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# 2021 DIAMOND DRILLING REPORT K7 SOUTH ZONE SUGAR ZONE PROPERTY DAYOHESSARAH LAKE AREA WHITE RIVER, ONTARIO 

$$
\text { NTS 42C/ 10, 11, } 14 \text { and } 15
$$

Latitude $48^{\circ} 48^{\prime} \mathrm{N}$, Longitude $85^{\circ} 10^{\prime} \mathrm{W}$

Dates Work Performed October 23, 2021 to April 03, 2022<br>for<br>Harte Gold Corporation 161 Bay Street Suite 2400<br>Toronto, Ontario<br>M5J 2S1

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## Executive Summary

Between October 23, 2021 to November 18, 2021 Harte Gold Corporation performed a 3-hole, $1,140.0$ meter diamond drill program at the K7 South Zone. The K7 South Zone is located approximately 14 kilometers south of Harte Gold's Sugar Zone Mine on the Sugar Zone property. The property is located in the Dayohessarah Lake area, and is situated northeast of White River, Ontario. One drill rig (G4-09) was supplied by G4 Drilling Canada Ltd. to perform the drilling.

The intent of the 2021 K7 South Zone drill program was to drill test several, moderate to strong VLF anomalies that are coincident with weak to moderately anomalous gold and base metal values obtained by prospecting and trenching. A total of $\$ 250,584$ was spent on this drill program which included costs such as drilling, assays and salaries, etc. The average cost per meter was \$219.81.

A high of $0.98 \mathrm{~g} / \mathrm{t}$ over 1.0 m from K7S-21-01 was obtained from the drill program. Narrow, weak gold values were also obtained from K7S-21-02 and 03.

The Sugar Zone property lies within in the Dayohessarah Greenstone Belt ("DGB"). The DGB is part of the larger, east trending Schreiber-White River Belt of the Wawa Subprovince of the Superior Craton. The DGB is situated between two larger greenstone belts; the Hemlo Greenstone Belt to the west and the Kabinakagami Greenstone Belt to the east. The DGB has an active history of exploration dating back to 1969 when Canex Aerial Exploration Ltd. drilled three holes on the property. Exploration ramped up after the discovery of Hemlo, when Pezamerica Resources commenced geophysics and drilling.

In 1998, Harte Gold Corp. entered into an option agreement on most of the unpatented mining claims comprising the Sugar Zone property, including the Sugar Zone. Harte subsequently entered into a Joint Venture agreement with Corona Gold Corporation and in 2012 Harte Gold acquired Corona's portion of the Sugar Zone property to become the 100\% owner and operator of all the claims. Harte Gold subsequently conducted extensive advanced exploration at the Sugar Zone including a successful 70,000 tonne bulk sample in 2017. After a successful development and commissioning period commercial production was officially declared for the Sugar Zone Mine on January $8^{\text {th }}, 2019$.

### 1.0 Introduction

The K7 South Zone is located in the south-central section of the Sugar Zone property approximately 14 kilometers south of the Sugar Zone Mine (Figure 2). The K7 South Zone is one of several gold occurrences identified on the Sugar Zone property. The property is located in the Dayohessarah Greenstone Belt. This greenstone belt is part of the larger, east trending SchreiberWhite River Belt of the Wawa Subprovince of the Superior Craton (Figure 3).

This report will summarize and discuss the results of the diamond drill program conducted between October 23, 2021 to November 18, 2021 by Harte Gold Corp. on the Sugar Zone property. The drill report was written from March 30 to April 03, 2022.

All K7 South Zone holes were drilled on claims permitted by Exploration Permit PR-18-000291.
UTM coordinates are in NAD 83, Zone 16U projection.

### 2.0 Property Location and Description

### 2.1 Location and Access

The Sugar Zone property is situated approximately 25 km northeast of the town of White River (Trans-Canada Highway No. 17) and 60 km east of the Hemlo gold camp. The property is approximately equidistant from Sault Ste. Marie to the south-east and Thunder Bay to the west (Figure 1). The overall property encompasses NTS zones 42C/ 10, 11, 14 and 15 and the gold mineralized occurrences are exposed at Latitude $48^{\circ} 48^{\prime}$ north, Longitude $85^{\circ} 10^{\prime}$ west. The property covers parts of the Odlum, Strickland, Gourlay, Tedder, Hambleton, Cooper, Nameigos, Abraham and Bayfield Townships, and falls within the Sault Ste. Marie Mining Division.

The property can be accessed via a series of logging roads and drill trails extending north from the community of White River. Access is also available by way of float plane, based in White River via Dayohessarah Lake or Hambleton Lake, and by helicopter based in Wawa or Marathon.


Figure 1 - Property Location
The western and southern portions of the property are accessible via a series of logging roads controlled by White River Forest Products Limited. Road No. 100 extends north from the western end of White River. Road No. 200 intersects Road No. 100 approximately 20 km from Highway 17 and provides access to the western and southern portions of the property. Road No. 300 intersects Road No. 100 approximately 36 km from Highway 17 and provides access to the very
northern portion of the property. Road No. 305 intersects Road No. 300 approximately 6 km from Road No. 100 and provides access to northern and eastern parts of the property. Road access to within 400 m of the Sugar Zone is available via a small road heading south and southwest from Road No. 305 for 8.8 km . From there, access to the Sugar Zone is available via all-terrain or tracked vehicles in the summer, and snowmobiles, tracked vehicles and trucks in the winter. The distance from White River to the Sugar Zone is approximately 60 km by road.

Areas surrounding Dayohessarah, Hambleton, Strickland and Pike Lakes are designated by the Ontario Ministry of Natural Resources as 'Restricted Access'. Locked gates on Road No. 200 and Road No. 305 control vehicular access in order to prevent access to remote lodge operations on two lakes. Permits are required for road access to most of the Sugar Zone property for mineral exploration purposes.

### 2.2 Description of Mining Claims

The Sugar Zone property consists of four mining leases comprising 1467.26 hectares, including 81 boundary cell claims, 47 single cell claims, 197 multi-cell claims (Appendix A). All claims of the Sugar Zone property are held in the name of Harte Gold Corporation. The property boundaries, claim lines, and location of the TT8 and Big Bear Zones are shown in Figure 2.

There are two mining alienations which border parts of Harte's current claim block. The largest (W-LL-C1521) lies to the east of the current claim area and shortly borders claim 4260617 on the east, and Hwy 631 on the west. The second alienation (No. 2847) lies completely within Harte's current claim block, west of Dayohessarah Lake. Surface rights are held by the Crown and timber cutting rights are held by White River Forest Products Ltd.

In 1998, Harte Gold Corp. (Harte) entered into an option agreement on most of the unpatented mining claims comprising the Sugar Zone property, including the Sugar Zone. Harte Subsequently entered into a Joint Venture agreement with Corona Gold Corp.

The original claims are subject to a $3.5 \%$ net smelter royalty ("NSR"). The Joint Venture participants, namely Corona ( $51 \%$ ) and Harte ( $49 \%$ ), have the option of acquiring $1.5 \%$ of the $3.5 \%$ NSR for $\$ 1.5$ million, in proportion to their respective interest and have, in addition, the right of first refusal on the remaining $2.0 \%$ NSR.

Harte and Corona entered into an Option Agreement (the "Corona Option") dated May 28, 2010, entitling Harte to acquire Corona's $51 \%$ interest in the Sugar Zone Joint Venture upon completion of certain conditions. Effective March 10, 2010, Harte became the Operator of the Sugar Zone Joint Venture for as long as the Corona Option remained in good standing. Harte completed all required conditions and as of May 23, 2012 acquired Corona's 51\% interest to become the 100\% owner and operator of all of the claims which were previously part of the Sugar Zone Joint Venture.

### 2.3 Physiography and Vegetation

The climate is northern boreal, with short hot summers and cold, snowy winters. Some field operations, such as drilling, can be carried out year-round while other operations, such as prospecting and mapping, can only be carried out during the late spring, summer and early autumn months.

The temperatures can range from $-35^{\circ} \mathrm{C}$ in the winter to $+30^{\circ} \mathrm{C}$ in the summer; though the mean temperatures are around $-20^{\circ} \mathrm{C}$ to $+20^{\circ} \mathrm{C}$. Rainfall is about 727 mm annual average, with the wettest month being September ( 120 mm average). Snow is abundant, often reaching several metres with December and January having the heaviest snowfall (about 80 cm ). Snow is on the ground by late October and the ice begins to thaw on the lakes by April.


Figure 2-Claim Position, Regional Geology and Occurrences
The topography on the property varies from moderate to rugged, with lake levels generally at 390 m above sea level, and occasional hills up to 480 m elevation. The overburden is generally between 0 to 20 m deep on the property, with occasional boulderer terrain, and normally approximately 2 to 3 m overlying the Sugar Zone. Vegetation is boreal, with jack pine, fir, poplar and birch occupying dry uplands and cedar, tamarack and spruce growth on more poorly drained terrain.

### 3.0 Historical Work

Exploration for gold and base metals has been conducted on the Dayohessarah property since 1969. After over 10 years of very little work, exploration started to pick up on the property again in 1983, after the discovery of the Hemlo Gold camp. A complete timeline of mineral exploration/mine site development on the DGB is presented below.

1969 Canex Aerial Exploration Ltd. drilled three diamond drill holes in the vicinity of the mafic/ultramafic intrusives and flows near the north end of Dayohessarah Lake. Results include an intersection of $0.326 \% \mathrm{Ni}$ and $0.08 \%$ Cu over 5 ft . in metagabbroic rocks.

1983-1986 Pezamerica Resources Limited conducted an exploration program which included an airborne Mag and EM survey that outlined thirty-one (31) geophysical anomalies in the area. Twenty-four (24) of these anomalies were investigated by Teck Exploration on behalf of Pezamerica. Teck Exploration drilled nine airborne geophysical targets based on coincidental soil gold anomaly trends. In all cases, the airborne anomalies were explained by pyrite/pyrrhotite rich horizons within felsic volcanics. Hole PZ-6 returned appreciable amounts of sphalerite mineralization ( $0.47 \% \mathrm{Zn}$ over 2.8 feet). None of the assayed core returned significant gold values.

1990 Most of the DGB is staked by a prospecting syndicate.
1991 The property is optioned from the prospectors by Hemlo Gold Mines Inc. Initial prospecting uncovered the gold-bearing Sugar Zone deposit. Based on bedrock exposure and trenching, the Sugar Zone was traced for 750 m , and a ground IP survey outlined the Sugar Zone structure extending for 1,500 meters.

1993 Hemlo Gold conducted a preliminary diamond drill program to test the Sugar Zone for economic gold mineralization. A grid was cut with a 6-km baseline and tie-lines ranging in spacing between 100 m and $1,000 \mathrm{~m}$. Six diamond drill holes were completed totaling 800 m . All drill holes intersected significant gold mineralization in the Sugar Zone. A small trenching program is initiated on the Sugar Zone.

1994 Hemlo Gold proceeds with initial geological mapping, prospecting and a follow-up drill program. Fifteen diamond drill holes are completed on the property, totaling $2,416 \mathrm{~m}$. Eight of the drill holes intersected the Sugar Zone. An I.P. survey is completed over the southern portion of the property, and a Mag survey is completed over the entire grid. After the exploration program, the property was returned to the prospecting syndicate who initially staked the ground, due to legal reasons.

1998-1999 Most of the property is optioned from the prospector's syndicate. The mining claims were subject to a Joint Venture agreement between Corona Gold Corporation (51\%) and Harte Gold Corp. (49\%). Corona was the operator. The initial 313 claims are subject to a $3.5 \%$ net smelter royalty ("NSR"), and the Joint Venture participants have the option to acquire $1.5 \%$ of the $3.5 \%$ NSR for $\$ 1.5$ million, and have the right of first refusal on the remaining $2.0 \%$ NSR.

Corona carries out an extensive exploration program. The existing grid was rehabilitated and new grid lines established east of Dayohessarah Lake. In total, 96.1 km of grid lines with 100 m spacing oriented at $320^{\circ}$ azimuth are cut over the Sugar Zone area. An oriented soil sampling program is carried out on the grid, as well as mapping and sampling. Prospecting was limited to the Sugar Zone and extensions of the Sugar Zone to the south and to the north. A surface power trenching program is conducted on parts of the Sugar Zone and six trenches were excavated, washed, channel sampled and mapped in detail. A detailed Mag-VLF and reconnaissance gradient I.P. survey is performed on the property.

A diamond drilling program totaling $9,937 \mathrm{~m}$ of NQ core in 53 holes is completed, mostly into and around the Sugar Zone. The drill holes cover 3 km of strike length, and intersect the zone at
approximately 50 m spacing at shallow depths. A secondary purpose of the program was to follow-up low grade mineralization encountered in previous drilling by Hemlo Gold and to test previously untested/poorly tested I.P. anomalies west of the Sugar Zone and east of Dayohessarah Lake.

Preliminary Mineral Resource estimates of the Sugar Zone mineralization in the 12000 N to 13100 N area were prepared, based on the drilling program noted above. Another estimate was made, using revised and refined criteria and polygonal methods, in the spring 1999, following additional data evaluation (Drost et AI, 1998).

2003-2004 Corona conducts a diamond drilling program totaling $7,100 \mathrm{~m}$ in 26 holes. The drill program mostly intersects the Sugar Zone and is successful in its purpose of expanding the strike and dip extent of the zone, as well as increasing the level of confidence in the continuity of mineralization by in-fill drilling.

2004 Corona conducts another diamond drilling program totaling $3,588 \mathrm{~m}$ in 11 holes. The program is successful in increasing the mineralization extent of the Sugar Zone, as well as increasing the defined Sugar Zone depth to a vertical depth of 300 m . A new Mineral Resource estimate was completed.

2008 A helicopter airborne geophysical survey was flown over the property by Fugro Airborne Surveys Corp., under contract from Corona. The survey used a DIGHEM multi-coil, multifrequency electromagnetic system along with a high sensitivity cesium magnetometer. A total of 1,917 line-km was flown. It was recommended by Dave Hunt P.Geo. that compilation of historic exploration data on the remainder of the property be followed by a program of reconnaissance mapping and prospecting to evaluate the Fugro airborne conductor axes on the ground, as well as to identify additional target areas extending both north and south of existing Sugar Zone mineralization and elsewhere on the property.

2009 During March, Corona undertook a drilling program totaling $2,020 \mathrm{~m}$ in 10 holes. The purpose of the program was to test airborne electromagnetic conductors, magnetic anomalies, induced polarization chargeability anomalies and geologically defined possible extensions to the north and the south of the known Sugar Zone mineralization.

During July to September, a prospecting, reconnaissance geological mapping and channel sampling program was undertaken on geophysical targets outlined by the Fugro airborne geophysical anomalies. Highlights included sampling of a float rock (Peacock Boulders) returning a value of $87.80 \mathrm{~g} / \mathrm{t} \mathrm{Au}$, as well as grab samples from quartz veining east of the Sugar Zone returning values of 30.40 and $9.04 \mathrm{~g} / \mathrm{t} \mathrm{Au}$.

2010 Harte Gold Corp. initiated its first drilling program. During March, a diamond drill program totaling 2,097.31 m in 12 holes, two of which were aborted before reaching the Sugar Zone. The program was successful in locating a high-grade area of the Sugar Zone located near surface and directly under a series of surface trenches. The drill program was also successful in determining that the Sugar Zone has significant mineralization below 300 m depth.

Ground IP is completed over a grid totaling 20,475 meters. Chargeability from the survey outlines a potential zone north of the Peacock Boulder discovery of 2009. 5 Trenches totaling 1,850 square meters were completed over and around the newly discovered Wolf Zone.

A total of $5,387.94 \mathrm{~m}$ of diamond drilling totaling 33 drill holes was completed on the newly discovered Wolf Zone. Results outlined a small, high grade zone with a strike length up to 600 m and a depth up to 250 meters.

2011 Between May and June 2011 two more grids totaling 60,800 meters were completed over the fold nose near the north end of the of the Sugar Zone property, on the west side of Hambleton Lake. Follow up ground IP was completed on the grids by JVX Geophysical Surveys. A small 5,200-meter grid was also cut, and ground IP completed on the west side of Dayohessarah Lake, in an attempt to outline a Gossan Zone.

A Bore Hole survey was completed In August 2011 on eleven deep drill holes in the Sugar Zone. The Bore Hole survey outlined several conductors in the area. An airborne VTEM survey was completed at the end of August by Geotech Ltd. The survey covered the entire property and outlined 5 large moderate to strong conductive areas of interest. The most exciting result of the survey was a potential copper-nickel ore body below the surface, under the komatiite volcanics at the northern end of Dayohessarah Lake.

There were two main drill programs in 2011. The first was on the Sugar Zone, between February 11 to April 13, and again between July 17 and November 24, 2011, and totaled $7,885.74$ meters of diamond drilling in 27 drill holes. The drilling was designed to expand the resource estimate both at depth, and to upgrade inferred resource to indicated resource. The second drill program targeted IP anomalies on the Fold Nose grid. A total of 3,430.93 meters were drilled in 15 diamond drill holes. Most IP anomalies were explained by sedimentary layers, and no significant intercepts were observed.

2012 In April 2012, Geotech Ltd. carried out a helicopter borne geophysical survey over the Sugar Zone property. The program was completed as an extension of the airborne VTEM survey conducted in 2011 which totaled 302 line-km of data over the northern parts of Dayohessarah Lake and western parts of Hambleton Lake and the shoreline. The 2012 program totaled 1,153 line-km of data essentially covering the rest of the Dayohessarah Greenstone Belt.

In an effort to understand the source of the Peacock boulders, thin sections of three Peacock boulder samples were sent to Pleason Geoscience for analysis. The boulders returned assay values of $87.30 \mathrm{~g} / \mathrm{t} \mathrm{Au}, 52.80 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ and $37.20 \mathrm{~g} / \mathrm{t} \mathrm{Au}$. It was noted that the mineralogy and microtextures of the samples were similar to gold-bearing zones at the Hemlo and Musselwhite gold camps.

Between October 30, 2012 and November 2, 2012 four mechanical trenches were made along the surface exposure of the Sugar Zone. The purpose of the trenches was to expose enough high-grade material from the Lower Zone of the Sugar Zone for a reasonably representative blasting program. The total area of the trenches is 1,799 square meters.

During the period January 21, 2012 to July 29, 2012 a total of 6,283.92 meters were drilled in 12 diamond drill holes targeting the Sugar Zone. The drilling was carried out by Major Drilling Group International Inc. The purpose of the diamond drilling program was to expand the current Mineral Resource Estimate of the Sugar Zone at vertical depths below 400 m , and to test the continuity, grade and width of the zone at $1,000 \mathrm{~m}$ vertical depth. The program was successful in defining Au mineralization in both the Upper and Lower Zones with significant assay results ranging from $0.56 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ to $162 \mathrm{~g} / \mathrm{t} A u$.

An additional 2 drill holes targeted an IP north-east of Dayohessarah Lake. These exploration holes totaled 375 meters and did not return any significant gold values.

Two holes totaling 333 meters were drilled targeting an extension of the Wolf Zone. No significant assays were returned.

2013 Exploration in the 2013 season included a short prospecting program, where 46 samples were taken and analyzed for Au using fire assay. Two samples returned Au values of $10.2 \mathrm{~g} / \mathrm{t}$ and $0.73 \mathrm{~g} / \mathrm{t}$.

Four holes were drilled on the Halverson Zone, totaling 1103.28m These holes targeted $\mathrm{Cu}-\mathrm{Ni}$ mineralization discovered in 2011 by a VTEM survey.

An additional 17 diamond drill holes totaling 1356m were drilled to decrease the spacing between holes in a high-grade portion of the Sugar Zone Lower Zone (called Jewelry Box). Significant intervals from this program ran from $2.77 \mathrm{~g} / \mathrm{t}$ Au to $28.5 \mathrm{~g} / \mathrm{t}$ Au over widths from 0.35 m to 8.27 m .

Harte Gold continued moving forward with the permitting and optimization of the advance exploration 70,000 tonne bulk sample at the Sugar Zone. Confirmation drilling at the Jewelry Box Zone (JBZ) returned significant high-grade gold assays and enabled Harte Gold to re-design the bulk sample target areas in order to test this high-grade portion of the Sugar Zone deposit. The JBZ lies close to surface and can be developed quicker and more cost effectively.

Harte Gold also completed road construction to provide highway access to the property and survey work associated with taking certain of the Sugar Zone property mining claims to lease. Harte Gold is also in the process of negotiating contract mining and off-site milling agreements.

Harte Gold completed a regional exploration program and Induced Polarization (IP) survey with the objective of finding the source of the high-grade Peacock Boulders which returned gold values up to $87 \mathrm{~g} / \mathrm{t}$. Drill targets have been identified and are scheduled to be drilled during the summer of 2014.

2014 Harte Gold continued to advance the Sugar Zone "Advanced Exploration and Bulk Sample Project" during 2014. Efforts focused on completing the permitting associated with the amended closure plan, completing the road to the portal site and overall optimization of the mining plan developed in the 2012 Preliminary Economic Assessment.

Additional confirmation drilling at the Jewelry Box Zone (JBZ), the target area for the bulk sample, returned significant high-grade gold assays providing additional confirmation to mining contractors developing bids for the project.

2014 was a busy year of exploration, Induced Polarization and magnetometer surveys were conducted over a majority of the core mining claims and generated numerous drill targets. Follow up ground proofing and drill programs identified the Wolf Zone as the source of the high-grade Peacock Boulders and lead to the discovery of the Contact Zone, where a sericite schist was found to have Hemlo-style geochemistry and anomalous gold as well as a third mineralized zone known as the Footwall Zone and located 50 meters east of the Sugar Zone deposit.

During 2015 Harte Gold completed additional exploration drilling that extended the Sugar Zone deposit 300 meters south of its previously defined boundary.

Harte Gold completed additional construction work on the site access road linking the Sugar Zone deposit to Highway 631 and completed the lease application process for certain mining claims that comprise the Sugar Zone property. The leases cover the Sugar Zone deposit and immediately surrounding area and are a requirement for commercial production.

20152015 was a pivotal year for Harte Gold as efforts to move the project ahead during a challenging mining market finally culminated in October with the first portal blast at the Sugar Zone. Since October the ramp was advanced to over 850 meters in length and begun shipping ore to Barrick Gold for custom milling from ore developed on the 375 level.

With production under our bulk sampling program well underway, the commercial permitting process has begun. This process is expected to take 12-18 months which may coincide well with completion of the bulk sample program. During the intervening period, the plan is to continue with underground development which would include the ramp, underground infrastructure including ventilation and setting up stopes to be ready for mining.

The commercial production target is 600 tonnes/day. Milling options are currently being studied and a tailings facility will form part of our permit application so that an on-site milling facility can eventually be built.

Harte gold initiated a significant geophysical program between the Sugar Zone and the Wolf Zone. The Contact Zone where Hemlo-style mineralization has been found in sericite schists up to 45 meter wide and the Gossan Zone located on the west side of Dayohessarah Lake will be a focus for future exploration.

20162016 was a very busy year for Harte Gold as mining was in full swing with ore being delivered to Barrick Gold Corporation's Hemlo mill throughout the year.

Exploration efforts both near-mine and regionally are progressing at an aggressive pace with 6 drill rigs now working at the Sugar Zone and the newly discovered Middle Zone and the Wolf Zone. It is expected that the next resource update will include resources at the Middle Zone which could be incorporated into an updated mine plan and Technical Report.

2017 At the Sugar Zone deposit four drill rigs are actively completing infill and step-out drilling to move resources to the Measured, Indicated and Inferred categories. Infill drilling at the Sugar Zone upper 500 meters is now complete and work on an updated resource statement is underway. Step-out drilling targeting resource extensions at a depth below 500 meters is currently underway to extend the down-dip extension to 1,000 meters targeting Inferred resources. Step-out drilling at the Sugar Zone has returned significant intersections to the north within a previously undrilled area. This work has brought Sugar Zone mineralization to within 300 meters of the Middle Zone, further suggesting potential convergence of both zones

Drilling at the Middle Zone continues with three drill rigs active. Drilling has returned some excellent results including intersections of $13.02 \mathrm{~g} / \mathrm{t}$ gold over 4.50 meters in hole WZ-17-79W and $13.68 \mathrm{~g} / \mathrm{t}$ gold over 7.02 meters in hole SZ-17-86W. Hole WZ-17-92 confirms mineralization continues north of the Gabbro intrusion towards the Wolf Zone. One drill rig is being mobilized to test mineralization north of the Gabbro intrusion.

A property-wide MAG and HTEM survey has been completed and results interpreted. The MAG has been instrumental in outlining the geologic structures on the property and combined with the HTEM survey, has identified five new significant anomalies on the property. The strongest
conductor is on the west side of the property and is hosted at the contact of a volcanic and sedimentary unit, now referred to as the "Eagle Zone".

Early drilling at the Wolf, Lynx and Fisher Zones has demonstrated on-strike continuity of mineralization. Further definition of these areas will be enhanced using down-hole geophysics to better define potential mineralized structures and refine drill targets.

IP geophysics and soil sampling completed over the summer at the Marten Zone have identified areas to be drilled. Historical grab samples have returned anomalous gold, lead and zinc within the target area.

Technica Group Inc. completed the 30,000 tonne Phase 1 Commercial Production program. Five development sills are now developed in this area and is ready to begin long-hole drilling and mining of the stopes in the late spring to match the commissioning of the mill. Technica is now completing the upgrades of the underground power and ventilation critical for the start of commercial production.

Civil works for the mill began in Q2 as well as site preparation of the tailings management facility. The outer wall footings of the mill are completed, erection of walls is underway to prepare for the mill building shell and foundation work is well under way. It is expected the mill building will be fully erected by year end. Most equipment has been ordered and has begun arriving at site.

2018 A Mineral Resource Estimate dated February 15, 2018 contains an Indicated Mineral Resource Estimate of $2,607,000$ tonnes grading $8.52 \mathrm{~g} / \mathrm{t}$ for 714,200 ounces of contained gold and an Inferred Mineral Resource Estimate of 3,590,000 tonnes, grading $6.59 \mathrm{~g} / \mathrm{t}$ for 760,800 ounces of contained gold, using a $3.0 \mathrm{~g} / \mathrm{t}$ Au cut-off. The Company also completed a Preliminary Economic Assessment with an effective date of March 31, 2018, outlining 80,700 ounces of annual average gold production at an All-In Sustaining Cash Cost ("AISC") of US\$708/oz Au over an 11-year mine life.

All commercial production permits were issued in September. Process plant construction and transition to grid power were completed in September. First gold production was announced in mid-October. Gold doré bars are being produced through the gravity circuit and a high-grade concentrate is being produced through the flotation recovery circuit for offsite processing.

Official Mine Opening which was attended by the Premier of Ontario and Minister of Energy, Northern Development and Mines occurred October 24th, 2018. The Company bought down the royalty on the Sugar Zone property from $3.5 \%$ to $2.0 \%$ effective October 31, 2018.

Process plant commissioning was completed in early November. Since that time the Company has increased throughput to achieve the initial targeted rate of 575 tpd .

Sill development is on-going and long-hole stoping between the 140 and 155 levels off the Sugar Zone South ramp has begun. Results of the first production stope blast achieved expectations.

Underground development continues at the Sugar Zone North and South ramps. During September, the average advance rate of 8 meters per day was ahead of plan. The installation of critical underground infrastructure to support ventilation, power and pumping has been completed. In addition, the mine return air ventilation fan was successful installed and the transition to grid power for most site power requirements substantially completed. Redpath is ramping up its underground mine personnel to achieve targeted ore sill development rates. Harte Gold's current
permits allow for underground mining and mill processing rates of 550 tpd and 575 tpd respectively. Harte Gold will apply to increase both categories to 800 tpd in Q1 2019.

Near Mine Exploration infill drilling at the Sugar and Middle Zones for 2018 has concluded. Approximately 62,000 meters was drilled with a focus on the upgrade of Inferred Mineral Resources to the Indicated category. The drill program was successful and is expected to improve overall modelled grade of the Resources. Results will be factored into an updated $\mathrm{NI} 43-$ 101 Mineral Resource Estimate targeted for early 2019. Step-out drilling underway will continue to mid-December. Approximately 30,000 meters has been drilled to-date, targeting extension of known mineralization at the Sugar, Middle and Wolf Zones, as well as discovery of new potential zones of mineralization like the Fox Zone. Information provided from the Company's downhole IP program completed in August has been successful identifying several drill targets, including a chargeability anomaly currently being drilled to test the convergence of the Middle and Wolf Zones. Downhole geophysics has been a highly successful tool used in the past; earlier work led to the deep Sugar Zone discovery at a depth of 1,000 meters. The Company has also started deep drilling at the Sugar Zone, approximately 1,500 meters below surface and 500 meters below the current extent of Inferred Mineral Resources, illustrated below. The intent of deep drilling is to test continuity of mineralization down dip and to potentially follow up with further downhole IP to develop deep drilling targets.

2019 Commercial production was officially declared for the sugar zone mine on January $8^{\text {th }}$ 2019 after a successful commissioning period. The start up, commissioning and commercial production was achieved over a duration of three months. Permits initially allowed for 575 tonnes per day of production but on May $3^{\text {rd }} 2019$ the Ministry of Energy and Northern Development and Mines and the Ministry of Environment conservation and Parks, issued permits authorizing an increase in mine production to 800 tpd. Production continued to ramp up in the ladder half of the year and in August 2019 it was stated that gold production had increased 42\% quarter over quarter (Q1 to Q2) to 7754 ounces with an average head grade of $6.01 \mathrm{~g} / \mathrm{t}$. The mill processed 53,216 tonnes of ore ( 591 tpd average) which was a $39 \%$ increase quarter over quarter (Q1 to Q2).

On February $20^{\text {th }} 2019$ an updated NI 43-101 Resource Report based on 90,000 meters of 2018 drilling was released. The report announced indicated mineral resources at 1.1 million ounces grading $8.12 \mathrm{~g} / \mathrm{t}$ Au and inferred mineral resources at 558,000 ounces grading $5.88 \mathrm{~g} / \mathrm{t}$ Au. It also confirmed grade continuity within the sugar zone as well as an extension of mineralization along strike to the Wolf Zone. An updated feasibility study was also subsequently released on April $8^{\text {th }}$ 2019 indicating a probable mineral reserve of 3.9 million tonnes at $7.1 \mathrm{~g} / \mathrm{t} \mathrm{Au}$.

Near-mine infill drilling continued in 2019 and was focussed on the Middle and Sugar Zone-South areas. Drill results released on August $14^{\text {th }} 2019$ announced an increase to the mineralized extent of the Sugar Zone; mineralization was extended 300 m south along strike and 200 m down dip. Mineralized intersections returned values up to $23.59 \mathrm{~g} / \mathrm{t}$ Au over 2.02 m . An extension of the upper zone along strike and down dip was also announced, further adding to mineable resources.

Regional exploration on the property in 2019 included prospecting, VLF surveys, and diamond drilling (Hambleton Lake, TNT, K7, and Flat Lake areas). Prospecting in the summer has revealed gold zinc and copper values of up to $253 \mathrm{ppb}, .79 \%$ and $.69 \%$ respectively north-northeast of the Sugar zone which potentially suggests a trend in excess of 10km. Drilling results from Hambleton Lake and K7 returned anomalous gold values of up to 730 ppb. On December $2^{\text {nd }} 2019$ Harte

Gold announced the discovery of a new high grade gold showing called the TT8 Zone located approximately 16.5 km Southeast of the Sugar Zone. Initial surface chip sampling showed gold values from $11 \mathrm{~g} / \mathrm{t}$ to $247 \mathrm{~g} / \mathrm{t}$ along a 40 meter strike length hosted in a mafic and greywacke sediments. Hanging wall and footwall samples also ran gold values up to $2.64 \mathrm{~g} / \mathrm{t}$. The area had previously been mapped as tonalite by the OGS and is believed to be an extension of the Nameigos Greenstone belt.

2020 Regional exploration on the property in 2020 was focused predominately on the TT8 Zone and surrounding area. Work completed included diamond drilling, soil sampling, geophysical surveys, and prospecting. Drill results from the winter 2020 drill program were positive with the TT8 quartz vein intersected in 13 of the 15 holes drilled. Highlights of the drill assays include $11.14 \mathrm{~g} / \mathrm{t}$ Au over 1.18 metres, in TT8-20-01 and $33.1 \mathrm{~g} / \mathrm{t}$ Au over 0.68 metres in TT8-20-06. This expanded mineralization 300 metres along strike and 600 metres down-dip from the original showing.

On November 12, 2020 Harte Gold announced that summer prospecting had returned five new gold showings on strike with the previously discovered TT8 Showing. These new showings extend the TT8 mineralization trend to 11 km . Initial channel sampling and grab samples from these showings have revealed gold values up to $102 \mathrm{~g} / \mathrm{t}$ in quartz veins and $2.8 \mathrm{~g} / \mathrm{t}$ in the hanging and footwall rocks. In addition to this, prospecting also confirmed the connection of the Kabinakagami Lake Greenstone Belt and the Dayohessarah Lake Greenstone Belt via a narrow extension running through the TT8 area.

In December 2020 a short 6 hole, 527 meter drill program was conducted on the Money Zone to test it's on-strike and down-dip potential.

In 2021 exploration focused on conducting IP-mag surveys along the 11 km of new greenstone belt discovered in 2020, in particular where the six new high-grade gold showings (TT8, Money, Smokin' Aces, Long Shot, Big Bear and Southern) are located. This was followed by drilling 46 holes totalling 4,939 meters primarily along strike and down-dip of the six high-grade gold showings. Multiple IP-mag targets remain to be tested along the 11 km of new greenstone belt. Several high-grade gold intervals were intersected near the Money, TT8 and Big Bear showings. During 2021 additional drill programs were conducted at the 007, Fisher, Hambleton, K7 South and Lynx Zones. Prospecting was also carried out on all 142.9 line-km of grid lines that were cut in early 2021 for the IP-mag surveying. Prospecting was also carried out in the 007 Zone area. Exsics Exploration also conducted 30 days of prospecting in the Flat Lake area. No significant gold values were obtained from this work. A downhole IP survey was also conducted in four holes located in the Hambleton Zone to follow-up wide zones of pink-brown biotite alteration hosting minor po-py mineralization. This type of alteration and mineralization is present at the SugarMiddle Zones. A review of the drill hole geochemistry and lithological model for the Sugar Zone deposit was also conducted by Mr. Simon Griffiths, Third Planet Exploration Services Ltd. Mr. Griffiths also reviewed the soil geochemical results from the Hambleton Zone with the intent of finding pathfinder elements to be use during mine and regional exploration. A total of 775 soils samples were also taken by The Haveman Brothers at the Hambleton West grid as follow-up to recommendations made from Mr. Griffiths, Third Planet Exploration. SGS Canada Inc. was also contracted to conduct a lithological model of the Sugar Zone property. Mr. Blair Hrabi, SRK Consulting also conducted detailed structural mapping and interpretation of the TT8, Money and 007 Zones. Pioneer Exploration were contracted to perform detailed drone-mag surveys of the Hambleton, Lynx-K7 and Cigar Lake areas. Mr. Joe Mihelcic, Clearview Geophysics Ltd.
conducted a geophysical review of all ground and airborne geophysics conducted on the Sugar Zone property. Limited trenching was also performed at the K7 South and 007 Zones. In the spring of 2021 Sumac Geomatics Inc. were contracted to perform a property wide LIDAR survey which also included detailed orthophotos. Vancouver Petrographics also performed detailed petrographic work on ten core samples from the TT8 area to assist in determining differences between greywacke sediments and tonalite intrusive in the area.

### 4.0 Geological Setting

### 4.1 Regional Geology

The DGB is situated between two larger greenstone belts; the Hemlo Greenstone Belt to the west and the Kabinakagami Greenstone Belt to the east. These greenstone belts are part of the larger, east trending Schreiber-White River Belt of the Wawa Subprovince of the Superior Craton (Figure 3). The Late Archean DGB trends northwest and forms a narrow, eastward concave crescent. The belt is approximately 36 km in length and varies in width from 1.5 to 5.5 km . Principal lithologies in the belt are moderately to highly deformed metamorphosed volcanics, volcaniclastics and sediments that have been enclosed and intruded by tonalitic to granodioritic quartz-porphyry plutons.

The greenstone belt is bordered to the east by the Strickland Pluton and to the west by the Black Pic Batholith. The Danny Lake Stock borders the south-western edge of the DGB. The Strickland Pluton is characterized by a granodioritic composition, quartz phenocrysts, fine grained titanite, and hematitic fractures. The Black Pic Batholith is similar to the Strickland Pluton, but locally more potassic. The Black Pic Batholith also contains interlayers of monzogranite. The Danny Lake Stock is characterized by hornblende porphyritic quartz monzonite to quartz monzodiorite (G. M. Stott, 1999).

The DGB has been metamorphosed to upper greenschist to amphibolite facies. The Strickland Pluton seems to have squeezed the greenstone belt and imposed upon it a thermal metamorphism. Most of the mafic volcanics are composed primarily of plagioclase and hornblende. Almandine garnets are widely observed in the clastic metasediments and locally, along with pyrope garnets, in the mafic volcanics (G.M. Stott, 1996a,b,c).

Alteration throughout the belt consists of diopsidation, albitization, weak magnesium biotization, weak carbonatization and moderate to strong silicification which accompanied the emplacement of the porphyry dykes/sills and quartz veining.

The belt has been strongly foliated, flattened and strained. Deformation seen in the supracrustal rocks has been interpreted to be related to the emplacement of the Strickland Pluton. Strongly developed metamorphic mineral lineations in the supracrustal rocks closely compare with the orientations of the quartz phenocryst lineations seen in the Strickland Pluton. This probably reflects a constant strain aureole imposed by the pluton upon the belt (G.M. Stott, 1996a,b,c). The strain fabric is best observed a few hundred meters from the Strickland Pluton in the Sugar Zone, which has been characterized as the most severely strained part of the belt. The Sugar Zone is defined by sets of parallel mineralized quartz veining, quartz flooding of strongly altered wall-rock, thin intermediate porphyry lenses and dykes/sills parallel to stratigraphy and foliation, and gold mineralization.

Foliations and numerous top indicators define a synclinal fold in the central portion of the belt. The synclinal fold has been strongly flattened and stands upright with the fold hinge open to the south and centered along Dayohessarah Lake.


Figure 3 - Regional Geology

### 4.2 Property Geology

Near Dayohessarah Lake, the belt is dominated by a basal sequence of massive to pillowed mafic volcanics, commonly with ellipsoidal, bleached alteration pods, overlain by intermediate tuff and lapilli tuff. The tuffaceous units rapidly grade upwards to a sedimentary sequence consisting of greywacke and conglomerates derived from volcanics, sediments and felsic intrusive sources (G. M. Stott, 1996a,b,c). Several thin, continuous cherty sulphide facies iron formations are found in the mafic volcanic sequence. Spinifex textured komatiitic flows stratigraphically underlie the main sedimentary sequence and can be traced around the north end of Dayohessarah Lake. Also, at the north end of Dayohessarah Lake, mafic and ultramafic sills and stocks underlie the komatiites (Figure 4).

Several fine to medium grained, intermediate feldspar porphyry dykes/sills have intruded and swarmed the belt. Swarming of the intermediate porphyry dykes is more intense east of Dayohessarah Lake. Stott has interpreted the porphyry sills and associated porphyry bodies to
be related to the Strickland Pluton. A smaller granitic quartz porphyry body containing some sulphide mineralization is located northwest of Dayohessarah Lake. The porphyritic texture of the dykes/sills is often nearly, or completely, obliterated by the degree of foliation in the greenstone belt, or by the degree of shear in the Sugar Zone. These intermediate dykes/sills vary in abundance across the property, but increase in regularity within, and around, the Sugar Zone. There is also a consistent, weak pervasive silicic alteration in the intermediate intrusives, as well as consistently trace amounts of very fine-grained disseminated pyrite.

The major linear structure recognized on the property is the Sugar Deformation Zone ("SDZ"), which trends northwest-southeast for approximately 3.5 km and dips southwest between $65^{\circ}$ and $75^{\circ}$. The SDZ appears to be spatially related to the Strickland Pluton and is a complex system with strain intensities varying from strongly deformed-pillow mafic volcanics to undeformed massive mafic flows to anastomosing linear areas. Stratigraphically-conformable porphyritic intermediate intrusions swarm through the SDZ. Both the mafic volcanics and the intermediate intrusives exhibit moderate linear fabrics along with hydrothermal alteration (i.e., silicification).

In general, the north-westerly striking, south-westerly dipping stratigraphy hosting the gold mineralized portions of the Sugar Zone can be subdivided into the following units:

- Hanging Wall Volcanics;
- Upper Zone (Sugar Zone mineralization);
- Interzone Volcanics;
- Lower Zone (Sugar Zone mineralization);
- Footwall Volcanics

The Hanging Wall, Interzone and Footwall volcanic horizons consist predominantly of massive and pillowed basalt flows generally striking northwest and dipping at an average angle of $64^{\circ}$ to the southwest. Coarse to very coarse grained, locally gabbroic-textured phases form a significant component of the Hanging Wall mafic volcanic package. It is believed that these phases represent thick, slowly-cooled portions of the massive mafic flows, as they commonly grade into finer grained, more recognizable basaltic flows, and eventually even pillow flows. In much of the area which drilling on the Sugar Zone was carried out, a distinctive, very coarse grained mafic volcanic flow was observed consistently about 15 m stratigraphically above the Upper Zone. Other than this unit, specific mafic flows, as well as intermediate porphyry units, are nearly impossible to interpret/distinguish between holes.

The Upper and Lower zones range in thickness from 1.5 to 10 m , strike at $140^{\circ}$ and dip between $65^{\circ}$ and $75^{\circ}$ with minor undulations.

The auriferous Wolf Zone lies in the northern extent of the SDZ, but drilling between the two zones indicates that the zones are complexly separate from each other. Like the Sugar Zone, the Wolf Zone is north-north-westerly striking and south-westerly dipping. Unlike the Sugar Zone, there is only one gold mineralized zone, and not two or more parallel zones.


Figure 4 - Property Geology

A northerly-striking, sub-vertically dipping, dark grey-black, diabase dyke intrudes the older rock types in the greenstone belt, and crosscuts the SDZ. The diabase obliterates the SDZ when it is encountered. The diabase dyke is aphanitic around the edges and, where thick enough to do so, grades to a coarse-grained euhedral rock in the middle of the dyke. The dyke exhibits very coarse-grained greenish quartz-epidote phenocrysts up to 3 cm across throughout. The dyke is weakly pervasively magnetic. A very small amount of lateral movement of the zones has been interpreted locally on either side of the dyke, suggesting that very minor dyke-related faulting has occurred. There are at least two more diabase dykes on the property. They strike at 35 degrees across the northern portion of the belt. These dykes are up to 40 m across, and are similar in appearance and mineralogy to the dyke that cuts through the Sugar Zone.

Other than the diabase, the youngest intrusive rocks observed on the property are white to pale grey, fine grained to medium grained and occasionally pegmatitic felsite dykes. The dykes generally consist of varying amounts of plagioclase, quartz and muscovite. These generally thin dykes strike northeast and where they intersect the SDZ, they completely wipe out the zone. These dykes are undeformed and clearly postdate the mineralization and deformation events.

### 5.0 Mineralization

### 5.1 Sugar Zone

The auriferous Upper and Lower zones of the Sugar Zone lie within the SDZ. They are defined as highly strained packages consisting of variously altered mafic volcanic flows, intermediate porphyritic intrusions and boudinaged auriferous quartz veins. The two zones range in true thickness from about 1.5 to 10 m , and are separated by 20 to 30 m of barren mafic volcanics. A high-grade section of the Lower zone between lines $13+000 \mathrm{~N}$ and $12+900 \mathrm{~N}$ has been the focus of a bulk sample study and is referred to as the Jewelry Box.

