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PHASE 1 DIAMOND DRILLING PROGRAM: TELEDYNE COBALT PROPERTY

BUCKE AND LORRAIN TOWNSHIPS
LARDER LAKE MINING DIVISION, ONTARIO, CANADA



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EXECUTIVE SUMMARY

The author was requested by LiCo Energy Metals Inc. (“LiCo”) to complete a technical report for assessment purposes on their Phase 1 diamond drilling program that was completed on the Teledyne Cobalt Property (“Property”).

The Property, located in Bucke and Lorrain Townships, consists of 5 patented mining claims totaling 80.9 ha, and 46 unpatented mining claim cells totaling approximately 705.99 ha. The Property is bounded by UTM NAD83 Z17N coordinates 604350E to 607575E, and 5248100N to 5253000N and is covered by National Topographic System (NTS) map sheet 31M/5.

In the fall of 2017, LiCo completed 11 diamond drill holes totalling 2,204.0 m on the Property. The program tested the Teledyne Main Zone for a strike length of approximately 220 m. Significant results from the Phase 1 diamond drilling program completed by LiCo include 0.62% Co over 6.00 m from 136.00 to 142.00 m (TE17-01), 2.09% Co over 1.9 m from 143.0 to 144.9 m (TE17-02), 0.59% Co over 3.9 m from 156.0 to 159.9 m (TE17-02), 1.82% Co over 6.00 m from 138.00 to 144.00 m (TE17-04), 2.32% Co over 4.00 m from 126.5 to 130.50 m (TE17-05), 1.70% Co over 6.00 m from 136.00 to 142.00 m (TE17-05), 0.50% Co over 2.10 m from 127.60 to 129.70 m (TE17-07), 0.77% Co over 3.40 m from 169.50 to 172.90 m (TE17-08), 0.59% Co over 1.20 m from 174.00 to 175.20 m (TE17-08), 0.62% Co over 0.60 m from 178.60 to 179.20 m (TE17-08), 0.54% Co over 2.00 m from 130.00 to 132.00 m (TE17-11). The aforementioned intervals represent core lengths, and not true widths.

It is recommended that Phase 2, minimum 2,000 m diamond drilling program be completed on the Teledyne Cobalt Property. The program should be designed to expand on the results generated from LiCo’s first phase of drilling, as well as to explore for additional mineralized zones that may be located within proximity to the known mineralization.

1.0 INTRODUCTION

In 2016, LiCo Energy Metals Inc. entered into an option agreement to acquire up to a 100% interest, subject to a 2% net smelter royalty (“NSR”), on the Teledyne Cobalt Property (“Property”).

From October 23rd to November 28th, 2017, LiCo completed 11 diamond drill holes totalling 2,204.0 m on the Property.

This diamond drilling program forms the basis of this report.

2.0 PROPERTY DETAILS

2.1 Location and Access

The Property is situated approximately 6 km east-northeast of the town of Cobalt, Ontario. Highway 567 and a municipal road cross the Property.

The Property is bounded by UTM NAD83 Z17N coordinates 604350E to 607575E, and 5248100N to 5253000N and is covered by National Topographic System (NTS) map sheet 31M/5.

A full range of services and supplies are provided in the city of Temiskaming Shores, located approximately 10 km north the Property.

2.2 Topography and Vegetation

The local terrain consists of gently rolling to steep ledges and cliffs. Typical vegetation on the Property consists of a boreal forest with a mixture of coniferous and deciduous trees, including poplar, birch, pine, spruce, alders, and willows. The elevation of the Property is approximately 210 m above sea level and the maximum topographical relief is generally less than 25 m.

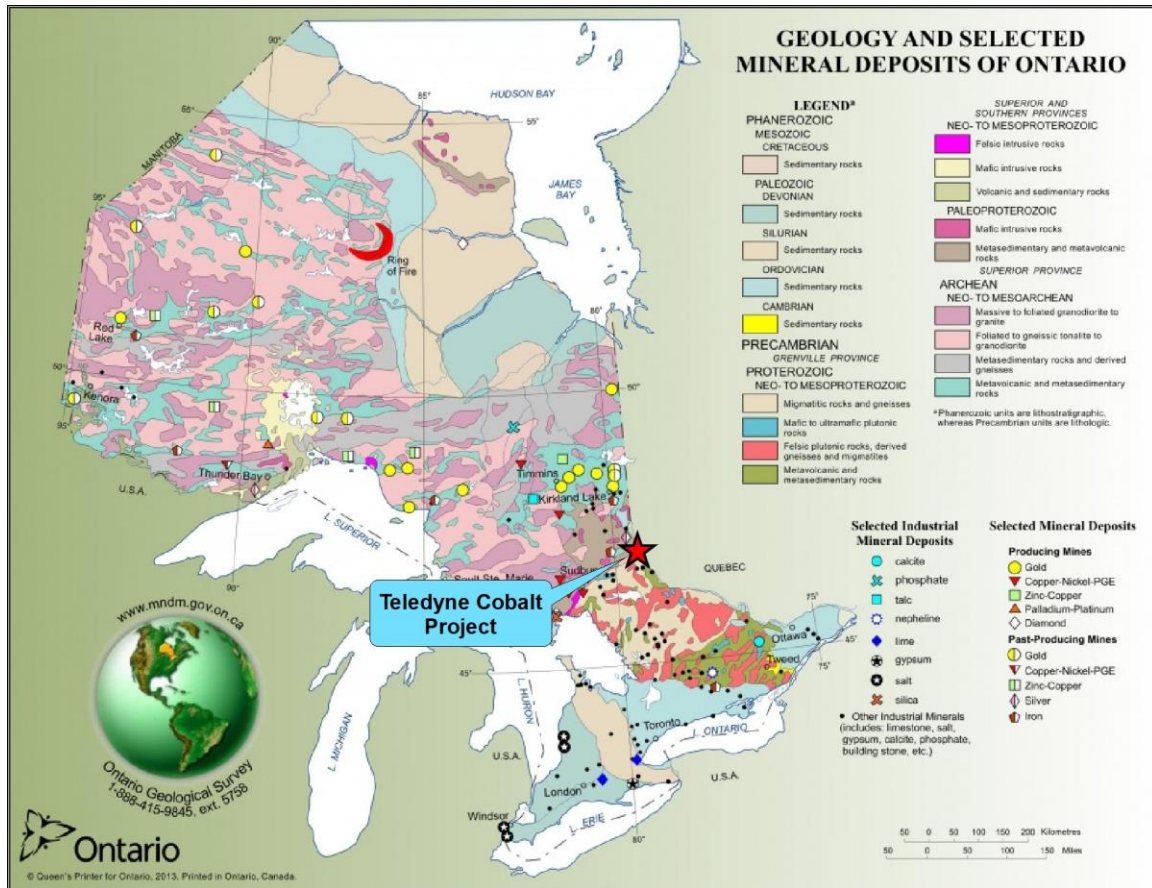


Figure 1: Location of the Teledyne Cobalt Property, Ontario.

2.3 Claims

The Property, located in Bucke and Lorrain Townships, consists of 5 patented mining claims totaling 80.9 ha, and 46 unpatented mining claim cells totaling approximately 705.99 ha. Some of the subject patents are mining rights only, and surface rights are owned by separately. Claim details are provided in Tables 1 and 2, and shown in Figure 2.

The author has not sought a formal legal opinion with regard to the ownership status of the claims comprising the Property and has in all aspects of tenure relied on materials made available on the MNDM's website (<https://www.mlas.mndm.gov.on.ca>), the Land Registry Office located in the City of Temiskaming Shores, and by LiCo. The author expresses no opinion as to the ownership status of the Property.

Table 1: Patented Mining Claim Details

Patented Claim Number	Legal Rights	Township	Area (ha)	Parcel Number	PIN Number	Description
PAT-49016	Mining Rights	Bucke	16.187	6934NND	61357-0010(LT)	SE1/4 of S1/2 Lot 14 Con 1
PAT-49017	Mining Rights	Bucke	16.187	3434SST	61357-0032(LT)	Pt NW1/4 of S1/2 Lot 15 Con 1
PAT-49018	Mining Rights	Bucke	16.187	3434SST	61357-0032(LT)	Pt SW1/4 of S1/2 Lot 15 Con 1
PAT-49019	Mining Rights	Lorrain	16.187	4254TIM	61390-0227(LT)	NE1/4 of N1/2 Lot 2 Con 12
PAT-49020	Mining and Surface Rights	Lorrain	16.187	12456SST	61390-0101(LT)	SW1/4 of N1/2 Lot 3 Con 12

Table 2: Unpatented Mining Claim Details

Township / Area	Tenure ID	Anniversary Date	Work Required	Work Applied
BUCKE	105542	2021-05-04	200	400
BUCKE	239368	2021-05-04	200	400
BUCKE	293861	2021-05-04	200	400
BUCKE	322498	2021-05-04	200	400
LORRAIN	125699	2021-08-04	200	0
LORRAIN	219020	2021-08-04	200	0
LORRAIN	173804	2021-05-04	200	0
LORRAIN	294356	2021-05-04	200	0
LORRAIN	294355	2021-08-04	400	0
LORRAIN	227742	2021-05-04	200	0
LORRAIN	219800	2021-05-04	200	0
LORRAIN	102664	2021-05-04	400	0
LORRAIN	344036	2021-05-04	400	0
LORRAIN	344035	2021-05-04	400	0
LORRAIN	321649	2021-05-04	200	0
LORRAIN	265564	2021-05-04	200	0
LORRAIN	207610	2021-05-04	200	0
LORRAIN	207609	2021-05-04	400	0
LORRAIN	182445	2021-05-04	400	0
LORRAIN	182444	2021-08-04	400	0
LORRAIN	169652	2021-05-04	400	0
LORRAIN	153018	2021-08-04	200	0

Township / Area	Tenure ID	Anniversary Date	Work Required	Work Applied
LORRAIN	153017	2021-08-04	400	0
LORRAIN	125023	2021-05-04	200	0
LORRAIN	102665	2021-05-04	400	0
BUCKE	111621	2021-08-04	200	0
BUCKE	195869	2021-08-04	200	0
BUCKE	299733	2021-08-04	200	0
BUCKE	299746	2021-08-04	200	0
BUCKE	329786	2021-08-04	200	0
BUCKE,LORRAIN	323737	2021-08-04	200	0
BUCKE,LORRAIN	127176	2021-08-04	200	0
BUCKE,LORRAIN	257659	2021-08-04	200	0
LORRAIN	287721	2021-08-04	400	0
LORRAIN	324240	2021-08-04	400	0
LORRAIN	335385	2021-08-04	200	0
LORRAIN	154438	2021-05-04	200	0
LORRAIN	171573	2021-05-04	200	0
LORRAIN	224008	2021-05-04	200	0
LORRAIN	232546	2021-05-04	200	0
LORRAIN	244699	2021-05-04	200	0
LORRAIN	244713	2021-05-04	200	0
LORRAIN	251545	2021-05-04	200	0
LORRAIN	300785	2021-05-04	400	0
LORRAIN	300786	2021-05-04	200	0
LORRAIN	335386	2021-05-04	200	0

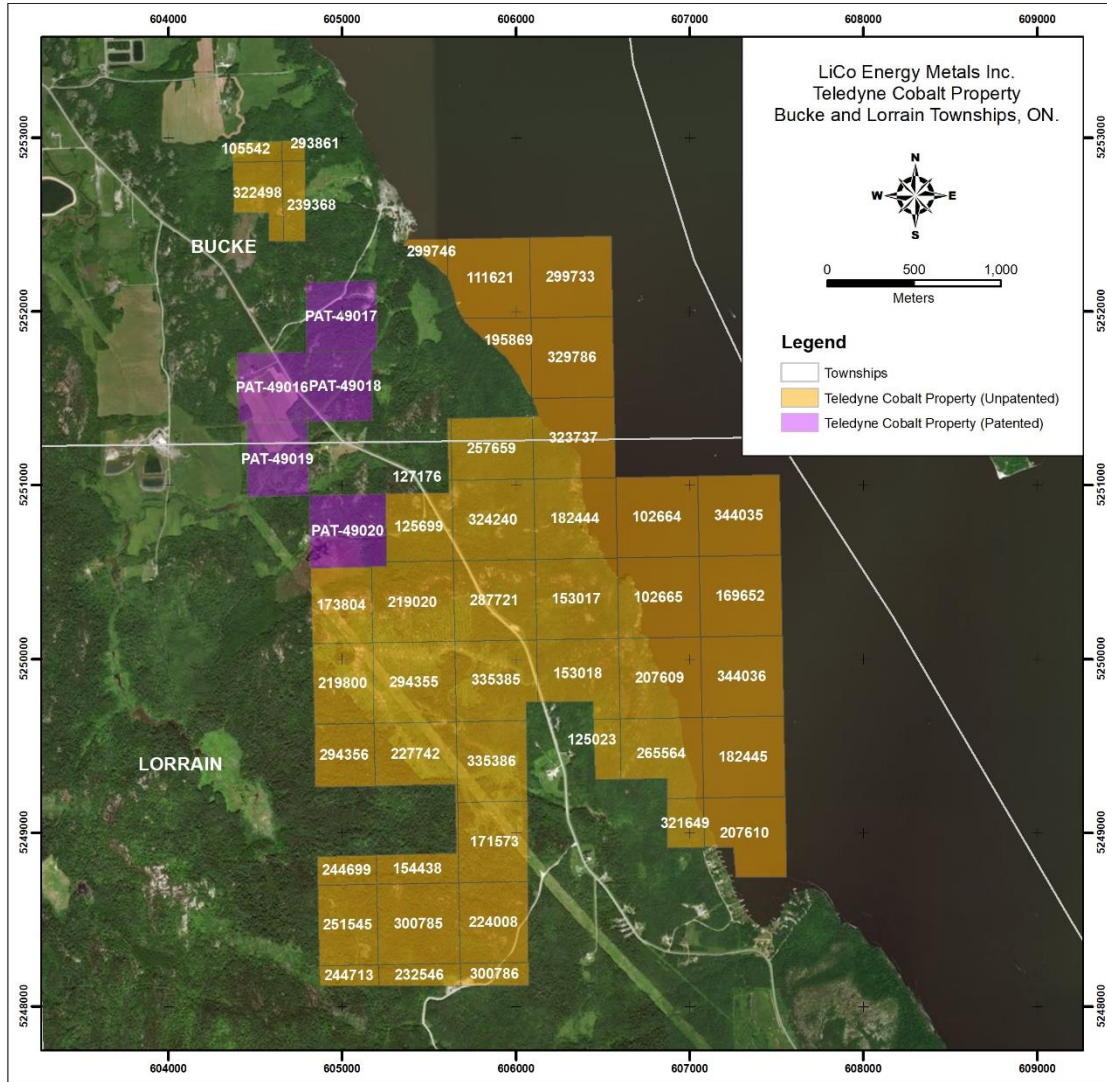


Figure 2: Tenure map for the Teledyne Cobalt Property.

3.0 PREVIOUS WORK

1953: Big Agaunico Mines Ltd. carried out a drilling program on the Property to locate the extension of the south-striking Agaunico cobalt zone (Vein #15). Drill holes No. 8 and No. 12 intersected 0.58% Co over 5 ft (1.5 m), and 0.46% Co over 3 ft (0.9 m) respectively. These intersections, located 350 ft (106.7 m) and 600 ft (182.9 m) south of the northern claim boundary of claim 372, confirmed the extension of the Agaunico cobalt zone on the Property (Cunningham-Dunlop, 1979).

1979-1980: Teledyne Canada Ltd. completed six surface diamond drill holes totalling 4,203 ft (1281.1 m). Teledyne encountered the zone of cobalt mineralization intersected by Big Agaunico, and extended the mineralization 640 ft (195 m) south from northern claim boundary. In 1980, Teledyne completed a 10 ft (3 m) by 13 ft (4.0 m) access decline at a decline of -15 degrees for length of approximately 2,300 ft (701 m) to reach the mineralization encountered in their recent drill program. A total of 6,167 ft (1,879.7 m) of underground diamond drilling was completed in 22 drill holes. The drill program confirmed the extension of the Agaunico cobalt zone onto claim 372 for a strike length of 500 ft (152.4 m). The drill program also encountered a second zone with a strike length of 450 ft (137.2 m). The most significant results included 0.644% Co over 55.3 ft (16.9 m), 0.74% Co over 28.6 ft (8.7m), and 2.59% Co over 8 ft (2.4 m) (Bresee, 1981). The aforementioned widths represent drill intersected widths, not true widths. Table 4 provides the highlights from the drilling completed on the Teledyne Cobalt Project from 1979 through to 1980. Figure 3 displays the historical drill hole locations and traces. Based on the surface and underground diamond drill programs, historical reserves of 60,000 tons in the geologically inferred category, and 40,000 tons in the probable category, at an average grade of 0.45% Co, 0.6 oz/t Ag was estimated (Linn, 1983). The historical reserve contains categories that are not consistent with current CIM definitions. A qualified person has not done sufficient work to classify the historical estimate as current mineral resources or mineral reserves. No attempt was made to reconcile the historical reserve calculations as reported by Teledyne Tungsten. Surge is not treating the historical reserve estimate as a current mineral resource or mineral reserve.

2017: In the winter of 2017, LiCo completed a UTEM5 survey designed to test mineralized zones outlined by historical diamond drilling, extend those features, and to outline new conductors over patented claims 372 and 229. A total of 3.0 line km's of 3-component - BL/BT/Bz - 2 transmitter-loop UTEM5 data was collected using a total of four transmitter loops (two sets of paired loops). The basic coverage consisted of three-component data collected from two loops simultaneously. No significant conductors of economic potential were outlined in the survey.

4.0 GEOLOGY

4.1 Regional Geology

The regional geology can be summarized as consisting of Archean metavolcanics and metasediments that can be summarized as a steeply dipping sequence of mafic to felsic volcanics, intercalated with cherty and sulphidic interflow sediments, along with intrusions of mafic to ultramafic dykes and sills. The Archean rocks have been unconformably overlain by Huronian sedimentary rocks of Proterozoic age that were deposited between 2,220 and 2,500 Ma. The Huronian sedimentary rocks are commonly found filling paleo-valleys or troughs in the Archean basement. Nipissing Diabase dykes and sills, dated at 2,219 Ma, intrude the Huronian and older rocks (Bennett, Dressler, & Robertson, 1991). The youngest rocks in the area are late Precambrian diabase and later olivine diabase dykes, dated at 2,454 Ma and 1,238 Ma respectively (Osmani, 1991). The Middle and Late Precambrian rocks have been faulted and locally folded adjacent to the faults.

4.2 Property Geology

The Property is underlain by an undulating gabbroic intrusive sill (Nipissing Diabase), which in turn is underlain by Huronian Supergroup sedimentary rocks that include Gowganda Formation feldspathic quartzites, siltstones, and conglomerates. The Proterozoic-aged sediments in turn, unconformably overlie Archean metavolcanics and metasediments (Figure 4).

The Nipissing Diabase is a generally homogeneous unit, typically medium grained and massive, becoming finer grained near the lower contact. The Nipissing Diabase dips to the south, exposing the lowermost rocks of its stratigraphy at the northern extent of the Property, and going southward rocks of higher stratigraphy are exposed at surface due to current level of erosion.

Fine grained massive to bedded quartzites and siltstones, along with pebble to boulder conglomerates of the Gowganda Formation comprise the Huronian Sediments. Occasionally the quartzites and siltstones contain isolated pebbles, usually comprised of granite, quartz, metasediments, or metavolcanics. The conglomerates can be either matrix

or clast supported, with clasts ranging from granite, quartz, metasediments, and metavolcanics.

Archean metavolcanics are described as green, fine to medium grained massive mafic volcanics with lesser amounts of intercalated metasediments.

Silver and cobalt mineralization on the Property is hosted within steeply dipping quartz and calcite veins, and as disseminations adjacent to the veins within the Huronian sedimentary rocks, and also within the Archean metavolcanics and interflow metasediments. Cobalt and silver mineralization also occur as massive veinlets ranging from less than 1 mm to approximately close to half a metre in core length.

Cobalt mineralization consists of cobaltite and smaltite hosted within steeply dipping veins and extensive disseminations within Huronian sedimentary rocks. From 1951 through to 1957, the average Co content of the ore mined at the neighbouring Agaunico Mine was approximately 0.5%. The steeply dipping cobalt veins of the Agaunico Mine, including vein 15 which was mined to the north boundary of claim 372, extended up to 125 ft (38.1 m) above the Archean-Huronian unconformity. The Co mineralization was locally massive and up to several inches in width within the lower conglomerates, and as fine disseminations and fracture-fills within the slate and quartzite horizons. Mineralization was erratic along strike, and stoping widths varied from 5 ft (1.5 m) to 50 ft (15.2 m). The average width for the Agaunico stope, mined to the northern boundary of claim 372, was 15 ft (4.6 m) (Cunningham-Dunlop, 1979).

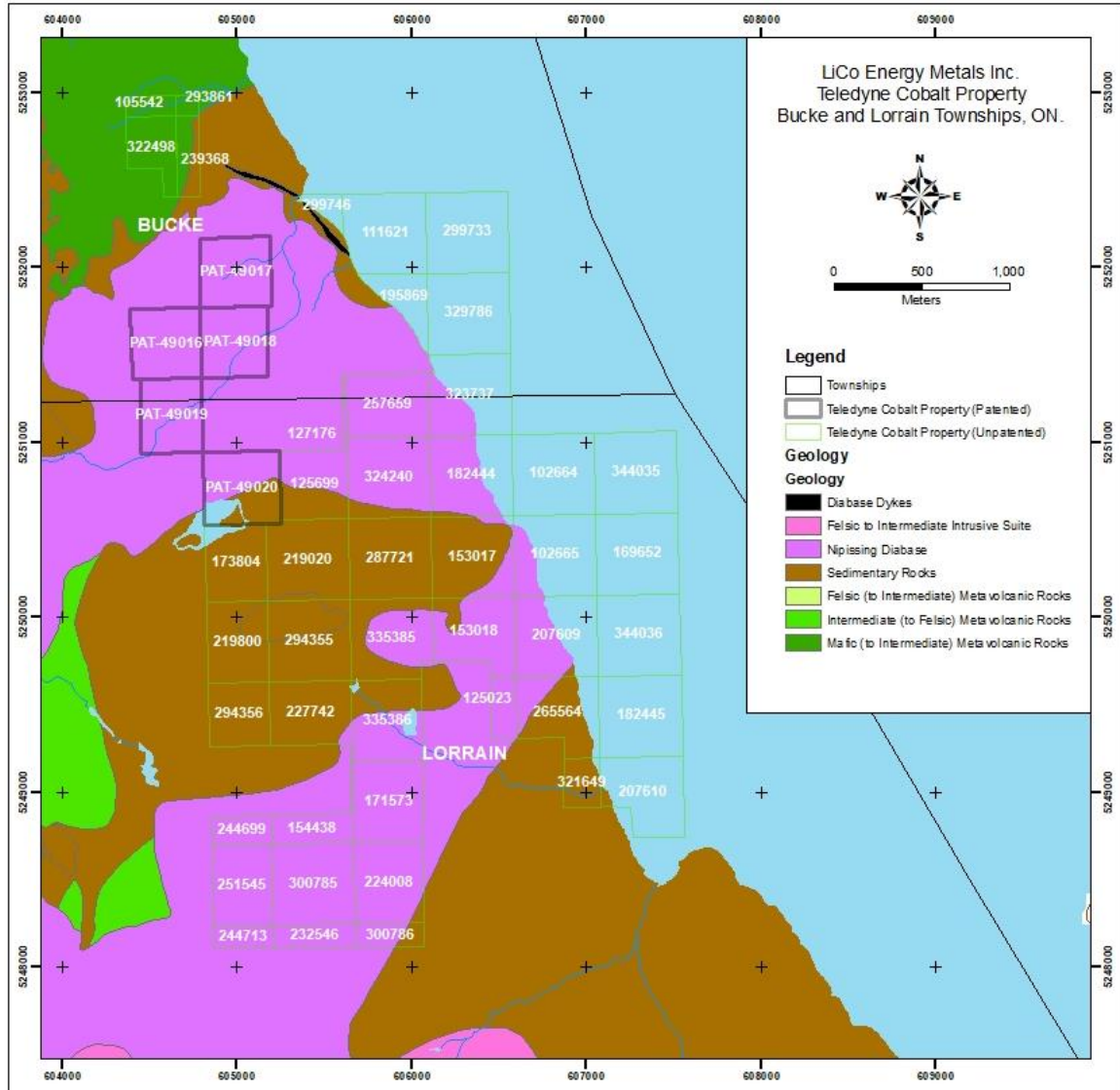


Figure 3: Property Geology (after MRD 282).

5.0 PHASE 1 DIAMOND DRILLING PROGRAM

5.1 Methods

From October 23rd to November 28th, 2017, LiCo completed 11 diamond drill holes totalling 2,204.0 m of NQ core on the Property.

LiCo's Phase 1 diamond drill program was designed to confirm and extend the existing known mineralized zones on the Property. The Main Zone was tested over an approximate strike length of 220 m. Diamond drill hole information is provided in Table 3, and significant results are provided in Table 4.

Significant results from the Phase 1 diamond drilling program completed on the Teledyne Cobalt Project by LiCo include:

- TE17-01 0.62% Co over 6.00 m from 136.00 to 142.00 m including 3.92% Co over 0.75 m from 140.25 to 141.00 m.
- TE17-02 0.95% Co over 1.9 m from 143.0 to 144.9 m, incl. 2.58% Co over 0.60 m from 144.30 to 144.90 m.
- TE17-02 0.59% Co over 3.9 m from 156.0 to 159.9 m, incl. 2.22% Co over 0.60 m from 156.6 to 157.2 m.
- TE17-04 1.82% Co over 6.00 m from 138.00 to 144.00 m, including 5.06% Co over 1.75 m from 141.25 to 143.00 m.
- TE17-05 2.32% Co over 4.00 m from 126.5 to 130.50 m.
- TE17-05 1.70% Co over 6.00 m from 136.00 to 142.00 m.
- TE17-07 0.50% Co over 2.10 m from 127.60 to 129.70 m.
- TE17-08 0.77% Co over 3.40 m from 169.50 to 172.90 m, including 1.17% Co over 2.00 m from 169.50 to 171.50 m.
- TE17-08 0.59% Co over 1.20 m from 174.00 to 175.20 m.
- TE17-08 0.62% Co over 0.60 m from 178.60 to 179.20 m.
- TE17-11 0.54% Co over 2.00 m from 130.00 to 132.00 m.

The above intervals represent core lengths, not true widths.

Table 3: Diamond Drill Hole Information

DDH	Easting	Northing	Elev (m)	Azm	Dip	Length (m)
TE17-01	604996.69	5252106.53	226.20	090	-49	201
TE17-02	604973.66	5252156.42	232.73	090	-45	220
TE17-03	604986.02	5252156.86	231.73	090	-45	200
TE17-04	604974.28	5252166.78	233.10	090	-45	200
TE17-05	604986.45	5252166.95	231.79	090	-45	200
TE17-06	605002.59	5252062.15	225.00	090	-45	201
TE17-07	605019.90	5252043.23	222.76	090	-50	201
TE17-08	605054.31	5251974.20	222.47	090	-49	200
TE17-09	605035.47	5252014.19	218.05	090	-45	201
TE17-10	605020.03	5252043.24	222.75	090	-45	180
TE17-11	605019.73	5252043.24	222.73	090	-54	200

Note: datum in NAD83, Z17N

Table 4: Highlights of the Phase 1 Diamond Drilling Program

DDH	From (m)	To (m)	Core length (m)	Co (%)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
TE17-01	136.00	142.00	6.00	0.62	0.9	51	37	4
incl.	136.50	137.00	0.50	0.23	0.9	6	47	2
incl.	139.75	142.00	2.25	1.54	1.8	121	40	8
incl.	140.25	141.00	0.75	3.92	2.4	216	39	13
TE17-02	142.5	144.9	2.4	0.76	1.6	202	35	10
incl.	143	144.9	1.9	0.95	1.8	234	36	10
incl.	144.3	144.9	0.6	2.58	1.5	140	39	12
TE17-02	152	161	9	0.34	1.1	203	262	29
incl.	152	154.2	2.2	0.26	1	101	239	38
incl.	156	159.9	3.9	0.59	1.6	377	445	41
incl.	156	157.8	1.8	0.90	2.3	228	924	79
incl.	156.6	157.2	0.6	2.22	5.4	590	2705	226
TE17-03	128.5	129.5	1	0.11	3.1	183	28	26
TE17-03	152.4	155.7	3.3	0.09	1.2	13	22	5
TE17-03	155.1	155.7	0.6	0.22	1.7	23	14	8
TE17-04	138.00	144.00	6.00	1.82	4.7	742	49	20
incl.	138.50	144.00	5.50	1.98	5	786	51	21
incl.	139.00	144.00	5.00	2.16	5.4	840	53	23
incl.	140.45	143.00	2.55	3.84	8	1242	67	33
incl.	141.25	143.00	1.75	5.06	9.1	744	85	36
incl.	141.64	141.79	0.15	18.70	16	251	6	37

DDH	From (m)	To (m)	Core length (m)	Co (%)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
TE17-05	126.50	130.50	4.00	2.32	7.6	425	49	61
incl.	127.00	128.00	1.00	8.48	5.6	105	25	24
incl.	127.00	129.00	2.00	4.47	7.1	263	28	50
incl.	127.64	128.00	0.36	21.9	11.5	42	31	36
TE17-05	136.00	142.00	6.00	1.70	2.6	40	148	28
incl.	136.00	140.00	4.00	2.47	2.8	34	210	33
incl.	136.50	138.5	2.00	4.41	3.7	30	141	46
TE17-06	164.00	165.00	1.00	0.14	0.7	4	33	6
TE17-07	127.60	129.70	2.10	0.50	2.3	130	157	32
incl.	128.20	128.60	0.40	1.50	6.6	206	84	46
TE17-08	160.00	160.50	0.50	0.25	7.7	516	27	402
TE17-08	165.50	166.50	1.00	0.23	4.7	59	31	652
TE17-08	169.50	172.90	3.40	0.77	7.6	252	68	1370
incl.	169.50	171.50	2.00	1.17	8.3	62	41	1758
incl.	171.00	171.50	0.50	2.09	23.5	228	46	5400
TE17-08	174.00	175.20	1.20	0.59	21	338	43	2191
incl.	174.30	175.20	0.90	0.71	24.4	437	43	2548
TE17-08	178.60	179.20	0.60	0.62	20.8	101	72	991
TE17-09	145.50	147.50	2.00	0.09	0.4	13	16	5
incl.	146.40	146.65	0.25	0.20	0.4	5	15	2
TE17-10	124.55	128.00	3.45	0.11	0.5	10	24	4
incl.	124.55	125.50	0.95	0.19	0.7	9	25	5
TE17-11	130.00	132.00	2.00	0.54	1.1	13	36	8
incl.	130.00	130.50	0.50	1.07	0.7	14	29	3

* Intervals reported in Table 4 represent core lengths and not true widths.

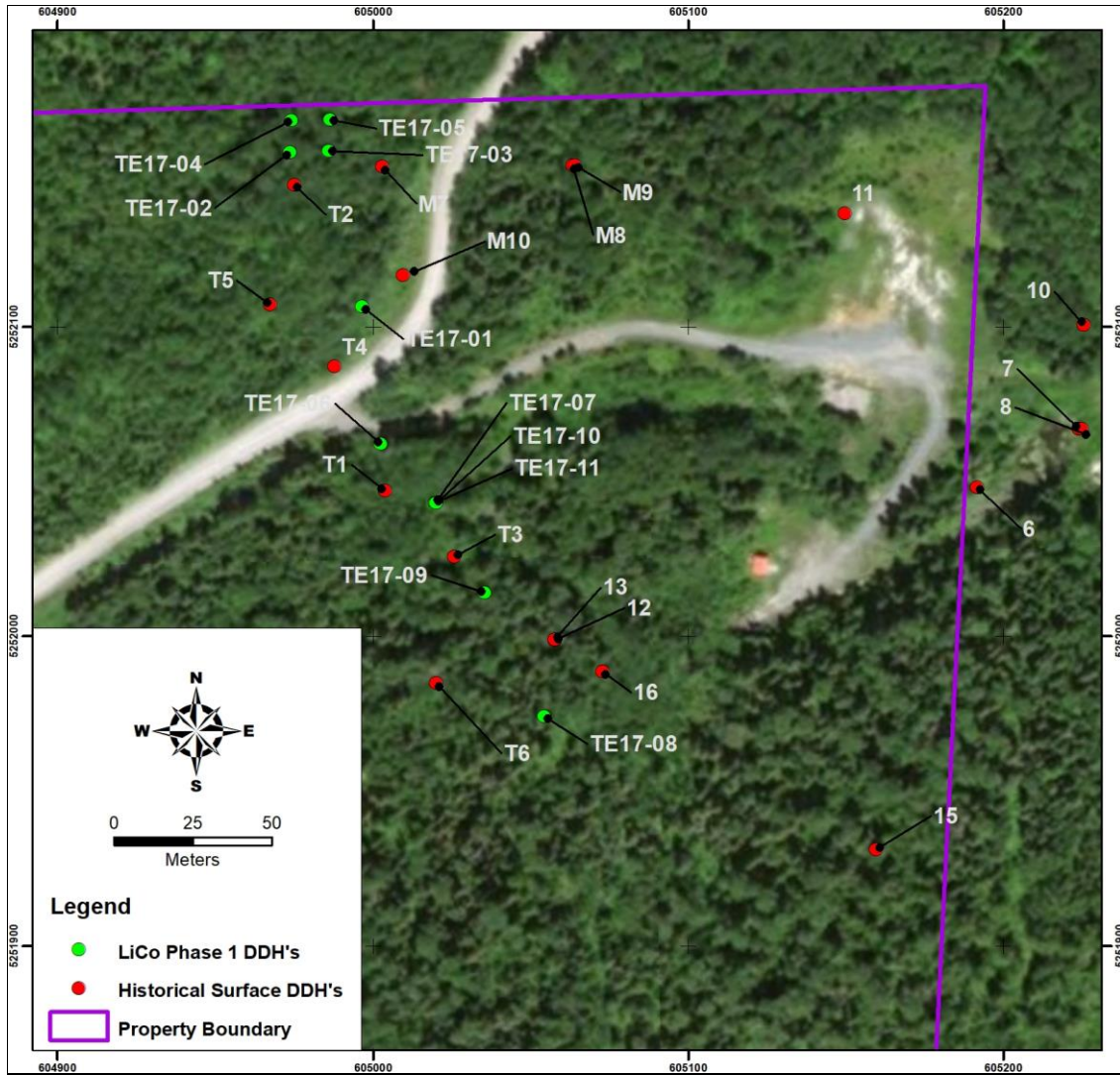


Figure 4: Location of Phase 1 diamond drill holes, PAT-49017.

Drill core (NQ = 4.76cm diameter) was transported from the drill site by pickup truck to the core shack located at 134 Imperial Rd., North Bay, Ontario. Prior to transportation, the core boxes were fitted with lids and fiber-taped closed. Once at the core shack, the core was unloaded and put into a metal rack for storage prior to logging. Diamond drill core was then logged, and then selected sample intervals were sawed in half, with one half placed in a labelled bag, and the remaining half placed back into the core box and stored. Either a standard or a blank was inserted every 20th sample. Standard material was sourced from Ore Research and Exploration Pty Ltd. The standards used were Oreas 75b, 76b and 166. Blank material was sourced from Analytical Solutions Ltd., and consisted of coarse

silica >1/4" in size. Metal tags were attached to the core boxes, inscribed with the hole number, box number, and corresponding interval.

Downhole surveying was completed by a Reflex survey instrument to measure the spatial relationships of the drill hole (www.reflexinstruments.com). The collars were surveyed by Miller & Urso Surveying Inc. in December, 2017.

All samples were shipped to Activation Laboratories in Ancaster, Ontario. Each sample was coarsely crushed and a 250 g aliquot was then pulverized. A 0.25 g sample is digested with a near total digestion (4 acids) and then analyzed using an 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. If over limits for Cu, Pb, Zn, and Co are encountered, a sodium peroxide fusion, acid dissolution followed by ICP-OES is completed. For Ag over limits, a four-acid digestion is completed followed by ICP-OES.

Drill logs are provided in Appendix II, sections and plan maps are provided in Appendix III, and assay certificates are provided in Appendix IV.

6.0 RESULTS and CONCLUSIONS

The Phase 1 diamond drill program completed in the fall of 2017 was designed to confirm and extend the historical mineralization previously reported on the Property. The program tested the Main Zone for a strike length of approximately 220 m. Significant cobalt mineralization was intersected in the majority of the drill holes.

7.0 RECOMMENDATIONS

Based on the results from the Phase 1 diamond drilling program, the following recommendations can be made:

- 1) Several old pits and trenches were noted by the author to the west of the current drill program. These should be located, sampled, and mapped in detail. The author believes that potential remains on the Property for the discovery of parallel mineralized zones to that of the Main zone.

- 2) A minimum 2,000 m diamond drilling program is recommended to be completed on the Property. The program should be designed to continue to test the Main Zone with the intent of completing a 43-101 compliant resource estimate, as well as testing any other targets that may be generated from the surface mapping and prospecting program.

8.0 REFERENCES

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Appendix I
Statement of Qualifications

Statement of Qualifications

I, Joerg Martin Kleinboeck of 147 Lakeside Drive, North Bay, Ontario, do hereby certify that:

I am a graduate of Laurentian University, Sudbury, Ontario with a B.Sc. Geology, 2000, and have been practising my profession as a geologist since.

I am a member with the Association of Professional Geoscientists of Ontario (#1411).

I am a member of the Prospectors & Developers Association of Canada (PDAC).

I have an active prospector's license for the province of Ontario (#1002600).

I do not hold any securities of LiCo Energy Metals Inc.



Joerg Martin Kleinboeck
August 30th, 2019
North Bay, Ontario

Appendix II

Diamond Drill Logs

LiCo Energy Metals Inc.

Survey:	TE17-11	Claims title:	372	Section:	Section 5252045N
		Township:	Bucke	Level:	Surface
		Range:		Work place:	134 Imperial Rd., North Bay, ON.
Contractor:	Chenier Drilling Services	Lot:			
Author:	Joerg Kleinboeck	Start date:	12/25/2017	Description date:	12/2/2017
		End date:	11/28/2017		
Collar					
System 1					
Azimuth:	90.00°			East	605020
Dip:	-54.00°			North	5252045
Length:	202.00			Elevation	225
Number of samples:	43				
Number of QAQC samples:	2				
Total sampled length:	30.00				
Description:					
Core size: NQ		Cemented: No		Stored: Yes	

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
0.00	4.40	OB Overburden Casing driven to 4.50m, left in hole.									
4.40	77.67	NDIA; mg; mass Nipissing Diabase 45°; medium grained; massive grey medium to coarse grained massive Nipissing Diabase. locally weakly magnetic. lower contact marked by 8cm calcite+quartz vein @ 45 deg TCA.									
4.40	77.67	py+cp+po0.1 Pyrite+Chalcopyrite+Pyrrhotite 0.1% trace disseminated py+cp+po throughout, locally remobilized along quartz veinlets.									
38.70	39.30	BC Broken Core heavily fractured.									
60.30	60.85	Hem; Ca; Chl Hematite; Carbonate; Chlorite moderate pervasive hematite about carb-chlorite filled fractures and veinlets.	75.00	76.00	662685	1.00	49	0.2	104	95	2
			76.00	76.50	662686	0.50	41	0.2	71	147	2
76.50	78.00	Ca Calcite strong calcite + quartz veining, up to 8cm in width preferentially orientated 35-45 deg TCA.	76.50	77.00	662687	0.50	34	0.2	87	77	2
			77.00	77.50	662688	0.50	44	0.2	22	97	2
			77.50	78.00	662689	0.50	30	0.2	50	72	2
77.67	82.10	GWG_qtz Quartzite grey medium grained pebble bearing quartzite with lesser amounts of intercalated siltstone. bedding within siltstone 40-45 deg TCA. lower contact gradational.	78.00	79.00	662690	1.00	16	0.2	1650	40	2
82.10	117.90	GWG_cgl Conglomerate									

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
82.10	117.90	grey matrix to clast supported conglomerate. pebbles to cobbles range from <1cm to 5cm in size, comprised of quartz, metasediments, metavolcanics, and granite. py+cp+po0.1 Pyrite+Chalcopyrite+Pyrrhotite 0.1% trace disseminated py+cp+py throughout.									
99.54	99.60	FT Fault 30° Rehealed Fault @ 30-35 deg TCA.									
99.60	106.70	BC Broken Core heavily fractured with local ground sections.									
117.90	125.70	GWG Qtz; fg-mg; mass Quartzite; fine to medium grained; massive grey fine to medium grained massive quartzite. lower contact broken.	120.00	120.50	662691	0.50	9	0.3	13	15	2
			120.50	120.85	662692	0.35	36	0.4	74	28	2
120.85	120.97	Ca; qtz Calcite; Quartz 10cm wide calcite+quartz vein orientated at 65 deg TCA.	120.85	121.00	662693	0.15	1260	11.1	31100	44	141
			121.00	122.00	662694	1.00	39	0.3	35	15	2
120.85	120.97	Cp10 Chalcopyrite 10% 10% banded chalcopyrite within 8cm wide calcite+quartz vein.									
121.04	122.00	BC Broken Core heavily fractured/Fault zone. RQD=0%.	122.00	123.00	662695	1.00	77	0.3	117	17	2
			123.00	124.00	662696	1.00	261	0.4	8	18	2
			124.00	125.00	662697	1.00	205	0.2	11	23	2
			125.00	126.50	662698	1.50	102	0.2	6	21	2
125.70	128.00	FZ Fault Zone heavily fractured, RQD=0%.	126.50	128.00	662699	1.50	570	0.6	20	21	2
125.70	128.00	BC									

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
128.00	144.00	Broken Core heavily fractured GWG_silt; fg	128.00	128.50	662701	0.50	44	0.2	7	24	2
		Siltstone; fine grained	128.50	129.00	662702	0.50	82	0.4	4	53	2
		greenish-grey chlorite-altered siltstone.	129.00	129.50	662703	0.50	98	0.5	130	33	2
		remnant bedding at 40-45 deg TCA. lower contact broken.	129.50	130.00	662704	0.50	391	0.4	3	42	5
128.00	144.00	Chl Chlorite									
		strong pervasive "spotted" chlorite alteration.									
130.00	131.10	Co05	130.00	130.50	662705	0.50	10700	0.7	14	29	3
		Cobalt Mineralization 5%	130.50	131.00	662706	0.50	336	0.4	1	35	2
		3-5% disseminated and veinlets of cobalt mineralization.	131.00	131.50	662707	0.50	7380	2.2	32	46	17
		veinlets are discordant to bedding (40-45 deg TCA), <1cm in width.	131.50	132.00	662708	0.50	3080	1.2	4	33	10
			132.00	132.50	662709	0.50	821	0.8	4	29	2
			132.50	133.00	662710	0.50	176	0.4	15	33	2
			133.00	133.50	662711	0.50	221	0.5	4	34	4
			133.50	134.00	662712	0.50	79	0.3	24	27	2
			134.00	134.50	662713	0.50	35	0.4	33	28	2
			134.50	135.00	662714	0.50	29	0.4	57	30	2
			135.00	135.50	662715	0.50	18	0.4	28	30	2
			135.50	136.00	662716	0.50	35	0.6	865	34	5
			136.00	136.50	662717	0.50	21	0.2	66	35	2
			136.50	137.00	662718	0.50	17	0.3	8	35	2
			137.00	137.50	662719	0.50	18	0.5	95	34	2
			137.50	138.00	662721	0.50	17	0.5	15	34	2
			138.00	139.00	662722	1.00	17	0.4	9	41	2
			139.00	140.00	662723	1.00	23	0.4	23	37	2
			140.00	141.00	662724	1.00	23	0.6	143	41	6
			141.00	142.00	662725	1.00	36	0.6	46	46	3

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
144.00	202.00	MV; mg Mafic Volcanic; medium grained green medium grained massive to locally brecciated mafic flows.	142.00	143.00	662726	1.00	20	0.3	7	47	2
			143.00	144.00	662727	1.00	41	0.2	48	81	4
			144.00	145.00	662728	1.00	74	0.2	338	122	8
			145.00	146.00	662729	1.00	53	0.5	255	370	494
144.00	202.00	py+po01 pyrite+pyrrhotite 1% 1% disseminated, fracture controlled, and wispy py+po throughout, locally up to 5%.									

LiCo Energy Metals Inc.

...					
Sample number	Type	Reference	Co (ppm)	Ag (ppm)	
662700	(Std)	Oreas 76b	1040	1.0	
662720	(Bln)	Coarse Silica	2	0.2	

LiCo Energy Metals Inc.

...					
Type	Depth	Azimuth	Dip	Invalid a...	
Reflex	12.00	90.60°	-54.20°	No	
Reflex	24.00	91.20°	-54.40°	No	
Reflex	36.00	92.70°	-54.80°	No	
Reflex	48.00	91.50°	-54.50°	No	
Reflex	60.00	92.00°	-54.60°	No	
Reflex	76.00	92.20°	-54.60°	No	
Reflex	91.00	91.70°	-54.50°	No	
Reflex	106.00	92.90°	-54.50°	No	
Reflex	121.00	93.70°	-54.60°	No	
Reflex	137.00	94.30°	-54.70°	No	
Reflex	152.00	95.90°	-54.90°	No	
Reflex	167.00	94.80°	-54.80°	No	
Reflex	182.00	95.30°	-54.90°	No	
Reflex	195.00	95.80°	-55.00°	No	
Reflex	201.00	95.80°	-55.00°	No	

LiCo Energy Metals Inc.

