	0.4	< 0.1	249	< 0.1	< 0.001	0.31	13.9	7.0	9.1
121211	21.1	0.3	0.2	1.4	0.2	< 0.1	231	< 0.1	< 0.001	0.19	7.4	2.8	2.8
121212	19.5	0.3	0.2	1.5	0.2	< 0.1	230	< 0.1	< 0.001	0.21	9.9	3.5	1.4
121213	21.8	0.6	0.2	1.3	0.2	< 0.1	217	0.1	< 0.001	0.20	10.6	2.3	1.1
121214	15.3	0.6	0.2	1.3	0.2	< 0.1	241	< 0.1	< 0.001	0.20	8.8	3.1	1.3
121215	23.3	0.6	0.2	1.6	0.2	< 0.1	238	< 0.1	< 0.001	0.24	9.6	3.3	1.5
121216	19.8	0.7	0.2	1.3	0.2	0.2	237	0.3	< 0.001	0.20	9.9	2.5	1.2
121217	37.3	0.6	0.3	1.9	0.3	< 0.1	249	< 0.1	< 0.001	0.24	9.9	4.8	2.1
121218	31.0	0.4	0.2	1.4	0.2	< 0.1	242	< 0.1	< 0.001	0.20	9.3	3.1	1.4
121219	15.8	0.4	0.2	1.5	0.2	< 0.1	245	0.1	< 0.001	0.22	10.1	3.3	1.5
121220	57.6	0.3	0.2	1.4	0.2	< 0.1	189	0.6	< 0.001	0.55	14.2	4.3	2.5
121221	34.0	0.3	0.2	1.4	0.2	< 0.1	225	< 0.1	< 0.001	0.34	8.0	3.6	1.6
121222	150	0.6	0.2	1.3	0.2	< 0.1	202	0.3	< 0.001	0.29	25.9	3.0	1.6
121223	39.7	0.7	0.2	1.4	0.2	< 0.1	218	< 0.1	< 0.001	0.23	8.9	3.8	1.5
121224	28.1	0.3	0.2	1.3	0.2	< 0.1	218	1.0	< 0.001	0.20	6.0	2.9	1.4
121225	13.4	0.2	0.2	1.2	0.2	0.2	229	1.6	< 0.001	0.20	6.8	3.0	1.4
123776	23.9	0.3	0.2	1.2	0.2	0.1	204	0.7	< 0.001	0.17	7.9	3.0	1.3
123777	22.7	0.3	0.2	1.3	0.2	0.2	221	0.7	< 0.001	0.19	8.8	3.1	1.4
123778	11.7	0.3	0.2	1.4	0.2	< 0.1	220	< 0.1	< 0.001	0.24	10.0	3.3	1.5
123779	58.2	0.4	0.2	1.5	0.2	< 0.1	217	< 0.1	< 0.001	0.27	8.2	3.5	1.7
123780	27.5	0.3	0.2	1.4	0.2	< 0.1	226	< 0.1	< 0.001	0.27	8.7	3.2	1.6
123781	69.3	0.3	0.2	1.5	0.2	< 0.1	225	< 0.1	< 0.001	0.34	12.3	3.8	1.8
123782	64.0	0.2	0.2	1.4	0.2	< 0.1	192	< 0.1	< 0.001	0.35	10.3	4.4	2.3
123783	24.3	0.4	0.2	1.4	0.2	< 0.1	224	< 0.1	< 0.001	0.30	10.9	4.6	1.6
123784	30.8	0.4	0.2	1.3	0.2	0.3	195	0.6	< 0.001	0.26	8.9	3.8	1.5
123785	74.7	0.2	0.2	1.0	0.2	0.3	164	2.5	< 0.001	0.74	16.7	5.6	1.6
123786	12.4	0.4	0.2	1.3	0.2	< 0.1	232	0.2	< 0.001	0.32	9.3	3.4	1.5
123787	12.1	0.3	0.2	1.4	0.2	< 0.1	234	< 0.1	< 0.001	0.24	8.3	3.2	1.4
123788	13.2	0.2	0.2	1.4	0.2	< 0.1	235	< 0.1	< 0.001	0.23	9.3	3.5	1.5
123789	17.5	0.4	0.2	1.5	0.2	< 0.1	245	< 0.1	< 0.001	0.23	10.9	3.4	1.5

Analyte Symbol	Cu	Ge	Tm	Yb	Lu	Ta	Sr	W	Re	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.001	0.05	0.5	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
123790	11.4	0.4	0.2	1.5	0.2	< 0.1	219	0.1	< 0.001	0.23	11.1	3.7	1.5
123791	32.8	0.2	0.3	1.7	0.3	< 0.1	256	< 0.1	< 0.001	0.23	8.4	3.2	1.5
123792	19.5	0.2	0.2	1.4	0.2	< 0.1	224	< 0.1	< 0.001	0.23	9.2	4.1	1.5
123793	19.6	0.4	0.2	1.5	0.2	< 0.1	222	< 0.1	< 0.001	0.23	10.6	3.5	1.5
123794	13.0	0.4	0.2	1.3	0.2	< 0.1	242	0.2	< 0.001	0.23	8.9	3.3	1.5
123795	91.8	0.5	0.2	1.4	0.2	< 0.1	244	0.1	< 0.001	0.26	10.5	3.9	1.6
123796	24.4	0.5	0.2	1.3	0.2	< 0.1	209	< 0.1	< 0.001	0.28	9.3	3.6	1.5
123797	355	0.3	0.2	1.3	0.2	< 0.1	210	< 0.1	< 0.001	0.23	8.0	2.8	1.4
123798	149	0.5	0.2	1.3	0.2	< 0.1	171	< 0.1	< 0.001	0.34	12.4	3.6	1.8
123799	230	0.4	0.2	1.3	0.2	< 0.1	160	1.9	< 0.001	0.33	12.3	3.0	1.8
123800	15.9	0.3	0.3	1.6	0.3	< 0.1	250	< 0.1	< 0.001	0.24	9.5	3.5	1.6
123801	20.9	0.3	0.2	1.4	0.2	< 0.1	244	< 0.1	< 0.001	0.22	13.4	3.1	1.8
123802	17.8	0.3	0.2	1.5	0.2	< 0.1	237	< 0.1	< 0.001	0.23	10.9	9.1	2.4
123803	11.9	0.4	0.2	1.3	0.2	< 0.1	218	< 0.1	< 0.001	0.21	14.2	3.8	1.5
123804	18.9	0.5	0.2	1.2	0.2	< 0.1	206	< 0.1	< 0.001	0.21	8.3	3.4	1.4
123805	40.9	0.5	0.2	1.5	0.2	< 0.1	290	< 0.1	< 0.001	0.28	8.0	4.3	1.6
123806	17.4	0.3	0.2	1.4	0.2	< 0.1	231	< 0.1	< 0.001	0.23	6.8	3.8	1.6
123807	13.6	0.4	0.2	1.4	0.2	< 0.1	218	< 0.1	< 0.001	0.22	13.9	3.8	1.6
123808	16.1	0.2	0.2	1.3	0.2	< 0.1	240	< 0.1	< 0.001	0.23	7.0	2.8	1.4
123809	31.0	0.2	0.2	1.4	0.2	< 0.1	257	< 0.1	< 0.001	0.26	9.3	3.7	1.6
123810	18.4	0.3	0.2	1.4	0.2	< 0.1	225	< 0.1	< 0.001	0.24	10.1	3.6	1.6
123811	41.3	0.3	0.2	1.4	0.2	< 0.1	262	< 0.1	< 0.001	0.25	11.4	3.6	1.6
123812	21.7	0.2	0.2	1.4	0.2	< 0.1	255	< 0.1	< 0.001	0.34	13.1	4.5	1.6
123813	9.2	0.4	0.2	1.6	0.2	< 0.1	224	< 0.1	< 0.001	0.30	12.0	3.9	1.7
123814	14.2	0.4	0.2	1.4	0.2	< 0.1	222	< 0.1	< 0.001	0.27	9.4	3.7	1.5
123815	12.0	0.4	0.2	1.4	0.2	< 0.1	222	< 0.1	< 0.001	0.25	10.4	3.5	1.5
123816	19.6	0.5	0.2	1.4	0.2	< 0.1	209	< 0.1	< 0.001	0.32	10.4	4.5	1.7
123817	18.4	0.4	0.3	1.6	0.2	< 0.1	227	< 0.1	< 0.001	0.25	13.6	4.6	1.7
123818	40.3	0.3	< 0.1	0.2	< 0.1	< 0.1	199	1.1	0.060	0.07	2.0	0.9	1.3
123819	9.3	0.3	0.2	1.1	0.2	< 0.1	258	< 0.1	< 0.001	0.21	8.9	6.0	1.6
123820	9.8	0.4	0.3	1.6	0.2	< 0.1	231	< 0.1	< 0.001	0.23	9.1	4.3	1.8
123821	9.1	0.2	0.2	1.1	0.2	< 0.1	274	< 0.1	< 0.001	0.23	7.2	2.4	1.3
123822	75.9	0.3	0.2	1.2	0.2	< 0.1	342	< 0.1	< 0.001	0.34	26.1	4.7	7.3
123823	11.0	0.4	0.2	1.2	0.2	< 0.1	253	< 0.1	< 0.001	0.23	7.6	3.5	1.4
123824	11.9	0.4	0.2	1.3	0.2	< 0.1	256	< 0.1	< 0.001	0.21	9.0	3.4	1.3
123825	22.3	0.4	0.2	1.4	0.2	< 0.1	245	< 0.1	< 0.001	0.25	7.7	3.7	1.5
128051	27.0	0.3	0.2	1.4	0.2	< 0.1	266	< 0.1	< 0.001	0.34	13.4	4.0	2.5
128052	19.1	0.2	0.2	1.2	0.2	< 0.1	248	< 0.1	< 0.001	0.52	19.8	3.8	1.5
128053	40.4	0.3	0.2	1.2	0.2	< 0.1	216	< 0.1	< 0.001	0.37	17.1	3.6	1.5
128054	61.2	0.2	0.2	1.4	0.2	< 0.1	311	< 0.1	< 0.001	0.40	12.6	4.4	3.0
128055	53.8	0.3	0.2	1.1	0.2	< 0.1	312	< 0.1	< 0.001	0.32	30.4	3.3	4.3
128056	129	0.3	0.2	1.3	0.2	< 0.1	237	0.5	< 0.001	0.79	119	4.7	2.3