Each zone is made up of one or more porphyritic intrusions, flanked by altered basalt and hosting stratigraphically conformable quartz veins. Alteration within the mafic volcanic portions of the zones consists primarily of silicification (both pervasive and as quartz veining), diopsidation and biotization. The porphyry units of the zones exhibit biotite and silica alteration as well, but no diopside alteration.

The Upper and Lower zones appear geologically consistent both down dip and along strike. The Lower Zone has consistently larger widths, as well as mostly consistently higher grades of gold mineralization, however both the width and the gold grade within each zone seem to follow the same trends across the zone. That is to say, that where the Upper Zone exhibits larger widths and higher gold grades, the Lower Zone also exhibits larger widths and higher gold grades. The zones are observed on surface to pinch and swell over distances of 50 m or more.

Gold mineralization mostly occurs in quartz veins, stringers and quartz flooded zones predominantly associated with porphyry zones, porphyry contact zones, hydrothermally altered basalts and, rarely, weakly altered or unaltered basalt within the Upper and Lower zones.

Fine to coarse grained specks and blebs of visible gold are common in the Sugar Zone quartz veins, usually occurring within marginal, laminated or refractured portions of the veins. The visible gold itself is often observed to be concentrated within thin fractures, indicating some degree of remobilization. Quartz veins and floods also contain varying amounts of pyrrhotite, pyrite,
chalcopyrite, galena, sphalerite, molybdenite and arsenopyrite. The presence of galena, sphalerite and/or arsenopyrite is a strong indicator of the presence of visible gold. Pyrite, chalcopyrite and, rarely, molybdenite form a minor component of total sulphides and do not appear to be directly related to the presence of gold mineralization.

Other mineralized zones have been observed between, above and below the Sugar Zone Upper and Lower zones, in diamond drilling. Most of these intercepts are believed to be quartz veining originating in either the Upper or Lower zone, that have been diverted from the sheared part of the zone, up to 30 m from the main bodies of mineralization. One of these zones is the historically discovered Zoe Zone, which has been recently renamed the Lynx Zone, which lies east of the southern end of the Sugar Zone.

### 5.2 K7 South Zone

Prospecting in 2018 determined the western half of the K7 South area is underlain by mainly massive to pillowed mafic volcanics which are cut by several feldspar porphyry, pegmatite and granodiorite dykes/sills. The mafic volcanics and feldspar porphyries are at times weak to moderately biotite-sericite altered and host 1-2\% disseminated py-po mineralization and minor quartz flooding. These rock types, alteration and mineralization are similar to those at the SugarMiddle Zone. Rock sampling returned grades of 61-96 ppb Au, and highs of $1750 \mathrm{ppm} \mathrm{Cu}, 195$ ppm Pb and 387 ppm zinc. The eastern half of the K7 area appears to be underlain by mainly granodiorite of the Strickland Pluton with lessor massive mafic volcanic, pegmatite and feldspar porphyry dykes/sills.

In 2019 a VLF survey was completed over the area. Weak VLF trends were noted to be associated with the anomalous gold and base metal values. A stronger, folded, VLF trend was also noted to the south which is currently unexplained as no outcrops were obsered in this area. The area has been interpreted to be underlain by mafic volcanics by the Ontario Geological Survey.

### 6.0 2021 Diamond Drilling

### 6.1 Sample Collection, Preparation, Analyses and Security

NQ drill core is placed in core boxes by drillers. All drill core was delivered to the core processing facility in White River, Ontario where it undergoes geotechnical and geological logging by the geotechnician and geologist. The following describes the core logging process:

- The core is oriented in the box with the saddle pointing downhole, and rock quality data (RQD) is collected from each 3m run.
- The geotechnician marks out 1.0 m intervals with a blue China marker and prepares a box list stating the length of core in each box. Aluminum tags are made and stapled to the end of each box.
- Core is photographed dry and wet.
- The geologist logs the geology of each hole, paying close attention to lithologies, alteration, structures, veining and mineralization.
- $\quad$ Sample collection begins with the marking of sample intervals with a red China marker by the geologist. The sample is given a sample tag. Sample intervals range from 50 cm to
1.5 m , and are taken not to cross major lithology boundaries. Standards and blanks are alternately inserted every $10^{\text {th }}$ sample for QAQC.
- The core is cut with a Vancor diamond core saw by the geotechnician, and placed back in the box. Half core samples are taken from the box and bagged individually. The technician always takes the back half of the core for shipping, while the front half stays in the box.
- The individually bagged samples are placed in rice bags and delivered to Actlabs in Thunder Bay, Ontario. Samples are delivered either in person by Harte Gold staff, or by Greyhound Bus.
- Core is stored in racks in a locked fenced in yard at the core processing facility in White River, Ontario.


### 6.2 Laboratory Methods

## Sample Preparation

Samples arrive at Actlabs at 217 Round Blvd, Thunder Bay, Ontario, where they are received and documented. Once the samples arrive in the laboratory, Actlabs will ensure that they are prepared properly.

As a routine practice with rock and core, the entire sample is crushed to a nominal minus 10 mesh ( 1.7 mm ), mechanically split (riffle) to obtain a representative sample and then pulverized to at least 95\% minus 150 mesh (106 microns).

All of Actlabs steel mills are now mild steel and do not induce Cr or Ni contamination. Quality of crushing and pulverization is routinely checked as part of their quality assurance program. All equipment is cleaned using quartz and air from a compressed air source. Blanks, sample replicates, duplicates, and internal reference materials (both aqueous and geochemical standards) are routinely used as part of Actlabs quality assurance program.

## RX1 $\quad$ Crush (<7kg) up to $90 \%$ passing 2 mm , riffle split ( 250 g ) and pulverize (mild steel) to

 $95 \%$ passing 105u. Cleaner sand included
## 1A2 - (1A2-30 or 50) Au Fire Assay - AA

## Fire Assay Fusion

A sample size of 5 to 50 grams 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 then preheated at $850^{\circ} \mathrm{C}$, intermediate $950^{\circ} \mathrm{C}$ and finish $1060^{\circ} \mathrm{C}$ with the entire fusion process lasting 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 $950^{\circ} \mathrm{C}$ to recover the Ag (doré bead) +Au .

## AA Finish

The entire Ag dore bead is dissolved in aqua regia and the gold content is determined by $A A$ (Atomic Absorption). AA is an instrumental method of determining element concentration by introducing an element in its atomic form, to a light beam of appropriate wavelength causing the atom to absorb light. The reduction in the intensity of the light beam directly correlates with the concentration of the elemental atomic species. On each tray of 42 samples there is two blanks, three sample duplicates and 2 certified reference materials, one high and one low (QC 7 out of 42 samples). We generally rerun all gold by fire assay gravimetric over $3,000 \mathrm{ppb}$ to ensure accurate values

Code 1A2 (Fire Assay-AA) Detection Limits (ppb)

| Element | Detection <br> Limit | Upper <br> Limit |
| :---: | :---: | :---: |
| Au | 5 | 5,000 |

## 1A3 - (1A3-30 or 50) - Au Fire Assay - Gravimetric

## Fire Assay

A sample size of 5 to 50 grams 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 then preheated at $850^{\circ} \mathrm{C}$, intermediate $950^{\circ} \mathrm{C}$ and finish $1060^{\circ} \mathrm{C}$ with the entire fusion process lasting 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 $950^{\circ} \mathrm{C}$ to recover the Ag (doré bead) +Au .

Au is separated from the Ag in the doré bead by parting with nitric acid. The resulting gold flake is annealed using a torch. The gold flake remaining is weighed gravimetrically on a microbalance.

Code 1A3 (Fire Assay-Gravimetric) Detection Limits ( $\mathrm{g} / \mathrm{mT}$ )

| Element | Detection <br> Limit | Upper <br> Limit |
| :---: | :---: | :---: |
| Au | $0.03(30 \mathrm{~g})$ | 10000 |
|  | $0.02(50 \mathrm{~g})$ |  |

## 1A4 and 1A4-1000 - Au Fire Assay-Metallic Screen

Metallic Screen

A representative 500 g split ( $1,000 \mathrm{~g}$ for Code $1 \mathrm{~A} 4-1000$ ) is sieved at 100 mesh ( 149 micron) with fire assays performed on the entire +100 mesh and 2 splits on the -100 mesh fraction. The total amount of sample and the +100 mesh and -100 mesh fraction is weighed for assay reconciliation. Measured amounts of cleaner sand are used between samples and saved to test for possible plating out of gold on the mill. Alternative sieving mesh sizes are available but the user is warned that the finer the grind the more likelihood of gold loss by plating out on the mill.

## Fire Assay

A sample size of 5 to 50 grams 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 then preheated at $850^{\circ} \mathrm{C}$, intermediate $950^{\circ} \mathrm{C}$ and finish $1060^{\circ} \mathrm{C}$ with the entire fusion process lasting 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 $950^{\circ} \mathrm{C}$ to recover the Ag (doré bead) +Au .

Au is separated from the Ag in the doré bead by parting with nitric acid. The gold (roasting) flake remaining is weighed gravimetrically on a microbalance. Two splits on the -150 micron fraction are weighted and analyzed by fire assay with a gravimetric finish. A final assay is calculated based on the weight of each separated fraction and obtained Au values.

Code 1A4 (Fire Assay-Metallic Screen) Detection Limits ( $\mathrm{g} / \mathrm{mT}$ )

| Element | Detection Limit |
| :---: | :---: |
| Au | 0.03 |

## Ultratrace 6 - "Near Total" Digestion - ICP and ICP/MS

Ultratrace 6 combines the 4 -acid digestion ( $\mathrm{HF}, \mathrm{HClO}_{4}, \mathrm{HNO}_{3}$ and HCl ) with analysis by ICP and ICP/MS. Resistate minerals are not digested.

## "Near Total" Digestion - ICP Portion

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 incipient dryness. After incipient dryness is attained, samples are brought back into solution using aqua regia.

With this digestion, certain phases may be only partially solubilized. These phases include zircon, monazite, sphene, gahnite, chromite, cassiterite, rutile and barite. Ag greater than 100 ppm and Pb greater than 5000 ppm should be assayed as high levels may not be solubilized. Only sulphide sulfur will be solubilized.

The samples are then analyzed using a Varian ICP. QC for the digestion is $14 \%$ for each batch, 5 method reagent blanks, 10 in-house controls, 10 samples duplicates, and 8 certified reference materials. An additional $13 \%$ QC is performed as part of the instrumental analysis to ensure quality in the areas of instrumental drift.

## "Near Total" Digestion - ICP/MS Portion

Additional elements are determined by ICP/MS on the multi-acid digest solution above. The samples are diluted and analyzed on a 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. Instrument is recalibrated every 80 samples.

Extraction of each element by 4-Acid Digestion is dependent on mineralogy. Sulphide sulphur and soluble sulphates are extracted.

Code Ultratrace-6 Elements and Detection Limits (ppm)

| Element | Detection Limit | Upper Limit | Reported By |
| :---: | :---: | :---: | :---: |
| Ag | 0.05 | 100 | ICP\&ICP/MS |
| AI | 0.01\% | 10\% | ICP |
| As | 0.1 | 10,000 | ICP/MS |
| Ba | 1 | 5,000 | ICP/MS |
| Be | 0.1 | 1,000 | ICP/MS |
| Bi | 0.02 | 2,000 | ICP/MS |
| Ca | 0.01\% | 50\% | ICP |
| Cd | 0.1 | 1,000 | ICP/MS |
| Ce | 0.1 | 10,000 | ICP/MS |
| Co | 0.1 | 500 | ICP/MS |
| Cr | 1 | 5,000 | ICP/MS |
| Cs | 0.05 | 100 | ICP/MS |
| Cu | 0.2 | 10,000 | ICP/MS |
| Dy | 0.1 | 5,000 | ICP/MS |
| Er | 0.1 | 1,000 | ICP/MS |
| Eu | 0.05 | 100 | ICP/MS |
| Fe | 0.01\% | 50\% | ICP |
| Ga | 0.1 | 500 | ICP/MS |
| Ge | 0.1 | 500 | ICP/MS |
| Gd | 0.1 | 5,000 | ICP/MS |
| Hf | 0.1 | 500 | ICP/MS |
| Hg | 10 ppb | 10,000 ppb | ICP/MS |
| Ho | 0.1 | 1,000 | ICP/MS |
| In | 0.1 | 100 | ICP/MS |
| K | 0.01\% | 5\% | ICP |
| La | 0.1 | 10,000 | ICP/MS |
| Li | 0.5 | 400 | ICP/MS |
| Lu | 0.1 | 100 | ICP/MS |
| Mg | 0.01\% | 50\% | ICP |
| Mn | 1 | 10,000 | ICP |
| Mo | 0.1 | 10,000 | ICP/MS |


| Element | Detection Limit | Upper Limit | Reported By |
| :---: | :---: | :---: | :---: |
| Na | 0.01\% | 3\% | ICP |
| Nb | 0.1 | 500 | ICP/MS |
| Nd | 0.1 | 10,000 | ICP/MS |
| Ni | 0.5 | 5,000 | ICP/MS |
| P | 0.001\% | 10\% | ICP |
| Pb | 0.5 | 5,000 | ICP/MS |
| Pr | 0.1 | 1,000 | ICP/MS |
| Rb | 0.2 | 5,000 | ICP/MS |
| Re | 0.001 | 100 | ICP/MS |
| S+ | 0.01\% | 20\% | ICP |
| Sb | 0.1 | 500 | ICP/MS |
| Sc | 1 | - | ICP |
| Se | 0.1 | 1,000 | ICP/MS |
| Sm | 0.1 | 100 | ICP/MS |
| Sn | 1 | 200 | ICP/MS |
| Sr | 0.2 | 1,000 | ICP/MS |
| Ta | 0.1 | 1,000 | ICP/MS |
| Tb | 0.1 | 100 | ICP/MS |
| Te | 0.1 | 500 | ICP/MS |
| Th | 0.1 | 500 | ICP/MS |
| Ti | 0.0005\% | - | ICP |
| TI | 0.05 | 500 | ICP/MS |
| Tm | 0.1 | 1,000 | ICP/MS |
| U | 0.1 | 10,000 | ICP/MS |
| V | 1 | 1,000 | ICP/MS |
| W | 0.1 | 200 | ICP/MS |
| Y | 0.1 | 10,000 | ICP/MS |
| Yb | 0.1 | 5,000 | ICP/MS |
| Zn | 0.2 | 10,000 | ICP/MS |
| Zr | 1 | 5,000 | ICP/MS |

### 6.3 2021 K7 South Drilling

Three diamond drill holes totalling 1,140 meters were drilled at the K7 South Zone during 2021. Drilling occurred from October 23, 2021 to November 18, 2021. One drill rig (G4-09) was supplied by G4 Drilling Canada Ltd. to perform drilling.

The intent of the 2021 K7 South Zone drill program was to drill test several, weak to strong VLF anomalies that are coincident with weak to moderately anomalous gold and base metal values obtained by prospecting and trenching. A total of $\$ 250,584$ was spent on this drill program which included costs such as drilling, assays and salaries, etc. The average cost per meter was \$219.81.

Table 1 provides a summary of drill hole information.
Table 1 - K7 South Zone - Drill Hole Summary Table

| \# of Holes | Hole ID | Easting | Northing | Dip | Azimuth | Length (m) | Claim \# |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | K7S-21-01 | 650766.354 | 5393227.654 | -45 | 50 | 291 | 531157,531165 |
| 2 | K7S-21-02 | 650907.259 | 5393321.587 | -45 | 60 | 342 | 531157,531165 |
| 3 | K7S-21-03 | 650778.254 | 5393554.248 | -45 | 40 | 507 | $531157,531165,531170$ |
|  |  |  |  |  | Total: | $\mathbf{1 1 4 0}$ |  |

A geological legend, drill logs, plans and cross sections for all holes are presented in Appendix B, Appendix C, Appendix D and Appendix E, respectively.

### 6.4 Results

A total of 695 core samples were collected and 732 analysis were performed for gold by fire assay $A A$, gravimetric or metallic method. If any fire assay AA finished with a value of over $3 \mathrm{~g} / \mathrm{t}$ or 10 $\mathrm{g} / \mathrm{t} A u$, it would be re-assayed by gravimetric finish or screen metallic assay respectively. In addition, 15 samples were also analysed by the Ultratrace 6, 61 element "near total digestion" ICP, ICP/MS method.

All of the samples were shipped to Actlabs in Thunder Bay, Ontario.
Table 2 provides a summary of the assay results per hole.

Table 2 - K7 South Zone - Assay Results Per Hole

|  | Hole \# | Zone | Au g/t | Width (m) | From (m) | To (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | K7S-21-01 | K7 South | 0.98 | 1.00 | 273 | 274 |
| 2 | K7S-21-02 | K7 South | 0.29 | 0.44 | 118.66 | 119.1 |
| 3 | K7S-21-03 | K7 South | 0.10 | 0.48 | 262.52 | 263 |

Detailed assay results can be found in the drill logs attached in Appendix C and drill certificates from Actlabs can be found in Appendix F. Actlabs invoices are found in Appendix G. G4 Drilling Canada Ltd. invoices are in Appendix H.

### 7.0 Conclusions and Recommendations

Between October 23, 2021 to November 18, 2021 Harte Gold Corporation performed a 3-hole, 1,140 meter diamond drill program at the K7 South Zone. The best gold value encountered during the drill program was $0.98 \mathrm{~g} / \mathrm{t}$ Au over 1.0 m from 273.0-274.0 meters in K7S-21-01. This interval, as are the weak intercepts in K7S-21-02 and 03, are related to narrow smokey quartz veins associated with weak to moderate sericite-biotite alteration hosted within mafic volcanics or at a mafic volcanic/greywacke contact.

Additional prospecting and trenching should be done in the area to further expose areas of interest that this drill program did not test.

### 8.0 Costs

A total of $\$ 250,584$ was spent during the K7 South drill program. Costs and cost distribution per claim are summarized in Tables 3 and 4. Drilling invoice and analytical cost summaries are provided in Tables 5 and 6, respectively.

Table 3-K7 South Zone - Summary of Costs

| Activity | Units |  | Cost per Unit | Total | $\%$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Drilling (3 holes) | 1140 | meters | $\$ 161.90$ | $\$ 184,567$ | $74 \%$ |
| Planning/Supervision | 27 | days | $\$ 692.28$ | $\$ 18,692$ | $7 \%$ |
| Drill Geologist | 27 | days | $\$ 285.56$ | $\$ 7,710$ | $3 \%$ |
| Core Cutter | 27 | days | $\$ 220.00$ | $\$ 5,940$ | $2 \%$ |
| Assays | 695 | samples | $\$ 36.17$ | $\$ 25,138$ | $10 \%$ |
| Truck (60 km x 3 trips/hole) | 540 | kilometers | $\$ 0.50$ | $\$ 270$ | $0 \%$ |
| R\&B - Supervisor | 27 | days | $\$ 89.00$ | $\$ 2,403$ | $1 \%$ |
| R\&B - Geologist | 27 | days | $\$ 89.00$ | $\$ 2,403$ | $1 \%$ |
| Report Writing | 5 | days | $\$ 692.28$ | $\$ 3,461$ | $1 \%$ |
| Total Program Cost |  |  |  |  |  |
|  |  |  |  |  |  |

Table 4 - K7 South Zone - Cost Per Claim

| Grouped Claim Number |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 531157 | 531165 | 531170 |  |
| Total Meters/ Claim | 491 | 584 | 65 | 1140 |
| \% of Total Meterage/Claim | 43\% | 51\% | 6\% | 100\% |
| Activity |  |  |  | Total Cost |
| Drilling (3 holes) | \$79,523 | \$94,602 | \$10,443 | \$184,567 |
| Planning/Supervision | \$8,053 | \$9,581 | \$1,058 | \$18,692 |
| Drill Geologist | \$3,322 | \$3,952 | \$436 | \$7,710 |
| Core Cutter | \$2,559 | \$3,045 | \$336 | \$5,940 |
| Assays | \$10,831 | \$12,885 | \$1,422 | \$25,138 |
| Truck (60 km x 3 trips/hole) | \$116 | \$138 | \$15 | \$270 |
| R\&B - Supervisor | \$1,035 | \$1,232 | \$136 | \$2,403 |
| R\&B - Geologist | \$1,035 | \$1,232 | \$136 | \$2,403 |
| Report Writing | \$1,491 | \$1,774 | \$196 | \$3,461 |
| Total Cost/Claim | \$107,967 | \$128,440 | \$14,178 | \$250,584 |

Table 5-K7 South Zone - DDH Program Cost Summary

|  | DDH \& Cost Item | Invoice Cost | Total Meters | $\$ /$ Meter | Invoice \# | Claim \# |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | K7S-21-01 |  |  |  |  |  |  |
|  | Hexagonal Core Barrel | $\$ 131.25$ |  |  | $167-393-20211031$ |  |  |
|  | Overburden | $\$ 2,394.00$ |  |  |  |  |  |
|  | Reaming Shell NQ 18" | $\$ 315.00$ |  |  |  |  |  |
|  | Coring NQ | $\$ 24,490.50$ |  |  |  |  |  |
|  | Move between hole | $\$ 708.00$ |  |  |  |  |  |
|  | DD 2000 | $\$ 392.48$ |  |  |  |  |  |
|  | Casing Cap | $\$ 65.00$ |  |  |  |  |  |
|  | NW Casing 1.5 m | $\$ 96.79$ |  |  |  |  |  |
|  | NW Casing 3.0 m | $\$ 1,416.60$ |  |  |  |  |  |
|  | NW Crown Bit | $\$ 475.00$ |  |  |  |  |  |
|  | Test 0-300 meters | $\$ 531.00$ |  |  |  |  |  |
|  | Rod Grease | $\$ 193.75$ |  |  |  | 531157 |  |
|  |  |  |  |  |  | 531165 |  |
|  | Total Cost for hole | $\$ 31,209.37$ | 291 | $\$ 107.25$ |  |  |  |
|  |  |  |  |  |  |  |  |


| 2 | K7S-21-02 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Hexagonal Core Barrel | \$178.50 |  |  | 167-393-20211031 |  |  |
|  | Overburden | \$2,268.00 |  |  | 167-393-20211115 |  |  |
|  | Reaming Shell NQ 18" | \$428.40 |  |  |  |  |  |
|  | Water Heating | \$300.00 |  |  |  |  |  |
|  | Coring NQ | \$29,865.00 |  |  |  |  |  |
|  | Move between hole | \$3,186.00 |  |  |  |  |  |
|  | Stabilizing | \$118.00 |  |  |  |  |  |
|  | DD 2000 | \$196.24 |  |  |  |  |  |
|  | Casing Cap | \$65.00 |  |  |  |  |  |
|  | NW Casing 3 m | \$1,416.60 |  |  |  |  |  |
|  | NW Crown Bit | \$475.00 |  |  |  |  |  |
|  | Rod Grease | \$775.00 |  |  |  |  |  |
|  | Test 0-300 meters | \$767.00 |  |  |  | 531157 | 15 |
|  | Total Cost for hole | \$40,038.74 | 342 | \$117.07 |  | 531165 | 327 |
|  |  |  |  |  |  |  | 342 |
|  |  |  |  |  |  |  |  |
| 3 | K7S-21-03 |  |  |  |  |  |  |
|  | Hexagonal Core Barrel | \$217.50 |  |  | 167-393-20211115 |  |  |
|  | Overburden | \$1,260.00 |  |  | 167-393-20211130 |  |  |
|  | Reaming Shell NQ 18" | \$522.00 |  |  |  |  |  |
|  | Water Heating | \$1,267.50 |  |  |  |  |  |
|  | Coring NQ | \$49,005.00 |  |  |  |  |  |
|  | Move between hole | \$16,048.00 |  |  |  |  |  |
|  | Reducing | \$472.00 |  |  |  |  |  |
|  | Stabilizing | \$472.00 |  |  |  |  |  |
|  | Travel | \$3,600.00 |  |  |  |  |  |
|  | Water line | \$2,360.00 |  |  |  |  |  |
|  | DD 2000 | \$196.24 |  |  |  |  |  |
|  | NW Casing 3 m | \$787.00 |  |  |  |  |  |
|  | NW Crown Bit | \$950.00 |  |  |  |  |  |
|  | Rod Grease | \$1,356.25 |  |  |  |  |  |
|  | Test 0-300 meters | \$590.00 |  |  |  |  |  |
|  | Test 300-600 meters | \$826.00 |  |  |  |  |  |
|  | ATV rental | \$3,750.00 |  |  |  |  |  |
|  | Foreman | \$6,240.00 |  |  |  |  |  |
|  | Morooka | \$2,500.00 |  |  |  |  |  |
|  | Rental Reflex Ezy track | \$1,300.00 |  |  |  |  |  |
|  | Rental Reflex TN-14 | \$3,175.00 |  |  |  | 531157 | 228.95 |
|  | Room \& Board | \$16,424.51 |  |  |  | 531165 | 213.55 |
|  | Total Cost for hole | \$113,319.00 | 507 | \$223.51 |  | 531170 | 64.5 |
|  |  |  |  |  |  |  | 507 |
|  |  |  |  |  |  |  |  |
|  | Total Cost | \$184,567.11 |  |  |  | Total m/claim 531157 | 491.18 |
|  | Total Meterage |  | 1140 |  |  | Total m/claim 531165 | 584.32 |
|  | Average Cost/Meter |  |  | \$161.90 |  | Total m/claim 531170 | 64.5 |
|  |  |  |  |  |  |  | 1140 |

Table 6 - K7 South Zone - Analytical Cost Summary

| \# of Holes | DDH\# | Sample \#'s |  |  |  | \# of Samples | Certificate \#\| | RX1-1-T ( $57 /$ sample) | $1 \mathrm{A2}$ ( $58 /$ sample) | UT-6 | 100\% Rush | Subtotal Cost | Claim \# | \# Assays/Claim | \% of Assays/Claim | 531157 | 531165 | 531170 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | K75-21-01 | 831971 | 831980 |  |  | 9 | A21-20231 | 9 | 10 |  | 1 | \$324.00 | 531157 | 90 | 72\% | \$3,011.04 |  |  |  |
|  |  | 831981 | 832095 |  |  | 114 | A21-20694 | 110 | 115 | 1 | 1 | \$3,858.00 | 531165 | 35 | 28\% |  | \$1,170.96 |  |  |
|  |  |  |  |  |  |  |  | 119 | 125 | 1 |  | \$4,182.00 |  | 125 | 100\% |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | K7S-21-02 | 832096 | 832222 |  |  | 126 | A21-20882 | 120 | 127 | 2 | 1 | \$4,262.00 | 531165 | 226 | 100\% |  | \$7,548.00 |  |  |
|  |  | 832223 | 832320 |  |  | 97 | A21-20978 | 94 | 99 |  | 1 | \$3,286.00 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | 214 | 226 | 2 |  | \$7,548.00 |  | 226 | 100\% |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 | K7S-21-03 | 832322 | 832405 |  |  | 83 | A21-21124 | 80 | 84 |  | 1 | \$2,792.00 | 531157 | 142 | 37\% | \$4,997.21 |  |  |  |
|  |  | 832406 | 832500 | 833501 | 833621 | 214 | A21-21514 | 205 | 216 | 4 | 1 | \$7,280.00 | 531165 | 203 | 53\% |  | \$7,143.90 |  |  |
|  |  | 833622 | 833668 |  |  | 46 | A21-21721 | 45 | 47 | 6 | 1 | \$1,594.00 | 531170 | 36 | 9\% |  |  | \$1,266.90 |  |
|  |  | 833669 | 833702 |  |  | 33 | A21-22495 | 32 | 34 | $\underline{2}$ | 1 | \$1,742.00 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | 362 | 381 | 12 |  | \$13,408.00 |  | 381 | 100\% |  |  |  |  |
|  |  |  |  |  |  |  |  | Total Core Samples | Total of 1A2 Analysis | Total UT-6 Analysis | \$36.17 | Total Analytical Cost |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | 695 | 732 | 15 | Ave. $\$ /$ Sample | \$25,138.00 |  | 732 | Totals/Claim | \$8,008.25 | \$15,862.86 | \$1,266.90 | \$25,138.00 |

### 9.0 References

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Ramsay, J. G. 1980. The crack-seal mechanism of rock deformation. Nature 284, 135-139.
Shegelski, R.J., 2014. Depositional history, structural geology and timing of gold mineralization of the Sugar Zone gold property, Dayohessarah Lake area, White River, Ontario. Internal Report for Harte Gold, September 2014, 21p.

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Stott, G.M., 1996b. Precambrian Geology of Dayohessarah Lake Area (Central area), Ontario Geological Survey, Preliminary map no. 3310.

Stott, G.M., 1996c. Precambrian Geology of Dayohessarah Lake Area (South half), Ontario Geological Survey, Preliminary map no. 3311.

### 10.0 Statement of Qualifications

I, David B. Stevenson, of 2217 Lacewood Drive, Thunder Bay, Ontario, P7K 1C4 hereby certify that:

I am presently employed by Harte Gold Corporation as their Chief Exploration Geologist.
I am a graduate of the University of New Brunswick, B.Sc. (Hons. Geology), 1981 and a graduate of Queen's University, M.Sc. (Minex), 1998.

I have practiced my profession as a geologist for over 35 years in various provinces and territories across Canada as well as Norway.

I am a member in good standing of the Association Professional Geoscientists of Ontario.
I have personal knowledge of the work carried out on the property as described in this report, I have no personal interest in the property.

Dated this $03^{\text {rd }}$ day of April 2022 at Thunder Bay, Ontario.


[^0]Appendix A - Claims List

Schedule "A"
Sugar Zone Mining Leases


Schedule "B" Sugar Zone - Claims

| Legacy Claim Id | Township / Area | Tenure ID | Tenure Type | Anniversary Date | Work Required | Total Reserve |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4281896 | ODLUM | 136581* | Boundary Cell Mining Claim | 2021-02-06 | \$200 | \$0 |
| 4281896 | OdLUM | 334503* | Boundary Cell Mining Claim | 2021-02-06 | \$200 | \$0 |
| 4281896 | ODLUM | 255919* | Boundary Cell Mining Claim | 2021-02-06 | \$200 | \$0 |
| 4281896 | OdLUM | 237877* | Boundary Cell Mining Claim | 2021-02-06 | \$200 | \$0 |
| 4281896 | OdLum | 220822* | Boundary Cell Mining Claim | 2021-02-06 | \$200 | \$0 |
| 4281896 | OdLUM | 220821* | Boundary Cell Mining Claim | 2021-02-06 | \$200 | \$0 |
| 4281896 | OdLUM | 209284* | Boundary Cell Mining Claim | 2021-02-06 | \$200 | \$0 |
| 4281896 | OdLUM | 209282* | Boundary Cell Mining Claim | 2021-02-06 | \$200 | \$0 |
| 4281896 | OdLUM | 201257* | Boundary Cell Mining Claim | 2021-02-06 | \$200 | \$0 |
| 4281896 | OdLUM | 171296* | Boundary Cell Mining Claim | 2021-02-06 | \$200 | \$0 |
| 4281896 | OdLUM | 142560* | Boundary Cell Mining Claim | 2021-02-06 | \$200 | \$0 |
| 4281896 | ODLUM | 136582* | Boundary Cell Mining Claim | 2021-02-06 | \$200 | \$0 |
| 4281896 | OdLUM | 324599* | Single Cell Mining Claim | 2021-02-06 | \$400 | \$0 |
| 4281896 | ODLUM | 255918* | Single Cell Mining Claim | 2021-02-06 | \$400 | \$0 |
| 4281896 | OdLUM | 255917* | Single Cell Mining Claim | 2021-02-06 | \$400 | \$223 |
| 4281896 | OdLUM | 209283* | Single Cell Mining Claim | 2021-02-06 | \$400 | \$0 |
|  | MOSAMBIK | 532869 | Multi-cell Mining Claim | 2021-04-10 | 8000 | 0 |
|  | NAMEIGOS | 531281 | Multi-cell Mining Claim | 2021-04-10 | 10000 | 0 |
|  | NAMEIGOS | 531282 | Multi-cell Mining Claim | 2021-04-10 | 9600 | 1753 |
|  | NAMEIGOS | 531289 | Multi-cell Mining Claim | 2021-04-10 | 5600 | 2238 |
|  | NAMEIGOS | 531331 | Multi-cell Mining Claim | 2021-04-10 | 7600 | 2016 |
|  | NAMEIGOS,STRICKLAND | 531280 | Multi-cell Mining Claim | 2021-04-10 | 9600 | 0 |
|  | NAMEIGOS | 514033 | Single Cell Mining Claim | 2021-04-10 | 400 | 0 |
|  | NAMEIGOS | 514035 | Single Cell Mining Claim | 2021-04-10 | 400 | 0 |
|  | COOPER,STRICKLAND | 531165 | Multi-cell Mining Claim | 2021-04-10 | 5200 | 1331 |
|  | HAMBLETON | 531227 | Multi-cell Mining Claim | 2021-04-10 | 5600 | 1553 |
|  | HAMBLETON | 531248 | Multi-cell Mining Claim | 2021-04-10 | 10000 | 0 |
|  | hambleton | 531265 | Multi-cell Mining Claim | 2021-04-10 | 10000 | 0 |
|  | HAMBLETON | 531266 | Multi-cell Mining Claim | 2021-04-10 | 5600 | 0 |
|  | HAMBLETON | 531267 | Multi-cell Mining Claim | 2021-04-10 | 5600 | 0 |
|  | ODLUM | 531183 | Multi-cell Mining Claim | 2021-04-10 | 9600 | 1370 |
|  | OdLum | 531198 | Multi-cell Mining Claim | 2021-04-10 | 7600 | 3217 |
|  | ODLUM,STRICKLAND | 531184 | Multi-cell Mining Claim | 2021-04-10 | 9600 | 2087 |
|  | ODLUM,STRICKLAND | 531197 | Multi-cell Mining Claim | 2021-04-10 | 9600 | 3658 |
|  | ODLUM,STRICKLAND,TEDDER | 531175 | Multi-cell Mining Claim | 2021-04-10 | 10000 | 187 |
|  | STRICKLAND | 531157 | Multi-cell Mining Claim | 2021-04-10 | 10000 | 5781 |
|  | STRICKLAND,TEDDER | 531169 | Multi-cell Mining Claim | 2021-04-10 | 8800 | 5224 |
|  | STRICKLAND,TEDDER | 531171 | Multi-cell Mining Claim | 2021-04-10 | 8800 | 4401 |
|  | HAMBLETON | 531254 | Multi-cell Mining Claim | 2021-06-13 | 9600 | 0 |
|  | HAMBLETON | 531255 | Multi-cell Mining Claim | 2021-06-13 | 10000 | 0 |
|  | HAMBLETON | 531256 | Multi-cell Mining Claim | 2021-06-13 | 10000 | 583 |
|  | hambleton | 531258 | Multi-cell Mining Claim | 2021-06-13 | 4800 | 0 |
|  | HAMBLETON | 531269 | Multi-cell Mining Claim | 2021-06-13 | 1200 | 0 |
|  | NAMEIGOS | 531335 | Multi-cell Mining Claim | 2021-06-13 | 10000 | 0 |
|  | NAMEIGOS | 531340 | Multi-cell Mining Claim | 2021-06-13 | 6800 | 33 |
|  | NAMEIGOS | 531342 | Multi-cell Mining Claim | 2021-06-13 | 8000 | 0 |
|  | NAMEIGOS | 531343 | Multi-cell Mining Claim | 2021-06-13 | 8000 | 0 |
|  | NAMEIGOS | 531344 | Multi-cell Mining Claim | 2021-06-13 | 7200 | 2174 |
| 4260661 | OdLUM | 205218 | Boundary Cell Mining Claim | 2021-06-20 | 200 | 0 |
| 4260665 | ODLUM | 236538 | Boundary Cell Mining Claim | 2021-06-20 | 200 | 837 |
| 4284301 | ODLUM | 113014 | Boundary Cell Mining Claim | 2021-06-20 | 200 | 374 |
| 4284301 | odlum | 323310 | Boundary Cell Mining Claim | 2021-06-20 | 200 | 832 |
|  | Johns | 530313 | Multi-cell Mining Claim | 2021-06-20 | 6400 | 2174 |
|  | JOHNS | 530314 | Multi-cell Mining Claim | 2021-06-20 | 6400 | 940 |
|  | Johns | 530315 | Multi-cell Mining Claim | 2021-06-20 | 7200 | 4533 |
|  | JOHNS | 530316 | Multi-cell Mining Claim | 2021-06-20 | 10000 | 0 |
|  | JOHNS | 530317 | Multi-cell Mining Claim | 2021-06-20 | 7200 | 0 |
|  | Johns | 531017 | Multi-cell Mining Claim | 2021-06-20 | 9600 | 5604 |
|  | JOHNS | 531018 | Multi-cell Mining Claim | 2021-06-20 | 10000 | 0 |
|  | JOHNS, ODLUM | 530318 | Multi-cell Mining Claim | 2021-06-20 | 7200 | 0 |
|  | JOHNS, ODLUM | 531019 | Multi-cell Mining Claim | 2021-06-20 | 9600 | 0 |
|  | JOHNS, ODLUM | 531020 | Multi-cell Mining Claim | 2021-06-20 | 10000 | 0 |
|  | OdLUM | 531016 | Multi-cell Mining Claim | 2021-06-20 | 10000 | 0 |


|  | OdLum | 531021 | Multi-cell Mining Claim | 2021-06-20 | 10000 | 455 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ODLUM | 531024 | Multi-cell Mining Claim | 2021-06-20 | 10000 | 0 |
|  | OdLUM | 531025 | Multi-cell Mining Claim | 2021-06-20 | 9600 | 0 |
|  | ODLUM, TEDDER | 531022 | Multi-cell Mining Claim | 2021-06-20 | 8800 | 247 |
|  | ODLUM, TEDDER | 531023 | Multi-cell Mining Claim | 2021-06-20 | 9600 | 89 |
|  | ODLUM | 531201 | Multi-cell Mining Claim | 2021-10-29 | 2000 | 398 |
|  | STRICKLAND | 531162 | Multi-cell Mining Claim | 2020-11-16 | 9600 | 0 |
|  | STRICKLAND | 531168 | Multi-cell Mining Claim | 2020-11-16 | 10000 | 0 |
|  | STRICKLAND | 531177 | Multi-cell Mining Claim | 2020-11-16 | 9600 | 0 |
|  | STRICKLAND | 531178 | Multi-cell Mining Claim | 2020-11-16 | 10000 | 0 |
|  | STRICKLAND | 531180 | Multi-cell Mining Claim | 2020-11-16 | 9200 | 0 |
|  | STRICKLAND | 531271 | Multi-cell Mining Claim | 2020-11-16 | 8000 | 0 |
|  | STRICKLAND | 531273 | Multi-cell Mining Claim | 2020-11-16 | 10000 | 0 |
|  | STRICKLAND | 531274 | Multi-cell Mining Claim | 2020-11-16 | 10000 | 0 |
|  | STRICKLAND | 531275 | Multi-cell Mining Claim | 2020-11-16 | 8400 | 2439 |
|  | STRICKLAND | 531278 | Multi-cell Mining Claim | 2020-11-16 | 800 | 0 |
|  | gourlay | 531220 | Multi-cell Mining Claim | 2020-12-03 | 9600 | 0 |
|  | gourlay | 531225 | Multi-cell Mining Claim | 2020-12-03 | 9600 | 0 |
|  | GOURLAY | 531229 | Multi-cell Mining Claim | 2020-12-03 | 10000 | 0 |
|  | gourlay | 531231 | Multi-cell Mining Claim | 2020-12-03 | 10000 | 0 |
|  | GOURLAY,HAMBLETON | 531224 | Multi-cell Mining Claim | 2020-12-03 | 9600 | 0 |
|  | GOURLAY,HAMBLETON | 531226 | Multi-cell Mining Claim | 2020-12-03 | 10000 | 0 |
|  | GOURLAY,HAMBLETON | 531230 | Multi-cell Mining Claim | 2020-12-03 | 8800 | 0 |
|  | GOURLAY,HAMBLETON | 531243 | Multi-cell Mining Claim | 2020-12-03 | 10000 | 0 |
|  | GOURLAY,HAMBLETON,STRICKLAND | 531222 | Multi-cell Mining Claim | 2020-12-03 | 6200 | 0 |
|  | GOURLAY,STRICKLAND | 531221 | Multi-cell Mining Claim | 2020-12-03 | 10000 | 0 |
|  | HAMBLETON | 531228 | Multi-cell Mining Claim | 2020-12-03 | 6000 | 0 |
|  | ODLUM,STRICKLAND | 531270 | Multi-cell Mining Claim | 2020-12-03 | 5000 | 0 |
|  | STRICKLAND | 531167 | Multi-cell Mining Claim | 2020-12-03 | 8400 | 0 |
|  | STRICKLAND | 531170 | Multi-cell Mining Claim | 2020-12-03 | 9200 | 0 |
|  | STRICKLAND | 531176 | Multi-cell Mining Claim | 2020-12-03 | 10000 | 0 |
|  | STRICKLAND | 531179 | Multi-cell Mining Claim | 2020-12-03 | 8400 | 0 |
|  | STRICKLAND | 531181 | Multi-cell Mining Claim | 2020-12-03 | 9600 | 0 |
|  | STRICKLAND | 531185 | Multi-cell Mining Claim | 2020-12-03 | 9600 | 0 |
|  | STRICKLAND | 531195 | Multi-cell Mining Claim | 2020-12-03 | 8800 | 0 |
|  | STRICKLAND | 531196 | Multi-cell Mining Claim | 2020-12-03 | 8800 | 0 |
|  | STRICKLAND | 531223 | Multi-cell Mining Claim | 2020-12-03 | 7400 | 0 |
|  | STRICKLAND | 531272 | Multi-cell Mining Claim | 2020-12-03 | 1200 | 0 |
| 4260617 | STRICKLAND | 110507 | Single Cell Mining Claim | 2020-12-03 | 200 | 0 |
|  | BAYFIELD,HAMBLETON,MATTHEWS | 531242 | Multi-cell Mining Claim | 2020-12-17 | 8000 | 0 |
|  | GOURLAY,HAMBLETON | 531241 | Multi-cell Mining Claim | 2020-12-17 | 9600 | 0 |
|  | HAMBLETON | 531244 | Multi-cell Mining Claim | 2020-12-17 | 10000 | 0 |
|  | HAMBLETON | 531245 | Multi-cell Mining Claim | 2020-12-17 | 9600 | 0 |
|  | HAMBLETON | 531246 | Multi-cell Mining Claim | 2020-12-17 | 9600 | 0 |
|  | HAMBLETON | 531247 | Multi-cell Mining Claim | 2020-12-17 | 9600 | 0 |
|  | hambleton | 531264 | Multi-cell Mining Claim | 2020-12-17 | 9600 | 0 |
|  | BAYFIELD | 531235 | Multi-cell Mining Claim | 2020-12-22 | 8000 | 0 |
|  | BAYFIELD | 531236 | Multi-cell Mining Claim | 2020-12-22 | 8000 | 0 |
|  | BAYFIELD | 531237 | Multi-cell Mining Claim | 2020-12-22 | 8000 | 0 |
|  | BAYFIELD | 531238 | Multi-cell Mining Claim | 2020-12-22 | 9200 | 0 |
|  | BAYFIELD | 531239 | Multi-cell Mining Claim | 2020-12-22 | 1600 | 0 |
|  | BAYFIELD,GOURLAY | 531233 | Multi-cell Mining Claim | 2020-12-22 | 10000 | 0 |
|  | BAYFIELD,GOURLAY | 531234 | Multi-cell Mining Claim | 2020-12-22 | 8000 | 0 |
|  | BAYFIELD,GOURLAY,HAMBLETON | 531240 | Multi-cell Mining Claim | 2020-12-22 | 9600 | 0 |
|  | GOURLAY | 531232 | Multi-cell Mining Claim | 2020-12-22 | 9600 | 0 |
| 4260661 | odlum | 137166 | Boundary Cell Mining Claim | 2020-12-23 | 200 | 930 |
| 4260661 | ODLUM | 156716 | Boundary Cell Mining Claim | 2020-12-23 | 200 | 548 |
| 4260661 | ODLUM | 142645 | Boundary Cell Mining Claim | 2020-12-23 | 200 | 151 |
| 4260664 | OdLUM | 308490 | Boundary Cell Mining Claim | 2020-12-23 | 200 | 111 |
| 4260664 | ODLUM | 168606 | Boundary Cell Mining Claim | 2020-12-23 | 200 | 174 |
| 4260665 | ODLUM | 112652 | Boundary Cell Mining Claim | 2020-12-23 | 200 | 0 |
| 4260665 | OdLUM | 199956 | Boundary Cell Mining Claim | 2020-12-23 | 200 | 298 |
| 4260665 | ODLUM | 155301 | Boundary Cell Mining Claim | 2020-12-23 | 200 | 236 |
|  | HAMBLETON | 531210 | Multi-cell Mining Claim | 2020-12-23 | 6800 | 6082 |