Survey:	TE17-10	Claims title:	372	Section:	Section 5252045N
		Township:	Bucke	Level:	Surface
		Range:		Work place:	134 Imperial Rd. North Bay, ON.
Contractor:	Chenier Drilling Services	Lot:			
Author:	Joerg Kleinboeck	Start date:	11/20/2017	Description date:	11/28/2017
		End date:	11/24/2017		
Collar					
				System 1	
Azimuth:	90.00°			East	605020
Dip:	-45.00°			North	5252045
Length:	180.00			Elevation	225
Number of samples:	28				
Number of QAQC samples:	1				
Total sampled length:	12.80				
Description:					
Core size: NQ		Cemented: No		Stored: Yes	

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
0.00	5.20	OB Overburden Casing driven to 6.00 m, left in hole.									
5.20	91.08	NDIA; mg-cg; mass Nipissing Diabase; medium to coarse grained; massive dark grey medium to locally coarse grained massive Nipissing Diabase. weakly magnetic. lower contact sharp @ 35 deg TCA.									
5.20	91.08	Ca Calcite local minor calcite+quartz veining throughout with occasional pervasive hematite + epidote about veinlets.									
91.08	98.77	GWG_qtz; fg-mg; mass Quartzite; fine to medium grained; massive grey medium grained clast-bearing sandstone/quartzite. lower contact sharp @ 55 deg TCA.									
91.30	92.15	BC Broken Core heavily fractured.									
98.77	99.00	FZ Fault Zone 55° rehealed fault zone.									
99.00	133.55	GWG_cgl Conglomerate typical conglomerate as logged previously. varies from clast to matrix supported, with pebbles to cobbles ranging from <1cm to 15cm, comprised of quartz, metasediments, metavolcanics, and granite, rounded to angular. lower contact sharp/wavy/irregular (~55 deg TCA).									
99.00	125.25	py+cp00.1									

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
101.50	106.80	pyrite + chalcopyrite 0.1% trace to locally 0.5% disseminated pyrite with minor cp within matrix. BC Broken Core heavily fractured.									
114.45	114.55	BC Broken Core heavily fractured.	114.50	114.75	662628	0.25	27	0.6	11	33	18
114.60	114.70	Ca Calcite strong calcite veining, unmineralized.									
115.70	116.10	Ca; qtz Calcite; Quartz strong calcite + quartz veining, unmineralized.	115.70	116.00	662629	0.30	15	0.2	34	38	28
116.00	116.25	BC Broken Core heavily fractured.	116.25	116.50	662630	0.25	11	0.2	41	21	4
118.30	119.35	BC Broken Core heavily fractured.	123.00	123.50	662660	0.50	34	0.4	119	30	27
			123.50	124.00	662661	0.50	22	0.2	12	30	10
123.85	124.00	BC Broken Core heavily fractured.	124.00	124.30	662662	0.30	61	0.2	66	26	5
			124.30	124.55	662631	0.25	878	0.7	531	25	16
124.40	124.45	Ca Calcite blotch of pink calcite, unmineralized.	124.55	125.00	662663	0.45	1700	0.8	10	25	5
			125.00	125.50	662664	0.50	2040	0.6	9	25	5
125.25	125.30	Co05 Cobalt Mineralization 5% zone of narrow cobalt veinlets up to 3mm in width.									
125.30	159.04	py+cp00.1 pyrite + chalcopyrite 0.1%	125.50	126.00	662665	0.50	89	0.2	3	22	4
			126.00	126.50	662666	0.50	464	0.3	1	21	3

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
as from 99.00 to 125.25m.			126.50	127.00	662667	0.50	1680	0.7	35	27	6
			127.00	127.50	662668	0.50	995	0.6	5	26	2
			127.50	128.00	662669	0.50	749	0.4	5	25	2
			128.00	128.38	662670	0.38	148	0.2	12	24	7
			128.38	129.00	662671	0.62	65	0.9	531	26	5
128.40	129.10	BC Broken Core heavily fractured.	129.00	129.50	662672	0.50	50	0.2	1080	17	2
			129.50	130.00	662673	0.50	63	0.2	521	16	7
			130.00	130.50	662674	0.50	33	0.3	46	18	4
			130.50	131.00	662675	0.50	62	0.2	251	16	4
			131.00	131.50	662676	0.50	49	0.3	1720	15	2
			131.50	132.00	662677	0.50	50	0.4	360	17	2
			132.00	132.50	662678	0.50	72	0.3	1030	16	2
			132.50	133.00	662679	0.50	40	0.2	220	16	2
			133.00	133.50	662681	0.50	86	0.2	1820	17	2
			133.50	134.00	662682	0.50	27	0.3	718	9	2
133.55	150.55	GWG_silt; GWG_qtz Siltstone; Quartzite grey intercalated silstone and quartzite. bedding 40-50 deg TCA. lower contact broken.	134.00	134.50	662683	0.50	14	0.2	524	12	2
			134.50	135.00	662684	0.50	14	0.2	208	16	6
144.64	149.00	BC Broken Core heavily fractured.									
150.55	154.70	GWG_silt Siltstone grey altered silstone. lower contact sharp @ 30 deg TCA.									
150.55	154.70	Chl Chlorite strong pervasive spotted chlorite throughout.									
154.70	159.04	GWG_qtz									

LiCo Energy Metals Inc.

Description			Assay - Sample							
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)
159.04	180.00	<p>Quartzite grey fine to medium grained pebble-bearing quartzite. pebbles rounded, up to 15mm in diameter, comprised predominantly of granite and quartz. lower contact sharp/wavy at ~45 deg TCA.</p> <p>MV</p> <p>Mafic Volcanic green fine to medium grained massive mafic flow. 3" void from 162.00 to</p>								
159.04	180.00	<p>qtz; Ca</p> <p>Quartz; Calcite occasional quartz+calcite veining throughout at various angles TCA (predominantly at 35 deg TCA.).</p>								
159.04	180.00	<p>py+cp+po2</p> <p>Pyrite+Chalcopyrite+Pyrrhotite 2% trace to locally 6-8% disseminated, wispy, and fracture controlled py+po+cp.</p>								

LiCo Energy Metals Inc.

...					
Sample number	Type	Reference	Co (ppm)	Ag (ppm)	
662680	(Bln)	Coarse Silica	1	0.2	

LiCo Energy Metals Inc.

...					
Type	Depth	Azimuth	Dip	Invalid a...	
Reflex	15.00	90.20°	-46.20°	No	
Reflex	30.00	91.90°	-46.40°	No	
Reflex	45.00	92.60°	-46.60°	No	
Reflex	57.00	92.80°	-46.70°	No	
Reflex	69.00	93.30°	-46.90°	No	
Reflex	81.00	93.80°	-46.90°	No	
Reflex	93.00	94.20°	-47.00°	No	
Reflex	105.00	94.50°	-47.20°	No	
Reflex	117.00	95.20°	-47.30°	No	
Reflex	129.00	95.80°	-47.30°	No	
Reflex	138.00	96.10°	-47.40°	No	
Reflex	147.00	96.20°	-47.40°	No	
Reflex	156.00	96.30°	-47.40°	No	
Reflex	165.00	96.50°	-47.60°	No	
Reflex	174.00	96.50°	-47.60°	No	
Reflex	180.00	97.30°	-47.90°	No	

LiCo Energy Metals Inc.

Survey:	TE17-09	Claims title:	372	Section:	5252000
		Township:	Bucke	Level:	Surface
		Range:		Work place:	134 Imperial Rd., North Bay, ON
Contractor:	Chenier Drilling Services	Lot:			
Author:	K. Hannila / J. Kleinboeck	Start date:	11/18/2017	Description date:	11/26/2017
		End date:	11/20/2017		
Collar					
				System 1	
Azimuth:	90.00°			East	605037
Dip:	-45.00°			North	5252012
Length:	201.00			Elevation	225
Number of samples:	28				
Number of QAQC samples:	1				
Total sampled length:	15.80				
Description:					
Core size: NQ		Cemented: No		Stored: Yes	

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
0.00	16.10	OB Overburden Casing to 16.1m, left in hole.									
16.10	87.20	NDIA; fg-mg; mass Nipissing Diabase; fine to medium grained; massive Light greenish grey to greenish grey, fg massive. Weakly magnetic throughout with local areas displaying strong magnetism.									
16.10	87.20	Ca; Chl Calcite; Chlorite Minor calcite and chlorite along fractures with calcite veining increasing toward lower contact.									
16.10	87.20	FRC Fractured Weakly fractured throughout with local areas of moderate fracturing. Fractures at 40, 60 and 20° to cax 55.3 to 56.0 subvertical fracture at 10° to cax. 56.4 to 57.0 moderately fractured. 72.55 to 72.85 fault, gouge at 60° to cax, broken core. 74.12 to 74.4 fault at 60° to cax, gouge and healed breccia.									
87.20	92.50	GWG_qtz; fg; mass Quartzite; fine grained; massive Light grey to grey, fg massive with intercalations of siltstone.									
87.20	92.50	Ca Calcite Occasional barren calcite veins.									
87.20	92.50	FRC Fractured Weakly fractured throughout. Fractures at 60 and 30° to cax. 88.6 3 cm healed breccia at 50° to cax. 87.7 to 89.5 moderately fractured with a short interval of strong fracturing.									

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
92.50	137.40	GWG_cgl; fg; Pebs; Cobs	108.00	108.30	662569	0.30	24	0.2	75	37	5
		Conglomerate; fine grained; Pebbles; Cobbles	108.30	108.50	662570	0.20	21	0.2	341	32	5
		Light grey to light greenish grey, fg cement with polymictic pebbles to cobbles.	108.50	108.80	662571	0.30	24	0.2	18	37	4
92.50	137.40	Ca; Hem Calcite; Hematite Barren calcite veining is common, lesser hematite along fractures. 100.5 2 cm barren pink calcite vein at 70° to cax. 108.35 to 108.45 barren pink calcite at 50° to cax.									
92.50	137.40	FRC Fractured Weakly fractured throughout with local sections of moderate fracturing. Fractures at 40, 50 and 30° to cax. 93.6 to 93.9 strongly fractured 95.5 to 95.7 moderate to strong fracturing. 99.2 to 99.8 moderately to strongly fractured. 120.6 to 120.9 moderately fractured. 126.0 to 126.3 moderately fractured.									
137.40	146.40	GWG_qtz; fg; mass	141.00	141.50	662602	0.50	224	0.3	20	12	27
		Quartzite; fine grained; massive	141.50	142.00	662603	0.50	53	0.4	3	10	10
		grey fine grained massive quartzite	142.00	142.50	662604	0.50	29	0.2	4	9	2
			142.50	143.00	662605	0.50	34	0.4	4	11	2
			143.00	143.50	662606	0.50	44	0.2	2	11	2
			143.50	144.00	662607	0.50	58	0.3	2	12	2
			144.00	144.50	662608	0.50	798	0.4	6	12	2
			144.50	145.00	662609	0.50	73	0.2	4	12	3
145.50	146.50	Co	145.50	146.00	662611	0.50	1010	0.4	5	13	4
		Cobalt Mineralization	146.00	146.40	662612	0.40	592	0.4	19	20	5

LiCo Energy Metals Inc.

Description			Assay - Sample										
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)		
		<1 to 3mm cobalt veinlets @ 30-45 deg TCA, discordant and concordant to bedding.											
146.40	155.30	GWG_silt; vfg	146.40	146.65	662613	0.25	1990	0.4	5	15	2		
		Siltstone; very fine grained	146.65	147.00	662614	0.35	127	0.2	4	16	2		
		grey finely laminated siltstone with lesser amounts of intercalated quartzite.	147.00	147.50	662615	0.50	992	0.4	25	17	10		
		lower contact broken.	147.50	148.00	662616	0.50	339	0.4	2	15	2		
			148.00	148.50	662617	0.50	47	0.5	34	29	2		
			148.50	149.00	662618	0.50	26	0.2	56	38	5		
			149.00	149.50	662619	0.50	21	0.4	41	41	19		
			149.50	150.00	662621	0.50	129	0.7	50	47	99		
			150.00	151.00	662622	1.00	23	0.7	47	38	132		
			151.00	152.00	662623	1.00	22	0.6	49	47	53		
			152.00	153.00	662624	1.00	24	0.5	75	45	12		
152.85	153.60	BC	153.00	154.00	662625	1.00	99	0.4	2	53	15		
		Broken Core	154.00	155.00	662626	1.00	112	0.4	3	75	12		
		heavily fractured.	155.00	156.00	662627	1.00	152	7.4	3240	1380	2640		
155.30	201.00	MV; mg; mass											
		Mafic Volcanic; medium grained; massive											
		dark green fine to medium grained massive flow with local quartz porphyritic dykes from 179.50 to 201.00m.											
155.30	201.00	Ca											
		Calcite											
		white to pink calcite veining throughout, <1cm in width, orientated at various angles TCA.											
155.30	201.00	Py											
		Pyrite											
		0.5% disseminated to wispy py throughout.											
		remobilized galena in calcite veinlet @ 180.3m.											
155.80	156.00	BC											
		Broken Core											
		heavily fractured.											

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
157.10	157.50	BC Broken Core heavily fractured.									
168.22	169.50	BC Broken Core heavily fractured.									

LiCo Energy Metals Inc.

...					
Sample number	Type	Reference	Co (ppm)	Ag (ppm)	
662620	(Bln)	Coarse Silica	2	0.2	

LiCo Energy Metals Inc.

...					
Type	Depth	Azimuth	Dip	Invalid a...	
Reflex	21.00	91.20°	-45.50°	No	
Reflex	30.00	91.10°	-45.00°	No	
Reflex	39.00	91.00°	-44.90°	No	
Reflex	48.00	93.30°	-44.90°	No	
Reflex	57.00	93.00°	-44.90°	No	
Reflex	66.00	93.80°	-44.90°	No	
Reflex	75.00	91.80°	-44.10°	No	
Reflex	84.00	96.50°	-45.70°	No	
Reflex	93.00	94.50°	-44.80°	No	
Reflex	102.00	95.00°	-44.70°	No	
Reflex	111.00	95.40°	-44.50°	No	
Reflex	120.00	96.50°	-44.60°	No	
Reflex	129.00	97.00°	-44.40°	No	
Reflex	138.00	97.40°	-44.30°	No	
Reflex	147.00	98.00°	-44.30°	No	
Reflex	156.00	98.20°	-44.40°	No	
Reflex	165.00	98.60°	-44.50°	No	
Reflex	174.00	99.40°	-44.50°	No	
Reflex	183.00	99.70°	-44.50°	No	
Reflex	192.00	100.10°	-44.40°	No	
Reflex	201.00	100.60°	-44.50°	No	

LiCo Energy Metals Inc.

Survey:	TE17-08	Claims title:	372	Section:	5251975
		Township:	Bucke	Level:	Surface
		Range:		Work place:	134 Imperial Rd., North Bay, ON
Contractor:	Chenier Drilling Services	Lot:			
Author:	Kalevi Hannila	Start date:	11/16/2017	Description date:	11/25/2017
		End date:	11/18/2017		
Collar					
				System 1	
Azimuth:	90.00°			East	605050
Dip:	-49.00°			North	5251974
Length:	201.00			Elevation	224
Number of samples:	63				
Number of QAQC samples:	4				
Total sampled length:	29.60				
Description:					
Core size: NQ		Cemented: Yes		Stored: No	

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
0.00	10.80	OB Overburden Casing to 10.8m, left in hole.									
10.80	90.40	NDIA; fg-mg; mass Nipissing Diabase; fine to medium grained; massive Light grey to grey, fine to medium grained massive.									
10.80	90.40	Chl Chlorite Weak chlorite and lesser hematite alteration along slips and fractures. 45.9 to 47.6 weakly bleached.									
10.80	90.40	FRC Fractured Weakly fractured throughout with local sections of moderate fracturing. Fractures at 50, 30 and 0° to cax. 45.0 to 45.4 moderately fractured. 47.1 to 48.0 weak to moderately fractured. 49.5 to 52.0 moderately fractured, 50.8 to 51.0 strongly fractured.									
90.40	94.20	GWG_qtz; fg; mass Quartzite; fine grained; massive Light grey to grey, fg massive with intercalations of siltstone.									
90.40	94.20	Hem; Ca Hematite; Calcite Hematite and calcite along fractures.									
90.40	94.20	FRC Fractured Moderately fractured, fractures at 50 and 70° to cax.									
94.20	142.90	GWG_cgl; fg; Pebs; Cobs Conglomerate; fine grained; Pebbles; Cobbles Grey to greenish grey, fg cement with pebbles to cobbles.	123.00	123.40	662532	0.40	72	0.2	703	63	2
			123.40	123.70	662533	0.30	43	0.2	151	56	2
			123.70	124.00	662534	0.30	41	0.2	189	61	12
94.20	142.90	Ca; Ca	124.00	124.30	662535	0.30	25	0.2	192	42	3

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
94.20	142.90	Calcite; Calcite	124.30	124.80	662536	0.50	45	0.2	136	54	4
		Narrow white barren calcite veins occur throughout.	124.80	125.30	662537	0.50	34	0.2	119	43	2
		123.4 to 124.0 fracture set at 30 to 50° to cax, infilled with pink calcite.	125.30	125.70	662538	0.40	32	0.2	30	48	2
		124.0 to 124.2 calcite healed breccia.	125.70	126.00	662539	0.30	28	0.2	49	36	2
		125.75 to 125.85 stong calcite veining.	126.00	126.30	662541	0.30	26	0.2	31	39	2
		126.30	126.60	662542	0.30	32	0.2	62	39	2	
142.90	164.40	FRC									
		Fractured									
		Competent to weakly fractured. Fractures at 50 and 30°.									
		121.4 to 121.7 Strongly fractured.									
		126.2 hematized clay gouge at 60° to cax.									
		132.8 to 134.1 moderately fractured.									
		GWG_qtz; fg; mass	158.00	158.50	662572	0.50	60	0.2	16	24	13
		Quartzite; fine grained; massive	158.50	159.00	662573	0.50	17	0.4	41	24	14
		Light grey fg massive with intercalations of siltstone.	159.00	159.50	662574	0.50	18	0.6	32	25	20
		Chl	159.50	160.00	662575	0.50	463	0.8	21	24	42
142.90	164.40	Chlorite	160.00	160.50	662576	0.50	2460	7.7	516	27	402
		1-2 mm rounded chlorite segregations along bedding in siltstone and randomly oriented clusters.	160.50	161.00	662577	0.50	592	1.8	9	23	82
		FRC	161.00	161.50	662578	0.50	1590	1.7	3	22	92
		Fractured	161.50	162.00	662579	0.50	17	0.3	2	24	8
		Unit is competent to weakly fractured.	162.00	162.50	662581	0.50	434	0.8	5	24	20
		149.0 to 153.4 weak to moderately fractured.	162.50	163.00	662582	0.50	57	0.4	3	27	7
142.90	164.40	Cp	163.00	163.50	662583	0.50	41	0.3	6	29	18
		Chalcopyrite	163.50	164.00	662584	0.50	18	0.2	8	38	16
		Minor chalcopyrite occurs locally.	164.00	164.50	662585	0.50	35	0.6	5	38	16
164.40	181.10	GWG_cgl; fg; Pebs; Cobs	164.50	165.00	662586	0.50	22	0.4	3	36	12
		Conglomerate; fine grained; Pebbles; Cobbles	165.00	165.50	662587	0.50	33	0.7	5	37	30
164.40	181.80	Ca									
		Calcite									

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
164.40	181.10	Minor calxite occurs along fractures. FRC Fractured Unit is competent to weakly fractured.									
165.50	181.80	Co Cobalt Mineralization 165.4 to 179.2 cobalt mineralization occurs as randomly oriented fracture filling.Veins range in size from 2 mm to 10 mm.	165.50	166.00	662588	0.50	2530	3.4	5	35	386
			166.00	166.50	662589	0.50	2000	6.0	113	27	919
			166.50	167.00	662590	0.50	43	2.3	51	38	846
			167.00	167.50	662591	0.50	55	0.9	27	38	194
			167.50	168.00	662592	0.50	89	0.9	21	38	341
			168.00	168.50	662593	0.50	33	0.8	16	37	613
			168.50	169.00	662594	0.50	40	1.2	20	43	220
			169.00	169.50	662595	0.50	239	0.9	11	37	326
			169.50	170.00	662596	0.50	11800	4.6	9	35	1010
			170.00	170.50	662597	0.50	7070	2.5	8	45	310
			170.50	171.00	662598	0.50	6940	2.5	5	37	310
			171.00	171.50	662599	0.50	20900	23.5	228	46	5400
			171.50	171.90	662601	0.40	3400	5.8	87	46	1220
			171.90	172.90	662543	1.00	1590	6.9	698	132	654
			172.90	173.40	662544	0.50	162	4.0	48	44	401
			173.40	173.70	662545	0.30	774	7.2	52	45	551
			173.70	174.00	662546	0.30	299	9.3	30	46	706
			174.00	174.30	662547	0.30	2250	11.0	43	42	1120
			174.30	174.60	662548	0.30	13300	50.8	1240	48	5900
			174.60	174.90	662549	0.30	4800	10.1	21	42	927
			174.90	175.20	662550	0.30	3310	12.3	49	40	817
			175.20	175.50	662551	0.30	151	5.4	18	42	429
			175.50	176.00	662552	0.50	68	3.4	98	42	268
			176.00	176.30	662553	0.30	23	1.1	35	37	100
			176.30	176.80	662554	0.50	21	0.5	4	50	39
			176.80	177.30	662555	0.50	69	3.1	28	54	117

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
			177.30	177.80	662556	0.50	536	3.6	27	49	181
			177.80	178.30	662557	0.50	589	5.3	5	57	226
			178.30	178.60	662558	0.30	486	1.6	4	70	69
			178.60	178.90	662559	0.30	3040	14.6	90	73	652
			178.90	179.20	662561	0.30	9310	27.1	112	71	1330
			179.20	179.50	662562	0.30	151	1.3	12	79	87
			179.50	179.80	662563	0.30	81	1.7	23	94	121
			179.80	180.10	662564	0.30	50	2.1	123	76	132
181.10	185.00	MV; fg; mass Mafic Volcanic; fine grained; massive Light grey to light greenish grey, fg massive.	181.10	182.00	662565	0.90	127	9.8	1900	157	355
181.10	185.00	FRC Fractured Unit is competent to very weakly fractured. Fractures at 60 and 40° to cax.									
181.80	185.00	Ca	182.00	183.00	662566	1.00	142	6.6	3860	170	211
		Calcite	183.00	184.00	662567	1.00	60	2.1	523	138	243
		Calcite as fracture filling with some fractues includiing pyrite.	184.00	185.00	662568	1.00	86	9.5	2110	458	550
181.80	185.00	Py Pyrite Pyrite is ubiquitous, 2-3% overall in the unit.									
185.00	191.80	MV; fg; amyg Mafic Volcanic; fine grained; Amygdaloidal Light greenish grey to light grey, fine grained ground mass with 2-4mm quartz amygdules.									
185.00	191.80	Sauss; Ca Saussuritization; Calcite Unit displays weak to moderate saussuritization and minor barren calcite veining.									
185.00	191.80	FRC Fractured									

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
191.80	201.00	Moderately fractured overall, fractures at 40, 60 and 10° to cax. 185.5 to 189.7 moderately fractured with local sections strongly. MV; fg; mass Mafic Volcanic; fine grained; massive Light grey to light greenish grey, fg massive. 201.0 EOH.									
191.80	201.00	Ca Calcite Minor white barren calcite veining.									
191.80	201.00	Cmptnt Competent Unit is competent.									
191.80	201.00	Py Pyrite Minor pyrite mineraization occurs locally.									

LiCo Energy Metals Inc.

...					
Sample number	Type	Reference	Co (ppm)	Ag (ppm)	
662540	(Bln)	Coarse Silica	1	0.2	
662600	(Std)	Oreas 166	2210	10.1	
662580	(Bln)	Coarse Silica	1	0.2	
662560	(Std)	Oreas 76b	1070	1.0	

LiCo Energy Metals Inc.

...					
Type	Depth	Azimuth	Dip	Invalid a...	
Reflex	74.00	89.50°	-48.90°	No	
Reflex	84.00	91.50°	-48.70°	No	
Reflex	94.00	92.50°	-48.50°	No	
Reflex	104.00	93.00°	-48.40°	No	
Reflex	114.00	94.20°	-48.10°	No	
Reflex	124.00	95.40°	-47.90°	No	
Reflex	134.00	97.30°	-47.50°	No	
Reflex	144.00	97.80°	-47.10°	No	
Reflex	154.00	100.40°	-46.80°	No	
Reflex	164.00	99.60°	-46.50°	No	
Reflex	174.00	100.70°	-46.30°	No	
Reflex	184.00	101.90°	-46.00°	No	
Reflex	194.00	103.60°	-45.70°	No	
Reflex	200.00	103.70°	-45.60°	No	

LiCo Energy Metals Inc.

Survey:	TE17-07	Claims title:	372	Section:	5252045
		Township:	Bucke	Level:	Surface
		Range:		Work place:	134 IMperial Rd., North Bay, ON
Contractor:	Chenier Drilling Services	Lot:			
Author:	Kalevi Hannila	Start date:	11/13/2017	Description date:	11/23/2017
		End date:	11/15/2017		
Collar					
				System 1	
Azimuth:	90.00°			East	605020
Dip:	-50.00°			North	5252045
Length:	220.00			Elevation	225
Number of samples:	45				
Number of QAQC samples:	2				
Total sampled length:	27.45				
Description:					
Core size: NQ		Cemented: No		Stored: Yes	

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
0.00	4.80	OB Overburden Casing to 4.8m, left in hole.									
4.80	83.40	NDIA; fg-mg; mass Nipissing Diabase; fine to medium grained; massive Light grey to light greenish grey with local sections of light pink where there is weak hematization. Unit is fine to medium grained massive.									
4.80	83.40	FRC Fractured Weakly fractured overall, fractures at 70, 40 and 30° to cax. 55.55 to 55.6 healed breccia at 40° to cax, hematized diabase fragments in a quartz carbonate matrix. 70.6 to 72.2 weakly to moderately fractured. 72.2 to 72.7 moderately to strongly fractured									
83.40	86.50	GWG_silt; fg; Bedd Siltstone; fine grained; Bedded Grey to dark grey, fg weakly bedded. Upper contact is a melange of Siltstone partially absorbed by the Nipissing Diabase.									
83.40	86.50	FRC Fractured Weakly to moderately fractured overall. Fractures at 30 and 40° to cax. 86.0 to 86.5 moderately to strongly fractured.									
86.50	130.40	GWG_cgl; fg; Pebs; Cobs Conglomerate; fine grained; Pebbles; Cobbles Light grey to grey, fg cement with pebbles to cobbles. Sections are clast poor with only the occasional pebble.	94.00	95.00	680485	1.00	26	0.2	5	27	6
			95.00	95.30	680486	0.30	26	0.5	69	33	2
			95.30	95.70	680487	0.40	24	0.2	34	24	2
			95.70	96.00	680488	0.30	32	0.2	3	36	3
86.50	130.40	Ca Calcite Occasional narrow white calcite veins.	96.00	97.00	680489	1.00	31	0.2	7	38	2
			97.00	98.00	680490	1.00	31	0.4	28	36	2

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
86.50	89.60	113.7 to 113.8 1 cm pink calcite vein.	98.00	99.00	680491	1.00	31	0.4	6	36	2
		FRC	99.00	100.00	680492	1.00	32	0.2	37	43	2
		Fractured	100.00	101.00	680493	1.00	34	0.2	39	41	2
		Unit is competent to weakly fractured. Fractures at 40 and 30° to cax.	101.00	102.00	680494	1.00	26	0.4	429	28	5
		95.3 to 95.7 healed breccia fragments healed with quartz carbonate.	112.65	112.95	680495	0.30	30	0.2	760	40	4
		95.7 to 96.1 moderate to strongly fractured.	112.95	113.30	680496	0.35	37	0.2	83	51	4
		96.0 to 96.1 healed breccia at 40° to cax.	113.30	113.60	680497	0.30	28	0.2	199	40	2
		96.4 96.45 healed breccia at 50° to cax.	113.60	113.90	680498	0.30	58	1.5	1150	39	13
		126.9 2 cm fault gouge at 60° to cax.	113.90	114.20	680499	0.30	33	0.5	408	38	2
		101.9 to 102.05 healed breccia at 70° to cax.	114.20	114.70	662501	0.50	30	0.2	27	37	6
		104.8 to 104.9 mud seam/fault at 20° to cax.	127.60	128.20	662502	0.60	1210	1.4	216	24	15
		96.0 to 98.2 moderately to strongly fractured.	128.20	128.40	662503	0.20	13100	12.0	374	142	77
		Cp; Co	128.40	128.60	662504	0.20	16900	1.2	38	25	15
		Chalcopyrite; Cobalt Mineralization	128.60	128.80	662505	0.20	2000	1.5	241	58	33
Scattered occurrences of chalcopyrite are observed.	128.80	129.20	662506	0.40	3980	1.0	20	27	37		
127.3 narrow < 1 cm cobalt vein at 60° to cax.	129.20	129.70	662507	0.50	3450	1.3	10	519	38		
130.40	139.10	GWG_qtz; fg; mass Quartzite; fine grained; massive Light grey to grey, fg massive with 1-2 mm rounded chlorite clusters.									
130.40	139.10	Ca Calcite Minor narrow white calcite veins.									
130.40	139.10	FRC Fractured Weakly to moderately fractured throughout, fractures at 50 and 30° to cax.									
139.10	148.80	GWG_silt; vfg; Bedd Siltstone; very fine grained ; Bedded Light grey to light olive grey, fg bedded with chlorite									

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
139.10	148.80	segregations along bedding and randomly oriented. Bedding at 50° to cax. Chl Chlorite Spotted chlorite occurs throughout unit.									
139.10	148.80	FRC Fractured Moderately fractured throughout, fractures at 50 and 40° to cax.									
148.80	155.60	GWG_cgl; fg; Pebs Conglomerate; fine grained; Pebbles Light grey to grey, fg cement with clast poor polymictic pebbles and intercalations of siltstone.									
148.80	155.60	Chl Chlorite Spotted chlorite to 122.5									
148.80	155.60	FRC Fractured Competent to weakly fractured. Fractures at 50, 40 and 20° to cax.									
155.60	220.00	MV; fg; mass Mafic Volcanic; fine grained; massive Light greenish grey to greenish grey, fg massive. 220.0 EOH.	158.00	159.00	662508	1.00	63	1.6	175	203	247
			159.00	160.00	662509	1.00	69	2.7	293	254	233
			160.00	161.00	662510	1.00	50	4.2	175	1650	996
155.60	220.00	Ca Calcite Narrow white calcite veins are scattered throughout.	161.00	162.00	662511	1.00	52	1.2	201	290	184
			162.00	163.00	662512	1.00	41	1.1	137	1220	600
		187.6 to 187.8 pink quartz carbonate veining at 30° to cax.	163.00	164.00	662513	1.00	55	0.8	137	879	479
		193.6 to 193.7 2 cm white quartz carbonate veining with	164.00	165.00	662514	1.00	55	0.7	16	700	538
		3-5% pyrite.	186.80	187.30	662515	0.50	43	0.5	78	703	49
155.60	220.00	FRC	187.30	187.60	662516	0.30	40	0.5	70	165	18
		Fractured	187.60	187.90	662517	0.30	78	0.8	119	99	87
		Unit is competent to weakly fractured. Fractures at 50 and	187.90	188.20	662518	0.30	64	0.5	147	150	107

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
155.60	220.00	70° to cax.	188.20	188.70	662519	0.50	51	1.2	123	191	242
		179.3 to 180.0 moderately fractured.	192.70	193.20	662521	0.50	112	0.9	14	98	43
		185.6 to 186.0 moderately to strongly fractured.	193.20	193.50	662522	0.30	93	0.8	17	100	31
		Py	193.50	193.80	662523	0.30	121	1.5	17	90	253
		Pyrite	193.80	194.10	662524	0.30	101	1.7	31	111	46
		Pyrite is ubiquitous and occurs as fracure filling.	194.10	194.60	662525	0.50	79	0.8	17	110	41
		207 to 210 2-3% pyrite.	194.60	195.10	662526	0.50	91	1.4	19	106	45
			195.10	195.60	662527	0.50	44	0.7	16	99	29
			195.60	196.10	662528	0.50	23	0.6	12	107	22
			207.00	208.00	662529	1.00	48	2.0	285	129	83
			208.00	209.00	662530	1.00	52	0.9	28	108	31
	209.00	210.00	662531	1.00	66	0.8	24	106	38		

LiCo Energy Metals Inc.

...					
Sample number	Type	Reference	Co (ppm)	Ag (ppm)	
680500	(Std)	Oreas 166	2120	9.9	
662520	(Std)	Oreas 75b	746	0.7	

LiCo Energy Metals Inc.

...					
Type	Depth	Azimuth	Dip	Invalid a...	
Reflex	6.00	94.00°	-49.60°	No	
Reflex	15.00	93.60°	-49.60°	No	
Reflex	24.00	94.10°	-49.60°	No	
Reflex	36.00	94.70°	-49.50°	No	
Reflex	48.00	95.40°	-49.60°	No	
Reflex	60.00	94.20°	-48.70°	No	
Reflex	72.00	97.50°	-49.40°	No	
Reflex	84.00	98.30°	-49.30°	No	
Reflex	96.00	99.30°	-49.40°	No	
Reflex	108.00	99.80°	-48.90°	No	
Reflex	120.00	100.50°	-48.90°	No	
Reflex	132.00	101.30°	-48.80°	No	
Reflex	144.00	101.30°	-48.40°	No	
Reflex	156.00	102.50°	-48.30°	No	
Reflex	168.00	103.00°	-48.00°	No	
Reflex	180.00	104.10°	-47.90°	No	
Reflex	192.00	104.60°	-47.50°	No	
Reflex	204.00	105.40°	-47.30°	No	
Reflex	216.00	106.30°	-47.20°	No	

LiCo Energy Metals Inc.

Survey:	TE17-06	Claims title:	372	Section:	Section 5252075N
		Township:	Bucke	Level:	Surface
		Range:		Work place:	134 Imperial Rd. North Bay, ON.
Contractor:	Chenier Drilling Services	Lot:			
Author:	Kalevi Hannila	Start date:	11/5/2017	Description date:	11/22/2017
		End date:	11/12/2017		
Collar					
				System 1	
Azimuth:	90.00°			East	604503
Dip:	-45.00°			North	5252070
Length:	200.00			Elevation	225
Number of samples:	42				
Number of QAQC samples:	2				
Total sampled length:	30.00				
Description:					
Core size: NQ		Cemented: No		Stored: Yes	

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
0.00	7.50	OB Overburden Casing driven to 7.5m, left in hole.									
7.50	82.49	NDIA Nipissing Diabase 40° dark grey medium to coarse grained Nipissing Diabase. lower contact sharp/chilled @ 40 deg TCA. weakly magnetic.									
14.60	14.70	BC Broken Core heavily fractured									
17.70	18.10	BC Broken Core heavily fractured									
21.00	21.10	BC Broken Core heavily fractured									
26.20	26.60	BC Broken Core heavily fractured									
27.00	27.30	BC Broken Core heavily fractured									
27.70	27.85	BC Broken Core heavily fractured									
32.55	32.65	BC Broken Core heavily fractured									
61.50	61.70	BC Broken Core heavily fractured									

LiCo Energy Metals Inc.

Description			Assay - Sample							
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)
75.50	82.49	Ca; Hem; Epi Calcite; Hematite; Epidote weak to moderate calcite+hematite+/-epidote veining throughout. veins orientated at various angles TCA, and cross cut each other. veins generally <1cm in width, unmineralized.								
82.49	92.10	GWG_silt; GWG_qtz; fg; mass; Bedd Siltstone; Quartzite; fine grained; massive; Bedded Alternating beds of light grey to grey, very fine grained weakly bedded siltstone and grey fine grained massive quartzite. Bedding in the siltstone is 30 to 40 deg to cax. Upper contact with the Nipissing Diabase is gradational with metasediments being partially absorbed into the diabase. Lower contact is gradational over centimetres to the underlying conglomerate.								
82.49	92.10	Qtz+Ca Quartz + Carbonate Narrow quartz carbonate veins up to 1 cm at 86.6, 86.7 and 86.8 at 30 to 40° to cax.								
82.49	92.10	SHR; FRC; FT Sheared; Fractured; Fault 84.65 1 cm quartz carbonate shear. 85.5 to 87.5 moderately to strongly fractured. 87.5 1 cm gouge at 30° to cax.								
92.10	137.70	GWG_cgl; fg; Pebs; Cobs Conglomerate; fine grained; Pebbles; Cobbles Light greenish grey, light grey to grey, fg cement with clasts ranging from pebbles to cobbles.								
92.10	137.70	Qtz+Ca Quartz + Carbonate Quartz carbonate veining at 120.2 to 120.3 at 30 to 40° to cax.								

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
92.10	137.70	Cmptnt; Wkly Frac; FT Competent; Weakly Fractured; Fault Unit is competent with intervals of weak fracturing. Fracturing at 60 and 40° to cax. 111.2 to 115.3 moderately fractured. 114.1 8 cm fault gouge at 70° to cax. 119.5 0.5 cm fault gouge at 50° to cax. 127.3 to 131.5 moderately fractured.									
92.10	137.70	Cp Chalcopyrite Trace amounts of chalcopyrite in quartz carbonate veins.									
137.70	148.00	GWG_qtz; fg; mass Quartzite; fine grained; massive Light greenish grey to light grey, fg mass.									
137.70	148.00	Qtz+Ca Quartz + Carbonate Narrow quartz carbonate veins occur occasionally. Lower contact has weak to moderate quartz carbonate veining.									
137.70	148.00	FRC Fractured Unit is weakly fractured overall. Fractures at 50, 60 and 20° to cax. 137.7 to 138.8 moderately to strongly fractured. 137.8 to 138.1 moderate calcite veining and weak hematization.									
148.00	152.90	GWG_silt; fg; Bedd Siltstone; fine grained; Bedded Light grey to grey, fg weakly bedded.									
148.00	152.90	Qtz+Ca Quartz + Carbonate Weak quartz carbonate veining throughout.									

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
148.00	152.90	FRC Fractured 148.0 to 149.7 moderately to strongly fractured. Fractures at 40, 60 and 10° to cax. 149.7 to 152.9 weak to moderate fracturing.									
152.90	161.80	GWG_qtz; fg; mass Quartzite; fine grained; massive Light grey to grey, fg massive with intercalations of siltstone.	153.00	154.00	680441	1.00	20	0.4	176	22	2
			154.00	155.00	680442	1.00	30	0.6	6	25	5
			155.00	156.00	680443	1.00	255	0.5	11	26	5
152.90	161.60	Chl Chlorite 157.5 to 163.9 spotted chlorite, pervasive over the interval.	156.00	157.00	680444	1.00	103	0.5	6	23	2
			157.00	158.00	680445	1.00	81	0.5	2	24	3
			158.00	159.00	680446	1.00	29	0.5	2	26	2
152.90	161.60	FRC; FT Fractured; Fault Unit is weakly fractured throughout. 156.4 to 157.2 possible fault, healed fractures infilled with fine quartz carbonate veins, narrow gouge at 156.8 at 60° to cax.	159.00	160.00	680447	1.00	45	0.4	2	31	2
			160.00	161.00	680448	1.00	22	0.4	2	29	2
			161.00	161.60	680449	0.60	14	0.4	1	30	4
			161.60	162.00	680450	0.40	19	0.7	2	30	2
161.80	167.70	GWG_cgl; fg; Pebs; Cobs Conglomerate; fine grained; Pebbles; Cobbles Light grey to light greenish grey, fg cement with pebbles to cobbles.	162.00	163.00	680451	1.00	32	0.5	9	33	3
			163.00	164.00	680452	1.00	102	0.4	6	30	5
			164.00	165.00	680453	1.00	1350	0.7	4	33	6
161.80	167.70	FRC Fractured Weakly fractured at 30 and 10° to cax.									
167.70	183.10	GWG_qtz; fg; mass Quartzite; fine grained; massive Light greenish grey to light grey, fg massive.	168.00	169.00	680454	1.00	169	6.3	2540	99	125
			169.00	170.00	680455	1.00	63	5.3	1160	151	725
			170.00	171.00	680456	1.00	58	2.2	383	170	477
167.70	183.10	Cmptnt Competent Unit is competent to weakly fractured at 60 and 40° to cax.	171.00	171.80	680457	0.80	59	1.9	68	611	1790
			171.80	172.10	680458	0.30	36	0.9	173	1030	282
			172.10	172.40	680459	0.30	64	1.9	675	307	286
			172.40	172.80	680461	0.40	48	0.9	89	180	168

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
183.10	200.00	MV; fg; mass Mafic Volcanic; fine grained; massive Light greenish grey, very fine grained to fine grained massive. Narrow white calcite veins occur throughout. 200.0 EOH	172.80	173.10	680462	0.30	92	1.9	123	133	244
			173.10	173.40	680463	0.30	28	1.1	275	236	40
			173.40	174.00	680464	0.60	38	0.8	173	427	51
			174.00	175.00	680465	1.00	51	1.2	212	153	79
			183.20	183.50	680466	0.30	34	0.9	95	204	171
			183.50	184.00	680467	0.50	48	0.5	97	290	101
			184.00	185.00	680468	1.00	42	0.7	70	1790	321
183.10	200.00	Ca Calcite Narrow white calcite veins occur throughout.	185.00	186.00	680469	1.00	45	1.0	121	1400	413
			186.00	187.00	680470	1.00	58	0.9	55	1890	548
183.10	200.00	Cmptnt Competent Unit is competent to weakly fractured. 183.4 1 cm healed breccia, infilled with angular fragments and quartz carbonate. 188.1 to 188.4 3 cm quartz carbonate vein at 20° to cax. 189.1 1 cm healed breccia at 40° to cax infilled with angular fragments and quartz carbonate. 193.6 to 193.7 vuggy quartz carbonate infilled breccia.	187.00	188.10	680471	1.10	46	1.2	50	3230	1560
			188.10	188.40	680472	0.30	42	5.0	360	13700	7300
			188.40	188.70	680473	0.30	63	0.6	18	1020	1170
			188.70	189.00	680474	0.30	71	0.4	11	342	674
			189.00	189.30	680475	0.30	68	0.5	16	175	303
			189.30	189.60	680476	0.30	37	0.4	33	1260	247
			189.60	190.00	680477	0.40	62	0.5	31	1540	200
			190.00	191.00	680478	1.00	65	1.1	108	2780	430
			191.00	192.00	680479	1.00	84	1.0	151	3870	293
			192.00	193.00	680481	1.00	51	0.8	78	1480	561
183.10	200.00	Py; Sp Pyrite; Sphalerite Minor pyrite and lesser sphalerite occur along fractures.	193.00	193.50	680482	0.50	51	1.3	99	3150	862
			193.50	193.80	680483	0.30	99	1.0	270	977	462
			193.80	194.20	680484	0.40	54	1.0	79	2230	719

LiCo Energy Metals Inc.

...					
Sample number	Type	Reference	Co (ppm)	Ag (ppm)	
680460	(Std)	Oreas 75b	740	0.8	
680480	(Bln)	Coarse Silica	1	0.2	

LiCo Energy Metals Inc.

...					
Type	Depth	Azimuth	Dip	Invalid a...	
Reflex	10.00	89.40°	-45.40°	No	
Reflex	24.00	90.70°	-45.40°	No	
Reflex	39.00	90.70°	-45.40°	No	
Reflex	54.00	90.20°	-45.40°	No	
Reflex	69.00	91.60°	-45.30°	No	
Reflex	84.00	92.00°	-45.20°	No	
Reflex	99.00	92.50°	-45.20°	No	
Reflex	114.00	92.50°	-45.10°	No	
Reflex	129.00	93.10°	-45.10°	No	
Reflex	144.00	93.50°	-45.00°	No	
Reflex	159.00	94.40°	-45.00°	No	
Reflex	174.00	94.60°	-44.90°	No	
Reflex	189.00	95.10°	-44.80°	No	
Reflex	198.00	95.50°	-44.70°	No	

LiCo Energy Metals Inc.

Survey:	TE17-05	Claims title:	372	Section:	Section 5252165N
		Township:	Bucke	Level:	Surface
		Range:		Work place:	134 Imperial Rd., North Bay
Contractor:	Chenier Drilling Services	Lot:			
Author:	Joerg Kleinboeck	Start date:	11/2/2017	Description date:	11/21/2017
		End date:	11/5/2017		
Collar					
				System 1	
Azimuth:	90.00°			East	604988
Dip:	-45.00°			North	5252165
Length:	200.00			Elevation	225
Number of samples:	58				
Number of QAQC samples:	3				
Total sampled length:	29.00				
Description:					
Core size: NQ		Cemented: No		Stored: Yes	

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
0.00	7.50	OB Overburden casing driven to 7.80m, left in hole.									
7.50	80.50	NDIA; mg; mass Nipissing Diabase; medium grained; massive dark grey medium grained massive Nipissing Diabase. weakly magnetic throughout. lower contact not clear due to broken core, almost a chilled/mixed zone over 0.5m.									
78.61	79.30	Ca; Hem Calcite; Hematite 3-8mm irregular (generally low angle ~10 deg TCA) calcite+hematite filled fracture.									
80.50	90.50	GWG_silt; fg-mg Siltstone; fine to medium grained grey finely laminated to massive siltstone/sandstone. lower contact broken.									
81.63	81.66	Ca Calcite calcite-healed fracture zone.									
81.63	81.66	FT Fault calcite-healed fracture/fault zone orientated @ 40 deg TCA.									
85.65	85.84	BC Broken Core heavily fractured.									
88.90	92.30	FRC Fractured local sections of broken core.									
90.50	93.30	GWG_cgl Conglomerate grey clast supported conglomerate as described in TE17-04.									