Analyte Symbol	Cu	Ge	Tm	Yb	Lu	Ta	Sr	W	Re	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.001	0.05	0.5	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
128057	22.0	0.5	0.2	1.5	0.2	< 0.1	278	< 0.1	< 0.001	0.39	31.6	5.1	1.8
128058	176	0.3	0.4	2.0	0.3	0.5	339	1.3	0.010	0.82	71.6	4.7	2.2
128059	21.2	0.7	0.3	1.5	0.2	< 0.1	282	0.1	< 0.001	0.42	20.2	5.7	1.9
128060	34.1	0.4	0.2	1.2	0.2	< 0.1	285	< 0.1	< 0.001	0.45	30.9	3.8	1.5
128061	30.1	0.4	0.4	2.2	0.3	< 0.1	310	< 0.1	< 0.001	0.32	12.5	4.6	3.8
128062	31.4	0.3	0.2	1.4	0.2	< 0.1	225	< 0.1	< 0.001	0.35	18.3	4.0	1.5
128063	32.7	0.4	0.2	1.4	0.2	< 0.1	247	< 0.1	< 0.001	0.48	17.1	4.1	1.8
128064	31.8	0.3	0.2	1.3	0.2	< 0.1	244	< 0.1	< 0.001	0.45	16.2	3.6	1.5
128065	37.8	0.3	0.2	1.3	0.2	< 0.1	235	< 0.1	< 0.001	0.38	15.3	3.9	1.5
128066	33.1	0.4	0.2	1.4	0.2	< 0.1	218	< 0.1	< 0.001	0.49	22.3	5.2	1.8
128067	38.6	0.4	0.2	1.4	0.2	< 0.1	216	< 0.1	< 0.001	0.45	19.4	4.4	1.6
128068	29.9	0.5	0.2	1.3	0.2	< 0.1	248	< 0.1	< 0.001	0.39	14.1	4.1	1.7
128069	32.0	0.6	0.2	1.5	0.2	< 0.1	224	< 0.1	< 0.001	0.38	14.4	4.1	1.8
128070	23.1	0.3	0.2	1.3	0.2	0.4	275	1.7	< 0.001	0.47	19.5	4.7	1.9
128071	21.3	0.4	0.2	1.3	0.2	0.1	241	0.9	< 0.001	0.46	19.6	4.3	1.5
128072	26.3	0.6	0.2	1.2	0.2	< 0.1	244	< 0.1	< 0.001	0.51	20.2	4.1	1.7
128073	32.0	0.4	0.2	1.4	0.2	< 0.1	244	0.3	< 0.001	0.91	47.4	4.8	1.8
128074	28.7	0.3	0.2	1.5	0.2	< 0.1	278	< 0.1	< 0.001	0.41	23.2	3.4	1.8
128075	9.4	0.4	0.2	1.4	0.2	< 0.1	247	< 0.1	< 0.001	0.26	10.7	3.5	1.5
128076	55.8	0.5	0.2	1.5	0.2	< 0.1	294	0.7	< 0.001	1.12	72.7	5.4	2.0
128077	52.6	0.3	0.2	1.1	0.2	< 0.1	399	1.4	< 0.001	1.09	72.1	5.0	1.6
128078	36.5	0.4	0.2	1.0	0.2	0.4	353	1.4	< 0.001	0.73	52.1	4.0	1.4
128079	70.9	0.5	0.2	1.2	0.2	0.2	250	2.6	< 0.001	0.90	77.6	5.1	1.7
128080	125	0.4	0.2	1.1	0.2	< 0.1	219	0.5	< 0.001	0.90	111	5.0	1.7
128081	104	0.3	0.2	1.1	0.2	< 0.1	183	< 0.1	< 0.001	0.85	113	4.7	1.8
128082	35.4	0.4	0.2	1.1	0.2	< 0.1	539	1.4	< 0.001	0.96	63.8	4.6	1.6
128083	30.8	0.6	0.2	1.4	0.2	< 0.1	257	< 0.1	< 0.001	0.90	47.1	4.3	1.7
128084	55.2	0.5	0.2	1.4	0.2	< 0.1	319	0.5	< 0.001	1.31	88.6	5.7	1.9
128085	55.0	0.6	0.2	1.4	0.2	< 0.1	258	0.2	< 0.001	1.47	75.4	4.8	1.9
128086	36.2	0.6	0.2	1.2	0.2	< 0.1	241	0.8	< 0.001	1.34	68.9	5.0	1.7
128087	18.6	0.5	0.2	1.1	0.2	< 0.1	255	0.3	< 0.001	0.83	26.3	5.0	1.6
128088	24.3	0.3	0.2	1.2	0.2	0.3	187	2.1	< 0.001	0.96	29.7	5.5	1.8
128089	36.5	0.4	0.2	1.3	0.2	0.3	242	1.8	< 0.001	0.62	25.3	4.3	1.5
128090	25.1	0.7	0.2	1.3	0.2	< 0.1	248	< 0.1	< 0.001	0.47	17.8	4.3	2.3
128091	20.7	0.5	0.2	1.4	0.2	< 0.1	268	< 0.1	< 0.001	0.56	23.2	4.4	1.6
128092	33.1	0.3	0.2	1.4	0.2	< 0.1	285	< 0.1	< 0.001	0.47	21.9	4.0	1.8
128093	27.7	0.5	0.2	1.3	0.2	< 0.1	267	< 0.1	< 0.001	0.46	19.5	4.1	1.7
128094	12.4	0.4	0.2	1.4	0.2	< 0.1	240	< 0.1	< 0.001	0.28	11.6	3.5	1.5
128095	20.7	0.2	0.2	1.4	0.2	< 0.1	255	< 0.1	< 0.001	0.23	11.0	4.7	1.7
128096	18.2	0.6	0.2	1.2	0.2	< 0.1	232	< 0.1	< 0.001	0.23	11.2	3.0	1.2
128097	7.8	0.3	0.2	1.2	0.2	< 0.1	200	< 0.1	< 0.001	0.22	9.1	2.8	1.4
128098	11.4	0.2	0.2	1.4	0.2	< 0.1	248	3.6	< 0.001	0.23	10.9	3.5	1.4



Analyte Symbol	Cu	Ge	Tm	Yb	Lu	Ta	Sr	W	Re	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.001	0.05	0.5	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
128099	14.9	0.6	0.2	1.5	0.2	< 0.1	247	0.2	< 0.001	0.25	11.0	3.7	1.5
128100	39.7	0.6	0.2	1.5	0.2	< 0.1	252	< 0.1	< 0.001	0.23	9.4	3.4	1.5
128101	14.4	0.6	0.2	1.4	0.2	< 0.1	242	< 0.1	< 0.001	0.24	8.9	3.8	1.4
128102	14.8	0.3	0.2	1.5	0.2	< 0.1	253	< 0.1	< 0.001	0.25	9.6	3.7	1.5
128103	18.4	0.3	0.2	1.4	0.2	< 0.1	244	< 0.1	< 0.001	0.22	11.1	3.5	1.4
128104	38.1	0.2	0.3	1.7	0.2	< 0.1	260	< 0.1	< 0.001	0.27	8.0	3.6	2.2
128105	29.0	0.3	0.2	1.4	0.2	< 0.1	246	< 0.1	< 0.001	0.25	9.6	3.4	1.7
128106	48.3	0.3	0.2	1.4	0.2	< 0.1	230	< 0.1	< 0.001	0.24	11.2	4.1	1.7
128107	24.3	0.4	0.2	1.5	0.2	< 0.1	249	< 0.1	< 0.001	0.24	8.4	4.4	1.7
128108	21.6	0.4	0.2	1.5	0.2	< 0.1	238	< 0.1	< 0.001	0.23	8.5	4.3	1.6
128109	25.5	0.4	0.2	1.3	0.2	< 0.1	239	< 0.1	< 0.001	0.22	10.6	5.0	1.7
128110	14.0	0.3	0.2	1.4	0.2	< 0.1	245	< 0.1	< 0.001	0.23	7.7	4.1	1.6
128111	36.3	0.3	0.3	1.7	0.3	< 0.1	240	< 0.1	< 0.001	0.24	10.9	4.2	1.7
128112	38.8	0.3	0.3	1.6	0.2	< 0.1	251	< 0.1	< 0.001	0.24	11.8	4.1	1.6
128113	36.4	0.3	0.2	1.5	0.2	< 0.1	249	0.2	< 0.001	0.25	19.5	6.0	1.9
128114	28.2	0.2	0.2	1.2	0.2	< 0.1	217	< 0.1	< 0.001	0.21	7.9	3.1	1.3
128115	20.6	0.2	0.2	1.2	0.2	< 0.1	244	< 0.1	< 0.001	0.22	9.3	2.7	1.4
128116	12.9	0.2	0.2	1.5	0.2	< 0.1	245	< 0.1	< 0.001	0.21	7.8	3.2	1.6
128117	12.7	0.3	0.2	1.4	0.2	< 0.1	253	< 0.1	< 0.001	0.23	10.0	3.8	1.5
128118	9.3	0.6	0.2	1.4	0.2	< 0.1	237	< 0.1	< 0.001	0.22	10.8	3.2	1.4
128119	47.4	0.5	0.3	1.8	0.3	< 0.1	229	< 0.1	< 0.001	0.27	12.2	4.4	2.0
128120	23.9	0.3	0.2	1.5	0.2	< 0.1	268	< 0.1	< 0.001	0.26	10.9	3.8	1.6
128121	10.8	0.2	0.2	1.3	0.2	< 0.1	240	< 0.1	< 0.001	0.21	7.3	3.4	1.6
128122	146	0.4	0.2	1.5	0.3	0.1	155	30.8	< 0.001	0.48	29.8	5.3	2.6
128123	33.0	0.2	0.2	1.4	0.2	< 0.1	226	0.1	< 0.001	0.26	8.5	3.1	1.6
128124	29.9	0.2	0.2	1.4	0.2	< 0.1	236	< 0.1	< 0.001	0.26	8.2	3.2	1.5
128125	11.9	0.2	0.2	1.4	0.2	< 0.1	229	< 0.1	< 0.001	0.25	12.9	3.5	1.5
128126	352	0.3	0.2	1.3	0.2	< 0.1	203	< 0.1	< 0.001	0.28	21.8	3.7	1.7
128127	22.6	0.5	0.2	1.4	0.2	< 0.1	233	< 0.1	< 0.001	0.23	12.8	3.8	1.6
128128	13.7	0.3	0.2	1.3	0.2	< 0.1	235	< 0.1	< 0.001	0.20	7.9	2.9	1.3
128129	33.0	0.5	0.2	1.4	0.2	< 0.1	237	0.1	< 0.001	0.22	10.2	3.9	1.6
128130	39.5	0.4	0.2	1.3	0.2	< 0.1	215	< 0.1	< 0.001	0.26	8.5	3.3	1.5
128131	15.9	0.2	0.2	1.3	0.2	< 0.1	238	< 0.1	< 0.001	0.19	7.8	2.7	1.4
128132	25.7	0.2	0.2	1.4	0.2	< 0.1	240	< 0.1	< 0.001	0.22	7.5	3.4	1.6
128133	27.0	0.3	0.2	1.4	0.2	< 0.1	272	< 0.1	< 0.001	0.22	10.2	3.3	1.6
128134	28.5	0.4	0.2	1.3	0.2	< 0.1	210	< 0.1	< 0.001	0.22	9.9	3.3	1.5
128135	73.5	0.2	0.2	1.4	0.2	< 0.1	179	< 0.1	< 0.001	0.31	12.5	4.2	1.8
128136	99.5	0.6	0.2	1.2	0.2	< 0.1	190	< 0.1	< 0.001	0.27	12.2	3.7	1.5
128137	1350	0.5	0.2	1.1	0.2	0.3	129	> 200	0.010	0.41	26.9	4.8	6.4
128138	113	0.3	0.2	1.2	0.2	0.6	154	5.9	< 0.001	0.45	20.2	4.1	4.5
128139	326	0.7	0.2	1.4	0.2	0.2	174	2.5	< 0.001	0.42	18.7	4.3	2.5
128140	18.1	0.4	0.2	1.3	0.2	< 0.1	230	0.5	< 0.001	0.30	8.0	3.4	1.6