|  | HAMBLETON | 531249 | Multi-cell Mining Claim | 2020-12-23 | 1200 | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | HAMBLETON | 531257 | Multi-cell Mining Claim | 2020-12-23 | 10000 | 0 |
|  | hambleton | 531268 | Multi-cell Mining Claim | 2020-12-23 | 4000 | 0 |
|  | HAMBLETON,ODLUM | 531209 | Multi-cell Mining Claim | 2020-12-23 | 2400 | 1604 |
|  | ODLUM | 531026 | Multi-cell Mining Claim | 2020-12-23 | 10000 | 0 |
|  | ODLUM | 531182 | Multi-cell Mining Claim | 2020-12-23 | 10000 | 0 |
|  | OdLUM | 531199 | Multi-cell Mining Claim | 2020-12-23 | 800 | 0 |
|  | OdLUM | 531200 | Multi-cell Mining Claim | 2020-12-23 | 10000 | 0 |
|  | ODLUM, TEDDER | 531027 | Multi-cell Mining Claim | 2020-12-23 | 9600 | 0 |
|  | ODLUM, TEDDER | 531154 | Multi-cell Mining Claim | 2020-12-23 | 10000 | 0 |
|  | ODLUM, TEDDER | 531173 | Multi-cell Mining Claim | 2020-12-23 | 10000 | 0 |
|  | ODLUM, TEDDER | 531174 | Multi-cell Mining Claim | 2020-12-23 | 9600 | 0 |
|  | STRICKLAND,TEDDER | 531156 | Multi-cell Mining Claim | 2020-12-23 | 10000 | 0 |
|  | tedder | 531031 | Multi-cell Mining Claim | 2020-12-23 | 9600 | 0 |
|  | TEDDER | 531153 | Multi-cell Mining Claim | 2020-12-23 | 8800 | 0 |
|  | tedder | 531155 | Multi-cell Mining Claim | 2020-12-23 | 10000 | 0 |
|  | TEDDER | 531172 | Multi-cell Mining Claim | 2020-12-23 | 10000 | 0 |
|  | ODLUM | 531203 | Multi-cell Mining Claim | 2020-12-31 | 7000 | 0 |
|  | ODLUM | 531204 | Multi-cell Mining Claim | 2020-12-31 | 3800 | 0 |
| 4288587 | NAMEIGOS | 125769 | Boundary Cell Mining Claim | 2021-01-08 | 200 | 0 |
| 4288587 | NAMEIGOS | 286343 | Boundary Cell Mining Claim | 2021-01-08 | 200 | 0 |
| 4288587 | NAMEIGOS | 286342 | Boundary Cell Mining Claim | 2021-01-08 | 200 | 0 |
| 4288587 | NAMEIGOS | 286341 | Boundary Cell Mining Claim | 2021-01-08 | 200 | 0 |
| 4288587 | NAMEIGOS | 274252 | Boundary Cell Mining Claim | 2021-01-08 | 200 | 0 |
| 4288587 | NAMEIGOS | 266283 | Boundary Cell Mining Claim | 2021-01-08 | 200 | 0 |
| 4288587 | NAMEIGOS | 189153 | Boundary Cell Mining Claim | 2021-01-08 | 200 | 11 |
| 4288587 | NAMEIGOS | 170388 | Boundary Cell Mining Claim | 2021-01-08 | 200 | 0 |
| 4288588 | NAMEIGOS | 102955 | Boundary Cell Mining Claim | 2021-01-08 | 200 | 0 |
| 4288588 | NAMEIGOS | 322925 | Boundary Cell Mining Claim | 2021-01-08 | 200 | 0 |
| 4288588 | NAMEIGOS | 286384 | Boundary Cell Mining Claim | 2021-01-08 | 200 | 0 |
| 4288588 | NAMEIGOS | 227074 | Boundary Cell Mining Claim | 2021-01-08 | 200 | 0 |
| 4288588 | NAMEIGOS | 219128 | Boundary Cell Mining Claim | 2021-01-08 | 200 | 0 |
| 4288588 | NAMEIGOS | 189186 | Boundary Cell Mining Claim | 2021-01-08 | 200 | 0 |
| 4288588 | NAMEIGOS | 170921 | Boundary Cell Mining Claim | 2021-01-08 | 200 | 0 |
| 4288588 | NAMEIGOS | 125817 | Boundary Cell Mining Claim | 2021-01-08 | 200 | 149 |
| 4288588 | NAMEIGOS | 102957 | Boundary Cell Mining Claim | 2021-01-08 | 200 | 0 |
| 4288588 | NAMEIGOS | 102956 | Boundary Cell Mining Claim | 2021-01-08 | 200 | 0 |
| 4288589 | NAMEIGOS | 287639 | Boundary Cell Mining Claim | 2021-01-08 | 200 | 0 |
| 4288589 | NAMEIGOS | 267591 | Boundary Cell Mining Claim | 2021-01-08 | 200 | 0 |
| 4288589 | NAMEIGOS | 220366 | Boundary Cell Mining Claim | 2021-01-08 | 200 | 423 |
| 4288589 | NAMEIGOS | 208950 | Boundary Cell Mining Claim | 2021-01-08 | 200 | 0 |
| 4288589 | NAMEIGOS | 173870 | Boundary Cell Mining Claim | 2021-01-08 | 200 | 0 |
| 4288589 | NAMEIGOS | 155027 | Boundary Cell Mining Claim | 2021-01-08 | 200 | 0 |
| 4288589 | NAMEIGOS | 117345 | Boundary Cell Mining Claim | 2021-01-08 | 200 | 0 |
| 4288589 | NAMEIGOS | 335993 | Single Cell Mining Claim | 2021-01-08 | 400 | 0 |
| 4288589 | NAMEIGOS | 220373 | Single Cell Mining Claim | 2021-01-08 | 400 | 423 |
| 4288589 | NAMEIGOS | 208958 | Single Cell Mining Claim | 2021-01-08 | 400 | 0 |
| 4288231 | NAMEIGOS | 104062 | Boundary Cell Mining Claim | 2021-01-09 | 200 | 0 |
| 4288231 | NAMEIGOS | 225048 | Boundary Cell Mining Claim | 2021-01-09 | 200 | 0 |
| 4288231 | NAMEIGOS | 159665 | Boundary Cell Mining Claim | 2021-01-09 | 200 | 0 |
|  | ABRAHAM, COOPER,TEDDER | 531096 | Multi-cell Mining Claim | 2021-01-09 | 10000 | 0 |
|  | ABRAHAM, TEDDER | 531094 | Multi-cell Mining Claim | 2021-01-09 | 10000 | 0 |
|  | ABRAHAM, TEDDER | 531095 | Multi-cell Mining Claim | 2021-01-09 | 10000 | 0 |
|  | COOPER | 531112 | Multi-cell Mining Claim | 2021-01-09 | 10000 | 0 |
|  | COOPER | 531139 | Multi-cell Mining Claim | 2021-01-09 | 9200 | 0 |
|  | COOPER | 531163 | Multi-cell Mining Claim | 2021-01-09 | 6000 | 0 |
|  | COOPER,STRICKLAND | 531166 | Multi-cell Mining Claim | 2021-01-09 | 800 | 0 |
|  | COOPER,STRICKLAND,TEDDER | 531152 | Multi-cell Mining Claim | 2021-01-09 | 6800 | 0 |
|  | COOPER,TEDDER | 531097 | Multi-cell Mining Claim | 2021-01-09 | 10000 | 0 |
|  | COOPER,TEDDER | 531100 | Multi-cell Mining Claim | 2021-01-09 | 9600 | 0 |
|  | COOPER,TEDDER | 531111 | Multi-cell Mining Claim | 2021-01-09 | 10000 | 0 |
|  | COOPER,TEDDER | 531151 | Multi-cell Mining Claim | 2021-01-09 | 10000 | 0 |
|  | MOSAMBIK | 531287 | Multi-cell Mining Claim | 2021-01-09 | 10000 | 0 |
|  | MOSAMBIK | 531348 | Multi-cell Mining Claim | 2021-01-09 | 8800 | 0 |


|  | MOSAMBIK,NAMEIGOS | 531286 | Multi-cell Mining Claim | 2021-01-09 | 10000 | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | MOSAMBIK,NAMEIGOS | 531288 | Multi-cell Mining Claim | 2021-01-09 | 8400 | 0 |
|  | MOSAMBIK,NAMEIGOS | 531347 | Multi-cell Mining Claim | 2021-01-09 | 10000 | 0 |
|  | MOSAMBIK,NAMEIGOS | 531349 | Multi-cell Mining Claim | 2021-01-09 | 6400 | 0 |
|  | MOSAMBIK,NAMEIGOS | 531350 | Multi-cell Mining Claim | 2021-01-09 | 10000 | 0 |
|  | NAMEIGOS | 531283 | Multi-cell Mining Claim | 2021-01-09 | 10000 | 0 |
|  | NAMEIGOS | 531284 | Multi-cell Mining Claim | 2021-01-09 | 9200 | 0 |
|  | NAMEIGOS | 531285 | Multi-cell Mining Claim | 2021-01-09 | 10000 | 0 |
|  | NAMEIGOS | 531351 | Multi-cell Mining Claim | 2021-01-09 | 9600 | 0 |
|  | NAMEIGOS | 531352 | Multi-cell Mining Claim | 2021-01-09 | 10000 | 0 |
|  | TEDDER | 531046 | Multi-cell Mining Claim | 2021-01-09 | 8800 | 0 |
|  | TEDDER | 531047 | Multi-cell Mining Claim | 2021-01-09 | 9600 | 0 |
|  | tedder | 531079 | Multi-cell Mining Claim | 2021-01-09 | 9200 | 0 |
|  | tedder | 531098 | Multi-cell Mining Claim | 2021-01-09 | 9600 | 0 |
|  | TEDDER | 531099 | Multi-cell Mining Claim | 2021-01-09 | 9600 | 0 |
|  | COOPER | 531126 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
| 04288250 | MOSAMBIK | 125756 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
| 04288250 | MOSAMBIK | 293144 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
| 04288250 | MOSAMBIK | 274244 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
| 04288250 | MOSAMBIK | 273605 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
| 04288250 | MOSAMBIK | 153728 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
| 4288237 | MOSAMBIK | 118071 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
| 4288237 | MOSAMBIK | 273604 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
| 4288237 | MOSAMBIK | 226382 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
| 4288237 | MOSAMBIK | 188477 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
| 4288237 | MOSAMBIK | 170250 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
| 4288249 | MOSAMBIK | 117527 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
| 4288249 | MOSAMBIK | 336697 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
| 4288249 | MOSAMBIK | 276267 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
| 4288249 | MOSAMBIK | 221060 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
| 4288237 | MOSAMBIK,NAMEIGOS | 344618 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
| 4288237 | MOSAMBIK,NAMEIGOS | 265657 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
| 4288230 | NAMEIGOS | 103256 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
| 4288230 | NAMEIGOS | 127131 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
| 4288232 | NAMEIGOS | 102261 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
| 4288232 | NAMEIGOS | 276303 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
| 4288232 | NAMEIGOS | 229063 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
| 4288232 | NAMEIGOS | 219164 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
| 4288232 | NAMEIGOS | 170953 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
| 4288232 | NAMEIGOS | 118285 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
| 4288233 | NAMEIGOS | 286410 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
| 4288233 | NAMEIGOS | 189211 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
| 4288233 | NAMEIGOS | 170954 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
| 4288233 | NAMEIGOS | 154316 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
| 4288233 | NAMEIGOS | 125852 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
| 4288233 | NAMEIGOS | 118287 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
|  | NAMEIGOS | 531290 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
|  | NAMEIGOS | 531291 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
|  | NAMEIGOS | 531292 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
|  | NAMEIGOS | 531293 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
|  | NAMEIGOS | 531294 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
|  | NAMEIGOS | 531295 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
|  | NAMEIGOS | 531296 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
|  | NAMEIGOS | 531297 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
|  | NAMEIGOS | 531298 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
|  | NAMEIGOS | 531299 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
|  | NAMEIGOS | 531300 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
|  | NAMEIGOS | 531301 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
|  | NAMEIGOS | 531302 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
|  | NAMEIGOS | 531304 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
|  | NAMEIGOS | 531305 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
|  | NAMEIGOS | 531306 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
|  | NAMEIGOS | 531309 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
|  | NAMEIGOS | 531316 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |


|  | NAMEIGOS | 531317 | Single Cell Mining Claim | 2021-01-09 | 400 | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | COOPER | 531115 | Multi-cell Mining Claim | 2021-01-10 | 9200 | 0 |
|  | COOPER | 531116 | Multi-cell Mining Claim | 2021-01-10 | 9600 | 0 |
|  | COOPER | 531117 | Multi-cell Mining Claim | 2021-01-10 | 10000 | 0 |
|  | COOPER | 531118 | Multi-cell Mining Claim | 2021-01-10 | 10000 | 0 |
|  | COOPER,STRICKLAND | 531119 | Multi-cell Mining Claim | 2021-01-10 | 8000 | 0 |
|  | COOPER,STRICKLAND | 531120 | Multi-cell Mining Claim | 2021-01-10 | 6000 | 0 |
|  | COOPER,STRICKLAND | 531121 | Multi-cell Mining Claim | 2021-01-10 | 6400 | 0 |
|  | COOPER,STRICKLAND | 531164 | Multi-cell Mining Claim | 2021-01-10 | 7200 | 0 |
|  | ABRAHAM | 531086 | Multi-cell Mining Claim | 2021-01-18 | 9600 | 0 |
|  | ABRAHAM, COOPER | 531087 | Multi-cell Mining Claim | 2021-01-18 | 9600 | 0 |
| 4281802 | NAMEIGOS | 134919 | Boundary Cell Mining Claim | 2021-02-16 | 200 | 0 |
| 4281802 | NAMEIGOS | 302908 | Boundary Cell Mining Claim | 2021-02-16 | 200 | 0 |
| 4281802 | NAMEIGOS | 281507 | Boundary Cell Mining Claim | 2021-02-16 | 200 | 0 |
| 4281802 | NAMEIGOS | 151061 | Boundary Cell Mining Claim | 2021-02-16 | 200 | 0 |
| 4281802 | NAMEIGOS | 150356 | Boundary Cell Mining Claim | 2021-02-16 | 200 | 0 |
| 4281802 | NAMEIGOS | 141005 | Boundary Cell Mining Claim | 2021-02-16 | 200 | 1139 |
| 4281805 | NAMEIGOS | 122945 | Boundary Cell Mining Claim | 2021-02-16 | 200 | 0 |
| 4281805 | NAMEIGOS | 290157 | Boundary Cell Mining Claim | 2021-02-16 | 200 | 0 |
| 4281805 | NAMEIGOS | 186333 | Boundary Cell Mining Claim | 2021-02-16 | 200 | 0 |
| 4281805 | NAMEIGOS | 133689 | Boundary Cell Mining Claim | 2021-02-16 | 200 | 0 |
| 4285671 | NAMEIGOS | 186239 | Boundary Cell Mining Claim | 2021-02-16 | 200 | 0 |
| 4285671 | NAMEIGOS | 319552 | Boundary Cell Mining Claim | 2021-02-16 | 200 | 0 |
| 4285671 | NAMEIGOS | 282751 | Boundary Cell Mining Claim | 2021-02-16 | 200 | 0 |
| 4285671 | NAMEIGOS | 186240 | Boundary Cell Mining Claim | 2021-02-16 | 200 | 0 |
| 4285672 | NAMEIGOS | 157827 | Boundary Cell Mining Claim | 2021-02-16 | 200 | 0 |
| 4285672 | NAMEIGOS | 344511 | Boundary Cell Mining Claim | 2021-02-16 | 200 | 0 |
| 4285672 | NAMEIGOS | 238950 | Boundary Cell Mining Claim | 2021-02-16 | 200 | 0 |
|  | NAMEIGOS | 531332 | Multi-cell Mining Claim | 2021-02-16 | 9600 | 768 |
|  | NAMEIGOS | 531333 | Multi-cell Mining Claim | 2021-02-16 | 4800 | 0 |
|  | NAMEIGOS | 531334 | Multi-cell Mining Claim | 2021-02-16 | 10000 | 0 |
|  | NAMEIGOS | 531336 | Multi-cell Mining Claim | 2021-02-16 | 9200 | 0 |
|  | NAMEIGOS | 531337 | Multi-cell Mining Claim | 2021-02-16 | 9200 | 0 |
|  | NAMEIGOS | 531338 | Multi-cell Mining Claim | 2021-02-16 | 9600 | 0 |
|  | NAMEIGOS | 531341 | Multi-cell Mining Claim | 2021-02-16 | 800 | 0 |
|  | NAMEIGOS | 531345 | Multi-cell Mining Claim | 2021-02-16 | 800 | 0 |
|  | NAMEIGOS | 531346 | Multi-cell Mining Claim | 2021-02-16 | 1600 | 496 |
|  | ABRAHAM | 531081 | Multi-cell Mining Claim | 2021-02-22 | 10000 | 0 |
|  | ABRAHAM | 531082 | Multi-cell Mining Claim | 2021-02-22 | 9600 | 0 |
|  | ABRAHAM | 531083 | Multi-cell Mining Claim | 2021-02-22 | 9600 | 0 |
|  | ABRAHAM, TEDDER | 531048 | Multi-cell Mining Claim | 2021-02-22 | 9000 | 859 |
|  | ABRAHAM, TEDDER | 531080 | Multi-cell Mining Claim | 2021-02-22 | 9600 | 0 |
|  | NAMEIGOS,STRICKLAND | 531276 | Multi-cell Mining Claim | 2021-02-22 | 10000 | 0 |
|  | NAMEIGOS,STRICKLAND | 531279 | Multi-cell Mining Claim | 2021-02-22 | 4000 | 0 |
|  | STRICKLAND | 531160 | Multi-cell Mining Claim | 2021-02-22 | 8400 | 0 |
|  | STRICKLAND | 531161 | Multi-cell Mining Claim | 2021-02-22 | 8400 | 0 |
|  | STRICKLAND | 531277 | Multi-cell Mining Claim | 2021-02-22 | 7200 | 0 |
|  | ABRAHAM, COOPER | 531084 | Multi-cell Mining Claim | 2021-03-10 | 9600 | 0 |
|  | COOPER | 531085 | Multi-cell Mining Claim | 2021-03-10 | 9600 | 0 |
|  | COOPER | 531088 | Multi-cell Mining Claim | 2021-03-10 | 9600 | 0 |
|  | COOPER | 531089 | Multi-cell Mining Claim | 2021-03-10 | 8000 | 0 |
|  | COOPER | 531090 | Multi-cell Mining Claim | 2021-03-10 | 9600 | 0 |
|  | COOPER | 531091 | Multi-cell Mining Claim | 2021-03-10 | 9600 | 0 |
|  | COOPER | 531092 | Multi-cell Mining Claim | 2021-03-10 | 9600 | 0 |
|  | COOPER | 531093 | Multi-cell Mining Claim | 2021-03-10 | 10000 | 0 |
|  | COOPER | 531113 | Multi-cell Mining Claim | 2021-03-10 | 10000 | 0 |
|  | COOPER | 531114 | Multi-cell Mining Claim | 2021-03-10 | 10000 | 0 |
|  | OdLum | 531205 | Multi-cell Mining Claim | 2021-03-27 | 4800 | 278 |
|  | HAMBLETON,ODLUM | 531206 | Multi-cell Mining Claim | 2021-04-26 | 8200 | 345634 |
|  | BAYFIELD | 549597 | Multi-cell Mining Claim | 2021-05-10 | 9600 | 0 |
|  | BAYFIELD | 549623 | Multi-cell Mining Claim | 2021-05-10 | 9200 | 0 |
|  | BAYFIELD | 549624 | Multi-cell Mining Claim | 2021-05-10 | 9600 | 0 |
|  | BAYFIELD | 549625 | Multi-cell Mining Claim | 2021-05-10 | 8800 | 0 |
|  | BAYFIELD,BEATON | 549626 | Multi-cell Mining Claim | 2021-05-10 | 9200 | 0 |



Appendix B - K7 South Zone - Geological Legend

| Mafic Intrusives | Intermediate Volcanics |
| :---: | :---: |
| 7A-Diabase | $\square$ 2E-Intermediate Tuff |
| 7B-Diorite |  |
| 7C-Lamprophyre | Felsic Volcanics |
| 6A-Diorite | $\square$ 2A-Felsic Massive Flows |
| 6A-Diorite | 2B-Felsic Tuff |
| 6B-Gabbro | $\square$ 2S-Sericite Schist |
| 6C-Amphibilite |  |
| 6D-Peridotite | Mafic Volcanics |
| 6G-Pyroxenite |  |
| 6E-Intermediate Dyke | 1A-Massive Mafic Flows |
| 6F-Mafic Dyke | 1B-Pillowed Mafic Flows |
| Felsic Intrusives | 1C-Agglomerate |
| 5A-Granite | 1D-Variolitic Flows |
| 5B-Granodiorite | 1E-Amygdaloidal/Vesicular Flows |
|  | 1F-Flow-top Breccia |
| 5D-Syenite | 1G-Amphibolitic Flows |
| 4A-Quartz Porphyry | 1H-Mafic Tuff |
| 4B-Feldspar Porphyry | 1I-Volcaniclastic |
| 4C-Quartz-Feldspar Porphyry | 1ALT-Altered Mafic Volcanic |
| 4D-Felsite | 1N-Hydrothermally Altered Basalt |
| 4E-Pegmatite | 1N-Hydrothermally Altered Basalt |
| 4F-Felsic Dyke |  |
| 4ALT-Altered Feldspar Porphyry | Early Mafic Intrusive |
| Sediments | 1Z-Gabbroic with gradational contacts |
| 3A-Greywacke |  |
| $\square$ 3ALT-Altered Iron Formation w/sulphides | Ultramafic Volcanics |
| 3B-Argillite | $\square$ UM-Ultramafic |
| $\square$ 3D-Iron Formation | 1U-Ultramafic Flows |
| 3E-Ferruginous Chert | 1UT-Ultramafic Talc/Chlorite Altered |
| 3F-Chert |  |
| 3G-Sulfide Facies Iron Formation |  |
| 3H-Reworked Tuffs |  |
| 31-Arenite |  |
| $\square$ 3S-Siltstone |  |

Assay Color Legend

|  | Assay Color Legend |
| :---: | :---: |
| UZ-Upper Zone | 0-0.5 |
| MZ-Middle Zone | 0.6-1 |
|  | 1.1-3 |
| LZ-Lower Zone | 3.1-5 |
| QCV-Quartz-Carbonate Vein | 5.1-8 |
|  | 8.1-12 |
| QTCSW-Quartz-Carbonate Stockwork | 12.1-659 |
| QTSW-Quartz Stockwork |  |
| QV-Quartz Vein |  |
| QZ-Quartz Zone |  |
| QZ-STR-Quartz Stringer |  |

Appendix C - K7 South Zone - 2021 Drill Hole Logs


| BHID | FROM_M | TO_M | LENGTH_M | ROCK_CODE | ROCK | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| K7S-21-01 | 0 | 29.56 | 29.56 | CAS | Casing |  |
| K7S-21-01 | 29.56 | 31.74 | 2.18 | 3A | Greywacke | Fg to mg, grey greywacke with a massive to bedded texture. Unit is composed predominately of a fine grained felsic and biotite ground mass. Millimetric wide light grey felsic bands are observed sporadically throughout the unit. Moderate degree of fracture-controlled sericite alteration throughout. Frequent narrow sections of feldspar porphyry, felsic/granitic intrusions. Frequent narrow quartz stringers throughout most of the unit. Sharp lower contact with pegmatite. |
| K7S-21-01 | 31.74 | 33.33 | 1.59 | 4E | Pegmatite | Mg to vcg, pink and grey felsic unit with a massive texture. Unit is composed predominately of quartz/smokey quartz and plagioclase. Minor mica. Sharp upper and lower contact. |
| K7S-21-01 | 33.33 | 37.41 | 4.08 | 3 A | Greywacke | Fg to mg , grey greywacke with a massive to bedded texture. Unit is composed predominately of a fine grained felsic and biotite ground mass. Millimetric wide light grey felsic bands are observed sporadically throughout the unit. Moderate degree of fracture-controlled sericite alteration throughout. Frequent narrow sections of feldspar porphyry, felsic/granitic intrusions. Some sections appear to have relic feldspar porphyry texture with diffuse contacts? Sharp lower contact with granodiorite. |
| K7S-21-01 | 37.41 | 41.42 | 4.01 | 5B | Granodiorite | fg to mg , white felsic unit with black speckling throughout. Unit has a massive texture and is composed predominantly of white feldspar and grey quartz with lesser black biotite. Minor intervals of greywacke within this intrusive unit. Undulating contact with greywacke approximately along core axis from 40.3040.85 m . Sharp upper and lower contacts. |
| K7S-21-01 | 41.42 | 69.23 | 27.81 | 3 A | Greywacke | Fg to mg , grey greywacke with a massive to bedded texture. Unit is composed predominately of a fine grained felsic and biotite ground mass. Millimetric wide light grey felsic bands are observed sporadically throughout the unit. Moderate degree of fracture-controlled sericite alteration throughout. Frequent narrow sections of feldspar porphyry, felsic/granitic intrusions. Some sections appear to have relic feldspar porphyry texture with diffuse contacts? Strongly developed schistose fabric with strong biotite/sericite alteration in the lower section of this unit starting at approximately 48.40 m . |
| K7S-21-01 | 69.23 | 76.9 | 7.67 | 5B | Granodiorite | Light blue-grey, medium- to coarse-grained, massive, qz-fs-ser-bt granodiorite. This unit rarely develops a very coarse-grained texture, thus it is locally pegmatitic. This unit has a small section of greywacke at 69.50 m . |


| K7S-21-01 | 76.9 | 80.07 | 3.17 | 3 A | Greywacke | Grey to dark-grey, medium-grained, foliated greywacke. The foliation in this unit <br> is defined by elongate bt, ser, qz, and fs. This unit has weak to moderate fracture- <br> controlled sericite alteration. This unit is rarely cut by 1-3 cm-wide pegmatites. <br> This unit locally develops a schistose texture, and has no significant sulfide <br> mineralization. |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| K7S-21-01 | 80.07 | 82.13 | 2.06 | 4E | Pegmatite | Light pinkish-grey, medium- to very coarse-grained, massive, qz-fs-mica pegmatite <br> with local medium-grained granite. |
| K7S-21-01 | 82.13 | 86.72 | 4.59 | 3 A | Greywacke | Grey to dark-grey, medium-grained, foliated greywacke. The foliation in this unit <br> is defined by elongate bt, ser, qz, and fs. This unit has weak to moderate fracture- <br> controlled sericite alteration. This unit is rarely cut by 3-5 cm-wide pegmatites <br> with $0.5 \%$ py. This unit locally develops a schistose texture, and has no significant <br> sulfide mineralization. |
| K7S-21-01 | 86.72 | 92.3 | 5.58 | $4 E$ |  |  |
|  |  |  |  |  |  |  |


| K7S-21-01 | 109.45 | 144.77 | 35.32 | 3 A |  |  |
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| K7S-21-01 | 167 | 169.3 | 2.3 | 4E | Pegmatite | Light greyish-white to pinkish-grey, medium- to very coarse-grained, massive, qz- <br> fs-mica, granitic pegmatite with local section of fractured feldspathic vein (?) at <br> 167.80 m to up to 168.25 m. Diffuse upper and lower contacts with the units |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| above. |  |  |  |  |  |  |, | K7S-21-01 |
| :--- |
| 169.3 |


| K7S-21-01 | 200.51 | 221 | 20.49 | 4E | Pegmatite | Light pink to dark reddish pink, medium to coarse grained, massive, qz-fs-mica-grt (?), granitic pegmatite. There are 2 minor 20 to 35 cm sections of well foliated to schistose defined by prominent Bt (possibly strained greywacke?). Appears to have sharp to undulating contacts with the enclosing pegmatites. |
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| K7S-21-01 | 221 | 223.41 | 2.41 | 1A | Massive Flows | Fine to medium grained, grey to dark green mafic flows with a massive to occasional banded texture. Unit is composed predominately of mafic minerals with lesser amounts of grey plagioclase interstitially. This unit comprises of minor sections of well foliated/schistose (defined by prominent Bt) greywacke (possible strained?). Sulphide mineralization occurs as blebs/patches and stringers of Py, Po and locally along fractures which may be along remnant foliation. Occasionally occurs up to $3 \%$. Minor qz veins/veinlets can be observed within this unit and times ptygmatically folded. |
| K7S-21-01 | 223.41 | 236.8 | 13.39 | 4E | Pegmatite | Light to dark reddish pink to reddish grey, medium to coarse grained, massive, qz-fs-mica-grt (?), granitic pegmatite. There are a few 20 to 30 cm sections of 1 A and 3 A (5B?) units within, which appears to have locally up to $1 \%$ sulphides. $\mathrm{Py} / \mathrm{Po}$ (?) occurring usually as stringers and wisps. Py blebs are present along strained/well foliated 3 A units. Py stringers nearly at 90 degree to TCA observed in minor 1A unit within. |
| K7S-21-01 | 236.8 | 247.23 | 10.43 | 1A | Massive Flows | Fine to medium grained, grey to dark green mafic flows with a massive to occasional banded texture. Unit is composed predominately of mafic minerals with lesser amounts of grey plagioclase interstitially. Pervasive to patchy amp alteration, with a moderate amount of banded biotite alteration in sections. Sulphides are mineralized as blebs, patches and also occur as minor stringers within the unit. At times associated with banded di/ep(?) alteration. Py/Po(?) stringers follow remnant foliation trend. There are a few 1 to 5 cm thick qz/smokyqz veins which are at times bounded by Py blebs and patches. Some veins are also devoid of sulphides as well. |
| K7S-21-01 | 247.23 | 250.78 | 3.55 | 4E | Pegmatite | Light to dark reddish pink to grey, medium to coarse grained, massive, qz-fs-micagrt (?), granitic pegmatite. There is a 20 cm section of 3 A within, which appears to have locally up to $1 \%$ sulphides as minor wisp/stringer. |


| K7S-21-01 250.78 | 267 | 16.22 | 1A |  |  |  |
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| GOLD CORP |  |  |  | Hole Number: | $\mathrm{K} 7 \mathrm{~S}-21-02$ |  |  |  |  |  |
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|  |  |  |  | Drill Rig: | G4 \#8 |  |  |  |  |  |
|  |  |  |  | Claim Number: | 531157, 531165 |  |  |  |  |  |
| Location |  |  | Drill Hole Orientation |  | Dates Drilled: |  | Start Date: |  | End Date: |  |
| Surface |  |  |  |  | 10/28/2021 | 11/02/2021 |  |
| Planned Coordinates |  |  | Azimuth: | 60 |  |  | Drill Contractor: |  | G4 Drilling |  |  |  |
| Easting | 650906 |  |  |  |  |  |  |  |  |  |  |  |
| Northing |  | 3319 | Dip: | -45 | Dates Logged: |  | Start Date: |  | End Date: |  |
| Elevation(m) | 405 |  |  |  |  |  | 10/29/2021 |  | 11/03/2021 |  |
| Final Pick up |  |  | Depth(m): | 342.00 | Logger 1: |  | Antony Mohan |  |  |  |
| Easting | 650907.259 |  |  |  | Logger 2: |  |  |  |  |  |
| Northing | 5393321.587 |  | Core Size: | NQ | Logger 3: |  |  |  |  |  |
| Elevation(m) | 432.08 |  |  |  | Assay Lab: |  | Actlabs |  |  |  |
| Casing |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Purpose of Hole |  | To test an unexpected VLF anomaly in metasediments/mafic volcanics. |  |  | Dip Tests |  |  |  |  |  |
|  |  | Depth (m) | Az. | Dip | Mag | Notes | Az Un |  |  |  |  |
|  |  | 36 | 53.8 | -44.8 | 55733 |  | 61.4 |  |  |  |  |
|  |  | 66 | 57.8 | -43.9 | 53513 |  | 65.4 |  |  |  |  |
|  |  | 96 | 53.6 | -42.9 | 55791 |  | 61.2 |  |  |  |  |
| Results |  |  |  |  |  |  |  | 126 | 53.7 | -42.7 | 55819 |  | 61.3 |
|  |  |  |  |  | 186 | 54.5 | -41.7 | 55795 |  | 62.1 |
|  |  |  |  |  | 216 | 54.4 | -41 | 55620 |  | 62 |
|  |  |  |  |  | 270 | 53.3 | -39.6 | 55909 |  | 60.9 |
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| Comments |  |  |  |  |  |  |  |  |  |  |
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| Azimuth corrected to 7.6 degrees west declination |  |  |  |  |  |  |  |  |  |  |
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| BHID | FROM_M | TO_M | LENGTH_M | ROCK_CODE | ROCK | COMMENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| K7S-21-02 | 0 | 27 |  | CAS | Casing |  |
| K7S-21-02 | 27 | 43.44 |  | 3A | Greywacke | Grey to dark-grey, medium-grained, foliated amph-rich greywacke. The foliation in this unit is defined by elongate amph, ser, qz, and fs. This unit has weak to moderate fracture-controlled sericite alteration. This unit is cut by a minor section of pegmatitic granite (?). This unit develops a schistose texture dominated by strong Bt dominated foliation between 40 to 43.44 m , and has no significant sulfide mineralization. Gt porphyroblasts are also observed along this schistose zones. This unit also has light grey beds/bands (1-2 cm-wide) that are characterized by a white, fs-rich groundmass, and dark green, acicular amph. This unit also has green beds/bands ( $1-3 \mathrm{~cm}$-wide) that are characterized by ep-di-fs. Minor sulphides of locally up to $1 \%$ are observed as blebs and disseminations trending along foliation dominated by dark-green amph and Bt (?) |
| K7S-21-02 | 43.44 | 51.55 |  | 4E | Pegmatite | Pinkish grey to greyish-red, medium to coarse-grained, massive, occasionally cut by fractures and subsequent healing. Dominated by qz/smoky qz-fs-mica, +/-grt (?). Almost sharp upper and lower diffuse/gradational contacts with 3A units above and below. Section 43.44 to 45 m appears more to be a granite and further grading towards to a more pegmatitic texture. |
| K7S-21-02 | 51.55 | 57.35 |  | 3A | Greywacke | Grey to dark-grey, medium-grained, foliated amph-rich greywacke. The foliation in this unit is defined by elongate amph, ser, qz, and fs. This unit has weak to moderate fracture-controlled sericite alteration. This unit develops a schistose texture dominated by strong Bt dominated foliation. This unit also has light grey beds/bands (1-2 cm-wide) that are characterized by a white, fs-rich groundmass, and dark green, acicular amphiboles. The strain and Bt dominated foliation seems to increase towards the basal contact with 1 A unit. There is a minor $10-15 \mathrm{~cm}$ section of granodiorite intruding(?) at an angle of 25 degree with TCA along the contact with 1 A . Up to $1 \%$ of sulphides are present as blebs/disseminations associated to the contact zone following the trend of the granodiorite contact. |


| K7S-21-02 | 57.35 | 64 |  | 1A | Massive Flows | Fine to medium grained, grey to dark green mafic flows with a massive to occasional banded texture. Unit is composed predominately of mafic minerals with lesser amounts of grey plagioclase interstitially. Pervasive to patchy amp alteration, with a moderate amount of banded biotite alteration in sections which increases more towards the basal contact with 1 B unit. There are several 0.5 cm $q z, q z-f s$ veins trending at angles between 55-70 degree with TCA throughout the section. Sulphides are present throughout this unit. Po mostly occurs as stringers and wisps following a trend parallel to remnant foliation \& possibly bounding these dark-green amph dominated layers. There seems to be more Po compared to Py along this litho-unit. Py is often seen along and within certain sections of banded di alt(?) \& within certain qz veinlets. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| K7S-21-02 | 64 | 67.78 |  | 1B | Pillowed Flows | Dark green-grey, fine-med grained, foliated, pillowed mafic unit, where the pillows are flattened and are dark grey and primarily composed of plagioclase and amphibole, and the pillow salvages are green, and composed of plagioclase, epidote/diopside +/- amphibole. This unit shows alternating bands of Di alt(?) with patchy/blebby mineralization of $\mathrm{Py} / \mathrm{Po}$ (?) locally reaching up to 0.1 to $2 \%$. There are a few minor 0.5 to $1 \mathrm{~cm} q z$ veins that are identified within the section with trace to up to $0.5 \%$ sulphides. Py/Po stringers ( $0.2-0.5 \mathrm{~cm}$ ) are also observed with up to $5 \%$ locally. These stringers are usually parallel to remnant foliation. Blebs or Py patches are observed within the banded di alt bands. This unit seems to grade more towards as a 1A down towards the basal contact. |
| K7S-21-02 | 67.78 | 72.7 |  | 1A | Massive Flows | Fine grained, grey to dark green mafic flows with a massive to occasional banded texture. Unit is composed predominately of mafic minerals with lesser amounts of grey plagioclase interstitially. Pervasive to patchy amp alteration, with a moderate amount of banded biotite alteration. There are a few 0.2 to $1 \mathrm{~cm} q z, q z-f s$ veins trending at angles between 60-80 degree with TCA/others ptygmatically folded throughout the section. Sulphides are present throughout this unit. Po mostly occurs as stringers and wisps following a trend parallel to remnant foliation \& possibly bounding these dark-green amph dominated layers. This unit has minor interlayers of feldspar porphyry's (with minor sulphide disseminations (?) and granodiorite. |


| K7S-21-02 | 72.7 | 76.14 | 1B | Pillowed Flows | Dark green-grey, fine-med grained, foliated, pillowed mafic unit, where the pillows are flattened and are dark grey and primarily composed of plagioclase and amphibole, and the pillow salvages are green and composed of plagioclase, epidote/diopside +/- amphibole. This unit shows alternating bands of Di alt(?) (usually assuming the same trend of foliation) with patchy/blebby mineralization of $\mathrm{Py} / \mathrm{Po}$ (?) locally reaching up to 0.1 to $0.5 \%$. Sulphides are usually associated with banded di alt patches and also often associated with fracture surfaces. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| K7S-21-02 | 76.14 | 77.45 | 3A | Greywacke | Grey to dark-grey, medium-grained, foliated amph-rich greywacke. The foliation in this unit is defined by elongate amph, ser, qz, and fs. This unit has weak to moderate fracture-controlled sericite alteration. The sharp upper contact is bounded by a granodiorite (?) unit and at the basal contact it grades into a massive to pillowed basalt. |
| K7S-21-02 | 77.45 | 99.97 | 1B | Pillowed Flows | Dark green-grey, fine-med grained, foliated, pillowed mafic unit, where the pillows are flattened and are dark grey and primarily composed of plagioclase and amphibole, and the pillow salvages are green and composed of plagioclase, epidote/diopside +/- amphibole. This unit shows alternating bands of Di alt(?) (usually assuming the same trend of foliation) with patchy/blebby mineralization of $\mathrm{Py} / \mathrm{Po}($ ?) locally reaching up to 0.1 to $2 \%$. Sulphides are usually associated with banded di alt patches and also often associated with fracture surfaces. There are several minor 10 cm to 25 cm interlayers of potential pegmatite (pegmatitic ?), greywacke and feldspar porphyry units. A few smoky qz and qz-fs veins are identified within the unit which appears to have trace to occasionally up to $2 \%$ in fracture controlled mineralization events. From 97.88 to 98.3 m , there seems to be fracture ( 15 degree to TCA)-healing which appears to have bleached this minor section to a grey-dark greyish color. |
| K7S-21-02 | 99.97 | 107.76 | 4E | Pegmatite | Pinkish red, medium to coarse-grained, massive, occasionally fractured and consequently healed. Dominated by qz, smoky-qz, pink fs, fs, mica). Sharp upper and lower contacts with the upper 1B and lower 6Funits. No visible sulphides observed within the section. |
| K7S-21-02 | 107.76 | 111.85 | 6F | Mafic Dyke | Dark green to greenish grey, fine to medium grained mafic dyke(?). Appears to be well foliated developed by dominant Bt and other dark green amph minerals. Preferred foliation is by Bt and the dark green amph appears as laths oriented randomly not defining a particular trend. No visible sulphides associated within this section. |


| K7S-21-02 | 111.85 | 114.45 |  |  | 4B |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| K7S-21-02 | 180.93 | 185.09 | 1B | Pillowed Flows | Dark green-grey, fine-med grained, foliated, pillowed mafic unit, where the pillows are flattened and are dark grey and primarily composed of plagioclase and amphibole, and the pillow salvages are green and composed of plagioclase, epidote/diopside +/- amphibole. This unit shows alternating bands of Di alt(?) (usually assuming the same trend of foliation) with patchy/blebby mineralization of $\mathrm{Py} / \mathrm{Po}($ ? ) locally reaching up to 0.1 to $1 \%$. Sulphides are usually associated with banded di alteration patches and also often fracture controlled (?). There are minor interlayers of pegmatite dyke (?) and a section of feldspar porphyry within this pillowed mafic unit. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| K7S-21-02 | 185.09 | 192.55 | 4E | Pegmatite | Pinkish white-greyish pink to pinkish red, medium to coarse-grained, heterogenous and very quartz/smoky qz rich ( up to $40 \%$ visual), with anhedral to subhedral K-fs, and plagioclase fs, +/-mica, +/-Gt, massive, (occasionally certain sections resemble more of granites) pegmatite. |
| K7S-21-02 | 192.55 | 193.97 | 1B | Pillowed Flows | Dark green-grey, fine-med grained, foliated, pillowed mafic unit, where the pillows are flattened and are dark grey and primarily composed of plagioclase and amphibole, and the pillow salvages are green and composed of plagioclase, epidote/diopside +/- amphibole. There are minor interlayers of greywacke within this section. It seems to have a sharp contact with the pillowed mafic unit and assumes the trend of foliation. |
| K7S-21-02 | 193.97 | 219 | 4E | Pegmatite | Pinkish white-greyish pink to pinkish red, medium to coarse-grained, heterogenous and very quartz/smoky qz rich ( up to $40 \%$ visual), with anhedral to subhedral K-fs, and plagioclase fs, +/-mica, +/-Gt, massive, (occasionally certain sections resemble more of granites) pegmatite. Certain sections of the unit assumes a more greyish tone due to the increasing amount of Bt (mica) and other dark grey-black accessory minerals (hornblende(?). |
| K7S-21-02 | 219 | 220.9 | 4B | Feldspar Porphy | Fine to med grained, felsic unit, light to dark grey, composed of predominately quartz, plagioclase and less amounts of biotite. Millimetric sized feldspar phenocrysts throughout that produce a porphyritic texture (where phenocrysts are moderate to strongly foliated). Matrix may be is composed of qz, plagioclase fs and bt (?). Some sections resemble more of a greywacke with remnant bedding/foliation observed? Po/Py is mineralized as blebs and disseminations usually following the remnant foliation trend and locally reaching up to 0.5\% within certain sections. |
| K7S-21-02 | 220.9 | 229.52 | 4E | Pegmatite | Pinkish white-greyish, medium to coarse-grained, heterogenous and very quartz/smoky qz rich ( up to $40 \%$ visual), with anhedral to subhedral K-fs, and plagioclase fs, +/-mica, +/-Gt, massive pegmatite. |