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
90.50	93.30	py+cp00.1 pyrite + chalcopyrite 0.1% trace to 0.25% disseminated pyrite + chalcopyrite throughout.									
93.30	98.30	FZ Fault Zone local sections of heavily fractured, rehealed core with significant chloritic gouge and vuggy quartz.									
98.30	139.00	GWG_cgl Conglomerate as from 90.5-93.3m. vuggy quartz+pyrite vein from 128.25 to 128.45m.	117.00	117.50	680388	0.50	38	0.2	3	40	2
			117.50	118.00	680389	0.50	33	0.2	7	35	2
			118.00	118.50	680390	0.50	35	0.2	26	36	4
			118.50	119.00	680391	0.50	42	0.2	7	42	2
			119.00	119.50	680392	0.50	27	0.2	15	28	2
			119.50	120.00	680393	0.50	36	0.2	11	39	2
			120.00	120.50	680394	0.50	30	0.2	22	34	5
			120.50	121.00	680395	0.50	31	0.3	252	31	7
			121.00	121.50	680396	0.50	45	0.4	161	47	2
			121.50	122.00	680397	0.50	41	0.2	449	42	3
			122.00	122.50	680398	0.50	39	0.3	410	47	6
			122.50	123.00	680399	0.50	34	0.3	831	43	2
			123.00	123.50	680401	0.50	29	0.2	1230	39	2
			123.50	124.00	680402	0.50	34	0.2	29	45	2
			124.00	124.50	680403	0.50	44	0.2	108	36	5
			124.50	125.00	680404	0.50	88	0.4	285	32	4
			125.00	125.50	680405	0.50	43	1.1	1410	27	10
			125.50	126.00	680406	0.50	34	0.3	380	34	5
			126.00	126.50	680407	0.50	34	0.2	23	39	6
			126.50	127.00	680408	0.50	676	0.5	20	31	7
			127.00	127.64	680409	0.64	9300	2.3	140	21	18
127.28	127.42	Ca									

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
127.64	127.99	Calcite									
		irregular pink calcite vein									
		Co95	127.64	128.00	680410	0.36	219000	11.5	42	31	36
129.00	132.60	Cobalt Mineralization 95%	128.00	128.50	680411	0.50	3070	7.0	339	24	50
		Massive cobalt mineralized vein.	128.50	129.00	680412	0.50	6160	10.0	504	40	103
		contacts broken, between 55-65 deg TCA.									
		BC	129.00	129.50	680413	0.50	535	5.1	640	34	57
		Broken Core	129.50	130.00	680414	0.50	3230	19.3	932	46	150
		local sections of broken core.	130.00	130.50	680415	0.50	1980	7.7	756	170	69
			130.50	131.00	680416	0.50	297	0.8	90	29	27
			131.00	131.50	680417	0.50	76	0.5	29	26	11
			131.50	132.00	680418	0.50	51	0.3	270	24	13
			132.00	132.50	680419	0.50	40	0.2	83	18	2
			132.50	133.00	680421	0.50	1	0.2	1	1	2
			133.00	133.50	680422	0.50	31	0.3	72	26	8
			133.50	134.00	680423	0.50	59	0.4	12	27	2
			134.00	134.50	680424	0.50	30	0.4	15	21	7
	134.50	135.00	680425	0.50	58	0.2	23	20	3		
	135.00	135.50	680426	0.50	205	0.2	27	16	4		
	135.50	136.00	680427	0.50	409	0.5	103	15	5		
136.00	139.00	Co01	136.00	136.50	680428	0.50	7110	2.5	55	157	39
		Cobalt Mineralization 1%	136.50	137.00	680429	0.50	44800	7.1	85	270	116
		finely disseminated co mineralization, locally concentrated	137.00	137.50	680430	0.50	44000	3.2	12	99	32
		along re-healed fractures.	137.50	138.00	680431	0.50	58500	3.0	18	147	23
			138.00	138.50	680432	0.50	29000	1.4	7	49	14
139.00	156.85	GWG_qtz; fg; mass	138.50	139.00	680433	0.50	3810	0.9	14	36	4
		Quartzite; fine grained; massive grey fine to medium grained massive sandstone/quartzite with local pebble/clast bearing sections.	139.00	139.50	680434	0.50	6260	1.8	30	835	13

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
139.00	140.00	Co01 lower contact sharp @ 20 deg TCA. Cobalt Mineralization 1% finely disseminated co mineralization, locally concentrated along re-healed fractures.									
139.40	139.80	BC Broken Core heavily fractured.	139.50	140.00	680435	0.50	4100	2.2	53	83	22
			140.00	140.50	680436	0.50	837	0.7	7	16	9
			140.50	141.00	680437	0.50	3310	2.2	26	31	12
			141.00	141.50	680438	0.50	1460	3.6	157	30	30
141.28	141.32	FT Fault 20° fault orientated at 20 deg TCA with chloritic gouge and ground core, locally rehealed with quartz+carb+py.	141.50	142.00	680439	0.50	950	2.7	14	28	26
			142.00	142.50	999264	0.50	1270	1.4	350	27	14
			142.50	143.00	999265	0.50	771	1.2	125	31	10
			143.00	143.50	999266	0.50	1210	1.9	43	34	16
			143.50	144.00	999267	0.50	2730	1.3	24	39	14
			144.00	144.50	999268	0.50	2010	2.5	303	472	21
			144.50	145.00	999269	0.50	5200	1.9	62	40	13
145.00	148.75	BC Broken Core local sections of heavily fractured and broken core.	145.00	145.50	999270	0.50	1500	0.7	9	27	3
			145.50	146.00	999271	0.50	305	0.5	70	16	2
156.85	157.65	FZ Fault Zone 15° upper contact rehealed with chlorite, wavy, approximately 15-20 deg TCA. lower contact broken.									
157.65	173.80	GWG_silt; fg Siltstone; fine grained grey finely laminated altered siltstone. bedding orientated 30-40 deg TCA. lower contact broken over 1m.									
157.65	173.80	Chl Chlorite									

LiCo Energy Metals Inc.

Description			Assay - Sample							
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)
173.80	189.85	strong pervasive spotted chlorite alteration throughout. GWG_cgl; GWG_silt Conglomerate; Siltstone predominantly conglomerate as described previously with 10-20% intercalated siltstone. bedding where present typically at 35 deg TCA.								
173.80	189.85	py+cp00.1 pyrite + chalcopyrite 0.1% trace disseminated py and remobilized cp throughout, generally unmineralized.								
179.35	190.65	FRC Fractured local sections of heavily fractured core.								
189.85	200.00	MV Mafic Volcanic dark green brecciated mafic flow.								
189.85	200.00	Py00.1 Pyrite 0.1% trace to locally 0.5% disseminated to wispy pyrite throughout.								

LiCo Energy Metals Inc.

...					
Sample number	Type	Reference	Co (ppm)	Ag (ppm)	
680400	(Std)	Oreas 166	2110	9.9	
680420	(Bln)	Coarse Silica	5	0.2	
680440	(Std)	Oreas 76b	1030	1.2	

LiCo Energy Metals Inc.

...					
Type	Depth	Azimuth	Dip	Invalid a...	
Reflex	18.00	89.30°	-45.40°	No	
Reflex	96.00	93.30°	-43.00°	No	
Reflex	105.00	93.40°	-42.90°	No	
Reflex	132.00	93.60°	-43.20°	No	
Reflex	153.00	93.00°	-43.40°	No	
Reflex	168.00	92.20°	-43.50°	No	
Reflex	180.00	90.30°	-43.50°	No	

LiCo Energy Metals Inc.

Survey:	TE17-04	Claims title:	372	Section:	Section 5252165N
		Township:	Bucke	Level:	Surface
		Range:		Work place:	134 Imperial Rd., North Bay
Contractor:	Chenier Drilling Services	Lot:			
Author:	Joerg Kleinboeck	Start date:	10/31/2017	Description date:	11/20/2017
		End date:	11/2/2017		
Collar					
				System 1	
Azimuth:	90.00°			East	604975
Dip:	-45.00°			North	5252165
Length:	199.82			Elevation	225
Number of samples:	67				
Number of QAQC samples:	4				
Total sampled length:	50.07				
Description:					
Core size: NQ		Cemented: No		Stored: Yes	

LiCo Energy Metals Inc.

Description			Assay - Sample							
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)
0.00	9.00	OB Overburden Casing driven to 9.00m, left in hole.								
9.00	39.75	NDIA; mg; mass Nipissing Diabase; medium grained; massive dark grey medium grained massive nipissing diabase. weakly to moderately magnetic.								
39.75	41.00	FZ Fault Zone heavily fractured, RQD=0%								
41.00	70.50	NDIA Nipissing Diabase as from 9.00 to 39.75m.								
64.20	64.80	Hem Hematite strong hematite within fractured zone.								
64.20	64.55	FRC Fractured heavily fractured								
70.50	86.70	GWG_silt; Bed Siltstone 30°; Bedding dark grey fine to coarsely laminated siltstone.								
81.80	82.00	BC Broken Core heavily fractured								
82.90	83.00	BC Broken Core heavily fractured								
86.20	86.80	BC Broken Core heavily fractured								
86.70	142.16	GWG_cgl								

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
86.70	138.00	<p>Conglomerate grey matrix supported to clast supported conglomerate. upper contact is matrix supported grading shortly thereafter into a clast supported conglomerate. lower contact sharp @ 60 deg TCA. clasts range in size from <1cm to 20cm, comprised of quartz, metasediments, metavolcanics, and granite.</p> <p>Cp00.1; Py; Py00.1 Chalcopyrite 0.1%; Pyrite; Pyrite 0.1% disseminated cp throughout, locally remobilized within calcite filled fractures or veinlets.</p>									
89.00	89.15	<p>BC Broken Core heavily fractured</p>	99.25	99.50	680317	0.25	31	0.2	189	32	2
99.28	99.38	<p>Ca Calcite vuggy pink calcite vein with 3-4% disseminated chalcopyrite. upper contact at 30 deg TCA, lower contact @ 45 deg TCA.</p>									
104.00	104.40	<p>BC Broken Core heavily fractured, RQD=0%</p>	132.00	132.50	680318	0.50	36	0.2	88	34	7
			132.50	133.00	680319	0.50	43	0.3	19	39	2
			133.00	133.50	680321	0.50	33	0.3	159	34	10
			133.50	134.00	680322	0.50	39	0.7	335	33	8
			134.00	134.50	680323	0.50	23	0.4	391	31	10
			134.50	135.00	680324	0.50	22	0.2	81	34	3
			135.00	135.50	680325	0.50	19	0.3	457	28	5
			135.50	136.00	680326	0.50	119	0.8	153	27	9
			136.00	136.50	680327	0.50	90	0.2	199	19	4
			136.50	137.00	680328	0.50	56	0.2	133	22	2
			137.00	137.50	680329	0.50	234	0.2	238	29	6
			137.50	138.00	680330	0.50	96	0.7	664	30	9
138.00	141.25	Co00.25	138.00	138.50	680331	0.50	988	1.3	249	28	7

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
		Cobalt Mineralization 0.25%	138.50	139.00	680332	0.50	1720	0.9	254	31	6
		trace to 0.5% disseminated to fracture controlled Co mineralization.	139.00	139.50	680333	0.50	8170	6.8	482	32	41
			139.50	140.00	680334	0.50	2100	1.8	430	42	7
			140.00	140.45	680335	0.45	3740	2.9	877	30	9
140.45	140.65	FT	140.45	141.00	680336	0.55	16400	6.9	3270	26	35
		Fault	141.00	141.25	680337	0.25	1630	2.7	268	27	14
		heavily fractured and rehealed with chlorite.									
141.25	141.64	Co06	141.25	141.64	680338	0.39	43100	15.2	314	22	61
		Cobalt Mineralization 6%									
		5-8% disseminated, blebby, to narrow veinlets of cobalt mineralization.									
141.64	141.79	Co80	141.64	141.79	680339	0.15	187000	16.0	251	6	37
		Cobalt Mineralization 80%									
		10cm cobalt vein orientated at approximately 55 deg TCA.									
141.79	142.16	Co00.5	141.79	142.05	680341	0.26	6890	4.1	103	32	13
		Cobalt Mineralization 0.5%	142.05	142.50	680342	0.45	72500	8.7	1640	30	19
		disseminated to narrow veinlets of Co mineralization.									
142.16	145.80	GWG_silt; Bed	142.50	143.00	680343	0.50	18600	5.2	754	235	42
		Siltstone; Bedding									
		chlorite-spotted altered siltstone.									
		bedding well developed, less so in more altered sections, generally at 55 deg TCA.									
142.16	143.00	Co01.5									
		Cobalt Mineralization 1.5%									
		1-2% Co mineralization									
143.00	145.80	Co00.1	143.00	143.50	680344	0.50	4810	1.3	102	61	2
		Cobalt Mineralization 0.1%	143.50	144.00	680345	0.50	1510	1.0	257	31	2
		trace to 0.25% disseminated to fracture-controlled	144.00	144.50	680346	0.50	484	0.9	175	30	4
		Co-mineralization	144.50	145.00	680347	0.50	198	0.7	259	26	8
			145.00	146.00	680348	1.00	54	0.5	8	18	2
145.80	155.80	FZ	146.00	147.00	680349	1.00	84	0.4	15	22	2

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
		Fault Zone	147.00	148.00	680350	1.00	39	0.4	38	18	2
		heavily fractured with local faulted sections, core is either	148.00	149.00	680351	1.00	57	0.5	8	22	2
		ground or rehealed with chlorite and/or calcite. blebby	149.00	150.00	680352	1.00	40	0.5	11	30	3
		remobilized chalcopyrite from 151.00 to 151.12m.	150.00	151.00	680353	1.00	52	0.7	64	26	2
			151.00	152.00	680354	1.00	522	10.7	5350	356	57
			152.00	153.00	680355	1.00	157	0.7	99	24	5
			153.00	154.00	680356	1.00	71	0.7	86	53	2
			154.00	155.00	680357	1.00	227	0.8	66	29	5
			155.00	156.00	680358	1.00	70	0.6	48	24	2
155.80	170.25	GWG_silt	156.00	157.00	680359	1.00	25	0.4	57	25	2
		Siltstone	157.00	158.00	680361	1.00	74	0.6	13	21	2
		as from 142.16-145.80m.	158.00	159.00	680362	1.00	42	0.5	70	23	3
		lower contact gradational but abrupt, lower 2 metres becoming	159.00	160.00	680363	1.00	44	0.2	34	26	2
		pebble-bearing.	160.00	161.00	680364	1.00	106	0.2	37	27	2
			161.00	162.00	680365	1.00	79	0.5	101	26	4
161.80	161.90	BC	162.00	163.00	680366	1.00	102	0.3	10	23	2
		Broken Core	163.00	164.00	680367	1.00	18	0.4	16	29	2
		heavily fractured.	164.00	165.00	680368	1.00	31	0.7	1080	28	2
			165.00	166.00	680369	1.00	34	0.7	882	27	2
			166.00	167.00	680370	1.00	17	0.6	13	23	2
			167.00	168.00	680371	1.00	14	0.3	10	27	2
			168.00	169.00	680372	1.00	27	0.5	12	28	2
			169.00	170.00	680373	1.00	25	0.5	215	35	4
			170.00	171.00	680374	1.00	28	0.3	27	33	2
170.25	183.30	GWG_cgl; GWG_silt									
		Conglomerate; Siltstone									
		Interval consists of conglomerate as described previously with									
		intercalated siltstone.									
		lower contact broken.									
172.35	172.50	BC									

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
172.80	173.60	Broken Core heavily fractured. BC									
183.30	199.82	Broken Core heavily fractured. MV; fg Mafic Volcanic; fine grained dark green massive to brecciated mafic flow. non-magnetic.	189.00	190.00	680375	1.00	67	0.6	114	181	40
190.00	191.13	Ca	190.00	190.60	680376	0.60	101	1.5	423	429	113
		Calcite	190.60	191.13	680377	0.53	58	1.4	136	1780	374
		sheared with moderate calcite and 6-8% disseminated to wispy pyrite. veins orientated at various angles TCA (10 to 60 deg TCA), up to 1cm in width.	191.13	192.00	680378	0.87	32	1.0	59	219	200
191.25	191.65	BC	192.00	193.00	680379	1.00	58	1.1	175	129	35
		Broken Core	193.00	194.00	680381	1.00	64	1.3	166	222	29
		heavily fractured.	194.00	195.00	680382	1.00	60	0.9	115	105	29
			195.00	196.00	680383	1.00	35	0.7	91	107	19
			196.00	197.15	680384	1.15	51	1.3	111	212	189
196.82	197.15	Ca	197.15	198.00	680385	0.85	17	0.4	9	331	172
		Calcite	198.00	199.00	680386	1.00	18	1.3	45	1530	449
		moderate calcite veining, veins <1cm in width.	199.00	199.82	680387	0.82	15	0.5	20	84	38

LiCo Energy Metals Inc.

...					
Sample number	Type	Reference	Co (ppm)	Ag (ppm)	
680320	(Std)	Oreas 75b	716	0.8	
680340	(Bln)	Coarse Silica	48	0.2	
680360	(Std)	Oreas 76b	1020	1.1	
680380	(Bln)	Coarse Silica	3	0.2	

LiCo Energy Metals Inc.

...					
Type	Depth	Azimuth	Dip	Invalid a...	
Reflex	17.00	89.30°	-44.40°	No	
Reflex	26.00	89.90°	-44.50°	No	
Reflex	44.00	90.10°	-44.60°	No	
Reflex	56.00	91.00°	-44.60°	No	
Reflex	65.00	91.30°	-44.60°	No	
Reflex	74.00	91.90°	-44.70°	No	
Reflex	86.00	91.70°	-44.60°	No	
Reflex	95.00	91.70°	-44.50°	No	
Reflex	104.00	92.00°	-44.50°	No	
Reflex	116.00	92.00°	-44.40°	No	
Reflex	128.00	92.70°	-44.30°	No	
Reflex	140.00	93.40°	-44.30°	No	
Reflex	152.00	93.80°	-44.30°	No	
Reflex	164.00	93.90°	-44.20°	No	
Reflex	176.00	94.30°	-44.30°	No	
Reflex	188.00	94.40°	-44.30°	No	
Reflex	199.82	94.70°	-44.30°	No	

LiCo Energy Metals Inc.

Survey:	TE17-03	Claims title:	372	Section:	5252155
		Township:	Long	Level:	Surface
		Range:		Work place:	134 Imperial Rd, North Bay, ON
Contractor:	Chenier Drilling Services	Lot:			
Author:	K. Hannila	Start date:	10/28/2017	Description date:	11/3/2017
		End date:	10/31/2017		
Collar					
				System 1	
Azimuth:	90.00°			East	604990
Dip:	-45.00°			North	5252156
Length:	201.00			Elevation	225
Number of samples:	52				
Number of QAQC samples:	3				
Total sampled length:	30.00				
Description:					
Core size: NQ		Cemented: No		Stored: Yes	

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
0.00	8.60	OB Overburden Casing to 8.6m, left in hole.									
8.60	81.80	NDIA; fg-mg Nipissing Diabase; fine to medium grained Light grey to grey, medium grained massive. Weakly magnetic locally. Trace disseminated or fracture controlled pyrite.									
8.60	81.80	QV Quartz Vein Unit is unaltered and has scattered quartz veins.									
8.60	81.80	Cmptnt; Wkly Frac Competent; Weakly Fractured Unit is predominantly competent with local sections of weak fracturing.									
8.60	81.80	Cp; Py Chalcopyrite; Pyrite Scattered blebs and veins of pyrite and chalcopyrite.									
81.80	85.70	GWG_silt; fg; mass Siltstone; fine grained; massive Grey to dark grey, fg massive.									
81.80	85.70	Sil Silicification Unit is moderately to strongly silicified.									
81.80	85.70	Wkly Frac Weakly Fractured Weakly fractured at 30, 40 and 60° to cax.									
81.80	85.70	No Vis Sulph No Visible Sulphides No visible sulphides.									
85.70	138.90	GWG_cgl Conglomerate	88.30	88.70	159996	0.40	21	0.8	2480	19	5
			96.00	96.50	159997	0.50	33	0.8	446	30	2

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
85.70	138.90	Grey to greenish grey, fine grained cement with pebbles ranging in size from 1 cm to 10 cm and are rounded to subrounded. Pebbles are predominantly quartzite with lesser granite.	96.50	97.00	159998	0.50	32	0.5	32	30	2
			97.00	97.60	159999	0.60	34	0.7	75	32	2
			97.60	98.30	680001	0.70	31	0.2	61	35	2
			98.30	98.60	680002	0.30	18	0.5	73	16	6
		Qtz+Ca	98.60	99.00	680003	0.40	33	0.2	15	33	2
		Quartz + Carbonate	99.00	100.00	680004	1.00	33	0.4	31	36	7
		Narrow white quartz carbonate veins throughout.	100.00	100.50	680005	0.50	37	0.5	9	39	2
		88.3 to 88.7 quartz carbonate vein at 10° to cax with chalcopyrite blebs.	100.50	100.90	680006	0.40	35	0.7	15	42	5
		96.3 to 98.3 micro fractures with calcite infilling.	100.90	101.10	680007	0.20	37	1.0	19	29	2
		96.9 to 97.0 healed breccia with calcite infilling.	101.10	102.00	680008	0.90	30	0.4	36	35	2
		98.4 to 98.6 healed breccia with strong calcite veining.	102.00	102.90	680009	0.90	41	0.5	5	35	4
		127.9 to 128.5 moderate to strong quartz carbonate fracture filling and 1 cm vein at 30° to cax.	127.50	127.90	680010	0.40	293	1.0	98	31	11
		131.6 to 134.7 weakly to moderately bleached	127.90	128.50	680011	0.60	48	0.7	227	34	7
85.70	138.90	131.6 to 134.7 weakly to moderately bleached	128.50	129.00	680012	0.50	1390	3.5	186	28	19
		Wkly Frac; FT; Mud Sm	129.00	129.50	680013	0.50	749	2.7	180	27	33
		Weakly Fractured; Fault; Mud Seam									
		Competent to weakly fractured, fractures at 30, 50 and 70° to cax.									
		88.3 to 88.7 1 cm quartz vein at 10° to cax with blebs of chalcopyrite.									
		89.6 1 cm mud seam at 50° to cax.									
		96.3 to 98.3 micro fractures with calcite infilling.									
		127.6 to 127.7 wk shear at 50° to cax with weak to moderate quartz carbonate veining.									
		128.5 to 129.1 Fault at 30° to cax, gouge from 138.5 to 138.7.									
		129.1 129.8 moderately fractured.									
		138.4 1 cm mud seam at 70° to cax.									
		141.1 to 144.2 moderately fractured, strongly locally, 141.1 1cm mud seam at 50° to cax.									
		96.9 to 97.0 healed breccia with calcite infilling.									

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
85.70	138.90	98.4 to 98.6 healed breccia with strong calcite veining. 100.9 to 101.1 strongly fractured infilled with quartz carbonate. Cp Chalcopyrite Chalcopyrite along quartz carbonate vein at 88.3 to 88.7.									
138.90	150.80	GWG_silt; fg	144.80	145.10	680014	0.30	29	0.6	5	11	4
		Siltstone; fine grained	150.00	150.40	680015	0.40	28	1.2	13	17	4
		Light grey, fg massive to very weakly bedded.	150.40	150.80	680016	0.40	19	0.4	40	15	2
138.90	150.80	Blcd; Ca Bleached; Calcite Weakly bleached. Narrow white calcite veins occur to a limited extent. 144.8 to 145.1 moderate pink calcite alteration.									
138.90	150.80	FRC Fractured Weakly fractured throughout. Fractures at 60, 50 and 10° to cax. 140.9 to 144.2 moderately fractured to strongly locally.									
138.90	150.80	No Vis Sulph No Visible Sulphides No visible sulphides or cobalt mineralization.									
150.80	166.20	GWG_silt; fg; vt	150.80	151.20	680017	0.40	106	1.3	516	78	9
		Siltstone; fine grained; vari-textured	151.20	151.50	680018	0.30	624	1.0	17	16	3
		Light grey to grey, fg massive with a spotted chlorite appearance. In places the chloritic spots are stretched giving a banded appearance. Unit contains rare to occasional pebble.	151.50	151.80	680019	0.30	24	0.5	10	18	2
			151.80	152.40	680021	0.60	272	1.3	31	22	2
			152.40	153.00	680022	0.60	1030	1.3	9	15	7
150.80	166.20	Sil; Blcd; Chl	153.00	153.30	680023	0.30	35	0.9	1	20	2
		Silicification; Bleached; Chlorite	153.30	153.60	680024	0.30	60	0.9	4	19	2
		Chlorite spots occur throughout unit.	153.60	153.90	680025	0.30	1280	1.3	50	52	2
		150.8 to 157.4 moderately silicified and weak to moderate bleaching.	153.90	154.20	680026	0.30	95	1.1	5	27	5

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
150.80	166.20	FT; FRC	154.20	154.50	680027	0.30	1020	1.1	10	29	11
		Fault; Fractured	154.50	154.80	680028	0.30	70	1.0	2	20	2
		151.8 to 152.6 Fault, strongly broken core from 151.8 to 152.2.	154.80	155.10	680029	0.30	355	0.9	6	13	4
		152.2 to 152.6 Lost Core.	155.10	155.40	680030	0.30	1630	1.6	29	11	8
		Weakly fractured at 50, 30 and 70° to cax.	155.40	155.70	680031	0.30	2820	1.8	17	18	8
		Co; Cp	155.70	156.00	680032	0.30	335	1.4	6	11	2
		Cobalt Mineralization; Chalcopyrite	156.00	157.00	680033	1.00	125	0.9	13	13	2
150.80	166.20	152.8 to 152.9 2 mm cobalt vein at 30° to cax.	157.00	158.00	680034	1.00	171	1.1	17	16	5
		153.6 2 mm quartz carbonate veins with chalcopyrite blebs.	158.00	159.00	680035	1.00	53	1.2	4	21	2
		155.5 1 to 2mm cobalt vein at 20° to cax.	159.00	160.00	680036	1.00	19	1.1	192	20	2
			160.00	161.00	680037	1.00	23	1.3	344	20	6
			161.00	162.00	680038	1.00	27	1.1	11	21	2
			162.00	163.00	680039	1.00	18	1.0	3	21	3
			163.00	164.00	680041	1.00	12	1.1	1	23	2
			164.00	165.00	680042	1.00	8	1.4	1	28	4
			165.00	165.60	680043	0.60	15	1.1	1	25	2
			165.60	166.20	680044	0.60	18	1.2	2	21	2
166.20	185.10	GWG_cgl; fg Conglomerate; fine grained Light grey to grey, fg with quartzitic and granitic pebbles and cobbles ranging in size from 3 mm to 24 cm. Displays bedding locally.	176.70	177.00	680045	0.30	68	14.6	530	46	721
166.20	185.10	Sil Silicification Weak to moderate silicification. 176.8 4 mm quartz carbonate vein at 50° to cax									
166.20	185.10	FRC Fractured Weakly fractured, locally strongly Fractures at 70, 50 and 20° to cax.									
166.20	179.30	Py									

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
185.10	200.00	Pyrite Quartz carbonate vein with pyrite at 50° to cax.	185.10	185.40	680046	0.30	61	1.5	68	107	51
		MV; vt	185.40	186.00	680047	0.60	58	0.6	97	115	36
185.10	200.00	Mafic Volcanic; vari-textured Light grey to grey mottled, fg massive tpo weakly banded. Unit contains short sections of argillic interflow sediments.	186.00	187.00	680048	1.00	58	0.9	89	140	38
		Qtz+Ca	187.00	188.00	680049	1.00	62	1.1	115	150	37
		Quartz + Carbonate Occasional white quartz carbonate within unit. Pink quartz carbonate veins at 185.2 to 185.3 5mm at 20° to cax.	188.00	189.00	680050	1.00	46	1.1	143	152	27
185.10	200.00	FRC Fractured Weakly fractured throughout, fractures at 50, 30 and 70° to cax. 195.2 to 198.2 Moderately fractured.									
185.10	200.00	Py Pyrite 185.3 to 190.2 pyrite blebs and veins 1%.									

LiCo Energy Metals Inc.

...					
Sample number	Type	Reference	Co (ppm)	Ag (ppm)	
160000	(Std)	Oreas 166	2030	9.9	
680020	(Std)	Oreas 75b	765	1.1	
680040	(Bln)	Coarse Silica	1	0.2	

LiCo Energy Metals Inc.

...					
Type	Depth	Azimuth	Dip	Invalid a...	
Reflex	6.00	90.70°	-44.50°	No	
Reflex	30.00	92.90°	-44.50°	No	
Reflex	54.00	93.30°	-44.50°	No	
Reflex	81.00	92.90°	-44.30°	No	
Reflex	108.00	92.90°	-44.30°	No	
Reflex	135.00	93.90°	-44.00°	No	
Reflex	162.00	95.70°	-43.90°	No	
Reflex	189.00	96.60°	-44.00°	No	
Reflex	201.00	96.70°	-44.00°	No	

LiCo Energy Metals Inc.

Survey:	TE17-02	Claims title:	372	Section:	Section 5252155N
		Township:	Bucke	Level:	Surface
		Range:		Work place:	134 Imperial Rd. North Bay, ON.
Contractor:	Chenier Drilling Services	Lot:			
Author:	J. Kleinboeck / K. Hannila	Start date:	10/25/2017	Description date:	10/29/2017
		End date:	10/28/2017		
Collar					
				System 1	
Azimuth:	90.00°			East	604975
Dip:	-45.00°			North	5252156
Length:	198.00			Elevation	225
Number of samples:	86				
Number of QAQC samples:	4				
Total sampled length:	36.85				
Description:					
Core size: NQ		Cemented: No		Stored: Yes	

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
0.00	10.40	OB Overburden Casing driven to 10.4m, left in hole.									
10.40	70.24	NDIA Nipissing Diabase grey medium grained massive gabbro (nipissing diabase). locally weakly magnetic. lower contact chilled over 0.25cm, @ 40 deg TCA.									
15.57	15.59	Qtz+Ca Quartz + Carbonate 2cm quartz+carbonate vein @ 60 deg TCA, contains 3% diss cp.	18.47	18.67	159935	0.20	64	0.2	1580	53	2
30.88	30.89	Qtz+Ca Quartz + Carbonate 1cm quartz+carbonate vein @ 55 deg TCA, contains 15% disseminated cp.	33.75	34.00	159936	0.25	44	0.2	1660	68	2
52.20	54.30	BC Broken Core heavily fractured									
70.24	87.50	GWG_silt; GWG_qtz Siltstone; Quartzite Alternating beds of dark grey very fine grained siltstone and grey fine grained quartzite. bedding when present is typically between 35 to 40 deg TCA. lower contact gradational into a matrix supported conglomerate.									
76.50	78.20	BC Broken Core heavily fractured									
87.50	144.60	GWG_cgl; fg; Cmnt; Hetro; Pebs; Cobs Conglomerate; fine grained; Cement; Hetrogenous; Pebbles; Cobbles Light grey to grey, fine grained cement with pebbles and	92.70	93.00	159937	0.30	37	0.2	197	27	2
			94.00	94.30	159938	0.30	20	0.2	15	24	2

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
87.50	144.60	cobbles from 0.5 cm to 7 cm. Clasts are heterogenous granitic and quartzitic. Ca; Qtz+Ca Calcite; Quartz + Carbonate Narrow white calcite veining throughout. 95.7 to 96.0 white calcite veining cementing fragments. 97.0 to 97.3 strong pink quartz carbonate veining.									
87.50	144.60	Cp; Co Chalcopyrite; Cobalt Mineralization Scattered chalcopyrite veins and blebs throughout. 137 to 137.6 1 to 2% chalcopyrite along a subvertical fracture.									
105.30	105.65	BC Broken Core heavily fractured									
106.15	106.20	BC Broken Core heavily fractured									
112.30	113.30	BC Broken Core heavily fractured									
117.10	117.20	FT; Mud Sm Fault; Mud Seam Driller reported a fault. Possibly a fault or mud seam at 50° to cax.? Upper contact is 2 -3 mm quartz crystals and lower contact has been ground.	118.10	118.50	159939	0.40	32	0.2	1530	37	2
118.20	118.30	FT Fault Fault gouge at 40° to cax. Gouge is weakly chloritic.									
121.80	122.00	BRE Breccia Healed breccia, crushed and angular fragments in a silica	121.80	122.10	159941	0.30	47	0.8	33	43	7
			130.00	130.50	159942	0.50	41	0.2	1660	45	2
			134.00	134.60	159943	0.60	26	0.8	7570	35	10

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
matrix. Upper contact at 50° to cax.			139.50	140.00	680701	0.50	38	0.5	232	19	5
			140.00	140.50	680702	0.50	62	0.7	69	22	6
			140.50	141.00	680703	0.50	104	1.0	255	24	4
			141.00	141.50	680704	0.50	47	1.6	557	56	7
			141.50	142.00	680705	0.50	52	0.4	71	25	8
			142.00	142.50	680706	0.50	67	0.6	81	27	8
			142.50	143.00	680707	0.50	503	0.9	81	32	11
			143.00	143.50	680708	0.50	3240	3.1	297	42	18
			143.50	144.00	680709	0.50	1100	1.1	286	28	5
			144.00	144.30	680710	0.30	1160	1.1	233	32	3
			144.30	144.60	159944	0.30	3650	0.9	212	36	2
144.40	144.60	BRE Breccia Brecciated lowercontact.									
144.60	156.60	GWG_silt; fg; mass	144.60	144.90	159945	0.30	48000	2.1	68	42	22
Siltstone; fine grained; massive			144.90	145.40	159946	0.50	96	0.8	11	34	2
Grey to dark grey, fg massive. Moderate to strong silicification.			145.40	145.90	159947	0.50	201	0.7	759	33	2
Unit previously identified as greywacke.			145.90	146.50	159948	0.60	130	0.5	91	23	2
144.60	156.60	Sil; Qtz+Ca; Chl	146.50	147.00	159949	0.50	98	0.4	18	29	2
Silicification; Quartz + Carbonate; Chlorite			147.00	148.00	159950	1.00	59	0.4	16	20	2
Moderately to strongly silicified. Narrow quartz carbonate coatings along fractures.			148.00	148.40	159951	0.40	22	0.2	9	22	2
151.2 to 159.6 chlortie spots 3 to 5 mm in size and are rounded to subrounded.			148.40	148.70	159952	0.30	21	0.4	100	21	2
			148.70	149.00	159953	0.30	106	0.8	42	23	9
144.60	156.60	FRC; FT; BRE	149.00	149.30	159954	0.30	533	0.8	163	49	6
Fractured; Fault; Breccia			149.30	149.60	159955	0.30	1250	3.0	2250	443	58
Moderately fractured, stongly locally. Fractures at 40 and 60° to cax.			149.60	150.00	159956	0.40	92	0.5	289	26	14
154.4 to 154.5 0.5 cm Fault gouge at 30° to cax.			150.00	151.00	159957	1.00	146	0.4	19	27	5
154.6 to 154.7 healed breccia with quartz carbonate infilling.			151.00	151.40	159958	0.40	235	0.8	2150	36	39
			151.40	151.70	159959	0.30	711	1.0	141	23	9
			151.70	152.00	159961	0.30	305	0.5	65	26	2

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
144.60	156.60	15.5 to 155.6 5 cm Fault gouge at 70° to cax with quartz carbonate veining on either side.	152.00	152.40	159962	0.40	1870	0.7	14	25	10
		157.1 narrow fault gouge at 50° to cax.	152.40	152.70	159963	0.30	835	1.2	510	29	5
		Co; Cp; Sp	152.70	153.00	159964	0.30	5030	1.4	32	551	31
		Cobalt Mineralization; Chalcopyrite; Sphalerite	153.00	153.30	159965	0.30	943	0.7	9	24	2
		147.6 6 cm cobalt vein at 40° to cax. Upper contact has been ground adjacent to breccia.	153.30	153.60	159966	0.30	3320	0.9	39	24	18
		151.7 to 159.6 numerous cobalt stringers typically crosscutting the unit at 40 to 50° to cax as well as irregular fractue filling.	153.60	153.90	159967	0.30	3090	1.6	30	1050	177
		Scattered chalcopyrite occur as fracture filling and blebs with lesser sphalerite.	153.90	154.20	159968	0.30	3080	0.9	99	43	30
			154.20	154.60	159969	0.40	376	0.5	6	29	2
			154.60	154.90	159970	0.30	699	1.0	52	69	24
			154.90	155.50	159971	0.60	774	0.6	21	36	5
			155.50	156.00	159972	0.50	487	0.6	52	31	2
			156.00	156.30	159973	0.30	2260	0.6	11	37	2
			156.30	156.60	159974	0.30	4340	1.1	29	27	5
		156.60	183.40	GWG_cgl; fg; Cmnt; Hetro; Pebs; Cobs	156.60	156.90	159975	0.30	27900	6.4	682
Conglomerate; fine grained; Cement; Hetrogenous; Pebbles; Cobbles	156.90			157.20	159976	0.30	16500	4.4	497	2410	191
Light grey to grey, fg cement with quartzitic and granitic pebbles and cobbles. Unit contains intercalations of siltstone.	157.20			157.50	159977	0.30	543	0.5	23	37	2
	157.50			157.80	159978	0.30	2540	0.7	124	32	16
	157.80			158.10	159979	0.30	478	0.6	437	31	2
156.60	183.40	Ca	158.10	158.40	159981	0.30	238	0.4	11	32	2
		Calcite	158.40	158.70	159982	0.30	304	0.5	18	39	2
		Narrow calcite as coatings on fractures.	158.70	159.00	159983	0.30	1260	0.7	88	28	2
156.60	183.40	FRC	159.00	159.30	159984	0.30	4420	1.2	159	30	11
		Fractured	159.30	159.60	159985	0.30	480	0.8	7	38	2
		Unit is weakly fractured throughout with moderate fracturing locally.	159.60	159.90	159986	0.30	15700	2.6	2810	42	36
			159.90	160.20	159987	0.30	536	0.6	39	30	2
156.60	183.40	Cp	160.20	160.50	159988	0.30	486	0.5	23	28	4
		Chalcopyrite	160.50	161.00	159989	0.50	1340	0.6	120	28	4
		Rare chalcopyrite blebs occur in unit.	161.00	162.00	159990	1.00	253	0.8	14	28	2
			162.00	162.50	680711	0.50	321	1.6	9	26	4
			162.50	163.00	680712	0.50	89	1.2	5	24	2

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
			163.00	163.50	680713	0.50	33	1.3	6	21	4
			163.50	164.00	680714	0.50	17	1.3	6	34	6
			164.00	164.50	680715	0.50	20	1.0	14	22	5
			164.50	165.00	680716	0.50	15	0.8	30	23	2
			165.00	165.50	680717	0.50	13	0.9	849	30	4
			165.50	166.00	680718	0.50	13	1.0	7	22	2
			166.00	166.50	680719	0.50	13	1.1	18	23	2
			166.50	167.00	680721	0.50	17	1.4	155	25	2
			167.00	167.50	680722	0.50	15	1.1	212	42	6
			167.50	168.00	680723	0.50	21	4.2	3180	314	14
			168.00	168.50	680724	0.50	25	3.4	1840	485	113
			168.50	169.00	680725	0.50	29	2.1	1330	151	10
			169.00	169.50	680726	0.50	21	1.4	418	26	2
			169.50	170.00	680727	0.50	31	1.2	520	31	2
			170.00	170.50	680728	0.50	44	0.9	112	23	6
			170.50	171.00	680729	0.50	28	1.1	9	30	7
183.40	198.00	MV; fg; mass Mafic Volcanic; fine grained; massive Greenish grey to dark greenish grey, fg massive with scattered narrow white calcite veins.	185.60	186.00	159991	0.40	77	1.0	291	153	53
			188.20	188.50	159992	0.30	91	1.0	245	201	62
			189.60	189.90	159993	0.30	57	1.1	241	119	54
			191.00	192.00	159994	1.00	76	0.9	190	128	36
183.40	198.00	Ca Calcite Scattered narrow white calcite veins at 20 and 40° to cax.	195.50	196.00	159995	0.50	71	0.9	138	115	20
183.40	198.00	Cmptnt Competent Unit is competent.									
183.40	198.00	py+cp pyrite + chalcopryrite Occasional pyrite and chalcopryrite blebs and veins occur throughout.									

LiCo Energy Metals Inc.

...					
Sample number	Type	Reference	Co (ppm)	Ag (ppm)	
159940	(Bln)	Coarse Silica	1	0.2	
159960	(Std)	Oreas 76b	1010	0.8	
159980	(Bln)	Coarse Silica	28	0.2	
680720	(Std)	Oreas 76b	1070	1.3	

LiCo Energy Metals Inc.

...					
Type	Depth	Azimuth	Dip	Invalid a...	
Reflex	12.00	89.50°	-45.30°	No	
Reflex	18.00	88.40°	-45.10°	No	
Reflex	27.00	88.50°	-45.10°	No	
Reflex	36.00	88.30°	-45.10°	No	
Reflex	45.00	88.90°	-45.10°	No	
Reflex	54.00	89.10°	-45.20°	No	
Reflex	66.00	90.90°	-45.10°	No	
Reflex	75.00	91.20°	-45.10°	No	
Reflex	84.00	89.80°	-45.30°	No	
Reflex	96.00	90.60°	-45.20°	No	
Reflex	105.00	90.60°	-45.10°	No	
Reflex	114.00	90.30°	-45.00°	No	
Reflex	123.00	91.00°	-44.90°	No	
Reflex	135.00	91.30°	-44.70°	No	
Reflex	144.00	90.10°	-44.50°	No	
Reflex	153.00	92.00°	-44.70°	No	
Reflex	168.00	92.20°	-44.50°	No	
Reflex	174.00	92.40°	-44.40°	No	
Reflex	189.00	92.90°	-44.40°	No	
Reflex	192.00	92.70°	-44.30°	No	
Reflex	195.00	93.10°	-44.30°	No	
Reflex	198.00	93.00°	-44.30°	No	

LiCo Energy Metals Inc.

Survey:	TE17-01	Claims title:	372	Section:	Section 5252110N
		Township:	Bucke	Level:	Surface
		Range:		Work place:	134 Imperial Rd, North Bay, ON.
Contractor:	Chenier Drilling Services	Lot:			
Author:	Kalevi Hannila	Start date:	10/23/2017	Description date:	11/2/2017
		End date:	10/25/2017		
Collar					
				System 1	
Azimuth:	90.00°			East	605000
Dip:	-49.00°			North	5252110
Length:	201.00			Elevation	228
Number of samples:	33				
Number of QAQC samples:	1				
Total sampled length:	15.35				
Description:					
Core size: NQ		Cemented: No		Stored: Yes	

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
0.00	6.35	OB Overburden Casing driven to 6.35m, left in hole.									
6.35	72.00	NDIA; mg; mass Nipissing Diabase; medium grained; massive dark grey medium grained massive gabbro. locally weakly magnetic. generally unmineralized, trace disseminated or fracture controlled pyrite. lower contact broken.	7.00	7.25	159901	0.25	48	0.2	158	35	8
6.35	72.00	Ca; Chl Calcite; Chlorite occasional calcite and chlorite veinlets/fracture fills throughout. 7.03-7.04m - 1cm thick calcite vein orientated 35-40 deg TCA, trace diss Co? 7.14-7.15m - 1cm thick calcite vein orientated 35-40 deg TCA. 30.49-30.50m - 1.5cm calcite vein orientated @ 50 deg TCA. Strong pervasive chlorite alteration adjacent to vein margins. 43.28-43.29m - 1cm white to grey carbonate vein @ 50 deg TCA. 59.20-59.21m - pink calcite vein with 2% diss chalcopyrite, orientated @ 35 deg TCA.									
6.35	72.00	FRC Fractured joints 3-5 per metre @ 15, 35, and 55 deg TCA. 36.00-42.00m - heavily fractured, RQD=20% 51.00-51.50m - broken core. 53.90-54.00m - broken core. 55.38-55.50m - broken core									

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
72.00	81.55	GWG_silt; vfg Siltstone; very fine grained dark grey very fine grained to fine grained bedded pebble-bearing siltstone. bedding generally @ 40 deg TCA. pebbles predominantly comprised of subrounded to rounded quartz, <1cm in diameter. lower contact sharp/wavy.									
81.55	127.30	GWG_cgl Conglomerate clast to locally matrix supported conglomerate. clasts consist of angular to rounded granite, metavolcanics, and metasediments ranging in size from <1cm to >30cm. lower contact gradational over 10cm.									
81.55	127.30	Ca Calcite local calcite veining throughout. 87.03-87.04m - 1cm quartz-calcite vein @ 50 deg TCA. 104.01-104.02m - narrow calcite vein with minor erythrite and annabergite @ 70 deg TCA. 106.20-106.40m - strong irregular calcite veining. 113.42-113.44m - 1-2cm rehealed calcite vein @ 40 deg TCA.									
81.55	127.30	Py01 Pyrite 1% up to 1% finely disseminated pyrite throughout.									
90.42	90.60	FT Fault 40° rehealed fault zone with gouge	103.90	104.15	159902	0.25	44	0.2	600	41	2
			106.20	106.45	159903	0.25	35	0.2	124	38	2
127.30	134.29	GWG_qtz; fg-mg; mass Quartzite; fine to medium grained; massive grey fine to medium grained massive to pebble-bearing									

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
127.30	140.25	Py00.25 quartzite. pebbles comprised of granite, metavolcanics, and metasediments. lower contact sharp @ 40 deg TCA. Pyrite 0.25% trace disseminated and fracture controlled py throughout.									
127.82	127.96	FT Fault heavily fractured and ground core									
134.29	135.30	GWG_silt Siltstone dark grey very fine grained siltstone. bedding well developed at 15-30 deg TCA.	134.40	134.78	159904	0.38	21	0.3	16	28	2
134.78	134.96	Hem Hematite strong pervasive hematite about 1-3mm calcite veinlets orientated at various angles TCA.	134.78	135.05	159905	0.27	82	0.3	19	24	2
			135.05	135.32	159906	0.27	37	0.2	28	17	2
135.30	135.70	FZ Fault Zone ground core with strong chloritic gouge.	135.32	135.75	159907	0.43	45	0.6	46	29	3
135.70	137.50	GWG_qtz Quartzite as from 127.30-134.29m.	135.75	136.00	159908	0.25	104	0.5	105	38	2
			136.00	136.50	159909	0.50	890	0.9	35	73	5
135.70	136.50	BC Broken Core heavily fractured.	136.50	137.00	159910	0.50	2300	0.9	6	47	2
			137.00	137.50	159911	0.50	591	0.2	2	22	2
137.20	137.50	BC Broken Core heavily fractured.									
137.50	150.70	GWG_silt; vfg Siltstone; very fine grained grey to dark grey bedded siltstone with lesser amounts of	137.50	138.00	159912	0.50	42	0.2	3	24	2
			138.00	138.50	159913	0.50	130	0.2	6	26	2
			138.50	139.00	159914	0.50	56	0.2	3	26	2

LiCo Energy Metals Inc.