Analyte Symbol	Cu	Ge	Tm	Yb	Lu	Ta	Sr	W	Re	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.001	0.05	0.5	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
128141	71.6	0.3	0.2	1.2	0.2	0.2	173	4.6	< 0.001	0.49	13.9	4.6	2.8
128142	68.5	0.4	0.2	1.3	0.2	< 0.1	241	0.3	< 0.001	0.27	12.2	3.0	1.5
128143	42.8	0.2	0.2	1.5	0.2	< 0.1	247	0.2	< 0.001	0.26	9.9	3.3	1.9
128144	44.8	0.2	0.2	1.4	0.2	< 0.1	245	0.1	< 0.001	0.22	10.1	3.3	1.6
128145	15.6	0.2	0.2	1.3	0.2	< 0.1	229	0.2	< 0.001	0.23	8.9	3.9	1.8
128146	14.5	0.3	0.2	1.4	0.2	< 0.1	230	0.1	< 0.001	0.20	9.4	3.2	1.6
128147	11.8	0.3	0.2	1.3	0.2	< 0.1	230	0.2	< 0.001	0.20	9.0	3.7	1.5
128148	11.6	0.4	0.2	1.5	0.2	< 0.1	235	0.1	< 0.001	0.20	7.9	3.5	1.6
128149	34.7	0.3	0.2	1.5	0.2	< 0.1	232	< 0.1	< 0.001	0.28	11.0	3.9	1.8
128150	18.4	0.3	0.2	1.3	0.2	< 0.1	249	< 0.1	< 0.001	0.24	8.7	3.4	1.5
128151	74.1	0.3	0.2	1.3	0.2	< 0.1	243	< 0.1	< 0.001	0.24	11.0	3.2	1.5
128152	150	0.4	0.2	1.5	0.2	< 0.1	257	< 0.1	< 0.001	0.26	12.3	3.5	1.7
128153	14.3	0.3	0.2	1.4	0.2	< 0.1	214	< 0.1	< 0.001	0.21	9.8	3.2	1.6
128154	39.6	0.3	0.2	1.4	0.2	< 0.1	202	< 0.1	< 0.001	0.29	14.0	3.9	1.7
128155	981	0.2	0.2	1.2	0.2	< 0.1	181	< 0.1	< 0.001	0.29	15.7	3.1	1.5
128156	54.5	0.3	0.2	1.3	0.2	< 0.1	231	< 0.1	< 0.001	0.25	8.0	3.0	1.5
128157	59.2	0.2	0.2	1.3	0.2	< 0.1	237	< 0.1	< 0.001	0.30	11.9	3.0	1.4
128158	13.7	0.4	0.2	1.4	0.2	< 0.1	225	< 0.1	< 0.001	0.25	10.8	3.8	1.6
128159	19.5	0.2	0.2	1.2	0.2	< 0.1	214	< 0.1	< 0.001	0.22	7.8	2.4	1.4
128160	41.0	0.4	0.2	1.3	0.2	< 0.1	199	< 0.1	< 0.001	0.29	9.3	3.1	1.5
128161	41.1	0.2	0.2	1.3	0.2	< 0.1	209	< 0.1	< 0.001	0.25	12.1	3.3	1.5
128162	44.5	0.2	0.2	1.4	0.2	< 0.1	230	< 0.1	< 0.001	0.26	8.9	3.5	1.6
128163	16.7	0.3	0.2	1.4	0.2	< 0.1	264	< 0.1	< 0.001	0.25	8.1	3.0	1.5
128164	18.5	0.2	0.2	1.4	0.2	< 0.1	236	< 0.1	< 0.001	0.24	9.0	3.8	1.5
128165	17.4	0.2	0.2	1.3	0.2	< 0.1	235	< 0.1	< 0.001	0.23	9.4	3.0	1.4
128166	21.7	0.3	0.2	1.3	0.2	< 0.1	271	< 0.1	< 0.001	0.26	7.4	3.7	1.5
128167	6.4	0.3	0.2	1.2	0.2	< 0.1	227	< 0.1	< 0.001	0.22	7.1	2.9	1.3
128168	17.9	0.3	0.2	1.4	0.2	< 0.1	255	< 0.1	< 0.001	0.24	9.0	3.3	1.4
128169	13.9	0.2	0.2	1.2	0.2	< 0.1	243	< 0.1	< 0.001	0.25	7.9	3.1	1.4
128170	15.2	0.2	0.2	1.2	0.2	< 0.1	239	< 0.1	< 0.001	0.21	7.4	2.8	1.4
128171	26.8	0.2	0.2	1.4	0.2	< 0.1	265	< 0.1	< 0.001	0.23	7.4	3.0	1.6
128172	17.7	0.3	0.2	1.4	0.2	< 0.1	247	< 0.1	< 0.001	0.22	9.0	3.3	1.6
128173	15.3	0.3	0.2	1.4	0.2	< 0.1	252	< 0.1	< 0.001	0.24	13.1	3.8	1.6
128174	31.6	0.3	0.2	1.3	0.2	< 0.1	252	< 0.1	< 0.001	0.24	7.3	2.9	1.2
128175	14.2	0.3	0.2	1.3	0.2	< 0.1	231	< 0.1	< 0.001	0.20	7.7	4.0	1.5
128176	17.4	0.2	0.2	1.4	0.2	< 0.1	239	0.3	< 0.001	0.21	9.0	3.7	1.5
128177	40.4	0.5	0.2	1.4	0.2	< 0.1	232	< 0.1	< 0.001	0.27	10.5	4.0	1.6
128178	58.6	0.2	0.2	1.4	0.2	0.2	190	2.3	< 0.001	0.37	31.3	4.3	1.7
128179	65.9	0.4	0.2	1.2	0.2	< 0.1	148	< 0.1	< 0.001	0.31	18.1	4.0	1.5
128180	31.6	0.2	0.2	1.2	0.2	< 0.1	210	< 0.1	< 0.001	0.25	9.9	2.8	1.3
128181	30.8	0.3	0.2	1.3	0.2	< 0.1	228	< 0.1	< 0.001	0.27	9.9	3.4	1.5
128182	46.2	0.2	0.2	1.3	0.2	< 0.1	251	< 0.1	< 0.001	0.26	9.3	3.8	1.6