| K7S-21-02 | 229.52 | 231.83 |  | 4B |  |  |
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| K7S-21-02 | 271.27 | 288.32 | 4B | Feldspar Porphy | Fine to med grained, felsic unit, light to dark grey, composed of predominately quartz, plagioclase and less amounts of biotite. Millimetric sized feldspar phenocrysts throughout that produce a porphyritic texture (where phenocrysts are moderate to strongly foliated). Matrix may be is composed of qz, plagioclase fs and bt (?). Py and possibly Po is mineralized as disseminations usually following the remnant foliation trend and locally reaching up to $0.5-1 \%$ within certain sections. There are minor intrusions of pegmatitic dyke (?) within this interval. Some sections of the unit is less porphyritic in texture and consists of bands of light grey to white bands (qz-fs) alternating with darker green (amphibole) bands. In those sections sulphide disseminations are lesser compared to the porphyritic zones. There are several 2 mm to 5 mm qz/silicified veins within the unit usually following the same trend as of the foliation. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| K7S-21-02 | 288.32 | 291 | 4E | Pegmatite | Pinkish greyish-reddish, medium to coarse-grained, heterogenous and very quartz/smoky qz rich ( up to $40 \%$ visual), with anhedral to subhedral K-fs, and plagioclase fs, $+/-$ mica, $+/-\mathrm{Gt}$, massive pegmatite. Appears to have a sharp upper and lower contact with the feldspar porphyry and pillowed mafics (?) |
| K7S-21-02 | 291 | 296.05 | 1B | Pillowed Flows | Dark green-grey, fine-med grained, foliated, pillowed mafic unit, where the pillows are flattened and are dark grey and primarily composed of plagioclase and amphibole, and the pillow salvages are green and composed of plagioclase, epidote/diopside +/- amphibole. This units consists of wisps of stretched and or boudinaged felsic veinlets which are parallel to the foliation of the unit. There are a few 2 to 15 cm sections of light to pale green alt zones (possibly di?) within this interval. Sulphides usually Po?/Py (as wisps, disseminations (?)) is associated with alternating bands of light grey-white fine grained qz-fs and dark green amphiboles. There are several 1 to $4 \mathrm{~mm} q z, q z-\mathrm{fs}$ ? veinlets within the section, some of which follow the same trend of foliation ( 60 degree TCA). |


| K7S-21-02 296.05 | 298 |  |  |  |  |  |
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| BHID | FROM_ITO_M |  | LENGTH_M | ROCK_CODE | ROCK | COMMENTS |
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| K7S-21-03 | 0 | 12.76 | 12.76 | CAS | Casing |  |
| K7S-21-03 | 12.76 | 20.94 | 8.18 | 1B | Pillowed Flows | Dark green-grey, fine-med grained, foliated, pillowed mafic unit, where the pillows are flattened and are dark grey and primarily composed of plagioclase and amphibole, and the pillow salvages are green and composed of plagioclase, epidote/diopside +/- amphibole. This units consists of wisps of stretched and or boudinaged felsic veinlets which are parallel to the foliation of the unit. There are a few 2 to 5 cm sections of light to pale green alt zones (possibly di-epidote-dark green amph?) within this interval. Sulphides usually Po?/Py (as wisps, disseminations (?)) is associated with these zones ranging from 0.1 to $0.5 \%$. There are minor intervals of pegmatitic dykes, greywacke? and two 5 cm qz/pegmatite vein? within this unit. The qz veins? are not usually sulphide rich here, but with rare occurrences and at time $\mathrm{Py} / \mathrm{Po}$ ? is present bounding these veins within the wall rock ranging from 0.5 to $1 \%$ locally. |
| K7S-21-03 | 20.94 | 29.64 | 8.7 | 4E | Pegmatite | Pinkish grey-reddish, medium to coarse-grained, heterogenous and very quartz/smoky qz rich ( up to $40 \%$ visual), with anhedral to subhedral K-fs, and plagioclase $\mathrm{fs},+/$-mica, $+/-\mathrm{Gt}$, massive pegmatite. Appears to have a sharp upper and wavy/irregular lower contact with the pillowed mafic units. |
| K7S-21-03 | 29.64 | 34.6 | 4.96 | 1B | Pillowed Flows | Dark green-grey, fine-med grained, foliated, pillowed mafic unit, where the pillows are flattened and are dark grey and primarily composed of plagioclase and amphibole, and the pillow salvages are green and composed of plagioclase, epidote/diopside $+/$ - amphibole. This units consists of stretched and or boudinaged qz/qz-felsic veinlets which are almost parallel to the foliation of the unit. There are a few 2 to 10 cm sections of light to pale green alt zones (possibly di-epidote-dark green amph?) within this interval. Sulphides usually Po?/Py (as wisps, disseminations (?)) is associated with these zones and along certain fractures parallel to foliation ranging from 0.1 to $0.5 \%$. There are minor intervals of pegmatitic dykes, feldspar porphyry's and possible greywacke? units within. |
| K7S-21-03 | 34.6 | 46.58 | 11.98 | 4E | Pegmatite | Pinkish grey-reddish, medium to coarse-grained, heterogenous and very quartz/smoky qz rich ( up to $40 \%$ visual), with anhedral to subhedral K-fs, and plagioclase $\mathrm{fs},+/$-mica, $+/-\mathrm{Gt}$, massive pegmatite. Appears to have a sharp upper and sharp to slightly diffuse lower contact with the pillowed mafic units. There is a minor section of potential granodiorite within this interval. The core is broken from 35.60 to 36.80 m . |


| K7S-21-03 | 46.58 | 73.63 | 27.05 | 1B |  |  |
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| K7S-21-03 | 106.15 | 108.87 | 2.72 | 5B | Granodiorite | Light grey to beige, medium grained, equigranular, massive granodiorite mostly composed of qz, fs, bt, hornblende(?) and other accessory minerals. This unit has an irregular upper contact and sharp lower contact with the pegmatite and pillowed mafic units respectively. There is a minor healed (brick red mineral?) fracture at the base of the granodiorite (from 108.30 to 108.80 m ). |
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| K7S-21-03 | 108.87 | 113.56 | 4.69 | 1B | Pillowed Flows | Dark green-grey, fine-med grained, foliated, pillowed mafic unit, where the pillows are flattened and are dark grey and primarily composed of plagioclase and amphibole, and the pillow salvages are green and composed of plagioclase, epidote/diopside +/- amphibole. These mafics exhibit a banded texture with alternating layers of dark green amphiboles, dark grey felsic and pale green di alteration bands (?). Sulphides are usually present as Py overprinting the dark green amph bands and also as disseminations/blebs associated with the di alt patches. Py/Po? also occur as fracture controlled patches to up to 5\% locally. There is band from 112.10 to 112.16 (true thickness $2 \mathrm{~cm}, 60$ degrees to TCA) that is highly magnetic (981 magsus) and has sulphide disseminations overprinting the band of up to $0.5 \%$. There are three 5 cm patches of possible di-ep-amph alt patches within this unit with associated overprinting of sulphides of up to $0.5 \%$ locally inn those patches. |
| K7S-21-03 | 113.56 | 190.49 | 76.93 | 5B | Granodiorite | Light grey-bluish grey-pinkish grey (from 181.39 to 190.49 m ), medium grained, equigranular, massive granodiorite mostly composed of $\mathrm{qz}, \mathrm{fs}$, bt, hornblende(?)+/gt and other accessory minerals. This unit has a sharp upper and lower contacts with the pillowed mafic and feldspar porphyry units. There are minor interlayers of altered/strained feldspar porphyry's, metasediments (pillowed or massive mafics?-some sections are well foliated by dominated bt minerals) to 138 m . From 138 m there are minor intrusions of pegmatite within this section up to 149 m . Some sections are broken ( 152.47 to $154.27 \mathrm{~m}, 174.52$ to 174.79 and 176 to 176.25 m ) |
| K7S-21-03 | 190.49 | 191.97 | 1.48 | 4B | Feldspar Porphy | Fine to med grained, felsic unit, light to dark grey, composed of predominately quartz, plagioclase and less amounts of biotite. Millimetric sized feldspar phenocrysts throughout that produce a porphyritic texture (where phenocrysts are moderate to strongly foliated). Matrix may be is composed of qz, plagioclase fs and bt (?). There are minor interlayers of greywacke (remnant bedding?), pillowed mafics units within this interval. Certain sections of the $4 B$ is so stretched out so that it appears to be like banding (alternating light grey and dark greygreen? |


| K7S-21-03 | 191.97 | 193.8 | 1.83 | 3 A | Greywacke | Grey to dark-grey, medium-grained, foliated amph/bt?-rich greywacke. The foliation in this unit is defined by elongate amph, ser, qz, and fs. This unit has weak fracture-controlled sericite alteration. Certain sections of the unit appears to be more porphyritic (4B?). There are two 0.5 cm qz/qz-fs veining within this unit. No visible sulphides associated with it. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| K7S-21-03 | 193.8 | 195.73 | 1.93 | 5B | Granodiorite | Light pinkish grey-beige, medium grained, equigranular, massive granodiorite mostly composed of qz, fs, bt, hornblende(?)+/- gt and other accessory minerals. The upper section appears to be granitic? This unit has sharp upper and lower contacts with the greywacke and feldspar porphyry units respectively. |
| K7S-21-03 | 195.73 | 214.4 | 18.67 | 4B | Feldspar Porphy | Fine to med grained, felsic unit, light to dark grey, composed of predominately quartz, plagioclase and less amounts of biotite. Millimetric sized feldspar phenocrysts throughout that produce a porphyritic texture (where phenocrysts are moderate to strongly foliated). Matrix may be is composed of qz, plagioclase fs and bt (?). There are minor interlayers of greywacke (remnant bedding?), mafics units within this interval. Certain sections is so stretched out so that it appears to be like banding (alternating light grey and dark grey-green-black?. Some sections have 5 to 20 cm of white-light grey bands alternating with wisps of dark green amph with occasional light grey bands. Cherty wisps/siliceous fragments can be seen within these sections. Sulphides are minor and usually occur as disseminations interspersed throughout the unit reaching up to $1 \%$. From 208.43 to 211.45 m the section (Strained Granodiorite?)/) appears to be well foliated with less visible strained porphyroblasts |


| K7S-21-03 | 214.4 | 225.27 | 10.87 | 1B |  |  |
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| K7S-21-03 | 232.73 | 261.52 | 28.79 | 4B | Feldspar Porphy | Fine to med grained, felsic unit, light to dark grey, composed of predominately quartz, plagioclase and less amounts of biotite. Millimetric sized feldspar phenocrysts throughout that produce a porphyritic texture (where phenocrysts are moderate to strongly foliated). Matrix is composed of qz, plagioclase fs and bt (?). There are minor interlayers of greywacke (remnant bedding?), mafics units within this interval. Cherty wisps/siliceous bands can be seen within this section throughout. Sulphides are minor and usually occur as disseminations interspersed throughout the unit reaching up to $0.1 \%$ and occasionally $1 \%$ locally. From 232.73 to 237, the unit appears to more fine to medium grained and less foliated compared the section below. Phenocrysts are smaller in size and bt/amph wisps surrounding the porphyroblasts are less stretched out. Section from 237 to 261.52 m (phenocrysts are larger in size, more foliated, more porous-dissolution porosity?, more sericite alt along fracture. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| K7S-21-03 | 261.52 | 281 | 19.48 | 1B | Pillowed Flows | Dark green-grey, fine-med grained, foliated, pillowed mafic unit, where the pillows are flattened and are dark grey and primarily composed of plagioclase and amphibole, and the pillow salvages are green and composed of plagioclase, epidote/diopside +/- amphibole. These mafics exhibit a banded texture with alternating layers of dark green amphiboles, dark grey felsic and pale green di alteration bands (?). Sulphides are usually present as fine disseminations (up to $0.5 \%$ throughout unit associated with? pale green di alt patches). This unit has 5 to 10 cm patches of pale green di alteration with up to $1 \%$ sulphide disseminations locally. Certain sections of the unit show qz veining that appear to be wavy and as wisps/cherty fragments. There is evidence of stretching and accompanied boundinaging of these veinlets. There are minor interlayers of $4 \mathrm{~B}, 3 \mathrm{~A}, 4 \mathrm{E}$ and possibly minor 1 A units. Patchy di-pervasive amph-chl?-frac controlled ep altered section-276.52 to 276.92 m - euhedral sulphides? |
| K7S-21-03 | 281 | 316.61 | 35.61 | 5B | Granodiorite | Reddish pink to beige, medium grained, equigranular, massive granodiorite mostly composed of qz, fs, bt, hornblende(?) and other accessory minerals. This unit has an irregular upper contact and sharp lower contact with the pillowed mafic unit. There are several healed fractures especially up to 289 m with a dark grey green to black mineral (altered bt, chl?). The upper section of the unit from 281 to 286 appear more granitic. |


| K7S-21-03 | 316.61 | 319.38 | 2.77 |  | 1A |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| K7S-21-03 | 333.25 | 335.42 | 2.17 | 4B | Feldspar Porphy | Fine to med grained, felsic unit, light to dark grey, composed of predominately <br> quartz, plagioclase and less amounts of biotite. Millimetric sized feldspar <br> phenocrysts throughout that produce a porphyritic texture (where phenocrysts <br> are moderate to strongly foliated). Matrix is composed of qz, plagioclase fs and bt <br> (?). There are minor interlayers of greywacke (remnant bedding?), massive mafic <br> unit occurs within this interval. |
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| K7S-21-03 | 335.42 | 339 | 3.58 |  |  |  |


| K7S-21-03 | 341.08 | 351.65 | 10.57 | 1B |  |  |
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| K7S-21-03 | 384.77 | 400.87 | 16.1 | 4E | Pegmatite | Pinkish grey-beige, medium to coarse-grained, heterogenous and very quartz/smoky qz rich ( up to $40 \%$ visual), with anhedral to subhedral K-fs, and plagioclase fs, +/-mica, +/-Gt, massive pegmatite. Sharp upper and lower contacts. There are minor interlayers of mafic units scattered throughout . |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| K7S-21-03 | 400.87 | 402 | 1.13 | 7A | Diabase | Very fine grained, dark grey to black, massive mafic unit composed of mostly mafic minerals of amphibole/pyroxene and interstitial very fine grained white plagioclase. Cross-cutting of veinlets are are often mechanical fractured and coated with epidote. Scattered trace specks of pyrite throughout this unit. Sharp upper and lower contacts. |
| K7S-21-03 | 402 | 428.2 | 26.2 | 1B | Pillowed Flows | Dark green-grey, fine-med grained, foliated, pillowed mafic unit, where the pillows are flattened and are dark grey and primarily composed of plagioclase and amphibole, and the pillow salvages are green and composed of plagioclase, epidote/diopside +/- amphibole. These mafics exhibit a banded texture with alternating layers of dark green amphiboles, dark grey felsic and pale green di alteration bands (?).There is evidence of stretching and accompanied boundinaging of these veinlets. This pillowed flow in particular is much more altered than the pillowed mafics seen up dip. This includes increased epidotization and also sections that are highly silicified. Highly silicfied sections often contain a series of cross-cutting epidotized veinlets. In addition there is a greater number of pegmatic//granodiorite veinlets/veins and sections pegmatitic minor units scattered throughout. There is possible evidence of folding indicating a fold hinge? Also a significant change in foliation angle. |
| K7S-21-03 | 428.2 | 440.31 | 12.11 | 4E | Pegmatite | Pinkish grey-beige, medium to coarse-grained, heterogenous and very quartz/smoky qz rich ( up to $40 \%$ visual), with anhedral to subhedral K-fs, and plagioclase fs, +/-mica, +/-Gt, massive pegmatite. Sharp upper and lower contacts. There are minor interlayers of mafic units scattered throughout . |


| K7S-21-03 | 440.31 | 441.82 | 1.51 |  | 1B |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
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| K7S-21-03 | 450.85 | 452.39 | 1.54 |  |  |  |
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| K7S-21-03 | 481.15 | 483.47 | 2.32 | 4E | Pegmatite | Pinkish grey-beige, medium to coarse-grained, heterogenous and very <br> quartz/smoky qz rich ( up to 40\% visual), with anhedral to subhedral K-fs, and <br> plagioclase fs, +/-mica, +/-Gt, massive pegmatite. Sharp upper and lower contacts. |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| K7S-21-03 | 483.47 | 488.05 | 4.58 | 5 E |  | Tonalite |
| K7S-21-03 | 488.05 | 491.93 | 3.88 |  |  |  |




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|  |  |  |  | , |  | \% |  |  |  |  |  | $\cdots$ | $\stackrel{\sim}{*}$ | $\cdots$ | $\cdots$ | $\cdots$ | - | * |  |  | $\sim$ | $\because$ | \% |  | " | + |  |  |  |  |  |  |  | $\cdots$ |  |  |  |  | ${ }^{*}$ | $\cdots$ | *.... |  |  |  |  |  |  |
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Appendix D - K7 South Zone - 2021 Drill Hole Cross Sections



Appendix E-K7 South Zone - 2021 Drill Hole Plans



Appendix F - K7 South Zone - 2021 Actlabs Assay Certificates

| Report No.: | A21-20231 |
| :--- | :--- |
| Report Date: | $29-$ Oct-21 |
| Date Submitted: | $27-$ Oct-21 |
| Your Reference: | Exploration/Prospecting |

## Harte Gold Corp.

161 Bay Street
Suite 2400
Toronto Ontario M5J 2S1
Canada

ATTN: David Stevenson

## CERTIFICATE OF ANALYSIS

10 Rock samples were submitted for analysis.

| The following analytical package(s) were requested: | Testing Date: |  |
| :--- | :--- | :--- |
| 1A2-Tbay-Harte Gold | QOP AA-Au (Au - Fire Assay AA) | 2021-10-29 18:10:04 |

REPORT A21-20231
This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

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

LabID: 673

ACTIVATION LABORATORIES LTD.
1201 Walsh Street West, Thunder Bay, Ontario, Canada, P7E 4X6 TELEPHONE $+807622-6707$ or +1.888 .228 .5227 FAX +1.905 .648 .9613 TELEPHONE +807 622-6707 or +1.888.228.5227FAX + 1.905 .648 .9613

CERTIFIED BY:


Emmanuel Eseme, Ph.D.
Quality Control Coordinator

| Analyte Symbol | Au |
| :--- | ---: |
| Unit Symbol | ppb |
| Lower Limit | 5 |
| Method Code | FA-AA |
| 831971 | $<5$ |
| 831972 | $<5$ |
| 831973 | $<5$ |
| 831974 | $<5$ |
| 831975 | $<5$ |
| 831976 | $<5$ |
| 831977 | $<5$ |
| 831978 | $<5$ |
| 831979 | $<5$ |
| 831980 | 3680 |


| Report No.: | A21-20694 |
| :--- | :--- |
| Report Date: | 22-Nov-21 |
| Date Submitted: | 03-Nov-21 |
| Your Reference: | Exploration/Prospecting |

Harte Gold Corp.
161 Bay Street
Suite 2400
Toronto Ontario M5J 2S1
Canada

ATTN: David Stevenson

## CERTIFICATE OF ANALYSIS

115 Rock samples were submitted for analysis.

| The following analytical package(s) were requested: | Testing Date: |  |
| :--- | :--- | :--- |
| UT-6 | QOP Total/QOP Ulltratrace- 4acid Digest (Total <br> Digestion ICPOES/ICPMS) | 2021-11-15 09:31:54 |

REPORT A21-20694
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Notes:
If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3
Values which exceed the upper limit should be assayed for accurate numbers.


Report No.: A21-20694<br>Report Date: 22-Nov-21<br>Date Submitted: 03-Nov-21<br>Your Reference: Exploration/Prospecting<br>Harte Gold Corp.<br>161 Bay Street<br>Suite 2400<br>Toronto Ontario M5J 2S1<br>Canada

## ATTN: David Stevenson

## CERTIFICATE OF ANALYSIS

115 Rock samples were submitted for analysis.

| The following analytical package(s) were requested: | Testing Date: |  |
| :--- | :--- | :--- |
| 1A2-Tbay-Harte Gold | QOP AA-Au (Au - Fire Assay AA) | 2021-11-05 07:20:30 |

## REPORT A21-20694

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Notes:
If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3
Values which exceed the upper limit should be assayed for accurate numbers.


| Analyte Symbol | Au | Li | Na | Mg | AI | K | Ca | Cd | V | Cr | Mn | Fe | Hf | Ni | Er | Be | Ho | Ag | Cs | Co | Eu | Bi | Se |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | ppm | \% | \% | \% | \% | \% | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 5 | 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 | 0.05 | 0.05 | 0.1 | 0.05 | 0.02 | 0.1 |
| Method Code | FA-AA | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS |
| 831981 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831982 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831983 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831984 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831985 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831986 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831987 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831988 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831989 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831990 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831991 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831992 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831993 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831994 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831995 | < 5 | 130 | 2.24 | 0.85 | 8.00 | 2.05 | 2.67 | <0.1 | 56 | 34 | 467 | 3.65 | 2.6 | 37.9 | 1.1 | 1.5 | 0.4 | 0.06 | 14.1 | 13.1 | 1.22 | 0.47 | < 0.1 |
| 831996 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831997 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831998 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831999 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832000 | 3580 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832001 | 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832002 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832003 | 18 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832004 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832005 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832006 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832007 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832008 | 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832009 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832010 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832011 | 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832012 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832013 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832014 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832015 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832016 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832017 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832018 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832019 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832020 | 7220 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832021 | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832022 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832023 | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832024 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832025 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832026 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832027 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832028 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832029 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832030 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832031 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Au | Li | Na | Mg | AI | K | Ca | Cd | V | Cr | Mn | Fe | Hf | Ni | Er | Be | Ho | Ag | Cs | Co | Eu | Bi | Se |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | ppm | \% | \% | \% | \% | \% | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 5 | 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 | 0.05 | 0.05 | 0.1 | 0.05 | 0.02 | 0.1 |
| Method Code | FA-AA | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS |
| 832032 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832033 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832034 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832035 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832036 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832037 | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832038 | 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832039 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832040 | 3560 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832041 | 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832042 | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832043 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832044 | 9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832045 | 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832046 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832047 | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832048 | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832049 | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832050 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832051 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832052 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832053 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832054 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832055 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832056 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832057 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832058 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832059 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832060 | 3760 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832061 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832062 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832063 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832064 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832065 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832066 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832067 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832068 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832069 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832070 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832071 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832072 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832073 | 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832074 | 119 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832075 | 51 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832089 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832090 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832091 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832092 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832093 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832094 | 20 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832095 | 13 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Au | Li | Na | Mg | AI | K | Ca | Cd | V | Cr | Mn | Fe | Hf | Ni | Er | Be | Ho | Ag | Cs | Co | Eu | Bi | Se |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | ppm | \% | \% | \% | \% | \% | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 5 | 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 | 0.05 | 0.05 | 0.1 | 0.05 | 0.02 | 0.1 |
| Method Code | FA-AA | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS |
| 832076 | 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832077 | 20 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832078 | 984 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832079 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832080 | 7150 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832081 | 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832082 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832083 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832084 | 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832085 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832086 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832087 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832088 | 11 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Zn | Ga | As | Rb | Y | Sr | Zr | Nb | Mo | In | Sn | Sb | Te | Ba | La | Ce | Pr | Nd | Sm | Gd | Tb | Dy | Cu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | pm |
| Lower Limit | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 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 | 0.2 |
| 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 |
| 831981 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831982 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831983 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831984 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831985 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831986 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831987 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831988 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831989 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831990 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831991 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831992 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831993 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831994 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831995 | 76.9 | 21.0 | <0.1 | 108 | 11.6 | 478 | 88 | 0.3 | 0.15 | <0.1 | <1 | <0.1 | <0.1 | 603 | 34.5 | 75.0 | 9.0 | 32.0 | 5.7 | 3.8 | 0.5 | 2.4 | 34.1 |
| 831996 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831997 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831998 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831999 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832001 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832002 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832003 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832004 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832005 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832006 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832007 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832008 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832009 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832010 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832011 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832012 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832013 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832014 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832015 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832016 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832017 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832018 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832019 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832020 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832021 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832022 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832023 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832024 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832025 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832026 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832027 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832028 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832029 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832030 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832031 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Zn | Ga | As | Rb | Y | Sr | Zr | Nb | Mo | In | Sn | Sb | Te | Ba | La | Ce | Pr | Nd | Sm | Gd | Tb | Dy | Cu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 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 | 0.2 |
| 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 |
| 832032 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832033 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832034 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832035 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832036 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832037 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832038 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832039 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832040 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832041 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832042 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832043 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832044 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832045 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832046 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832047 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832048 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832049 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832050 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832051 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832052 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832053 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832054 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832055 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832056 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832057 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832058 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832059 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832060 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832061 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832062 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832063 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832064 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832065 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832066 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832067 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832068 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832069 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832070 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832071 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832072 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832073 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832074 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832075 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832089 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832090 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832091 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832092 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832093 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832094 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832095 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Zn | Ga | As | Rb | Y | Sr | Zr | Nb | Mo | In | Sn | Sb | Te | Ba | La | Ce | Pr | Nd | Sm | Gd | Tb | Dy | Cu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 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 | 0.2 |
| 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 |
| 832076 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832077 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832078 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832079 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832080 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832081 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832082 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832083 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832084 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832085 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832086 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832087 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832088 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Ge | Tm | Yb | Lu | Ta | W | Re | TI | Pb | Sc | Th | U | Ti | P | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | \% | \% |
| Lower Limit | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.001 | 0.05 | 0.5 | 1 | 0.1 | 0.1 | 0.0005 | 0.001 | 0.01 |
| Method Code | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-ICP | TD-MS | TD-MS | TD-ICP | TD-ICP | TD-ICP |
| 831981 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831982 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831983 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831984 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831985 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831986 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831987 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831988 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831989 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831990 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831991 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831992 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831993 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831994 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831995 | 0.2 | 0.2 | 1.0 | 0.1 | <0.1 | < 0.1 | < 0.001 | 0.58 | 8.7 | 11 | 4.3 | 1.1 | 0.193 | 0.101 | 0.04 |
| 831996 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831997 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831998 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831999 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832001 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832002 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832003 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832004 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832005 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832006 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832007 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832008 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832009 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832010 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832011 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832012 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832013 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832014 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832015 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832016 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832017 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832018 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832019 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832020 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832021 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832022 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832023 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832024 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832025 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832026 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832027 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832028 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832029 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832030 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832031 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Ge | Tm | Yb | Lu | Ta | W | Re | TI | Pb | Sc | Th | U | Ti | P | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | \% | \% |
| Lower Limit | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.001 | 0.05 | 0.5 | 1 | 0.1 | 0.1 | 0.0005 | 0.001 | 0.01 |
| Method Code | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-ICP | TD-MS | TD-MS | TD-ICP | TD-ICP | TD-ICP |
| 832032 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832033 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832034 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832035 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832036 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832037 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832038 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832039 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832040 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832041 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832042 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832043 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832044 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832045 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832046 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832047 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832048 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832049 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832050 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832051 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832052 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832053 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832054 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832055 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832056 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832057 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832058 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832059 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832060 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832061 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832062 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832063 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832064 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832065 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832066 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832067 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832068 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832069 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832070 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832071 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832072 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832073 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832074 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832075 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832089 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832090 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832091 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832092 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832093 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832094 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832095 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Ge | Tm | Yb | Lu | Ta | W | Re | \|T1 | Pb | Sc | Th | U | Ti | P | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | \% | \% |
| Lower Limit | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.001 | 0.05 | 0.5 |  | 0.1 | 0.1 | 0.0005 | 0.001 | 0.01 |
| Method Code | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-ICP | TD-MS | TD-MS | TD-ICP | TD-ICP | TD-ICP |
| 832076 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832077 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832078 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832079 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832080 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832081 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832082 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832083 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832884 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832085 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832086 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832087 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832088 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Au | Li | Na | Mg | AI | K | Ca | Cd | V | Cr | Mn | Fe | Hf | Ni | Er | Be | Ho | Ag | Cs | Co | Eu | Bi | Se |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | ppm | \% | \% | \% | \% | \% | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 5 | 0.5 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.1 | 1 | T | 1 | 0.01 | 0.1 | 0.5 | 0.1 | 0.1 | 0.1 | 0.05 | 0.05 | 0.1 | 0.05 | 0.02 | 0.1 |
| Method Code | FA-AA | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS |
| Oreas 72a (4 Acid) Meas |  |  |  |  |  |  |  |  |  | 170 |  | 9.41 |  | > 5000 |  |  |  |  |  | 145 |  |  |  |
| $\begin{aligned} & \text { Oreas 72a (4 } \\ & \text { Acid) Cert } \end{aligned}$ |  |  |  |  |  |  |  |  |  | 228 |  | 9.63 |  | $\begin{array}{r} 6930.0 \\ 00 \\ \hline \end{array}$ |  |  |  |  |  | 157 |  |  |  |
| OREAS 101b (4 Acid) Meas |  |  |  | 1.25 |  | 2.40 |  |  | 72 |  | 885 | 10.6 |  | 8.7 | 14.8 |  | 4.6 |  |  | 43.9 | 7.06 |  |  |
| OREAS 101b (4 Acid) Cert |  |  |  | 1.23 |  | 2.36 |  |  | 77 |  | 927 | 10.7 |  | 8.2 | 15 |  | 5.2 |  |  | 45 | 8.1 |  |  |
| OREAS 98 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 41.7 |  | 118 |  | 91.4 | 176 |
| OREAS 98 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 45.1 |  | 121 |  | 97.2 | 158 |
| OREAS 13b <br> (4-Acid) Meas |  |  |  |  |  |  |  |  |  | > 5000 |  |  |  | 2160 |  |  |  | 0.82 |  | 67.3 |  |  |  |
| OREAS 13b (4-Acid) Cert |  |  |  |  |  |  |  |  |  | $\begin{array}{r} 8650.0 \\ 00 \\ \hline \end{array}$ |  |  |  | $\begin{array}{r} 2247.0 \\ 000 \\ \hline \end{array}$ |  |  |  | 0.86 |  | 75 |  |  |  |
| OREAS 904 (4 Acid) Meas |  | 15.5 | 0.04 | 0.59 | 6.13 | 2.20 | 0.04 |  | 75 | 55 | 390 | 6.52 | 4.8 | 38.6 |  | 7.7 |  | 0.59 | 3.82 | 74.3 |  | 3.91 | 2.8 |
| OREAS 904 (4 Acid) Cert |  | 16.7 | 0.0340 | 0.556 | 6.30 | 3.31 | 0.0460 |  | 76.0 | 54.0 | 410 | 6.68 | 5.00 | 40.1 |  | 7.86 |  | 0.551 | 3.79 | 83.0 |  | 4.05 | 3.30 |
| OREAS 45d <br> (4-Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 45d <br> (4-Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 96 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 10.3 |  | 46.1 |  | 27.0 | 44.7 |
| OREAS 96 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 11.5 |  | 49.9 |  | 26.3 | 40.7 |
| OREAS 923 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 923 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 621 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 621 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Meas | 8650 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert | 8570 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Meas | 8870 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert | 8570 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Meas | 8670 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert | 8570 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Meas | 8750 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert | 8570 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Meas | 525 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Cert | 510 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Meas | 522 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Au | Li | Na | Mg | AI | K | Ca | Cd | V | Cr | Mn | Fe | Hf | Ni | Er | Be | Ho | Ag | Cs | Co | Eu | Bi | Se |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | ppm | \% | \% | \% | \% | \% | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 5 | 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 | 0.05 | 0.05 | 0.1 | 0.05 | 0.02 | 0.1 |
| Method Code | FA-AA | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS |
| Oreas E1336 (Fire <br> Assay) Cert | 510 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Meas | 510 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Cert | 510 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Meas | 513 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Cert | 510 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 681 (4 Acid) Meas |  | 12.9 | 1.50 | 5.40 | 7.99 | 1.43 | 6.19 |  | 226 | 1370 | 1320 | 7.67 | 1.9 | 478 | 1.9 | 1.5 | 0.6 | 0.18 | 3.89 | 45.5 | 1.24 | 0.09 |  |
| OREAS 681 (4 Acid) Cert |  | 13.0 | 1.61 | 5.19 | 7.91 | 1.35 | 5.98 |  | 253 | 1640 | 1310 | 7.47 | 1.70 | 503 | 1.97 | 1.41 | 0.690 | 0.118 | 4.02 | 51.0 | 1.37 | 0.0980 |  |
| OREAS 147 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 147 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas 521 (4 <br> Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \hline \text { Oreas } 521 \text { (4 } \\ & \text { Acid) Cert } \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 70b (4 Acid) Meas |  | 34.0 | 0.74 | 14.5 | 3.91 | 0.65 | 3.14 | 0.4 | 59 |  | 1180 | 5.80 | 1.8 | 2090 |  | 0.9 |  | 0.26 | 3.34 | 74.7 |  | 0.94 |  |
| $\begin{aligned} & \text { OREAS 70b (4 } \\ & \text { Acid) Cert } \end{aligned}$ |  | 34.4 | 0.77 | 13.4 | 3.87 | 0.62 | 3.05 | 0.4 | 67 |  | 1150 | 5.52 | 1.9 | 2180 |  | 1 |  | 0.17 | 3.44 | 78.0 |  | 0.84 |  |
| 831982 Orig | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831982 Dup | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831996 Orig | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831996 Dup | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832005 Orig | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832005 Dup | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832017 Orig | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832017 Dup | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832031 Orig | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 832031 \text { Split } \\ & \text { PREP DUP } \end{aligned}$ | 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832031 Orig | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832031 Dup | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832039 Orig | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832039 Dup | 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832051 Orig | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832051 Dup | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832065 Orig | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832065 Dup | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832074 Orig | 120 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832074 Dup | 118 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832093 Orig | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832093 Split PREP DUP | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832078 Orig | 984 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832088 Orig | 11 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832088 Split PREP DUP | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Au | Li | Na | Mg | Al | K | Ca | Cd | V | Cr | Mn | Fe | Hf | Ni | Er | Be | Ho | Ag | Cs | Co | Eu | Bi | Se |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | ppm | \% | \% | \% | \% | \% | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 5 | 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 | 0.05 | 0.05 | 0.1 | 0.05 | 0.02 | 0.1 |
| Method Code | FA-AA | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS |
| Method Blank | < |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | < |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  | <0.5 | < 0.01 | <0.01 | < 0.01 | < 0.01 | $<0.01$ | <0.1 | 1 | 7 | 3 | $<0.01$ | < 0.1 | $<0.5$ | $<0.1$ | < 0.1 | <0.1 | < 0.05 | <0.05 | <0.1 | <0.05 | <0.02 | 0.3 |
| Method Blank |  | <0.5 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.1 | 3 | 13 | 14 | <0.01 | <0.1 | <0.5 | <0.1 | <0.1 | <0.1 | <0.05 | <0.05 | <0.1 | <0.05 | <0.02 | 0.3 |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Zn | Ga | As | Rb | Y | Sr | Zr | Nb | Mo | In | Sn | Sb | Te | Ba | La | Ce | Pr | Nd | Sm | Gd | Tb | Dy | Cu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 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 | 0.2 |
| 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 |
| Oreas 72a (4 Acid) Meas |  |  | 8.1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 335 |
| $\begin{aligned} & \text { Oreas 72a (4 } \\ & \text { Acid) Cert } \end{aligned}$ |  |  | 14.7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 316 |
| OREAS 101b (4 Acid) Meas |  |  |  |  | 131 |  |  |  | 19.3 |  |  |  |  |  | 728 | 1310 | 134 | 355 | 58.0 | 37.4 | 4.8 | 25.3 | 433 |
| OREAS 101b (4 Acid) Cert |  |  |  |  | 133 |  |  |  | 20.1 |  |  |  |  |  | 754 | 1325 | 127 | 388 | 48 | 40 | 5.4 | 27 | 412 |
| OREAS 98 (4 Acid) Meas | 1280 |  |  |  |  |  |  |  |  |  | 195 | 4.6 |  |  |  |  |  |  |  |  |  |  | P10000 |
| OREAS 98 (4 Acid) Cert | 1360 |  |  |  |  |  |  |  |  |  | 206 | 20.1 |  |  |  |  |  |  |  |  |  |  | $\begin{array}{r} 14800 \\ 0.0 \\ \hline \end{array}$ |
| OREAS 13b (4-Acid) Meas | 140 |  | 53.7 |  |  |  |  |  | 8.05 |  |  |  |  |  |  |  |  |  |  |  |  |  | 2210 |
| OREAS 13b (4-Acid) Cert | 133 |  | 57 |  |  |  |  |  | 9.0 |  |  |  |  |  |  |  |  |  |  |  |  |  | $\begin{array}{r} 2327.0 \\ 000 \\ \hline \end{array}$ |
| OREAS 904 (4 Acid) Meas | 26.0 | 15.4 | 107 | 97.5 | 32.5 | 26.4 | 158 |  | 2.09 | 0.2 | 3 | 1.4 |  | 224 | 43.8 | 87.8 |  |  |  |  | 0.9 |  | 6040 |
| OREAS 904 (4 Acid) Cert | 26.3 | 16.7 | 98.0 | 130 | 31.5 | 27.2 | 171 |  | 2.12 | 0.220 | 2.83 | 1.48 |  | 194 | 43.2 | 86.0 |  |  |  |  | 1.00 |  | 6120 |
| OREAS 45d <br> (4-Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 45d <br> (4-Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 96 (4 Acid) Meas | 442 |  |  |  |  |  |  |  |  |  | 65 | 5.3 |  |  |  |  |  |  |  |  |  |  | P10000 |
| OREAS 96 (4 Acid) Cert | 457 |  |  |  |  |  |  |  |  |  | 65.6 | 5.09 |  |  |  |  |  |  |  |  |  |  | 39300 |
| OREAS 923 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 923 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 621 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 621 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Zn | Ga | As | Rb | Y | Sr | Zr | Nb | Mo | In | Sn | Sb | Te | Ba | La | Ce | Pr | Nd | Sm | Gd | Tb | Dy | Cu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 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 | 0.2 |
| 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 |
| $\begin{aligned} & \text { Oreas E1336 (Fire } \\ & \text { Assay) Cert } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 681 (4 Acid) Meas | 96.3 | 18.9 |  | 85.4 | 17.3 | 451 | 59 | 5.9 | 1.40 | <0.1 | 2 | 0.3 |  | 476 | 19.0 | 40.3 | 5.2 | 20.9 | 3.8 | 3.8 | 0.6 | 3.2 | 280 |
| $\begin{aligned} & \hline \text { OREAS } 681 \text { (4 } \\ & \text { Acid) Cert } \\ & \hline \end{aligned}$ | 88.0 | 17.6 |  | 80.0 | 17.5 | 478 | 58.0 | 6.17 | 1.38 | 0.0420 | 1.89 | 0.240 |  | 442 | 18.8 | 40.6 | 5.32 | 21.9 | 4.82 | 4.06 | 0.580 | 3.40 | 264 |
| OREAS 147 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{array}{\|l\|} \hline \text { OREAS } 147 \text { (4 } \\ \text { Acid) Cert } \\ \hline \end{array}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas 521 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{array}{\|l\|} \hline \begin{array}{l} \text { Oreas } 521 \text { (4 } \\ \text { Acid) Cert } \end{array} \\ \hline \end{array}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 70b (4 Acid) Meas | 114 | 10.2 | 156 |  | 9.4 | 71.1 | 63 | 3.4 | 4.34 | $<0.1$ | 1 | 0.7 |  | 217 | 14.8 | 27.0 |  |  |  |  |  |  | 54.4 |
| $\begin{aligned} & \text { OREAS 70b (4 } \\ & \text { Acid) Cert } \end{aligned}$ | 112 | 10.1 | 148 |  | 9.8 | 74.0 | 66 | 3.7 | 3.30 | 0.05 | 1 | 0.6 |  | 202 | 15.3 | 28.2 |  |  |  |  |  |  | 52.0 |
| 831982 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831982 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831996 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831996 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832005 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832005 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832017 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832017 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832031 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 832031 \text { Split } \\ & \text { PREP DUP } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832031 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832031 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832039 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832039 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832051 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832051 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832065 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832065 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832074 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832074 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832093 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 832093 \text { Split } \\ & \text { PREP DUP } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832078 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832088 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832088 Split PREP DUP |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Zn | Ga | As | Rb | Y | Sr | Zr | Nb | Mo | In | Sn | Sb | Te | Ba | La | Ce | Pr | Nd | Sm | Gd | Tb | Dy | Cu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 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 | 0.2 |
| 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 |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | <0.2 | 0.2 | <0.1 | <0.2 | <0.1 | $<0.2$ | $<1$ | <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 | 0.2 |
| Method Blank | <0.2 | 0.1 | 0.2 | <0.2 | <0.1 | <0.2 | $<1$ | <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 | 0.3 |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Ge | Tm | Yb | Lu | Ta | W | Re | TI | Pb | Sc | Th | U | Ti | P | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | \% | \% |
| Lower Limit | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.001 | 0.05 | 0.5 | 1 | 0.1 | 0.1 | 0.0005 | 0.001 | 0.01 |
| Method Code | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-ICP | TD-MS | TD-MS | TD-ICP | TD-ICP | TD-ICP |
| Oreas 72a (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1.72 |
| $\begin{aligned} & \text { Oreas 72a (4 } \\ & \text { Acid) Cert } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1.74 |
| OREAS 101b (4 Acid) Meas |  | 2.0 | 12.5 | 1.7 |  |  |  |  | 22.4 |  | 34.0 | 344 | 0.347 | 0.120 |  |
| OREAS 101b (4 Acid) Cert |  | 2.08 | 13.9 | 1.96 |  |  |  |  | 23 |  | 36.4 | 387 | 0.35 |  |  |
| OREAS 98 (4 Acid) Meas |  |  |  |  |  |  |  |  | 322 |  |  |  |  |  | 15.7 |
| OREAS 98 (4 Acid) Cert |  |  |  |  |  |  |  |  | 345 |  |  |  |  |  | 15.5 |
| OREAS 13b (4-Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1.21 |
| OREAS 13b (4-Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1.2 |
| OREAS 904 (4 Acid) Meas | 0.2 |  | 3.1 | 0.4 | 0.8 | 2.5 |  | 0.47 | 10.4 | 12 | 13.4 | 8.2 |  | 0.105 | 0.06 |
| OREAS 904 (4 Acid) Cert | 0.180 |  | 3.14 | 0.470 | 0.540 | 2.12 |  | 0.520 | 10.6 | 11.2 | 14.3 | 8.43 |  | 0.0980 | 0.0630 |
| OREAS 45d <br> (4-Acid) Meas |  |  |  |  |  |  |  |  |  | 47 |  |  | 0.779 | 0.042 | 0.05 |
| OREAS 45d <br> (4-Acid) Cert |  |  |  |  |  |  |  |  |  | 49.30 |  |  | 0.773 | 0.042 | 0.049 |
| OREAS 96 (4 Acid) Meas |  |  |  |  |  |  |  |  | 99.9 |  |  |  |  |  | 4.34 |
| OREAS 96 (4 Acid) Cert |  |  |  |  |  |  |  |  | 101 |  |  |  |  |  | 4.19 |
| OREAS 923 (4 Acid) Meas |  |  |  |  |  |  |  |  |  | 13 |  |  | 0.394 | 0.068 | 0.71 |
| OREAS 923 (4 Acid) Cert |  |  |  |  |  |  |  |  |  | 13.1 |  |  | 0.405 | 0.0630 | 0.691 |
| OREAS 621 (4 Acid) Meas |  |  |  |  |  |  |  |  |  | 6 |  |  | 0.175 | 0.037 | 4.70 |
| OREAS 621 (4 Acid) Cert |  |  |  |  |  |  |  |  |  | 6.24 |  |  | 0.149 | 0.0359 | 4.48 |
| OREAS 228b <br> (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Ge | Tm | Yb | Lu | Ta | W | Re | TI | Pb | Sc | Th | U | Ti | P | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | \% | \% |
| Lower Limit | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.001 | 0.05 | 0.5 | 1 | 0.1 | 0.1 | 0.0005 | 0.001 | 0.01 |
| Method Code | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-ICP | TD-MS | TD-MS | TD-ICP | TD-ICP | TD-ICP |
| Oreas E1336 (Fire <br> Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 681 (4 Acid) Meas |  | 0.3 | 1.7 | 0.2 | 0.4 | 1.0 |  |  | 12.7 | 27 | 6.2 | 1.4 | 0.544 | 0.137 | 0.10 |
| $\begin{aligned} & \hline \text { OREAS } 681 \text { (4 } \\ & \text { Acid) Cert } \\ & \hline \end{aligned}$ |  | 0.280 | 1.77 | 0.270 | 0.420 | 1.09 |  |  | 10.2 | 27.7 | 6.55 | 1.44 | 0.588 | 0.141 | 0.109 |
| OREAS 147 (4 Acid) Meas |  |  |  |  |  |  |  |  |  | 10 |  |  | 0.191 | 0.112 | 0.02 |
| $\text { OREAS } 147 \text { (4 }$ Acid) Cert |  |  |  |  |  |  |  |  |  | 10.7 |  |  | 0.470 | 0.155 | 0.0300 |
| Oreas 521 (4 Acid) Meas |  |  |  |  |  |  |  |  |  | 13 |  |  | 0.334 | 0.076 | 1.75 |
| $\begin{aligned} & \text { Oreas } 521 \text { (4 } \\ & \text { Acid) Cert } \end{aligned}$ |  |  |  |  |  |  |  |  |  | 14 |  |  | 0.393 | 0.081 | 1.80 |
| OREAS 70b (4 Acid) Meas |  |  |  |  | 0.3 | 4.1 |  | 0.31 | 13.1 | 11 | 5.9 | 1.7 | 0.163 | 0.022 | 0.29 |
| $\begin{aligned} & \text { OREAS 70b (4 } \\ & \text { Acid) Cert } \end{aligned}$ |  |  |  |  | 0.3 | 4.9 |  | 0.33 | 13.7 | 12 | 6.9 | 1.7 | 0.181 | 0.022 | 0.31 |
| 831982 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831982 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831996 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 831996 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832005 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832005 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832017 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832017 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832031 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832031 Split PREP DUP |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832031 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832031 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832039 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832039 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832051 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832051 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832065 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832065 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832074 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832074 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832093 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 832093 \text { Split } \\ & \text { PREP DUP } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832078 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832088 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832088 Split PREP DUP |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Ge | Tm | Yb | Lu | Ta | W | Re | TI | Pb | Sc | Th | U | Ti | P | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | \% | \% |
| Lower Limit | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.001 | 0.05 | 0.5 | 1 | 0.1 | 0.1 | 0.0005 | 0.001 | 0.01 |
| Method Code | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-ICP | TD-MS | TD-MS | TD-ICP | TD-ICP | TD-ICP |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | <0.1 | <0.1 | < 0.1 | < 0.1 | <0.1 | < 0.1 | <0.001 | < 0.05 | < 0.5 | <1 | <0.1 | < 0.1 | . 000 | < 0.001 | < 0.01 |
| Method Blank | <0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | <0.1 | < 0.001 | < 0.05 | < 0.5 | <1 | < 0.1 | < 0.1 | 0.0005 | < 0.001 | $<0.01$ |
| Method Blank |  |  |  |  |  |  |  |  |  | <1 |  |  | 0.0005 | < 0.001 | < 0.01 |
| Method Blank |  |  |  |  |  |  |  |  |  | <1 |  |  | 0.0005 | < 0.001 | < 0.01 |


| Report No.: | A21-20882 |
| :--- | :--- |
| Report Date: | 08-Dec-21 |
| Date Submitted: | 05-Nov-21 |
| Your Reference: | Exploration/Prospecting |

## Harte Gold Corp.

161 Bay Street
Suite 2400
Toronto Ontario M5J 2S1
Canada

ATTN: David Stevenson

## CERTIFICATE OF ANALYSIS

127 Rock samples were submitted for analysis.

| The following analytical package(s) were requested: | Testing Date: |  |
| :--- | :--- | :--- |
| UT-6 | QOP Total/QOP Ulltratrace- 4acid Digest (Total <br> Digestion ICPOES/ICPMS) | 2021-11-29 14:15:58 |

REPORT A21-20882
This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:
If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3
Values which exceed the upper limit should be assayed for accurate numbers.