Description			Assay - Sample								
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
137.50	150.70	intercalated grey fine grained quartzite. Chl Chlorite strong pervasive spotted chlorite alteration.	139.00	139.75	159915	0.75	447	0.6	7	34	2
137.50	138.70	BC Broken Core heavily fractured.									
139.60	140.20	BC Broken Core heavily fractured.	139.75	140.25	159916	0.50	5890	1.2	57	36	7
140.25	141.00	Co15 Cobalt Mineralization 15% mm to 1cm wide discordant cobalt veins orientated 35-40 deg.	140.25	141.00	159917	0.75	39200	2.4	216	39	13
141.00	157.50	py+cp00.25 pyrite + chalcopyrite 0.25% trace disseminated and fracture controlled pyrite and disseminated chalcopyrite throughout.	141.00	141.50	159918	0.50	563	2.0	24	46	4
			141.50	142.00	159919	0.50	4150	1.1	139	40	4
			142.00	142.50	159921	0.50	114	0.5	210	40	3
			142.50	143.00	159922	0.50	102	0.3	401	35	2
			143.00	143.50	159923	0.50	31	0.2	70	32	2
			143.50	144.00	159924	0.50	48	0.2	284	33	2
			144.00	144.50	159925	0.50	170	0.2	15	30	2
			144.50	145.00	159926	0.50	27	0.2	9	29	2
			145.00	145.50	159927	0.50	33	0.3	20	32	2
			145.50	146.00	159928	0.50	52	0.2	41	27	2
			146.00	146.50	159929	0.50	28	0.2	25	27	2
			146.50	147.00	159930	0.50	25	0.3	52	28	2
			147.00	147.50	159931	0.50	19	0.5	26	28	2
			147.50	148.00	159932	0.50	35	0.4	178	30	4
			148.00	148.50	159933	0.50	21	0.4	531	30	2
			148.50	149.00	159934	0.50	23	1.0	852	34	2
150.70	157.50	GWG_qtz									

LiCo Energy Metals Inc.

Description			Assay - Sample							
			From	To	Sample number	Length	Co (ppm)	Ag (ppm)	Cu (ppm)	Zn (ppm)
152.72	152.80	<p>Quartzite as from 127.30-134.29m with lesser amounts of intercalated conglomerate beds <10-20cm in thickness. lower contact sharp @ 30-35 deg TCA.</p> <p>BC Broken Core heavily fractured.</p>								
157.50	201.00	<p>MV; fg-mg Mafic Volcanic; fine to medium grained dark green fine to medium grained mafic volcanics, locally brecciated. non-magnetic.</p>								
157.50	201.00	<p>Qtz+Ca Quartz + Carbonate numerous quartz+calcite veinlets throughout, typically orientated at 25 to 40 deg TCA.</p>								
157.50	190.00	<p>py+cp00.25; Gn00.1 pyrite + chalcopryrite 0.25%; Galena 0.1% trace disseminated pyrite and chalcopryrite within matrix and quartz+calcite veins. local trace fine disseminations of remobilized galena within quartz+calcite veins.</p>								
190.00	201.00	<p>py+po03 pyrite+pyrrhotite 3% >3% disseminated, wispy, and fracture controlled pyrite+pyrrhotite.</p>								

LiCo Energy Metals Inc.

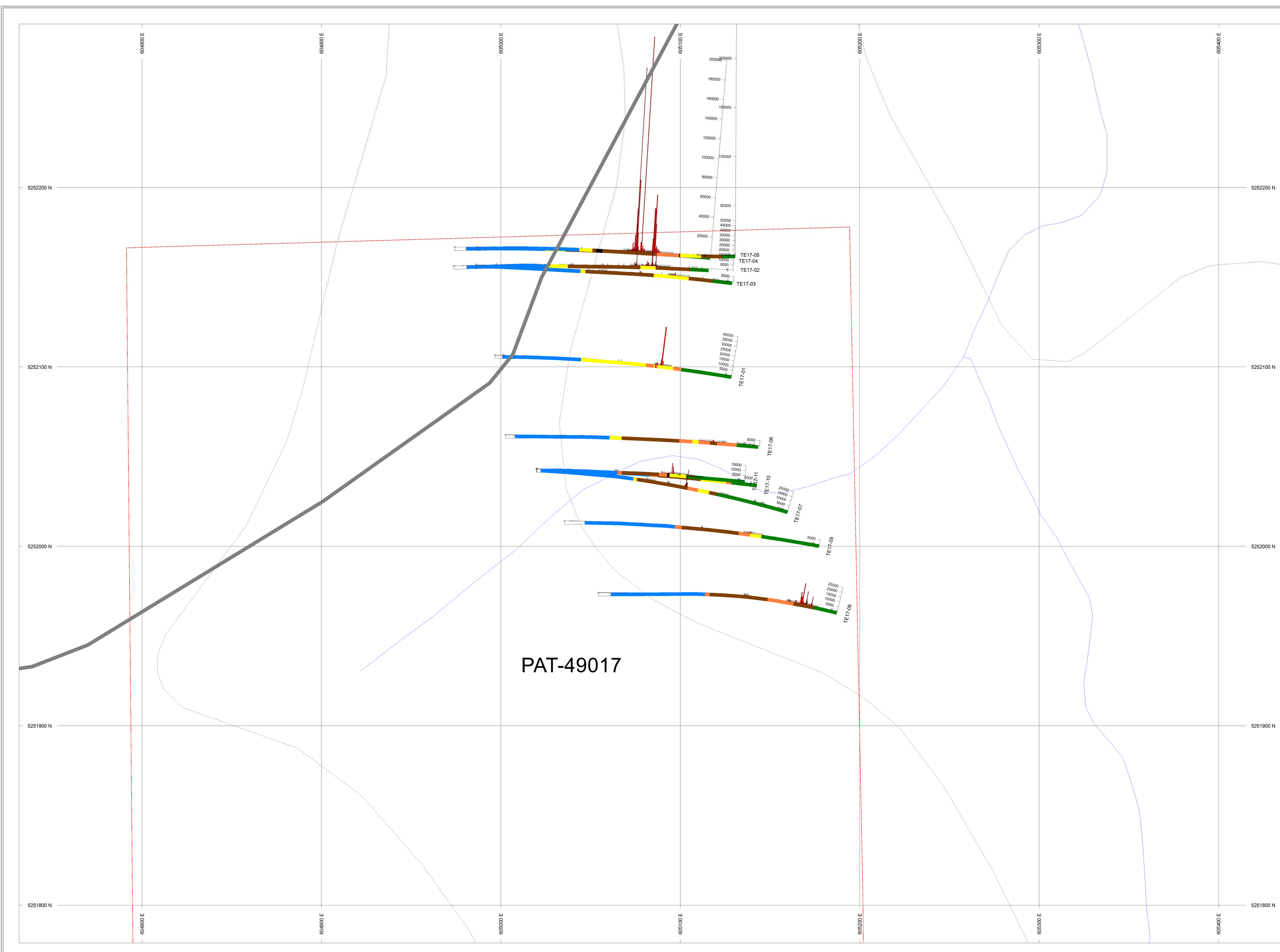
...					
Sample number	Type	Reference	Co (ppm)	Ag (ppm)	
159920	(Bln)	Coarse Silica	57	0.2	

LiCo Energy Metals Inc.

...					
Type	Depth	Azimuth	Dip	Invalid a...	
Reflex	12.00	90.50°	-48.00°	No	
Reflex	36.00	92.00°	-48.10°	No	
Reflex	60.00	93.00°	-48.40°	No	
Reflex	84.00	97.10°	-48.80°	No	
Reflex	108.00	94.90°	-48.90°	No	
Reflex	132.00	96.30°	-48.90°	No	
Reflex	156.00	90.50°	-46.60°	No	
Reflex	180.00	98.70°	-49.30°	No	
Reflex	201.00	99.40°	-49.20°	No	

Appendix III

Cross Sections and Plan Map

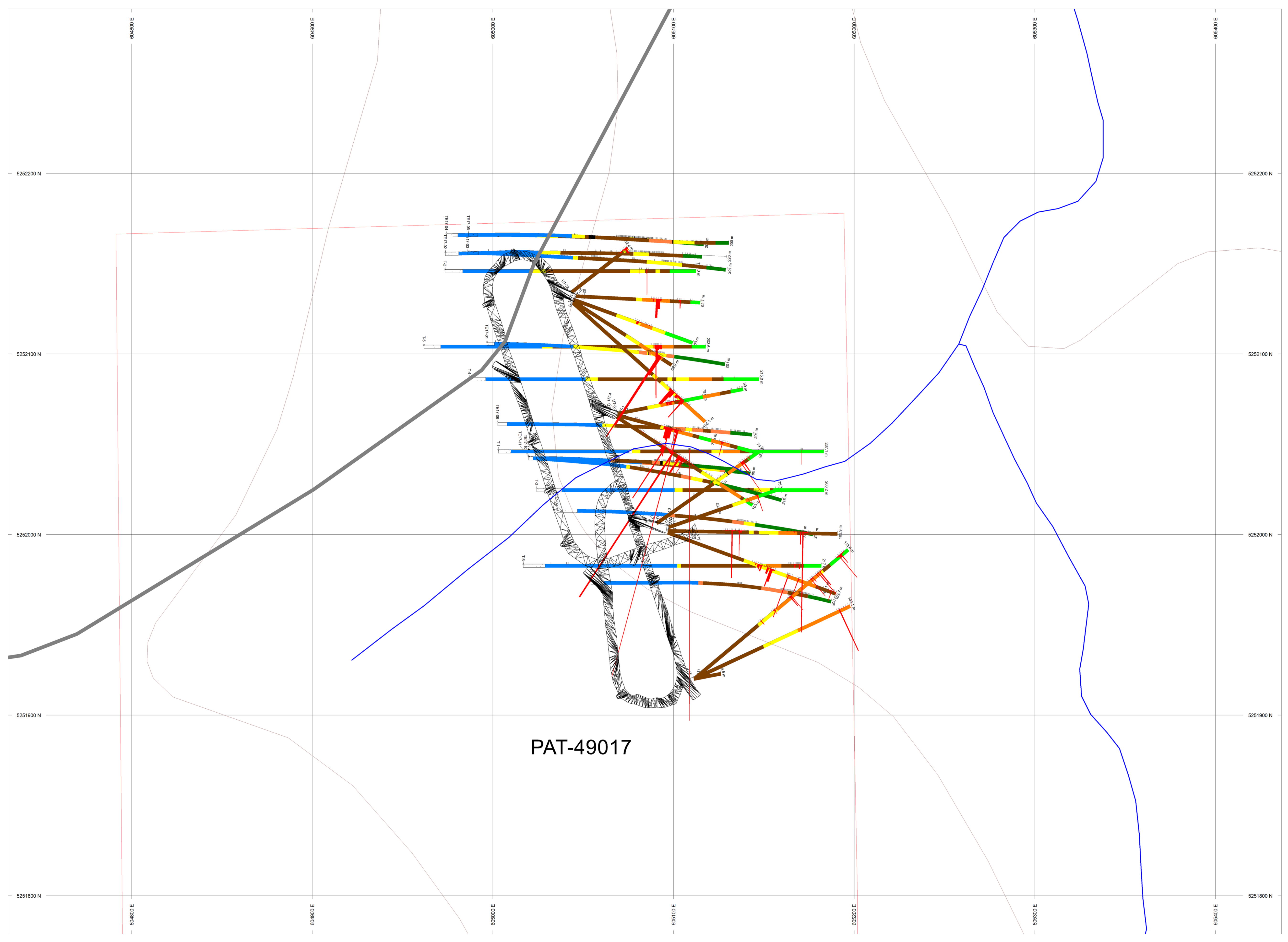


BAR GRAPHS	L/R	COL	
co_ppm	R		

ROCK CODES	PAT	LABEL	DESCRIPTION
libro	NDA		Nipissing Database
	FZ		Fault Zone
	GWG_Cgl		Gowganda Fm. - Conglomerate
	MV		Malic Volcanic
	OB		Overburden
	GWG_qtz		Gowganda Fm. - Quartzite
	GWG_silt		Gowganda Fm. - Siltstone

PLAN SPECS:
 REF. PT. E. N 605100 m 5252000 m
 EXTENTS 705 m 512.3 m

SCALE 1 : 1000
 (m)
 -10 0 10 20 30 40
 NAD83 / UTM zone 17N

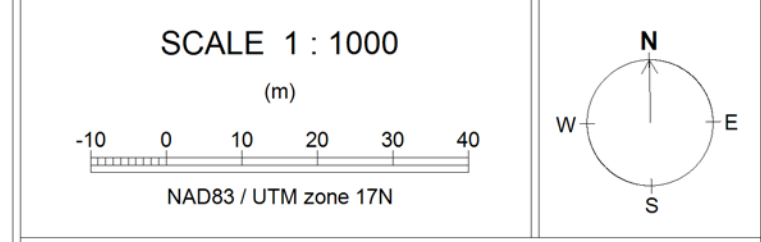


PAT-49017

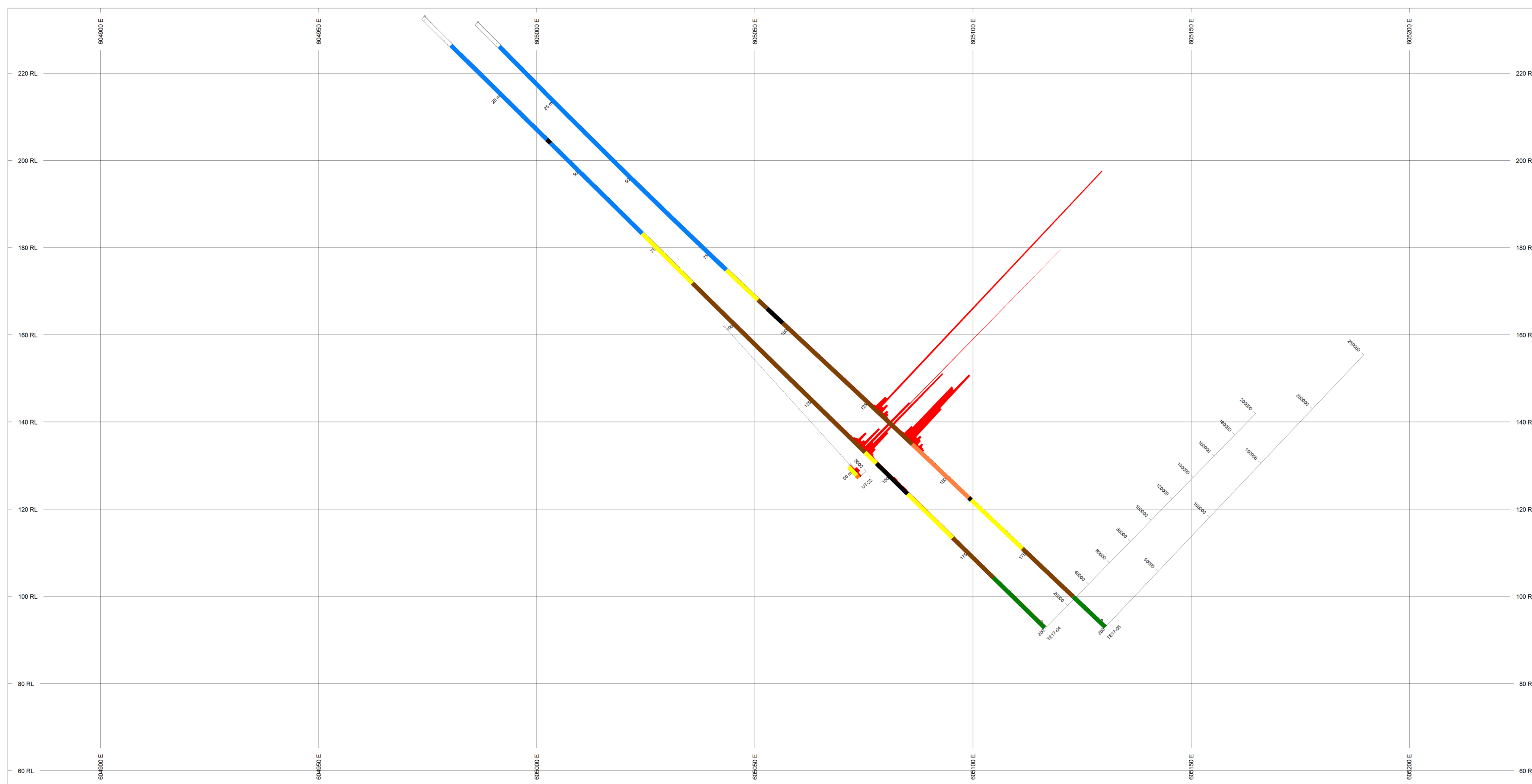
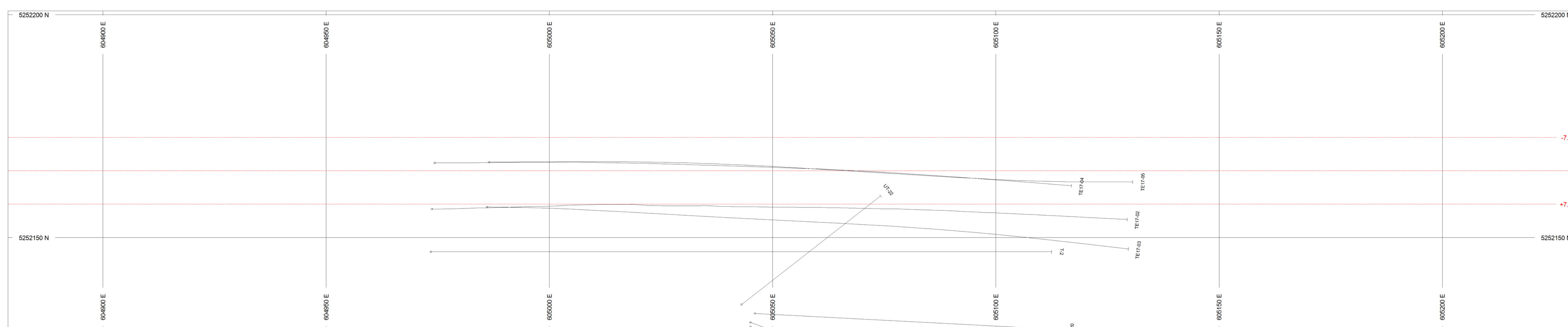
PROFILES	LR	COL	
co_per	L	█	

ROCK CODES	PAT	LABEL	DESCRIPTION
litho	CAS	█	Casing
	CO_CCL	█	Huronian - Conglomerates
	CO_QTZT	█	Huronian - Quartzite
	IV_AND	█	Andesite
	NDBA	█	Nipissing Diabase
	FZ	█	Fault Zone
	GWG_Cgl	█	Gowganda Fm. - Conglomerate
	MV	█	Mafic Volcanic
	OB	█	Overburden
	CO_GWK	█	Huronian - Greywacke
	CO_SLT	█	Huronian - Siltstone
	CTZ	█	Contact Zone
	GWG_qtz	█	Gowganda Fm. - Quartzite
	GWG_slt	█	Gowganda Fm. - Siltstone

PLAN SPECS:
 REF. PT. E, N 605100 m 5252000 m
 EXTENTS 705 m 512.3 m



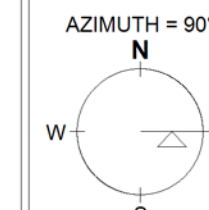
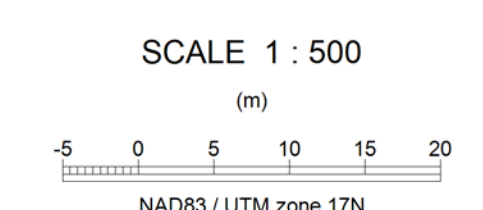
LiCo Energy Metals Inc.
 Teleydyne Property
 Bucke & Lorrain Townships
 Phase 1 DDH Plan Map



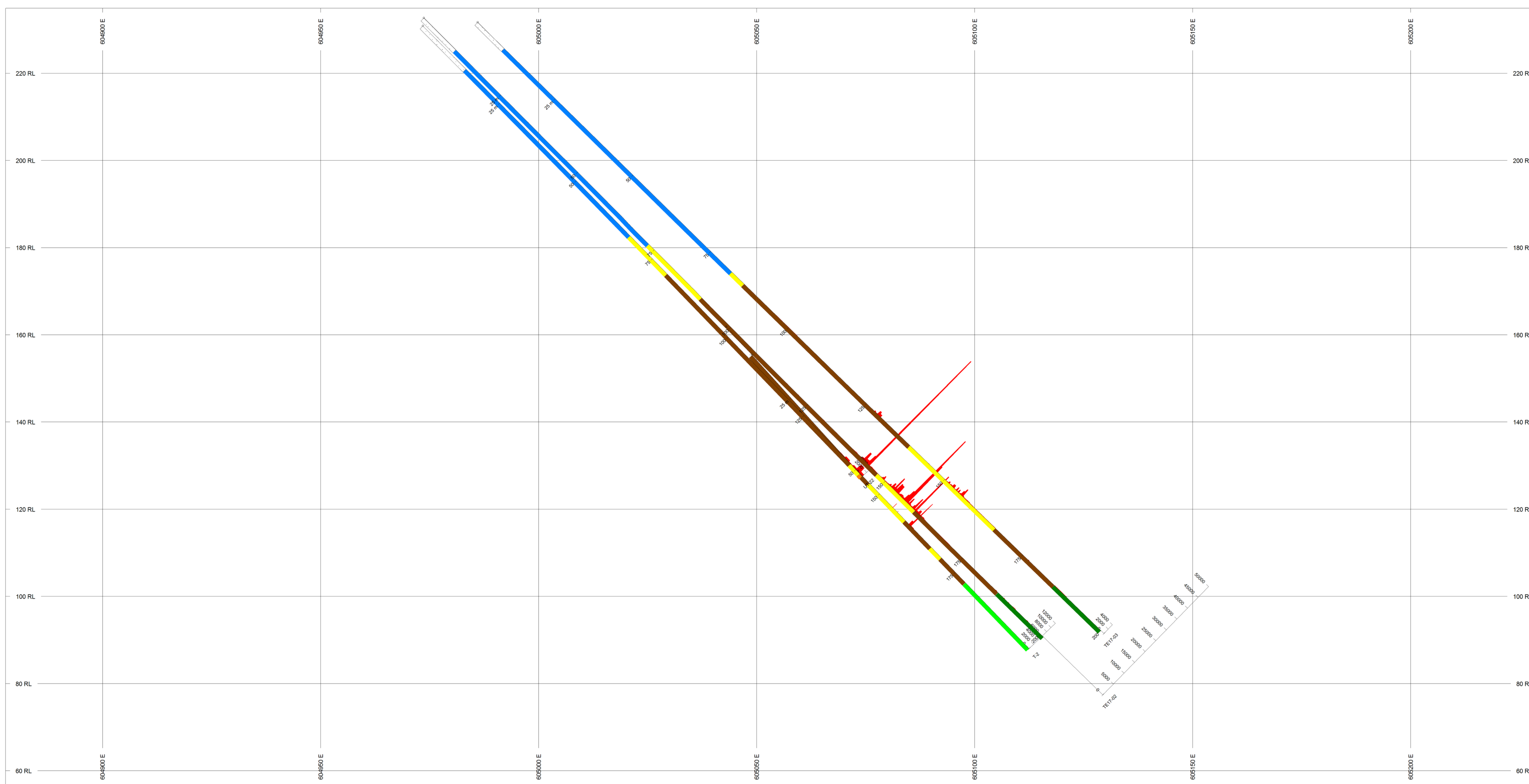
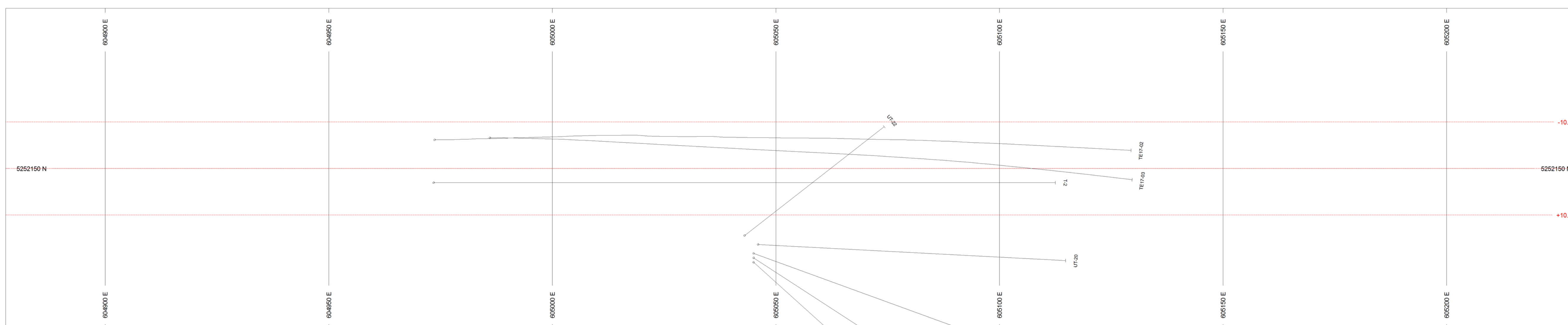
PROFILES	LR	COL
co_ppm	R	Red

ROCK CODES	PAT	LABEL	DESCRIPTION
ltho	Brown	CO_CGL	Huronian - Conglomerates
	Yellow	CO_QTZT	Huronian - Quartzite
	Blue	NDIA	Nipissing Diabase
	Black	FZ	Fault Zone
	Green	GOWG_Cgl	Gowganda Fm. - Conglomerate
	Light Green	MY	Mafic Volcanic
	Orange	OB	Overburden
	Dark Green	CO_SLT	Huronian - Silstone
	Light Yellow	GOWG_QZ	Gowganda Fm. - Quartzite
	Yellow	GOWG_Slt	Gowganda Fm. - Siltstone

SECTION SPECS:
 REF. PT. E. N 600055 m 5252165 m
 EXTENTS 352.5 m 179.4 m
 SECTION TOP, BOT 234.9 m 55.55 m
 TOLERANCE +/- 7.5 m



LiCo Energy Metals Inc.
 Teledyne Property
 Section 5252165N



PROFILES

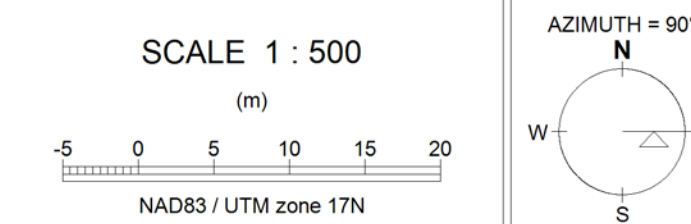
LR	COL
R	

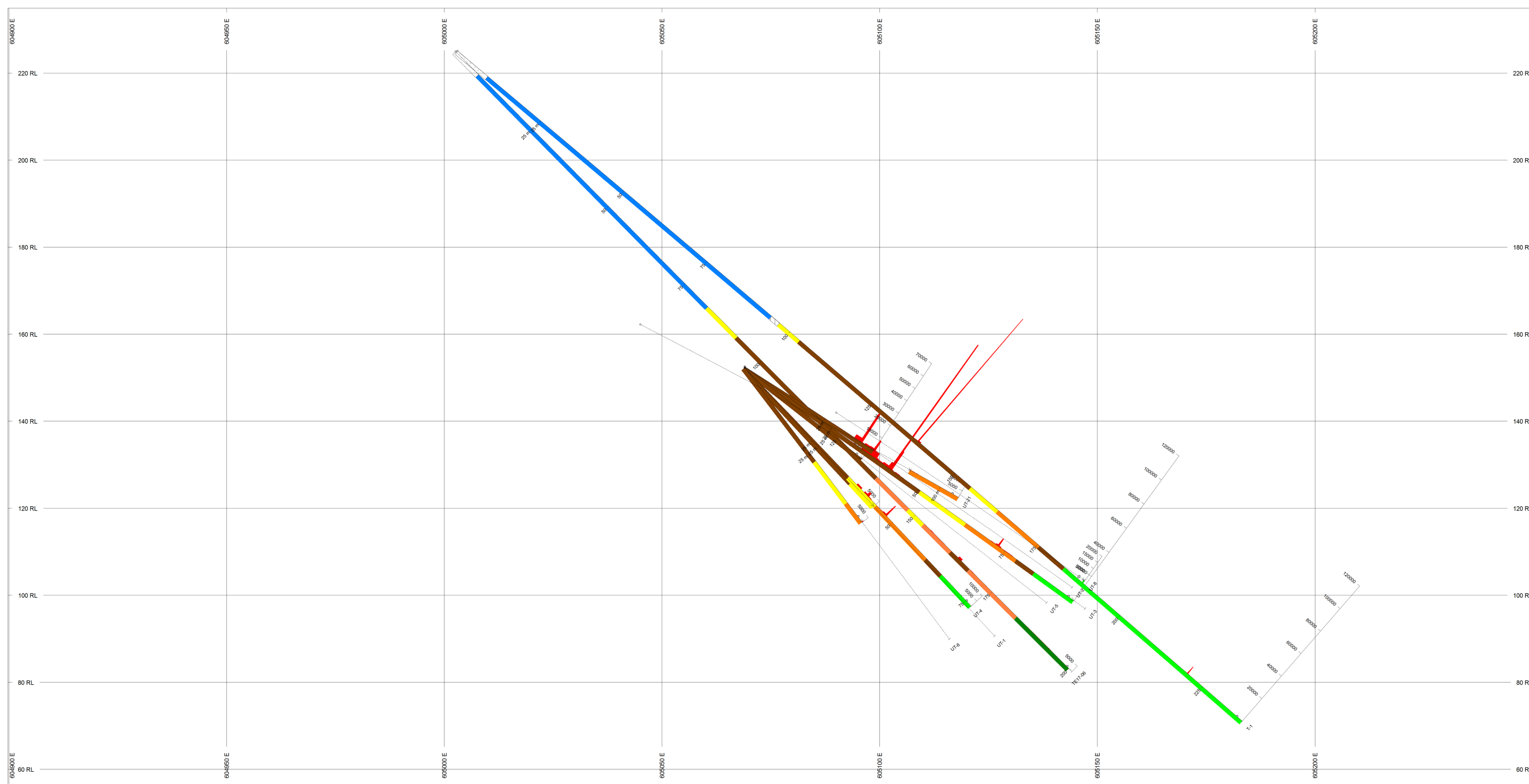
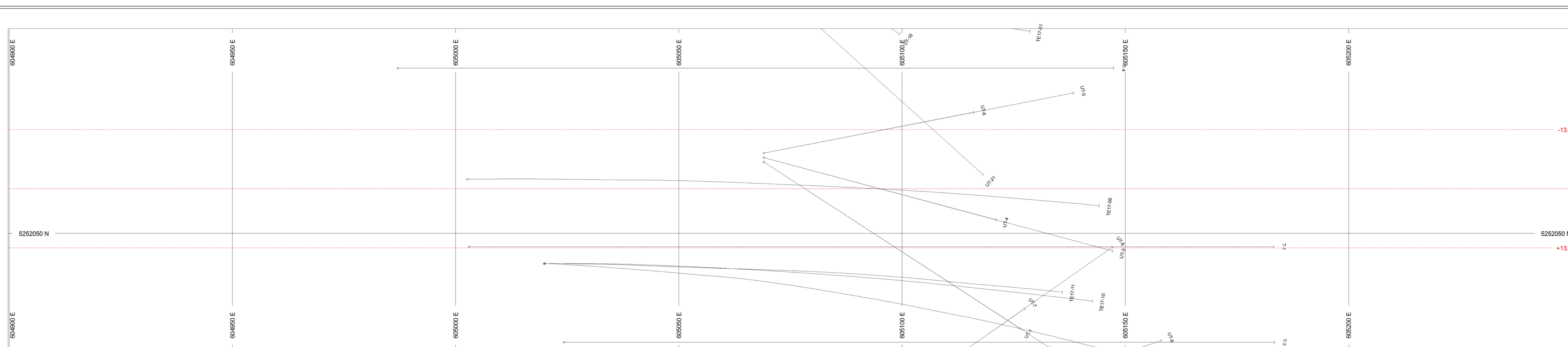
ROCK CODES

PAT	LABEL	DESCRIPTION
Brown	CO_CGL	Huronian - Conglomerates
Light Green	CO_QTZT	Huronian - Quartzite
Blue	W_AND	Andesite
Dark Blue	NDIA	Nipissing Diabase
Dark Green	GWW_Cgl	Gowganda Fm. - Conglomerate
Light Green	MV	Mafic Volcanic
White	OB	Overburden
Dark Green	CO_GWK	Huronian - Greywacke
Light Green	CO_SLT	Huronian - Siltstone
Yellow	GWW_SIL	Gowganda Fm. - Siltstone

SECTION SPECS:

REF. PT. E, N 60054 m 525150 m
 EXTENTS 352.5 m 179.4 m
 SECTION TOP, BOT 234.9 m 55.55 m
 TOLERANCE +/- 10.4 m





PROFILES

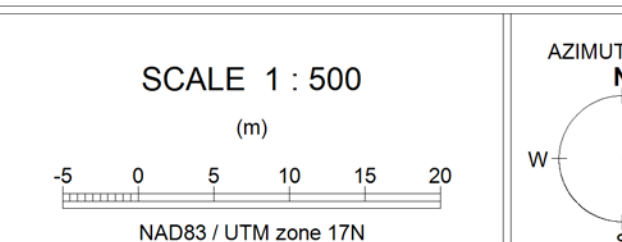
LR	COL
R	

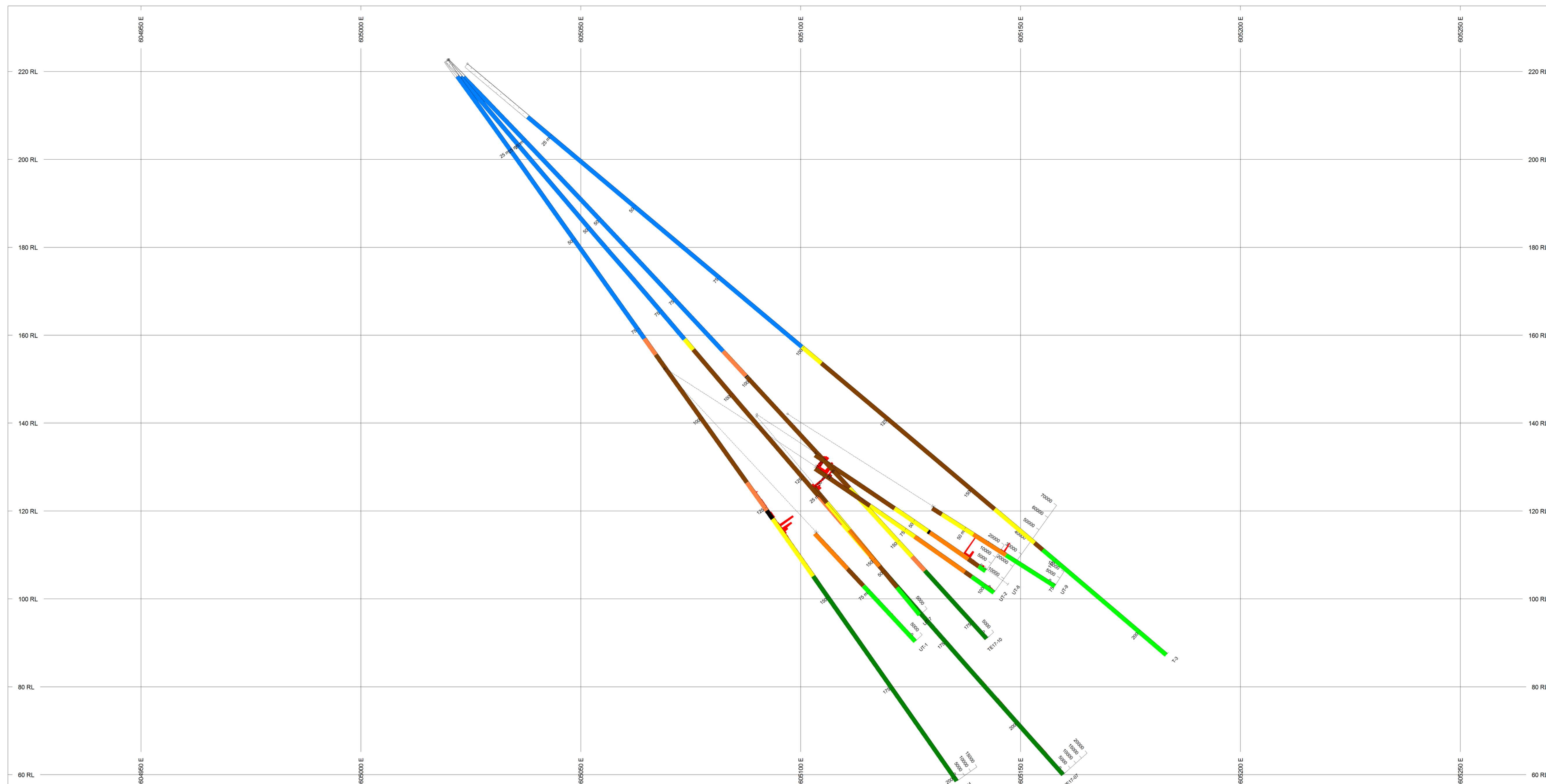
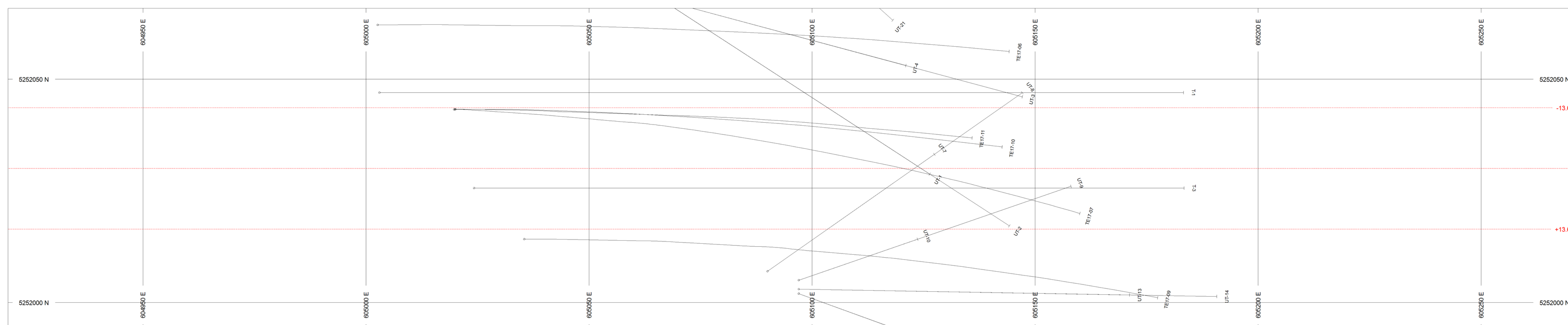
ROCK CODES

PAT	LABEL	DESCRIPTION
cas	CAS	Casing
CO_CGL	Huronian - Conglomerates	
CO_QTZT	Huronian - Quartzite	
IV_AND	Anesite	
NDIA	Nipissing Diabase	
FZ	Fault Zone	
GWG_Cgl	Gowganda Fm. - Conglomerate	
MV	Mafic Volcanic	
QB	Quartzites	
CO_SLT	Huronian - Siltstone	
CTZ	Contact Zone	
GWG_qz	Gowganda Fm. - Quartzite	
GWG_slr	Gowganda Fm. - Siltstone	

SECTION SPECS:

REF. PT. E, N 605076 m 5252050 m
 EXTENTS 362.5 m 179.4 m
 SECTION TOP, BOT 234.9 m 55.55 m
 TOLERANCE +/- 13.25 m

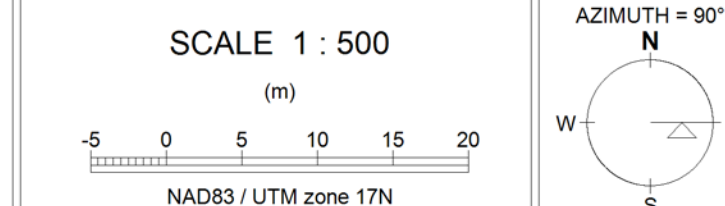




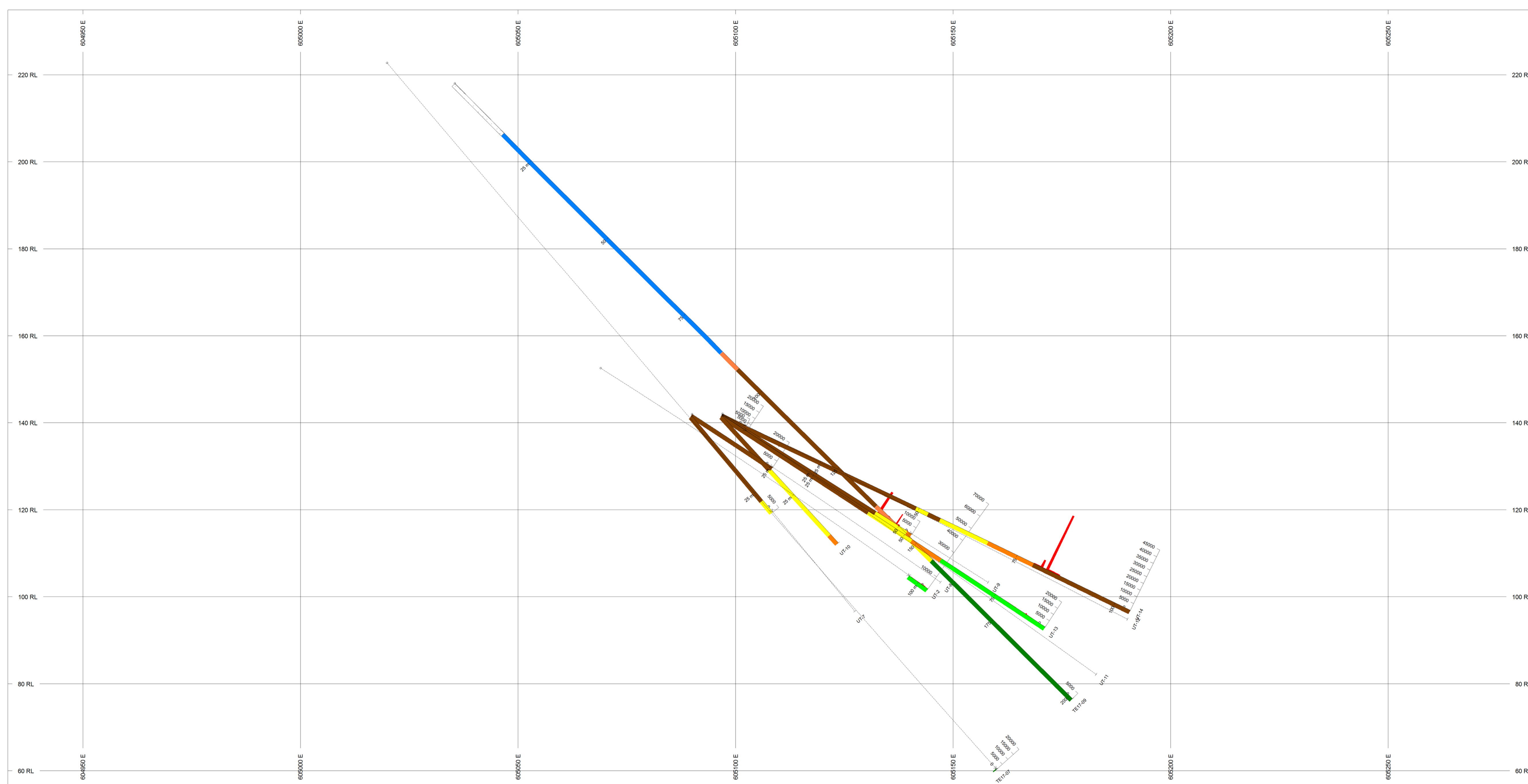
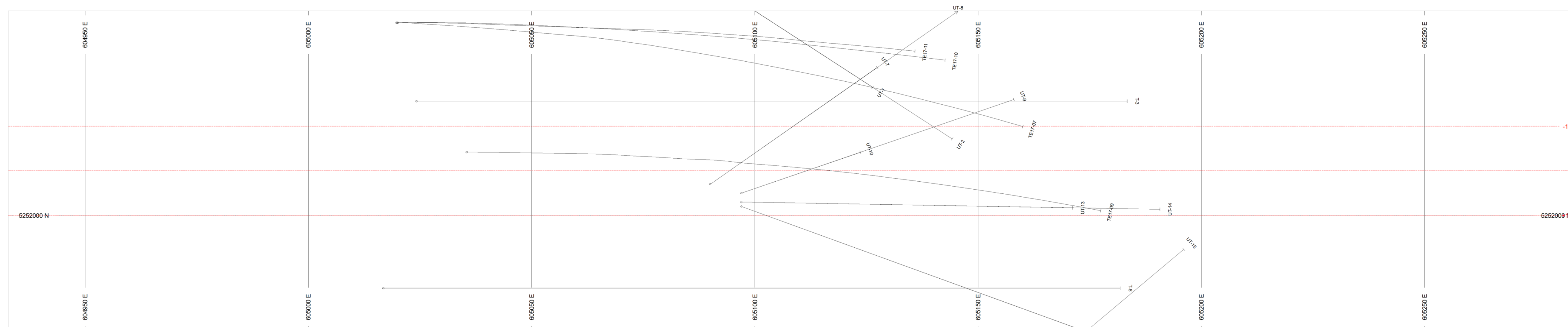
PROFILES	LR	COL
co_jpm	R	█