Analyte Symbol	Cu	Ge	Tm	Yb	Lu	Ta	Sr	W	Re	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.001	0.05	0.5	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
128183	43.9	0.2	0.2	1.4	0.2	< 0.1	209	< 0.1	< 0.001	0.27	11.4	4.0	1.7
128184	32.4	0.9	0.2	1.0	0.2	0.4	179	0.5	< 0.001	0.26	11.8	1.8	1.0
128185	36.3	0.6	0.2	1.3	0.2	0.2	183	3.2	< 0.001	0.30	14.1	3.9	1.6
128186	32.4	0.4	0.2	1.3	0.2	0.1	165	0.6	< 0.001	0.36	15.1	4.8	1.7
128187	50.4	0.5	0.2	1.4	0.2	< 0.1	208	0.2	< 0.001	0.36	17.2	5.2	2.2
128188	52.5	0.3	0.2	1.4	0.2	< 0.1	264	< 0.1	< 0.001	0.29	10.9	4.1	1.7
128189	24.6	0.3	0.2	1.4	0.2	< 0.1	228	< 0.1	< 0.001	0.27	12.4	4.9	1.7
128190	262	0.2	0.2	1.5	0.2	< 0.1	230	< 0.1	< 0.001	0.33	13.8	4.7	2.3
128191	79.7	0.2	0.2	1.3	0.2	< 0.1	210	< 0.1	< 0.001	0.27	11.5	5.2	2.1
128192	2160	0.8	0.2	1.5	0.2	< 0.1	137	2.8	< 0.001	0.60	84.7	11.2	8.6
128193	22.6	0.3	0.2	1.4	0.2	< 0.1	211	< 0.1	< 0.001	0.30	13.3	3.6	1.9
128194	264	0.2	0.2	1.4	0.2	< 0.1	229	< 0.1	< 0.001	0.27	196	4.0	2.3
128195	751	0.4	0.2	0.9	0.2	0.3	179	0.9	< 0.001	0.25	26.4	2.0	1.4
128196	30.4	0.2	0.2	1.2	0.2	0.2	153	1.5	< 0.001	0.29	18.1	3.8	1.6
128197	60.5	0.5	0.2	1.4	0.2	< 0.1	213	< 0.1	< 0.001	0.28	11.1	3.9	1.6
128198	71.8	0.3	0.2	1.5	0.2	< 0.1	210	< 0.1	< 0.001	0.27	9.4	5.2	2.0
128199	52.4	0.1	0.2	1.3	0.2	< 0.1	221	< 0.1	< 0.001	0.23	8.5	3.0	1.6
128200	86.6	0.2	0.2	1.3	0.2	< 0.1	232	< 0.1	< 0.001	0.28	6.9	3.6	1.6
128201	41.4	0.2	0.2	1.4	0.2	< 0.1	223	< 0.1	< 0.001	0.22	9.8	3.8	1.7
128202	24.5	0.2	0.2	1.2	0.2	< 0.1	184	< 0.1	< 0.001	0.24	8.5	3.3	1.4
128203	50.3	0.4	0.2	0.9	0.1	< 0.1	156	1.4	< 0.001	0.57	18.4	5.9	2.1
128204	15.7	0.7	0.2	1.1	0.2	0.6	164	2.8	< 0.001	0.31	12.6	1.9	1.3
128205	25.0	0.3	0.2	1.4	0.2	< 0.1	235	< 0.1	< 0.001	0.23	9.8	2.8	1.4
128206	23.8	0.1	0.2	1.3	0.2	0.3	211	1.4	< 0.001	0.26	11.4	4.6	1.6
128207	125	0.4	0.2	1.4	0.2	0.1	210	1.1	< 0.001	0.24	12.9	4.4	1.6
128208	2430	0.5	0.4	2.2	0.3	0.6	112	18.0	< 0.001	0.43	24.6	6.7	4.7
128209	25.6	0.2	0.2	1.3	0.2	< 0.1	182	< 0.1	< 0.001	0.28	9.5	3.3	1.6
128210	40.3	0.2	0.2	1.3	0.2	< 0.1	228	< 0.1	< 0.001	0.23	7.7	3.3	1.5
128211	431	0.3	0.2	1.3	0.2	< 0.1	178	< 0.1	< 0.001	0.24	12.4	3.9	1.9
128212	59.4	0.2	0.2	1.3	0.2	< 0.1	228	< 0.1	< 0.001	0.24	9.7	3.9	1.6
128213	69.9	0.2	0.2	1.4	0.2	< 0.1	227	< 0.1	< 0.001	0.24	9.2	3.8	1.7
128214	10.1	0.3	0.2	0.9	0.2	< 0.1	106	3.6	< 0.001	0.33	16.9	4.7	1.7
128215	17.4	0.7	0.2	1.0	0.2	0.6	204	1.1	< 0.001	0.24	7.5	1.5	1.2
128216	832	0.3	0.2	1.3	0.2	< 0.1	190	< 0.1	< 0.001	0.32	101	4.4	2.4
128217	34.7	0.2	0.2	1.3	0.2	< 0.1	217	< 0.1	< 0.001	0.24	9.3	3.1	1.5

Analyte Symbol	Au	B	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Ni	Er	Be	Ho	Hg	Ag	Cs	Co	Eu
Unit Symbol	ppb	ppm	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm
Lower Limit	2	20	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	1	1	0.01	0.1	0.5	0.1	0.1	0.1	10	0.05	0.05	0.1	0.05
Method Code	FA-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
SDC-1 Meas		< 20	34.0	1.44	1.00	8.46	2.41	0.99		48	48	897	4.64	1.1	34.0	3.7	2.9	1.1	< 10		4.13	17.2	1.47
SDC-1 Cert		13.00	34.0	1.52	1.02	8.34	2.72	1.00		102.00	64.00	880.00	4.82	8.30	38.0	4.10	3.00	1.50	200.00		4.00	18.0	1.70
SDC-1 Meas		< 20	32.6	1.41	0.93	7.99	2.38	0.96		48	47	833	4.54	1.0	32.6	3.3	2.7	1.0	< 10		3.93	16.7	1.37
SDC-1 Cert		13.00	34.0	1.52	1.02	8.34	2.72	1.00		102.00	64.00	880.00	4.82	8.30	38.0	4.10	3.00	1.50	200.00		4.00	18.0	1.70
GXR-6 Meas		< 20	40.4	0.11	0.67	> 10.0	1.44	0.23	< 0.1	116	52	1010	5.61	1.8	23.9		1.2		< 10	0.32	3.87	13.1	0.56
GXR-6 Cert		9.80	32.0	0.104	0.609	17.7	1.87	0.180	1.00	186	96.0	1010	5.58	4.30	27.0		1.40		68.0	1.30	4.20	13.8	0.760
GXR-6 Meas		< 20	40.6	0.11	0.67	> 10.0	1.49	0.24	0.1	121	54	1070	5.35	1.9	24.5		1.3		< 10	0.34	4.12	13.5	0.58
GXR-6 Cert		9.80	32.0	0.104	0.609	17.7	1.87	0.180	1.00	186	96.0	1010	5.58	4.30	27.0		1.40		68.0	1.30	4.20	13.8	0.760
DNC-1a Meas			4.5							159	196				280							60.5	0.56
DNC-1a Cert			5.2							148	270				247							57	0.59
DNC-1a Meas			4.4							156	164				271							57.3	0.52
DNC-1a Cert			5.2							148	270				247							57	0.59
SBC-1 Meas			170						0.4	239	105			3.4	93.1	3.7	3.3	1.2			8.76	24.4	1.84
SBC-1 Cert			163						0.40	220.0	109			3.7	82.8	3.80	3.20	1.40			8.2	22.7	1.98
SBC-1 Meas			161						0.3	232	94			3.3	86.3	3.5	3.0	1.1			8.25	22.6	1.68
SBC-1 Cert			163						0.40	220.0	109			3.7	82.8	3.80	3.20	1.40			8.2	22.7	1.98
OREAS 214 Meas	2970																						
OREAS 214 Cert	3030																						
OREAS 218 Meas	530																						
OREAS 218 Cert	531																						
OREAS 218 Meas	527																						
OREAS 218 Cert	531																						
OREAS 218 Meas	533																						
OREAS 218 Cert	531																						
OREAS 218 Meas	527																						
OREAS 218 Cert	531																						
OREAS 218 Meas	528																						
OREAS 218 Cert	531																						
OREAS 218 Meas	542																						
OREAS 218 Cert	531																						
OREAS 218 Meas	534																						
OREAS 218 Cert	531																						
OREAS 218 Meas	532																						
OREAS 218 Cert	531																						
OREAS 218 Meas	512																						
OREAS 218 Cert	531																						
OREAS 224 (Fire Assay) Meas	2210																						
OREAS 224 (Fire Assay) Cert	2150																						
OREAS 224 (Fire Assay) Meas	2180																						
OREAS 224 (Fire Assay) Cert	2150																						

Analyte Symbol	Au	B	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Ni	Er	Be	Ho	Hg	Ag	Cs	Co	Eu
Unit Symbol	ppb	ppm	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm
Lower Limit	2	20	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	1	1	0.01	0.1	0.5	0.1	0.1	0.1	10	0.05	0.05	0.1	0.05
Method Code	FA-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
Assay) Cert																							
OREAS 224 (Fire Assay) Meas	2170																						
OREAS 224 (Fire Assay) Cert	2150																						
OREAS 224 (Fire Assay) Meas	2200																						
OREAS 224 (Fire Assay) Cert	2150																						
OREAS 224 (Fire Assay) Meas	2140																						
OREAS 224 (Fire Assay) Cert	2150																						
OREAS 224 (Fire Assay) Meas	2140																						
OREAS 224 (Fire Assay) Cert	2150																						
OREAS 224 (Fire Assay) Meas	2140																						
OREAS 224 (Fire Assay) Cert	2150																						
OREAS 224 (Fire Assay) Meas	2170																						
OREAS 224 (Fire Assay) Cert	2150																						
OREAS 224 (Fire Assay) Meas	2160																						
OREAS 224 (Fire Assay) Cert	2150																						
OREAS 923 (4 Acid) Meas			31.1	0.33	1.75	7.96	2.54	0.49	0.4	98	77	1050	6.89	3.6	39.1	2.9	2.4	0.9		1.87	6.93	24.7	1.26
OREAS 923 (4 Acid) Cert			31.4	0.324	1.69	7.29	2.51	0.473	0.420	91.0	71.0	950	6.43	3.42	35.8	2.86	2.42	0.960		1.60	6.70	23.1	1.37
OREAS 923 (4 Acid) Meas			31.7	0.32	1.74	7.91	2.61	0.50	0.4	99	80	1010	6.90	3.7	38.4	2.7	2.6	0.8		1.68	6.79	23.7	1.18
OREAS 923 (4 Acid) Cert			31.4	0.324	1.69	7.29	2.51	0.473	0.420	91.0	71.0	950	6.43	3.42	35.8	2.86	2.42	0.960		1.60	6.70	23.1	1.37
121131 Orig	< 2																						
121131 Dup	< 2																						
121138 Orig		< 20	24.4	2.13	0.69	7.68	1.08	0.76	0.3	67	42	673	4.05	1.4	26.1	1.4	1.0	0.4	10	0.11	2.02	12.2	0.83
121138 Dup		< 20	23.4	2.07	0.68	7.60	1.09	0.77	0.3	73	40	653	3.98	1.5	25.7	1.4	0.9	0.4	< 10	0.10	1.99	11.8	0.70
121142 Orig	< 2																						
121142 Dup	< 2																						
121182 Orig		< 20	25.7	2.28	0.52	6.90	0.95	0.94	0.1	28	34	453	2.45	1.3	19.3	1.5	0.7	0.4	< 10	0.36	2.34	10.4	0.71
121182 Dup		< 20	26.0	2.24	0.50	6.59	0.96	0.91	0.2	26	24	421	2.35	0.1	18.8	1.4	0.8	0.4	20	0.40	2.27	10.3	0.67
121184 Orig	2																						
121184 Dup	< 2																						
121196 Orig	6																						
121196 Dup	< 2																						
121207 Orig	< 2	< 20	24.6	1.96	0.71	7.39	1.07	0.83	0.3	96	32	706	4.01	1.7	32.1	1.4	0.9	0.4	< 10	0.13	2.16	13.3	0.73