#### Abstract

Report No.: A21-20882 Report Date: 08-Dec-21 Date Submitted: 05-Nov-21 Your Reference: Exploration/Prospecting Harte Gold Corp. 161 Bay Street Suite 2400 Toronto Ontario M5J 2S1 Canada


## ATTN: David Stevenson

## CERTIFICATE OF ANALYSIS

127 Rock samples were submitted for analysis.

| The following analytical package(s) were requested: | Testing Date: |  |
| :--- | :--- | :--- |
| 1A2-Tbay-Harte Gold | QOP AA-Au (Au - Fire Assay AA) | 2021-11-08 12:20:39 |

## REPORT A21-20882

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Notes:
If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3
Values which exceed the upper limit should be assayed for accurate numbers.


| Analyte Symbol | Au | Li | Na | Mg | AI | K | Ca | Cd | V | Cr | Mn | Fe | Hf | Ni | Er | Be | Ho | Ag | Cs | Co | Eu | Bi | Se |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | ppm | \% | \% | \% | \% | \% | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 5 | 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 | 0.05 | 0.05 | 0.1 | 0.05 | 0.02 | 0.1 |
| Method Code | FA-AA | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS |
| 832096 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832097 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832098 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832099 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832100 | 3590 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832101 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832102 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832103 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832104 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832105 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832106 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832107 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832108 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832109 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832110 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832111 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832112 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832113 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832114 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832115 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832116 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832117 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832118 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832119 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832120 | 3700 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832121 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832122 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832123 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832124 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832125 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832126 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832127 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832128 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832129 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832130 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832131 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832132 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832133 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832134 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832135 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832136 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832137 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832138 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832139 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832140 | 7170 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832141 | 9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832142 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832143 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832144 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832145 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832146 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Au | Li | Na | Mg | AI | K | Ca | Cd | V | Cr | Mn | Fe | Hf | Ni | Er | Be | Ho | Ag | Cs | Co | Eu | Bi | Se |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | ppm | \% | \% | \% | \% | \% | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 5 | 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 | 0.05 | 0.05 | 0.1 | 0.05 | 0.02 | 0.1 |
| Method Code | FA-AA | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS |
| 832147 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832148 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832149 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832150 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832151 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832152 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832153 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832154 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832155 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832156 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832157 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832158 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832159 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832160 | 3590 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832161 | 9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832162 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832163 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832164 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832165 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832166 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832167 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832168 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832169 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832170 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832171 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832172 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832173 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832174 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832175 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832176 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832177 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832178 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832179 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832180 | 3660 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832181 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832182 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832183 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832184 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832185 | < 5 | 278 | 0.71 | 11.0 | 4.83 | 1.31 | 5.45 | $<0.1$ | 131 | 744 | 1430 | 8.18 | 0.7 | 556 | 1.3 | 2.2 | 0.4 | 0.08 | > 100 | 68.3 | 0.37 | 1.03 | < 0.1 |
| 832186 | < 5 | 396 | 0.62 | 12.1 | 5.76 | 2.28 | 3.31 | <0.1 | 153 | 956 | 1400 | 8.79 | 0.8 | 563 | 1.4 | 1.6 | 0.5 | 0.07 | >100 | 78.0 | 0.25 | 0.73 | 0.1 |
| 832187 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832188 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832189 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832190 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832191 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832192 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832193 | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832194 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832195 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832196 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832197 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Au | Li | Na | Mg | AI | K | Ca | Cd | V | Cr | Mn | Fe | Hf | Ni | Er | Be | Ho | Ag | Cs | Co | Eu | Bi | Se |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | ppm | \% | \% | \% | \% | \% | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 5 | 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 | 0.05 | 0.05 | 0.1 | 0.05 | 0.02 | 0.1 |
| Method Code | FA-AA | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS |
| 832198 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832199 | 11 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832200 | 7300 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832201 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832202 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832203 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832204 | 287 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832205 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832206 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832207 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832208 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832209 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832210 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832211 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832212 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832213 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832214 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832215 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832216 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832217 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832218 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832219 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832220 | 3610 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832221 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832222 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Zn | Ga | As | Rb | Y | Sr | Zr | Nb | Mo | In | Sn | Sb | Te | Ba | La | Ce | Pr | Nd | Sm | Gd | Tb | Dy | Cu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 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 | 0.2 |
| 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 |
| 832096 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832097 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832098 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832099 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832101 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832102 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832103 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832104 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832105 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832106 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832107 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832108 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832109 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832110 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832111 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832112 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832113 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832114 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832115 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832116 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832117 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832118 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832119 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832120 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832121 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832122 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832123 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832124 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832125 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832126 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832127 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832128 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832129 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832130 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832131 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832132 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832133 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832134 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832135 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832136 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832137 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832138 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832139 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832140 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832141 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832142 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832143 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832144 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832145 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832146 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Zn | Ga | As | Rb | Y | Sr | Zr | Nb | Mo | In | Sn | Sb | Te | Ba | La | Ce | Pr | Nd | Sm | Gd | Tb | Dy | Cu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 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 | 0.2 |
| 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 |
| 832147 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832148 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832149 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832150 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832151 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832152 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832153 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832154 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832155 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832156 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832157 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832158 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832159 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832160 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832161 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832162 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832163 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832164 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832165 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832166 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832167 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832168 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832169 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832170 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832171 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832172 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832173 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832174 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832175 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832176 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832177 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832178 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832179 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832180 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832181 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832182 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832183 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832184 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832185 | 108 | 13.3 | 0.6 | 254 | 9.9 | 23.0 | 23 | 2.3 | 0.31 | <0.1 | 1 | < 0.1 | < 0.1 | 26 | 1.6 | 4.2 | 0.7 | 3.4 | 1.1 | 1.5 | 0.3 | 1.9 | 1.2 |
| 832186 | 102 | 12.0 | <0.1 | 497 | 10.8 | 32.3 | 24 | 1.3 | 0.18 | <0.1 | <1 | <0.1 | < 0.1 | 44 | 1.2 | 3.5 | 0.6 | 3.4 | 1.1 | 1.4 | 0.3 | 2.0 | 0.3 |
| 832187 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832188 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832189 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832190 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832191 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832192 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832193 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832194 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832195 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832196 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832197 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Zn | Ga | As | Rb | Y | Sr | Zr | Nb | Mo | In | Sn | Sb | Te | Ba | La | Ce | Pr | Nd | Sm | Gd | Tb | Dy | Cu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 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 | 0.2 |
| 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 |
| 832198 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832199 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832200 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832201 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832202 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832203 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832204 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832205 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832206 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832207 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832208 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832209 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832210 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832211 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832212 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832213 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832214 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832215 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832216 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832217 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832218 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832219 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832220 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832221 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832222 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Ge | Tm | Yb | Lu | Ta | W | Re | TI | Pb | Sc | Th | U | Ti | P | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | \% | \% |
| Lower Limit | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.001 | 0.05 | 0.5 | 1 | 0.1 | 0.1 | 0.0005 | 0.001 | 0.01 |
| Method Code | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-ICP | TD-MS | TD-MS | TD-ICP | TD-ICP | TD-ICP |
| 832096 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832097 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832098 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832099 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832101 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832102 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832103 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832104 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832105 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832106 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832107 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832108 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832109 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832110 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832111 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832112 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832113 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832114 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832115 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832116 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832117 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832118 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832119 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832120 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832121 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832122 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832123 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832124 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832125 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832126 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832127 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832128 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832129 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832130 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832131 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832132 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832133 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832134 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832135 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832136 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832137 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832138 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832139 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832140 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832141 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832142 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832143 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832144 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832145 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832146 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |



| Analyte Symbol | Ge | Tm | Yb | Lu | Ta | W | Re | TI | Pb | Sc | Th | U | Ti | P | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | \% | \% |
| Lower Limit | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.001 | 0.05 | 0.5 | 1 | 0.1 | 0.1 | 0.0005 | 0.001 | 0.01 |
| Method Code | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-ICP | TD-MS | TD-MS | TD-ICP | TD-ICP | TD-ICP |
| 832198 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832199 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832200 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832201 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832202 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832203 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832204 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832205 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832206 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832207 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832208 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832209 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832210 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832211 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832212 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832213 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832214 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832215 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832216 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832217 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832218 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832219 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832220 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832221 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832222 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Au | Li | Na | Mg | AI | K | Ca | Cd | V | Cr | Mn | Fe | Hf | Ni | Er | Be | Ho | Ag | Cs | Co | Eu | Bi | Se |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | ppm | \% | \% | \% | \% | \% | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 5 | 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 | 0.05 | 0.05 | 0.1 | 0.05 | 0.02 | 0.1 |
| Method Code | FA-AA | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS |
| Oreas 72a (4 Acid) Meas |  |  |  |  |  |  |  |  |  | 179 |  | 10.1 |  | > 5000 |  |  |  |  |  | 169 |  |  |  |
| $\begin{aligned} & \text { Oreas 72a (4 } \\ & \text { Acid) Cert } \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  | 228 |  | 9.63 |  | $\begin{array}{r} 6930.0 \\ 00 \end{array}$ |  |  |  |  |  | 157 |  |  |  |
| Oreas 72a (4 Acid) Meas |  |  |  |  |  |  |  |  |  | 172 |  | 9.09 |  | > 5000 |  |  |  |  |  | 152 |  |  |  |
| $\begin{aligned} & \hline \text { Oreas 72a (4 } \\ & \text { Acid) Cert } \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  | 228 |  | 9.63 |  | $\begin{array}{r} 6930.0 \\ 00 \end{array}$ |  |  |  |  |  | 157 |  |  |  |
| OREAS 101b (4 Acid) Meas |  |  |  | 1.25 |  | 2.35 |  |  | 72 |  | 921 | 10.1 |  | 8.7 | 14.9 |  | 4.9 |  |  | 43.8 | 6.96 |  |  |
| $\begin{aligned} & \begin{array}{l} \text { OREAS 101b (4 } \\ \text { Acid) Cert } \end{array} \\ & \hline \end{aligned}$ |  |  |  | 1.23 |  | 2.36 |  |  | 77 |  | 927 | 10.7 |  | 8.2 | 15 |  | 5.2 |  |  | 45 | 8.1 |  |  |
| OREAS 98 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 45.1 |  | 123 |  | 96.7 | 179 |
| OREAS 98 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 45.1 |  | 121 |  | 97.2 | 158 |
| OREAS 13b <br> (4-Acid) Meas |  |  |  |  |  |  |  |  |  | > 5000 |  |  |  | 2360 |  |  |  | 1.01 |  | 82.9 |  |  |  |
| OREAS 13b (4-Acid) Cert |  |  |  |  |  |  |  |  |  | $\begin{array}{r} 8650.0 \\ 00 \end{array}$ |  |  |  | $\begin{array}{r} \hline 2247.0 \\ 000 \end{array}$ |  |  |  | 0.86 |  | 75 |  |  |  |
| OREAS 13b <br> (4-Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 13b (4-Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 904 (4 Acid) Meas |  | 16.5 | 0.04 | 0.61 | 6.47 | 3.65 | 0.05 |  | 80 | 63 | 412 | 7.04 | 5.0 | 41.4 |  | 9.6 |  | 0.69 | 4.16 | 88.0 |  | 4.04 | 2.2 |
| OREAS 904 (4 Acid) Cert |  | 16.7 | 0.0340 | 0.556 | 6.30 | 3.31 | 0.0460 |  | 76.0 | 54.0 | 410 | 6.68 | 5.00 | 40.1 |  | 7.86 |  | 0.551 | 3.79 | 83.0 |  | 4.05 | 3.30 |
| OREAS 904 (4 Acid) Meas |  | 15.6 | 0.04 | 0.61 | 6.50 | 3.40 | 0.04 |  | 76 | 65 | 414 | 7.17 | 5.3 | 41.2 |  | 8.1 |  | 0.66 | 4.03 | 86.2 |  | 4.22 | 2.8 |
| OREAS 904 (4 Acid) Cert |  | 16.7 | 0.0340 | 0.556 | 6.30 | 3.31 | 0.0460 |  | 76.0 | 54.0 | 410 | 6.68 | 5.00 | 40.1 |  | 7.86 |  | 0.551 | 3.79 | 83.0 |  | 4.05 | 3.30 |
| OREAS 45d <br> (4-Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 45d (4-Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 96 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 12.0 |  | 54.1 |  | 30.3 | 45.1 |
| OREAS 96 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 11.5 |  | 49.9 |  | 26.3 | 40.7 |
| OREAS 96 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 11.1 |  | 49.7 |  | 27.3 | 43.8 |
| OREAS 96 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 11.5 |  | 49.9 |  | 26.3 | 40.7 |
| OREAS 96 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 11.0 |  | 47.9 |  | 26.4 | 43.5 |
| OREAS 96 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 11.5 |  | 49.9 |  | 26.3 | 40.7 |
| OREAS 96 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 96 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 96 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 96 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 923 (4 Acid) Meas |  | 33.2 | 0.32 | 1.78 | 7.95 | 2.27 | 0.44 | 0.5 | 89 | 66 | 940 | 6.45 | 3.8 | 36.8 | 2.9 | 2.8 | 1.0 | 1.70 | 7.16 | 22.0 | 1.26 | 25.9 | 5.4 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Au | Li | Na | Mg | AI | K | Ca | Cd | V | Cr | Mn | Fe | Hf | Ni | Er | Be | Ho | Ag | Cs | Co | Eu | Bi | Se |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | ppm | \% | \% | \% | \% | \% | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 5 | 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 | 0.05 | 0.05 | 0.1 | 0.05 | 0.02 | 0.1 |
| Method Code | FA-AA | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS |
| 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 | 21.4 | 6.54 |
| OREAS 923 (4 Acid) Meas |  | 29.4 | 0.33 | 1.80 | 7.29 | 2.47 | 0.46 | 0.4 | 87 | 70 | 922 | 6.95 | 4.0 | 40.9 | 3.0 | 2.4 | 1.0 | 1.74 | 6.88 | 22.7 | 1.35 | 26.9 | 6.7 |
| 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 | 21.4 | 6.54 |
| OREAS 621 (4 Acid) Meas |  | 15.4 | 1.36 | 0.50 | 6.37 | 2.23 | 1.97 | 301 | 36 | 36 | 489 | 3.88 | 4.3 | 28.8 |  | 1.8 |  | 65.1 | 3.51 | 29.9 |  | 4.01 | 4.3 |
| $\begin{aligned} & \text { OREAS } 621 \text { (4 } \\ & \text { Acid) Cert } \\ & \hline \end{aligned}$ |  | 14.2 | 1.31 | 0.507 | 6.40 | 2.20 | 1.97 | 284 | 31.8 | 37.1 | 532 | 3.70 | 4.41 | 26.2 |  | 1.69 |  | 69.0 | 3.28 | 29.3 |  | 3.93 | 5.64 |
| OREAS 621 (4 Acid) Meas |  | 14.6 | 1.29 | 0.39 | 6.33 | 2.31 | 1.86 | 254 | 35 | 29 | 505 | 4.05 | 4.8 | 29.6 |  | 1.8 |  | 61.2 | 3.47 | 32.0 |  | 4.15 | 5.3 |
| OREAS 621 (4 Acid) Cert |  | 14.2 | 1.31 | 0.507 | 6.40 | 2.20 | 1.97 | 284 | 31.8 | 37.1 | 532 | 3.70 | 4.41 | 26.2 |  | 1.69 |  | 69.0 | 3.28 | 29.3 |  | 3.93 | 5.64 |
| OREAS 621 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 621 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas 77b (4 Acid) Meas |  | 18.6 | 0.43 | 2.75 | 1.92 | 0.37 | 3.26 | 1.4 | 33 | 222 | 695 | 31.2 | 1.2 | > 5000 |  | 0.4 |  | 1.62 | 2.34 | > 500 |  | 3.70 |  |
| $\begin{aligned} & \text { Oreas 77b (4 } \\ & \text { Acid) Cert } \end{aligned}$ |  | 18.8 | 0.434 | 2.59 | 1.94 | 0.361 | 3.06 | 1.20 | 33.6 | 280 | 640 | 29.9 | 1.15 | 113000 |  | 0.470 |  | 1.62 | 2.32 | 1550 |  | 3.44 |  |
| Oreas 77b (4 Acid) Meas |  | 19.4 | 0.40 | 2.50 | 1.73 | 0.33 | 2.87 | 1.2 | 25 | 232 | 625 | 29.2 | 1.2 | > 5000 |  | 0.4 |  | 1.59 | 2.29 | > 500 |  | 3.47 |  |
| $\begin{aligned} & \begin{array}{l} \text { Oreas 77b (4 } \\ \text { Acid) Cert } \end{array} \\ & \hline \end{aligned}$ |  | 18.8 | 0.434 | 2.59 | 1.94 | 0.361 | 3.06 | 1.20 | 33.6 | 280 | 640 | 29.9 | 1.15 | 113000 |  | 0.470 |  | 1.62 | 2.32 | 1550 |  | 3.44 |  |
| Oreas 77b (4 <br> Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \begin{array}{l} \text { Oreas 77b (4 } \\ \text { Acid) Cert } \end{array} \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Meas | 8650 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Cert | 8570 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Meas | 8860 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Cert | 8570 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Meas | 8870 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Cert | 8570 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Meas | 8760 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert | 8570 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Meas | 514 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Cert | 510 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Meas | 517 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Cert | 510 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Meas | 524 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Cert | 510 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Au | Li | Na | Mg | AI | K | Ca | Cd | V | Cr | Mn | Fe | Hf | Ni | Er | Be | Ho | Ag | Cs | Co | Eu | Bi | Se |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | ppm | \% | \% | \% | \% | \% | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 5 | 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 | 0.05 | 0.05 | 0.1 | 0.05 | 0.02 | 0.1 |
| Method Code | FA-AA | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS |
| Oreas E1336 (Fire <br> Assay) Meas <br> Oreas E | 509 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \begin{array}{l} \text { Oreas E1336 (Fire } \\ \text { Assay) Cert } \end{array} \\ & \hline \end{aligned}$ | 510 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\text { OREAS } 681 \text { (4 }$ Acid) Meas |  | 12.7 | 1.54 | 5.66 | 8.12 | 1.43 | 6.26 |  | 234 | 1380 | 1260 | 7.59 | 1.9 | 477 | 1.9 | 1.2 | 0.6 | 0.18 | 3.78 | 51.4 | 1.33 | 0.10 |  |
| $\begin{aligned} & \hline \text { OREAS } 681 \text { (4 } \\ & \text { Acid) Cert } \end{aligned}$ |  | 13.0 | 1.61 | 5.19 | 7.91 | 1.35 | 5.98 |  | 253 | 1640 | 1310 | 7.47 | 1.70 | 503 | 1.97 | 1.41 | 0.690 | 0.118 | 4.02 | 51.0 | 1.37 | 0.0980 |  |
| OREAS 681 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 681 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 681 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 681 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 147 (4 Acid) Meas |  | > 400 | 0.96 | 0.59 | 5.18 | 1.69 | 1.11 |  | 43 | 52 | 379 | 3.41 | 1.2 | 22.9 | 2.6 | 36.1 |  |  | > 100 | 6.6 | 10.1 | 13.5 |  |
| OREAS 147 (4 Acid) Cert |  | 2260 | 0.948 | 0.535 | 4.90 | 1.60 | 1.09 |  | 60.0 | 57.0 | 390 | 3.23 | 2.99 | 21.2 | 3.00 | 31.2 |  |  | 238 | 6.90 | 10.4 | 12.5 |  |
| OREAS 147 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 147 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 147 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 147 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { Oreas } 521 \text { (4 } \\ & \text { Acid) Meas } \\ & \hline \end{aligned}$ |  | 17.6 | 0.96 | 1.27 | 4.96 | 3.42 | 4.23 |  | 224 | 40 | 3390 | 21.7 | 3.5 | 79.2 | 2.2 | 0.9 | 0.8 | 0.95 | 0.75 | 387 | 1.70 | 6.51 | 2.0 |
| $\begin{array}{\|l} \hline \text { Oreas } 521 \text { (4 } \\ \text { Acid) Cert } \end{array}$ |  | 16.4 | 0.98 | 1.13 | 4.77 | 3.16 | 3.86 |  | 209 | 31 | 3210 | 20.7 | 3.2 | 73.0 | 2.1 | 0.9 | 0.7 | 0.89 | 0.72 | 386 | 1.64 | 5.85 | 2.4 |
| $\begin{aligned} & \text { Oreas } 521 \text { (4 } \\ & \text { Acid) Meas } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \hline \begin{array}{l} \text { Oreas } 521 \text { (4 } \\ \text { Acid) Cert } \end{array} \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { OREAS 70b (4 } \\ & \text { Acid) Meas } \\ & \hline \end{aligned}$ |  | 36.2 | 0.78 | 14.0 | 4.08 | 0.63 | 2.97 | 0.4 | 41 |  | 1240 | 6.25 | 1.9 | 2040 |  | 1.2 |  | 0.21 | 3.89 | 84.3 |  | 0.92 |  |
| OREAS 70b (4 Acid) Cert |  | 34.4 | 0.77 | 13.4 | 3.87 | 0.62 | 3.05 | 0.4 | 67 |  | 1150 | 5.52 | 1.9 | 2180 |  | 1.0 |  | 0.17 | 3.44 | 78.0 |  | 0.84 |  |
| $\begin{aligned} & \text { OREAS 70b (4 } \\ & \text { Acid) Meas } \\ & \hline \end{aligned}$ |  | 30.9 | 0.75 | 12.8 | 3.64 | 0.58 | 3.03 | 0.3 | 54 |  | 1120 | 5.24 | 1.7 | 2190 |  | 0.9 |  | 0.19 | 3.25 | 77.8 |  | 0.86 |  |
| OREAS 70b (4 Acid) Cert |  | 34.4 | 0.77 | 13.4 | 3.87 | 0.62 | 3.05 | 0.4 | 67 |  | 1150 | 5.52 | 1.9 | 2180 |  | 1 |  | 0.17 | 3.44 | 78.0 |  | 0.84 |  |
| 832097 Orig | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832097 Dup | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832111 Orig | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832111 Dup | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832121 Orig | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832121 Dup | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832132 Orig | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832132 Dup | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832145 Orig | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832145 Split PREP DUP | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832146 Orig | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832146 Dup | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Au | Li | Na | Mg | AI | K | Ca | Cd | V | Cr | Mn | Fe | Hf | Ni | Er | Be | Ho | Ag | Cs | Co | Eu | Bi | Se |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | ppm | \% | \% | \% | \% | \% | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 5 | 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 | 0.05 | 0.05 | 0.1 | 0.05 | 0.02 | 0.1 |
| Method Code | FA-AA | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS |
| 832154 Orig | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832154 Dup | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832166 Orig | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832166 Dup | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832181 Orig | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832181 Dup | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832189 Orig | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832189 Dup | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832195 Orig | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832195 Split PREP DUP | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832201 Orig | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832201 Dup | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832214 Orig | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832214 Dup | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832222 Orig | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832222 Split PREP DUP | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  | < 0.5 | < 0.01 | < 0.01 | < 0.01 | <0.01 | < 0.01 | < 0.1 | 4 | 7 | 21 | < 0.01 | < 0.1 | < 0.5 | < 0.1 | < 0.1 | < 0.1 | <0.05 | <0.05 | < 0.1 | < 0.05 | < 0.02 | < 0.1 |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  | $<0.5$ | < 0.01 | $<0.01$ | <0.01 | $<0.01$ | <0.01 | <0.1 | 2 | 4 | 13 | <0.01 | <0.1 | < 0.5 | < 0.1 | <0.1 | <0.1 | <0.05 | <0.05 | < 0.1 | < 0.05 | < 0.02 | 0.1 |
| Method Blank |  | < 0.5 | < 0.01 | < 0.01 | <0.01 | <0.01 | < 0.01 | <0.1 | 4 | 6 | 13 | < 0.01 | <0.1 | < 0.5 | < 0.1 | <0.1 | <0.1 | < 0.05 | < 0.05 | <0.1 | < 0.05 | < 0.02 | < 0.1 |
| Method Blank |  | <0.5 | < 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.1 | 3 |  | 25 | <0.01 | <0.1 | 0.9 | <0.1 | <0.1 | <0.1 | <0.05 | <0.05 | <0.1 | < 0.05 | < 0.02 | <0.1 |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  | < 0.5 | < 0.01 | <0.01 | <0.01 | <0.01 | < 0.01 | <0.1 | 2 | 3 | 9 | < 0.01 | <0.1 | < 0.5 | < 0.1 | <0.1 | <0.1 | <0.05 | < 0.05 | <0.1 | <0.05 | < 0.02 | 0.2 |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  | < 0.5 | < 0.01 | < 0.01 | <0.01 | < 0.01 | <0.01 | < 0.1 | 4 | 6 | 20 | < 0.01 | < 0.1 | < 0.5 | < 0.1 | < 0.1 | < 0.1 | <0.05 | < 0.05 | < 0.1 | < 0.05 | < 0.02 | 0.1 |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Zn | Ga | As | Rb | Y | Sr | Zr | Nb | Mo | In | Sn | Sb | Te | Ba | La | Ce | Pr | Nd | Sm | Gd | Tb | Dy | Cu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 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 | 0.2 |
| 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 |
| Oreas 72a (4 Acid) Meas |  |  | 4.7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 337 |
| $\begin{aligned} & \text { Oreas 72a (4 } \\ & \text { Acid) Cert } \\ & \hline \end{aligned}$ |  |  | 14.7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 316 |
| Oreas 72a (4 Acid) Meas |  |  | 4.6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 302 |
| $\begin{aligned} & \hline \text { Oreas 72a (4 } \\ & \text { Acid) Cert } \\ & \hline \end{aligned}$ |  |  | 14.7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 316 |
| OREAS 101b (4 Acid) Meas <br> Acid) Meas |  |  |  |  | 124 |  |  |  | 18.7 |  |  |  |  |  | 732 | 1290 | 118 | 371 | 43.6 | 37.3 | 4.1 | 23.8 | 389 |
| $\begin{aligned} & \begin{array}{l} \text { OREAS 101b (4 } \\ \text { Acid) Cert } \end{array} \\ & \hline \end{aligned}$ |  |  |  |  | 133 |  |  |  | 20.1 |  |  |  |  |  | 754 | 1325 | 127 | 388 | 48 | 40 | 5.4 | 27 | 412 |
| OREAS 98 (4 Acid) Meas | 1280 |  |  |  |  |  |  |  |  |  | >200 | 6.9 |  |  |  |  |  |  |  |  |  |  | P10000 |
| OREAS 98 (4 Acid) Cert | 1360 |  |  |  |  |  |  |  |  |  | 206 | 20.1 |  |  |  |  |  |  |  |  |  |  | $\begin{array}{r} 14800 \\ 0.0 \end{array}$ |
| OREAS 13b <br> (4-Acid) Meas | 147 |  | 57.3 |  |  |  |  |  | 9.57 |  |  |  |  |  |  |  |  |  |  |  |  |  | 2400 |
| OREAS 13b (4-Acid) Cert | 133 |  | 57 |  |  |  |  |  | 9.0 |  |  |  |  |  |  |  |  |  |  |  |  |  | $\begin{array}{r} 2327.0 \\ 000 \\ \hline \end{array}$ |
| OREAS 13b <br> (4-Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 13b (4-Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 904 (4 Acid) Meas | 29.4 | 14.7 | 109 | 142 | 33.2 | 27.5 | 187 |  | 2.20 | 0.2 | 3 | 1.4 |  | 215 | 46.7 | 90.7 |  |  |  |  | 0.9 |  | 5800 |
| OREAS 904 (4 Acid) Cert | 26.3 | 16.7 | 98.0 | 130 | 31.5 | 27.2 | 171 |  | 2.12 | 0.220 | 2.83 | 1.48 |  | 194 | 43.2 | 86.0 |  |  |  |  | 1.00 |  | 6120 |
| OREAS 904 (4 Acid) Meas | 30.4 | 17.0 | 96.6 | 118 | 31.8 | 31.2 | 201 |  | 2.10 | 0.2 | 3 | 1.2 |  | 204 | 46.5 | 85.5 |  |  |  |  | 1.0 |  | 6050 |
| OREAS 904 (4 Acid) Cert | 26.3 | 16.7 | 98.0 | 130 | 31.5 | 27.2 | 171 |  | 2.12 | 0.220 | 2.83 | 1.48 |  | 194 | 43.2 | 86.0 |  |  |  |  | 1.00 |  | 6120 |
| OREAS 45d (4-Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 45d (4-Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 96 (4 Acid) Meas | 487 |  |  |  |  |  |  |  |  |  | 65 | 4.9 |  |  |  |  |  |  |  |  |  |  | P10000 |
| OREAS 96 (4 Acid) Cert | 457 |  |  |  |  |  |  |  |  |  | 65.6 | 5.09 |  |  |  |  |  |  |  |  |  |  | 39300 |
| OREAS 96 (4 Acid) Meas | 440 |  |  |  |  |  |  |  |  |  | 66 | 4.1 |  |  |  |  |  |  |  |  |  |  | P10000 |
| OREAS 96 (4 Acid) Cert | 457 |  |  |  |  |  |  |  |  |  | 65.6 | 5.09 |  |  |  |  |  |  |  |  |  |  | 39300 |
| OREAS 96 (4 Acid) Meas | 393 |  |  |  |  |  |  |  |  |  | 65 | 4.0 |  |  |  |  |  |  |  |  |  |  | P10000 |
| OREAS 96 (4 Acid) Cert | 457 |  |  |  |  |  |  |  |  |  | 65.6 | 5.09 |  |  |  |  |  |  |  |  |  |  | 39300 |
| OREAS 96 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 96 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 96 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 96 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 923 (4 Acid) Meas | 348 | 13.9 | 7.1 | 156 | 24.2 | 47.1 | 140 | 13.9 | 1.02 | 0.5 | 14 | 1.3 |  | 433 | 45.5 | 84.1 | 9.8 | 37.5 | 6.2 | 5.7 | 0.8 | 5.0 | 3930 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Zn | Ga | As | Rb | Y | Sr | Zr | Nb | Mo | In | Sn | Sb | Te | Ba | La | Ce | Pr | Nd | Sm | Gd | Tb | Dy | Cu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 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 | 0.2 |
| 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 |
| OREAS 923 (4 Acid) Cert | 345 | 20.3 | 7.61 | 166 | 26.4 | 43.0 | 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 | 4230 |
| OREAS 923 (4 Acid) Meas | 353 | 18.5 | 6.5 | 156 | 26.0 | 46.5 | 142 | 12.1 | 0.95 | 0.5 | 14 | 1.2 |  | 417 | 45.7 | 79.8 | 10.0 | 36.0 | 6.6 | 5.6 | 0.9 | 4.9 | 4210 |
| OREAS 923 (4 Acid) Cert | 345 | 20.3 | 7.61 | 166 | 26.4 | 43.0 | 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 | 4230 |
| OREAS 621 (4 Acid) Meas | P10000 | 23.6 | 79.4 | 84.2 | 11.1 | 73.6 | 164 | 9.4 | 13.4 | 1.9 | 6 | 21.5 |  |  | 21.0 | 47.7 |  |  |  |  | 0.4 |  | 3470 |
| $\begin{aligned} & \text { OREAS } 621 \text { (4 } \\ & \text { Acid) Cert } \\ & \hline \end{aligned}$ | 52200 | 24.6 | 77.0 | 84.0 | 11.1 | 91.0 | 168 | 8.61 | 13.6 | 1.83 | 5.25 | 139 |  |  | 21.6 | 46.6 |  |  |  |  | 0.460 |  | 3630 |
| OREAS 621 (4 Acid) Meas | P10000 | 22.8 | 72.6 | 78.7 | 12.2 | 84.7 | 170 | 8.4 | 14.0 | 1.6 | 6 | 44.1 |  |  | 22.8 | 48.7 |  |  |  |  | 0.5 |  | 3850 |
| OREAS 621 (4 Acid) Cert | 52200 | 24.6 | 77.0 | 84.0 | 11.1 | 91.0 | 168 | 8.61 | 13.6 | 1.83 | 5.25 | 139 |  |  | 21.6 | 46.6 |  |  |  |  | 0.460 |  | 3630 |
| OREAS 621 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 621 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas 77b (4 <br> Acid) Meas | 226 | 5.1 | 1620 | 21.0 | 6.8 | 34.2 | 40 | 3.3 |  | 0.1 | 1 | 9.6 | 1.2 | 16 | 16.5 | 29.6 |  |  |  |  |  |  | 3360 |
| $\begin{aligned} & \text { Oreas 77b (4 } \\ & \text { Acid) Cert } \end{aligned}$ | 205 | 4.61 | 2050 | 19.1 | 6.55 | 34.4 | 37.9 | 3.26 |  | 0.112 | 1.59 | 9.100 | 1.35 | 118 | 15.8 | 27.7 |  |  |  |  |  |  | 3430 |
| Oreas 77b (4 <br> Acid) Meas | 199 | 4.6 | 1350 | 18.4 | 6.3 | 37.2 | 43 | 2.6 |  | 0.1 | 2 | 7.8 | 0.9 | 24 | 16.9 | 27.5 |  |  |  |  |  |  | 3130 |
| $\begin{aligned} & \begin{array}{l} \text { Oreas 77b (4 } \\ \text { Acid) Cert } \end{array} \\ & \hline \end{aligned}$ | 205 | 4.61 | 2050 | 19.1 | 6.55 | 34.4 | 37.9 | 3.26 |  | 0.112 | 1.59 | 9.100 | 1.35 | 118 | 15.8 | 27.7 |  |  |  |  |  |  | 3430 |
| Oreas 77b (4 <br> Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \begin{array}{l} \text { Oreas 77b (4 } \\ \text { Acid) Cert } \end{array} \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Zn | Ga | As | Rb | Y | Sr | Zr | Nb | Mo | In | Sn | Sb | Te | Ba | La | Ce | Pr | Nd | Sm | Gd | Tb | Dy | Cu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 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 | 0.2 |
| 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 |
| Oreas E1336 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 681 (4 Acid) Meas | 79.7 | 14.0 |  | 76.8 | 16.5 | 457 | 74 | 4.1 | 1.16 | $<0.1$ | 1 | $<0.1$ |  | 410 | 20.2 | 39.5 | 5.4 | 20.3 | 3.8 | 3.7 | 0.6 | 3.3 | 252 |
| OREAS 681 (4 Acid) Cert | 88.0 | 17.6 |  | 80.0 | 17.5 | 478 | 58.0 | 6.17 | 1.38 | 0.0420 | 1.89 | 0.240 |  | 442 | 18.8 | 40.6 | 5.32 | 21.9 | 4.82 | 4.06 | 0.580 | 3.40 | 264 |
| OREAS 681 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 681 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 681 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 681 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 147 (4 Acid) Meas | 133 | 8.7 | 16.5 | 1260 | 25.6 | 282 | 48 | 51.3 | 3.12 | 3.1 |  | 1.7 |  | 1890 | 662 | 1130 | 119 |  | 52.0 | 27.1 | 2.1 | 8.8 | 305 |
| OREAS 147 (4 Acid) Cert | 138 | 22.6 | 36.0 | 1160 | 26.3 | 299 | 105 | 1110 | 7.99 | 2.61 |  | 10.6 |  | 1940 | 663 | 1110 | 121 |  | 48.7 | 24.2 | 2.35 | 9.20 | 298 |
| OREAS 147 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 147 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 147 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 147 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas 521 (4 <br> Acid) Meas | 27.2 | 18.8 | 331 | 106 | 18.9 | 87.2 | 130 | 6.5 | 144 | 0.2 | 7 | 3.5 | 0.3 |  | 66.9 | 84.1 | 7.8 | 25.4 | 4.0 | 4.4 | 0.6 | 3.9 | 5980 |
| $\begin{array}{\|l\|} \hline \text { Oreas } 521 \text { (4 } \\ \text { Acid) Cert } \end{array}$ | 24.4 | 17.4 | 336 | 98.0 | 19.9 | 158 | 123 | 5.6 | 138 | 0.2 | 7 | 5.7 | 0.8 |  | 139 | 123 | 8.4 | 25.4 | 4.2 | 4.0 | 0.6 | 3.5 | 6070 |
| Oreas 521 (4 <br> Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{array}{\|l\|} \hline \text { Oreas } 521 \text { (4 } \\ \text { Acid) Cert } \end{array}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 70b (4 Acid) Meas | 134 | 7.8 | 161 |  | 9.7 | 82.7 | 76 | 3.6 | 3.37 | <0.1 | 2 | 0.5 |  | 226 | 18.0 | 32.3 |  |  |  |  |  |  | 55.8 |
| OREAS 70b (4 Acid) Cert | 112 | 10 | 148 |  | 9.8 | 74.0 | 66 | 3.7 | 3.30 | 0.05 | 1 | 0.6 |  | 202 | 15.3 | 28.2 |  |  |  |  |  |  | 52.0 |
| OREAS 70b (4 Acid) Meas | 107 | 7.3 | 148 |  | 8.5 | 70.3 | 59 | 3.7 | 3.06 | <0.1 | 1 | 0.5 |  | 188 | 13.8 | 25.9 |  |  |  |  |  |  | 46.1 |
| OREAS 70b (4 Acid) Cert | 112 | 10 | 148 |  | 9.8 | 74.0 | 66 | 3.7 | 3.30 | 0.05 | 1 | 0.6 |  | 202 | 15.3 | 28.2 |  |  |  |  |  |  | 52.0 |
| 832097 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832097 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832111 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832111 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832121 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832121 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832132 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832132 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832145 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832145 Split PREP DUP |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832146 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832146 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Zn | Ga | As | Rb | Y | Sr | Zr | Nb | Mo | In | Sn | Sb | Te | Ba | La | Ce | Pr | Nd | Sm | Gd | Tb | Dy | Cu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 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 | 0.2 |
| 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 |
| 832154 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832154 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832166 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832166 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832181 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832181 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832189 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832189 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832195 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832195 Split PREP DUP |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832201 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832201 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832214 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832214 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832222 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832222 Split PREP DUP |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | <0.2 | 0.3 | < 0.1 | <0.2 | $<0.1$ | <0.2 | <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 | $<0.2$ |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | 1.2 | 0.3 | <0.1 | <0.2 | < 0.1 | <0.2 | < 1 | < 0.1 | 0.06 | $<0.1$ | <1 | <0.1 | <0.1 | < 1 | < 0.1 | < 0.1 | <0.1 | < 0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.3 |
| Method Blank | 0.6 | 0.4 | <0.1 | <0.2 | <0.1 | <0.2 | <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 | 0.3 |
| Method Blank | 0.9 | 0.3 | 1.1 | <0.2 | <0.1 | <0.2 | <1 | <0.1 | 0.11 | <0.1 | <1 | <0.1 | $<0.1$ | <1 | <0.1 | $<0.1$ | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | $<0.1$ | 0.4 |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | 1.1 | 0.3 | < 0.1 | <0.2 | <0.1 | <0.2 | < 1 | <0.1 | 0.10 | <0.1 | < 1 | < 0.1 | <0.1 | <1 | < 0.1 | < 0.1 | <0.1 | <0.1 | <0.1 | <0.1 | < 0.1 | <0.1 | 0.6 |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | 1.3 | 0.4 | 0.9 | <0.2 | $<0.1$ | 0.2 | <1 | <0.1 | 0.07 | < 0.1 | <1 | < 0.1 | < 0.1 | <1 | < 0.1 | <0.1 | <0.1 | $<0.1$ | <0.1 | < 0.1 | < 0.1 | < 0.1 | 1.5 |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Ge | Tm | Yb | Lu | Ta | W | Re | TI | Pb | Sc | Th | U | Ti | P | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | \% | \% |
| Lower Limit | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.001 | 0.05 | 0.5 | 1 | 0.1 | 0.1 | 0.0005 | 0.001 | 0.01 |
| Method Code | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-ICP | TD-MS | TD-MS | TD-ICP | TD-ICP | TD-ICP |
| Oreas 72a (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1.71 |
| $\begin{aligned} & \text { Oreas 72a (4 } \\ & \text { Acid) Cert } \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1.74 |
| Oreas 72a (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \begin{array}{l} \text { Oreas 72a (4 } \\ \text { Acid) Cert } \end{array} \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 101b (4 Acid) Meas |  | 1.9 | 12.6 | 1.8 |  |  |  |  | 21.9 |  | 37.7 | 398 | 0.370 | 0.118 |  |
| $\begin{aligned} & \text { OREAS 101b (4 } \\ & \text { Acid) Cert } \end{aligned}$ |  | 2.08 | 13.9 | 1.96 |  |  |  |  | 23 |  | 36.4 | 387 | 0.35 |  |  |
| OREAS 98 (4 Acid) Meas |  |  |  |  |  |  |  |  | 339 |  |  |  |  |  | 16.1 |
| OREAS 98 (4 Acid) Cert |  |  |  |  |  |  |  |  | 345 |  |  |  |  |  | 15.5 |
| OREAS 13b (4-Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1.23 |
| OREAS 13b (4-Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1.2 |
| OREAS 13b (4-Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1.21 |
| OREAS 13b (4-Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1.2 |
| OREAS 904 (4 Acid) Meas | 0.1 |  | 3.2 | 0.5 | 0.5 | 2.6 |  | 0.55 | 11.4 | 12 | 15.7 | 8.6 |  | 0.100 | 0.01 |
| $\begin{aligned} & \text { OREAS } 904 \text { (4 } \\ & \text { Acid) Cert } \\ & \hline \end{aligned}$ | 0.180 |  | 3.14 | 0.470 | 0.540 | 2.12 |  | 0.520 | 10.6 | 11.2 | 14.3 | 8.43 |  | 0.0980 | 0.0630 |
| OREAS 904 (4 Acid) Meas | 0.1 |  | 3.1 | 0.5 | 0.6 | 2.6 |  | 0.55 | 11.8 | 11 | 14.8 | 9.2 |  | 0.103 | 0.06 |
| $\begin{array}{\|l} \hline \text { OREAS } 904 \text { (4 } \\ \text { Acid) Cert } \\ \hline \end{array}$ | 0.180 |  | 3.14 | 0.470 | 0.540 | 2.12 |  | 0.520 | 10.6 | 11.2 | 14.3 | 8.43 |  | 0.0980 | 0.0630 |
| OREAS 45d <br> (4-Acid) Meas |  |  |  |  |  |  |  |  |  | 50 |  |  | 0.407 | 0.034 | 0.04 |
| OREAS 45d (4-Acid) Cert |  |  |  |  |  |  |  |  |  | 49.30 |  |  | 0.773 | 0.042 | 0.049 |
| OREAS 96 (4 Acid) Meas |  |  |  |  |  |  |  |  | 107 |  |  |  |  |  | 4.77 |
| OREAS 96 (4 Acid) Cert |  |  |  |  |  |  |  |  | 101 |  |  |  |  |  | 4.19 |
| OREAS 96 (4 Acid) Meas |  |  |  |  |  |  |  |  | 98.7 |  |  |  |  |  | 4.67 |
| OREAS 96 (4 Acid) Cert |  |  |  |  |  |  |  |  | 101 |  |  |  |  |  | 4.19 |
| OREAS 96 (4 Acid) Meas |  |  |  |  |  |  |  |  | 95.7 |  |  |  |  |  | 4.15 |
| OREAS 96 (4 Acid) Cert |  |  |  |  |  |  |  |  | 101 |  |  |  |  |  | 4.19 |
| OREAS 96 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4.30 |
| OREAS 96 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4.19 |
| OREAS 96 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4.33 |
| OREAS 96 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 4.19 |
| OREAS 923 (4 Acid) Meas |  | 0.4 | 2.7 | 0.4 | 1.1 | 5.6 |  | 0.91 | 87.4 | 13 | 17.7 | 3.2 | 0.411 | 0.071 | 0.74 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Ge | Tm | Yb | Lu | Ta | W | Re | TI | Pb | Sc | Th | U | Ti | P | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | \% | \% |
| Lower Limit | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.001 | 0.05 | 0.5 | 1 | 0.1 | 0.1 | 0.0005 | 0.001 | 0.01 |
| Method Code | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-ICP | TD-MS | TD-MS | TD-ICP | TD-ICP | TD-ICP |
| OREAS 923 (4 Acid) Cert |  | 0.410 | 2.57 | 0.390 | 1.11 | 4.85 |  | 0.860 | 83.0 | 13.1 | 16.5 | 3.06 | 0.405 | 0.0630 | 0.691 |
| OREAS 923 (4 Acid) Meas |  | 0.4 | 2.6 | 0.4 | 1.0 | 4.5 |  | 0.90 | 87.5 | 13 | 16.9 | 3.4 | 0.426 | 0.064 | 0.71 |
| $\text { OREAS } 923 \text { (4 }$ Acid) Cert |  | 0.410 | 2.57 | 0.390 | 1.11 | 4.85 |  | 0.860 | 83.0 | 13.1 | 16.5 | 3.06 | 0.405 | 0.0630 | 0.691 |
| OREAS 621 (4 Acid) Meas |  |  | 0.9 | 0.1 |  | 2.2 |  | 2.18 | > 5000 | 6 | 5.5 | 2.8 | 0.185 | 0.038 | 4.81 |
| $\begin{aligned} & \text { OREAS } 621 \text { (4 } \\ & \text { Acid) Cert } \end{aligned}$ |  |  | 0.990 | 0.140 |  | 2.35 |  | 1.96 | 13600 | 6.24 | 7.48 | 2.83 | 0.149 | 0.0359 | 4.48 |
| OREAS 621 (4 Acid) Meas |  |  | 1.0 | 0.2 |  | 2.2 |  | 2.06 | > 5000 | 6 | 6.5 | 3.1 | 0.190 | 0.035 | 4.60 |
| $\begin{aligned} & \text { OREAS } 621 \text { (4 } \\ & \text { Acid) Cert } \end{aligned}$ |  |  | 0.990 | 0.140 |  | 2.35 |  | 1.96 | 13600 | 6.24 | 7.48 | 2.83 | 0.149 | 0.0359 | 4.48 |
| OREAS 621 (4 Acid) Meas |  |  |  |  |  |  |  |  |  | 6 |  |  | 0.190 | 0.037 | 4.68 |
| $\begin{aligned} & \hline \text { OREAS } 621 \text { (4 } \\ & \text { Acid) Cert } \end{aligned}$ |  |  |  |  |  |  |  |  |  | 6.24 |  |  | 0.149 | 0.0359 | 4.48 |
| Oreas 77b (4 Acid) Meas |  |  |  |  | 0.3 | 3.0 | 0.020 | 1.44 | 60.9 | 4 | 6.8 | 1.8 | 0.0726 |  |  |
| Oreas 77b (4 Acid) Cert |  |  |  |  | 0.280 | 3.07 | 0.0220 | 1.37 | 61.0 | 3.51 | 6.61 | 1.71 | 0.0640 |  |  |
| Oreas 77b (4 Acid) Meas |  |  |  |  | 0.3 | 2.7 | 0.017 | 1.39 | 58.0 | 4 | 6.2 | 1.8 | 0.0617 |  |  |
| Oreas 77b (4 Acid) Cert |  |  |  |  | 0.280 | 3.07 | 0.0220 | 1.37 | 61.0 | 3.51 | 6.61 | 1.71 | 0.0640 |  |  |
| Oreas 77b (4 Acid) Meas |  |  |  |  |  |  |  |  |  | 3 |  |  | 0.0608 |  |  |
| Oreas 77b (4 Acid) Cert |  |  |  |  |  |  |  |  |  | 3.51 |  |  | 0.0640 |  |  |
| OREAS 228b (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { Oreas E1336 (Fire } \\ & \text { Assay) Cert } \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Ge | Tm | Yb | Lu | Ta | W | Re | TI | Pb | Sc | Th | U | Ti | P | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | \% | \% |
| Lower Limit | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.001 | 0.05 | 0.5 | 1 | 0.1 | 0.1 | 0.0005 | 0.001 | 0.01 |
| Method Code | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-ICP | TD-MS | TD-MS | TD-ICP | TD-ICP | TD-ICP |
| Oreas E1336 (Fire <br> Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 681 (4 Acid) Meas |  | 0.2 | 1.6 | 0.3 | 0.3 | 0.6 |  |  | 10.0 | 27 | 6.5 | 1.5 | 0.570 | 0.138 | 0.11 |
| $\begin{aligned} & \text { OREAS } 681 \text { (4 } \\ & \text { Acid) Cert } \\ & \hline \end{aligned}$ |  | 0.280 | 1.77 | 0.270 | 0.420 | 1.09 |  |  | 10.2 | 27.7 | 6.55 | 1.44 | 0.588 | 0.141 | 0.109 |
| OREAS 681 (4 Acid) Meas |  |  |  |  |  |  |  |  |  | 26 |  |  | 0.582 | 0.138 | 0.10 |
| OREAS 681 (4 Acid) Cert |  |  |  |  |  |  |  |  |  | 27.7 |  |  | 0.588 | 0.141 | 0.109 |
| OREAS 681 (4 Acid) Meas |  |  |  |  |  |  |  |  |  | 26 |  |  | 0.559 | 0.136 | 0.10 |
| OREAS 681 (4 Acid) Cert |  |  |  |  |  |  |  |  |  | 27.7 |  |  | 0.588 | 0.141 | 0.109 |
| OREAS 147 (4 Acid) Meas | < 0.1 | 0.3 | 1.6 | 0.2 | 0.8 |  |  | 12.0 | 31.6 | 11 | 91.8 | 16.5 | 0.215 | 0.110 | < 0.01 |
| OREAS 147 (4 <br> Acid) Cert | 0.750 | 0.270 | 1.46 | 0.200 | 17.8 |  |  | 10.8 | 27.8 | 10.7 | 93.0 | 15.8 | 0.470 | 0.155 | 0.0300 |
| OREAS 147 (4 Acid) Meas |  |  |  |  |  |  |  |  |  | 11 |  |  | 0.217 | 0.104 | 0.02 |
| OREAS 147 (4 Acid) Cert |  |  |  |  |  |  |  |  |  | 10.7 |  |  | 0.470 | 0.155 | 0.0300 |
| OREAS 147 (4 Acid) Meas |  |  |  |  |  |  |  |  |  | 11 |  |  | 0.294 | 0.089 | 0.02 |
| OREAS 147 (4 Acid) Cert |  |  |  |  |  |  |  |  |  | 10.7 |  |  | 0.470 | 0.155 | 0.0300 |
| Oreas 521 (4 Acid) Meas |  | 0.3 | 2.2 | 0.3 | 0.5 | 86.9 | 0.066 | 0.31 | 7.7 | 15 | 5.6 | 31.2 | 0.466 | 0.091 | 1.79 |
| Oreas 521 (4 <br> Acid) Cert |  | 0.3 | 2.1 | 0.3 | 0.5 | 92.0 | 0.064 | 0.27 | 9.3 | 14 | 8.3 | 31.0 | 0.393 | 0.081 | 1.80 |
| Oreas 521 (4 Acid) Meas |  |  |  |  |  |  |  |  |  | 14 |  |  | 0.418 | 0.081 | 1.74 |
| Oreas 521 (4 <br> Acid) Cert |  |  |  |  |  |  |  |  |  | 14 |  |  | 0.393 | 0.081 | 1.80 |
| OREAS 70b (4 Acid) Meas |  |  |  |  | 0.3 | 4.8 |  | 0.35 | 14.7 | 12 | 6.9 | 1.8 | 0.180 | 0.024 | 0.29 |
| OREAS 70b (4 Acid) Cert |  |  |  |  | 0.3 | 4.9 |  | 0.33 | 13.7 | 12 | 6.9 | 1.7 | 0.181 | 0.022 | 0.31 |
| OREAS 70b (4 Acid) Meas |  |  |  |  | 0.2 | 3.8 |  | 0.32 | 12.4 |  | 6.3 | 1.7 |  |  |  |
| OREAS 70b (4 Acid) Cert |  |  |  |  | 0.3 | 4.9 |  | 0.33 | 13.7 |  | 6.9 | 1.7 |  |  |  |
| 832097 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832097 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832111 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832111 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832121 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832121 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832132 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832132 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832145 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832145 Split PREP DUP |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832146 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832146 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Ge | Tm | Yb | Lu | Ta | W | Re | TI | Pb | Sc | Th | U | Ti | P | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | \% | \% |
| Lower Limit | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.001 | 0.05 | 0.5 | 1 | 0.1 | 0.1 | 0.0005 | 0.001 | 0.01 |
| Method Code | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-ICP | TD-MS | TD-MS | TD-ICP | TD-ICP | TD-ICP |
| 832154 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832154 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832166 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832166 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832181 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832181 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832189 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832189 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832195 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832195 Split PREP DUP |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832201 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832201 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832214 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832214 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832222 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832222 Split PREP DUP |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | <0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | <0.001 | < 0.05 | <0.5 | <1 | <0.1 | < 0.1 | $0.0005$ | <0.001 | < 0.01 |
| Method Blank |  |  |  |  |  |  |  |  |  | <1 |  |  | $0.0005^{<}$ | <0.001 | < 0.01 |
| Method Blank | <0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | <0.001 | < 0.05 | <0.5 | <1 | <0.1 | <0.1 | $0.0005^{<}$ | <0.001 | < 0.01 |
| Method Blank | <0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | <0.001 | < 0.05 | <0.5 | <1 | <0.1 | <0.1 | $0.0005^{<}$ | <0.001 | < 0.01 |
| Method Blank | $<0.1$ | $<0.1$ | $<0.1$ | $<0.1$ | $<0.1$ | $<0.1$ | $<0.001$ | < 0.05 | $<0.5$ | $<1$ | $<0.1$ | $<0.1$ | $0.0005^{<}$ | <0.001 | < 0.01 |
| Method Blank |  |  |  |  |  |  |  |  |  | <1 |  |  | $0.0005$ | <0.001 | < 0.01 |
| Method Blank | $<0.1$ | $<0.1$ | $<0.1$ | $<0.1$ | $<0.1$ | 0.2 | <0.001 | $<0.05$ | $<0.5$ | $<1$ | $<0.1$ | $<0.1$ | $0.0005$ | $<0.001$ | $<0.01$ |
| Method Blank |  |  |  |  |  |  |  |  |  | <1 |  |  | $0.0005$ | <0.001 | < 0.01 |
| Method Blank | $<0.1$ | $<0.1$ | $<0.1$ | $<0.1$ | $<0.1$ | $<0.1$ | 0.002 | < 0.05 | $<0.5$ | $<1$ | $<0.1$ | $<0.1$ | $0.0005^{<}$ | $<0.001$ | 0.11 |
| Method Blank |  |  |  |  |  |  |  |  |  | <1 |  |  | 0.0005 | <0.001 | < 0.01 |