ROCK CODES	PAT	LABEL	DESCRIPTION
ltho	████	CAS	Casing
	████	CO_CGL	Huronian - Conglomerates
	████	CO_QTZT	Huronian - Quartzite
	████	IV_AND	Anorthite
	████	NDIA	Nipissing Diabase
	████	FZ	Fault Zone
	████	GWG_Cgl	Gowganda Fm. - Conglomerate
	████	MV	Mafic Volcanic
	████	QB	Quartzites
	████	CO_GWK	Huronian - Greywacke
	████	CO_SLT	Huronian - Siltstone
	████	GWG_QZ	Gowganda Fm. - Quartzite
	████	GWG_SIL	Gowganda Fm. - Siltstone

SECTION SPECS:
 REF. PT. E, N 605096 m 5252020 m
 EXTENTS 362.5 m 179.4 m
 SECTION TOP, BOT 234.9 m 55.55 m
 TOLERANCE +/- 13.6 m



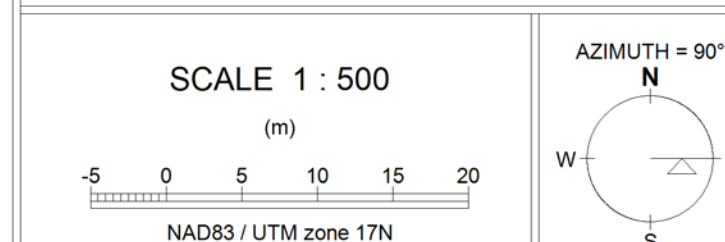
LiCo Energy Metals Inc.
 Teledyne Property
 Section 5252045N

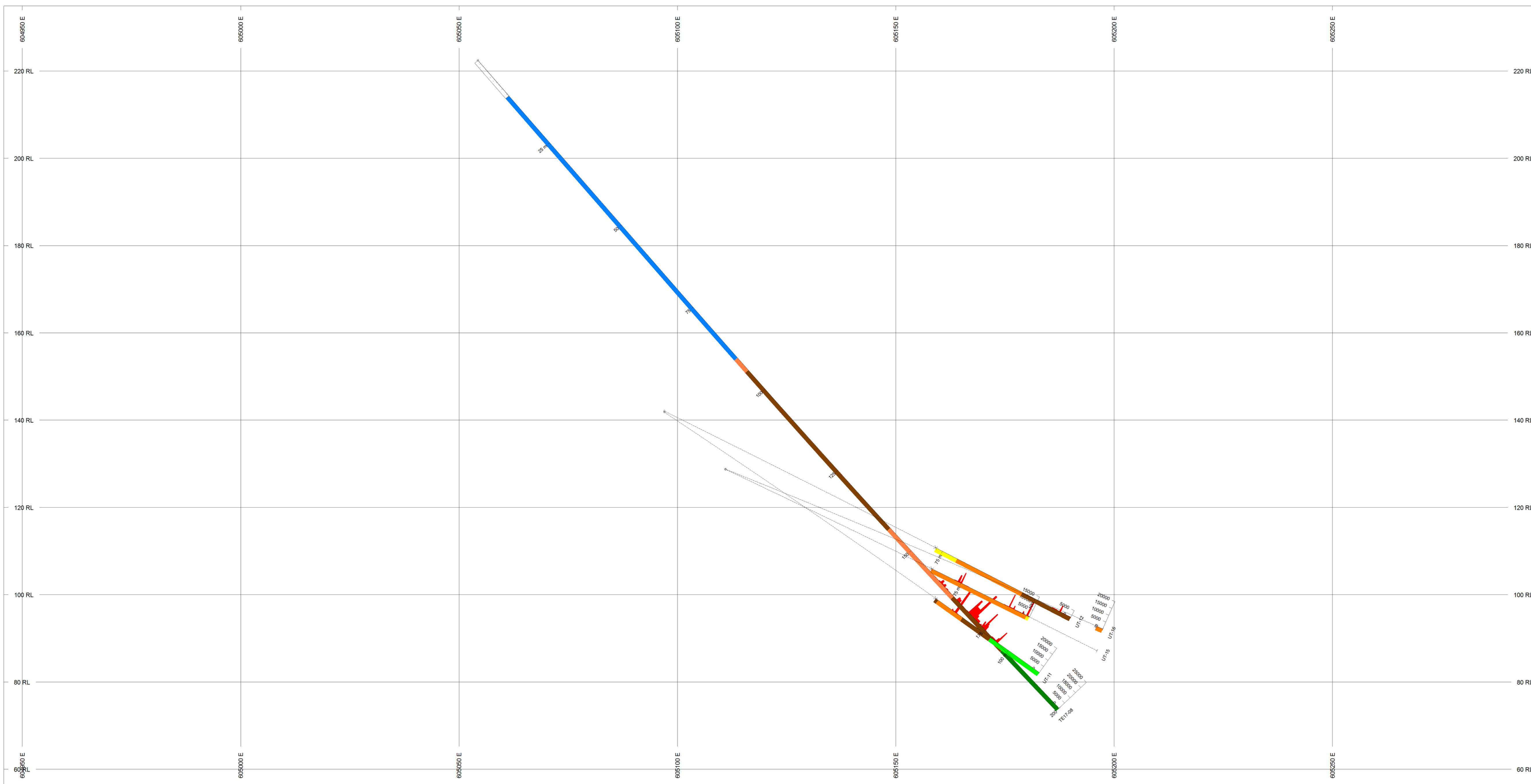
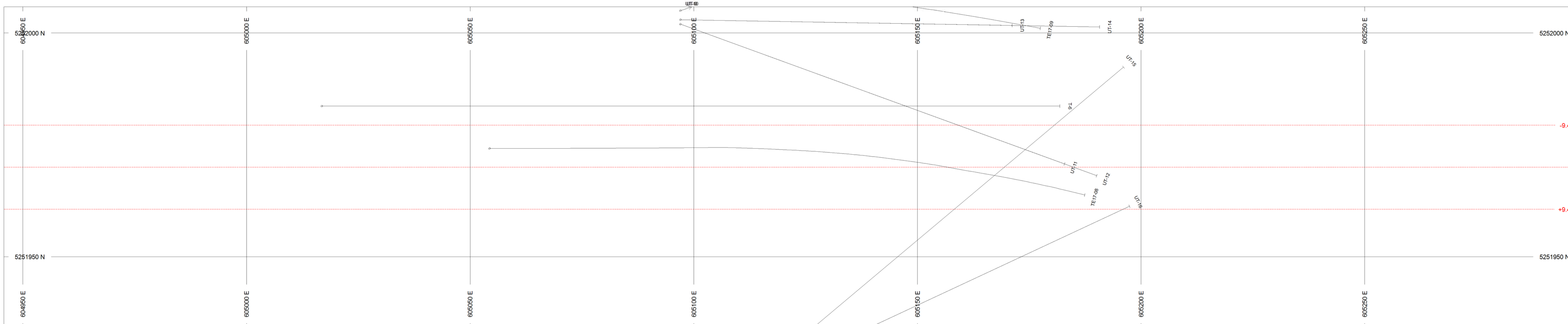


PROFILES	LR	COL
co_ppm	R	

ROCK CODES	PAT	LABEL	DESCRIPTION
litho	CAS	Casing	
	CO_CGL	Huronian - Conglomerates	
	CO_QTZT	Huronian - Quartzite	
	IV_AND	Andesite	
	NDIA	Nipissing Diabase	
	FZ	Fault Zone	
	GOWG_Cgl	Gowganda Fm. - Conglomerate	
	MV	Mafic Volcanic	
	OB	Overburden	
	CO_SILT	Huronian - Silstone	
	GOWG_QZ	Gowganda Fm. - Quartzite	
	GOWG_SIL	Gowganda Fm. - Siltstone	

SECTION SPECS:
 REF. PT. E. N 609109 m 5252010 m
 EXTENTS 362.6 m 179.4 m
 SECTION TOP, BOT 234.9 m 55.55 m
 TOLERANCE +/- 10 m

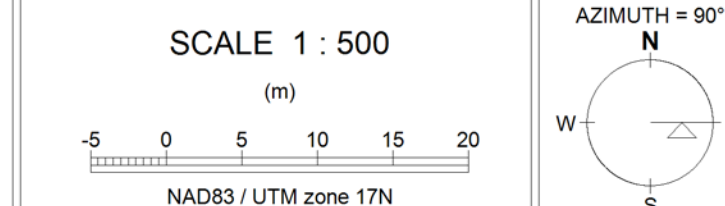




PROFILES	LR	COL
co_ppm	R	

ROCK CODES	PAT	LABEL	DESCRIPTION
litho		CO_CGL	Huronian - Conglomerates
		CO_QTZT	Huronian - Quartzite
		IV_AND	Andesite
		NDIA	Nipissing Database
		GWG_Cgl	Googanda Fm. - Conglomerate
		MV	Mafic Volcanic
		OB	Overburden
		CO_SLT	Huronian - Siltstone
		GWG_qtz	Googanda Fm. - Quartzite

SECTION SPECS:
 REF. PT. E. N 605122 m 5251970 m
 EXTENTS 362.6 m 178.4 m
 SECTION TOP, BOT 234.9 m 55.55 m
 TOLERANCE +/- 9.4 m



Appendix IV
Assay Certificates



Date Submitted: 10-Jun-19
Invoice No.: A19-07634
Invoice Date: 26-Jun-19
Your Reference: LIC-TE

LiCo Energy Metals Inc.
1220-789 West Pender Street
Vancouver BC V6C 1H2
Canada

ATTN: Joerg Kleinboeck

CERTIFICATE OF ANALYSIS

8 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1F2 Total Digestion ICP(TOTAL)

Code 8-Peroxide ICP Sodium Peroxide Fusion ICP

REPORT **A19-07634**

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

Notes:

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

CERTIFIED BY:

A handwritten signature in black ink, appearing to read "Elitsa Hrischeva". The signature is written in a cursive style with a horizontal line underneath.

Elitsa Hrischeva, Ph.D.
Quality Control

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

Results

Activation Laboratories Ltd.

Report: A19-07634

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Lower Limit	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
999264	1.4	9.78	2140	24	< 1	22	0.51	0.4	1270	66	350	5.92	21	< 1	0.28	3.28	125	346	197	4.97	489	0.040	14
999265	1.2	9.52	1320	21	< 1	12	0.42	< 0.3	771	72	125	6.27	21	< 1	0.28	3.60	132	364	118	4.80	324	0.044	10
999266	1.9	8.95	2050	21	< 1	37	0.33	< 0.3	1210	107	43	6.66	22	< 1	0.35	3.92	128	365	435	4.39	452	0.049	16
999267	1.3	9.05	4020	22	< 1	16	0.75	< 0.3	2730	87	24	6.47	22	< 1	0.30	3.83	123	393	319	4.19	558	0.042	14
999268	2.5	8.73	3200	25	< 1	27	2.45	2.2	2010	72	303	6.10	20	< 1	0.46	3.28	107	527	266	4.08	511	0.057	21
999269	1.9	9.21	> 5000	25	< 1	26	0.41	0.3	5200	66	62	6.48	21	< 1	0.40	3.55	121	370	316	4.39	931	0.046	13
999270	0.7	7.87	2050	22	< 1	< 2	0.17	0.4	1500	65	9	5.76	18	2	0.30	3.11	115	317	97	3.90	223	0.035	3
999271	0.5	5.82	415	18	< 1	< 2	1.19	< 0.3	305	53	70	3.43	12	< 1	0.45	1.85	71	288	28	2.90	80	0.027	< 3

Results

Activation Laboratories Ltd.

Report: A19-07634

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	As
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
Lower Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	0.01
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	FUS- Na2O2
999264	< 5	0.24	15	36	< 2	0.27	< 5	10	115	< 5	13	27	118	
999265	< 5	0.11	15	31	3	0.27	< 5	20	141	< 5	13	31	133	
999266	7	0.19	19	29	9	0.42	< 5	10	183	< 5	18	34	126	
999267	10	0.24	20	34	4	0.40	< 5	10	169	< 5	36	39	74	
999268	14	0.47	18	48	< 2	0.37	< 5	10	123	7	21	472	113	
999269	33	0.50	16	39	3	0.30	13	10	105	< 5	9	40	115	0.76
999270	< 5	0.10	12	32	< 2	0.26	< 5	< 10	89	< 5	6	27	121	
999271	< 5	0.06	9	35	< 2	0.18	< 5	< 10	58	< 5	7	16	92	

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Lower Limit	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
GXR-4 Meas	3.4	6.67	100	125	2	11	1.01	< 0.3	14	39	6030	2.88	18	< 1	3.54	1.63	12	149	300	0.46	39	0.132	44
GXR-4 Cert	4.0	7.20	98.0	1640	1.90	19.0	1.01	0.860	14.6	64.0	6520	3.09	20.0	0.110	4.01	1.66	11.1	155	310	0.564	42.0	0.120	52.0
GXR-4 Meas	3.3	7.38	98	112	2	8	1.05	0.4	14	35	6190	3.09	19	< 1	2.86	1.74	13	167	311	0.49	39	0.137	49
GXR-4 Cert	4.0	7.20	98.0	1640	1.90	19.0	1.01	0.860	14.6	64.0	6520	3.09	20.0	0.110	4.01	1.66	11.1	155	310	0.564	42.0	0.120	52.0
GXR-4 Meas	3.4	7.07	111	409	2	26	1.02	0.5	14	45	6020	3.00	17	< 1	3.32	1.67	12	152	316	0.49	39	0.134	46
GXR-4 Cert	4.0	7.20	98.0	1640	1.90	19.0	1.01	0.860	14.6	64.0	6520	3.09	20.0	0.110	4.01	1.66	11.1	155	310	0.564	42.0	0.120	52.0
PTM-1a Meas																							
PTM-1a Cert																							
SDC-1 Meas		8.05	8	726	3		1.08		18	47	30	4.93	22	< 1	2.60	1.03	34	893		1.49	37	0.059	24
SDC-1 Cert		8.34	0.220	630	3.00		1.00		18.0	64.00	30.000	4.82	21.00	0.20	2.72	1.02	34	880.00		1.52	38.0	0.0690	25.00
SDC-1 Meas		8.17	< 3	746	3		1.09		18	43	30	5.04	21	< 1	2.67	1.05	35	915		1.55	35	0.060	24
SDC-1 Cert		8.34	0.220	630	3.00		1.00		18.0	64.00	30.000	4.82	21.00	0.20	2.72	1.02	34	880.00		1.52	38.0	0.0690	25.00
SDC-1 Meas		7.97	4	645	3		1.06		17	46	35	4.80	22	< 1	2.63	1.01	34	887		1.49	36	0.058	23
SDC-1 Cert		8.34	0.220	630	3.00		1.00		18.0	64.00	30.000	4.82	21.00	0.20	2.72	1.02	34	880.00		1.52	38.0	0.0690	25.00
GXR-6 Meas	0.5	12.3	308	> 1000	1	< 2	0.17	< 0.3	14	64	66	5.72	28	< 1	1.74	0.60	33	1100	1	0.09	27	0.040	107
GXR-6 Cert	1.30	17.7	330	1300	1.40	0.290	0.180	1.00	13.8	96.0	66.0	5.58	35.0	0.0680	1.87	0.609	32.0	1010	2.40	0.104	27.0	0.0350	101
GXR-6 Meas	0.5	13.2	215	> 1000	1	< 2	0.20	< 0.3	13	48	64	5.53	32	< 1	1.71	0.63	35	1040	< 1	0.10	26	0.036	108
GXR-6 Cert	1.30	17.7	330	1300	1.40	0.290	0.180	1.00	13.8	96.0	66.0	5.58	35.0	0.0680	1.87	0.609	32.0	1010	2.40	0.104	27.0	0.0350	101
Oreas 74a (Fusion) Meas																							
Oreas 74a (Fusion) Cert																							
BIR-1a Meas																							
BIR-1a Cert																							
MP-1b Meas																							
MP-1b Cert																							
OREAS 97 (4 Acid) Meas	18.6					21			63		> 10000												143
OREAS 97 (4 Acid) Cert	19.6					40.1			62.9		63100.00												147
OREAS 97 (4 Acid) Meas	19.0					15			64		> 10000												152
OREAS 97 (4 Acid) Cert	19.6					40.1			62.9		63100.00												147
OREAS 97 (4 Acid) Meas	19.8					32			63		> 10000												144
OREAS 97 (4 Acid) Cert	19.6					40.1			62.9		63100.00												147
OREAS 98 (4 Acid) Meas	41.2					43			117		> 10000												331
OREAS 98 (4 Acid) Cert	45.1					97.2			121		148000.0												345
OREAS 98 (4 Acid) Meas	41.6					52			117		> 10000												347
OREAS 98 (4 Acid) Cert	45.1					97.2			121		14800												345

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Lower Limit	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
Acid) Cert											0.0												
OREAS 98 (4 Acid) Meas	42.9					58			117		> 10000												331
OREAS 98 (4 Acid) Cert	45.1					97.2			121		14800 0.0												345
DNC-1a Meas				112			7.50		52	120	91	7.11	14				5			1.41	246		3
DNC-1a Cert				118			8.21		57	270	100	6.97	15				5.2			1.40	247		6.3
DNC-1a Meas				109			7.28		51	118	91	6.55	14				5			1.37	240		4
DNC-1a Cert				118			8.21		57	270	100	6.97	15				5.2			1.40	247		6.3
DNC-1a Meas				98			7.52		52	126	91	6.96	12				5			1.42	247		< 3
DNC-1a Cert				118			8.21		57	270	100	6.97	15				5.2			1.40	247		6.3
CZN-4 Meas																							
CZN-4 Cert																							
SBC-1 Meas			73	826	3	5		0.4	22	87	31		26				150		1		84		30
SBC-1 Cert			25.7	788.0	3.20	0.70		0.40	22.7	109	31.0		27.0				163		2		83		35.0
SBC-1 Meas			25	841	3	< 2		0.4	23	92	29		27				156		1		86		30
SBC-1 Cert			25.7	788.0	3.20	0.70		0.40	22.7	109	31.0		27.0				163		2		83		35.0
SBC-1 Meas			33	472	3	< 2		0.4	22	95	30		26				159		1		85		27
SBC-1 Cert			25.7	788.0	3.20	0.70		0.40	22.7	109	31.0		27.0				163		2		83		35.0
OREAS 45d (4-Acid) Meas		7.58	14	197	< 1	< 2	0.20		30	521	378	14.0	22		0.38	0.24	21	524	2	0.09	246	0.037	20
OREAS 45d (4-Acid) Cert		8.150	13.8	183.0	0.79	0.31	0.185		29.50	549	371	14.5	21.20		0.412	0.245	21.5	490.000	2.500	0.101	231.0	0.042	21.8
OREAS 45d (4-Acid) Meas		7.65	7	202	< 1	< 2	0.19		29	492	361	14.1	23		0.38	0.24	22	510	< 1	0.09	244	0.035	24
OREAS 45d (4-Acid) Cert		8.150	13.8	183.0	0.79	0.31	0.185		29.50	549	371	14.5	21.20		0.412	0.245	21.5	490.000	2.500	0.101	231.0	0.042	21.8
OREAS 45d (4-Acid) Meas		8.20	10	186	< 1	< 2	0.20		30	526	377	14.5	21		0.41	0.25	22	515	< 1	0.10	247	0.040	21
OREAS 45d (4-Acid) Cert		8.150	13.8	183.0	0.79	0.31	0.185		29.50	549	371	14.5	21.20		0.412	0.245	21.5	490.000	2.500	0.101	231.0	0.042	21.8
OREAS 621 (Peroxide Fusion) Meas																							
OREAS 621 (Peroxide Fusion) Cert																							
CCU-1e Meas																							
CCU-1e Cert																							
OREAS 96 (4 Acid) Meas	11.2					16			51		> 10000												104
OREAS 96 (4 Acid) Cert	11.5					26.3			49.9		39300												101
OREAS 96 (4 Acid) Meas	11.7					15			50		> 10000												99
OREAS 96 (4 Acid) Cert	11.5					26.3			49.9		39300												101

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Lower Limit	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
Acid) Cert																							
999267 Orig	1.4	8.87	3970	22	< 1	17	0.75	< 0.3	2730	80	24	6.29	22	< 1	0.30	3.85	123	397	322	4.23	561	0.042	14
999267 Dup	1.2	9.23	4070	22	< 1	15	0.75	0.6	2730	94	24	6.66	22	< 1	0.30	3.81	122	389	316	4.16	554	0.041	14
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1	< 1	< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1	1	< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1	1	< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1	1	< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1	2	< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1	< 1	12	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1	< 1	< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1	< 1	< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1	< 1	< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1	1	< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1	1	< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank																							

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	As
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
Lower Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	0.01
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	FUS-Na2O2
GXR-4 Meas	14	1.70	7	202	3	0.24	< 5	< 10	82	34	14	71	44	
GXR-4 Cert	4.80	1.77	7.70	221	0.970	0.29	3.20	6.20	87.0	30.8	14.0	73.0	186	
GXR-4 Meas	< 5	1.79	8	219	< 2	0.27	< 5	< 10	86	43	15	79	46	
GXR-4 Cert	4.80	1.77	7.70	221	0.970	0.29	3.20	6.20	87.0	30.8	14.0	73.0	186	
GXR-4 Meas	< 5	1.76	8	219	< 2	0.26	< 5	< 10	85	39	14	73	42	
GXR-4 Cert	4.80	1.77	7.70	221	0.970	0.29	3.20	6.20	87.0	30.8	14.0	73.0	186	
PTM-1a Meas														0.21
PTM-1a Cert														0.220
SDC-1 Meas	< 5		16	182		0.22	< 5	< 10	52	< 5		105	36	
SDC-1 Cert	0.54		17.00	180.00		0.606	0.70	3.10	102.00	0.80		103.00	290.00	
SDC-1 Meas	< 5		16	185		0.17	< 5	< 10	43	< 5		110	37	
SDC-1 Cert	0.54		17.00	180.00		0.606	0.70	3.10	102.00	0.80		103.00	290.00	
SDC-1 Meas	< 5		17	177		0.17	< 5	< 10	44	< 5		105	33	
SDC-1 Cert	0.54		17.00	180.00		0.606	0.70	3.10	102.00	0.80		103.00	290.00	
GXR-6 Meas	28	0.02	27	39	< 2		< 5	< 10	175	< 5	13	138	88	
GXR-6 Cert	3.60	0.0160	27.6	35.0	0.0180		2.20	1.54	186	1.90	14.0	118	110	
GXR-6 Meas	< 5	0.01	28	44	< 2		< 5	< 10	110	< 5	14	138	68	
GXR-6 Cert	3.60	0.0160	27.6	35.0	0.0180		2.20	1.54	186	1.90	14.0	118	110	
Oreas 74a (Fusion) Meas														< 0.01
Oreas 74a (Fusion) Cert														0.005
BIR-1a Meas														< 0.01
BIR-1a Cert														
MP-1b Meas														2.27
MP-1b Cert														2.30
OREAS 97 (4 Acid) Meas	14	6.47										598		
OREAS 97 (4 Acid) Cert	9.23	6.07										646		
OREAS 97 (4 Acid) Meas	< 5	6.86										630		
OREAS 97 (4 Acid) Cert	9.23	6.07										646		
OREAS 97 (4 Acid) Meas	< 5	6.62										639		
OREAS 97 (4 Acid) Cert	9.23	6.07										646		
OREAS 98 (4 Acid) Meas	21	15.1										1250		
OREAS 98 (4 Acid) Cert	20.1	15.5										1360		
OREAS 98 (4 Acid) Meas	8	15.2										1280		

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	As
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
Lower Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	0.01
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	FUS-Na2O2
OREAS 98 (4 Acid) Cert	20.1	15.5										1360		
OREAS 98 (4 Acid) Meas	< 5	15.3										1310		
OREAS 98 (4 Acid) Cert	20.1	15.5										1360		
DNC-1a Meas	< 5		30	134		0.26			139		16	62	36	
DNC-1a Cert	0.96		31	144		0.29			148		18.0	70	38.0	
DNC-1a Meas	< 5		29	130		0.26			135		16	60	35	
DNC-1a Cert	0.96		31	144		0.29			148		18.0	70	38.0	
DNC-1a Meas	< 5		32	140		0.27			142		16	61	33	
DNC-1a Cert	0.96		31	144		0.29			148		18.0	70	38.0	
CZN-4 Meas														0.04
CZN-4 Cert														0.0356
SBC-1 Meas	113		20	175		0.46	< 5	< 10	209	< 5	34	189	120	
SBC-1 Cert	1.01		20.0	178.0		0.51	0.89	5.76	220.0	1.60	36.5	186	134.0	
SBC-1 Meas	< 5		21	180		0.48	< 5	< 10	215	< 5	34	188	117	
SBC-1 Cert	1.01		20.0	178.0		0.51	0.89	5.76	220.0	1.60	36.5	186	134.0	
SBC-1 Meas	< 5		22	184		0.50	< 5	< 10	208	5	35	193	110	
SBC-1 Cert	1.01		20.0	178.0		0.51	0.89	5.76	220.0	1.60	36.5	186	134.0	
OREAS 45d (4-Acid) Meas	14	0.05	52	31		0.33	< 5	< 10	148	5	12	45	95	
OREAS 45d (4-Acid) Cert	0.82	0.049	49.30	31.30		0.773	0.27	2.63	235.0	1.62	9.53	45.7	141	
OREAS 45d (4-Acid) Meas	< 5	0.04	53	33		0.11	< 5	< 10	90	< 5	12	49	51	
OREAS 45d (4-Acid) Cert	0.82	0.049	49.30	31.30		0.773	0.27	2.63	235.0	1.62	9.53	45.7	141	
OREAS 45d (4-Acid) Meas	< 5	0.05	58	33		0.52	< 5	< 10	183	< 5	12	45	117	
OREAS 45d (4-Acid) Cert	0.82	0.049	49.30	31.30		0.773	0.27	2.63	235.0	1.62	9.53	45.7	141	
OREAS 621 (Peroxide Fusion) Meas														< 0.01
OREAS 621 (Peroxide Fusion) Cert														0.009
CCU-1e Meas														0.10
CCU-1e Cert														0.101
OREAS 96 (4 Acid) Meas	< 5	4.30										458		
OREAS 96 (4 Acid) Cert	5.09	4.19										457		
OREAS 96 (4	< 5	4.17										459		

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	As
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
Lower Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	0.01
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	FUS- Na2O2
Acid) Meas														
OREAS 96 (4 Acid) Cert	5.09	4.19										457		
999267 Orig	14	0.24	20	35	3	0.40	< 5	10	169	< 5	36	40	112	
999267 Dup	5	0.24	21	34	4	0.40	6	10	169	< 5	36	39	36	
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5	
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5	
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5	
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5	
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5	
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5	
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5	
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5	
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5	
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5	
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5	
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5	
Method Blank														< 0.01



Date Submitted: 14-Dec-17
Invoice No.: A17-14250
Invoice Date: 26-Jan-18
Your Reference: LIC-TE

JMK Exploration Consulting
147 Lakeside Dr.
North Bay ON P1A 3E1
Canada

ATTN: Joerg Kleinboeck

CERTIFICATE OF ANALYSIS

261 Core samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1F2-Tbay Total Digestion ICP(TOTAL)

Code 8-4 Acid-Tbay Total Digestion Code 8-4 Acid Total Digestion Assays

REPORT **A17-14250**

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

Notes:

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

CERTIFIED BY:

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

Emmanuel Esemé , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
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Date Submitted: 14-Dec-17
Invoice No.: A17-14250
Invoice Date: 26-Jan-18
Your Reference: LIC-TE

JMK Exploration Consulting
147 Lakeside Dr.
North Bay ON P1A 3E1
Canada

ATTN: Joerg Kleinboeck

CERTIFICATE OF ANALYSIS

261 Core samples were submitted for analysis.

The following analytical package(s) were requested:

Code 8-Peroxide ICP Sodium Peroxide Fusion ICP

REPORT **A17-14250**

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Notes:

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

CERTIFIED BY:



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Results

Activation Laboratories Ltd.

Report: A17-14250

Analyte Symbol	Ag	Co	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni
Unit Symbol	ppm	%	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm
Lower Limit	3	0.003	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1
Method Code	4Acid ICPOE S	4Acid ICPOE S	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
680441			0.4	7.10	< 3	116	2	< 2	0.30	0.5	20	132	176	4.70	21	< 1	0.83	2.24	80	240	1	3.26	66
680442			0.6	7.96	24	105	2	< 2	0.36	< 0.3	30	112	6	5.02	22	< 1	0.81	2.31	79	258	< 1	3.61	65
680443			0.5	7.08	299	67	2	< 2	0.35	< 0.3	255	126	11	5.07	20	< 1	0.62	2.41	81	274	1	3.40	113
680444			0.5	6.94	142	56	2	< 2	0.38	< 0.3	103	122	6	4.38	18	< 1	0.47	2.07	70	244	2	3.62	72
680445			0.5	6.02	115	67	2	< 2	0.24	0.6	81	153	2	4.28	18	3	0.54	2.05	80	238	< 1	3.48	71
680446			0.5	6.83	26	70	2	< 2	0.27	< 0.3	29	134	2	4.44	20	< 1	0.56	2.06	72	249	1	3.68	59
680447			0.4	6.26	67	63	2	< 2	0.25	< 0.3	45	123	2	4.42	17	1	0.48	2.08	77	260	1	3.49	56
680448			0.4	6.71	19	77	2	< 2	0.26	< 0.3	22	137	2	4.58	20	< 1	0.61	2.08	82	274	< 1	3.42	54
680449			0.4	6.58	12	85	1	< 2	0.24	< 0.3	14	136	1	4.92	21	1	0.63	2.29	87	301	< 1	3.36	55
680450			0.7	5.66	21	72	1	< 2	0.22	< 0.3	19	134	2	4.72	19	< 1	0.57	2.24	89	287	< 1	3.30	54
680451			0.5	6.36	30	55	2	< 2	0.25	< 0.3	32	134	9	5.04	20	< 1	0.46	2.32	81	320	< 1	3.47	53
680452			0.4	6.34	84	52	2	< 2	0.21	< 0.3	102	109	6	4.68	21	2	0.49	2.20	72	306	< 1	3.50	51
680453			0.7	6.76	1810	37	2	< 2	0.21	< 0.3	1350	83	4	4.54	16	< 1	0.30	2.17	82	309	5	3.24	168
680454			6.3	7.87	417	30	2	3	0.68	0.4	169	80	2540	7.73	21	< 1	0.12	3.35	68	854	< 1	3.32	78
680455			5.3	7.53	117	25	1	< 2	0.97	0.6	63	55	1160	9.57	19	< 1	0.08	3.57	65	1250	< 1	2.48	67
680456			2.2	7.49	55	22	1	< 2	1.53	1.8	58	53	383	11.0	19	6	0.07	3.78	66	1500	< 1	2.32	66
680457			1.9	7.75	57	114	1	< 2	1.25	1.6	59	55	68	11.3	20	1	0.33	4.27	71	1730	< 1	2.02	72
680458			0.9	7.27	32	22	1	< 2	1.53	3.4	36	57	173	10.1	19	4	0.15	3.70	52	1670	< 1	2.17	54
680459			1.9	7.19	89	49	1	< 2	1.20	1.7	64	54	675	11.6	19	2	0.34	4.01	56	1730	< 1	1.86	100
680460			0.8	2.77	810	130	< 1	< 2	2.81	0.8	740	778	1510	16.0	9	2	0.42	7.79	19	877	2	0.56	> 10000
680461			0.9	7.56	43	121	1	2	2.20	< 0.3	48	56	89	10.5	19	4	0.41	3.61	58	1860	< 1	2.35	78
680462			1.9	7.11	51	75	< 1	< 2	2.70	0.3	92	54	123	9.91	18	< 1	0.33	2.96	45	1630	< 1	2.95	92
680463			1.1	7.55	17	62	< 1	3	3.40	0.5	28	43	275	9.32	20	1	0.21	3.32	46	1840	< 1	2.87	69
680464			0.8	7.70	21	78	< 1	3	2.80	1.4	38	41	173	9.22	19	< 1	0.30	3.23	45	1860	< 1	2.98	62
680465			1.2	7.91	35	90	< 1	3	1.84	0.4	51	47	212	9.29	19	< 1	0.39	3.28	51	1860	< 1	3.09	67
680466			0.9	7.26	17	156	< 1	< 2	3.38	0.6	34	40	95	8.73	18	< 1	0.67	3.01	45	2180	< 1	2.71	50
680467			0.5	7.92	26	150	< 1	< 2	2.10	0.9	48	48	97	9.87	21	< 1	0.52	3.11	42	2310	< 1	2.97	60
680468			0.7	7.74	19	212	< 1	< 2	2.08	5.8	42	54	70	11.0	20	3	0.56	3.52	50	2580	< 1	2.70	59
680469			1.0	7.58	27	92	< 1	< 2	2.47	4.5	45	45	121	9.99	19	2	0.41	3.08	36	2460	< 1	3.20	59
680470			0.9	6.81	41	87	< 1	< 2	2.10	6.2	58	56	55	10.5	20	< 1	0.33	3.28	37	2690	< 1	3.33	61
680471			1.2	7.83	36	83	< 1	< 2	1.79	11.1	46	55	50	9.75	19	< 1	0.34	3.44	42	2570	< 1	3.16	51
680472			5.0	5.47	10	41	3	< 2	3.92	41.7	42	47	360	9.61	16	1	0.22	3.43	51	2430	< 1	1.50	41
680473			0.6	7.73	50	54	< 1	3	1.73	2.6	63	44	18	8.99	18	< 1	0.26	3.31	42	2380	< 1	3.20	52
680474			0.4	7.24	62	55	< 1	3	1.58	1.3	71	39	11	8.61	17	2	0.22	3.27	39	2440	< 1	2.97	55
680475			0.5	7.25	54	50	1	5	2.05	0.8	68	43	16	9.72	19	6	0.38	3.96	46	2700	< 1	2.67	64
680476			0.4	8.06	12	45	< 1	2	1.55	4.0	37	44	33	9.34	19	< 1	0.17	3.33	36	2660	< 1	3.70	53
680477			0.5	8.13	32	53	< 1	< 2	1.88	4.9	62	47	31	9.05	20	1	0.19	3.06	33	2540	< 1	4.01	71
680478			1.1	7.89	46	102	< 1	< 2	1.44	9.2	65	46	108	10.2	20	< 1	0.31	3.65	46	2840	< 1	3.18	65
680479			1.0	7.98	55	48	< 1	< 2	1.88	12.7	84	50	151	9.22	20	1	0.21	3.23	40	2620	< 1	3.63	73
680480			< 0.3	0.20	3	15	< 1	< 2	0.01	< 0.3	< 1	12	2	0.71	< 1	< 1	0.04	0.01	8	103	< 1	0.04	2
680481			0.8	7.81	34	51	< 1	6	2.40	4.5	51	41	78	8.69	20	< 1	0.33	3.29	45	2840	< 1	3.39	65

Results

Activation Laboratories Ltd.

Report: A17-14250

Analyte Symbol	Ag	Co	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni
Unit Symbol	ppm	%	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm
Lower Limit	3	0.003	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1
Method Code	4Acid ICPOE S	4Acid ICPOE S	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
680482			1.3	8.02	37	44	< 1	< 2	2.47	10.7	51	48	99	9.52	21	< 1	0.31	3.52	56	3000	< 1	3.21	65
680483			1.0	6.67	47	44	1	4	3.55	3.1	99	41	270	8.45	18	< 1	0.31	4.01	92	2450	< 1	2.18	82
680484			1.0	8.12	35	68	< 1	3	2.47	7.5	54	47	79	9.87	21	9	0.39	3.68	49	3090	< 1	3.19	55
680485			< 0.3	8.28	5	12	1	< 2	0.74	< 0.3	26	94	5	5.40	20	6	0.16	3.05	52	342	< 1	4.61	88
680486			0.5	8.14	< 3	9	1	< 2	0.26	< 0.3	26	166	69	6.59	18	< 1	0.18	3.37	49	341	19	4.94	101
680487			< 0.3	7.17	< 3	24	2	< 2	5.86	< 0.3	24	76	34	5.26	16	< 1	0.77	2.78	50	688	< 1	3.04	76
680488			< 0.3	8.25	5	20	1	< 2	0.18	< 0.3	32	119	3	7.11	20	< 1	0.16	4.39	69	382	< 1	3.61	108
680489			< 0.3	7.23	< 3	16	1	< 2	0.64	< 0.3	31	147	7	7.19	20	< 1	0.21	4.11	65	400	< 1	3.65	112
680490			0.4	8.12	< 3	20	2	< 2	0.45	0.3	31	197	28	7.73	21	< 1	0.20	4.22	72	385	< 1	3.63	121
680491			0.4	8.25	< 3	14	1	< 2	0.52	< 0.3	31	182	6	7.39	20	< 1	0.28	4.04	68	369	< 1	3.79	121
680492			< 0.3	7.79	< 3	16	2	< 2	0.81	< 0.3	32	137	37	7.38	19	< 1	0.15	4.55	75	398	< 1	3.11	109
680493			< 0.3	7.99	< 3	19	2	3	0.36	0.3	34	104	39	7.33	21	< 1	0.15	4.36	65	378	< 1	3.39	110
680494			0.4	8.50	< 3	24	1	< 2	1.76	< 0.3	26	93	429	5.66	21	1	0.43	2.94	46	416	1	4.22	89
680495			< 0.3	8.36	4	82	2	< 2	0.29	0.4	30	117	760	6.54	21	2	0.54	4.32	83	375	< 1	3.03	79
680496			< 0.3	8.61	4	19	2	< 2	0.19	< 0.3	37	157	83	8.55	18	2	0.15	5.17	85	444	< 1	3.15	121
680497			< 0.3	8.41	3	27	1	< 2	0.27	< 0.3	28	88	199	6.61	20	< 1	0.37	3.91	69	388	1	4.07	102
680498			1.5	9.48	< 3	13	2	62	1.19	< 0.3	58	130	1150	7.54	23	< 1	0.17	4.38	73	461	300	4.42	128
680499			0.5	7.11	< 3	22	2	< 2	1.09	< 0.3	33	126	408	6.46	20	< 1	0.19	4.06	70	408	31	3.77	102
680500			9.9	0.72	2450	26	< 1	60	0.71	< 0.3	2120	67	> 10000	10.3	1	4	0.24	0.92	5	214	9	0.02	63
662501			< 0.3	8.00	6	18	1	< 2	0.21	< 0.3	30	168	27	6.37	20	1	0.15	3.88	67	367	< 1	4.41	114
662502			1.4	7.94	1950	32	< 1	21	0.85	< 0.3	1210	90	216	4.96	18	< 1	0.37	2.63	79	344	121	3.85	335
662503	13	1.31	12.0	8.44	> 5000	24	< 1	283	3.58	< 0.3	> 10000	67	374	6.08	17	< 1	0.52	3.13	103	566	1600	4.15	3370
662504	< 3	1.73	1.2	7.85	> 5000	20	< 1	119	0.86	< 0.3	> 10000	52	38	5.74	17	1	0.39	2.78	99	377	182	3.65	3640
662505			1.5	5.96	3200	26	< 1	23	5.19	0.4	2000	50	241	3.83	12	1	0.91	2.71	68	515	62	2.45	503
662506			1.0	8.60	> 5000	25	1	31	0.58	< 0.3	3980	78	20	5.22	19	< 1	0.38	2.79	102	353	175	4.93	777
662507			1.3	7.48	> 5000	19	2	39	0.36	1.1	3450	67	10	4.91	14	1	0.26	2.53	106	329	181	4.49	624
662508			1.6	7.48	61	20	< 1	< 2	2.94	< 0.3	63	52	175	10.0	18	3	0.09	3.51	62	2080	< 1	2.48	65
662509			2.7	5.60	82	21	< 1	< 2	2.36	0.6	69	59	293	9.62	20	< 1	0.09	3.10	52	1980	1	2.91	66
662510			4.2	7.14	74	20	< 1	< 2	3.06	5.2	50	51	175	9.76	19	2	0.08	3.33	53	2230	< 1	2.45	57
662511			1.2	7.86	44	24	< 1	< 2	1.80	0.5	52	53	201	10.6	20	3	0.19	3.59	51	2230	< 1	3.04	62
662512			1.1	7.27	33	24	< 1	3	2.17	3.7	41	46	137	9.23	18	< 1	0.19	3.15	47	2060	< 1	2.81	55
662513			0.8	7.33	43	27	< 1	< 2	3.34	2.8	55	41	137	9.96	19	1	0.15	3.23	47	2400	< 1	2.72	57
662514			0.7	7.77	41	30	< 1	3	2.19	2.1	55	43	16	9.26	20	< 1	0.10	3.19	52	2260	< 1	3.15	66
662515			0.5	7.81	31	44	< 1	3	1.82	2.1	43	46	78	9.61	22	4	0.53	3.32	52	2130	< 1	2.98	58
662516			0.5	7.81	31	45	1	< 2	0.80	0.4	40	96	70	10.2	21	3	1.00	3.98	70	2190	< 1	2.29	52
662517			0.8	5.73	43	76	1	< 2	8.77	< 0.3	78	35	119	7.14	16	< 1	0.53	2.71	69	2250	< 1	2.03	60
662518			0.5	7.95	65	70	1	< 2	2.24	0.4	64	54	147	8.42	20	< 1	0.42	3.39	50	1980	< 1	3.52	54
662519			1.2	7.91	32	60	< 1	< 2	2.31	0.7	51	53	123	9.35	21	< 1	0.44	2.93	49	2220	< 1	3.41	61
662520			0.7	2.80	761	116	< 1	< 2	2.85	< 0.3	746	781	1510	16.1	9	1	0.43	7.85	19	878	2	0.57	> 10000
662521			0.9	7.60	40	61	< 1	< 2	2.50	< 0.3	112	48	14	10.4	20	3	0.34	2.40	29	2180	< 1	3.87	80
662522			0.8	7.49	11	94	< 1	< 2	2.19	0.4	93	56	17	10.4	18	5	0.28	2.47	30	2230	< 1	3.82	56

Results

Activation Laboratories Ltd.