Analyte Symbol	Au	B	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Ni	Er	Be	Ho	Hg	Ag	Cs	Co	Eu
Unit Symbol	ppb	ppm	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm
Lower Limit	2	20	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	1	1	0.01	0.1	0.5	0.1	0.1	0.1	10	0.05	0.05	0.1	0.05
Method Code	FA-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
121207 Dup	< 2																						
121221 Orig		< 20	26.5	2.00	0.72	7.29	0.98	0.88	0.2	43	38	549	3.56	0.1	62.1	1.4	1.1	0.4	30	0.47	4.70	18.4	0.63
121221 Dup		< 20	26.5	2.00	0.71	7.19	0.99	0.85	0.2	46	37	565	3.68	0.1	61.4	1.3	1.1	0.4	20	0.20	4.76	19.0	0.63
123781 Orig	6																						
123781 Dup	< 2																						
123792 Orig	< 2																						
123792 Dup	< 2																						
123796 Orig		< 20	26.4	1.97	0.58	7.37	0.85	0.73	0.2	70	38	614	3.38	1.6	41.4	1.4	0.9	0.4	< 10	0.59	4.01	13.0	0.67
123796 Dup		< 20	25.9	1.99	0.58	7.47	0.86	0.73	0.2	56	39	628	3.48	1.5	41.3	1.3	0.9	0.4	< 10	0.56	4.02	13.4	0.66
123804 Orig	< 2																						
123804 Dup	< 2																						
123810 Orig		< 20	23.9	2.02	0.58	6.67	1.10	1.07	0.3	45	40	498	3.33	0.1	29.4	1.5	0.9	0.4	30	0.26	3.34	11.0	0.71
123810 Dup		< 20	23.7	2.04	0.59	6.79	1.10	1.08	0.4	42	34	494	3.34	0.1	29.3	1.4	1.2	0.4	20	0.30	3.37	11.1	0.70
123816 Orig	< 2																						
123816 Dup	< 2																						
128052 Orig	14																						
128052 Dup	3																						
128060 Orig		< 20	18.3	1.75	0.54	6.59	1.42	1.73	0.9	87	39	1040	3.69	1.2	13.4	1.2	0.8	0.4	< 10	1.03	4.07	6.7	0.66
128060 Dup		< 20	17.9	1.78	0.56	6.65	1.42	1.71	0.8	71	44	1020	3.74	1.0	13.5	1.2	0.8	0.4	< 10	1.02	3.99	6.6	0.67
128064 Orig	9																						
128064 Dup	8																						
128074 Orig		< 20	33.7	2.01	0.78	7.69	1.41	1.73	0.4	50	46	723	4.47	0.8	20.2	1.7	1.0	0.5	< 10	0.51	4.01	11.6	0.86
128074 Dup		< 20	33.3	2.02	0.80	7.88	1.48	1.72	0.3	48	42	692	4.44	0.2	21.3	1.7	1.0	0.5	20	0.45	4.02	11.3	0.90
128076 Orig	3																						
128076 Dup	2																						
128087 Orig	4																						
128087 Dup	< 2																						
128091 Orig		< 20	28.1	1.37	0.81	9.24	1.37	1.45	0.2	110	43	944	4.71	0.8	16.2	1.6	1.0	0.5	< 10	0.23	6.22	13.5	0.92
128091 Dup		< 20	26.4	1.33	0.77	8.56	1.34	1.38	0.2	101	38	933	4.71	0.6	15.6	1.5	1.0	0.5	20	0.20	6.21	13.4	0.93
128099 Orig	< 2																						
128099 Dup	< 2																						
128111 Orig	2																						
128111 Dup	< 2																						
128124 Orig	< 2																						
128124 Dup	< 2																						
128130 Orig		< 20	29.3	2.04	0.63	6.65	0.92	0.80	0.3	66	47	520	3.15	1.6	33.4	1.4	0.7	0.4	< 10	0.31	2.80	13.0	0.67
128130 Dup		< 20	29.0	2.08	0.64	6.61	0.91	0.79	0.3	55	51	513	3.10	1.5	32.9	1.4	0.8	0.4	< 10	0.34	2.74	13.1	0.69
128134 Orig	4																						
128134 Dup	3																						
128144 Orig		< 20	23.5	2.24	0.63	6.85	0.96	0.85	0.2	24	38	511	3.04	0.1	30.7	1.5	0.8	0.4	< 10	0.23	2.16	11.2	0.75
128144 Dup		< 20	23.9	2.25	0.63	6.95	0.97	0.86	0.2	25	40	527	3.05	0.3	31.4	1.5	0.8	0.5	20	0.29	2.20	11.4	0.77
128146 Orig	< 2																						

Analyte Symbol	Au	B	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Ni	Er	Be	Ho	Hg	Ag	Cs	Co	Eu
Unit Symbol	ppb	ppm	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm
Lower Limit	2	20	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	1	1	0.01	0.1	0.5	0.1	0.1	0.1	10	0.05	0.05	0.1	0.05
Method Code	FA-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
128146 Dup	< 2																						
128157 Orig	< 2																						
128157 Dup	< 2																						
128169 Orig	< 2	< 20	29.3	2.40	0.50	6.61	1.14	0.93	0.2	22	47	514	2.64	0.9	17.0	1.3	0.7	0.4	< 10	0.33	2.71	8.5	0.65
128169 Dup	< 2	< 20	27.6	2.33	0.48	6.32	1.06	0.90	0.2	17	41	499	2.54	0.6	15.9	1.2	0.8	0.4	10	0.30	2.57	8.4	0.64
128192 Orig	253																						
128192 Dup	247																						
128204 Orig	< 2																						
128204 Dup	5																						
Method Blank	< 2																						
Method Blank	< 2																						
Method Blank	< 2																						
Method Blank	< 2																						
Method Blank	< 2																						
Method Blank	< 2																						
Method Blank	< 2																						
Method Blank		< 20	< 0.5	< 0.01	< 0.01	0.01	< 0.01	< 0.01	< 0.1	< 1	< 1	3	< 0.01	< 0.1	< 0.5	< 0.1	< 0.1	< 0.1	10	< 0.05	< 0.05	< 0.1	< 0.05
Method Blank		< 20	< 0.5	< 0.01	< 0.01	0.01	< 0.01	< 0.01	< 0.1	< 1	< 1	7	< 0.01	< 0.1	< 0.5	< 0.1	< 0.1	< 0.1	< 10	0.08	< 0.05	< 0.1	< 0.05
Method Blank		< 20	< 0.5	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.1	< 1	< 1	2	< 0.01	< 0.1	< 0.5	< 0.1	< 0.1	< 0.1	< 10	0.18	< 0.05	< 0.1	< 0.05
Method Blank	< 2																						

Analyte Symbol	Bi	Se	Zn	Ga	As	Rb	Y	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.02	0.1	0.2	0.1	0.1	0.2	0.1	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
SDC-1 Meas			100	21.0	1.5	108		40	0.7			< 1	< 0.1		665	38.5	89.1		39.1	7.6	7.0	1.0	6.3
SDC-1 Cert			103.00	21.00	0.220	127.00		290.00	21.00			3.00	0.54		630	42.00	93.00		40.00	8.20	7.00	1.20	6.70
SDC-1 Meas			93.4	19.4	1.7	99.9		38	0.7			< 1	< 0.1		633	36.1	85.2		36.8	7.1	6.6	0.9	5.8
SDC-1 Cert			103.00	21.00	0.220	127.00		290.00	21.00			3.00	0.54		630	42.00	93.00		40.00	8.20	7.00	1.20	6.70
GXR-6 Meas	0.18	1.2	125	36.2	235	66.7	11.9	74	0.5	0.78	< 0.1	< 1	0.7	< 0.1	1730	11.0	32.7		11.2	2.3	2.2	0.3	2.2
GXR-6 Cert	0.290	0.940	118	35.0	330	90.0	14.0	110	7.50	2.40	0.260	1.70	3.60	0.0180	1300	13.9	36.0		13.0	2.67	2.97	0.415	2.80
GXR-6 Meas	0.19	1.3	125	34.8	234	67.2	11.9	73	0.4	0.74	< 0.1	< 1	0.7	< 0.1	1840	12.0	34.5		11.6	2.4	2.2	0.3	2.3
GXR-6 Cert	0.290	0.940	118	35.0	330	90.0	14.0	110	7.50	2.40	0.260	1.70	3.60	0.0180	1300	13.9	36.0		13.0	2.67	2.97	0.415	2.80
DNC-1a Meas			83.3	12.4		3.4	15.0	36	1.1				0.4		107	3.4			4.7				
DNC-1a Cert			70	15		5	18.0	38.0	3				0.96		118	3.6			5.20				
DNC-1a Meas			56.7	11.9		3.0	14.6	38	1.2				0.6		105	3.3			4.5				
DNC-1a Cert			70	15		5	18.0	38.0	3				0.96		118	3.6			5.20				
SBC-1 Meas	0.75		200	26.8	26.6	146	31.2	126	13.4	2.51		4	0.9		496	49.8	116	12.9	49.5	9.3	8.2	1.1	6.7
SBC-1 Cert	0.70		186	27.0	25.7	147	36.5	134.0	15.3	2.40		3.3	1.01		788.0	52.5	108.0	12.6	49.2	9.6	8.5	1.20	7.10
SBC-1 Meas	0.74		181	24.0	25.2	137	28.4	121	12.5	2.39		3	1.1		646	45.7	106	12.1	44.1	8.6	7.5	1.0	6.2
SBC-1 Cert	0.70		186	27.0	25.7	147	36.5	134.0	15.3	2.40		3.3	1.01		788.0	52.5	108.0	12.6	49.2	9.6	8.5	1.20	7.10
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 218 Meas																							
OREAS 218 Cert																							
OREAS 224 (Fire Assay) Meas																							
OREAS 224 (Fire Assay) Cert																							
OREAS 224 (Fire Assay) Meas																							
OREAS 224 (Fire Assay) Cert																							