| Report No.: | A21-20978 |
| :--- | :--- |
| Report Date: | 11-Nov-21 |
| Date Submitted: | 08-Nov-21 |
| Your Reference: | Exploration/Prospecting |

Harte Gold Corp.
161 Bay Street
Suite 2400
Toronto Ontario M5J 2S1
Canada

ATTN: David Stevenson

## CERTIFICATE OF ANALYSIS

99 Rock samples were submitted for analysis.

| The following analytical package(s) were requested: | Testing Date: |  |
| :--- | :--- | :--- |
| 1A2-Tbay-Harte Gold | QOP AA-Au (Au - Fire Assay AA) | 2021-11-10 07:10:27 |

REPORT A21-20978
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Notes:
If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

LabID: 673

ACTIVATION LABORATORIES LTD.
1201 Walsh Street West, Thunder Bay, Ontario, Canada, P7E 4X6 TELEPHONE $+807622-6707$ or +1.888 .228 .5227 FAX +1.905 .648 .9613 TELEPHONE +807 622-6707 or +1.888.228.5227FAX + 1.905 .648 .9613

CERTIFIED BY:


Emmanuel Eseme, Ph.D.
Quality Control Coordinator

| Analyte Symbol | Au |
| :---: | :---: |
| Unit Symbol | ppb |
| Lower Limit | 5 |
| Method Code | FA-AA |
| 832223 | 11 |
| 832224 | 9 |
| 832225 | 8 |
| 832226 | 7 |
| 832227 | 6 |
| 832228 | 6 |
| 832229 | 7 |
| 832230 | < 5 |
| 832231 | < 5 |
| 832232 | < 5 |
| 832233 | < 5 |
| 832234 | < 5 |
| 832235 | < 5 |
| 832236 | < 5 |
| 832237 | < 5 |
| 832238 | < 5 |
| 832239 | < 5 |
| 832240 | 3640 |
| 832241 | 6 |
| 832242 | < 5 |
| 832243 | < 5 |
| 832244 | < 5 |
| 832245 | < 5 |
| 832246 | < 5 |
| 832247 | < 5 |
| 832248 | < 5 |
| 832249 | < 5 |
| 832250 | < 5 |
| 832251 | < 5 |
| 832252 | < 5 |
| 832253 | < 5 |
| 832254 | < 5 |
| 832255 | < 5 |
| 832256 | < 5 |
| 832257 | < 5 |
| 832258 | < 5 |
| 832259 | <5 |
| 832260 | 7110 |
| 832261 | < 5 |
| 832262 | < 5 |
| 832263 | <5 |
| 832264 | < 5 |
| 832265 | < 5 |
| 832266 | < 5 |
| 832267 | < 5 |
| 832268 | < 5 |
| 832269 | < 5 |
| 832270 | < 5 |
| 832271 | < 5 |
| 832272 | 6 |
| 832273 | <5 |


| Analyte Symbol | Au |
| :---: | :---: |
| Unit Symbol | ppb |
| Lower Limit | 5 |
| Method Code | FA-AA |
| 832274 | < 5 |
| 832275 | < 5 |
| 832276 | < 5 |
| 832277 | < 5 |
| 832278 | 8 |
| 832279 | < 5 |
| 832280 | 5550 |
| 832281 | 6 |
| 832282 | < 5 |
| 832283 | < 5 |
| 832284 | 7 |
| 832285 | 17 |
| 832286 | 27 |
| 832287 | 8 |
| 832288 | 5 |
| 832289 | 5 |
| 832290 | < 5 |
| 832291 | 5 |
| 832292 | 5 |
| 832293 | 6 |
| 832294 | 6 |
| 832295 | 6 |
| 832296 | 6 |
| 832297 | 6 |
| 832298 | 14 |
| 832299 | 6 |
| 832300 | 3680 |
| 832301 | 11 |
| 832302 | 27 |
| 832303 | 42 |
| 832304 | 24 |
| 832305 | 6 |
| 832306 | < 5 |
| 832307 | 6 |
| 832308 | 12 |
| 832309 | 21 |
| 832310 | < 5 |
| 832311 | 10 |
| 832312 | 5 |
| 832313 | < 5 |
| 832314 | < 5 |
| 832315 | < 5 |
| 832316 | < 5 |
| 832317 | < 5 |
| 832318 | < 5 |
| 832319 | < 5 |
| 832320 | 7100 |
| 832321 | < 5 |


| Analyte Symbol | Au |
| :---: | :---: |
| Unit Symbol | ppb |
| Lower Limit | 5 |
| Method Code | FA-AA |
| OREAS 228b (Fire Assay) Meas | 8710 |
| OREAS 228b <br> (Fire Assay) Cert | 8570 |
| OREAS 228b (Fire Assay) Meas | 8640 |
| $\begin{aligned} & \text { OREAS 228b } \\ & \text { (Fire Assay) Cert } \end{aligned}$ | 8570 |
| OREAS 228b (Fire Assay) Meas | 8750 |
| $\begin{aligned} & \text { OREAS 228b } \\ & \text { (Fire Assay) Cert } \end{aligned}$ | 8570 |
| OREAS 228b (Fire Assay) Meas | 8430 |
| OREAS 228b (Fire Assay) Cert | 8570 |
| Oreas E1336 (Fire <br> Assay) Meas | 517 |
| Oreas E1336 (Fire <br> Assay) Cert | 510 |
| Oreas E1336 (Fire <br> Assay) Meas | 508 |
| Oreas E1336 (Fire <br> Assay) Cert | 510 |
| Oreas E1336 (Fire <br> Assay) Meas | 514 |
| $\begin{array}{\|l\|} \hline \text { Oreas E1336 (Fire } \\ \text { Assay) Cert } \end{array}$ | 510 |
| Oreas E1336 (Fire <br> Assay) Meas | 510 |
| Oreas E1336 (Fire <br> Assay) Cert | 510 |
| 832224 Orig | 9 |
| 832224 Dup | 8 |
| 832238 Orig | < 5 |
| 832238 Dup | < 5 |
| 832247 Orig | 5 |
| 832247 Dup | < 5 |
| 832259 Orig | < 5 |
| 832259 Dup | < 5 |
| 832270 Orig | 5 |
| 832270 Dup | < 5 |
| 832272 Orig | 6 |
| 832272 Split PREP DUP | 6 |
| 832281 Orig | 5 |
| 832281 Dup | 7 |
| 832293 Orig | 6 |
| 832293 Dup | 5 |
| 832299 Orig | 6 |
| 832299 Dup | 6 |
| 832307 Orig | 6 |
| 832307 Dup | 6 |
| 832316 Orig | < 5 |
| 832316 Dup | < 5 |

Report No.: A21-21124
Report Date: 12-Nov-21
Date Submitted: 10-Nov-21
Your Reference: Exploration/Prospecting

Harte Gold Corp.
161 Bay Street
Suite 2400
Toronto Ontario M5J 2S1
Canada

ATTN: David Stevenson

## CERTIFICATE OF ANALYSIS

84 Rock samples were submitted for analysis.

| The following analytical package(s) were requested: | Testing Date: |  |
| :--- | :--- | :--- |
| 1A2-Tbay-Harte Gold | QOP AA-Au (Au - Fire Assay AA) | 2021-11-12 13:50:55 |

REPORT A21-21124
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Notes:
If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

LabID: 673

ACTIVATION LABORATORIES LTD.
1201 Walsh Street West, Thunder Bay, Ontario, Canada, P7E 4X6 TELEPHONE $+807622-6707$ or +1.888 .228 .5227 FAX +1.905 .648 .9613 TELEPHONE +807 622-6707 or +1.888.228.5227FAX + 1.905 .648 .9613

CERTIFIED BY:


Emmanuel Eseme, Ph.D.
Quality Control Coordinator

| Analyte Symbol | Au |
| :---: | :---: |
| Unit Symbol | ppb |
| Lower Limit | 5 |
| Method Code | FA-AA |
| 832322 | < 5 |
| 832323 | < 5 |
| 832324 | < 5 |
| 832325 | < 5 |
| 832326 | < 5 |
| 832327 | < 5 |
| 832328 | < 5 |
| 832329 | < 5 |
| 832330 | < 5 |
| 832331 | < 5 |
| 832332 | < 5 |
| 832333 | < 5 |
| 832334 | < 5 |
| 832335 | < 5 |
| 832336 | < 5 |
| 832337 | < 5 |
| 832338 | < 5 |
| 832339 | < 5 |
| 832340 | 5420 |
| 832341 | < 5 |
| 832342 | < 5 |
| 832343 | < 5 |
| 832344 | < 5 |
| 832345 | < 5 |
| 832346 | < 5 |
| 832347 | < 5 |
| 832348 | < 5 |
| 832349 | < 5 |
| 832350 | < 5 |
| 832351 | < 5 |
| 832352 | < 5 |
| 832353 | < 5 |
| 832354 | < 5 |
| 832355 | < 5 |
| 832356 | < 5 |
| 832357 | < 5 |
| 832358 | < 5 |
| 832359 | < 5 |
| 832360 | 3630 |
| 832361 | < 5 |
| 832362 | < 5 |
| 832363 | 6 |
| 832364 | < 5 |
| 832365 | < 5 |
| 832366 | < 5 |
| 832367 | < 5 |
| 832368 | < 5 |
| 832369 | < 5 |
| 832370 | < 5 |
| 832371 | < 5 |
| 832372 | <5 |


| Analyte Symbol | Au |
| :---: | :---: |
| Unit Symbol | ppb |
| Lower Limit | 5 |
| Method Code | FA-AA |
| 832373 | 5 |
| 832374 | 12 |
| 832375 | < 5 |
| 832376 | < 5 |
| 832377 | < 5 |
| 832378 | < 5 |
| 832379 | < 5 |
| 832380 | 7270 |
| 832381 | < 5 |
| 832382 | < 5 |
| 832383 | < 5 |
| 832384 | < 5 |
| 832385 | < 5 |
| 832386 | < 5 |
| 832387 | < 5 |
| 832388 | < 5 |
| 832389 | < 5 |
| 832390 | < 5 |
| 832391 | < 5 |
| 832392 | < 5 |
| 832393 | < 5 |
| 832394 | < 5 |
| 832395 | 5 |
| 832396 | < 5 |
| 832397 | < 5 |
| 832398 | < 5 |
| 832399 | < 5 |
| 832400 | 5600 |
| 832401 | < 5 |
| 832402 | < 5 |
| 832403 | < 5 |
| 832404 | < 5 |
| 832405 | <5 |


| Analyte Symbol | Au |
| :---: | :---: |
| Unit Symbol | ppb |
| Lower Limit | 5 |
| Method Code | FA-AA |
| OREAS 228b (Fire Assay) Meas | 8790 |
| OREAS 228b <br> (Fire Assay) Cert | 8570 |
| OREAS 228b (Fire Assay) Meas | 8760 |
| OREAS 228b <br> (Fire Assay) Cert | 8570 |
| OREAS 228b (Fire Assay) Meas | 8580 |
| OREAS 228b <br> (Fire Assay) Cert | 8570 |
| Oreas E1336 (Fire <br> Assay) Meas | 517 |
| Oreas E1336 (Fire <br> Assay) Cert | 510 |
| Oreas E1336 (Fire Assay) Meas | 513 |
| Oreas E1336 (Fire <br> Assay) Cert | 510 |
| Oreas E1336 (Fire Assay) Meas | 510 |
| Oreas E1336 (Fire <br> Assay) Cert | 510 |
| 832331 Orig | < 5 |
| 832331 Dup | < 5 |
| 832341 Orig | < 5 |
| 832341 Dup | < 5 |
| 832352 Orig | 5 |
| 832352 Dup | < 5 |
| 832357 Orig | < 5 |
| 832357 Dup | < 5 |
| 832367 Orig | < 5 |
| 832367 Dup | < 5 |
| 832371 Orig | < 5 |
| 832371 Split PREP DUP | 5 |
| 832376 Orig | < 5 |
| 832376 Dup | < 5 |
| 832396 Orig | < 5 |
| 832396 Dup | < 5 |
| 832399 Orig | < 5 |
| 832399 Dup | < 5 |
| 832405 Orig | < 5 |
| 832405 Split PREP DUP | < 5 |
| Method Blank | < 5 |
| Method Blank | 6 |
| Method Blank | < 5 |
| Method Blank | < 5 |


| Report No.: | A21-21514 |
| :--- | :--- |
| Report Date: | 02-Dec-21 |
| Date Submitted: | 17-Nov-21 |
| Your Reference: | Exploration/Prospecting |

## Harte Gold Corp.

161 Bay Street
Suite 2400
Toronto Ontario M5J 2S1
Canada

ATTN: David Stevenson

## CERTIFICATE OF ANALYSIS

216 Rock samples were submitted for analysis.

| The following analytical package(s) were requested: | Testing Date: |  |
| :--- | :--- | :--- |
| UT-6 | QOP Total/QOP Ulltratrace- 4acid Digest (Total <br> Digestion ICPOES/ICPMS) | 2021-11-29 14:15:58 |

REPORT A21-21514
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Notes:
If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3
Values which exceed the upper limit should be assayed for accurate numbers.
Footnote: Extra samples 833543-833550 added to the end of job.



#### Abstract

Report No.: A21-21514 Report Date: 02-Dec-21 Date Submitted: 17-Nov-21 Your Reference: Exploration/Prospecting Harte Gold Corp. 161 Bay Street Suite 2400 Toronto Ontario M5J 2S1 Canada


## ATTN: David Stevenson

## CERTIFICATE OF ANALYSIS

216 Rock samples were submitted for analysis.

| The following analytical package(s) were requested: | Testing Date: |  |
| :--- | :--- | :--- |
| 1A2-Tbay-Harte Gold | QOP AA-Au (Au - Fire Assay AA) | 2021-11-19 15:01:21 |

## REPORT A21-21514

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Notes:
If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3
Values which exceed the upper limit should be assayed for accurate numbers.
Footnote: Extra samples 833543-833550 added to the end of job.


| Analyte Symbol | Au | Li | Na | Mg | AI | K | Ca | Cd | V | Cr | Mn | Fe | Hf | Ni | Er | Be | Ho | Ag | Cs | Co | Eu | Bi | Se |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | ppm | \% | \% | \% | \% | \% | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 5 | 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 | 0.05 | 0.05 | 0.1 | 0.05 | 0.02 | 0.1 |
| Method Code | FA-AA | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS |
| 832406 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832407 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832408 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832409 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832410 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832411 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832412 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832413 | 12 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832414 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832415 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832416 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832417 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832418 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832419 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832420 | 3590 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832421 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832422 | < 5 | 91.5 | > 3.00 | 1.03 | 8.77 | 1.49 | 2.74 | $<0.1$ | 56 | 43 | 378 | 2.94 | 2.5 | 20.5 | 0.6 | 1.1 | 0.2 | 0.17 | 22.7 | 9.6 | 0.87 | 0.38 | 0.3 |
| 832423 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832424 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832425 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832426 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832427 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832428 | 11 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832429 | 36 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832430 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832431 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832432 | 5 | 132 | >3.00 | 0.33 | 8.17 | 1.78 | 2.20 | <0.1 | 24 | 11 | 274 | 1.47 | 1.8 | 3.2 | 0.3 | 1.6 | 0.1 | 0.26 | 24.4 | 2.8 | 0.37 | 0.40 | 0.1 |
| 832433 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832434 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832435 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832436 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832437 | 15 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832438 | 53 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832439 | 25 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832440 | 7030 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832441 | 42 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832442 | 89 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832443 | 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832444 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832445 | 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832446 | 12 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832447 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832448 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832449 | 14 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832450 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832451 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832452 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832453 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832454 | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832455 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832456 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Au | Li | Na | Mg | AI | K | Ca | Cd | V | Cr | Mn | Fe | Hf | Ni | Er | Be | Ho | Ag | Cs | Co | Eu | Bi | Se |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | ppm | \% | \% | \% | \% | \% | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 5 | 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 | 0.05 | 0.05 | 0.1 | 0.05 | 0.02 | 0.1 |
| Method Code | FA-AA | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS |
| 832457 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832458 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832459 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832460 | 5590 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832461 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832462 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832463 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832464 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832465 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832466 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832467 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832468 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832469 | 9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832470 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832471 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832472 | 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832473 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832474 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832475 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832476 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832477 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832478 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832479 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832480 | 3620 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832481 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832482 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832483 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832484 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832485 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832486 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832487 | 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832488 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832489 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832490 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832491 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832492 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832493 | 15 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832494 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832495 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832496 | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832497 | 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832498 | 9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832499 | 9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832500 | 6810 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833501 | 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833502 | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833503 | 11 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833504 | 13 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833505 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833506 | 9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833507 | 13 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Au | Li | Na | Mg | AI | K | Ca | Cd | V | Cr | Mn | Fe | Hf | Ni | Er | Be | Ho | Ag | Cs | Co | Eu | Bi | Se |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | ppm | \% | \% | \% | \% | \% | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 5 | 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 | 0.05 | 0.05 | 0.1 | 0.05 | 0.02 | 0.1 |
| Method Code | FA-AA | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS |
| 833508 | 9 | 42.8 | $>3.00$ | 1.19 | 8.08 | 1.11 | 3.77 | < 0.1 | 63 | 51 | 383 | 3.04 | 2.4 | 23.2 | 0.8 | 1.5 | 0.3 | 0.52 | 4.22 | 12.2 | 1.04 | 1.09 | 0.5 |
| 833509 | 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833510 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833511 | 66 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833512 | 21 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833513 | 100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833514 | 32 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833515 | 48 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833516 | 21 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833517 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833518 | 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833519 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833520 | 3600 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833521 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833522 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833523 | 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833524 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833525 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833526 | 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833527 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833528 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833529 | 19 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833530 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833531 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833532 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833533 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833534 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833535 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833536 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833537 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833538 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833539 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833540 | 6920 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833541 | 24 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833542 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833551 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833552 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833553 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833554 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833555 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833556 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833557 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833558 | 45 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833559 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833560 | 5400 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833561 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833562 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833563 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833564 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833565 | 9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833566 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Au | Li | Na | Mg | AI | K | Ca | Cd | V | Cr | Mn | Fe | Hf | Ni | Er | Be | Ho | Ag | Cs | Co | Eu | Bi | Se |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | ppm | \% | \% | \% | \% | \% | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 5 | 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 | 0.05 | 0.05 | 0.1 | 0.05 | 0.02 | 0.1 |
| Method Code | FA-AA | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS |
| 833567 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833568 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833569 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833570 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833571 | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833572 | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833573 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833574 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833575 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833576 | 7 | 70.4 | 1.56 | 2.83 | 6.84 | 0.43 | 8.36 | 0.1 | 275 | 112 | 1450 | 12.1 | 0.8 | 104 | 2.8 | 0.4 | 0.9 | 0.41 | 1.69 | 107 | 0.88 | 1.61 | 0.6 |
| 833577 | 13 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833578 | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833579 | 9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833580 | 3520 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833581 | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833582 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833583 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833584 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833585 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833586 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833587 | 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833588 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833589 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833590 | 46 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833591 | 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833592 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833593 | 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833594 | 11 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833595 | 12 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833596 | 18 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833597 | 54 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833598 | 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833599 | 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833600 | 7030 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833601 | 29 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833602 | 21 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833603 | 17 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833604 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833605 | 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833606 | 9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833607 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833608 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833609 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833610 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833611 | 17 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833612 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833613 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833614 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833615 | 22 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833616 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833617 | 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Au | Li | Na | Mg | AI | K | Ca | Cd | V | Cr | Mn | Fe | Hf | Ni | Er | Be | Ho | Ag | Cs | Co | Eu | Bi | Se |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | ppm | \% | \% | \% | \% | \% | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 5 | 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 | 0.05 | 0.05 | 0.1 | 0.05 | 0.02 | 0.1 |
| Method Code | FA-AA | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS |
| 833618 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833619 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833620 | 5620 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833621 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833543 | 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833544 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833545 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833546 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833547 | 13 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833548 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833549 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833550 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Zn | Ga | As | Rb | Y | Sr | Zr | Nb | Mo | In | Sn | Sb | Te | Ba | La | Ce | Pr | Nd | Sm | Gd | Tb | Dy | Cu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 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 | 0.2 |
| 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 |
| 832406 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832407 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832408 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832409 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832410 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832411 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832412 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832413 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832414 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832415 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832416 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832417 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832418 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832419 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832420 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832421 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832422 | 46.2 | 19.6 | $<0.1$ | 57.7 | 5.8 | 919 | 91 | 4.6 | 1.01 | <0.1 | < 1 | <0.1 | <0.1 | 529 | 31.9 | 61.8 | 6.7 | 24.2 | 3.7 | 2.2 | 0.3 | 1.1 | 39.8 |
| 832423 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832424 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832425 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832426 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832427 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832428 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832429 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832430 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832431 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832432 | 47.4 | 19.5 | < 0.1 | 89.7 | 3.2 | 283 | 61 | 1.9 | 2.36 | <0.1 | <1 | < 0.1 | <0.1 | 385 | 11.7 | 21.2 | 2.4 | 8.2 | 1.1 | 1.0 | 0.1 | 0.7 | 88.9 |
| 832433 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832434 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832435 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832436 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832437 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832438 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832439 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832440 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832441 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832442 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832443 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832444 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832445 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832446 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832447 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832448 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832449 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832450 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832451 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832452 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832453 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832454 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832455 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832456 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Zn | Ga | As | Rb | Y | Sr | Zr | Nb | Mo | In | Sn | Sb | Te | Ba | La | Ce | Pr | Nd | Sm | Gd | Tb | Dy | Cu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 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 | 0.2 |
| 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 |
| 832457 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832458 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832459 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832460 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832461 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832462 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832463 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832464 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832465 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832466 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832467 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832468 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832469 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832470 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832471 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832472 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832473 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832474 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832475 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832476 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832477 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832478 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832479 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832480 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832481 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832482 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832483 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832484 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832485 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832486 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832487 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832488 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832489 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832490 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832491 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832492 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832493 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832494 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832495 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832496 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832497 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832498 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832499 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832500 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833501 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833502 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833503 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833504 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833505 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833506 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833507 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Zn | Ga | As | Rb | Y | Sr | Zr | Nb | Mo | In | Sn | Sb | Te | Ba | La | Ce | Pr | Nd | Sm | Gd | Tb | Dy | Cu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 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 | 0.2 |
| 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 |
| 833508 | 35.5 | 17.5 | <0.1 | 32.5 | 7.9 | 872 | 95 | 7.9 | 22.9 | <0.1 | $<1$ | <0.1 | <0.1 | 273 | 68.9 | 111 | 11.7 | 36.1 | 4.4 | 2.9 | 0.3 | 1.5 | 138 |
| 833509 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833510 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833511 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833512 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833513 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833514 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833515 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833516 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833517 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833518 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833519 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833520 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833521 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833522 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833523 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833524 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833525 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833526 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833527 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833528 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833529 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833530 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833531 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833532 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833533 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833534 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833535 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833536 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833537 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833538 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833539 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833540 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833541 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833542 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833551 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833552 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833553 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833554 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833555 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833556 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833557 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833558 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833559 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833560 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833561 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833562 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833563 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833564 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833565 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833566 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Zn | Ga | As | Rb | Y | Sr | Zr | Nb | Mo | In | Sn | Sb | Te | Ba | La | Ce | Pr | Nd | Sm | Gd | Tb | Dy | Cu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 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 | 0.2 |
| 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 |
| 833567 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833568 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833569 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833570 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833571 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833572 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833573 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833574 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833575 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833576 | 76.9 | 19.8 | $<0.1$ | 12.0 | 23.4 | 250 | 16 | 0.4 | 0.70 | 0.1 | $<1$ | $<0.1$ | $<0.1$ | 84 | 3.9 | 10.2 | 1.6 | 7.7 | 2.4 | 3.0 | 0.7 | 4.3 | 215 |
| 833577 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833578 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833579 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833580 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833581 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833582 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833583 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833584 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833585 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833586 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833587 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833588 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833589 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833590 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833591 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833592 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833593 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833594 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833595 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833596 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833597 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833598 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833599 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833600 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833601 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833602 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833603 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833604 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833605 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833606 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833607 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833608 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833609 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833610 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833611 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833612 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833613 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833614 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833615 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833616 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833617 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Zn | Ga | As | Rb | Y | Sr | Zr | Nb | Mo | 1 n | Sn | Sb | Te | Ba | La | Ce | Pr | Nd | Sm | Gd | Tb | Dy | Cu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 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 | 0.2 |
| 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 |
| 833618 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833619 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833620 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833621 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833543 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833544 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833545 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833546 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833547 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833548 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833549 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833550 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Ge | Tm | Yb | Lu | Ta | W | Re | TI | Pb | Sc | Th | U | Ti | P | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | \% | \% |
| Lower Limit | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.001 | 0.05 | 0.5 | 1 | 0.1 | 0.1 | 0.0005 | 0.001 | 0.01 |
| Method Code | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-ICP | TD-MS | TD-MS | TD-ICP | TD-ICP | TD-ICP |
| 832406 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832407 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832408 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832409 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832410 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832411 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832412 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832413 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832414 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832415 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832416 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832417 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832418 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832419 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832420 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832421 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832422 | <0.1 | <0.1 | 0.5 | <0.1 | 0.2 | 0.3 | 0.002 | 0.38 | 6.2 | 6 | 4.1 | 1.2 | 0.257 | 0.070 | 0.31 |
| 832423 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832424 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832425 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832426 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832427 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832428 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832429 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832430 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832431 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832432 | $<0.1$ | < 0.1 | 0.3 | < 0.1 | 0.1 | 0.5 | 0.001 | 0.67 | 5.9 | 3 | 1.9 | 1.2 | 0.138 | 0.023 | 0.18 |
| 832433 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832434 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832435 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832436 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832437 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832438 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832439 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832440 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832441 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832442 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832443 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832444 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832445 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832446 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832447 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832448 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832449 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832450 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832451 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832452 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832453 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832454 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832455 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832456 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Ge | Tm | Yb | Lu | Ta | W | Re | TI | Pb | Sc | Th | U | Ti | P | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | \% | \% |
| Lower Limit | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.001 | 0.05 | 0.5 | 1 | 0.1 | 0.1 | 0.0005 | 0.001 | 0.01 |
| Method Code | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-ICP | TD-MS | TD-MS | TD-ICP | TD-ICP | TD-ICP |
| 832457 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832458 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832459 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832460 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832461 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832462 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832463 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832464 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832465 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832466 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832467 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832468 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832469 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832470 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832471 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832472 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832473 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832474 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832475 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832476 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832477 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832478 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832479 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832480 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832481 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832482 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832483 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832484 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832485 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832486 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832487 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832488 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832489 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832490 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832491 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832492 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832493 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832494 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832495 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832496 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832497 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832498 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832499 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832500 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833501 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833502 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833503 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833504 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833505 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833506 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833507 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Ge | Tm | Yb | Lu | Ta | W | Re | TI | Pb | Sc | Th | U | Ti | P | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | \% | \% |
| Lower Limit | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.001 | 0.05 | 0.5 | 1 | 0.1 | 0.1 | 0.0005 | 0.001 | 0.01 |
| Method Code | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-ICP | TD-MS | TD-MS | TD-ICP | TD-ICP | TD-ICP |
| 833508 | $<0.1$ | 0.1 | 0.6 | $<0.1$ | 0.3 | 0.9 | 0.011 | 0.18 | 4.1 | 8 | 5.1 | 1.2 | 0.260 | 0.086 | 1.14 |
| 833509 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833510 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833511 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833512 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833513 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833514 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833515 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833516 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833517 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833518 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833519 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833520 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833521 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833522 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833523 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833524 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833525 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833526 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833527 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833528 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833529 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833530 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833531 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833532 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833533 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833534 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833535 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833536 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833537 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833538 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833539 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833540 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833541 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833542 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833551 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833552 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833553 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833554 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833555 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833556 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833557 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833558 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833559 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833560 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833561 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833562 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833563 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833564 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833565 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833566 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |