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Analyte Symbol	Ag	Co	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni
Unit Symbol	ppm	%	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm
Lower Limit	3	0.003	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1
Method Code	4Acid ICPOE S	4Acid ICPOE S	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
662523			1.5	6.36	30	75	< 1	< 2	5.86	0.5	121	41	17	10.7	18	4	0.38	2.15	30	2370	< 1	2.98	64
662524			1.7	7.97	9	72	< 1	< 2	2.18	0.6	101	51	31	12.4	23	3	0.43	3.01	37	2550	< 1	4.04	69
662525			0.8	7.59	21	57	< 1	< 2	2.48	< 0.3	79	53	17	10.7	19	2	0.34	2.57	31	2300	< 1	3.86	62
662526			1.4	7.29	33	61	< 1	< 2	2.19	0.5	91	47	19	11.1	19	7	0.33	2.46	28	2140	< 1	4.04	75
662527			0.7	7.79	6	54	< 1	< 2	2.72	< 0.3	44	53	16	9.90	19	< 1	0.30	2.58	27	2250	< 1	4.09	52
662528			0.6	6.02	8	62	< 1	< 2	2.38	0.3	23	59	12	8.73	20	< 1	0.34	2.50	29	2190	< 1	4.11	43
662529			2.0	7.71	20	82	< 1	< 2	2.48	0.3	48	60	285	10.1	19	< 1	0.45	2.66	28	2090	< 1	4.05	60
662530			0.9	7.71	15	89	< 1	< 2	2.45	< 0.3	52	60	28	9.59	19	< 1	0.47	2.52	26	1880	< 1	4.23	55
662531			0.8	7.68	10	63	< 1	< 2	2.75	< 0.3	66	51	24	9.59	19	< 1	0.28	2.50	23	1830	< 1	4.35	61
662532			< 0.3	7.97	9	52	2	< 2	0.61	< 0.3	72	113	703	7.21	17	< 1	0.45	4.82	77	666	< 1	2.77	92
662533			< 0.3	7.96	< 3	164	2	< 2	2.86	< 0.3	43	123	151	7.85	16	< 1	1.20	4.66	62	823	< 1	2.56	103
662534			< 0.3	7.69	7	209	1	< 2	4.15	< 0.3	41	116	189	7.62	15	< 1	0.84	4.91	53	1000	< 1	2.41	102
662535			< 0.3	6.19	5	79	3	< 2	6.20	< 0.3	25	77	192	5.57	16	< 1	1.73	5.44	68	889	< 1	1.49	59
662536			< 0.3	7.92	6	109	1	< 2	1.30	< 0.3	45	119	136	6.18	18	< 1	0.65	3.95	71	640	< 1	2.98	78
662537			< 0.3	7.86	6	124	1	< 2	1.52	< 0.3	34	121	119	5.76	18	< 1	0.67	4.00	71	616	< 1	2.96	77
662538			< 0.3	6.90	< 3	87	1	< 2	1.41	< 0.3	32	139	30	6.64	19	< 1	0.71	4.53	79	687	< 1	2.57	87
662539			< 0.3	7.50	< 3	105	4	< 2	3.71	< 0.3	28	151	49	6.20	18	< 1	1.13	5.25	85	772	< 1	1.78	85
662540			< 0.3	0.19	4	16	< 1	< 2	0.03	< 0.3	< 1	10	1	0.57	< 1	< 1	0.04	0.01	8	90	< 1	0.04	2
662541			< 0.3	7.42	< 3	112	2	< 2	1.01	< 0.3	26	109	31	5.91	16	< 1	1.24	4.19	77	551	< 1	2.21	73
662542			< 0.3	8.05	6	127	2	< 2	1.51	< 0.3	32	84	62	5.98	20	1	0.90	3.85	70	608	< 1	2.89	77
662543			6.9	6.66	2390	35	2	7	0.26	0.5	1590	81	698	4.86	17	3	0.19	2.51	65	278	5	3.44	297
662544			4.0	6.51	193	28	1	6	0.30	< 0.3	162	89	48	5.11	17	2	0.16	2.63	71	298	1	3.40	53
662545			7.2	6.38	1060	33	1	13	0.26	< 0.3	774	106	52	5.03	17	< 1	0.20	2.65	74	295	4	3.44	110
662546			9.3	6.53	373	31	2	13	0.26	< 0.3	299	111	30	5.05	17	< 1	0.17	2.63	75	301	< 1	3.62	62
662547			11.0	6.11	3440	28	2	25	0.21	< 0.3	2250	106	43	4.62	15	2	0.14	2.49	71	279	12	3.54	302
662548			50.8	5.31	> 5000	21	1	104	0.20	0.6	> 10000	664	1240	5.73	19	< 1	0.11	2.88	88	318	39	2.64	1550
662549			10.1	5.90	> 5000	27	1	21	0.22	< 0.3	4800	118	21	4.38	16	< 1	0.15	2.42	72	273	25	3.50	594
662550			12.3	6.69	4600	37	1	27	0.24	< 0.3	3310	96	49	4.31	17	< 1	0.19	2.29	66	269	4	3.57	433
662551			5.4	7.13	209	35	1	7	0.25	< 0.3	151	86	18	4.40	18	< 1	0.23	2.33	70	273	2	3.66	49
662552			3.4	6.99	101	29	1	6	0.34	< 0.3	68	90	98	4.48	16	1	0.15	2.36	69	285	1	3.59	43
662553			1.1	6.78	48	34	< 1	< 2	0.31	< 0.3	23	64	35	3.60	14	< 1	0.18	1.84	58	244	1	3.73	34
662554			0.5	6.52	30	32	1	< 2	0.32	< 0.3	21	91	4	4.64	16	< 1	0.17	2.50	70	315	< 1	3.53	39
662555			3.1	6.73	114	32	1	8	0.34	< 0.3	69	108	28	5.08	18	3	0.17	2.63	77	345	< 1	3.42	49
662556			3.6	6.17	759	39	1	6	0.25	< 0.3	536	78	27	4.26	16	< 1	0.18	2.26	64	305	3	3.36	83
662557			5.3	6.15	1180	30	< 1	13	0.17	< 0.3	589	111	5	4.71	16	< 1	0.17	2.46	79	355	4	3.16	116
662558			1.6	6.58	862	31	1	< 2	0.26	< 0.3	486	75	4	4.76	17	< 1	0.22	2.45	75	377	2	3.07	101
662559			14.6	7.00	4640	37	3	36	0.23	0.7	3040	109	90	5.25	17	< 1	0.20	2.66	76	418	8	3.35	352
662560			1.0	2.54	1060	54	< 1	< 2	2.85	0.5	1070	472	2260	20.2	11	3	0.48	5.14	20	731	2	0.53	> 10000
662561			27.1	6.52	> 5000	34	2	63	0.25	0.7	9310	95	112	4.98	16	< 1	0.17	2.53	72	400	11	3.12	959
662562			1.3	6.37	168	37	2	< 2	0.23	< 0.3	151	101	12	5.43	16	1	0.17	2.80	76	462	1	3.23	57
662563			1.7	6.26	75	36	1	< 2	0.27	< 0.3	81	111	23	5.65	16	< 1	0.21	2.83	77	456	< 1	3.08	52

Results

Activation Laboratories Ltd.

Report: A17-14250

Analyte Symbol	Ag	Co	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni
Unit Symbol	ppm	%	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm
Lower Limit	3	0.003	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1
Method Code	4Acid ICPOE S	4Acid ICPOE S	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
662564			2.1	6.13	73	31	1	< 2	0.25	< 0.3	50	96	123	5.38	16	< 1	0.17	2.65	70	437	2	3.11	51
662565			9.8	7.42	588	35	2	20	0.82	0.4	127	64	1900	10.7	19	4	0.18	4.53	93	764	< 1	1.96	59
662566			6.6	7.36	1210	26	2	8	0.83	0.4	142	50	3860	12.0	19	3	0.20	4.59	95	810	< 1	1.74	71
662567			2.1	5.13	149	25	1	< 2	1.04	0.3	60	58	523	9.93	19	< 1	0.16	3.72	81	777	< 1	2.34	58
662568			9.5	7.46	496	27	1	14	1.90	2.1	86	62	2110	10.3	20	2	0.30	3.26	65	840	2	2.65	65
662569			< 0.3	7.10	< 3	29	1	< 2	0.34	< 0.3	24	152	75	5.40	19	1	0.27	3.67	62	382	< 1	3.97	98
662570			< 0.3	6.10	< 3	9	2	4	8.50	0.4	21	139	341	5.56	16	< 1	0.15	7.76	61	1120	42	2.49	104
662571			< 0.3	7.27	< 3	41	1	< 2	0.24	0.3	24	81	18	5.23	18	< 1	0.20	3.75	60	374	< 1	3.97	91
662572			< 0.3	7.94	59	42	2	< 2	0.25	< 0.3	60	88	16	3.98	19	2	0.35	1.87	55	189	< 1	4.62	69
662573			0.4	7.07	13	27	2	< 2	0.23	< 0.3	17	105	41	4.12	19	< 1	0.15	2.02	59	198	< 1	4.29	60
662574			0.6	7.46	12	32	1	< 2	0.25	< 0.3	18	109	32	4.14	18	< 1	0.22	2.05	62	213	< 1	4.26	63
662575			0.8	7.28	734	35	1	< 2	0.23	< 0.3	463	115	21	3.98	19	< 1	0.24	2.00	60	201	3	4.44	192
662576			7.7	7.64	4290	31	2	17	0.22	< 0.3	2460	107	516	3.54	16	< 1	0.18	1.74	50	176	9	4.79	879
662577			1.8	6.03	1010	32	1	< 2	0.20	< 0.3	592	125	9	3.31	16	< 1	0.21	1.74	55	177	6	4.51	243
662578			1.7	7.04	2790	36	2	4	0.22	< 0.3	1590	125	3	3.38	18	5	0.27	1.78	58	181	7	4.51	631
662579			0.3	6.61	16	38	1	< 2	0.22	< 0.3	17	100	2	3.47	17	1	0.31	1.87	55	180	< 1	3.54	55
662580			< 0.3	0.24	< 3	14	< 1	< 2	0.03	< 0.3	1	16	2	0.67	< 1	< 1	0.04	0.02	9	88	< 1	0.06	1
662581			0.8	8.20	638	53	2	< 2	0.28	0.3	434	87	5	3.44	18	< 1	0.48	1.77	58	179	2	4.53	160
662582			0.4	8.14	48	51	2	< 2	0.28	< 0.3	57	79	3	3.92	19	< 1	0.47	2.05	62	203	< 1	4.40	69
662583			0.3	7.44	47	36	1	< 2	0.25	< 0.3	41	86	6	4.24	19	< 1	0.27	2.18	62	224	< 1	4.28	72
662584			< 0.3	7.22	13	36	1	< 2	0.24	< 0.3	18	110	8	4.80	21	< 1	0.28	2.49	70	242	< 1	3.97	67
662585			0.6	7.99	45	49	1	< 2	0.28	< 0.3	35	116	5	5.06	22	< 1	0.46	2.52	74	250	3	3.95	75
662586			0.4	6.78	23	46	1	< 2	0.25	< 0.3	22	107	3	4.77	21	< 1	0.39	2.52	71	247	< 1	3.64	67
662587			0.7	7.01	44	45	1	< 2	0.24	< 0.3	33	102	5	4.66	19	1	0.34	2.41	69	237	1	3.66	72
662588	3	0.257	3.4	7.16	4630	28	2	5	0.35	< 0.3	2730	99	5	4.41	17	< 1	0.15	2.29	67	228	8	3.91	893
662589	7	0.209	6.0	6.58	3940	36	2	10	0.24	< 0.3	2230	75	113	3.35	14	< 1	0.21	1.74	58	186	8	3.82	744
662590			2.3	8.06	63	64	2	< 2	0.31	< 0.3	43	132	51	4.32	20	< 1	0.52	2.18	59	228	2	4.35	63
662591			0.9	7.79	78	99	3	< 2	0.27	< 0.3	55	142	27	4.38	23	< 1	0.71	2.24	67	222	< 1	3.87	73
662592			0.9	7.32	139	106	3	< 2	0.25	< 0.3	89	136	21	4.55	20	< 1	0.71	2.36	77	235	< 1	3.60	85
662593			0.8	7.45	67	108	2	< 2	0.28	< 0.3	33	109	16	4.12	19	3	0.65	2.21	68	224	1	3.91	57
662594			1.2	7.86	57	145	3	< 2	0.33	0.5	40	157	20	5.09	21	< 1	0.80	2.71	83	270	< 1	3.41	73
662595			0.9	7.79	351	96	3	< 2	0.31	< 0.3	239	143	11	4.54	19	< 1	0.63	2.39	69	250	2	3.93	100
662596			4.6	6.14	> 5000	56	3	12	0.17	< 0.3	> 10000	155	9	4.44	19	< 1	0.47	2.46	74	235	50	3.81	1270
662597			2.5	5.74	> 5000	32	3	6	0.23	< 0.3	7070	108	8	4.07	15	< 1	0.25	2.26	66	232	27	3.65	702
662598			2.5	6.74	> 5000	33	3	5	0.26	< 0.3	6940	97	5	4.19	13	< 1	0.25	2.28	67	233	26	3.71	691
662599	23	2.13	23.5	6.22	> 5000	32	4	48	0.20	< 0.3	> 10000	62	228	4.04	12	1	0.18	2.01	56	219	42	3.31	3780
662600			10.1	0.72	2450	24	< 1	< 2	0.72	< 0.3	2210	48	> 10000	10.7	4	2	0.25	0.94	5	212	9	0.01	73
662601			5.8	6.90	4900	26	1	9	0.21	< 0.3	3400	77	87	4.91	15	< 1	0.17	2.49	63	272	11	3.40	622
662602			0.3	6.98	292	18	< 1	< 2	0.17	< 0.3	224	56	20	2.46	13	< 1	0.24	1.29	43	166	2	4.52	59
662603			0.4	7.03	72	17	< 1	< 2	0.18	< 0.3	53	52	3	2.37	12	< 1	0.21	1.26	42	157	2	4.40	32
662604			< 0.3	6.82	45	17	< 1	< 2	0.18	< 0.3	29	55	4	2.29	11	1	0.22	1.17	42	153	< 1	4.45	28

Results

Activation Laboratories Ltd.

Report: A17-14250

Analyte Symbol	Ag	Co	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni
Unit Symbol	ppm	%	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm
Lower Limit	3	0.003	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1
Method Code	4Acid ICPOE S	4Acid ICPOE S	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
662605			0.4	6.89	52	18	< 1	< 2	0.18	< 0.3	34	69	4	2.53	14	< 1	0.23	1.33	44	161	2	4.43	31
662606			< 0.3	5.45	67	16	< 1	< 2	0.14	< 0.3	44	69	2	2.33	11	1	0.20	1.21	43	154	< 1	4.37	33
662607			0.3	6.28	92	17	< 1	< 2	0.15	< 0.3	58	83	2	2.62	15	< 1	0.21	1.39	45	170	1	4.47	39
662608			0.4	6.89	1330	22	< 1	4	0.15	< 0.3	798	77	6	2.89	15	2	0.23	1.52	50	179	< 1	4.48	223
662609			< 0.3	7.14	26	20	< 1	< 2	0.25	< 0.3	73	59	4	2.86	16	2	0.24	1.49	49	185	< 1	4.27	41
662610			0.3	6.88	87	22	< 1	< 2	0.15	< 0.3	81	72	2	3.04	14	< 1	0.21	1.58	49	190	< 1	4.30	41
662611			0.4	6.81	1570	24	< 1	5	0.57	< 0.3	1010	57	5	3.11	13	3	0.20	1.58	51	219	3	4.10	172
662612			0.4	6.86	989	29	< 1	309	0.24	< 0.3	592	41	19	3.07	14	< 1	0.24	1.53	55	195	5	4.05	112
662613			0.4	7.00	3360	30	2	96	0.24	< 0.3	1990	67	5	3.29	13	3	0.22	1.67	55	203	3	4.12	234
662614			< 0.3	7.12	415	29	2	< 2	0.21	< 0.3	127	62	4	4.13	15	< 1	0.24	2.08	65	252	< 1	3.73	51
662615			0.4	7.11	1650	25	< 1	11	0.42	< 0.3	992	55	25	3.86	15	< 1	0.21	1.93	60	245	2	3.89	170
662616			0.4	5.85	469	23	< 1	4	0.22	0.9	339	82	2	3.38	14	< 1	0.19	1.74	54	214	< 1	3.85	54
662617			0.5	7.61	46	74	2	< 2	0.28	< 0.3	47	110	34	3.78	20	< 1	0.70	1.96	59	217	< 1	4.03	48
662618			< 0.3	8.41	34	223	3	< 2	0.33	< 0.3	26	118	56	4.55	22	< 1	1.25	2.36	74	248	< 1	3.37	63
662619			0.4	8.54	23	135	3	< 2	0.33	< 0.3	21	99	41	4.69	21	< 1	0.89	2.38	72	258	< 1	3.85	60
662620			< 0.3	0.27	4	15	< 1	< 2	0.02	< 0.3	2	9	2	0.58	< 1	< 1	0.04	0.04	9	82	< 1	0.06	2
662621			0.7	8.38	177	98	2	< 2	0.36	< 0.3	129	93	50	4.74	19	< 1	0.74	2.31	64	262	1	4.02	82
662622			0.7	8.69	29	400	3	< 2	0.46	< 0.3	23	98	47	4.25	21	< 1	1.41	2.04	62	240	< 1	3.63	62
662623			0.6	8.58	21	279	3	< 2	0.49	< 0.3	22	89	49	4.75	21	< 1	1.11	2.40	67	277	< 1	3.73	62
662624			0.5	8.45	24	319	4	< 2	0.39	< 0.3	24	83	75	4.07	20	< 1	1.29	2.34	67	240	1	3.63	62
662625			0.4	7.74	116	104	3	< 2	0.30	< 0.3	99	91	2	4.26	18	< 1	0.59	2.52	67	274	< 1	3.89	70
662626			0.4	8.06	121	50	2	< 2	0.37	< 0.3	112	65	3	4.85	19	< 1	0.27	2.70	60	341	2	4.09	63
662627			7.4	7.54	128	24	3	2	0.32	4.7	152	75	3240	9.10	20	< 1	0.19	3.96	63	792	1	2.66	81
662628			0.6	8.44	31	26	1	3	2.58	0.4	27	84	11	4.19	16	< 1	0.38	2.94	73	471	31	4.64	79
662629			< 0.3	6.68	13	16	2	2	1.82	< 0.3	15	90	34	4.22	12	< 1	0.20	3.78	74	361	3	3.21	78
662630			< 0.3	6.07	6	30	1	< 2	4.77	< 0.3	11	56	41	3.36	14	< 1	0.18	3.88	49	514	2	3.31	50
662631			0.7	8.34	1450	20	1	27	1.96	< 0.3	878	101	531	5.77	18	2	0.37	3.58	72	450	80	4.20	232
662663			0.8	8.56	3320	19	1	31	1.17	< 0.3	1700	121	10	6.06	19	2	0.26	3.51	82	404	62	4.11	723
662664			0.6	9.16	3670	20	1	6	1.75	< 0.3	2040	75	9	5.99	20	< 1	0.62	3.93	95	517	14	4.43	629
662665			< 0.3	7.20	97	25	< 1	< 2	0.44	0.4	89	80	3	4.32	17	1	0.30	2.60	68	291	< 1	3.90	80
662666			0.3	6.05	668	20	1	< 2	0.59	< 0.3	464	97	1	4.04	14	< 1	0.29	2.41	68	296	10	3.78	134
662667			0.7	8.82	2020	26	3	7	0.53	< 0.3	1680	134	35	5.27	20	5	0.78	3.37	102	346	68	5.01	328
662668			0.6	8.56	1410	23	1	3	0.18	< 0.3	995	113	5	5.05	19	4	0.39	3.24	96	317	29	4.94	292
662669			0.4	8.03	1010	25	< 1	4	0.22	< 0.3	749	92	5	4.71	17	< 1	0.37	2.92	89	294	11	4.33	215
662670			< 0.3	6.84	142	28	< 1	< 2	0.40	< 0.3	148	62	12	4.12	17	< 1	0.41	2.43	76	267	1	3.39	77
662671			0.9	6.97	51	43	2	< 2	1.75	< 0.3	65	72	531	4.88	16	< 1	1.04	2.76	77	359	< 1	2.38	67
662672			< 0.3	6.72	< 3	36	< 1	< 2	0.16	< 0.3	50	67	1080	3.87	14	< 1	0.41	2.18	58	216	1	3.41	51
662673			< 0.3	6.77	18	37	< 1	< 2	0.20	< 0.3	63	68	521	3.64	15	< 1	0.41	2.10	57	208	2	3.54	47
662674			0.3	7.44	7	57	1	< 2	0.16	< 0.3	33	85	46	4.15	17	< 1	0.67	2.54	73	216	< 1	3.43	55
662675			< 0.3	7.78	9	76	1	< 2	0.20	< 0.3	62	103	251	4.59	19	< 1	0.93	2.66	80	227	2	3.43	72
662676			0.3	5.20	10	40	< 1	< 2	0.15	< 0.3	49	94	1720	3.75	15	< 1	0.55	2.23	66	195	< 1	3.15	55

Results

Activation Laboratories Ltd.

Report: A17-14250

Analyte Symbol	Ag	Co	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni
Unit Symbol	ppm	%	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm
Lower Limit	3	0.003	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1
Method Code	4Acid ICPOE S	4Acid ICPOE S	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
662677			0.4	5.94	19	45	1	< 2	0.16	< 0.3	50	141	360	3.75	16	1	0.61	2.28	66	204	2	3.35	50
662678			0.3	7.14	13	65	1	< 2	0.21	< 0.3	72	142	1030	4.12	19	< 1	0.79	2.38	73	201	1	3.63	68
662679			< 0.3	7.02	15	44	1	< 2	0.15	0.7	40	87	220	3.55	15	1	0.53	2.16	66	181	1	3.54	47
662680			< 0.3	0.27	< 3	15	< 1	< 2	0.02	< 0.3	1	8	16	0.30	< 1	< 1	0.06	0.04	9	49	< 1	0.06	2
662681			< 0.3	7.93	25	96	1	< 2	0.23	< 0.3	86	113	1820	4.09	20	< 1	0.99	2.31	72	198	< 1	3.78	66
662682			0.3	6.62	6	40	< 1	< 2	0.13	< 0.3	27	70	718	2.67	13	< 1	0.43	1.53	52	144	2	3.78	29
662683			< 0.3	6.68	11	37	< 1	< 2	0.12	< 0.3	14	66	524	2.41	13	< 1	0.40	1.36	47	144	2	3.86	25
662684			< 0.3	6.94	6	44	1	< 2	0.13	< 0.3	14	70	208	2.56	15	< 1	0.49	1.48	48	152	3	3.89	29
662685			< 0.3	7.64	5	177	< 1	< 2	5.79	< 0.3	49	123	104	7.57	15	< 1	1.33	4.95	51	1450	< 1	1.49	146
662686			< 0.3	7.02	3	129	2	< 2	4.13	0.3	41	172	71	6.97	13	< 1	0.92	5.01	56	1070	< 1	2.25	138
662687			< 0.3	7.12	< 3	27	2	< 2	5.18	< 0.3	34	179	87	6.75	13	< 1	0.51	5.25	57	1020	< 1	2.48	124
662688			< 0.3	8.50	< 3	28	1	< 2	2.02	0.3	44	179	22	8.12	16	< 1	0.44	5.16	61	979	< 1	2.92	138
662689			< 0.3	5.96	3	14	1	< 2	6.02	< 0.3	30	156	50	6.02	13	< 1	0.47	3.86	51	922	< 1	1.79	86
662690			< 0.3	7.04	< 3	13	< 1	4	0.42	0.4	16	84	1650	4.22	14	2	0.19	2.13	35	397	1	3.79	56
662691			0.3	7.18	< 3	28	< 1	< 2	0.18	< 0.3	9	61	13	3.34	15	< 1	0.26	1.86	59	191	< 1	3.96	39
662692			0.4	6.95	9	29	< 1	5	0.25	< 0.3	36	56	74	2.84	13	< 1	0.50	1.58	50	200	1	3.81	40
662693			11.1	2.76	812	19	< 1	1090	12.5	< 0.3	1260	28	> 10000	4.05	5	< 1	1.09	0.89	24	812	15	1.12	258
662694			0.3	6.76	9	25	< 1	< 2	0.30	< 0.3	39	63	35	2.82	13	< 1	0.44	1.60	52	192	< 1	3.86	40
662695			0.3	7.00	10	27	< 1	< 2	0.68	< 0.3	77	68	117	3.46	14	1	0.93	1.97	69	235	1	3.36	46
662696			0.4	6.96	291	33	1	< 2	0.22	< 0.3	261	82	8	3.58	17	< 1	0.43	2.04	70	216	8	3.67	83
662697			< 0.3	6.86	209	23	< 1	< 2	0.20	< 0.3	205	84	11	3.68	16	< 1	0.24	2.05	61	214	2	3.64	61
662698			< 0.3	6.62	70	18	< 1	< 2	0.15	< 0.3	102	69	6	3.88	14	< 1	0.20	2.13	61	222	1	3.50	51
662699			0.6	8.67	668	31	2	< 2	0.26	0.6	570	77	20	3.90	16	1	0.45	2.22	68	214	15	4.68	143
662700			1.0	2.51	1070	35	< 1	< 2	2.83	0.4	1040	456	2280	20.1	8	< 1	0.49	5.09	20	741	2	0.54	> 10000
662701			< 0.3	8.63	51	171	3	< 2	0.32	< 0.3	44	92	7	4.43	20	< 1	1.11	2.33	78	244	< 1	3.53	74
662702			0.4	8.60	110	95	2	< 2	0.29	< 0.3	82	103	4	5.00	21	< 1	0.77	2.64	93	280	< 1	3.59	95
662703			0.5	8.22	131	60	3	< 2	0.26	< 0.3	98	116	130	5.20	19	< 1	0.56	2.88	94	294	2	3.57	121
662704			0.4	8.50	639	35	3	< 2	0.29	< 0.3	391	123	3	5.54	19	< 1	0.40	3.09	96	317	5	3.76	216
662705	< 3	1.13	0.7	7.55	> 5000	11	3	285	0.32	< 0.3	> 10000	158	14	4.94	17	< 1	0.09	2.98	100	284	67	4.64	3460
662706			0.4	8.19	445	15	2	2	0.41	< 0.3	336	163	< 1	5.58	20	< 1	0.09	3.46	109	324	3	4.22	219
662707	< 3	0.767	2.2	9.03	> 5000	15	1	169	0.35	< 0.3	7900	137	32	4.68	16	< 1	0.20	2.83	93	293	228	5.27	7150
662708			1.2	10.1	> 5000	16	2	32	0.25	< 0.3	3080	116	4	5.44	19	< 1	0.11	3.24	101	313	210	5.55	1720
662709			0.8	9.07	1300	21	2	7	0.25	< 0.3	821	83	4	4.54	17	6	0.24	2.64	79	275	66	4.88	345
662710			0.4	8.30	188	52	2	< 2	0.27	< 0.3	176	97	15	5.25	21	< 1	0.54	2.94	92	296	3	3.67	124
662711			0.5	7.99	331	30	2	< 2	0.24	0.4	221	91	4	5.32	17	< 1	0.24	2.84	94	304	15	3.78	124
662712			0.3	8.39	94	98	2	< 2	0.29	< 0.3	79	137	24	4.73	19	< 1	0.97	2.35	81	256	2	3.43	72
662713			0.4	8.39	38	111	2	< 2	0.28	< 0.3	35	106	33	4.89	20	< 1	1.14	2.29	82	261	< 1	3.19	64
662714			0.4	8.58	33	114	2	< 2	0.28	< 0.3	29	114	57	5.06	21	< 1	1.15	2.35	84	263	2	3.27	65
662715			0.4	6.47	15	92	1	< 2	0.24	< 0.3	18	140	28	4.74	19	< 1	0.89	2.34	86	275	< 1	3.18	61
662716			0.6	7.54	33	107	2	< 2	0.26	< 0.3	35	151	865	5.25	20	< 1	1.05	2.49	86	300	1	3.00	74
662717			< 0.3	7.65	9	93	2	< 2	0.25	< 0.3	21	119	66	5.18	18	< 1	0.88	2.56	91	294	< 1	3.06	73

Analyte Symbol	Ag	Co	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni
Unit Symbol	ppm	%	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm
Lower Limit	3	0.003	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1
Method Code	4Acid ICPOE S	4Acid ICPOE S	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
662718			0.3	8.01	9	88	1	< 2	0.26	< 0.3	17	122	8	5.29	20	< 1	0.91	2.69	95	311	< 1	3.03	74
662719			0.5	7.99	9	88	2	< 2	0.25	< 0.3	18	119	95	5.27	19	< 1	0.92	2.59	89	318	4	3.00	71
662720			< 0.3	0.28	< 3	18	< 1	< 2	0.01	< 0.3	2	20	6	0.47	< 1	< 1	0.07	0.03	9	64	1	0.07	2
662721			0.5	8.36	7	97	2	< 2	0.28	< 0.3	17	92	15	4.90	19	< 1	1.04	2.31	79	313	4	3.26	68
662722			0.4	7.91	< 3	70	2	< 2	0.25	< 0.3	17	127	9	5.58	18	< 1	0.71	2.58	78	354	2	3.08	71
662723			0.4	7.74	12	90	2	< 2	0.24	< 0.3	23	111	23	4.97	18	< 1	0.79	2.34	74	339	3	3.17	60
662724			0.6	7.55	19	55	2	< 2	0.24	< 0.3	23	101	143	4.87	18	2	0.50	2.40	70	390	2	3.30	70
662725			0.6	6.38	27	47	1	< 2	0.22	< 0.3	36	135	46	5.02	16	< 1	0.47	2.67	79	448	5	3.25	87
662726			0.3	6.94	4	73	2	< 2	0.29	< 0.3	20	114	7	4.43	18	< 1	0.58	2.37	70	470	< 1	3.27	59
662727			< 0.3	7.93	8	39	2	< 2	0.85	< 0.3	41	113	48	6.49	18	< 1	0.49	3.42	85	864	< 1	3.04	105
662728			< 0.3	7.90	39	30	2	< 2	0.64	< 0.3	74	171	338	8.19	16	< 1	0.24	4.90	90	1210	< 1	2.46	130
662729			0.5	8.01	23	100	1	< 2	1.99	0.9	53	132	255	7.63	17	< 1	0.35	4.34	74	1510	2	3.02	133
662660			0.4	7.66	39	26	1	< 2	0.22	< 0.3	34	102	119	5.76	18	< 1	0.22	3.50	81	315	< 1	3.58	88
662661			< 0.3	7.42	18	27	1	< 2	0.19	< 0.3	22	108	12	6.07	17	< 1	0.20	3.69	105	331	< 1	3.16	87
662662			< 0.3	7.53	92	29	1	< 2	0.59	< 0.3	61	121	66	5.52	17	< 1	0.22	3.29	80	345	1	3.47	93

Results

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Analyte Symbol	P	Pb	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Co	Cu	Ni	Pb	Zn
Unit Symbol	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	%	%
Lower Limit	0.001	3	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	0.002	0.005	0.005	0.01	0.01
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2
680441	0.065	< 3	< 5	0.05	16	65	< 2	0.35	< 5	< 10	113	< 5	19	22	164					
680442	0.067	5	8	0.02	17	73	< 2	0.40	< 5	< 10	120	< 5	22	25	181					
680443	0.067	5	< 5	0.03	15	66	< 2	0.34	< 5	< 10	110	< 5	20	26	166					
680444	0.055	< 3	< 5	0.01	14	65	< 2	0.33	< 5	< 10	101	< 5	16	23	169					
680445	0.055	3	< 5	< 0.01	13	60	< 2	0.36	< 5	< 10	106	< 5	15	24	167					
680446	0.061	< 3	8	0.02	14	64	< 2	0.37	< 5	< 10	109	< 5	15	26	174					
680447	0.066	< 3	11	0.01	13	60	< 2	0.36	< 5	< 10	104	< 5	16	31	182					
680448	0.064	< 3	6	< 0.01	14	63	< 2	0.37	< 5	< 10	109	< 5	15	29	178					
680449	0.064	4	10	< 0.01	14	61	< 2	0.39	< 5	< 10	116	< 5	16	30	184					
680450	0.065	< 3	< 5	< 0.01	12	54	< 2	0.38	< 5	< 10	102	< 5	12	30	190					
680451	0.068	3	7	0.02	13	59	< 2	0.37	< 5	< 10	107	< 5	19	33	188					
680452	0.050	5	< 5	< 0.01	12	57	< 2	0.24	< 5	< 10	71	< 5	19	30	177					
680453	0.045	6	< 5	0.07	11	67	< 2	0.27	< 5	< 10	72	< 5	13	33	173					
680454	0.047	125	< 5	0.47	37	44	< 2	0.42	< 5	< 10	188	< 5	27	99	81					
680455	0.044	725	10	0.81	46	29	< 2	0.54	< 5	< 10	246	< 5	27	151	75					
680456	0.042	477	20	1.50	46	33	< 2	0.66	< 5	< 10	290	< 5	29	170	81					
680457	0.043	1790	10	0.58	49	33	< 2	0.54	< 5	< 10	266	10	29	611	76					
680458	0.040	282	< 5	0.53	46	36	< 2	0.44	< 5	< 10	219	12	27	1030	65					
680459	0.041	286	8	1.47	45	35	< 2	0.73	< 5	< 10	316	5	27	307	82					
680460	0.023	37	43	9.13	9	54	< 2	0.13	< 5	< 10	57	< 5	13	126	50			5.45		
680461	0.042	168	6	0.72	46	51	< 2	0.71	< 5	< 10	311	< 5	27	180	84					
680462	0.040	244	< 5	2.05	42	56	< 2	0.68	< 5	< 10	283	< 5	31	133	78					
680463	0.043	40	14	0.39	47	59	< 2	0.20	< 5	< 10	144	< 5	34	236	22					
680464	0.042	51	8	0.32	48	57	< 2	0.18	< 5	< 10	158	< 5	31	427	22					
680465	0.043	79	10	0.56	49	48	< 2	0.24	< 5	< 10	133	< 5	28	153	29					
680466	0.037	171	< 5	0.33	47	66	< 2	0.19	< 5	< 10	154	< 5	29	204	29					
680467	0.046	101	< 5	0.43	50	64	< 2	0.27	< 5	< 10	151	< 5	33	290	32					
680468	0.042	321	7	0.41	49	57	< 2	0.25	< 5	< 10	143	9	30	1790	25					
680469	0.040	413	< 5	0.46	48	57	< 2	0.26	< 5	< 10	132	7	32	1400	22					
680470	0.049	548	< 5	0.35	40	65	< 2	0.81	< 5	< 10	340	12	22	1890	90					
680471	0.042	1560	33	0.24	49	60	< 2	0.36	< 5	< 10	222	8	24	3230	59					
680472	0.019	> 5000	< 5	1.58	34	46	< 2	0.46	< 5	< 10	232	8	47	> 10000	61				0.73	1.37
680473	0.039	1170	< 5	0.11	47	63	< 2	0.10	7	< 10	106	12	28	1020	33					
680474	0.039	674	< 5	0.10	44	59	< 2	0.09	< 5	< 10	112	< 5	26	342	21					
680475	0.037	303	7	0.11	46	62	< 2	0.21	< 5	< 10	145	< 5	26	175	36					
680476	0.041	247	< 5	0.17	51	61	< 2	0.17	< 5	< 10	136	6	31	1260	33					
680477	0.039	200	< 5	0.47	51	65	< 2	0.30	< 5	< 10	167	7	32	1540	39					
680478	0.046	430	< 5	0.31	50	65	< 2	0.30	< 5	< 10	195	8	33	2780	48					
680479	0.041	293	< 5	0.57	50	66	< 2	0.26	< 5	< 10	135	8	31	3870	28					
680480	0.002	< 3	< 5	< 0.01	< 4	3	< 2	0.01	< 5	< 10	3	< 5	3	5	39					
680481	0.043	561	< 5	0.19	49	68	< 2	0.14	< 5	< 10	162	5	29	1480	36					

Results

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Analyte Symbol	P	Pb	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Co	Cu	Ni	Pb	Zn
Unit Symbol	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	%	%
Lower Limit	0.001	3	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	0.002	0.005	0.005	0.01	0.01
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2
680482	0.047	862	6	0.37	49	74	< 2	0.24	< 5	< 10	154	7	28	3150	31					
680483	0.046	462	< 5	0.43	38	104	< 2	0.25	< 5	< 10	118	10	27	977	22					
680484	0.042	719	14	0.32	51	66	< 2	0.23	5	< 10	159	8	33	2230	32					
680485	0.031	6	< 5	0.02	36	18	< 2	0.11	< 5	< 10	66	< 5	11	27	49					
680486	0.034	< 3	< 5	0.01	38	15	< 2	0.59	< 5	< 10	244	< 5	12	33	105					
680487	0.021	< 3	< 5	0.04	23	39	< 2	0.17	< 5	< 10	82	< 5	21	24	39					
680488	0.030	3	8	< 0.01	37	26	< 2	0.14	< 5	< 10	67	< 5	16	36	34					
680489	0.038	< 3	6	0.01	29	23	5	0.63	< 5	< 10	255	< 5	11	38	88					
680490	0.034	< 3	< 5	0.01	31	27	< 2	0.38	< 5	< 10	206	< 5	15	36	102					
680491	0.031	< 3	< 5	< 0.01	30	20	< 2	0.22	< 5	< 10	174	< 5	13	36	83					
680492	0.044	< 3	< 5	0.02	32	23	< 2	0.16	< 5	< 10	110	< 5	16	43	57					
680493	0.040	< 3	< 5	0.01	31	28	4	0.10	< 5	< 10	68	< 5	16	41	38					
680494	0.048	5	< 5	0.06	29	31	< 2	0.15	8	< 10	85	< 5	19	28	57					
680495	0.051	4	< 5	0.15	34	71	10	0.19	< 5	< 10	111	< 5	24	40	58					
680496	0.044	4	< 5	0.09	36	30	9	0.44	5	< 10	205	< 5	25	51	76					
680497	0.073	< 3	< 5	0.06	29	48	< 2	0.30	< 5	< 10	113	< 5	15	40	72					
680498	0.051	13	< 5	0.27	47	22	< 2	0.36	< 5	< 10	186	< 5	27	39	73					
680499	0.057	< 3	7	0.10	35	28	22	0.49	< 5	< 10	219	< 5	19	38	93					
680500	0.038	127	99	11.6	< 4	3	< 2	0.03	12	< 10	9	< 5	5	36	22		8.67			
662501	0.052	6	< 5	0.04	23	21	< 2	0.24	< 5	< 10	140	< 5	15	37	81					
662502	0.042	15	45	0.17	17	36	< 2	0.34	< 5	< 10	125	< 5	34	24	102					
662503	0.045	77	55	1.15	21	49	< 2	0.23	51	< 10	135	< 5	102	142	92	1.31				
662504	0.028	15	89	1.20	18	35	< 2	0.20	69	< 10	108	< 5	28	25	91	1.69				
662505	0.022	33	12	0.25	10	54	5	0.19	7	< 10	83	< 5	21	58	74					
662506	0.053	37	41	0.27	13	34	< 2	0.29	12	< 10	112	< 5	20	27	131					
662507	0.036	38	46	0.41	9	27	< 2	0.22	11	< 10	84	12	22	519	108					
662508	0.041	247	< 5	0.73	46	54	< 2	0.50	< 5	< 10	233	< 5	28	203	63					
662509	0.044	233	11	1.19	32	58	10	0.75	< 5	< 10	325	< 5	21	254	83					
662510	0.045	996	7	0.43	44	65	< 2	0.39	< 5	< 10	217	8	29	1650	57					
662511	0.041	184	< 5	0.60	51	54	< 2	0.32	< 5	< 10	143	< 5	30	290	29					
662512	0.036	600	< 5	0.26	45	53	< 2	0.12	< 5	< 10	136	8	26	1220	25					
662513	0.037	479	5	0.37	44	60	< 2	0.22	< 5	< 10	143	10	28	879	22					
662514	0.039	538	< 5	0.20	48	60	< 2	0.13	< 5	< 10	135	7	30	700	33					
662515	0.044	49	< 5	0.30	49	79	< 2	0.22	< 5	< 10	162	9	26	703	43					
662516	0.044	18	< 5	0.18	44	84	< 2	0.30	< 5	< 10	178	< 5	15	165	51					
662517	0.032	87	9	0.62	40	86	< 2	0.27	< 5	< 10	121	< 5	35	99	33					
662518	0.041	107	< 5	0.23	48	92	< 2	0.24	< 5	< 10	167	< 5	30	150	51					
662519	0.047	242	< 5	0.56	49	86	< 2	0.45	< 5	< 10	222	< 5	27	191	57					
662520	0.023	37	51	9.35	9	54	< 2	0.13	< 5	< 10	58	7	13	124	49			5.51		
662521	0.045	43	5	2.89	45	57	< 2	0.50	< 5	< 10	209	< 5	27	98	57					
662522	0.041	31	< 5	2.54	44	64	< 2	0.42	< 5	< 10	171	< 5	27	100	44					
662523	0.035	253	9	4.11	35	75	< 2	0.39	< 5	< 10	168	< 5	23	90	44					

Results

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Analyte Symbol	P	Pb	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Co	Cu	Ni	Pb	Zn
Unit Symbol	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	%	%
Lower Limit	0.001	3	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	0.002	0.005	0.005	0.01	0.01
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2
662524	0.048	46	7	3.41	48	70	< 2	0.46	< 5	< 10	226	< 5	28	111	61					
662525	0.041	41	< 5	2.48	46	57	< 2	0.51	< 5	< 10	221	< 5	26	110	59					
662526	0.045	45	< 5	3.71	43	56	< 2	0.45	< 5	< 10	192	< 5	24	106	51					
662527	0.044	29	< 5	1.77	47	60	< 2	0.64	< 5	< 10	284	< 5	27	99	79					
662528	0.044	22	< 5	0.80	33	70	4	0.79	< 5	< 10	336	< 5	22	107	87					
662529	0.044	83	10	1.37	46	79	< 2	0.71	< 5	< 10	309	< 5	29	129	84					
662530	0.043	31	< 5	1.72	45	72	< 2	0.62	< 5	< 10	281	< 5	29	108	79					
662531	0.039	38	< 5	2.28	45	70	< 2	0.47	< 5	< 10	196	< 5	29	106	53					
662532	0.031	< 3	< 5	0.19	32	43	< 2	0.17	< 5	< 10	123	< 5	18	63	47					
662533	0.025	< 3	6	0.21	43	71	< 2	0.35	< 5	< 10	216	< 5	18	56	50					
662534	0.022	12	5	0.13	40	131	3	0.35	5	< 10	206	< 5	17	61	49					
662535	0.026	3	7	0.04	30	50	2	0.32	< 5	< 10	151	< 5	33	42	51					
662536	0.049	4	< 5	0.14	29	71	2	0.39	< 5	< 10	156	< 5	18	54	81					
662537	0.044	< 3	< 5	0.15	26	75	< 2	0.40	< 5	< 10	152	< 5	16	43	83					
662538	0.040	< 3	< 5	0.07	25	56	8	0.45	< 5	< 10	181	< 5	13	48	84					
662539	0.035	< 3	13	0.02	30	58	< 2	0.35	< 5	< 10	163	< 5	27	36	67					
662540	0.001	< 3	< 5	< 0.01	< 4	4	7	0.01	< 5	< 10	2	< 5	2	1	37					
662541	0.058	< 3	< 5	0.01	24	62	< 2	0.12	< 5	< 10	76	< 5	15	39	59					
662542	0.043	< 3	< 5	0.09	27	64	< 2	0.13	< 5	< 10	98	< 5	15	39	34					
662543	0.042	654	22	0.21	14	60	< 2	0.31	< 5	< 10	98	< 5	16	132	129					
662544	0.040	401	44	0.13	15	62	5	0.19	< 5	< 10	90	< 5	12	44	88					
662545	0.045	551	10	0.12	15	71	4	0.32	< 5	< 10	109	< 5	20	45	131					
662546	0.044	706	< 5	0.11	18	66	< 2	0.27	< 5	< 10	122	< 5	15	46	112					
662547	0.043	1120	18	0.27	14	63	< 2	0.29	5	< 10	107	< 5	15	42	142					
662548	0.044	> 5000	121	1.30	13	48	< 2	0.25	55	< 10	113	< 5	17	48	120	1.33			0.59	
662549	0.046	927	42	0.34	12	63	8	0.29	16	< 10	94	< 5	11	42	146					
662550	0.047	817	30	0.24	13	70	6	0.27	13	< 10	83	< 5	13	40	141					
662551	0.045	429	< 5	0.04	14	68	< 2	0.26	< 5	< 10	89	< 5	13	42	137					
662552	0.047	268	7	0.02	14	68	4	0.28	< 5	< 10	84	< 5	16	42	163					
662553	0.045	100	< 5	0.01	9	63	< 2	0.23	< 5	< 10	64	< 5	14	37	146					
662554	0.042	39	< 5	< 0.01	14	70	5	0.17	< 5	< 10	61	< 5	19	50	98					
662555	0.045	117	44	0.02	18	71	11	0.19	< 5	< 10	76	6	27	54	101					
662556	0.040	181	7	0.04	11	71	< 2	0.24	< 5	< 10	74	< 5	11	49	136					
662557	0.037	226	31	0.05	10	54	4	0.23	< 5	< 10	75	< 5	11	57	123					
662558	0.034	69	< 5	0.04	11	52	8	0.22	< 5	< 10	66	< 5	8	70	111					
662559	0.044	652	51	0.26	17	64	11	0.36	15	< 10	125	< 5	22	73	120					
662560	0.021	45	62	11.9	6	39	< 2	0.10	< 5	< 10	48	8	11	141	49			8.04		
662561	0.036	1330	35	0.63	16	64	< 2	0.30	35	< 10	111	< 5	17	71	112					
662562	0.036	87	< 5	0.07	18	66	< 2	0.12	< 5	< 10	77	< 5	11	79	56					
662563	0.035	121	< 5	0.15	17	63	9	0.23	< 5	< 10	100	< 5	14	94	93					
662564	0.039	132	< 5	0.18	15	65	< 2	0.28	< 5	< 10	102	< 5	11	76	120					

Results

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Analyte Symbol	P	Pb	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Co	Cu	Ni	Pb	Zn
Unit Symbol	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	%	%
Lower Limit	0.001	3	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	0.002	0.005	0.005	0.01	0.01
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2
662565	0.045	355	< 5	2.05	41	45	< 2	0.52	< 5	< 10	217	< 5	25	157	61					
662566	0.045	211	< 5	3.01	45	36	< 2	0.64	< 5	< 10	294	< 5	24	170	77					
662567	0.043	243	< 5	1.89	32	44	6	0.73	< 5	< 10	315	< 5	16	138	84					
662568	0.046	550	7	1.86	43	54	2	0.75	< 5	< 10	317	6	24	458	87					
662569	0.036	5	< 5	0.01	22	38	4	0.24	< 5	< 10	136	< 5	12	37	77					
662570	0.051	5	< 5	0.05	96	38	< 2	0.24	< 5	< 10	132	< 5	50	32	47					
662571	0.041	4	10	< 0.01	23	49	< 2	0.09	< 5	< 10	48	< 5	14	37	64					
662572	0.056	13	< 5	0.01	16	61	< 2	0.10	< 5	< 10	53	< 5	19	24	92					
662573	0.055	14	< 5	< 0.01	14	50	< 2	0.18	< 5	< 10	62	< 5	17	24	122					
662574	0.053	20	< 5	< 0.01	15	55	< 2	0.21	< 5	< 10	70	< 5	16	25	138					
662575	0.061	42	17	0.03	15	59	< 2	0.35	< 5	< 10	110	< 5	18	24	169					
662576	0.055	402	32	0.23	13	57	< 2	0.37	< 5	< 10	113	< 5	19	27	164					
662577	0.062	82	11	0.04	11	55	< 2	0.36	< 5	< 10	106	< 5	17	23	177					
662578	0.059	92	29	0.11	13	59	3	0.36	< 5	< 10	109	< 5	24	22	171					
662579	0.049	8	< 5	< 0.01	15	52	< 2	0.28	< 5	< 10	90	< 5	16	24	147					
662580	0.002	< 3	< 5	< 0.01	< 4	3	< 2	0.02	< 5	< 10	3	< 5	3	3	34					
662581	0.055	20	< 5	0.03	16	66	< 2	0.31	< 5	< 10	106	< 5	21	24	172					
662582	0.058	7	12	< 0.01	18	64	< 2	0.14	< 5	< 10	69	< 5	18	27	108					
662583	0.053	18	< 5	< 0.01	16	57	< 2	0.11	< 5	< 10	48	< 5	20	29	94					
662584	0.061	16	< 5	< 0.01	16	55	13	0.20	< 5	< 10	71	< 5	17	38	130					
662585	0.070	16	< 5	< 0.01	18	64	< 2	0.31	< 5	< 10	99	< 5	22	38	163					
662586	0.062	12	8	< 0.01	13	62	< 2	0.22	< 5	< 10	69	< 5	21	36	139					
662587	0.058	30	< 5	< 0.01	14	60	< 2	0.30	< 5	< 10	87	< 5	18	37	169					
662588	0.054	386	5	0.27	14	58	< 2	0.30	< 5	< 10	94	6	26	35	167	0.253				
662589	0.048	919	15	0.19	10	62	< 2	0.26	7	< 10	75	< 5	19	27	173	0.200				
662590	0.072	846	< 5	0.02	18	102	< 2	0.36	< 5	< 10	109	< 5	20	38	132					
662591	0.053	194	< 5	0.01	16	83	< 2	0.28	6	< 10	97	< 5	19	38	160					
662592	0.055	341	< 5	0.02	16	76	< 2	0.32	< 5	< 10	101	< 5	18	38	150					
662593	0.048	613	< 5	0.03	13	111	< 2	0.27	< 5	< 10	86	< 5	15	37	110					
662594	0.053	220	< 5	0.03	17	83	< 2	0.32	< 5	< 10	108	< 5	18	43	131					
662595	0.045	326	< 5	0.05	18	82	3	0.36	< 5	< 10	116	< 5	21	37	125					
662596	0.039	1010	14	0.75	15	61	< 2	0.37	49	< 10	138	< 5	19	35	112	1.18				
662597	0.044	310	11	0.39	12	65	< 2	0.28	30	< 10	98	9	27	45	126					
662598	0.043	310	13	0.37	14	69	< 2	0.26	19	< 10	101	8	30	37	128					
662599	0.042	> 5000	60	1.57	14	61	< 2	0.25	86	< 10	93	9	37	46	106	2.09			0.54	
662600	0.035	134	11	11.8	< 4	3	< 2	0.03	14	< 10	6	< 5	5	37	21		8.77			
662601	0.040	1220	6	0.27	14	60	< 2	0.30	9	< 10	98	< 5	15	46	122					
662602	0.026	27	< 5	0.02	11	29	< 2	0.22	< 5	< 10	63	< 5	13	12	112					
662603	0.027	10	< 5	< 0.01	11	26	< 2	0.20	< 5	< 10	60	< 5	13	10	109					
662604	0.024	< 3	< 5	< 0.01	10	26	3	0.19	< 5	< 10	53	< 5	16	9	103					
662605	0.036	< 3	< 5	< 0.01	10	27	< 2	0.21	< 5	< 10	59	< 5	12	11	160					
662606	0.030	< 3	< 5	< 0.01	8	23	< 2	0.21	< 5	< 10	56	< 5	9	11	142					