Analyte Symbol	Bi	Se	Zn	Ga	As	Rb	Y	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.02	0.1	0.2	0.1	0.1	0.2	0.1	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
121207 Dup																							
121221 Orig	2.11	0.5	113	13.5	149	50.8	11.0	6	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	570	16.0	33.4	3.8	14.5	2.8	2.3	0.3	2.1
121221 Dup	2.14	0.6	113	13.9	164	52.4	11.1	6	< 0.1	0.05	< 0.1	< 1	< 0.1	< 0.1	560	14.0	29.9	3.5	13.5	2.5	2.3	0.3	2.0
123781 Orig																							
123781 Dup																							
123792 Orig																							
123792 Dup																							
123796 Orig	0.72	0.6	93.3	13.9	28.4	39.3	11.0	58	0.2	0.29	< 0.1	< 1	0.2	< 0.1	545	15.4	33.5	3.7	14.0	2.7	2.5	0.3	2.1
123796 Dup	0.39	0.8	97.1	13.7	27.4	39.0	11.1	54	< 0.1	0.10	< 0.1	< 1	0.1	< 0.1	543	14.5	31.7	3.6	13.4	2.7	2.5	0.3	2.2
123804 Orig																							
123804 Dup																							
123810 Orig	0.67	1.0	141	12.3	11.7	38.6	11.8	7	< 0.1	0.07	< 0.1	< 1	< 0.1	< 0.1	603	15.4	33.1	3.8	14.6	2.8	2.7	0.4	2.5
123810 Dup	0.74	1.0	145	12.8	10.8	39.1	11.7	4	< 0.1	0.05	< 0.1	< 1	< 0.1	< 0.1	591	15.4	33.7	3.8	14.2	2.7	2.5	0.4	2.3
123816 Orig																							
123816 Dup																							
128052 Orig																							
128052 Dup																							
128060 Orig	2.04	2.0	211	13.2	52.3	70.2	9.6	42	0.4	0.44	< 0.1	< 1	0.3	< 0.1	599	17.6	35.9	4.0	14.6	2.7	2.4	0.3	2.1
128060 Dup	2.02	1.9	213	14.0	47.1	70.3	10.3	41	0.1	0.28	< 0.1	< 1	0.3	< 0.1	592	14.5	30.6	3.5	13.4	2.5	2.3	0.3	2.0
128064 Orig																							
128064 Dup																							
128074 Orig	1.56	1.4	227	14.8	36.7	61.5	14.0	28	< 0.1	0.08	< 0.1	< 1	< 0.1	< 0.1	624	16.3	39.6	4.3	16.7	3.4	3.2	0.4	2.8
128074 Dup	1.48	1.3	227	14.9	33.8	64.4	14.2	11	< 0.1	0.06	< 0.1	< 1	< 0.1	< 0.1	627	18.1	41.8	4.5	17.1	3.4	3.1	0.4	2.8
128076 Orig																							
128076 Dup																							
128087 Orig																							
128087 Dup																							
128091 Orig	1.21	0.8	149	19.3	40.5	57.8	14.1	27	0.1	1.55	< 0.1	1	0.1	< 0.1	589	17.3	37.6	4.4	17.6	3.7	3.4	0.5	2.8
128091 Dup	1.24	1.2	146	16.6	37.5	56.2	12.9	23	0.1	0.93	< 0.1	< 1	0.1	< 0.1	594	20.1	40.5	4.6	17.5	3.4	3.2	0.4	2.7
128099 Orig																							
128099 Dup																							
128111 Orig																							
128111 Dup																							
128124 Orig																							
128124 Dup																							
128130 Orig	1.33	1.0	181	12.6	57.6	43.9	11.3	61	0.5	0.25	< 0.1	< 1	0.2	< 0.1	542	13.1	28.8	3.5	13.4	2.6	2.4	0.3	2.2
128130 Dup	1.35	0.8	189	12.7	51.6	47.8	11.6	50	< 0.1	0.12	< 0.1	< 1	< 0.1	< 0.1	532	14.6	31.4	3.7	14.2	2.9	2.4	0.4	2.3
128134 Orig																							
128134 Dup																							
128144 Orig	0.23	0.8	115	12.2	16.0	51.0	12.7	5	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	537	15.2	34.7	3.9	15.1	2.9	2.6	0.4	2.5
128144 Dup	0.23	0.8	116	11.6	16.3	50.3	12.5	16	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	545	14.7	34.0	3.8	14.8	2.9	2.7	0.4	2.5
128146 Orig																							

Analyte Symbol	Bi	Se	Zn	Ga	As	Rb	Y	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd	Tb	Dy
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.02	0.1	0.2	0.1	0.1	0.2	0.1	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
128146 Dup																							
128157 Orig																							
128157 Dup																							
128169 Orig	0.83	0.4	87.6	12.4	6.3	54.8	10.9	35	< 0.1	0.09	< 0.1	< 1	< 0.1	< 0.1	563	15.2	32.3	3.7	14.1	2.7	2.3	0.3	2.2
128169 Dup	0.78	0.7	88.0	13.6	5.5	52.3	10.6	23	< 0.1	0.06	< 0.1	< 1	< 0.1	< 0.1	532	15.0	31.6	3.6	13.5	2.4	2.1	0.3	2.0
128192 Orig																							
128192 Dup																							
128204 Orig																							
128204 Dup																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank	< 0.02	0.3	0.7	< 0.1	0.3	< 0.2	< 0.1	< 1	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Method Blank	< 0.02	0.3	2.0	< 0.1	< 0.1	< 0.2	< 0.1	< 1	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Method Blank	< 0.02	0.1	1.1	< 0.1	< 0.1	< 0.2	< 0.1	< 1	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	< 1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Method Blank																							

Analyte Symbol	Cu	Ge	Tm	Yb	Lu	Ta	Sr	W	Re	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.001	0.05	0.5	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
SDC-1 Meas	22.5		0.5	3.2		< 0.1	164	< 0.1		0.53	26.0	13.2	3.0
SDC-1 Cert	30.000		0.65	4.00		1.20	180.00	0.80		0.70	25.00	12.00	3.10
SDC-1 Meas	21.1		0.5	3.1		< 0.1	154	< 0.1		0.48	24.4	12.6	2.9
SDC-1 Cert	30.000		0.65	4.00		1.20	180.00	0.80		0.70	25.00	12.00	3.10
GXR-6 Meas	68.6			1.5	0.2	< 0.1	46.9	< 0.1		1.51	89.4	5.3	1.4
GXR-6 Cert	66.0			2.40	0.330	0.485	35.0	1.90		2.20	101	5.30	1.54
GXR-6 Meas	68.6			1.5	0.2	< 0.1	46.2	0.1		1.59	94.0	5.7	1.5
GXR-6 Cert	66.0			2.40	0.330	0.485	35.0	1.90		2.20	101	5.30	1.54
DNC-1a Meas	102			1.8			136				6.9		
DNC-1a Cert	100			2.0			144				6.3		
DNC-1a Meas	99.8			1.8			128				6.7		
DNC-1a Cert	100			2.0			144				6.3		
SBC-1 Meas	31.7		0.5	3.3	0.5	1.0	178	1.6		0.70	38.3	18.5	6.5
SBC-1 Cert	31.0		0.56	3.64	0.54	1.10	178.0	1.60		0.89	35.0	15.8	5.76
SBC-1 Meas	29.3		0.5	3.1	0.5	0.9	164	1.5		0.63	38.0	17.4	6.3
SBC-1 Cert	31.0		0.56	3.64	0.54	1.10	178.0	1.60		0.89	35.0	15.8	5.76
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 218 Meas													
OREAS 218 Cert													
OREAS 224 (Fire Assay) Meas													
OREAS 224 (Fire Assay) Cert													
OREAS 224 (Fire Assay) Meas													
OREAS 224 (Fire Assay) Cert													



Analyte Symbol	Cu	Ge	Tm	Yb	Lu	Ta	Sr	W	Re	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.001	0.05	0.5	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
121207 Dup													
121221 Orig	33.7	0.3	0.2	1.5	0.2	< 0.1	224	< 0.1	< 0.001	0.33	8.5	3.5	1.6
121221 Dup	34.3	0.3	0.2	1.4	0.2	< 0.1	226	< 0.1	< 0.001	0.34	7.5	3.7	1.6
123781 Orig													
123781 Dup													
123792 Orig													
123792 Dup													
123796 Orig	24.8	0.5	0.2	1.3	0.2	< 0.1	210	< 0.1	< 0.001	0.28	8.8	3.5	1.5
123796 Dup	24.0	0.4	0.2	1.4	0.2	< 0.1	209	< 0.1	< 0.001	0.29	9.7	3.6	1.6
123804 Orig													
123804 Dup													
123810 Orig	18.0	0.2	0.2	1.4	0.2	< 0.1	226	< 0.1	< 0.001	0.24	8.8	3.4	1.6
123810 Dup	18.7	0.3	0.2	1.4	0.2	< 0.1	225	< 0.1	< 0.001	0.24	11.4	3.8	1.6
123816 Orig													
123816 Dup													
128052 Orig													
128052 Dup													
128060 Orig	33.3	0.4	0.2	1.2	0.2	< 0.1	284	< 0.1	< 0.001	0.47	31.2	4.1	1.4
128060 Dup	34.9	0.4	0.2	1.2	0.2	< 0.1	286	< 0.1	< 0.001	0.44	30.6	3.5	1.5
128064 Orig													
128064 Dup													
128074 Orig	28.5	0.3	0.2	1.5	0.2	< 0.1	277	< 0.1	< 0.001	0.44	24.1	3.7	1.9
128074 Dup	28.9	0.3	0.2	1.5	0.2	< 0.1	278	< 0.1	< 0.001	0.39	22.2	3.0	1.7
128076 Orig													
128076 Dup													
128087 Orig													
128087 Dup													
128091 Orig	19.8	0.5	0.2	1.4	0.2	< 0.1	274	< 0.1	< 0.001	0.56	25.7	4.5	1.6
128091 Dup	21.5	0.5	0.2	1.4	0.2	< 0.1	262	< 0.1	< 0.001	0.55	20.6	4.3	1.5
128099 Orig													
128099 Dup													
128111 Orig													
128111 Dup													
128124 Orig													
128124 Dup													
128130 Orig	38.1	0.5	0.2	1.3	0.2	< 0.1	216	0.1	< 0.001	0.26	8.9	3.2	1.5
128130 Dup	40.9	0.4	0.2	1.4	0.2	< 0.1	215	< 0.1	< 0.001	0.26	8.1	3.5	1.6
128134 Orig													
128134 Dup													
128144 Orig	44.9	0.2	0.2	1.4	0.2	< 0.1	245	0.1	< 0.001	0.22	9.3	3.2	1.6
128144 Dup	44.6	0.2	0.2	1.4	0.2	< 0.1	246	0.2	< 0.001	0.22	10.9	3.3	1.6
128146 Orig													