| Analyte Symbol | Ge | Tm | Yb | Lu | Ta | W | Re | TI | Pb | Sc | Th | U | Ti | P | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | \% | \% |
| Lower Limit | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.001 | 0.05 | 0.5 | 1 | 0.1 | 0.1 | 0.0005 | 0.001 | 0.01 |
| Method Code | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-ICP | TD-MS | TD-MS | TD-ICP | TD-ICP | TD-ICP |
| 833618 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833619 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833620 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833621 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833543 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833544 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833545 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833546 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833547 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833548 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833549 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833550 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Au | Li | Na | Mg | AI | K | Ca | Cd | V | Cr | Mn | Fe | Hf | Ni | Er | Be | Ho | Ag | Cs | Co | Eu | Bi | Se |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | ppm | \% | \% | \% | \% | \% | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 5 | 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 | 0.05 | 0.05 | 0.1 | 0.05 | 0.02 | 0.1 |
| Method Code | FA-AA | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS |
| Oreas 72a (4 Acid) Meas |  |  |  |  |  |  |  |  |  | 172 |  | 9.09 |  | > 5000 |  |  |  |  |  | 152 |  |  |  |
| $\begin{aligned} & \text { Oreas 72a (4 } \\ & \text { Acid) Cert } \end{aligned}$ |  |  |  |  |  |  |  |  |  | 228 |  | 9.63 |  | $\begin{array}{r} 6930.0 \\ 00 \\ \hline \end{array}$ |  |  |  |  |  | 157 |  |  |  |
| OREAS 101b (4 Acid) Meas |  |  |  | 1.25 |  | 2.35 |  |  | 72 |  | 921 | 10.1 |  | 8.7 | 14.9 |  | 4.9 |  |  | 43.8 | 6.96 |  |  |
| OREAS 101b (4 Acid) Cert |  |  |  | 1.23 |  | 2.36 |  |  | 77 |  | 927 | 10.7 |  | 8.2 | 15 |  | 5.2 |  |  | 45 | 8.1 |  |  |
| OREAS 98 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 45.1 |  | 123 |  | 96.7 | 179 |
| OREAS 98 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 45.1 |  | 121 |  | 97.2 | 158 |
| OREAS 904 (4 Acid) Meas |  | 15.6 | 0.04 | 0.61 | 6.50 | 3.40 | 0.04 |  | 76 | 65 | 414 | 7.17 | 5.3 | 41.2 |  | 8.1 |  | 0.66 | 4.03 | 86.2 |  | 4.22 | 2.8 |
| OREAS 904 (4 Acid) Cert |  | 16.7 | 0.0340 | 0.556 | 6.30 | 3.31 | 0.0460 |  | 76.0 | 54.0 | 410 | 6.68 | 5.00 | 40.1 |  | 7.86 |  | 0.551 | 3.79 | 83.0 |  | 4.05 | 3.30 |
| OREAS 96 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 11.1 |  | 49.7 |  | 27.3 | 43.8 |
| OREAS 96 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 11.5 |  | 49.9 |  | 26.3 | 40.7 |
| OREAS 96 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 11.0 |  | 47.9 |  | 26.4 | 43.5 |
| OREAS 96 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 11.5 |  | 49.9 |  | 26.3 | 40.7 |
| OREAS 923 (4 Acid) Meas |  | 29.4 | 0.33 | 1.80 | 7.29 | 2.47 | 0.46 | 0.4 | 87 | 70 | 922 | 6.95 | 4.0 | 40.9 | 3.0 | 2.4 | 1.0 | 1.74 | 6.88 | 22.7 | 1.35 | 26.9 | 6.7 |
| 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 | 21.4 | 6.54 |
| OREAS 621 (4 Acid) Meas |  | 14.6 | 1.29 | 0.39 | 6.33 | 2.31 | 1.86 | 254 | 35 | 29 | 505 | 4.05 | 4.8 | 29.6 |  | 1.8 |  | 61.2 | 3.47 | 32.0 |  | 4.15 | 5.3 |
| OREAS 621 (4 Acid) Cert |  | 14.2 | 1.31 | 0.507 | 6.40 | 2.20 | 1.97 | 284 | 31.8 | 37.1 | 532 | 3.70 | 4.41 | 26.2 |  | 1.69 |  | 69.0 | 3.28 | 29.3 |  | 3.93 | 5.64 |
| Oreas 77b (4 <br> Acid) Meas |  | 19.4 | 0.40 | 2.50 | 1.73 | 0.33 | 2.87 | 1.2 | 25 | 232 | 625 | 29.2 | 1.2 | > 5000 |  | 0.4 |  | 1.59 | 2.29 | > 500 |  | 3.47 |  |
| $\begin{aligned} & \hline \text { Oreas 77b (4 } \\ & \text { Acid) Cert } \end{aligned}$ |  | 18.8 | 0.434 | 2.59 | 1.94 | 0.361 | 3.06 | 1.20 | 33.6 | 280 | 640 | 29.9 | 1.15 | 113000 |  | 0.470 |  | 1.62 | 2.32 | 1550 |  | 3.44 |  |
| OREAS 228b <br> (Fire Assay) Meas | 8680 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert | 8570 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Meas | 8430 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert | 8570 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Meas | 8400 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert | 8570 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Meas | 8660 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert | 8570 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Meas | 8650 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert | 8570 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Meas | 8640 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Au | Li | Na | Mg | AI | K | Ca | Cd | V | Cr | Mn | Fe | Hf | Ni | Er | Be | Ho | Ag | Cs | Co | Eu | Bi | Se |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | ppm | \% | \% | \% | \% | \% | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 5 | 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 | 0.05 | 0.05 | 0.1 | 0.05 | 0.02 | 0.1 |
| Method Code | FA-AA | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS |
| OREAS 228b (Fire Assay) Cert | 8570 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Meas <br> Oreas E | 517 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Cert | 510 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{array}{\|l\|} \hline \text { Oreas E1336 (Fire } \\ \text { Assay) Meas } \\ \hline \end{array}$ | 522 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{array}{\|l\|} \hline \text { Oreas E1336 (Fire } \\ \text { Assay) Cert } \\ \hline \end{array}$ | 510 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Meas <br> Areas | 521 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{array}{\|l\|} \hline \text { Oreas E1336 (Fire } \\ \text { Assay) Cert } \\ \hline \end{array}$ | 510 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Meas <br> Areas | 510 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{array}{\|l\|} \hline \text { Oreas E1336 (Fire } \\ \text { Assay) Cert } \\ \hline \end{array}$ | 510 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Meas <br> Ores | 519 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Cert | 510 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Meas <br> Ores | 503 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Cert | 510 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Meas | 514 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Cert | 510 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Meas | 517 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Cert | 510 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 681 (4 Acid) Meas |  | 12.7 | 1.54 | 5.66 | 8.12 | 1.43 | 6.26 |  | 234 | 1380 | 1260 | 7.59 | 1.9 | 477 | 1.9 | 1.2 | 0.6 | 0.18 | 3.78 | 51.4 | 1.33 | 0.10 |  |
| OREAS 681 (4 Acid) Cert |  | 13.0 | 1.61 | 5.19 | 7.91 | 1.35 | 5.98 |  | 253 | 1640 | 1310 | 7.47 | 1.70 | 503 | 1.97 | 1.41 | 0.690 | 0.118 | 4.02 | 51.0 | 1.37 | 0.0980 |  |
| OREAS 70b (4 Acid) Meas |  | 30.9 | 0.75 | 12.8 | 3.64 | 0.58 | 3.03 | 0.3 | 54 |  | 1120 | 5.24 | 1.7 | 2190 |  | 0.9 |  | 0.19 | 3.25 | 77.8 |  | 0.86 |  |
| OREAS 70b (4 Acid) Cert |  | 34.4 | 0.77 | 13.4 | 3.87 | 0.62 | 3.05 | 0.4 | 67 |  | 1150 | 5.52 | 1.9 | 2180 |  | 1 |  | 0.17 | 3.44 | 78.0 |  | 0.84 |  |
| 832407 Orig | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832407 Dup | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832421 Orig | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832421 Dup | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832430 Orig | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832430 Dup | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832431 Orig | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832431 Dup | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832442 Orig | 92 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832442 Dup | 86 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832455 Orig | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832455 Split | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832466 Orig | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832466 Dup | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Au | Li | Na | Mg | AI | K | Ca | Cd | V | Cr | Mn | Fe | Hf | Ni | Er | Be | Ho | Ag | Cs | Co | Eu | Bi | Se |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | ppm | \% | \% | \% | \% | \% | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 5 | 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 | 0.05 | 0.05 | 0.1 | 0.05 | 0.02 | 0.1 |
| Method Code | FA-AA | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS |
| 832476 Orig | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832476 Dup | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832486 Orig | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832486 Dup | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832490 Orig | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832490 Dup | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832499 Orig | 9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832499 Dup | 9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833505 Orig | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 833505 \text { Split } \\ & \text { PREP DUP } \end{aligned}$ | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833510 Orig | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833510 Dup | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833524 Orig | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833524 Dup | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833536 Orig | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833536 Dup | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833553 Orig | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833553 Dup | 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833563 Orig | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833563 Split PREP DUP | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833566 Orig | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833566 Dup | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833575 Orig | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833575 Dup | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833576 Orig |  | 72.3 | 1.55 | 2.77 | 6.61 | 0.44 | 8.39 | 0.1 | 273 | 113 | 1460 | 12.6 | 0.8 | 101 | 3.0 | 0.4 | 0.9 | 0.40 | 1.70 | 108 | 0.88 | 1.66 | 0.6 |
| 833576 Dup |  | 68.4 | 1.56 | 2.89 | 7.08 | 0.42 | 8.33 | 0.1 | 276 | 112 | 1450 | 11.7 | 0.9 | 107 | 2.7 | 0.4 | 0.9 | 0.41 | 1.68 | 106 | 0.87 | 1.55 | 0.7 |
| 833601 Orig | 35 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833601 Dup | 23 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833610 Dup | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833613 Orig | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 83613 \text { Split } \\ & \text { PREP DUP } \end{aligned}$ | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833621 Orig | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833621 Dup | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833549 Orig | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 833549 \text { Split } \\ & \text { PREP DUP } \end{aligned}$ | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Au | Li | Na | Mg | Al | K | Ca | Cd | V | Cr | Mn | Fe | Hf | Ni | Er | Be | Ho | Ag | Cs | Co | Eu | Bi | Se |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | ppm | \% | \% | \% | \% | \% | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 5 | 0.5 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.1 | 1 | T | 1 | 0.01 | 0.1 | 0.5 | 0.1 | 0.1 | 0.1 | 0.05 | 0.05 | 0.1 | 0.05 | 0.02 | 0.1 |
| Method Code | FA-AA | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS |
| Method Blank |  | <0.5 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | $<0.1$ | 4 | 6 | 20 | <0.01 | <0.1 | <0.5 | <0.1 | <0.1 | <0.1 | <0.05 | <0.05 | <0.1 | <0.05 | <0.02 | 0.1 |


| Analyte Symbol | Zn | Ga | As | Rb | Y | Sr | Zr | Nb | Mo | In | Sn | Sb | Te | Ba | La | Ce | Pr | Nd | Sm | Gd | Tb | Dy | Cu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 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 | 0.2 |
| 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 |
| $\begin{aligned} & \text { Oreas } 72 \mathrm{a} \text { (4 } \\ & \text { Acid) Meas } \end{aligned}$ |  |  | 4.6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 302 |
| $\begin{aligned} & \text { Oreas 72a (4 } \\ & \text { Acid) Cert } \end{aligned}$ |  |  | 14.7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 316 |
| OREAS 101b (4 Acid) Meas |  |  |  |  | 124 |  |  |  | 18.7 |  |  |  |  |  | 732 | 1290 | 118 | 371 | 43.6 | 37.3 | 4.1 | 23.8 | 389 |
| $\begin{aligned} & \text { OREAS 101b (4 } \\ & \text { Acid) Cert } \end{aligned}$ |  |  |  |  | 133 |  |  |  | 20.1 |  |  |  |  |  | 754 | 1325 | 127 | 388 | 48 | 40 | 5.4 | 27 | 412 |
| OREAS 98 (4 Acid) Meas | 1280 |  |  |  |  |  |  |  |  |  | >200 | 6.9 |  |  |  |  |  |  |  |  |  |  | P10000 |
| $\begin{aligned} & \hline \text { OREAS } 98 \text { (4 } \\ & \text { Acid) Cert } \end{aligned}$ | 1360 |  |  |  |  |  |  |  |  |  | 206 | 20.1 |  |  |  |  |  |  |  |  |  |  | $\begin{array}{r} 14800 \\ 0.0 \\ \hline \end{array}$ |
| $\begin{aligned} & \text { OREAS } 904 \text { (4 } \\ & \text { Acid) Meas } \end{aligned}$ | 30.4 | 17.0 | 96.6 | 118 | 31.8 | 31.2 | 201 |  | 2.10 | 0.2 | 3 | 1.2 |  | 204 | 46.5 | 85.5 |  |  |  |  | 1.0 |  | 6050 |
| $\begin{aligned} & \hline \text { OREAS } 904 \text { (4 } \\ & \text { Acid) Cert } \end{aligned}$ | 26.3 | 16.7 | 98.0 | 130 | 31.5 | 27.2 | 171 |  | 2.12 | 0.220 | 2.83 | 1.48 |  | 194 | 43.2 | 86.0 |  |  |  |  | 1.00 |  | 6120 |
| OREAS 96 (4 Acid) Meas | 440 |  |  |  |  |  |  |  |  |  | 66 | 4.1 |  |  |  |  |  |  |  |  |  |  | \$ 10000 |
| $\begin{aligned} & \text { OREAS } 96 \text { (4 } \\ & \text { Acid) Cert } \end{aligned}$ | 457 |  |  |  |  |  |  |  |  |  | 65.6 | 5.09 |  |  |  |  |  |  |  |  |  |  | 39300 |
| OREAS 96 (4 Acid) Meas | 393 |  |  |  |  |  |  |  |  |  | 65 | 4.0 |  |  |  |  |  |  |  |  |  |  | P10000 |
| $\begin{aligned} & \text { OREAS } 96 \text { (4 } \\ & \text { Acid) Cert } \end{aligned}$ | 457 |  |  |  |  |  |  |  |  |  | 65.6 | 5.09 |  |  |  |  |  |  |  |  |  |  | 39300 |
| OREAS 923 (4 Acid) Meas | 353 | 18.5 | 6.5 | 156 | 26.0 | 46.5 | 142 | 12.1 | 0.95 | 0.5 | 14 | 1.2 |  | 417 | 45.7 | 79.8 | 10.0 | 36.0 | 6.6 | 5.6 | 0.9 | 4.9 | 4210 |
| $\begin{aligned} & \hline \text { OREAS } 923 \text { ( } \\ & \text { Acid) Cert } \end{aligned}$ | 345 | 20.3 | 7.61 | 166 | 26.4 | 43.0 | 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 | 4230 |
| OREAS 621 (4 Acid) Meas | P10000 | 22.8 | 72.6 | 78.7 | 12.2 | 84.7 | 170 | 8.4 | 14.0 | 1.6 | 6 | 44.1 |  |  | 22.8 | 48.7 |  |  |  |  | 0.5 |  | 3850 |
| $\begin{aligned} & \hline \text { OREAS } 621 \text { (4 } \\ & \text { Acid) Cert } \end{aligned}$ | 52200 | 24.6 | 77.0 | 84.0 | 11.1 | 91.0 | 168 | 8.61 | 13.6 | 1.83 | 5.25 | 139 |  |  | 21.6 | 46.6 |  |  |  |  | 0.460 |  | 3630 |
| Oreas 77b (4 Acid) Meas | 199 | 4.6 | 1350 | 18.4 | 6.3 | 37.2 | 43 | 2.6 |  | 0.1 | 2 | 7.8 | 0.9 | 24 | 16.9 | 27.5 |  |  |  |  |  |  | 3130 |
| $\begin{aligned} & \hline \text { Oreas 77b (4 } \\ & \text { Acid) Cert } \\ & \hline \end{aligned}$ | 205 | 4.61 | 2050 | 19.1 | 6.55 | 34.4 | 37.9 | 3.26 |  | 0.112 | 1.59 | 9.100 | 1.35 | 118 | 15.8 | 27.7 |  |  |  |  |  |  | 3430 |
| OREAS 228b (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Zn | Ga | As | Rb | Y | Sr | Zr | Nb | Mo | In | Sn | Sb | Te | Ba | La | Ce | Pr | Nd | Sm | Gd | Tb | Dy | Cu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 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 | 0.2 |
| 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 |
| OREAS 228b <br> (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 681 (4 Acid) Meas | 79.7 | 14.0 |  | 76.8 | 16.5 | 457 | 74 | 4.1 | 1.16 | <0.1 | 1 | < 0.1 |  | 410 | 20.2 | 39.5 | 5.4 | 20.3 | 3.8 | 3.7 | 0.6 | 3.3 | 252 |
| $\begin{aligned} & \text { OREAS } 681 \text { (4 } \\ & \text { Acid) Cert } \end{aligned}$ | 88.0 | 17.6 |  | 80.0 | 17.5 | 478 | 58.0 | 6.17 | 1.38 | 0.0420 | 1.89 | 0.240 |  | 442 | 18.8 | 40.6 | 5.32 | 21.9 | 4.82 | 4.06 | 0.580 | 3.40 | 264 |
| OREAS 70b (4 Acid) Meas | 107 | 7.3 | 148 |  | 8.5 | 70.3 | 59 | 3.7 | 3.06 | <0.1 | 1 | 0.5 |  | 188 | 13.8 | 25.9 |  |  |  |  |  |  | 46.1 |
| $\begin{aligned} & \text { OREAS 70b (4 } \\ & \text { Acid) Cert } \end{aligned}$ | 112 | 10 | 148 |  | 9.8 | 74.0 | 66 | 3.7 | 3.30 | 0.05 | 1 | 0.6 |  | 202 | 15.3 | 28.2 |  |  |  |  |  |  | 52.0 |
| 832407 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832407 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832421 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832421 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832430 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832430 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832431 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832431 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832442 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832442 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832455 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832455 Split PREP DUP |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832466 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832466 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Zn | Ga | As | Rb | Y | Sr | Zr | Nb | Mo | In | Sn | Sb | Te | Ba | La | Ce | Pr | Nd | Sm | Gd | Tb | Dy | Cu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 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 | 0.2 |
| 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 |
| 832476 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832476 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832486 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832486 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832490 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832490 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832499 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832499 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833505 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 833505 \text { Split } \\ & \text { PREP DUP } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833510 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833510 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833524 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833524 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833536 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833536 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833553 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833553 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833563 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833563 Split PREP DUP |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833566 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833566 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833575 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833575 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833576 Orig | 76.8 | 20.4 | <0.1 | 12.5 | 23.8 | 263 | 15 | 0.3 | 0.50 | 0.1 | <1 | <0.1 | <0.1 | 86 | 3.9 | 10.7 | 1.6 | 7.7 | 2.3 | 2.9 | 0.7 | 4.3 | 219 |
| 833576 Dup | 77.0 | 19.2 | <0.1 | 11.6 | 23.1 | 237 | 16 | 0.6 | 0.91 | 0.1 | <1 | <0.1 | <0.1 | 82 | 3.9 | 9.7 | 1.6 | 7.7 | 2.4 | 3.0 | 0.6 | 4.2 | 211 |
| 833601 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833601 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833610 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833613 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 833613 \text { Split } \\ & \text { PREP DUP } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833621 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833621 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833549 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 833549 \text { Split } \\ & \text { PREP DUP } \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 | Zn | Ga | As | Rb | Y | Sr | Zr | Nb | Mo | 1 n | Sn | Sb | Te | Ba | La | Ce | Pr | Nd | Sm | Gd | Tb | Dy | Cu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 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 | 0.2 |
| 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 |


| Analyte Symbol | Ge | Tm | Yb | Lu | Ta | W | Re | TI | Pb | Sc | Th | U | Ti | P | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | \% | \% |
| Lower Limit | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.001 | 0.05 | 0.5 | 1 | 0.1 | 0.1 | 0.0005 | 0.001 | 0.01 |
| Method Code | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-ICP | TD-MS | TD-MS | TD-ICP | TD-ICP | TD-ICP |
| $\begin{aligned} & \text { Oreas } 72 \mathrm{a}(4 \\ & \text { Acid) Meas } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{array}{\|l} \hline \text { Oreas 72a (4 } \\ \text { Acid) Cert } \end{array}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 101b (4 Acid) Meas |  | 1.9 | 12.6 | 1.8 |  |  |  |  | 21.9 |  | 37.7 | 398 |  |  |  |
| $\begin{aligned} & \text { OREAS 101b (4 } \\ & \text { Acid) Cert } \end{aligned}$ |  | 2.08 | 13.9 | 1.96 |  |  |  |  | 23 |  | 36.4 | 387 |  |  |  |
| OREAS 98 (4 Acid) Meas |  |  |  |  |  |  |  |  | 339 |  |  |  |  |  |  |
| OREAS 98 (4 Acid) Cert |  |  |  |  |  |  |  |  | 345 |  |  |  |  |  |  |
| $\begin{aligned} & \text { OREAS } 904 \text { (4 } \\ & \text { Acid) Meas } \end{aligned}$ | 0.1 |  | 3.1 | 0.5 | 0.6 | 2.6 |  | 0.55 | 11.8 | 12 | 14.8 | 9.2 |  | 0.100 | 0.01 |
| $\begin{array}{\|l\|} \hline \text { OREAS } 904 \text { ( } \\ \text { Acid) Cert } \end{array}$ | 0.180 |  | 3.14 | 0.470 | 0.540 | 2.12 |  | 0.520 | 10.6 | 11.2 | 14.3 | 8.43 |  | 0.0980 | 0.0630 |
| OREAS 96 (4 Acid) Meas |  |  |  |  |  |  |  |  | 98.7 |  |  |  |  |  | 4.67 |
| OREAS 96 (4 Acid) Cert |  |  |  |  |  |  |  |  | 101 |  |  |  |  |  | 4.19 |
| OREAS 96 (4 Acid) Meas |  |  |  |  |  |  |  |  | 95.7 |  |  |  |  |  | 4.15 |
| OREAS 96 (4 Acid) Cert |  |  |  |  |  |  |  |  | 101 |  |  |  |  |  | 4.19 |
| OREAS 923 (4 Acid) Meas |  | 0.4 | 2.6 | 0.4 | 1.0 | 4.5 |  | 0.90 | 87.5 | 13 | 16.9 | 3.4 | 0.411 | 0.071 | 0.74 |
| $\begin{aligned} & \hline \text { OREAS } 923 \text { (4 } \\ & \text { Acid) Cert } \end{aligned}$ |  | 0.410 | 2.57 | 0.390 | 1.11 | 4.85 |  | 0.860 | 83.0 | 13.1 | 16.5 | 3.06 | 0.405 | 0.0630 | 0.691 |
| OREAS 621 (4 Acid) Meas |  |  | 1.0 | 0.2 |  | 2.2 |  | 2.06 | > 5000 | 6 | 6.5 | 3.1 | 0.185 | 0.038 | 4.81 |
| $\begin{aligned} & \hline \text { OREAS } 621 \text { (4 } \\ & \text { Acid) Cert } \end{aligned}$ |  |  | 0.990 | 0.140 |  | 2.35 |  | 1.96 | 13600 | 6.24 | 7.48 | 2.83 | 0.149 | 0.0359 | 4.48 |
| Oreas 77b (4 Acid) Meas |  |  |  |  | 0.3 | 2.7 | 0.017 | 1.39 | 58.0 | 4 | 6.2 | 1.8 | 0.0617 |  |  |
| $\begin{aligned} & \hline \begin{array}{l} \text { Oreas 77b (4 } \\ \text { Acid) Cert } \end{array} \\ & \hline \end{aligned}$ |  |  |  |  | 0.280 | 3.07 | 0.0220 | 1.37 | 61.0 | 3.51 | 6.61 | 1.71 | 0.0640 |  |  |
| OREAS 228b (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Ge | Tm | Yb | Lu | Ta | W | Re | TI | Pb | Sc | Th | U | Ti | P | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | \% | \% |
| Lower Limit | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.001 | 0.05 | 0.5 | 1 | 0.1 | 0.1 | 0.0005 | 0.001 | 0.01 |
| Method Code | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-ICP | TD-MS | TD-MS | TD-ICP | TD-ICP | TD-ICP |
| OREAS 228b (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \begin{array}{l} \text { Oreas E1336 (Fire } \\ \text { Assay) Cert } \end{array} \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{array}{\|l\|} \hline \begin{array}{l} \text { Oreas E1336 (Fire } \\ \text { Assay) Cert } \end{array} \\ \hline \end{array}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 681 (4 Acid) Meas |  | 0.2 | 1.6 | 0.3 | 0.3 | 0.6 |  |  | 10.0 | 27 | 6.5 | 1.5 | 0.570 | 0.138 | 0.11 |
| $\begin{aligned} & \text { OREAS } 681 \text { (4 } \\ & \text { Acid) Cert } \\ & \hline \end{aligned}$ |  | 0.280 | 1.77 | 0.270 | 0.420 | 1.09 |  |  | 10.2 | 27.7 | 6.55 | 1.44 | 0.588 | 0.141 | 0.109 |
| OREAS 70b (4 Acid) Meas |  |  |  |  | 0.2 | 3.8 |  | 0.32 | 12.4 |  | 6.3 | 1.7 |  |  |  |
| $\begin{aligned} & \text { OREAS 70b (4 } \\ & \text { Acid) Cert } \end{aligned}$ |  |  |  |  | 0.3 | 4.9 |  | 0.33 | 13.7 |  | 6.9 | 1.7 |  |  |  |
| 832407 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832407 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832421 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832421 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832430 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832430 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832431 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832431 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832442 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832442 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832455 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832455 Split PREP DUP |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832466 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 832466 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |



| Analyte Symbol | Ge | Tm | Yb | Lu | Ta | W | Re | TI | Pb | Sc | Th | U | Ti | P |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | $\%$ | $\%$ |
| Lower Limit | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.001 | 0.05 | 0.5 | 1 | 0.1 | 0.1 | 0.0005 | 0.001 |
| Method Code | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-ICP | TD-MS | TD-MS | TD-ICP | TD-ICP |
| TD-ICP |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | $<0.1$ | $<0.1$ | $<0.1$ | $<0.1$ | $<0.1$ | $<0.1$ | 0.002 | $<0.05$ | $<0.5$ | $<1$ | $<0.1$ | $<0.1$ | 0.005 | $<0.001$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Report No.: A21-21721
Report Date: 24-Dec-21
Date Submitted: 19-Nov-21
Your Reference: Exploration/Prospecting

## Harte Gold Corp.

161 Bay Street
Suite 2400
Toronto Ontario M5J 2S1
Canada

ATTN: David Stevenson

## CERTIFICATE OF ANALYSIS

47 Rock samples were submitted for analysis.

| The following analytical package(s) were requested: | Testing Date: |  |
| :--- | :--- | :--- |
| 1A2-Tbay-Harte Gold | QOP AA-Au (Au - Fire Assay AA) | 2021-11-22 07:19:55 |

## REPORT A21-21721

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Notes:
If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3
Values which exceed the upper limit should be assayed for accurate numbers.


LabID: 673

ACTIVATION LABORATORIES LTD.

CERTIFIED BY:


Emmanuel Eseme, Ph.D.
Quality Control Coordinator


#### Abstract

Report No.: A21-21721 Report Date: 24-Dec-21 Date Submitted: 19-Nov-21 Your Reference: Exploration/Prospecting Harte Gold Corp. 161 Bay Street Suite 2400 Toronto Ontario M5J 2S1 Canada


## ATTN: David Stevenson

## CERTIFICATE OF ANALYSIS

47 Rock samples were submitted for analysis.

| The following analytical package(s) were requested: | Testing Date: |  |
| :--- | :--- | :--- |
| UT-6 | QOP Total/QOP Ulltatrace- 4acid Digest (Total <br> Digestion ICPOES/ICPMS) | 2021-12-16 11:28:59 |

REPORT A21-21721
This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:
If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3
Values which exceed the upper limit should be assayed for accurate numbers.


| Analyte Symbol | Au | Li | Na | Mg | AI | K | Ca | Cd | V | Cr | Mn | Fe | Hf | Ni | Er | Be | Ho | Ag | Cs | Co | Eu | Bi | Se |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | ppm | \% | \% | \% | \% | \% | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 5 | 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 | 0.05 | 0.05 | 0.1 | 0.05 | 0.02 | 0.1 |
| Method Code | FA-AA | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS |
| 833622 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833623 | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833624 | 55 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833625 | 19 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833626 | 15 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833627 | 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833628 | 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833629 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833630 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833631 | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833632 | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833633 | 32 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833634 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833635 | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833636 | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833637 | 17 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833638 | 9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833639 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833640 | 3590 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833641 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833642 | 22 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833643 | < 5 | 80.8 | 1.86 | 4.24 | 7.28 | 0.75 | 7.79 | 0.1 | 330 | 96 | 1540 | 9.74 | 0.8 | 94.8 | 2.6 | 0.7 | 0.9 | 0.36 | 0.80 | 50.8 | 0.85 | 0.58 | $<0.1$ |
| 833644 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833645 | 9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833646 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833647 | 32 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833648 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833649 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833650 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833651 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833652 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833653 | 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833654 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833655 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833656 | 17 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833657 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833658 | 30 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833659 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833660 | 7080 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833661 | 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833662 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833663 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833664 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833665 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833666 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833667 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833668 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Zn | Ga | As | Rb | Y | Sr | Zr | Nb | Mo | In | Sn | Sb | Te | Ba | La | Ce | Pr | Nd | Sm | Gd | Tb | Dy | Cu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 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 | 0.2 |
| 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 |
| 833622 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833623 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833624 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833625 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833626 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833627 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833628 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833629 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833630 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833631 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833632 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833633 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833634 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833635 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833636 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833637 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833638 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833639 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833640 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833641 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833642 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833643 | 94.4 | 19.6 | <0.1 | 48.0 | 21.6 | 164 | 14 | 0.9 | 0.86 | <0.1 | <1 | <0.1 | <0.1 | 87 | 3.4 | 8.8 | 1.4 | 7.0 | 2.6 | 3.2 | 0.6 | 4.0 | 146 |
| 833644 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833645 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833646 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833647 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833648 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833649 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833650 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833651 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833652 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833653 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833654 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833655 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833656 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833657 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833658 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833659 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833660 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833661 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833662 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833663 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833664 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833665 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833666 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833667 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833668 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Ge | Tm | Yb | Lu | Ta | W | Re | TI | Pb | Sc | Th | U | Ti | P | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | \% | \% |
| Lower Limit | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.001 | 0.05 | 0.5 | 1 | 0.1 | 0.1 | 0.0005 | 0.001 | 0.01 |
| Method Code | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-ICP | TD-MS | TD-MS | TD-ICP | TD-ICP | TD-ICP |
| 833622 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833623 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833624 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833625 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833626 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833627 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833628 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833629 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833630 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833631 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833632 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833633 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833634 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833635 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833636 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833637 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833638 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833639 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833640 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833641 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833642 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833643 | 0.8 | 0.4 | 2.3 | 0.4 | <0.1 | 2.7 | 0.001 | 0.26 | 1.4 | 43 | 0.4 | <0.1 | 0.457 | 0.031 | 0.59 |
| 833644 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833645 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833646 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833647 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833648 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833649 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833650 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833651 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833652 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833653 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833654 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833655 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833656 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833657 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833658 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833659 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833660 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833661 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833662 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833663 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833664 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833665 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833666 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833667 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833668 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Au | Li | Na | Mg | AI | K | Ca | Cd | V | Cr | Mn | Fe | Hf | Ni | Er | Be | Ho | Ag | Cs | Co | Eu | Bi | Se |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | ppm | \% | \% | \% | \% | \% | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 5 | 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 | 0.05 | 0.05 | 0.1 | 0.05 | 0.02 | 0.1 |
| Method Code | FA-AA | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS |
| Oreas 72a (4 Acid) Meas |  |  |  |  |  |  |  |  |  | 169 |  | 9.64 |  | > 5000 |  |  |  |  |  | 157 |  |  |  |
| $\begin{aligned} & \text { Oreas 72a (4 } \\ & \text { Acid) Cert } \end{aligned}$ |  |  |  |  |  |  |  |  |  | 228 |  | 9.63 |  | $\begin{array}{r} 6930.0 \\ 00 \\ \hline \end{array}$ |  |  |  |  |  | 157 |  |  |  |
| OREAS 101b (4 Acid) Meas |  |  |  | 1.22 |  | 2.14 |  |  | 69 |  | 886 | 10.6 |  | 8.9 | 15.0 |  | 5.0 |  |  | 44.5 | 7.26 |  |  |
| OREAS 101b (4 Acid) Cert |  |  |  | 1.23 |  | 2.36 |  |  | 77 |  | 927 | 10.7 |  | 8.2 | 15 |  | 5.2 |  |  | 45 | 8.1 |  |  |
| OREAS 101b (4 Acid) Meas |  |  |  | 1.22 |  | 2.44 |  |  | 81 |  | 899 | 10.2 |  | 8.7 | 15.1 |  | 5.0 |  |  | 44.8 | 7.39 |  |  |
| OREAS 101b (4 Acid) Cert |  |  |  | 1.23 |  | 2.36 |  |  | 77 |  | 927 | 10.7 |  | 8.2 | 15 |  | 5.2 |  |  | 45 | 8.1 |  |  |
| OREAS 98 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 41.8 |  | 121 |  | 83.4 | 166 |
| OREAS 98 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 45.1 |  | 121 |  | 97.2 | 158 |
| OREAS 98 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 43.5 |  | 113 |  | 99.1 | 174 |
| OREAS 98 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 45.1 |  | 121 |  | 97.2 | 158 |
| OREAS 13b <br> (4-Acid) Meas |  |  |  |  |  |  |  |  |  | > 5000 |  |  |  | 2030 |  |  |  | 0.93 |  | 81.1 |  |  |  |
| OREAS 13b <br> (4-Acid) Cert |  |  |  |  |  |  |  |  |  | $\begin{array}{r} 8650.0 \\ 00 \\ \hline \end{array}$ |  |  |  | $\begin{array}{r} 2247.0 \\ 000 \\ \hline \end{array}$ |  |  |  | 0.86 |  | 75 |  |  |  |
| OREAS 13b <br> (4-Acid) Meas |  |  |  |  |  |  |  |  |  | > 5000 |  |  |  | 2200 |  |  |  | 0.98 |  | 78.9 |  |  |  |
| OREAS 13b (4-Acid) Cert |  |  |  |  |  |  |  |  |  | $\begin{array}{r} 8650.0 \\ 00 \\ \hline \end{array}$ |  |  |  | $\begin{array}{r} 2247.0 \\ 000 \\ \hline \end{array}$ |  |  |  | 0.86 |  | 75 |  |  |  |
| OREAS 904 (4 Acid) Meas |  | 17.1 | 0.04 | 0.61 | 6.83 | 3.02 | 0.05 |  | 77 | 61 | 419 | 7.26 | 5.2 | 44.1 |  | 8.4 |  | 0.67 | 3.92 | 87.1 |  | 4.52 | 3.2 |
| OREAS 904 (4 Acid) Cert |  | 16.7 | 0.0340 | 0.556 | 6.30 | 3.31 | 0.0460 |  | 76.0 | 54.0 | 410 | 6.68 | 5.00 | 40.1 |  | 7.86 |  | 0.551 | 3.79 | 83.0 |  | 4.05 | 3.30 |
| OREAS 904 (4 Acid) Meas |  | 18.3 | 0.04 | 0.66 | 6.79 | 3.84 | 0.06 |  | 84 | 58 | 469 | 7.00 | 1.3 | 40.5 |  | 9.1 |  | 0.58 | 3.98 | 88.3 |  | 4.21 | 1.5 |
| OREAS 904 (4 Acid) Cert |  | 16.7 | 0.0340 | 0.556 | 6.30 | 3.31 | 0.0460 |  | 76.0 | 54.0 | 410 | 6.68 | 5.00 | 40.1 |  | 7.86 |  | 0.551 | 3.79 | 83.0 |  | 4.05 | 3.30 |
| OREAS 45d <br> (4-Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 45d (4-Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 45d <br> (4-Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 45d (4-Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 96 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 11.4 |  | 53.4 |  | 27.7 | 45.2 |
| OREAS 96 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 11.5 |  | 49.9 |  | 26.3 | 40.7 |
| OREAS 96 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 11.7 |  | 50.4 |  | 29.6 | 41.9 |
| OREAS 96 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 11.5 |  | 49.9 |  | 26.3 | 40.7 |
| OREAS 923 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 923 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 923 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Au | Li | Na | Mg | AI | K | Ca | Cd | V | Cr | Mn | Fe | Hf | Ni | Er | Be | Ho | Ag | Cs | Co | Eu | Bi | Se |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | ppm | \% | \% | \% | \% | \% | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 5 | 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 | 0.05 | 0.05 | 0.1 | 0.05 | 0.02 | 0.1 |
| Method Code | FA-AA | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS |
| OREAS 923(4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\text { OREAS } 621 \text { (4 }$ Acid) Meas |  | 15.4 | 1.34 | 0.43 | 5.41 | 2.24 | 1.96 | 299 | 36 | 36 | 557 | 3.78 | 4.1 | 27.3 |  | 1.9 |  | 66.8 | 3.38 | 30.4 |  | 4.15 | 7.3 |
| $\begin{array}{\|l\|} \hline \text { OREAS } 621 \text { (4 } \\ \text { Acid) Cert } \\ \hline \end{array}$ |  | 14.2 | 1.31 | 0.507 | 6.40 | 2.20 | 1.97 | 284 | 31.8 | 37.1 | 532 | 3.70 | 4.41 | 26.2 |  | 1.69 |  | 69.0 | 3.28 | 29.3 |  | 3.93 | 5.64 |
| OREAS 621 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 621 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Meas | 8740 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Cert | 8570 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Meas | 8800 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b <br> (Fire Assay) Cert | 8570 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Meas | 512 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Cert | 510 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Meas | 513 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Cert | 510 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 681 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 681 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 681 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 681 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 147 (4 Acid) Meas |  | > 400 | 1.05 | 0.59 | 5.32 | 1.69 | 1.11 |  | 42 | 68 | 403 | 3.34 | 1.8 | 24.3 | 2.6 | 29.1 |  |  | > 100 | 6.8 | 9.88 | 13.2 |  |
| OREAS 147 (4 Acid) Cert |  | 2260 | 0.948 | 0.535 | 4.90 | 1.60 | 1.09 |  | 60.0 | 57.0 | 390 | 3.23 | 2.99 | 21.2 | 3.00 | 31.2 |  |  | 238 | 6.90 | 10.4 | 12.5 |  |
| OREAS 147 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 147 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas 521 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas 521 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas 521 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas 521 (4 <br> Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 70b (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 70b (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833623 Orig | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833623 Dup | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833637 Orig | 16 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833637 Dup | 17 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Au | Li | Na | Mg | Al | K | Ca | Cd | V | Cr | Mn | Fe | Hf | Ni | Er | Be | Ho | Ag | Cs | Co | Eu | Bi | Se |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | ppm | \% | \% | \% | \% | \% | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 5 | 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 | 0.05 | 0.05 | 0.1 | 0.05 | 0.02 | 0.1 |
| Method Code | FA-AA | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS |
| 833646 Orig | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833646 Dup | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833658 Orig | 30 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833668 Orig | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833668 Split PREP DUP | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  | <0.5 | <0.01 | < 0.01 | <0.01 | <0.01 | <0.01 | <0.1 | 3 | 13 | 47 | <0.01 | <0.1 | <0.5 | <0.1 | 0.1 | <0.1 | <0.05 | <0.05 | <0.1 | < 0.05 | < 0.02 | 0.2 |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  | <0.5 | <0.01 | < 0.01 | <0.01 | <0.01 | <0.01 | <0.1 | <1 | 2 | 5 | <0.01 | <0.1 | <0.5 | <0.1 | <0.1 | <0.1 | < 0.05 | <0.05 | <0.1 | < 0.05 | <0.02 | 0.1 |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Zn | Ga | As | Rb | Y | Sr | Zr | Nb | Mo | In | Sn | Sb | Te | Ba | La | Ce | Pr | Nd | Sm | Gd | Tb | Dy | Cu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 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 | 0.2 |
| 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 |
| Oreas 72a (4 Acid) Meas |  |  | 6.5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 329 |
| $\begin{aligned} & \begin{array}{l} \text { Oreas 72a (4 } \\ \text { Acid) Cert } \end{array} \\ & \hline \end{aligned}$ |  |  | 14.7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 316 |
| OREAS 101b (4 Acid) Meas |  |  |  |  | 114 |  |  |  | 20.1 |  |  |  |  |  | 700 | 1340 | 118 | 346 | 44.1 | 38.6 | 4.5 | 26.7 | 414 |
| $\begin{aligned} & \begin{array}{l} \text { OREAS 101b (4 } \\ \text { Acid) Cert } \end{array} \\ & \hline \end{aligned}$ |  |  |  |  | 133 |  |  |  | 20.1 |  |  |  |  |  | 754 | 1325 | 127 | 388 | 48 | 40 | 5.4 | 27 | 412 |
| OREAS 101b (4 Acid) Meas <br> Acid) Meas |  |  |  |  | 135 |  |  |  | 21.4 |  |  |  |  |  | 750 | 1210 | 128 | 386 | 49.6 | 40.8 | 5.0 | 26.4 | 442 |
| $\begin{aligned} & \begin{array}{l} \text { OREAS 101b (4 } \\ \text { Acid) Cert } \end{array} \\ & \hline \end{aligned}$ |  |  |  |  | 133 |  |  |  | 20.1 |  |  |  |  |  | 754 | 1325 | 127 | 388 | 48 | 40 | 5.4 | 27 | 412 |
| OREAS 98 (4 Acid) Meas | 1160 |  |  |  |  |  |  |  |  |  | 189 | 5.4 |  |  |  |  |  |  |  |  |  |  | P10000 |
| OREAS 98 (4 Acid) Cert | 1360 |  |  |  |  |  |  |  |  |  | 206 | 20.1 |  |  |  |  |  |  |  |  |  |  | $\begin{array}{r} 14800 \\ 0.0 \end{array}$ |
| OREAS 98 (4 Acid) Meas | 1380 |  |  |  |  |  |  |  |  |  | 194 | 6.2 |  |  |  |  |  |  |  |  |  |  | > 10000 |
| OREAS 98 (4 Acid) Cert | 1360 |  |  |  |  |  |  |  |  |  | 206 | 20.1 |  |  |  |  |  |  |  |  |  |  | $\begin{array}{r} 14800 \\ 0.0 \\ \hline \end{array}$ |
| OREAS 13b <br> (4-Acid) Meas | 113 |  | 59.0 |  |  |  |  |  | 9.84 |  |  |  |  |  |  |  |  |  |  |  |  |  | 2200 |
| OREAS 13b (4-Acid) Cert | 133 |  | 57 |  |  |  |  |  | 9.0 |  |  |  |  |  |  |  |  |  |  |  |  |  | $\begin{array}{r} 2327.0 \\ 000 \\ \hline \end{array}$ |
| OREAS 13b <br> (4-Acid) Meas | 143 |  | 67.1 |  |  |  |  |  | 10.4 |  |  |  |  |  |  |  |  |  |  |  |  |  | 2400 |
| OREAS 13b (4-Acid) Cert | 133 |  | 57 |  |  |  |  |  | 9.0 |  |  |  |  |  |  |  |  |  |  |  |  |  | $\begin{array}{r} 2327.0 \\ 000 \\ \hline \end{array}$ |
| OREAS 904 (4 Acid) Meas | 30.1 | 16.0 | 123 | 130 | 31.6 | 28.9 | 185 |  | 2.43 | 0.3 | 3 | 1.8 |  | 240 | 49.4 | 97.6 |  |  |  |  | 1.0 |  | 6050 |
| OREAS 904 (4 Acid) Cert | 26.3 | 16.7 | 98.0 | 130 | 31.5 | 27.2 | 171 |  | 2.12 | 0.220 | 2.83 | 1.48 |  | 194 | 43.2 | 86.0 |  |  |  |  | 1.00 |  | 6120 |
| OREAS 904 (4 Acid) Meas | 20.6 | 13.8 | 112 | 155 | 34.2 | 26.7 | 82 |  | 1.96 | 0.2 | 3 | 0.7 |  | 217 | 50.3 | 93.5 |  |  |  |  | 1.0 |  | 5880 |
| OREAS 904 (4 Acid) Cert | 26.3 | 16.7 | 98.0 | 130 | 31.5 | 27.2 | 171 |  | 2.12 | 0.220 | 2.83 | 1.48 |  | 194 | 43.2 | 86.0 |  |  |  |  | 1.00 |  | 6120 |
| OREAS 45d <br> (4-Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 45d (4-Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 45d <br> (4-Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 45d (4-Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 96 (4 Acid) Meas | 409 |  |  |  |  |  |  |  |  |  | 66 | 6.2 |  |  |  |  |  |  |  |  |  |  | P10000 |
| OREAS 96 (4 Acid) Cert | 457 |  |  |  |  |  |  |  |  |  | 65.6 | 5.09 |  |  |  |  |  |  |  |  |  |  | 39300 |
| OREAS 96 (4 Acid) Meas | 487 |  |  |  |  |  |  |  |  |  | 65 | 3.8 |  |  |  |  |  |  |  |  |  |  | > 10000 |
| OREAS 96 (4 Acid) Cert | 457 |  |  |  |  |  |  |  |  |  | 65.6 | 5.09 |  |  |  |  |  |  |  |  |  |  | 39300 |
| OREAS 923 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 923 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 923 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Zn | Ga | As | Rb | Y | Sr | Zr | Nb | Mo | In | Sn | Sb | Te | Ba | La | Ce | Pr | Nd | Sm | Gd | Tb | Dy | Cu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 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 | 0.2 |
| 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 |
| OREAS 923(4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 621 (4 Acid) Meas | > 10000 | 31.0 | 87.3 | 83.6 | 10.0 | 64.8 | 147 | 7.3 | 13.8 | 1.9 | 5 | 19.6 |  |  | 18.0 | 42.5 |  |  |  |  | 0.5 |  | 3790 |
| OREAS 621 (4 Acid) Cert | 52200 | 24.6 | 77.0 | 84.0 | 11.1 | 91.0 | 168 | 8.61 | 13.6 | 1.83 | 5.25 | 139 |  |  | 21.6 | 46.6 |  |  |  |  | 0.460 |  | 3630 |
| OREAS 621 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 621 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 681 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 681 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 681 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 681 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 147 (4 Acid) Meas | 141 | 14.4 | 21.3 | 1210 | 26.9 | 302 | 78 | 55.9 | 4.23 | 3.3 |  | 2.9 |  | 1800 | 654 | 1140 | 113 |  | 47.6 | 27.0 | 2.1 | 8.8 | 319 |
| OREAS 147 (4 Acid) Cert | 138 | 22.6 | 36.0 | 1160 | 26.3 | 299 | 105 | 1110 | 7.99 | 2.61 |  | 10.6 |  | 1940 | 663 | 1110 | 121 |  | 48.7 | 24.2 | 2.35 | 9.20 | 298 |
| OREAS 147 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 147 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas 521 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas 521 (4 <br> Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas 521 (4 <br> Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas 521 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 70b (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 70b (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833623 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833623 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833637 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833637 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Zn | Ga | As | Rb | Y | Sr | Zr | Nb | Mo | In | Sn | Sb | Te | Ba | La | Ce | Pr | Nd | Sm | Gd | Tb | Dy | Cu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 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 | 0.2 |
| 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 |
| 833646 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833646 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833658 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833668 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833668 Split |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | 1.3 | 0.4 | <0.1 | <0.2 | <0.1 | <0.2 | $<1$ | <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 | 0.8 |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | 1.4 | 0.4 | <0.1 | <0.2 | <0.1 | <0.2 | <1 | <0.1 | 0.17 | <0.1 | <1 | <0.1 | <0.1 | <1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | 0.3 |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Ge | Tm | Yb | Lu | Ta | W | Re | TI | Pb | Sc | Th | U | Ti | P | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | \% | \% |
| Lower Limit | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.001 | 0.05 | 0.5 | 1 | 0.1 | 0.1 | 0.0005 | 0.001 | 0.01 |
| Method Code | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-ICP | TD-MS | TD-MS | TD-ICP | TD-ICP | TD-ICP |
| Oreas 72a (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1.70 |
| Oreas 72a (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1.74 |
| OREAS 101b (4 Acid) Meas |  | 2.1 | 13.2 | 1.8 |  |  |  |  | 23.6 |  | 31.9 | 308 | 0.344 | 0.115 |  |
| OREAS 101b (4 Acid) Cert |  | 2.08 | 13.9 | 1.96 |  |  |  |  | 23 |  | 36.4 | 387 | 0.35 |  |  |
| OREAS 101b (4 Acid) Meas |  | 2.0 | 12.8 | 1.8 |  |  |  |  | 24.1 |  | 44.7 | 337 |  |  |  |
| OREAS 101b (4 Acid) Cert |  | 2.08 | 13.9 | 1.96 |  |  |  |  | 23 |  | 36.4 | 387 |  |  |  |
| OREAS 98 (4 Acid) Meas |  |  |  |  |  |  |  |  | 295 |  |  |  |  |  | 16.6 |
| OREAS 98 (4 Acid) Cert |  |  |  |  |  |  |  |  | 345 |  |  |  |  |  | 15.5 |
| OREAS 98 (4 Acid) Meas |  |  |  |  |  |  |  |  | 355 |  |  |  |  |  | 16.7 |
| OREAS 98 (4 Acid) Cert |  |  |  |  |  |  |  |  | 345 |  |  |  |  |  | 15.5 |
| OREAS 13b (4-Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1.18 |
| OREAS 13b <br> (4-Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1.2 |
| OREAS 13b (4-Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1.17 |
| OREAS 13b (4-Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1.2 |
| OREAS 904 (4 Acid) Meas | 0.3 |  | 3.5 | 0.5 | 0.3 | 1.8 |  | 0.59 | 12.8 |  | 14.7 | 9.3 |  |  |  |
| OREAS 904 (4 Acid) Cert | 0.180 |  | 3.14 | 0.470 | 0.540 | 2.12 |  | 0.520 | 10.6 |  | 14.3 | 8.43 |  |  |  |
| OREAS 904 (4 Acid) Meas | 0.4 |  | 3.1 | 0.5 | 0.3 | 0.9 |  | 0.54 | 11.6 |  | 18.1 | 9.4 |  |  |  |
| OREAS 904 (4 Acid) Cert | 0.180 |  | 3.14 | 0.470 | 0.540 | 2.12 |  | 0.520 | 10.6 |  | 14.3 | 8.43 |  |  |  |
| OREAS 45d (4-Acid) Meas |  |  |  |  |  |  |  |  |  | 51 |  |  | 0.240 | 0.036 | 0.04 |
| OREAS 45d <br> (4-Acid) Cert |  |  |  |  |  |  |  |  |  | 49.30 |  |  | 0.773 | 0.042 | 0.049 |
| OREAS 45d (4-Acid) Meas |  |  |  |  |  |  |  |  |  | 52 |  |  | 0.648 | 0.039 | 0.06 |
| OREAS 45d <br> (4-Acid) Cert |  |  |  |  |  |  |  |  |  | 49.30 |  |  | 0.773 | 0.042 | 0.049 |
| OREAS 96 (4 Acid) Meas |  |  |  |  |  |  |  |  | 97.2 |  |  |  |  |  | 4.36 |
| OREAS 96 (4 Acid) Cert |  |  |  |  |  |  |  |  | 101 |  |  |  |  |  | 4.19 |
| OREAS 96 (4 Acid) Meas |  |  |  |  |  |  |  |  | 108 |  |  |  |  |  | 4.30 |
| OREAS 96 (4 Acid) Cert |  |  |  |  |  |  |  |  | 101 |  |  |  |  |  | 4.19 |
| OREAS 923 (4 Acid) Meas |  |  |  |  |  |  |  |  |  | 13 |  |  | 0.412 | 0.066 | 0.71 |
| OREAS 923 (4 Acid) Cert |  |  |  |  |  |  |  |  |  | 13.1 |  |  | 0.405 | 0.0630 | 0.691 |
| OREAS 923 (4 Acid) Meas |  |  |  |  |  |  |  |  |  | 13 |  |  | 0.408 | 0.064 | 0.70 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Ge | Tm | Yb | Lu | Ta | W | Re | TI | Pb | Sc | Th | U | Ti | P | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | \% | \% |
| Lower Limit | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.001 | 0.05 | 0.5 | 1 | 0.1 | 0.1 | 0.0005 | 0.001 | 0.01 |
| Method Code | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-ICP | TD-MS | TD-MS | TD-ICP | TD-ICP | TD-ICP |
| OREAS 923 (4 Acid) Cert |  |  |  |  |  |  |  |  |  | 13.1 |  |  | 0.405 | 0.0630 | 0.691 |
| OREAS 621 (4 Acid) Meas |  |  | 0.9 | 0.1 |  | 1.5 |  | 2.00 | > 5000 | 4 | 4.8 | 2.9 | 0.181 | 0.035 | 4.63 |
| $\begin{aligned} & \text { OREAS } 621 \text { (4 } \\ & \text { Acid) Cert } \end{aligned}$ |  |  | 0.990 | 0.140 |  | 2.35 |  | 1.96 | 13600 | 6.24 | 7.48 | 2.83 | 0.149 | 0.0359 | 4.48 |
| OREAS 621 (4 Acid) Meas |  |  |  |  |  |  |  |  |  | 5 |  |  | 0.183 | 0.037 | 4.68 |
| $\begin{aligned} & \text { OREAS } 621 \text { (4 } \\ & \text { Acid) Cert } \end{aligned}$ |  |  |  |  |  |  |  |  |  | 6.24 |  |  | 0.149 | 0.0359 | 4.48 |
| OREAS 228b (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 228b (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{array}{\|l\|} \hline \text { Oreas E1336 (Fire } \\ \text { Assay) Cert } \end{array}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 681 (4 Acid) Meas |  |  |  |  |  |  |  |  |  | 26 |  |  | 0.419 | 0.129 | 0.10 |
| $\begin{aligned} & \hline \text { OREAS } 681 \text { (4 } \\ & \text { Acid) Cert } \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  | 27.7 |  |  | 0.588 | 0.141 | 0.109 |
| OREAS 681 (4 Acid) Meas |  |  |  |  |  |  |  |  |  | 26 |  |  | 0.565 | 0.142 | 0.10 |
| $\begin{aligned} & \hline \text { OREAS } 681 \text { (4 } \\ & \text { Acid) Cert } \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  | 27.7 |  |  | 0.588 | 0.141 | 0.109 |
| OREAS 147 (4 Acid) Meas | $<0.1$ | 0.3 | 1.7 | 0.2 | 0.4 |  |  | 11.5 | 30.9 | 11 | 77.4 | 15.6 | 0.283 | 0.097 | 0.02 |
| $\begin{aligned} & \text { OREAS } 147 \text { (4 } \\ & \text { Acid) Cert } \end{aligned}$ | 0.750 | 0.270 | 1.46 | 0.200 | 17.8 |  |  | 10.8 | 27.8 | 10.7 | 93.0 | 15.8 | 0.470 | 0.155 | 0.0300 |
| OREAS 147 (4 Acid) Meas |  |  |  |  |  |  |  |  |  | 11 |  |  | 0.256 | 0.118 | 0.02 |
| $\begin{aligned} & \text { OREAS } 147 \text { (4 } \\ & \text { Acid) Cert } \end{aligned}$ |  |  |  |  |  |  |  |  |  | 10.7 |  |  | 0.470 | 0.155 | 0.0300 |
| Oreas 521 (4 Acid) Meas |  |  |  |  |  |  |  |  |  | 14 |  |  | 0.305 | 0.077 | 1.70 |
| $\begin{aligned} & \hline \text { Oreas } 521 \text { (4 } \\ & \text { Acid) Cert } \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  | 14 |  |  | 0.393 | 0.081 | 1.80 |
| Oreas 521 (4 Acid) Meas |  |  |  |  |  |  |  |  |  | 14 |  |  | 0.311 | 0.078 | 1.72 |
| $\text { Oreas } 521 \text { ( } 4$ Acid) Cert |  |  |  |  |  |  |  |  |  | 14 |  |  | 0.393 | 0.081 | 1.80 |
| OREAS 70b (4 Acid) Meas |  |  |  |  |  |  |  |  |  | 12 |  |  | 0.171 | 0.023 | 0.29 |
| $\begin{aligned} & \begin{array}{l} \text { OREAS 70b (4 } \\ \text { Acid) Cert } \end{array} \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  | 12 |  |  | 0.181 | 0.022 | 0.31 |
| 833623 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833623 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833637 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833637 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Ge | Tm | Yb | Lu | Ta | W | Re | TI | Pb | Sc | Th | U | Ti | P | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | \% | \% |
| Lower Limit | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.001 | 0.05 | 0.5 | 1 | 0.1 | 0.1 | 0.0005 | 0.001 | 0.01 |
| Method Code | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-ICP | TD-MS | TD-MS | TD-ICP | TD-ICP | TD-ICP |
| 833646 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833646 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833658 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833668 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833668 Split PREP DUP |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  | < 1 |  |  | $0.0005$ | <0.001 | < 0.01 |
| Method Blank | < 0.1 | < 0.1 | <0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.001 | $<0.05$ | < 0.5 | $<1$ | < 0.1 | $<0.1$ | $0.0005$ | <0.001 | < 0.01 |
| Method Blank |  |  |  |  |  |  |  |  |  | < 1 |  |  | $0.0005$ | <0.001 | < 0.01 |
| Method Blank |  |  |  |  |  |  |  |  |  | < 1 |  |  | $0.0005$ | <0.001 | < 0.01 |
| Method Blank | 0.2 | < 0.1 | <0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.001 | $<0.05$ | < 0.5 | < 1 | < 0.1 | < 0.1 | 0.0005 | <0.001 | < 0.01 |
| Method Blank |  |  |  |  |  |  |  |  |  | <1 |  |  | 0.0008 | <0.001 | < 0.01 |
| Method Blank |  |  |  |  |  |  |  |  |  | <1 |  |  | 0.0005 | <0.001 | < 0.01 |