Analyte Symbol	P	Pb	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Co	Cu	Ni	Pb	Zn
Unit Symbol	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	%	%
Lower Limit	0.001	3	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	0.002	0.005	0.005	0.01	0.01
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2
662607	0.039	< 3	< 5	0.01	10	26	3	0.25	< 5	< 10	65	< 5	9	12	164					
662608	0.042	< 3	< 5	0.06	10	34	< 2	0.27	< 5	< 10	75	< 5	8	12	153					
662609	0.036	3	< 5	0.01	12	32	3	0.23	< 5	< 10	64	< 5	10	12	48					
662610	0.041	3	< 5	0.01	12	34	< 2	0.20	< 5	< 10	61	< 5	9	17	145					
662611	0.037	4	< 5	0.10	11	42	2	0.25	< 5	< 10	70	< 5	11	13	148					
662612	0.033	5	< 5	0.05	10	47	< 2	0.21	< 5	< 10	60	< 5	9	20	102					
662613	0.045	< 3	< 5	0.14	12	57	2	0.28	< 5	< 10	77	< 5	16	15	174					
662614	0.042	< 3	< 5	0.04	14	54	< 2	0.24	< 5	< 10	73	< 5	12	16	127					
662615	0.053	10	< 5	0.08	12	47	< 2	0.28	< 5	< 10	76	< 5	10	17	160					
662616	0.043	< 3	< 5	0.03	10	37	2	0.25	< 5	< 10	69	< 5	7	15	162					
662617	0.055	< 3	< 5	0.01	17	62	< 2	0.29	< 5	< 10	93	< 5	17	29	166					
662618	0.059	5	< 5	0.01	19	87	< 2	0.12	< 5	< 10	60	< 5	24	38	96					
662619	0.066	19	< 5	< 0.01	19	87	3	0.24	< 5	< 10	87	< 5	22	41	117					
662620	0.002	< 3	< 5	< 0.01	< 4	4	< 2	0.02	< 5	< 10	4	< 5	4	2	38					
662621	0.063	99	< 5	0.03	19	90	7	0.32	< 5	< 10	103	< 5	21	47	141					
662622	0.066	132	< 5	0.06	20	115	< 2	0.36	< 5	< 10	114	< 5	22	38	159					
662623	0.068	53	< 5	0.05	19	115	4	0.33	< 5	< 10	108	< 5	21	47	142					
662624	0.064	12	15	0.04	19	116	3	0.31	< 5	< 10	101	< 5	21	45	149					
662625	0.054	15	< 5	0.01	17	99	9	0.22	< 5	< 10	78	< 5	16	53	137					
662626	0.058	12	< 5	0.01	17	93	4	0.20	< 5	< 10	72	< 5	19	75	100					
662627	0.043	2640	< 5	0.51	40	43	2	0.42	< 5	< 10	199	9	29	1380	79					
662628	0.052	18	< 5	0.02	42	51	< 2	0.27	< 5	< 10	145	< 5	22	33	87					
662629	0.032	28	< 5	0.01	43	32	4	0.12	< 5	< 10	67	< 5	24	38	32					
662630	0.033	4	< 5	0.02	59	67	< 2	0.14	< 5	< 10	68	< 5	39	21	61					
662631	0.047	16	< 5	0.12	26	31	< 2	0.44	< 5	< 10	176	< 5	38	25	92					
662663	0.050	5	< 5	0.15	26	24	< 2	0.43	5	< 10	180	< 5	24	25	93					
662664	0.050	5	< 5	0.17	24	26	< 2	0.35	8	< 10	151	< 5	38	25	138					
662665	0.035	4	< 5	< 0.01	20	34	8	0.15	17	< 10	62	< 5	15	22	47					
662666	0.033	3	< 5	0.03	14	22	< 2	0.34	< 5	< 10	108	< 5	20	21	94					
662667	0.048	6	5	0.10	28	29	< 2	0.46	< 5	< 10	178	8	58	27	115					
662668	0.040	< 3	< 5	0.06	19	28	< 2	0.41	< 5	< 10	152	< 5	18	26	128					
662669	0.039	< 3	< 5	0.13	22	31	< 2	0.34	< 5	< 10	142	< 5	19	25	95					
662670	0.030	7	< 5	0.08	15	40	< 2	0.15	< 5	< 10	74	< 5	8	24	53					
662671	0.034	5	< 5	0.19	18	60	8	0.26	< 5	< 10	105	< 5	15	26	66					
662672	0.031	< 3	14	0.26	14	42	2	0.25	< 5	< 10	90	< 5	13	17	85					
662673	0.030	7	< 5	0.25	13	47	6	0.25	< 5	< 10	90	< 5	10	16	104					
662674	0.033	4	< 5	0.13	20	50	2	0.26	< 5	< 10	112	< 5	10	18	82					
662675	0.043	4	< 5	0.31	24	55	2	0.33	< 5	< 10	120	< 5	23	16	79					
662676	0.030	< 3	< 5	0.42	13	42	< 2	0.28	< 5	< 10	102	< 5	8	15	85					
662677	0.031	< 3	< 5	0.23	16	46	15	0.31	< 5	< 10	117	< 5	11	17	105					
662678	0.037	< 3	< 5	0.39	23	57	< 2	0.40	< 5	< 10	148	< 5	29	16	95					

Results

Activation Laboratories Ltd.

Report: A17-14250

Analyte Symbol	P	Pb	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Co	Cu	Ni	Pb	Zn
Unit Symbol	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	%	%
Lower Limit	0.001	3	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	0.002	0.005	0.005	0.01	0.01
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2
662679	0.031	< 3	< 5	0.18	17	50	4	0.29	< 5	< 10	106	9	10	16	97					
662680	0.001	< 3	< 5	< 0.01	< 4	2	< 2	0.02	< 5	< 10	4	< 5	4	2	23					
662681	0.048	< 3	< 5	0.47	27	69	4	0.43	< 5	< 10	148	< 5	22	17	87					
662682	0.029	< 3	< 5	0.11	11	42	9	0.23	< 5	< 10	73	5	10	9	127					
662683	0.024	< 3	< 5	0.06	10	44	< 2	0.20	< 5	< 10	63	< 5	9	12	83					
662684	0.026	6	8	0.03	11	48	< 2	0.21	< 5	< 10	70	< 5	9	16	93					
662685	0.022	< 3	6	0.08	38	134	4	0.34	< 5	< 10	202	< 5	15	95	46					
662686	0.023	< 3	< 5	0.07	36	72	4	0.33	< 5	< 10	197	< 5	17	147	43					
662687	0.020	< 3	< 5	0.06	38	70	6	0.32	< 5	< 10	190	< 5	20	77	42					
662688	0.024	< 3	< 5	0.07	47	37	< 2	0.38	< 5	< 10	230	< 5	22	97	53					
662689	0.020	< 3	< 5	0.01	29	65	3	0.22	< 5	< 10	127	< 5	13	72	56					
662690	0.065	< 3	< 5	0.17	16	12	12	0.29	< 5	< 10	89	< 5	14	40	100					
662691	0.035	< 3	< 5	< 0.01	13	57	< 2	0.22	< 5	< 10	72	< 5	7	15	131					
662692	0.036	< 3	< 5	0.04	11	52	< 2	0.22	< 5	< 10	65	< 5	9	28	133					
662693	0.026	141	65	3.20	< 4	132	< 2	0.06	8	60	21	< 5	38	44	39		3.11			
662694	0.035	< 3	< 5	0.02	10	46	3	0.21	< 5	< 10	62	< 5	9	15	130					
662695	0.040	< 3	< 5	0.04	10	45	< 2	0.22	< 5	< 10	70	< 5	9	17	124					
662696	0.036	< 3	< 5	0.02	12	51	< 2	0.23	< 5	< 10	68	< 5	12	18	129					
662697	0.033	< 3	< 5	0.02	11	42	< 2	0.23	< 5	< 10	65	< 5	8	23	85					
662698	0.038	< 3	5	0.01	11	36	< 2	0.22	< 5	< 10	64	< 5	9	21	141					
662699	0.068	< 3	< 5	0.05	14	52	3	0.39	< 5	< 10	111	6	37	21	169					
662700	0.021	40	6	11.4	7	38	< 2	0.10	< 5	< 10	49	9	12	158	50			7.99		
662701	0.067	< 3	< 5	0.01	19	72	< 2	0.30	< 5	< 10	101	< 5	26	24	138					
662702	0.065	< 3	< 5	0.03	20	67	< 2	0.33	< 5	< 10	105	< 5	25	53	144					
662703	0.062	< 3	< 5	0.03	21	58	< 2	0.32	< 5	< 10	104	< 5	26	33	147					
662704	0.065	5	< 5	0.14	20	56	2	0.43	< 5	< 10	128	< 5	29	42	164					
662705	0.074	3	15	0.88	16	30	3	0.43	46	< 10	137	< 5	33	29	180	1.07				
662706	0.069	< 3	< 5	0.03	20	47	< 2	0.41	< 5	< 10	129	< 5	18	35	175					
662707	0.069	17	92	0.85	26	33	7	0.35	23	< 10	149	< 5	24	46	155	0.738				
662708	0.069	10	< 5	0.25	17	33	3	0.39	< 5	< 10	156	< 5	28	33	199					
662709	0.066	< 3	< 5	0.07	17	46	< 2	0.41	< 5	< 10	117	< 5	22	29	194					
662710	0.067	< 3	< 5	0.02	19	59	< 2	0.28	< 5	< 10	98	< 5	20	33	148					
662711	0.064	4	< 5	0.02	17	53	< 2	0.31	< 5	< 10	102	< 5	21	34	166					
662712	0.070	< 3	< 5	0.02	18	69	< 2	0.32	< 5	< 10	101	< 5	24	27	152					
662713	0.067	< 3	< 5	0.02	18	69	< 2	0.34	< 5	< 10	107	< 5	22	28	160					
662714	0.069	< 3	< 5	0.02	18	69	5	0.39	< 5	< 10	119	< 5	20	30	169					
662715	0.068	< 3	< 5	0.01	14	57	< 2	0.38	< 5	< 10	111	< 5	16	30	179					
662716	0.067	5	6	0.11	18	59	3	0.34	< 5	< 10	109	< 5	24	34	176					
662717	0.058	< 3	< 5	0.02	18	57	< 2	0.12	< 5	< 10	57	< 5	21	35	106					
662718	0.062	< 3	< 5	< 0.01	20	54	< 2	0.20	< 5	< 10	69	< 5	23	35	127					
662719	0.061	< 3	< 5	0.02	21	55	< 2	0.30	< 5	< 10	101	< 5	22	34	158					
662720	0.002	< 3	< 5	< 0.01	< 4	3	< 2	0.02	< 5	< 10	4	< 5	4	6	32					

Analyte Symbol	P	Pb	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Co	Cu	Ni	Pb	Zn
Unit Symbol	%	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	%	%
Lower Limit	0.001	3	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	0.002	0.005	0.005	0.01	0.01
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2
662721	0.071	< 3	< 5	0.01	19	64	< 2	0.32	< 5	< 10	99	< 5	24	34	161					
662722	0.060	< 3	< 5	< 0.01	17	65	< 2	0.33	< 5	< 10	100	< 5	21	41	170					
662723	0.055	< 3	< 5	0.01	14	68	< 2	0.32	< 5	< 10	93	< 5	20	37	172					
662724	0.056	6	9	0.02	14	71	< 2	0.32	< 5	< 10	84	< 5	19	41	173					
662725	0.055	3	< 5	0.01	13	62	6	0.34	< 5	< 10	92	< 5	14	46	199					
662726	0.047	< 3	< 5	< 0.01	13	76	< 2	0.32	< 5	< 10	85	< 5	12	47	165					
662727	0.044	4	< 5	0.02	27	60	8	0.37	< 5	< 10	140	< 5	20	81	96					
662728	0.030	8	< 5	0.12	46	38	< 2	0.32	< 5	< 10	167	< 5	21	122	41					
662729	0.032	494	< 5	0.11	44	59	< 2	0.36	< 5	< 10	181	< 5	21	370	43					
662660	0.036	27	< 5	0.02	27	29	< 2	0.16	< 5	< 10	81	< 5	14	30	51					
662661	0.036	10	< 5	< 0.01	27	33	< 2	0.21	< 5	< 10	107	< 5	12	30	67					
662662	0.043	5	< 5	0.01	29	36	< 2	0.29	< 5	< 10	122	< 5	26	26	75					

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Lower Limit	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
GXR-1 Meas	33.2	2.15	473	693	1	1470	0.92	1.6	8	11	1230	24.9	6	7	0.05	0.21	9	895	16	0.05	44	0.062	770
GXR-1 Cert	31.0	3.52	427	750	1.22	1380	0.960	3.30	8.20	12.0	1110	23.6	13.8	3.90	0.050	0.217	8.20	852	18.0	0.0520	41.0	0.0650	730
GXR-1 Meas	31.0	2.07	432	660	1	1380	0.89	3.1	9	13	1170	23.7	13	2	0.04	0.20	8	886	15	0.05	41	0.059	730
GXR-1 Cert	31.0	3.52	427	750	1.22	1380	0.960	3.30	8.20	12.0	1110	23.6	13.8	3.90	0.050	0.217	8.20	852	18.0	0.0520	41.0	0.0650	730
GXR-1 Meas	31.4	2.39	451	741	1	1390	0.88	3.7	6	15	1180	23.6	14	6	0.05	0.21	8	937	16	0.05	40	0.060	719
GXR-1 Cert	31.0	3.52	427	750	1.22	1380	0.960	3.30	8.20	12.0	1110	23.6	13.8	3.90	0.050	0.217	8.20	852	18.0	0.0520	41.0	0.0650	730
GXR-4 Meas	3.3	6.87	100	147	2	15	1.07	0.5	16	40	6460	3.06	15	< 1	2.26	1.69	11	151	338	0.56	45	0.131	35
GXR-4 Cert	4.0	7.20	98.0	1640	1.90	19.0	1.01	0.860	14.6	64.0	6520	3.09	20.0	0.110	4.01	1.66	11.1	155	310	0.564	42.0	0.120	52.0
GXR-4 Meas	3.6	6.81	102	252	2	12	1.07	0.4	15	56	6450	3.08	17	< 1	3.62	1.70	11	151	346	0.55	44	0.133	52
GXR-4 Cert	4.0	7.20	98.0	1640	1.90	19.0	1.01	0.860	14.6	64.0	6520	3.09	20.0	0.110	4.01	1.66	11.1	155	310	0.564	42.0	0.120	52.0
CZN-3 Meas																							
CZN-3 Cert																							
CZN-3 Meas																							
CZN-3 Cert																							
PTM-1a Meas																							
PTM-1a Cert																							
PTM-1a Meas																							
PTM-1a Cert																							
SDC-1 Meas		9.03	< 3	662	3		1.17		20	40	31	5.16	25	< 1	1.68	1.04	35	902		1.62	37	0.054	23
SDC-1 Cert		8.34	0.220	630	3.00		1.00		18.0	64.00	30.000	4.82	21.00	0.20	2.72	1.02	34	880.00		1.52	38.0	0.0690	25.00
SDC-1 Meas		8.19	< 3	630	3		1.09		20	48	30	4.75	21	< 1	1.95	0.99	34	884		1.56	37	0.053	21
SDC-1 Cert		8.34	0.220	630	3.00		1.00		18.0	64.00	30.000	4.82	21.00	0.20	2.72	1.02	34	880.00		1.52	38.0	0.0690	25.00
SDC-1 Meas		7.85	3	630	3		1.06		19	57	29	4.62	22	< 1	1.26	0.98	33	880		1.55	36	0.054	17
SDC-1 Cert		8.34	0.220	630	3.00		1.00		18.0	64.00	30.000	4.82	21.00	0.20	2.72	1.02	34	880.00		1.52	38.0	0.0690	25.00
GXR-6 Meas	0.4	15.7	263	> 1000	1	< 2	0.22	< 0.3	14	70	70	5.81	36	2	1.83	0.68	40	1020	2	0.13	26	0.034	87
GXR-6 Cert	1.30	17.7	330	1300	1.40	0.290	0.180	1.00	13.8	96.0	66.0	5.58	35.0	0.0680	1.87	0.609	32.0	1010	2.40	0.104	27.0	0.0350	101
GXR-6 Meas	0.3	13.4	257	> 1000	1	< 2	0.17	0.5	15	55	69	5.71	29	3	1.69	0.60	33	1050	2	0.10	28	0.035	90
GXR-6 Cert	1.30	17.7	330	1300	1.40	0.290	0.180	1.00	13.8	96.0	66.0	5.58	35.0	0.0680	1.87	0.609	32.0	1010	2.40	0.104	27.0	0.0350	101
GXR-6 Meas	0.4	13.2	208	> 1000	1	< 2	0.17	0.5	14	46	70	5.67	31	< 1	1.45	0.59	33	1040	3	0.10	26	0.031	91
GXR-6 Cert	1.30	17.7	330	1300	1.40	0.290	0.180	1.00	13.8	96.0	66.0	5.58	35.0	0.0680	1.87	0.609	32.0	1010	2.40	0.104	27.0	0.0350	101
OREAS 14P Meas									705		9780	33.6										> 10000	
OREAS 14P Cert									750		9970	37.2										21000	
OREAS 14P Meas									689		9540	32.6										> 10000	
OREAS 14P Cert									750		9970	37.2										21000	
OREAS 14P Meas									704		9470	32.6										> 10000	
OREAS 14P Cert									750		9970	37.2										21000	
GBW 07239 (NCS DC 70007) Meas																							
GBW 07239 (NCS DC 70007) Cert																							

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb	
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm	
Lower Limit	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3	
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	
GBW 07239 Control Meas																								
GBW 07239 Control Cert																								
GBW 07239 Control Meas																								
GBW 07239 Control Cert																								
Oreas 72a (4 Acid Digest) Meas			< 3						159	220	330	10.3										6930		
Oreas 72a (4 Acid Digest) Cert			14.7						157	228	316	9.63										6930.00		
Oreas 72a (4 Acid Digest) Meas			< 3						154	173	318	9.68										6500		
Oreas 72a (4 Acid Digest) Cert			14.7						157	228	316	9.63										6930.00		
Oreas 72a (4 Acid Digest) Meas			< 3						157	190	322	9.63										6180		
Oreas 72a (4 Acid Digest) Cert			14.7						157	228	316	9.63										6930.00		
Oreas 74a (Fusion) Meas																								
Oreas 74a (Fusion) Cert																								
Oreas 77a (Fusion) Meas																								
Oreas 77a (Fusion) Cert																								
Oreas 77a (Fusion) Meas																								
Oreas 77a (Fusion) Cert																								
MP-1b Meas																								
MP-1b Cert																								
MP-1b Meas																								
MP-1b Cert																								
DNC-1a Meas				100					59	154	106		14				5				271		3	
DNC-1a Cert				118					57	270	100		15				5.2				247		6.3	
DNC-1a Meas				93					55	144	99		13				4				250		< 3	
DNC-1a Cert				118					57	270	100		15				5.2				247		6.3	
DNC-1a Meas				106					56	222	101		15				5				246		5	
DNC-1a Cert				118					57	270	100		15				5.2				247		6.3	
CCU-1d Meas																								
CCU-1d Cert																								
CPB-2 Meas																								
CPB-2 Cert																								

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Lower Limit	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
CZN-4 Meas																							
CZN-4 Cert																							
CZN-4 Meas																							
CZN-4 Cert																							
SBC-1 Meas			26	810	3	< 2		< 0.3	25	102	33		28				172		2		95		31
SBC-1 Cert			25.7	788.0	3.20	0.70		0.40	22.7	109			27.0				163		2		83		35.0
SBC-1 Meas			33	772	3	< 2		0.5	24	97	33		27				152		2		86		26
SBC-1 Cert			25.7	788.0	3.20	0.70		0.40	22.7	109			27.0				163		2		83		35.0
SBC-1 Meas			18	834	3	< 2		0.4	23	71	31		29				158		2		84		27
SBC-1 Cert			25.7	788.0	3.20	0.70		0.40	22.7	109			27.0				163		2		83		35.0
PTC-1b Meas																							
PTC-1b Cert																							
PTC-1b Meas																							
PTC-1b Cert																							
SdAR-M2 (U.S.G.S.) Meas				> 1000	8	< 2		5.6	16	40	246		18	2			19		11		55		880
SdAR-M2 (U.S.G.S.) Cert				990	6.6	1.05		5.1	12.4	49.6	236.0000		17.6	1.44			18		13		49		808
SdAR-M2 (U.S.G.S.) Meas				917	7	< 2		5.7	15	57	230		17	2			17		13		53		818
SdAR-M2 (U.S.G.S.) Cert				990	6.6	1.05		5.1	12.4	49.6	236.0000		17.6	1.44			18		13		49		808
SdAR-M2 (U.S.G.S.) Meas				> 1000	8	< 2		5.7	15	38	244		18	1			18		13		49		829
SdAR-M2 (U.S.G.S.) Cert				990	6.6	1.05		5.1	12.4	49.6	236.0000		17.6	1.44			18		13		49		808
OREAS 922 (Peroxide Fusion) Meas																							
OREAS 922 (Peroxide Fusion) Cert																							
CCU-1e Meas																							
CCU-1e Cert																							
CCU-1e Meas																							
CCU-1e Cert																							
680453 Orig	0.7	6.73	1780	37	2	< 2	0.21	< 0.3	1330	84	5	4.48	16	4	0.29	2.14	81	307	6	3.20	164	0.045	4
680453 Dup	0.6	6.78	1840	38	2	< 2	0.21	< 0.3	1360	82	3	4.60	16	< 1	0.30	2.20	83	312	5	3.28	172	0.046	8
680467 Orig	0.6	7.94	22	151	< 1	< 2	2.10	0.9	48	49	98	9.92	21	< 1	0.52	3.12	42	2320	< 1	3.00	59	0.046	102
680467 Dup	0.5	7.91	29	150	< 1	3	2.09	0.8	49	46	95	9.83	21	7	0.52	3.10	42	2290	< 1	2.94	61	0.047	100
680490 Split PREP DUP	< 0.3	8.48	6	18	2	< 2	0.44	< 0.3	33	143	26	7.81	20	< 1	0.21	4.23	70	384	< 1	3.67	125	0.030	< 3

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Lower Limit	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
680492 Orig	< 0.3	7.81	5	15	2	3	0.81	< 0.3	32	139	42	7.40	19	< 1	0.15	4.55	75	407	< 1	3.11	109	0.046	< 3
680492 Dup	< 0.3	7.77	< 3	16	2	< 2	0.81	0.4	32	135	32	7.36	19	< 1	0.15	4.55	74	389	< 1	3.11	109	0.043	7
662506 Orig	1.0	8.79	> 5000	25	1	29	0.61	< 0.3	4000	75	24	5.27	20	1	0.38	2.81	103	359	175	4.95	781	0.053	38
662506 Dup	0.9	8.42	> 5000	26	1	32	0.55	< 0.3	3950	81	16	5.18	19	< 1	0.38	2.78	102	346	174	4.90	772	0.053	37
662531 Orig	0.9	7.59	11	63	< 1	< 2	2.75	< 0.3	67	53	24	9.58	19	< 1	0.28	2.49	23	1810	< 1	4.34	61	0.039	37
662531 Dup	0.8	7.78	9	64	< 1	< 2	2.76	0.3	66	49	25	9.60	19	< 1	0.29	2.51	23	1850	< 1	4.37	60	0.040	39
662541 Split PREP DUP	< 0.3	7.47	10	105	2	< 2	0.99	< 0.3	29	100	33	5.91	18	< 1	1.41	4.15	75	542	< 1	2.29	77	0.059	< 3
662545 Orig	7.1	6.40	1050	34	2	13	0.26	< 0.3	773	104	52	5.04	17	< 1	0.20	2.65	75	294	4	3.45	110	0.045	551
662545 Dup	7.4	6.36	1080	33	1	13	0.26	< 0.3	775	108	53	5.02	18	< 1	0.20	2.64	74	296	4	3.42	109	0.045	552
662548 Orig																							
662548 Dup																							
662570 Orig	< 0.3	6.12	< 3	9	2	4	8.54	0.5	21	171	340	5.60	16	< 1	0.15	7.78	62	1120	43	2.51	104	0.051	6
662570 Dup	< 0.3	6.09	< 3	9	2	5	8.47	0.4	21	106	343	5.52	15	2	0.15	7.74	61	1110	42	2.46	105	0.051	4
662584 Orig	< 0.3	7.11	14	36	1	< 2	0.24	< 0.3	18	98	9	4.78	20	< 1	0.28	2.48	70	242	< 1	3.95	67	0.060	16
662584 Dup	0.4	7.33	13	37	1	< 2	0.25	< 0.3	19	123	6	4.83	22	< 1	0.28	2.50	70	241	1	3.98	67	0.063	16
662590 Orig	2.3	8.06	63	64	2	< 2	0.31	< 0.3	43	132	51	4.32	20	< 1	0.52	2.18	59	228	2	4.35	63	0.072	846
662590 Split PREP DUP	1.9	8.32	54	65	2	< 2	0.33	< 0.3	45	98	45	4.40	19	< 1	0.58	2.17	60	223	1	4.41	65	0.070	815
662599 Orig	23.3	6.12	> 5000	31	4	47	0.20	0.8	> 10000	64	221	3.96	12	1	0.18	1.97	55	214	40	3.26	3710	0.042	> 5000
662599 Dup	23.7	6.32	> 5000	32	4	49	0.20	< 0.3	> 10000	60	236	4.12	12	1	0.19	2.05	57	223	43	3.36	3840	0.043	> 5000
662613 Orig	0.4	6.97	3290	30	2	94	0.24	< 0.3	1960	57	7	3.26	12	4	0.21	1.66	55	199	3	4.12	227	0.045	6
662613 Dup	0.5	7.03	3440	31	2	99	0.25	< 0.3	2020	76	4	3.32	15	3	0.22	1.69	55	208	4	4.13	240	0.045	< 3
662669 Orig	0.3	8.12	1040	25	< 1	3	0.22	< 0.3	759	96	5	4.75	17	2	0.37	2.93	90	295	11	4.36	215	0.040	< 3
662669 Dup	0.5	7.94	977	25	< 1	4	0.21	< 0.3	739	88	4	4.67	17	< 1	0.37	2.90	88	293	10	4.31	214	0.039	4
662671 Orig	0.9	6.97	51	43	2	< 2	1.75	< 0.3	65	72	531	4.88	16	< 1	1.04	2.76	77	359	< 1	2.38	67	0.034	5
662671 Split PREP DUP	0.8	6.76	40	41	2	< 2	1.69	< 0.3	63	76	500	4.67	15	< 1	1.03	2.61	73	351	< 1	2.45	64	0.033	4
662683 Orig	< 0.3	6.66	10	36	< 1	< 2	0.12	< 0.3	15	63	529	2.40	14	< 1	0.40	1.35	46	134	3	3.84	24	0.024	< 3
662683 Dup	< 0.3	6.70	11	37	< 1	< 2	0.13	< 0.3	14	69	519	2.42	13	< 1	0.41	1.37	48	155	1	3.89	26	0.025	< 3
662705 Orig																							
662705 Dup																							
662708 Orig	1.1	9.88	> 5000	15	2	34	0.25	< 0.3	3030	135	4	5.44	19	< 1	0.11	3.25	102	308	210	5.58	1730	0.068	8
662708 Dup	1.2	10.3	> 5000	16	2	30	0.25	< 0.3	3120	97	5	5.43	19	< 1	0.11	3.22	101	317	210	5.52	1720	0.070	12
662721 Orig	0.5	8.36	7	97	2	< 2	0.28	< 0.3	17	92	15	4.90	19	< 1	1.04	2.31	79	313	4	3.26	68	0.071	< 3
662721 Split PREP DUP	0.4	8.16	5	97	2	< 2	0.28	< 0.3	16	122	15	4.81	19	< 1	1.06	2.35	79	296	2	3.25	64	0.069	< 3
662722 Orig	0.4	7.92	< 3	70	2	< 2	0.25	0.3	17	137	7	5.59	19	< 1	0.71	2.57	78	354	2	3.08	70	0.060	< 3
662722 Dup	0.4	7.91	5	70	2	< 2	0.25	< 0.3	17	117	11	5.56	18	< 1	0.71	2.58	78	353	2	3.07	71	0.059	< 3
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Lower Limit	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	1	< 0.001	< 3
Method Blank																							
Method Blank																							

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Ag	Co	Co	Cu	Ni	Pb	Zn
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	%	%	%
Lower Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	3	0.003	0.002	0.005	0.005	0.01	0.01
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	4Acid ICPOE S	4Acid ICPOE S	FUS-Na2O2	FUS-Na2O2	FUS-Na2O2	FUS-Na2O2	FUS-Na2O2
GXR-1 Meas	26	0.26	< 4	311	16	0.03	< 5	30	90	159	45	830	30							
GXR-1 Cert	122	0.257	1.58	275	13.0	0.036	0.390	34.9	80.0	164	32.0	760	38.0							
GXR-1 Meas	37	0.26	< 4	295	9	0.03	< 5	40	86	157	35	776	27							
GXR-1 Cert	122	0.257	1.58	275	13.0	0.036	0.390	34.9	80.0	164	32.0	760	38.0							
GXR-1 Meas	122	0.26	< 4	294	6	0.03	< 5	20	88	161	34	738	28							
GXR-1 Cert	122	0.257	1.58	275	13.0	0.036	0.390	34.9	80.0	164	32.0	760	38.0							
GXR-4 Meas	< 5	1.79	8	218	< 2	0.29	< 5	< 10	89	38	16	75	46							
GXR-4 Cert	4.80	1.77	7.70	221	0.970	0.29	3.20	6.20	87.0	30.8	14.0	73.0	186							
GXR-4 Meas	24	1.81	8	217	4	0.29	< 5	< 10	89	33	15	69	47							
GXR-4 Cert	4.80	1.77	7.70	221	0.970	0.29	3.20	6.20	87.0	30.8	14.0	73.0	186							
CZN-3 Meas														42						
CZN-3 Cert														45						
CZN-3 Meas														44						
CZN-3 Cert														45						
PTM-1a Meas																2.04	24.5	47.8		
PTM-1a Cert																2.05	24.96	47.44		
PTM-1a Meas																2.07				
PTM-1a Cert																2.05				
SDC-1 Meas	< 5		18	188		0.17	< 5	< 10	46	< 5		108	28							
SDC-1 Cert	0.54		17.00	180.00		0.606	0.70	3.10	102.00	0.80		103.00	290.00							
SDC-1 Meas	< 5		17	173		0.12	< 5	< 10	37	< 5		106	30							
SDC-1 Cert	0.54		17.00	180.00		0.606	0.70	3.10	102.00	0.80		103.00	290.00							
SDC-1 Meas	< 5		16	165		0.20	< 5	< 10	54	< 5		95	46							
SDC-1 Cert	0.54		17.00	180.00		0.606	0.70	3.10	102.00	0.80		103.00	290.00							
GXR-6 Meas	< 5	0.01	24	44	< 2		< 5	< 10	142	< 5	12	129	74							
GXR-6 Cert	3.60	0.0160	27.6	35.0	0.0180		2.20	1.54	186	1.90	14.0	118	110							
GXR-6 Meas	< 5	0.02	28	38	< 2		< 5	< 10	131	< 5	13	132	67							
GXR-6 Cert	3.60	0.0160	27.6	35.0	0.0180		2.20	1.54	186	1.90	14.0	118	110							
GXR-6 Meas	< 5	0.01	27	37	< 2		< 5	< 10	83	< 5	13	123	46							
GXR-6 Cert	3.60	0.0160	27.6	35.0	0.0180		2.20	1.54	186	1.90	14.0	118	110							
OREAS 14P Meas															0.072					
OREAS 14P Cert															0.0750					
OREAS 14P Meas															0.073					
OREAS 14P Cert															0.0750					
OREAS 14P Meas																				
OREAS 14P Cert																				
GBW 07239 (NCS DC 70007) Meas																< 0.002				
GBW 07239 (NCS																0.00135				

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Ag	Co	Co	Cu	Ni	Pb	Zn
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	%	%	%
Lower Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	3	0.003	0.002	0.005	0.005	0.01	0.01
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	4Acid ICPOE S	4Acid ICPOE S	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2
DC 70007) Cert																				
GBW 07239 Control Meas															< 0.003					
GBW 07239 Control Cert															0.00135					
GBW 07239 Control Meas															< 0.003					
GBW 07239 Control Cert															0.00135					
Oreas 72a (4 Acid Digest) Meas		1.73																		
Oreas 72a (4 Acid Digest) Cert		1.74																		
Oreas 72a (4 Acid Digest) Meas		1.65																		
Oreas 72a (4 Acid Digest) Cert		1.74																		
Oreas 72a (4 Acid Digest) Meas		1.64																		
Oreas 72a (4 Acid Digest) Cert		1.74																		
Oreas 74a (Fusion) Meas																0.057	0.122	3.20		
Oreas 74a (Fusion) Cert																0.058	0.124	3.24		
Oreas 77a (Fusion) Meas																0.167	0.417	10.5		
Oreas 77a (Fusion) Cert																0.1675	0.4400	10.71		
Oreas 77a (Fusion) Meas																0.164				
Oreas 77a (Fusion) Cert																0.1675				
MP-1b Meas															48		3.14		2.13	16.5
MP-1b Cert															47.0		3.07		2.09	16.7
MP-1b Meas															48					
MP-1b Cert															47.0					
DNC-1a Meas	< 5		35	138		0.29			148		21	67	37							
DNC-1a Cert	0.96		31	144		0.29			148		18.0	70	38.0							
DNC-1a Meas	< 5		30	129		0.28			140		17	59	34							
DNC-1a Cert	0.96		31	144		0.29			148		18.0	70	38.0							
DNC-1a Meas	16		32	128		0.27			138		16	58	36							
DNC-1a Cert	0.96		31	144		0.29			148		18.0	70	38.0							
CCU-1d Meas															121					

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Ag	Co	Co	Cu	Ni	Pb	Zn
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	%	%	%
Lower Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	3	0.003	0.002	0.005	0.005	0.01	0.01
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	4Acid ICPOE S	4Acid ICPOE S	FUS-Na2O2	FUS-Na2O2	FUS-Na2O2	FUS-Na2O2	FUS-Na2O2
CCU-1d Cert														120.7						
CPB-2 Meas																	0.125		62.9	5.94
CPB-2 Cert																	0.1213		63.52	6.04
CZN-4 Meas																	0.010	0.420	0.18	56.0
CZN-4 Cert																	0.0094	0.403	0.1861	55.07
CZN-4 Meas																	0.009			
CZN-4 Cert																	0.009			
SBC-1 Meas	< 5		22	189		0.54	< 5	< 10	230	5	39	207	120							
SBC-1 Cert	1.01		20.0	178.0		0.51	0.89	5.76	220.0	1.60	36.5	186	134.0							
SBC-1 Meas	< 5		21	174		0.50	< 5	< 10	213	< 5	33	184	113							
SBC-1 Cert	1.01		20.0	178.0		0.51	0.89	5.76	220.0	1.60	36.5	186	134.0							
SBC-1 Meas	17		21	172		0.49	< 5	< 10	210	< 5	32	175	116							
SBC-1 Cert	1.01		20.0	178.0		0.51	0.89	5.76	220.0	1.60	36.5	186	134.0							
PTC-1b Meas														55	0.321	0.319	7.93	11.1	0.08	0.21
PTC-1b Cert														53.1	0.325	0.325	7.97	11.29	0.08	0.2083
PTC-1b Meas														52	0.314	0.321				
PTC-1b Cert														53.1	0.325	0.325				
SdAR-M2 (U.S.G.S.) Meas			5	156				< 10	25	11	38	864	135							
SdAR-M2 (U.S.G.S.) Cert			4.1	144				2.53	25.2	2.8	32.7	760	259							
SdAR-M2 (U.S.G.S.) Meas			< 4	134				< 10	27	9	27	822	130							
SdAR-M2 (U.S.G.S.) Cert			4.1	144				2.53	25.2	2.8	32.7	760	259							
SdAR-M2 (U.S.G.S.) Meas			4	145				< 10	27	9	30	784	96							
SdAR-M2 (U.S.G.S.) Cert			4.1	144				2.53	25.2	2.8	32.7	760	259							
OREAS 922 (Peroxide Fusion) Meas																0.002	0.229	0.012	< 0.01	0.03
OREAS 922 (Peroxide Fusion) Cert																0.002	0.222	0.0043	0.006	0.03
CCU-1e Meas																0.031	22.9		0.72	3.00
CCU-1e Cert																0.0301	22.9		0.703	3.02
CCU-1e Meas																0.032				
CCU-1e Cert																0.0301				
680453 Orig	10	0.07	11	66	< 2	0.27	< 5	< 10	72	< 5	13	34	177							
680453 Dup	< 5	0.07	11	68	< 2	0.27	< 5	< 10	73	< 5	13	33	169							
680467 Orig	5	0.43	50	64	< 2	0.29	< 5	< 10	157	7	32	304	37							
680467 Dup	< 5	0.42	51	64	< 2	0.25	< 5	< 10	145	< 5	33	275	27							

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Ag	Co	Co	Cu	Ni	Pb	Zn
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	%	%	%
Lower Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	3	0.003	0.002	0.005	0.005	0.01	0.01
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	4Acid ICPOE S	4Acid ICPOE S	FUS-Na2O2	FUS-Na2O2	FUS-Na2O2	FUS-Na2O2	FUS-Na2O2
680490 Split PREP DUP	< 5	0.01	35	28	2	0.31	< 5	< 10	177	< 5	15	39	86							
680492 Orig	< 5	0.03	32	23	< 2	0.13	< 5	< 10	95	< 5	16	45	52							
680492 Dup	< 5	0.02	32	23	4	0.18	< 5	< 10	126	< 5	16	40	62							
662506 Orig	47	0.27	13	34	< 2	0.29	14	< 10	113	< 5	20	28	133							
662506 Dup	34	0.26	12	33	< 2	0.29	9	< 10	112	< 5	19	26	128							
662531 Orig	< 5	2.28	44	69	< 2	0.52	< 5	< 10	229	< 5	28	107	66							
662531 Dup	< 5	2.28	45	71	< 2	0.43	< 5	< 10	164	< 5	29	106	40							
662541 Split PREP DUP	< 5	0.02	24	68	8	0.41	< 5	< 10	171	< 5	16	43	88							
662545 Orig	10	0.11	15	71	2	0.31	< 5	< 10	110	< 5	20	45	129							
662545 Dup	10	0.12	15	70	5	0.32	< 5	< 10	108	< 5	20	46	133							
662548 Orig																1.33	0.130	0.164	0.59	< 0.01
662548 Dup																1.34	0.131	0.167	0.60	< 0.01
662570 Orig	< 5	0.04	98	38	< 2	0.25	< 5	< 10	139	< 5	50	31	49							
662570 Dup	< 5	0.05	95	37	7	0.23	< 5	< 10	125	< 5	49	33	46							
662584 Orig	< 5	< 0.01	15	55	6	0.15	< 5	< 10	56	< 5	17	38	110							
662584 Dup	< 5	< 0.01	16	56	21	0.25	< 5	< 10	85	< 5	17	39	150							
662590 Orig	< 5	0.02	18	102	< 2	0.36	< 5	< 10	109	< 5	20	38	132							
662590 Split PREP DUP	< 5	0.02	19	102	< 2	0.25	< 5	< 10	93	< 5	20	37	98							
662599 Orig	54	1.54	13	60	12	0.25	82	< 10	91	12	36	49	106							
662599 Dup	65	1.60	14	62	< 2	0.25	90	< 10	94	6	38	43	105							
662613 Orig	12	0.14	12	56	2	0.28	< 5	< 10	76	5	15	14	175							
662613 Dup	< 5	0.14	12	58	2	0.28	< 5	< 10	79	< 5	16	16	172							
662669 Orig	< 5	0.13	22	31	< 2	0.36	< 5	< 10	146	< 5	20	25	96							
662669 Dup	< 5	0.12	22	31	< 2	0.32	< 5	< 10	138	< 5	19	25	94							
662671 Orig	< 5	0.19	18	60	8	0.26	< 5	< 10	105	< 5	15	26	66							
662671 Split PREP DUP	< 5	0.19	18	57	12	0.20	< 5	< 10	82	< 5	14	24	54							
662683 Orig	< 5	0.06	10	43	< 2	0.20	< 5	< 10	63	< 5	9	10	87							
662683 Dup	< 5	0.06	10	44	5	0.20	< 5	< 10	63	< 5	9	14	79							
662705 Orig																1.05	< 0.005	0.352	< 0.01	< 0.01
662705 Dup																1.08	< 0.005	0.359	< 0.01	< 0.01
662708 Orig	< 5	0.24	17	33	3	0.39	14	< 10	155	< 5	27	34	200							
662708 Dup	8	0.26	17	33	4	0.40	< 5	10	157	< 5	28	32	198							
662721 Orig	< 5	0.01	19	64	< 2	0.32	< 5	< 10	99	< 5	24	34	161							
662721 Split PREP DUP	< 5	0.04	19	64	< 2	0.26	< 5	< 10	92	< 5	24	32	147							
662722 Orig	< 5	< 0.01	17	65	< 2	0.34	< 5	< 10	99	< 5	21	42	169							
662722 Dup	< 5	< 0.01	17	64	< 2	0.33	< 5	< 10	101	< 5	21	40	171							
Method Blank																< 0.002				

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Ag	Co	Co	Cu	Ni	Pb	Zn
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	%	%	%
Lower Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	3	0.003	0.002	0.005	0.005	0.01	0.01
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	4Acid ICPOE S	4Acid ICPOE S	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2
Method Blank																< 0.002				
Method Blank														< 3	< 0.003					
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5							
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5							
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5							
Method Blank	< 5	< 0.01	< 4	2	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5							
Method Blank	< 5	< 0.01	< 4	< 1	2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5							
Method Blank	< 5	0.02	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5							
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5							
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5							
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5							
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5							
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5							
Method Blank														< 3	< 0.003					
Method Blank																< 0.002	< 0.005	< 0.005	< 0.01	< 0.01



Date Submitted: 04-Dec-17
Invoice No.: A17-13750
Invoice Date: 05-Jan-18
Your Reference: LIC-TE

JMK Exploration Consulting
147 Lakeside Dr.
North Bay ON P1A 3E1
Canada

ATTN: Joerg Kleinboeck

CERTIFICATE OF ANALYSIS

124 Core samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1F2-Tbay Total Digestion ICP(TOTAL)

Code 8-4 Acid-Tbay Total Digestion Code 8-4 Acid Total Digestion Assays

REPORT **A17-13750**

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

Notes:

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

CERTIFIED BY:

A handwritten signature in black ink, appearing to read "Elitsa Hrischeva". The signature is fluid and cursive.

Elitsa Hrischeva, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
1201 Walsh Street West, Thunder Bay, Ontario, Canada, P7E 4X6
TELEPHONE +807 622-6707 or +1.888.228.5227 FAX +1.905.648.9613
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Date Submitted: 04-Dec-17
Invoice No.: A17-13750
Invoice Date: 05-Jan-18
Your Reference: LIC-TE

JMK Exploration Consulting
147 Lakeside Dr.
North Bay ON P1A 3E1
Canada

ATTN: Joerg Kleinboeck

CERTIFICATE OF ANALYSIS

124 Core samples were submitted for analysis.

The following analytical package(s) were requested: Code 8-Peroxide ICP Sodium Peroxide Fusion ICP

REPORT **A17-13750**

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Notes:

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

CERTIFIED BY:



Elitsa Hrischeva, Ph.D.
Quality Control

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

Results

Activation Laboratories Ltd.