Analyte Symbol	Cu	Ge	Tm	Yb	Lu	Ta	Sr	W	Re	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.001	0.05	0.5	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
128146 Dup													
128157 Orig													
128157 Dup													
128169 Orig	11.0	0.2	0.2	1.2	0.2	< 0.1	247	< 0.1	< 0.001	0.25	7.6	3.4	1.5
128169 Dup	16.9	0.1	0.2	1.2	0.2	< 0.1	239	< 0.1	< 0.001	0.26	8.2	2.8	1.4
128192 Orig													
128192 Dup													
128204 Orig													
128204 Dup													
Method Blank													
Method Blank													
Method Blank													
Method Blank													
Method Blank													
Method Blank													
Method Blank													
Method Blank													
Method Blank													
Method Blank	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.2	0.2	< 0.001	< 0.05	1.1	< 0.1	< 0.1
Method Blank	0.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.2	0.2	< 0.001	< 0.05	< 0.5	< 0.1	< 0.1
Method Blank	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.2	0.2	< 0.001	< 0.05	< 0.5	< 0.1	< 0.1
Method Blank													

## **APPENDIX 2**

### **Assay Certificates from Authors' QP Samples**





**Date Submitted:** 05-Jun-17  
**Invoice No.:** A17-05566  
**Invoice Date:** 21-Jun-17  
**Your Reference:** Roche-DeBoule

**Dahrouge Geological Consulting Ltd.**  
**10509-81 Ave.**  
**Suite 18**  
**Edmonton AB T6E 1X7**  
**Canada**

**ATTN: Jody Dahrouge**

## CERTIFICATE OF ANALYSIS

7 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1A2-ICP Kamloops Au-Fire Assay ICPOES 30g

Code UT-4-Kamloops Total Digestion ICP/MS

REPORT      **A17-05566**

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

Notes:

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

CERTIFIED BY:

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

Emmanuel Esemé , Ph.D.  
Quality Control

**ACTIVATION LABORATORIES LTD.**  
9989 Dallas Drive, Kamloops, British Columbia, Canada, V2C 6T4  
TELEPHONE +250 573-4484 or +1.888.228.5227 FAX +1.905.648.9613  
E-MAIL Kamloops@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

Analyte Symbol	Co	Cu	Au	B	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Ni	Er	Be	Ho	Hg	Ag	Cs
Unit Symbol	%	%	ppb	ppm	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm
Lower Limit	0.003	0.001	2	1	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	0.5	1	0.01	0.1	0.5	0.1	0.1	0.1	10	0.05	0.05
Method Code	4Acid ICPOE S	4Acid ICPOE S	FA-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
122401			4	21	19.2	2.60	0.53	7.63	1.36	1.15	< 0.1	61	26.3	115	6.07	2.0	45.8	3.9	0.5	1.4	< 10	0.08	2.91
122402			118	200	6.5	0.30	0.80	6.16	4.96	2.39	< 0.1	76	30.4	1290	5.28	0.5	12.7	1.7	1.2	0.6	< 10	0.72	3.77
122403			< 2	13	46.2	1.99	1.35	8.37	1.09	1.92	0.1	139	52.2	305	3.84	2.1	29.6	1.3	1.0	0.4	< 10	0.10	4.15
122404	0.301	2.71	10300	2360	9.9	0.39	0.92	5.47	1.66	0.40	2.1	78	28.2	202	24.8	1.4	135	1.7	0.6	0.5	< 10	53.9	0.60
122405			1110	35	22.5	1.43	0.70	9.25	> 5.00	0.73	0.1	53	4.6	541	7.18	0.7	3.2	2.3	1.1	0.8	< 10	2.90	7.12
122406	0.129	3.27	25300	14	1.7	0.01	0.21	0.18	0.12	0.30	6.0	< 1	4.6	237	46.2	< 0.1	54.0	0.4	< 0.1	0.2	< 10	65.7	0.17
122407			112	123	7.1	0.14	0.37	2.56	1.70	1.08	0.7	14	2.8	527	38.2	0.8	36.5	1.2	0.3	0.4	< 10	12.9	2.53

## Results

## Activation Laboratories Ltd.

## Report: A17-05566

Analyte Symbol	Co	Eu	Bi	Se	Zn	Ga	As	Rb	Y	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.1	0.05	0.02	0.1	0.2	0.1	0.1	0.2	0.1	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
122401	174	0.85	0.57	3.2	15.9	13.6	10.2	77.8	32.1	72	2.9	8.71	< 0.1	< 1	1.2	< 0.1	31	9.4	20.8	2.5	10.8	3.0	4.8
122402	134	1.39	1.17	1.6	3.8	15.3	12.9	230	14.1	12	10.5	1.65	0.1	11	1.8	0.3	75	83.4	98.6	8.0	23.9	3.7	3.4
122403	10.9	1.09	0.15	1.6	44.8	16.7	5.4	57.1	9.0	80	1.8	2.62	< 0.1	< 1	0.4	< 0.1	256	13.0	29.5	3.7	14.9	3.3	2.7
122404	> 500	0.21	117	11.1	405	17.6	> 10000	38.4	12.3	149	5.1	4.34	8.8	4	190	8.8	9	0.7	2.1	0.4	2.0	0.7	1.2
122405	55.0	1.52	66.1	0.7	57.1	17.4	719	173	19.1	51	8.6	2.18	0.2	1	4.8	< 0.1	376	34.9	64.5	7.6	30.0	5.9	5.4
122406	> 500	0.09	> 2000	15.8	1000	0.4	9950	3.3	3.2	20	0.7	1.20	9.7	2	52.3	6.8	15	0.4	0.9	0.1	0.7	0.4	0.7
122407	119	0.56	2.79	7.6	149	4.6	1580	58.9	10.5	38	5.3	1.08	0.9	< 1	3.1	0.3	12	7.6	18.3	2.4	9.6	2.0	2.1

Analyte Symbol	Tb	Dy	Cu	Ge	Tm	Yb	Lu	Ta	Sr	W	Re	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.001	0.05	0.5	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
122401	0.8	6.5	463	0.1	0.6	2.6	0.4	0.2	267	4.9	0.015	0.82	3.8	2.8	2.1
122402	0.4	2.9	58.1	0.2	0.2	1.3	0.2	0.6	59.0	66.4	0.005	1.28	4.3	4.0	4.1
122403	0.3	2.0	33.3	0.6	0.2	1.3	0.2	< 0.1	367	0.5	0.012	0.58	2.8	3.1	2.0
122404	0.2	2.0	> 10000	0.3	0.3	1.7	0.3	0.2	59.6	> 200	0.015	0.59	6.6	0.5	9.8
122405	0.7	4.2	957	0.4	0.3	1.9	0.3	0.3	182	22.2	0.013	1.74	3.6	5.0	2.2
122406	0.1	0.7	> 10000	0.3	< 0.1	0.2	< 0.1	< 0.1	11.2	> 200	0.017	0.28	39.6	0.1	0.2
122407	0.3	2.1	7510	0.2	0.2	0.9	0.1	0.3	29.0	30.7	0.012	0.58	7.6	1.1	1.0

Analyte Symbol	Co	Cu	Au	B	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Ni	Er	Be	Ho	Hg	Ag	Cs
Unit Symbol	%	%	ppb	ppm	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm
Lower Limit	0.003	0.001	2	1	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	0.5	1	0.01	0.1	0.5	0.1	0.1	0.1	10	0.05	0.05
Method Code	4Acid ICPOE S	4Acid ICPOE S	FA-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
GXR-1 Meas				< 1	6.8	0.04	0.20	2.01	0.04	0.84	2.4	80	7.0	863	24.8	0.5	36.6		0.9		2310	30.7	2.67
GXR-1 Cert				15.0	8.20	0.0520	0.217	3.52	0.050	0.960	3.30	80.0	12.0	852	23.6	0.960	41.0		1.22		3900	31.0	3.00
GXR-4 Meas				< 1	10.1	0.49	1.57	6.38	4.03	0.98	0.1	81	38.8	134	3.06	1.3	36.3		1.8		120	2.50	2.55
GXR-4 Cert				4.50	11.1	0.564	1.66	7.20	4.01	1.01	0.860	87.0	64.0	155	3.09	6.30	42.0		1.90		110	4.00	2.80
SDC-1 Meas				< 1	35.7	1.56	1.04	8.65	2.98	1.07		28	40.8	808	5.03	0.3	33.9	4.1	3.1	1.4	10		3.91
SDC-1 Cert				13.00	34.0	1.52	1.02	8.34	2.72	1.00		102.00	64.00	880.00	4.82	8.30	38.0	4.10	3.00	1.50	200.00		4.00
GXR-6 Meas				< 1	42.5	0.12	0.70	> 10.0	1.88	0.23	0.1	63	40.9	903	5.30	1.4	20.8		1.3		< 10	0.16	3.90
GXR-6 Cert				9.80	32.0	0.104	0.609	17.7	1.87	0.180	1.00	186	96.0	1010	5.58	4.30	27.0		1.40		68.0	1.30	4.20
MP-1b Meas		3.13																					
MP-1b Cert		3.07																					
DNC-1a Meas					5.1							143	211				268						
DNC-1a Cert					5.2							148	270				247						
PK2 Meas			4540																				
PK2 Cert			4790																				
PK2 Meas			4700																				
PK2 Cert			4790																				
PK2 Meas			4700																				
PK2 Cert			4790																				
PK2 Meas			4860																				
PK2 Cert			4790																				
CZN-4 Meas	0.010	0.415																					
CZN-4 Cert	0.009	0.403																					
SBC-1 Meas					174						0.4	211	57.7			2.5	79.2	4.0	3.5	1.5			7.80
SBC-1 Cert					163						0.40	220.0	109			3.7	82.8	3.80	3.20	1.40			8.2
CDN-PGMS-24 Meas			754																				
CDN-PGMS-24 Cert			806.000																				
CDN-PGMS-24 Meas			796																				
CDN-PGMS-24 Cert			806.000																				
CDN-PGMS-24 Meas			793																				
CDN-PGMS-24 Cert			806.000																				
CDN-PGMS-24 Meas			819																				
CDN-PGMS-24 Cert			806.000																				
CDN-PGMS-24 Meas			731																				
CDN-PGMS-24																							