| Report No.: | A21-22495 |
| :--- | :--- |
| Report Date: | 21-Jan-22 |
| Date Submitted: | 03-Dec-21 |
| Your Reference: | Exploration/Prospecting |

Harte Gold Corp.
161 Bay Street
Suite 2400
Toronto Ontario M5J 2S1
Canada

ATTN: David Stevenson

## CERTIFICATE OF ANALYSIS

34 Rock samples were submitted for analysis.

| The following analytical package(s) were requested: | Testing Date: |  |
| :--- | :--- | :--- |
| 1A2-Tbay-Harte Gold | QOP AA-Au (Au - Fire Assay AA) | 2021-12-06 12:15:53 |

REPORT A21-22495
This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:
If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3
Values which exceed the upper limit should be assayed for accurate numbers.



#### Abstract

Report No.: A21-22495 Report Date: 21-Jan-22 Date Submitted: 03-Dec-21 Your Reference: Exploration/Prospecting Harte Gold Corp. 161 Bay Street Suite 2400 Toronto Ontario M5J 2S1 Canada


## ATTN: David Stevenson

## CERTIFICATE OF ANALYSIS

34 Rock samples were submitted for analysis.

| The following analytical package(s) were requested: | Testing Date: |  |
| :--- | :--- | :--- |
| UT-6 | QOP Total/QOP Ulltatrace- 4acid Digest (Total <br> Digestion ICPOES/ICPMS) | 2021-12-23 15:11:13 |

REPORT A21-22495
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Notes:
If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3
Values which exceed the upper limit should be assayed for accurate numbers.


| Analyte Symbol | Au | Li | Na | Mg | AI | K | Ca | Cd | V | Cr | Mn | Fe | Hf | Ni | Er | Be | Ho | Ag | Cs | Co | Eu | Bi | Se |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | ppm | \% | \% | \% | \% | \% | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 5 | 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 | 0.05 | 0.05 | 0.1 | 0.05 | 0.02 | 0.1 |
| Method Code | FA-AA | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS |
| 833669 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833670 | 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833671 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833672 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833673 | 5 | 67.7 | 0.48 | 9.21 | 3.38 | 2.01 | 9.44 | 0.2 | 100 | 404 | 2100 | 11.6 | 0.4 | 481 | 2.9 | 2.7 | 1.1 | 0.07 | 11.6 | 86.4 | 3.43 | 0.04 | $<0.1$ |
| 833674 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833675 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833676 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833677 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833678 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833679 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833680 | 5580 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833681 | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833682 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833683 | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833684 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833685 | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833686 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833687 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833688 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833689 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833690 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833691 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833692 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833693 | 8 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833694 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833695 | < 5 | 66.1 | > 3.00 | 0.76 | 8.61 | 1.49 | 2.34 | <0.1 | 42 | 21 | 384 | 2.43 | 1.6 | 13.2 | 0.7 | 1.1 | 0.3 | 0.12 | 3.41 | 6.8 | 0.64 | 0.11 | < 0.1 |
| 833696 | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833697 | 12 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833698 | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833699 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833700 | 3590 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833701 | 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833702 | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Zn | Ga | As | Rb | Y | Sr | Zr | Nb | Mo | In | Sn | Sb | Te | Ba | La | Ce | Pr | Nd | Sm | Gd | Tb | Dy | Cu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 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 | 0.2 |
| 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 |
| 833669 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833670 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833671 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833672 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833673 | 124 | 10.8 | 1.5 | 135 | 25.3 | 612 | 13 | 0.4 | 0.18 | < 0.1 | <1 | < 0.1 | < 0.1 | 809 | 76.3 | 147 | 17.7 | 70.2 | 12.7 | 9.9 | 1.4 | 6.7 | 161 |
| 833674 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833675 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833676 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833677 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833678 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833679 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833680 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833681 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833682 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833683 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833684 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833685 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833686 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833687 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833688 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833689 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833690 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833691 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833692 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833693 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833694 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833695 | 55.4 | 18.1 | 1.4 | 93.5 | 5.9 | 441 | 39 | 4.2 | 1.27 | <0.1 | <1 | $<0.1$ | $<0.1$ | 508 | 19.2 | 38.5 | 4.5 | 16.0 | 3.1 | 1.9 | 0.3 | 1.3 | 17.6 |
| 833696 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833697 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833698 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833699 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833700 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833701 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833702 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Ge | Tm | Yb | Lu | Ta | W | Re | TI | Pb | Sc | Th | U | Ti | P | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | \% | \% |
| Lower Limit | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.001 | 0.05 | 0.5 | 1 | 0.1 | 0.1 | 0.0005 | 0.001 | 0.01 |
| Method Code | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-ICP | TD-MS | TD-MS | TD-ICP | TD-ICP | TD-ICP |
| 833669 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833670 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833671 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833672 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833673 | 0.1 | 0.3 | 1.8 | 0.2 | <0.1 | <0.1 | <0.001 | 1.05 | 5.7 | 22 | 9.5 | 2.3 | 0.180 | 0.184 | 0.12 |
| 833674 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833675 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833676 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833677 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833678 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833679 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833680 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833681 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833682 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833683 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833684 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833685 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833686 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833687 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833688 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833689 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833690 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833691 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833692 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833693 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833694 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833695 | <0.1 | < 0.1 | 0.6 | <0.1 | 0.3 | 0.1 | < 0.001 | 0.64 | 9.4 | 5 | 3.3 | 1.3 | 0.199 | 0.050 | 0.04 |
| 833696 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833697 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833698 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833699 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833700 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833701 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833702 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Au | Li | Na | Mg | AI | K | Ca | Cd | V | Cr | Mn | Fe | Hf | Ni | Er | Be | Ho | Ag | Cs | Co | Eu | Bi | Se |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | ppm | \% | \% | \% | \% | \% | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 5 | 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 | 0.05 | 0.05 | 0.1 | 0.05 | 0.02 | 0.1 |
| Method Code | FA-AA | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS |
| Oreas 72a (4 Acid) Meas |  |  |  |  |  |  |  |  |  | 157 |  | 8.72 |  | > 5000 |  |  |  |  |  | 140 |  |  |  |
| $\begin{aligned} & \text { Oreas 72a (4 } \\ & \text { Acid) Cert } \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  | 228 |  | 9.63 |  | $\begin{array}{r} 6930.0 \\ 00 \end{array}$ |  |  |  |  |  | 157 |  |  |  |
| Oreas 72a (4 Acid) Meas |  |  |  |  |  |  |  |  |  | 170 |  | 9.82 |  | > 5000 |  |  |  |  |  | 165 |  |  |  |
| $\begin{aligned} & \hline \text { Oreas 72a (4 } \\ & \text { Acid) Cert } \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  | 228 |  | 9.63 |  | $\begin{array}{r} 6930.0 \\ 00 \end{array}$ |  |  |  |  |  | 157 |  |  |  |
| OREAS 101b (4 Acid) Meas |  |  |  | 1.22 |  | 2.38 |  |  | 74 |  | 949 | 10.7 |  | 11.4 | 14.5 |  | 4.8 |  |  | 45.8 | 6.94 |  |  |
| $\begin{aligned} & \begin{array}{l} \text { OREAS 101b (4 } \\ \text { Acid) Cert } \end{array} \\ & \hline \end{aligned}$ |  |  |  | 1.23 |  | 2.36 |  |  | 77 |  | 927 | 10.7 |  | 8.2 | 15 |  | 5.2 |  |  | 45 | 8.1 |  |  |
| OREAS 101b (4 Acid) Meas |  |  |  | 1.21 |  | 2.46 |  |  | 80 |  | 892 | 10.4 |  | 9.8 | 15.6 |  | 5.3 |  |  | 46.9 | 6.57 |  |  |
| OREAS 101b (4 Acid) Cert |  |  |  | 1.23 |  | 2.36 |  |  | 77 |  | 927 | 10.7 |  | 8.2 | 15 |  | 5.2 |  |  | 45 | 8.1 |  |  |
| OREAS 98 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 43.9 |  | 119 |  | 87.8 | 160 |
| OREAS 98 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 45.1 |  | 121 |  | 97.2 | 158 |
| OREAS 98 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 44.2 |  | 134 |  | 98.8 | 174 |
| OREAS 98 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 45.1 |  | 121 |  | 97.2 | 158 |
| OREAS 13b <br> (4-Acid) Meas |  |  |  |  |  |  |  |  |  | > 5000 |  |  |  | 2020 |  |  |  | 0.83 |  | 73.3 |  |  |  |
| OREAS 13b (4-Acid) Cert |  |  |  |  |  |  |  |  |  | $\begin{array}{r} 8650.0 \\ 00 \\ \hline \end{array}$ |  |  |  | $\begin{array}{r} 2247.0 \\ 000 \\ \hline \end{array}$ |  |  |  | 0.86 |  | 75 |  |  |  |
| OREAS 904 (4 Acid) Meas |  | 16.8 | 0.04 | 0.60 | 6.86 | 3.66 | 0.04 |  | 77 | 60 | 415 | 6.54 | 5.0 | 41.7 |  | 7.5 |  | 0.63 | 3.63 | 81.4 |  | 4.15 | 2.6 |
| OREAS 904 (4 Acid) Cert |  | 16.7 | 0.0340 | 0.556 | 6.30 | 3.31 | 0.0460 |  | 76.0 | 54.0 | 410 | 6.68 | 5.00 | 40.1 |  | 7.86 |  | 0.551 | 3.79 | 83.0 |  | 4.05 | 3.30 |
| OREAS 45d <br> (4-Acid) Meas |  | 20.1 | 0.09 | 0.26 | 7.96 | 0.43 | 0.18 |  | 124 | 475 | 459 | 14.1 | 2.1 | 223 | 1.4 | 0.7 | 0.5 |  | 3.46 | 29.4 | 0.53 | 0.32 |  |
| OREAS 45d (4-Acid) Cert |  | 21.5 | 0.101 | 0.245 | 8.150 | 0.412 | 0.185 |  | 235.0 | 549 | 490.000 | 14.5 | 3.830 | 231.0 | 1.38 | 0.79 | 0.46 |  | 3.910 | 29.50 | 0.57 | 0.31 |  |
| OREAS 96 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 10.5 |  | 48.7 |  | 27.7 | 38.8 |
| OREAS 96 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 11.5 |  | 49.9 |  | 26.3 | 40.7 |
| OREAS 96 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 11.2 |  | 48.0 |  | 27.6 | 41.5 |
| OREAS 96 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 11.5 |  | 49.9 |  | 26.3 | 40.7 |
| OREAS 923 (4 Acid) Meas |  | 32.2 | 0.33 | 1.85 | 7.95 | 2.11 | 0.45 | 0.4 | 86 | 77 | 1000 | 6.47 | 3.5 | 34.8 | 2.6 | 2.2 | 0.9 | 1.64 | 6.90 | 22.5 | 1.25 | 22.9 | 6.4 |
| 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 | 21.4 | 6.54 |
| OREAS 621 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { OREAS } 621 \text { (4 } \\ & \text { Acid) Cert } \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Meas | 514 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Cert | 510.000 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 681 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Au | Li | Na | Mg | AI | K | Ca | Cd | V | Cr | Mn | Fe | Hf | Ni | Er | Be | Ho | Ag | Cs | Co | Eu | Bi | Se |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppb | ppm | \% | \% | \% | \% | \% | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| Lower Limit | 5 | 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 | 0.05 | 0.05 | 0.1 | 0.05 | 0.02 | 0.1 |
| Method Code | FA-AA | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS |
| OREAS 681 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas 521 (4 Acid) Meas |  | 16.1 | 0.95 | 1.07 | 4.57 | 2.77 | 3.42 |  | 200 | 44 | 3280 | 20.6 | 3.0 | 67.0 | 2.1 | 0.8 | 0.7 | 0.83 | 0.74 | 373 | 1.52 | 5.99 | 1.4 |
| $\begin{array}{\|l\|} \hline \text { Oreas } 521 \text { (4 } \\ \text { Acid) Cert } \end{array}$ |  | 16.4 | 0.98 | 1.13 | 4.77 | 3.16 | 3.86 |  | 209 | 31 | 3210 | 20.7 | 3.2 | 73.0 | 2.1 | 0.9 | 0.7 | 0.89 | 0.72 | 386 | 1.64 | 5.85 | 2.4 |
| OREAS 70b (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 70b (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 256b (Fire Assay) Meas | 8170 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 256b (Fire Assay) Cert | 7840 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833671 Orig | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833671 Dup | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833684 Orig | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833684 Dup | <5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833693 Orig | 6 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833693 Dup | 10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833702 Orig | 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833702 Split PREP DUP | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | < 5 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  | $<0.5$ | < 0.01 | < 0.01 | $<0.01$ | $<0.01$ | $<0.01$ | $<0.1$ | 1 | 3 | 7 | $<0.01$ | $<0.1$ | $<0.5$ | $<0.1$ | $<0.1$ | $<0.1$ | < 0.05 | < 0.05 | $<0.1$ | < 0.05 | < 0.02 | $<0.1$ |
| Method Blank |  | < 0.5 | < 0.01 | < 0.01 | < 0.01 | <0.01 | < 0.01 | <0.1 | < 1 | 5 | 2 | < 0.01 | <0.1 | <0.5 | <0.1 | <0.1 | <0.1 | < 0.05 | < 0.05 | <0.1 | < 0.05 | < 0.02 | <0.1 |
| Method Blank |  | <0.5 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.1 | 1 | 6 | 2 | < 0.01 | <0.1 | 0.5 | <0.1 | <0.1 | <0.1 | <0.05 | <0.05 | <0.1 | < 0.05 | < 0.02 | <0.1 |


| Analyte Symbol | Zn | Ga | As | Rb | Y | Sr | Zr | Nb | Mo | In | Sn | Sb | Te | Ba | La | Ce | Pr | Nd | Sm | Gd | Tb | Dy | Cu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 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 | 0.2 |
| 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 |
| Oreas 72a (4 Acid) Meas |  |  | 14.3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 307 |
| $\begin{array}{\|l} \hline \text { Oreas 72a (4 } \\ \text { Acid) Cert } \\ \hline \end{array}$ |  |  | 14.7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 316 |
| Oreas 72a (4 Acid) Meas |  |  | 18.9 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 319 |
| $\begin{array}{\|l\|} \hline \text { Oreas 72a (4 } \\ \text { Acid) Cert } \\ \hline \end{array}$ |  |  | 14.7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 316 |
| OREAS 101b (4 Acid) Meas |  |  |  |  | 111 |  |  |  | 20.5 |  |  |  |  |  | 668 | 1200 | 110 | 337 | 43.0 | 36.0 | 4.3 | 25.5 | 415 |
| OREAS 101b (4 Acid) Cert |  |  |  |  | 133 |  |  |  | 20.1 |  |  |  |  |  | 754 | 1325 | 127 | 388 | 48 | 40 | 5.4 | 27 | 412 |
| OREAS 101b (4 Acid) Meas |  |  |  |  | 116 |  |  |  | 19.7 |  |  |  |  |  | 725 | 1220 | 117 | 349 | 43.8 | 34.9 | 4.6 | 26.0 | 420 |
| OREAS 101b (4 Acid) Cert |  |  |  |  | 133 |  |  |  | 20.1 |  |  |  |  |  | 754 | 1325 | 127 | 388 | 48 | 40 | 5.4 | 27 | 412 |
| OREAS 98 (4 Acid) Meas | 1280 |  |  |  |  |  |  |  |  |  | 199 | 7.6 |  |  |  |  |  |  |  |  |  |  | P10000 |
| OREAS 98 (4 Acid) Cert | 1360 |  |  |  |  |  |  |  |  |  | 206 | 20.1 |  |  |  |  |  |  |  |  |  |  | $\begin{array}{r} 14800 \\ 0.0 \\ \hline \end{array}$ |
| OREAS 98 (4 Acid) Meas | 1330 |  |  |  |  |  |  |  |  |  | > 200 | 8.1 |  |  |  |  |  |  |  |  |  |  | P 10000 |
| OREAS 98 (4 Acid) Cert | 1360 |  |  |  |  |  |  |  |  |  | 206 | 20.1 |  |  |  |  |  |  |  |  |  |  | $\begin{array}{r} 14800 \\ 0.0 \\ \hline \end{array}$ |
| OREAS 13b (4-Acid) Meas | 131 |  | 47.2 |  |  |  |  |  | 8.51 |  |  |  |  |  |  |  |  |  |  |  |  |  | 2140 |
| OREAS 13b <br> (4-Acid) Cert | 133 |  | 57 |  |  |  |  |  | 9.0 |  |  |  |  |  |  |  |  |  |  |  |  |  | $\begin{array}{r} 2327.0 \\ 000 \\ \hline \end{array}$ |
| OREAS 904 (4 Acid) Meas | 26.6 | 14.3 | 94.7 | 124 | 29.0 | 24.1 | 184 |  | 2.29 | 0.2 | 3 | 1.4 |  | 210 | 41.3 | 82.7 |  |  |  |  | 0.9 |  | 5760 |
| OREAS 904 (4 Acid) Cert | 26.3 | 16.7 | 98.0 | 130 | 31.5 | 27.2 | 171 |  | 2.12 | 0.220 | 2.83 | 1.48 |  | 194 | 43.2 | 86.0 |  |  |  |  | 1.00 |  | 6120 |
| OREAS 45d (4-Acid) Meas | 41.4 | 20.1 | 7.7 | 40.6 | 9.7 | 27.3 | 67 | 0.8 | 0.33 | <0.1 | <1 | <0.1 |  | 169 | 16.2 | 32.4 | 3.6 | 12.6 | 2.8 | 2.3 | 0.4 | 2.4 | 368 |
| OREAS 45d <br> (4-Acid) Cert | 45.7 | 21.20 | 13.8 | 42.1 | 9.53 | 31.30 | 141 | 14.50 | 2.500 | 0.096 | 2.78 | 0.82 |  | 183.0 | 16.9 | 37.20 | 3.70 | 13.4 | 2.80 | 2.42 | 0.400 | 2.26 | 371 |
| OREAS 96 (4 Acid) Meas | 430 |  |  |  |  |  |  |  |  |  | 63 | 4.7 |  |  |  |  |  |  |  |  |  |  | P10000 |
| OREAS 96 (4 Acid) Cert | 457 |  |  |  |  |  |  |  |  |  | 65.6 | 5.09 |  |  |  |  |  |  |  |  |  |  | 39300 |
| OREAS 96 (4 Acid) Meas | 406 |  |  |  |  |  |  |  |  |  | 66 | 4.8 |  |  |  |  |  |  |  |  |  |  | 10000 |
| OREAS 96 (4 Acid) Cert | 457 |  |  |  |  |  |  |  |  |  | 65.6 | 5.09 |  |  |  |  |  |  |  |  |  |  | 39300 |
| OREAS 923 (4 Acid) Meas | 343 | 20.8 | 8.6 | 171 | 25.7 | 39.4 | 128 | 15.8 | 1.06 | 0.5 | 14 | 1.5 |  | 424 | 41.9 | 78.5 | 9.4 | 35.3 | 5.3 | 6.1 | 0.8 | 5.0 | 4040 |
| OREAS 923 (4 Acid) Cert | 345 | 20.3 | 7.61 | 166 | 26.4 | 43.0 | 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 | 4230 |
| OREAS 621 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 621 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 681 (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Zn | Ga | As | Rb | Y | Sr | Zr | Nb | Mo | In | Sn | Sb | Te | Ba | La | Ce | Pr | Nd | Sm | Gd | Tb | Dy | Cu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 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 | 0.2 |
| 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 |
| OREAS 681 (4 Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas 521 (4 Acid) Meas | 24.0 | 16.2 | 232 | 97.0 | 18.3 | 97.9 | 118 | 1.7 | 118 | 0.2 | 6 | 3.6 | 0.2 |  | 85.7 | 103 | 7.9 | 24.4 | 4.1 | 4.3 | 0.6 | 3.5 | 5530 |
| $\begin{aligned} & \text { Oreas } 521 \text { (4 } \\ & \text { Acid) Cert } \end{aligned}$ | 24.4 | 17.4 | 336 | 98.0 | 19.9 | 158 | 123 | 5.6 | 138 | 0.2 | 7 | 5.7 | 0.8 |  | 139 | 123 | 8.4 | 25.4 | 4.2 | 4.0 | 0.6 | 3.5 | 6070 |
| OREAS 70b (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { OREAS 70b (4 } \\ & \text { Acid) Cert } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 256b (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 256b (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833671 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833671 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833684 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833684 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833693 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833693 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833702 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 833702 \text { Split } \\ & \text { PREP DUP } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank | < 0.2 | 0.2 | 1.2 | < 0.2 | < 0.1 | < 0.2 | <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 | 0.8 |
| Method Blank | <0.2 | 0.1 | $<0.1$ | <0.2 | $<0.1$ | <0.2 | <1 | $<0.1$ | 0.06 | $<0.1$ | < 1 | < 0.1 | < 0.1 | <1 | $<0.1$ | $<0.1$ | < 0.1 | $<0.1$ | $<0.1$ | $<0.1$ | < 0.1 | < 0.1 | 0.6 |
| Method Blank | 0.6 | 0.2 | 0.9 | <0.2 | <0.1 | <0.2 | <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 | 0.2 |


| Analyte Symbol | Ge | Tm | Yb | Lu | Ta | W | Re | TI | Pb | Sc | Th | U | Ti | P | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | \% | \% |
| Lower Limit | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.001 | 0.05 | 0.5 | 1 | 0.1 | 0.1 | 0.0005 | 0.001 | 0.01 |
| Method Code | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-ICP | TD-MS | TD-MS | TD-ICP | TD-ICP | TD-ICP |
| Oreas 72a (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1.65 |
| $\begin{aligned} & \text { Oreas 72a (4 } \\ & \text { Acid) Cert } \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1.74 |
| Oreas 72a (4 Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \begin{array}{l} \text { Oreas 72a (4 } \\ \text { Acid) Cert } \end{array} \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 101b (4 Acid) Meas |  | 2.0 | 13.3 | 1.7 |  |  |  |  | 23.3 |  | 35.5 | 323 | 0.373 | 0.120 |  |
| $\begin{aligned} & \text { OREAS 101b (4 } \\ & \text { Acid) Cert } \end{aligned}$ |  | 2.08 | 13.9 | 1.96 |  |  |  |  | 23 |  | 36.4 | 387 | 0.35 |  |  |
| OREAS 101b (4 Acid) Meas |  | 2.0 | 12.9 | 1.7 |  |  |  |  | 21.1 |  | 35.6 | 369 |  |  |  |
| $\begin{aligned} & \text { OREAS 101b (4 } \\ & \text { Acid) Cert } \end{aligned}$ |  | 2.08 | 13.9 | 1.96 |  |  |  |  | 23 |  | 36.4 | 387 |  |  |  |
| OREAS 98 (4 Acid) Meas |  |  |  |  |  |  |  |  | 291 |  |  |  |  |  | 14.9 |
| OREAS 98 (4 Acid) Cert |  |  |  |  |  |  |  |  | 345 |  |  |  |  |  | 15.5 |
| OREAS 98 (4 Acid) Meas |  |  |  |  |  |  |  |  | 307 |  |  |  |  |  |  |
| OREAS 98 (4 Acid) Cert |  |  |  |  |  |  |  |  | 345 |  |  |  |  |  |  |
| OREAS 13b (4-Acid) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1.18 |
| OREAS 13b (4-Acid) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1.2 |
| OREAS 904 (4 Acid) Meas | <0.1 |  | 3.2 | 0.4 | 0.9 | 2.7 |  | 0.54 | 12.9 | 13 | 15.1 | 8.8 |  | 0.112 | 0.07 |
| $\begin{array}{\|l} \hline \text { OREAS } 904 \text { (4 } \\ \text { Acid) Cert } \\ \hline \end{array}$ | 0.180 |  | 3.14 | 0.470 | 0.540 | 2.12 |  | 0.520 | 10.6 | 11.2 | 14.3 | 8.43 |  | 0.0980 | 0.0630 |
| OREAS 45d <br> (4-Acid) Meas |  |  | 1.4 | 0.2 | < 0.1 | < 0.1 |  | 0.24 | 19.5 | 55 | 13.8 | 2.6 | 0.305 | 0.038 | 0.05 |
| OREAS 45d (4-Acid) Cert |  |  | 1.33 | 0.18 | 1.02 | 1.62 |  | 0.27 | 21.8 | 49.30 | 14.5 | 2.63 | 0.773 | 0.042 | 0.049 |
| OREAS 96 (4 Acid) Meas |  |  |  |  |  |  |  |  | 130 |  |  |  |  |  | 4.38 |
| OREAS 96 (4 Acid) Cert |  |  |  |  |  |  |  |  | 101 |  |  |  |  |  | 4.19 |
| OREAS 96 (4 Acid) Meas |  |  |  |  |  |  |  |  | 94.4 |  |  |  |  |  |  |
| OREAS 96 (4 Acid) Cert |  |  |  |  |  |  |  |  | 101 |  |  |  |  |  |  |
| OREAS 923 (4 Acid) Meas |  | 0.4 | 2.5 | 0.4 | 1.1 | 5.9 |  | 0.86 | 91.5 |  | 17.9 | 3.3 |  |  |  |
| $\begin{aligned} & \text { OREAS } 923 \text { (4 } \\ & \text { Acid) Cert } \end{aligned}$ |  | 0.410 | 2.57 | 0.390 | 1.11 | 4.85 |  | 0.860 | 83.0 |  | 16.5 | 3.06 |  |  |  |
| OREAS 621 (4 Acid) Meas |  |  |  |  |  |  |  |  |  | 5 |  |  | 0.191 | 0.038 | 4.94 |
| $\begin{aligned} & \text { OREAS } 621 \text { (4 } \\ & \text { Acid) Cert } \end{aligned}$ |  |  |  |  |  |  |  |  |  | 6.24 |  |  | 0.149 | 0.0359 | 4.48 |
| Oreas E1336 (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Oreas E1336 (Fire <br> Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 681 (4 Acid) Meas |  |  |  |  |  |  |  |  |  | 26 |  |  | 0.554 | 0.135 | 0.10 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |


| Analyte Symbol | Ge | Tm | Yb | Lu | Ta | W | Re | TI | Pb | Sc | Th | U | Ti | P | S |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Unit Symbol | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | \% | \% | \% |
| Lower Limit | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.001 | 0.05 | 0.5 | 1 | 0.1 | 0.1 | 0.0005 | 0.001 | 0.01 |
| Method Code | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-MS | TD-ICP | TD-MS | TD-MS | TD-ICP | TD-ICP | TD-ICP |
| OREAS 681 (4 Acid) Cert |  |  |  |  |  |  |  |  |  | 27.7 |  |  | 0.588 | 0.141 | 0.109 |
| Oreas 521 (4 Acid) Meas |  | 0.3 | 2.1 | 0.3 | $<0.1$ | 21.2 | 0.066 | 0.28 | 6.4 | 13 | 4.2 | 32.2 | 0.347 | 0.078 | 1.72 |
| Oreas 521 (4 <br> Acid) Cert |  | 0.3 | 2.1 | 0.3 | 0.5 | 92.0 | 0.064 | 0.27 | 9.3 | 14 | 8.3 | 31.0 | 0.393 | 0.081 | 1.80 |
| $\begin{aligned} & \text { OREAS 70b (4 } \\ & \text { Acid) Meas } \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  | 11 |  |  | 0.171 | 0.022 | 0.29 |
| OREAS 70b (4 Acid) Cert |  |  |  |  |  |  |  |  |  | 12 |  |  | 0.181 | 0.022 | 0.31 |
| OREAS 256b <br> (Fire Assay) Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 256b (Fire Assay) Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833671 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833671 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833684 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833684 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833693 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833693 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833702 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 833702 Split PREP DUP |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  | < 1 |  |  | $0.0005$ | <0.001 | < 0.01 |
| Method Blank |  |  |  |  |  |  |  |  |  | <1 |  |  | $0.0005$ | <0.001 | < 0.01 |
| Method Blank | <0.1 | <0.1 | <0.1 | < 0.1 | <0.1 | < 0.1 | < 0.001 | < 0.05 | <0.5 | <1 | <0.1 | <0.1 | $0.0005$ | <0.001 | < 0.01 |
| Method Blank | < 0.1 | < 0.1 | < 0.1 | < 0.1 | $<0.1$ | < 0.1 | $<0.001$ | < 0.05 | < 0.5 | <1 | < 0.1 | $<0.1$ | $0.0005$ | <0.001 | < 0.01 |
| Method Blank | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.1 | <0.001 | < 0.05 | <0.5 |  | <0.1 | <0.1 |  |  |  |

Appendix G - K7 South Zone - 2021 Actlabs Invoices

Appendix H - K7 South Zone - 2021 G4 Drilling Invoices



[^0]:    David B. Stevenson, M.Sc., P.Geo.