Analyte Symbol	Co	Cu	Au	B	Li	Na	Mg	Al	K	Ca	Cd	V	Cr	Mn	Fe	Hf	Ni	Er	Be	Ho	Hg	Ag	Cs
Unit Symbol	%	%	ppb	ppm	ppm	%	%	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm
Lower Limit	0.003	0.001	2	1	0.5	0.01	0.01	0.01	0.01	0.01	0.1	1	0.5	1	0.01	0.1	0.5	0.1	0.1	0.1	10	0.05	0.05
Method Code	4Acid ICPOE S	4Acid ICPOE S	FA-ICP	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
Cert			806.000																				
PTC-1b Meas	0.327	7.88																					
PTC-1b Cert	0.325	7.97																					
SdAR-M2 (U.S.G.S.) Meas					17.9						4.7	18	23.5			0.6	47.4	3.4	6.9	1.1	940		1.74
SdAR-M2 (U.S.G.S.) Cert					17.9						5.1	25.2	49.6			7.29	48.8	3.58	6.6	1.21	1440.00		1.82
CCU-1e Meas	0.031																						
CCU-1e Cert	0.0301																						
122407 Orig				133	7.0	0.14	0.36	2.53	1.68	1.07	0.6	13	3.4	513	37.9	0.8	36.8	1.2	0.3	0.4	< 10	13.1	2.47
122407 Dup				114	7.3	0.14	0.37	2.59	1.72	1.09	0.7	15	2.2	541	38.4	0.8	36.2	1.3	0.2	0.5	< 10	12.7	2.58
Method Blank				< 1	< 0.5	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.1	< 1	< 0.5	17	< 0.01	< 0.1	< 0.5	< 0.1	< 0.1	< 0.1	< 10	< 0.05	< 0.05
Method Blank			< 2																				
Method Blank			< 2																				
Method Blank			< 2																				
Method Blank			< 2																				
Method Blank			< 2																				
Method Blank			< 2																				
Method Blank			< 2																				
Method Blank	< 0.003	< 0.001																					

Analyte Symbol	Co	Eu	Bi	Se	Zn	Ga	As	Rb	Y	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.1	0.05	0.02	0.1	0.2	0.1	0.1	0.2	0.1	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
GXR-1 Meas	7.6	0.63	1610	15.8	818	9.2	425	2.4	27.1	18	0.5	17.5	0.8	30	20.9	9.4	620	7.0	13.8		8.1	2.8	4.4
GXR-1 Cert	8.20	0.690	1380	16.6	760	13.8	427	14.0	32.0	38.0	0.800	18.0	0.770	54.0	122	13.0	750	7.50	17.0		18.0	2.70	4.20
GXR-4 Meas	13.6	1.54	19.6	4.5	63.6	16.1	97.5	132	12.4	39	8.9	325	0.2	8	4.3	1.0	91	53.7	103		39.9	6.2	5.0
GXR-4 Cert	14.6	1.63	19.0	5.60	73.0	20.0	98.0	160	14.0	186	10.0	310	0.270	5.60	4.80	0.970	1640	64.5	102		45.0	6.60	5.25
SDC-1 Meas	18.2	1.71			105	18.6	< 0.1	113		10	< 0.1			< 1	< 0.1		630	40.8	86.7		40.6	8.2	7.5
SDC-1 Cert	18.0	1.70			103.00	21.00	0.220	127.00		290.00	21.00			3.00	0.54		630	42.00	93.00		40.00	8.20	7.00
GXR-6 Meas	12.1	0.63	0.20	< 0.1	118	25.9	204	66.6	10.9	47	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	1720	11.9	32.4		11.9	2.5	2.6
GXR-6 Cert	13.8	0.760	0.290	0.940	118	35.0	330	90.0	14.0	110	7.50	2.40	0.260	1.70	3.60	0.0180	1300	13.9	36.0		13.0	2.67	2.97
MP-1b Meas																							
MP-1b Cert																							
DNC-1a Meas	59.4	0.63			62.6	13.3		3.3	15.8	34	0.1				< 0.1		104	3.8			5.1		
DNC-1a Cert	57	0.59			70	15		5	18.0	38.0	3				0.96		118	3.6			5.20		
PK2 Meas																							
PK2 Cert																							
PK2 Meas																							
PK2 Cert																							
PK2 Meas																							
PK2 Cert																							
PK2 Meas																							
PK2 Cert																							
CZN-4 Meas																							
CZN-4 Cert																							
SBC-1 Meas	21.7	2.06	0.75		194	22.7	25.5	132	29.6	90	9.1	2.04		4	0.9		661	48.4	103	12.3	47.1	9.6	9.0
SBC-1 Cert	22.7	1.98	0.70		186	27.0	25.7	147	36.5	134.0	15.3	2.40		3.3	1.01		788.0	52.5	108.0	12.6	49.2	9.6	8.5
CDN-PGMS-24 Meas																							
CDN-PGMS-24 Cert																							
CDN-PGMS-24 Meas																							
CDN-PGMS-24 Cert																							
CDN-PGMS-24 Meas																							
CDN-PGMS-24 Cert																							
CDN-PGMS-24 Meas																							
CDN-PGMS-24 Cert																							
CDN-PGMS-24 Meas																							
CDN-PGMS-24 Cert																							
CDN-PGMS-24 Meas																							
CDN-PGMS-24 Cert																							

Analyte Symbol	Co	Eu	Bi	Se	Zn	Ga	As	Rb	Y	Zr	Nb	Mo	In	Sn	Sb	Te	Ba	La	Ce	Pr	Nd	Sm	Gd
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.1	0.05	0.02	0.1	0.2	0.1	0.1	0.2	0.1	1	0.1	0.05	0.1	1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
PTC-1b Meas																							
PTC-1b Cert																							
SdAR-M2 (U.S.G.S.) Meas	13.0	1.42	1.12		819	14.1		137	25.5	35	1.1	5.63					958	44.8	95.5	10.4	37.5	6.9	6.0
SdAR-M2 (U.S.G.S.) Cert	12.4	1.44	1.05		760	17.6		149	32.7	259	26.2	13.3					990	46.6	98.8	11.0	39.4	7.18	6.28
CCU-1e Meas																							
CCU-1e Cert																							
122407 Orig	120	0.55	2.94	8.3	146	4.5	1570	59.2	10.5	38	5.2	1.02	0.9	< 1	3.2	0.3	11	7.6	18.0	2.3	9.5	2.0	2.1
122407 Dup	118	0.56	2.64	7.0	151	4.6	1590	58.7	10.4	38	5.3	1.13	1.0	< 1	3.0	0.3	14	7.7	18.6	2.4	9.7	2.0	2.1
Method Blank	< 0.1	< 0.05	< 0.02	< 0.1	< 0.2	< 0.1	< 0.1	< 0.2	< 0.1	< 1	< 0.1	< 0.05	< 0.1	< 1	< 0.1	< 0.1	< 1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							



Analyte Symbol	Tb	Dy	Cu	Ge	Tm	Yb	Lu	Ta	Sr	W	Re	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.001	0.05	0.5	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
GXR-1 Meas	0.7	5.2	1140		0.4	2.1	0.3	< 0.1	273	129		0.35	753	2.6	32.5
GXR-1 Cert	0.830	4.30	1110		0.430	1.90	0.280	0.175	275	164		0.390	730	2.44	34.9
GXR-4 Meas	0.5	3.2	6110		0.2	1.0	0.2	0.5	193	33.2		3.25	46.2	17.7	5.6
GXR-4 Cert	0.360	2.60	6520		0.210	1.60	0.170	0.790	221	30.8		3.20	52.0	22.5	6.20
SDC-1 Meas	1.0	7.1	27.8		0.6	3.3		< 0.1	167	0.4		0.63	24.2	11.9	2.8
SDC-1 Cert	1.20	6.70	30.000		0.65	4.00		1.20	180.00	0.80		0.70	25.00	12.00	3.10
GXR-6 Meas	0.4	2.7	55.9			1.6	0.3	< 0.1	43.9	0.2		2.02	93.7	5.3	1.4
GXR-6 Cert	0.415	2.80	66.0			2.40	0.330	0.485	35.0	1.90		2.20	101	5.30	1.54
MP-1b Meas															
MP-1b Cert															
DNC-1a Meas			93.6			2.0			139				6.7		
DNC-1a Cert			100			2.0			144				6.3		
PK2 Meas															
PK2 Cert															
PK2 Meas															
PK2 Cert															
PK2 Meas															
PK2 Cert															
PK2 Meas															
PK2 Cert															
CZN-4 Meas															
CZN-4 Cert															
SBC-1 Meas	1.1	7.3	29.1		0.6	3.4	0.5	0.4	166	1.4		0.85	34.9	16.2	5.8
SBC-1 Cert	1.20	7.10	31.0000		0.56	3.64	0.54	1.10	178.0	1.60		0.89	35.0	15.8	5.76
CDN-PGMS-24 Meas															
CDN-PGMS-24 Cert															
CDN-PGMS-24 Meas															
CDN-PGMS-24 Cert															
CDN-PGMS-24 Meas															
CDN-PGMS-24 Cert															
CDN-PGMS-24 Meas															
CDN-PGMS-24 Cert															
CDN-PGMS-24 Meas															
CDN-PGMS-24 Cert															

Analyte Symbol	Tb	Dy	Cu	Ge	Tm	Yb	Lu	Ta	Sr	W	Re	Tl	Pb	Th	U
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.001	0.05	0.5	0.1	0.1
Method Code	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS	TD-MS
PTC-1b Meas															
PTC-1b Cert															
SdAR-M2 (U.S.G.S.) Meas	0.8	5.8	243		0.5	2.9	0.4	< 0.1	136	0.1			800	13.9	2.4
SdAR-M2 (U.S.G.S.) Cert	0.97	5.88	236.00 00		0.54	3.63	0.54	1.8	144	2.8			808	14.2	2.53
CCU-1e Meas															
CCU-1e Cert															
122407 Orig	0.3	2.1	7520	0.2	0.2	0.9	0.1	0.3	29.4	30.5	0.018	0.55	7.0	1.1	1.0
122407 Dup	0.3	2.1	7490	0.2	0.2	0.9	0.1	0.3	28.6	30.9	0.007	0.62	8.3	1.1	1.0
Method Blank	< 0.1	< 0.1	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.2	< 0.1	0.007	< 0.05	< 0.5	< 0.1	< 0.1
Method Blank															
Method Blank															
Method Blank															
Method Blank															
Method Blank															
Method Blank															
Method Blank															
Method Blank															
Method Blank															
Method Blank															
Method Blank															