Report: A17-13750

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Lower Limit	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
680317	< 0.3	6.12	< 3	21	< 1	< 2	6.31	< 0.3	31	75	189	6.65	12	< 1	0.43	4.03	89	660	< 1	2.00	80	0.042	< 3
680318	< 0.3	6.93	14	20	3	< 2	0.17	< 0.3	36	124	88	6.37	13	< 1	0.16	4.00	82	337	< 1	3.38	72	0.039	7
680319	0.3	7.60	25	16	1	< 2	0.16	< 0.3	43	140	19	6.98	14	3	0.12	4.49	94	352	< 1	3.64	89	0.046	< 3
680320	0.8	2.53	788	146	< 1	< 2	2.78	< 0.3	716	501	1530	16.3	< 1	< 1	0.46	7.61	18	887	1	0.56	> 10000	0.022	35
680321	0.3	6.92	27	38	1	< 2	0.26	< 0.3	33	92	159	6.17	15	< 1	0.30	3.91	96	331	< 1	3.26	87	0.048	10
680322	0.7	6.12	55	22	1	< 2	0.20	< 0.3	39	158	335	6.48	14	< 1	0.21	4.07	100	363	< 1	3.05	94	0.044	8
680323	0.4	6.58	30	20	1	< 2	0.20	< 0.3	23	135	391	5.68	14	< 1	0.22	3.62	94	357	< 1	3.51	76	0.043	10
680324	< 0.3	6.76	26	17	< 1	< 2	0.24	< 0.3	22	142	81	6.19	15	< 1	0.16	3.95	101	338	< 1	3.17	87	0.045	3
680325	0.3	6.45	26	18	< 1	< 2	0.49	< 0.3	19	96	457	5.62	13	< 1	0.20	3.38	90	327	< 1	3.13	79	0.039	5
680326	0.8	6.59	158	15	< 1	4	0.49	< 0.3	119	105	153	5.83	15	< 1	0.24	3.52	119	310	14	3.23	105	0.041	9
680327	< 0.3	5.77	109	12	< 1	< 2	0.23	< 0.3	90	62	199	3.95	11	< 1	0.19	2.38	91	232	< 1	2.96	59	0.026	4
680328	< 0.3	6.05	67	15	< 1	< 2	0.20	< 0.3	56	77	133	4.84	13	< 1	0.23	2.97	113	257	< 1	3.03	70	0.031	< 3
680329	< 0.3	7.26	313	15	< 1	< 2	0.50	< 0.3	234	124	238	5.78	15	< 1	0.27	3.50	111	326	< 1	3.82	133	0.051	6
680330	0.7	7.85	156	13	< 1	< 2	0.36	0.3	96	120	664	6.41	18	1	0.24	3.94	125	337	6	4.30	124	0.052	9
680331	1.3	6.35	1260	16	< 1	< 2	0.40	< 0.3	988	110	249	4.88	14	< 1	0.22	3.00	91	279	2	3.83	160	0.034	7
680332	0.9	9.39	2530	18	< 1	3	1.43	< 0.3	1720	92	254	6.61	18	< 1	0.40	4.60	120	388	29	4.81	256	0.048	6
680333	6.8	8.18	> 5000	28	2	34	3.55	< 0.3	8170	70	482	5.94	15	< 1	1.73	4.34	115	511	117	3.23	1340	0.041	41
680334	1.8	8.89	3280	20	< 1	14	3.95	< 0.3	2100	39	430	6.02	16	< 1	0.78	5.14	124	513	102	4.17	347	0.039	7
680335	2.9	9.29	> 5000	25	< 1	22	3.51	< 0.3	3740	45	877	6.50	15	< 1	0.79	4.48	135	498	471	4.35	494	0.042	9
680336	6.9	7.70	> 5000	36	1	204	3.70	< 0.3	> 10000	50	3270	6.22	15	< 1	1.08	3.08	105	612	359	3.80	3210	0.043	35
680337	2.7	9.39	2640	40	1	41	2.54	0.4	1630	60	268	6.44	17	3	0.85	3.41	112	514	204	4.31	386	0.042	14
680338	15.2	7.62	> 5000	37	1	243	1.56	0.5	> 10000	57	314	5.47	13	1	0.47	2.93	92	400	1140	3.94	7890	0.036	61
680339	14.8	1.31	> 5000	< 7	1	1220	1.51	< 0.3	> 10000	41	251	2.67	4	7	0.11	1.38	17	189	614	0.60	> 10000	0.016	37
680340	< 0.3	0.26	98	16	< 1	< 2	0.02	< 0.3	48	26	12	1.11	< 1	< 1	0.06	0.03	8	137	2	0.06	22	0.003	< 3
680341	4.1	9.94	> 5000	34	1	66	1.42	0.3	6890	141	103	6.89	17	< 1	0.45	4.14	111	441	740	4.35	1310	0.055	13
680342	8.7	6.77	> 5000	34	2	336	0.70	0.8	> 10000	71	1640	5.36	12	2	0.36	2.75	83	331	814	3.28	> 10000	0.030	19
680343	5.2	8.48	> 5000	26	2	118	1.58	< 0.3	> 10000	66	754	6.24	15	< 1	0.51	3.73	111	393	447	4.21	3560	0.040	42
680344	1.3	9.70	> 5000	15	< 1	12	1.26	< 0.3	4810	65	102	6.24	17	< 1	0.35	3.79	120	379	82	4.99	843	0.062	< 3
680345	1.0	10.0	2210	15	< 1	< 2	0.68	< 0.3	1510	68	257	6.49	18	< 1	0.26	3.43	126	365	55	5.29	273	0.067	< 3
680346	0.9	9.34	663	16	< 1	< 2	0.36	< 0.3	484	67	175	5.94	19	3	0.26	3.20	112	329	61	5.54	136	0.063	4
680347	0.7	9.13	257	18	< 1	< 2	0.24	< 0.3	198	67	259	5.53	17	2	0.32	2.95	107	298	10	5.20	93	0.063	8
680348	0.5	6.69	59	13	< 1	< 2	0.19	< 0.3	54	76	8	3.82	11	< 1	0.26	2.05	72	225	2	3.57	58	0.044	< 3
680349	0.4	8.26	93	37	2	< 2	0.31	< 0.3	84	112	15	4.27	17	< 1	0.63	2.46	75	236	2	4.55	79	0.071	< 3
680350	0.4	8.23	42	46	3	< 2	0.30	< 0.3	39	77	38	3.95	18	< 1	0.92	2.31	71	214	< 1	4.63	72	0.059	< 3
680351	0.5	12.1	30	22	1	2	0.33	< 0.3	57	174	8	5.06	16	3	0.49	2.93	91	258	2	5.07	90	0.079	< 3
680352	0.5	7.14	8	18	1	< 2	0.36	< 0.3	40	155	11	5.92	18	< 1	0.33	3.65	122	336	< 1	3.50	103	0.066	3
680353	0.7	8.51	15	16	2	< 2	0.77	< 0.3	52	114	64	5.16	16	< 1	0.43	3.09	104	325	< 1	4.06	98	0.066	< 3
680354	10.7	8.88	408	27	1	< 2	2.25	1.1	522	82	5350	4.93	12	< 1	0.83	2.16	71	360	18	4.90	248	0.085	57
680355	0.7	8.29	95	15	1	< 2	1.38	< 0.3	157	88	99	4.71	17	1	0.57	2.84	95	345	2	4.09	116	0.057	5
680356	0.7	8.64	48	23	2	< 2	0.90	< 0.3	71	83	86	5.91	18	2	0.53	3.38	107	382	4	4.13	116	0.070	< 3
680357	0.8	8.11	242	25	2	3	0.43	< 0.3	227	96	66	5.98	19	< 1	0.54	3.40	107	338	3	3.92	184	0.054	5
680358	0.6	7.99	58	45	2	< 2	0.27	< 0.3	70	87	48	5.00	18	< 1	0.62	2.67	85	270	2	4.05	98	0.062	< 3

Results

Activation Laboratories Ltd.

Report: A17-13750

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Lower Limit	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
680359	0.4	7.85	37	33	2	< 2	0.27	< 0.3	25	105	57	5.05	16	< 1	0.39	2.64	82	258	< 1	4.38	89	0.067	< 3
680360	1.1	2.31	1040	116	< 1	< 2	2.77	1.1	1020	337	2250	20.5	< 1	< 1	0.54	5.02	19	721	2	0.55	> 10000	0.022	46
680361	0.6	5.42	104	37	1	< 2	0.21	< 0.3	74	147	13	4.33	16	< 1	0.46	2.33	78	227	7	3.77	111	0.071	< 3
680362	0.5	6.66	48	55	1	< 2	0.25	< 0.3	42	147	70	4.74	17	< 1	0.76	2.44	92	239	< 1	3.64	95	0.065	3
680363	< 0.3	7.55	42	43	2	< 2	0.28	< 0.3	44	107	34	5.15	16	< 1	0.57	2.66	90	253	< 1	3.86	103	0.061	< 3
680364	< 0.3	8.07	70	44	1	< 2	0.32	< 0.3	106	72	37	5.21	16	< 1	0.77	2.66	91	261	< 1	3.63	107	0.058	< 3
680365	0.5	7.60	73	35	2	< 2	0.27	< 0.3	79	76	101	4.74	16	< 1	0.46	2.44	76	245	< 1	3.87	95	0.057	4
680366	0.3	7.70	96	42	1	< 2	0.29	< 0.3	102	75	10	4.67	17	< 1	0.47	2.36	77	241	1	3.89	97	0.059	< 3
680367	0.4	7.66	15	48	1	< 2	0.27	< 0.3	18	93	16	4.66	16	< 1	0.58	2.28	83	234	< 1	4.02	62	0.060	< 3
680368	0.7	7.56	33	50	1	< 2	0.33	< 0.3	31	106	1080	4.95	17	< 1	0.72	2.46	85	261	< 1	3.69	71	0.069	< 3
680369	0.7	6.90	12	54	1	< 2	0.27	< 0.3	34	112	882	4.95	18	< 1	0.78	2.50	88	245	1	3.27	70	0.070	< 3
680370	0.6	6.83	6	65	2	< 2	0.24	< 0.3	17	224	13	4.76	16	< 1	0.73	2.45	87	238	< 1	3.30	61	0.064	< 3
680371	0.3	7.09	< 3	61	1	< 2	0.23	< 0.3	14	104	10	4.79	16	< 1	0.79	2.42	82	241	< 1	3.32	60	0.055	< 3
680372	0.5	7.20	5	65	1	< 2	0.23	< 0.3	27	93	12	4.62	15	< 1	0.77	2.20	87	224	< 1	3.28	56	0.056	< 3
680373	0.5	6.70	7	74	1	< 2	0.24	< 0.3	25	101	215	4.31	17	< 1	0.89	2.14	85	229	< 1	3.13	48	0.055	4
680374	0.3	6.93	3	87	1	< 2	0.26	< 0.3	28	76	27	4.41	13	< 1	0.94	2.24	80	267	< 1	3.17	52	0.050	< 3
680375	0.6	7.50	13	102	< 1	< 2	2.27	0.5	67	54	114	10.9	16	< 1	0.40	2.87	45	1960	< 1	2.99	69	0.042	40
680376	1.5	5.88	46	83	< 1	< 2	2.00	1.7	101	43	423	14.2	13	< 1	0.47	3.23	50	1720	< 1	1.93	78	0.038	113
680377	1.4	5.41	24	193	< 1	< 2	5.17	5.9	58	131	136	8.88	13	2	0.61	4.28	57	1940	< 1	1.86	150	0.042	374
680378	1.0	7.42	3	498	< 1	< 2	1.99	0.4	32	135	59	8.79	16	< 1	1.20	3.56	56	2030	< 1	2.76	107	0.046	200
680379	1.1	6.85	8	536	< 1	< 2	2.52	0.3	58	109	175	8.67	15	4	1.45	2.50	30	2190	< 1	3.17	63	0.047	35
680380	< 0.3	0.26	5	16	< 1	< 2	0.03	< 0.3	3	22	1	1.05	< 1	< 1	0.05	0.02	8	160	< 1	0.08	4	0.003	< 3
680381	1.3	7.51	6	145	< 1	< 2	2.45	0.4	64	67	166	9.53	15	4	1.25	2.47	29	2270	< 1	3.49	66	0.044	29
680382	0.9	7.52	< 3	319	< 1	< 2	2.64	< 0.3	60	53	115	9.36	15	< 1	1.03	2.72	27	2450	< 1	3.65	67	0.044	29
680383	0.7	7.67	4	331	< 1	< 2	3.05	< 0.3	35	46	91	8.81	16	< 1	0.95	3.06	30	2680	< 1	3.81	58	0.045	19
680384	1.3	7.38	16	377	< 1	< 2	3.16	0.7	51	51	111	7.29	14	2	1.60	3.51	43	2140	< 1	3.20	69	0.045	189
680385	0.4	8.34	6	164	< 1	< 2	1.94	0.7	17	71	9	4.43	18	< 1	0.38	2.44	35	1300	< 1	4.92	79	0.060	172
680386	1.3	7.87	8	178	< 1	< 2	2.53	4.2	18	55	45	4.06	15	< 1	0.56	1.86	34	1050	< 1	4.23	55	0.052	449
680387	0.5	8.65	5	120	1	< 2	0.88	< 0.3	15	44	20	3.37	17	< 1	0.32	1.53	27	593	2	5.50	47	0.063	38
680388	< 0.3	7.58	< 3	35	1	< 2	0.19	< 0.3	38	147	3	7.68	14	3	0.32	4.62	91	372	< 1	2.66	108	0.036	< 3
680389	< 0.3	5.25	< 3	18	1	< 2	0.78	< 0.3	33	141	7	6.59	13	< 1	0.18	3.79	67	385	< 1	2.92	101	0.047	< 3
680390	< 0.3	7.28	< 3	39	2	< 2	0.33	< 0.3	35	166	26	7.29	15	6	0.46	4.36	78	361	< 1	3.14	110	0.085	4
680391	< 0.3	8.12	< 3	18	2	< 2	0.14	< 0.3	42	212	7	9.13	14	6	0.20	5.31	86	431	< 1	2.72	128	0.030	< 3
680392	< 0.3	6.65	7	48	2	< 2	0.22	< 0.3	27	130	15	5.65	13	< 1	0.48	3.21	64	275	< 1	3.30	68	0.035	< 3
680393	< 0.3	7.35	< 3	29	1	3	0.25	< 0.3	36	95	11	7.53	12	3	0.32	4.45	79	383	< 1	2.91	89	0.028	< 3
680394	< 0.3	6.78	< 3	39	1	< 2	0.42	< 0.3	30	87	22	6.68	13	< 1	0.40	3.99	87	349	< 1	2.63	80	0.041	5
680395	0.3	6.85	< 3	33	2	< 2	3.12	< 0.3	31	70	252	6.71	11	< 1	0.72	3.94	84	567	< 1	2.26	94	0.047	7
680396	0.4	8.06	< 3	34	2	< 2	0.30	< 0.3	45	190	161	9.73	15	< 1	0.48	6.05	103	496	3	2.03	126	0.060	< 3
680397	< 0.3	7.60	9	33	2	< 2	0.82	< 0.3	41	133	449	8.09	14	< 1	0.44	5.03	82	444	< 1	2.70	100	0.040	3
680398	0.3	7.90	< 3	20	2	< 2	0.30	< 0.3	39	156	410	9.08	14	< 1	0.20	5.59	87	468	< 1	2.59	106	0.046	6
680399	0.3	5.83	10	43	2	< 2	0.97	< 0.3	34	134	831	7.79	13	2	0.37	4.80	79	459	< 1	2.32	95	0.050	< 3
680400	9.9	0.67	2360	23	< 1	< 2	0.70	0.7	2110	54	> 10000	10.0	< 1	< 1	0.27	0.90	5	217	8	0.01	69	0.035	126

Results

Activation Laboratories Ltd.

Report: A17-13750

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Lower Limit	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
680401	< 0.3	7.34	6	27	2	< 2	1.15	< 0.3	29	101	1230	7.17	14	< 1	0.35	5.05	82	438	< 1	2.56	83	0.041	< 3
680402	< 0.3	7.89	< 3	21	2	< 2	0.53	< 0.3	34	103	29	8.73	14	2	0.22	5.87	95	448	< 1	2.60	112	0.026	< 3
680403	< 0.3	7.37	< 3	81	1	2	0.20	< 0.3	44	89	108	7.36	13	2	0.35	4.75	83	348	< 1	2.63	92	0.042	5
680404	0.4	7.40	10	193	2	< 2	0.26	< 0.3	88	71	285	5.92	15	< 1	0.73	3.44	85	251	< 1	2.81	76	0.046	4
680405	1.1	7.03	13	44	1	< 2	0.27	< 0.3	43	94	1410	5.72	15	< 1	0.44	3.66	86	250	< 1	3.28	72	0.036	10
680406	0.3	7.68	14	23	1	< 2	0.20	< 0.3	34	115	380	7.94	14	< 1	0.18	5.00	132	340	< 1	2.65	97	0.051	5
680407	< 0.3	7.24	19	16	1	< 2	0.53	< 0.3	34	112	23	7.45	15	3	0.19	4.44	97	375	< 1	3.14	108	0.036	6
680408	0.5	8.68	913	17	1	< 2	0.73	< 0.3	676	138	20	6.44	15	2	0.23	3.65	67	366	13	4.55	178	0.047	7
680409	2.3	5.42	> 5000	17	1	61	11.9	< 0.3	9300	66	140	4.52	10	< 1	0.54	4.56	65	1080	103	2.29	2380	0.033	18
680410	11.5	0.47	> 5000	13	< 1	1220	1.78	< 0.3	> 10000	21	42	1.32	4	7	0.03	0.43	7	139	111	0.18	> 10000	0.013	36
680411	7.0	6.39	4460	23	1	44	10.5	< 0.3	3070	75	339	5.45	11	< 1	1.55	2.91	75	1050	359	2.04	612	0.044	50
680412	10.0	8.50	> 5000	35	1	104	2.70	0.7	6160	81	504	6.63	15	< 1	0.65	3.59	102	493	527	4.00	844	0.049	103
680413	5.1	9.17	829	33	1	37	0.95	0.7	535	90	640	7.50	17	1	0.48	4.12	114	417	176	4.25	216	0.059	57
680414	19.3	8.98	4920	28	1	146	1.25	< 0.3	3230	114	932	7.79	16	4	0.45	4.09	111	452	713	3.96	726	0.070	150
680415	7.7	6.99	2960	22	2	65	9.38	0.4	1980	74	756	7.24	12	< 1	1.07	3.22	82	873	300	2.69	392	0.046	69
680416	0.8	6.90	348	22	< 1	11	0.46	0.4	297	112	90	5.98	15	< 1	0.21	3.61	92	341	2	3.40	127	0.044	27
680417	0.5	5.50	107	17	< 1	< 2	0.55	< 0.3	76	132	29	5.58	14	< 1	0.22	3.39	116	341	4	2.89	97	0.046	11
680418	0.3	6.28	59	21	1	< 2	0.25	< 0.3	51	167	270	5.26	15	< 1	0.28	3.43	105	291	< 1	3.18	93	0.049	13
680419	< 0.3	6.06	49	18	< 1	< 2	0.17	< 0.3	40	79	83	4.29	12	< 1	0.23	2.61	105	237	3	3.31	71	0.031	< 3
680420	< 0.3	0.27	9	18	< 1	< 2	0.02	< 0.3	5	13	2	1.10	< 1	< 1	0.07	0.02	8	136	< 1	0.08	3	0.002	< 3
680421	< 0.3	< 0.01	4	< 7	< 1	< 2	< 0.01	< 0.3	< 1	< 1	< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1	< 1	< 1	< 0.01	< 1	< 0.001	< 3
680422	0.3	6.95	44	20	< 1	< 2	0.25	< 0.3	31	133	72	5.91	15	< 1	0.24	3.75	121	318	< 1	3.25	89	0.045	8
680423	0.4	8.00	79	21	< 1	< 2	0.23	< 0.3	59	116	12	5.81	16	< 1	0.40	3.78	123	296	3	4.16	102	0.044	< 3
680424	0.4	7.22	47	23	< 1	< 2	0.49	< 0.3	30	101	15	5.00	14	< 1	0.32	3.05	98	278	< 1	3.52	79	0.047	7
680425	< 0.3	6.33	78	21	< 1	< 2	0.22	< 0.3	58	84	23	4.31	13	< 1	0.28	2.58	93	234	< 1	3.51	75	0.038	3
680426	< 0.3	6.41	253	15	< 1	< 2	0.29	< 0.3	205	57	27	3.52	11	< 1	0.24	1.92	77	202	3	3.46	80	0.026	4
680427	0.5	5.99	583	16	< 1	< 2	0.70	< 0.3	409	96	103	3.63	10	< 1	0.33	1.93	80	252	6	3.34	120	0.028	5
680428	2.5	7.04	> 5000	15	2	37	1.11	0.7	7110	157	55	5.11	11	3	0.44	2.75	109	346	251	3.22	1070	0.034	39
680429	7.1	7.55	> 5000	17	3	198	0.61	1.0	> 10000	65	85	6.46	14	< 1	0.31	3.73	130	348	795	3.60	5560	0.037	116
680430	3.2	7.59	> 5000	21	3	231	0.47	< 0.3	> 10000	48	12	6.28	15	< 1	0.31	3.49	130	345	574	3.87	5040	0.039	32
680431	3.0	7.33	> 5000	20	2	286	0.55	0.4	> 10000	38	18	5.57	13	< 1	0.28	3.14	114	318	497	3.68	8330	0.037	23
680432	1.4	8.13	> 5000	19	1	126	1.60	0.4	> 10000	49	7	5.64	14	< 1	0.40	3.78	120	363	124	3.96	3740	0.043	14
680433	0.9	9.12	> 5000	18	< 1	15	3.52	0.4	3810	65	14	6.42	17	< 1	0.48	3.66	134	512	61	4.14	777	0.044	4
680434	1.8	9.18	> 5000	18	1	29	2.93	2.8	6260	62	30	7.22	16	< 1	0.42	3.91	139	548	84	4.12	1210	0.038	13
680435	2.2	8.66	> 5000	17	2	43	2.89	< 0.3	4100	60	53	6.47	15	< 1	0.59	3.44	122	501	137	3.93	976	0.035	22
680436	0.7	6.29	1240	13	< 1	5	2.84	< 0.3	837	37	7	4.35	10	5	0.31	2.16	92	378	61	3.13	192	0.022	9
680437	2.2	7.95	5000	15	1	31	1.42	0.3	3310	107	26	5.73	15	< 1	0.28	3.22	119	380	209	3.96	737	0.031	12
680438	3.6	9.23	2460	20	1	92	1.41	< 0.3	1460	121	157	6.79	17	3	0.35	3.60	149	445	462	4.55	524	0.032	30
680439	2.7	9.97	1690	18	1	41	0.23	< 0.3	950	49	14	6.61	17	3	0.27	3.58	149	351	436	4.99	431	0.036	26
680440	1.2	2.33	1020	102	< 1	< 2	2.77	1.7	1030	362	2200	19.7	< 1	< 1	0.52	4.88	18	723	2	0.52	> 10000	0.021	48

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Ag	Co	Ni	Cu
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%
Lower Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	3	0.002	0.005	0.005
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	4Acid ICPOE S	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2
680317	< 5	0.05	38	86	3	0.25	< 5	< 10	112	< 5	28	32	44				
680318	< 5	0.11	25	29	4	0.15	< 5	< 10	92	< 5	22	34	46				
680319	< 5	0.17	29	22	5	0.39	< 5	< 10	167	< 5	13	39	65				
680320	8	9.30	9	52	< 2	0.13	< 5	< 10	58	7	13	128	43			5.41	
680321	< 5	0.23	22	36	4	0.21	< 5	< 10	109	< 5	12	34	52				
680322	< 5	0.19	20	29	< 2	0.43	< 5	< 10	176	< 5	11	33	99				
680323	< 5	0.07	22	32	8	0.32	< 5	< 10	141	< 5	10	31	86				
680324	< 5	0.03	25	25	7	0.15	< 5	< 10	95	< 5	13	34	59				
680325	< 5	0.06	22	23	< 2	0.13	< 5	< 10	80	< 5	19	28	39				
680326	< 5	0.10	22	21	< 2	0.19	< 5	< 10	106	< 5	28	27	58				
680327	< 5	0.05	11	18	3	0.19	< 5	< 10	81	< 5	10	19	78				
680328	< 5	0.06	15	23	< 2	0.22	< 5	< 10	106	< 5	10	22	68				
680329	< 5	0.21	23	25	< 2	0.27	< 5	< 10	138	< 5	17	29	61				
680330	< 5	0.28	22	22	< 2	0.47	< 5	< 10	201	5	21	30	93				
680331	< 5	0.19	18	24	2	0.30	< 5	< 10	140	< 5	17	28	63				
680332	< 5	0.16	24	32	< 2	0.44	< 5	< 10	182	6	23	31	96				
680333	7	0.64	26	45	< 2	0.29	37	90	179	< 5	35	32	68				
680334	< 5	0.20	21	41	< 2	0.25	< 5	< 10	116	< 5	17	42	100				
680335	6	0.38	25	52	5	0.26	13	< 10	115	< 5	23	30	93				
680336	8	1.50	21	50	< 2	0.22	65	50	144	< 5	31	26	97		1.64		
680337	< 5	0.22	22	49	5	0.30	< 5	< 10	154	< 5	20	27	95				
680338	29	2.97	24	41	6	0.13	196	120	171	< 5	42	22	76		4.31		
680339	265	12.3	9	13	< 2	0.06	829	170	45	< 5	47	6	13	16	18.7	6.42	
680340	< 5	0.01	< 4	3	< 2	0.02	< 5	< 10	5	< 5	3	3	29				
680341	11	0.50	42	43	5	0.43	26	10	242	7	23	32	118				
680342	41	4.62	24	34	< 2	0.04	329	100	173	< 5	31	30	33		7.25	1.17	
680343	26	1.41	33	45	< 2	0.20	77	20	159	< 5	19	235	105		1.86		
680344	8	0.30	19	37	< 2	0.30	17	< 10	115	< 5	9	61	189				
680345	< 5	0.12	15	39	4	0.31	< 5	< 10	106	< 5	14	31	200				
680346	< 5	0.05	15	37	3	0.31	< 5	< 10	95	< 5	25	30	181				
680347	< 5	0.05	12	35	8	0.29	< 5	< 10	83	< 5	17	26	187				
680348	< 5	0.01	10	30	< 2	0.25	< 5	< 10	71	< 5	7	18	144				
680349	< 5	0.04	18	70	< 2	0.40	< 5	< 10	128	< 5	16	22	152				
680350	< 5	0.02	19	71	4	0.20	< 5	< 10	77	< 5	19	18	101				
680351	< 5	0.02	22	55	< 2	0.46	< 5	< 10	136	7	22	22	175				
680352	< 5	0.01	19	56	3	0.32	< 5	< 10	110	< 5	13	30	148				
680353	< 5	0.02	19	56	4	0.43	< 5	< 10	131	< 5	16	26	156				
680354	12	1.61	15	54	3	0.44	< 5	60	116	< 5	30	356	156				
680355	< 5	0.06	19	53	< 2	0.18	< 5	< 10	87	< 5	20	24	88				
680356	< 5	0.04	22	52	< 2	0.28	< 5	< 10	92	< 5	21	53	114				
680357	< 5	0.05	21	50	< 2	0.25	< 5	< 10	95	< 5	20	29	116				

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Ag	Co	Ni	Cu
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%
Lower Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	3	0.002	0.005	0.005
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	4Acid ICPOE S	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2
680358	< 5	0.04	20	62	< 2	0.24	< 5	< 10	94	< 5	23	24	116				
680359	< 5	0.03	17	59	< 2	0.22	< 5	< 10	86	< 5	25	25	121				
680360	17	12.1	7	37	< 2	0.09	< 5	< 10	50	6	11	149	46			8.05	
680361	< 5	0.04	13	53	6	0.40	< 5	< 10	118	6	16	21	160				
680362	< 5	0.07	15	57	2	0.37	< 5	< 10	112	< 5	20	23	162				
680363	< 5	0.06	18	58	< 2	0.14	< 5	< 10	76	< 5	22	26	86				
680364	< 5	0.05	19	60	< 2	0.16	< 5	< 10	77	< 5	20	27	84				
680365	< 5	0.05	18	62	< 2	0.22	< 5	< 10	86	< 5	22	26	110				
680366	< 5	0.03	17	60	< 2	0.18	< 5	< 10	78	< 5	18	23	95				
680367	< 5	0.03	16	66	7	0.17	< 5	< 10	74	< 5	16	29	108				
680368	< 5	0.11	17	60	2	0.29	< 5	< 10	100	< 5	21	28	131				
680369	< 5	0.23	15	54	< 2	0.26	< 5	< 10	80	< 5	21	27	127				
680370	< 5	0.08	15	57	7	0.35	< 5	< 10	103	< 5	23	23	170				
680371	< 5	0.04	15	58	< 2	0.15	< 5	< 10	66	< 5	15	27	94				
680372	< 5	0.25	13	64	6	0.31	< 5	< 10	88	< 5	13	28	156				
680373	< 5	0.13	12	66	< 2	0.25	< 5	< 10	78	< 5	20	35	128				
680374	< 5	0.11	14	84	< 2	0.22	< 5	< 10	80	< 5	12	33	97				
680375	< 5	2.16	45	61	3	0.46	< 5	< 10	227	< 5	28	181	56				
680376	< 5	7.27	33	66	< 2	0.58	< 5	< 10	242	6	18	429	54				
680377	< 5	2.20	17	98	< 2	0.40	< 5	< 10	89	10	20	1780	52				
680378	< 5	0.83	31	129	3	0.61	< 5	< 10	187	< 5	23	219	62				
680379	< 5	1.61	41	109	3	0.70	< 5	< 10	313	< 5	28	129	77				
680380	< 5	< 0.01	< 4	3	< 2	0.02	< 5	< 10	5	< 5	3	4	41				
680381	< 5	2.28	46	130	2	0.56	< 5	< 10	259	< 5	29	222	55				
680382	< 5	1.90	47	109	< 2	0.49	< 5	< 10	215	< 5	29	105	47				
680383	< 5	0.74	47	97	< 2	0.58	< 5	< 10	257	< 5	29	107	58				
680384	< 5	0.70	35	138	2	0.54	< 5	< 10	221	< 5	23	212	65				
680385	< 5	0.06	12	243	< 2	0.32	< 5	< 10	94	< 5	11	331	88				
680386	< 5	0.17	9	182	3	0.28	< 5	< 10	71	9	10	1530	87				
680387	< 5	0.08	9	280	< 2	0.33	< 5	< 10	70	< 5	11	84	109				
680388	< 5	< 0.01	30	46	9	0.34	< 5	< 10	173	< 5	14	40	64				
680389	< 5	< 0.01	13	31	7	0.53	< 5	< 10	211	< 5	10	35	78				
680390	< 5	0.01	30	28	< 2	0.32	< 5	< 10	170	< 5	17	36	72				
680391	< 5	< 0.01	40	22	6	0.37	< 5	< 10	191	< 5	13	42	72				
680392	< 5	< 0.01	22	47	6	0.17	< 5	< 10	81	< 5	11	28	68				
680393	< 5	< 0.01	37	36	5	0.15	< 5	< 10	82	< 5	16	39	34				
680394	< 5	0.01	22	58	4	0.20	< 5	< 10	114	< 5	14	34	49				
680395	< 5	0.05	26	52	< 2	0.19	< 5	< 10	86	< 5	20	31	35				
680396	< 5	0.05	39	33	< 2	0.51	< 5	< 10	230	< 5	18	47	81				
680397	< 5	0.06	32	49	12	0.36	< 5	< 10	147	< 5	21	42	69				
680398	< 5	0.05	35	36	< 2	0.54	< 5	< 10	222	< 5	18	47	80				

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Ag	Co	Ni	Cu
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%
Lower Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	3	0.002	0.005	0.005
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	4Acid ICPOE S	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2
680399	< 5	0.09	16	37	3	0.48	< 5	< 10	200	< 5	15	43	71				
680400	12	11.7	< 4	2	4	0.03	18	< 10	6	< 5	5	37	19				8.94
680401	< 5	0.13	24	48	5	0.26	< 5	< 10	134	< 5	13	39	48				
680402	< 5	0.01	37	27	< 2	0.27	< 5	< 10	171	< 5	17	45	64				
680403	< 5	0.08	33	40	< 2	0.16	< 5	< 10	92	< 5	17	36	37				
680404	< 5	0.52	23	70	< 2	0.39	< 5	< 10	161	< 5	17	32	76				
680405	< 5	0.21	22	84	3	0.19	< 5	< 10	89	< 5	11	27	47				
680406	< 5	0.08	32	37	< 2	0.35	< 5	< 10	148	< 5	16	34	69				
680407	< 5	0.03	32	27	< 2	0.12	< 5	< 10	81	< 5	15	39	34				
680408	< 5	0.05	29	28	< 2	0.47	6	< 10	222	< 5	16	31	73				
680409	10	0.83	62	97	< 2	0.24	41	< 10	122	< 5	50	21	65				
680410	224	13.5	10	43	< 2	0.04	967	30	19	< 5	20	31	< 5	11	21.9	7.50	
680411	10	0.60	31	62	7	0.39	9	< 10	170	< 5	38	24	59				
680412	< 5	0.63	22	45	< 2	0.40	25	30	236	< 5	23	40	88				
680413	< 5	0.23	26	32	3	0.38	< 5	60	233	< 5	23	34	88				
680414	11	0.44	31	31	8	0.49	12	160	290	< 5	27	46	94				
680415	17	1.99	48	86	9	0.39	< 5	20	190	< 5	44	170	66				
680416	< 5	0.26	24	33	4	0.23	< 5	< 10	124	< 5	12	29	50				
680417	< 5	0.19	17	27	4	0.42	< 5	< 10	163	< 5	9	26	88				
680418	< 5	0.09	20	28	4	0.30	< 5	< 10	132	< 5	11	24	68				
680419	< 5	0.07	13	27	< 2	0.25	< 5	< 10	96	< 5	10	18	84				
680420	< 5	< 0.01	< 4	3	< 2	0.02	< 5	< 10	4	< 5	3	3	31				
680421	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5				
680422	< 5	0.03	23	33	3	0.18	< 5	< 10	92	< 5	14	26	59				
680423	< 5	0.04	23	25	8	0.35	< 5	< 10	136	< 5	15	27	83				
680424	< 5	0.06	22	34	2	0.29	< 5	< 10	127	6	11	21	67				
680425	< 5	0.05	17	31	< 2	0.21	< 5	< 10	91	< 5	9	20	57				
680426	< 5	0.06	12	23	< 2	0.20	< 5	< 10	72	< 5	13	16	73				
680427	< 5	0.10	11	25	< 2	0.27	< 5	< 10	82	< 5	12	15	90				
680428	19	0.62	16	26	< 2	0.25	33	< 10	96	7	22	157	79				
680429	68	2.82	20	25	< 2	0.08	199	< 10	112	9	33	270	40		4.48		
680430	33	2.70	15	26	< 2	0.10	205	10	122	5	66	99	31		4.40		
680431	19	3.44	14	27	< 2	0.07	279	10	120	6	55	147	31		5.85		
680432	20	1.56	22	34	< 2	0.15	136	< 10	118	6	37	49	67		2.90		
680433	12	0.35	26	59	< 2	0.32	13	< 10	123	< 5	41	36	93				
680434	29	0.50	26	57	< 2	0.26	24	< 10	105	13	20	835	109				
680435	22	0.51	20	49	< 2	0.25	16	< 10	98	< 5	21	83	107				
680436	< 5	0.33	10	60	< 2	0.15	< 5	< 10	64	< 5	11	16	68				
680437	15	0.27	16	41	< 2	0.30	7	< 10	125	5	18	31	93				
680438	13	0.26	15	40	< 2	0.23	5	< 10	117	< 5	21	30	120				
680439	< 5	0.17	14	30	< 2	0.24	< 5	< 10	123	< 5	15	28	123				

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Ag	Co	Ni	Cu
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%
Lower Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	3	0.002	0.005	0.005
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	4Acid ICPOE S	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2
680440	12	12.0	6	38	< 2	0.09	< 5	< 10	47	9	11	147	45			7.87	

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb	
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm	
Lower Limit	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3	
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	
GXR-1 Meas	31.4	2.13	427	651	1	1390	0.88	2.9	11	14	1100	22.9	3	1	0.05	0.20	8	871	15	0.05	43	0.058	692	
GXR-1 Cert	31.0	3.52	427	750	1.22	1380	0.960	3.30	8.20	12.0	1110	23.6	13.8	3.90	0.050	0.217	8.20	852	18.0	0.0520	41.0	0.0650	730	
GXR-1 Meas	31.8	2.19	441	641	1	1400	0.87	2.7	10	21	1100	23.6	3	< 1	0.05	0.20	8	905	14	0.05	43	0.061	697	
GXR-1 Cert	31.0	3.52	427	750	1.22	1380	0.960	3.30	8.20	12.0	1110	23.6	13.8	3.90	0.050	0.217	8.20	852	18.0	0.0520	41.0	0.0650	730	
GXR-4 Meas	3.6	6.35	100	238	2	10	1.08	< 0.3	16	32	6200	3.04	15	< 1	3.83	1.66	11	146	320	0.52	45	0.133	51	
GXR-4 Cert	4.0	7.20	98.0	1640	1.90	19.0	1.01	0.860	14.6	64.0	6520	3.09	20.0	0.110	4.01	1.66	11.1	155	310	0.564	42.0	0.120	52.0	
GXR-4 Meas	3.7	6.62	101	251	2	29	1.09	< 0.3	15	41	6220	3.07	15	< 1	3.99	1.68	11	169	315	0.54	42	0.133	43	
GXR-4 Cert	4.0	7.20	98.0	1640	1.90	19.0	1.01	0.860	14.6	64.0	6520	3.09	20.0	0.110	4.01	1.66	11.1	155	310	0.564	42.0	0.120	52.0	
CZN-3 Meas																								
CZN-3 Cert																								
PTM-1a Meas																								
PTM-1a Cert																								
PTM-1a Meas																								
PTM-1a Cert																								
SDC-1 Meas		7.63	18	565	3		1.06		20	58	30	4.88	19	3	1.48	1.00	34	910		1.54	42	0.056	17	
SDC-1 Cert		8.34	0.220	630	3.00		1.00		18.0	64.00	30.000	4.82	21.00	0.20	2.72	1.02	34	880.00		1.52	38.0	0.0690	25.00	
GXR-6 Meas	0.5	12.5	230	> 1000	1	< 2	0.16	0.4	16	50	74	6.15	26	3	1.82	0.60	32	1100		< 1	0.10	29	0.034	111
GXR-6 Cert	1.30	17.7	330	1300	1.40	0.290	0.180	1.00	13.8	96.0	66.0	5.58	35.0	0.0680	1.87	0.609	32.0	1010		2.40	0.104	27.0	0.0350	101
GXR-6 Meas	0.5	12.7	212	> 1000	1	< 2	0.18	< 0.3	15	51	67	5.95	27	3	2.02	0.60	33	1050		< 1	0.10	29	0.033	91
GXR-6 Cert	1.30	17.7	330	1300	1.40	0.290	0.180	1.00	13.8	96.0	66.0	5.58	35.0	0.0680	1.87	0.609	32.0	1010		2.40	0.104	27.0	0.0350	101
Oreas 72a (4 Acid Digest) Meas			< 3						148	194	290	9.44											6130	
Oreas 72a (4 Acid Digest) Cert			14.7						157	228	316	9.63											6930.00	
Oreas 72a (4 Acid Digest) Meas			< 3						150	196	305	9.26											6440	
Oreas 72a (4 Acid Digest) Cert			14.7						157	228	316	9.63											6930.00	
Oreas 74a (Fusion) Meas																								
Oreas 74a (Fusion) Cert																								
Oreas 74a (Fusion) Meas																								
Oreas 74a (Fusion) Cert																								
Oreas 77a (Fusion) Meas																								
Oreas 77a (Fusion) Cert																								
Oreas 77a (Fusion) Meas																								
Oreas 77a (Fusion) Cert																								
BIR-1a Meas																								

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Lower Limit	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
BIR-1a Cert																							
BIR-1a Meas																							
BIR-1a Cert																							
OREAS 134b (Fusion) Meas																							
OREAS 134b (Fusion) Cert																							
OREAS 134b (Fusion) Meas																							
OREAS 134b (Fusion) Cert																							
MP-1b Meas																							
MP-1b Cert																							
MP-1b Meas																							
MP-1b Cert																							
DNC-1a Meas				85					54	167	115		10				4				249		< 3
DNC-1a Cert				118					57	270	100		15				5.2				247		6.3
DNC-1a Meas				94					59	233	101		10				5				266		3
DNC-1a Cert				118					57	270	100		15				5.2				247		6.3
CCU-1d Meas																							
CCU-1d Cert																							
CPB-2 Meas																							
CPB-2 Cert																							
CPB-2 Meas																							
CPB-2 Cert																							
CZN-4 Meas																							
CZN-4 Cert																							
SBC-1 Meas			22	743	3	< 2		0.4	23	95	29		23				153		2		90		26
SBC-1 Cert			25.7	788.0	3.20	0.70		0.40	22.7	109			27.0				163		2		83		35.0
SBC-1 Meas			23	753	3	< 2		0.6	24	89	35		24				163		2		88		27
SBC-1 Cert			25.7	788.0	3.20	0.70		0.40	22.7	109			27.0				163		2		83		35.0
PTC-1b Meas																							
PTC-1b Cert																							
PTC-1b Meas																							
PTC-1b Cert																							
SdAR-M2 (U.S.G.S.) Meas				943	8	< 2		5.7	15	39	239		17	2			18		7		57		837
SdAR-M2 (U.S.G.S.) Cert				990	6.6	1.05		5.1	12.4	49.6	236.00		17.6	1.44			18		10		49		808
CCU-1e Meas																							
CCU-1e Cert																							
CCU-1e Meas																							

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Lower Limit	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
CCU-1e Cert																							
680329 Orig	< 0.3	7.21	306	16	< 1	< 2	0.50	< 0.3	237	122	244	5.76	15	< 1	0.27	3.50	111	327	< 1	3.79	135	0.051	7
680329 Dup	0.4	7.32	320	15	< 1	< 2	0.49	< 0.3	230	125	232	5.80	15	< 1	0.27	3.49	111	326	1	3.85	132	0.052	4
680344 Orig	1.3	9.74	> 5000	15	< 1	11	1.26	0.4	4800	65	101	6.26	17	< 1	0.35	3.81	121	377	82	4.99	844	0.062	< 3
680344 Dup	1.4	9.66	> 5000	15	< 1	13	1.26	< 0.3	4820	65	103	6.22	17	< 1	0.36	3.76	119	382	81	5.00	841	0.062	3
680358 Orig	0.5	7.99	54	45	2	< 2	0.27	< 0.3	69	81	46	4.99	18	< 1	0.61	2.67	85	269	1	4.03	99	0.062	< 3
680358 Dup	0.6	8.00	62	46	2	< 2	0.27	< 0.3	71	92	49	5.02	17	< 1	0.62	2.67	85	271	3	4.06	97	0.063	< 3
680360 Orig																							
680360 Dup																							
680366 Orig	0.3	7.70	96	42	1	< 2	0.29	< 0.3	102	75	10	4.67	17	< 1	0.47	2.36	77	241	1	3.89	97	0.059	< 3
680366 Split PREP DUP	0.6	7.20	107	42	1	< 2	0.30	< 0.3	109	91	12	4.61	16	< 1	0.47	2.34	76	237	1	3.80	96	0.059	< 3
680382 Orig	0.8	7.46	4	338	< 1	< 2	2.63	< 0.3	60	59	113	9.23	15	< 1	1.01	2.68	27	2430	< 1	3.59	68	0.044	29
680382 Dup	0.9	7.58	< 3	300	< 1	< 2	2.65	< 0.3	60	47	118	9.50	15	< 1	1.04	2.77	28	2470	< 1	3.70	67	0.044	28
680396 Orig	0.4	8.11	< 3	35	2	< 2	0.30	< 0.3	45	189	163	9.91	15	< 1	0.48	6.10	105	500	3	2.05	126	0.060	4
680396 Dup	0.3	8.01	9	34	2	< 2	0.30	< 0.3	44	190	160	9.56	15	2	0.49	6.00	102	492	3	2.01	126	0.060	< 3
680416 Orig	0.8	6.90	348	22	< 1	11	0.46	0.4	297	112	90	5.98	15	< 1	0.21	3.61	92	341	2	3.40	127	0.044	27
680416 Split PREP DUP	0.9	6.94	356	21	< 1	12	0.44	< 0.3	279	131	129	5.96	14	< 1	0.20	3.57	92	337	5	3.35	125	0.044	25
680420 Orig	< 0.3	0.27	6	18	< 1	< 2	0.02	< 0.3	4	14	2	1.09	< 1	< 1	0.07	0.02	8	132	< 1	0.08	4	0.002	< 3
680420 Dup	< 0.3	0.27	12	18	< 1	< 2	0.02	< 0.3	5	11	3	1.10	< 1	< 1	0.07	0.02	8	140	< 1	0.08	3	0.003	< 3
680434 Orig	1.8	9.17	> 5000	18	1	29	2.95	3.0	6270	61	28	7.24	16	< 1	0.41	3.92	139	556	83	4.11	1210	0.038	14
680434 Dup	1.8	9.18	> 5000	18	1	29	2.91	2.6	6240	64	32	7.20	16	< 1	0.42	3.90	139	541	85	4.12	1200	0.037	13
Method Blank	< 0.3	0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	2	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	2	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	1		4	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	2	< 0.001	< 3
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Ag	Co	Ni	Cu
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%
Lower Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	3	0.002	0.005	0.005
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	4Acid ICPOE S	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2
GXR-1 Meas	41	0.24	< 4	287	12	0.03	< 5	30	88	158	33	722	25		< 0.002	0.009	0.122
GXR-1 Cert	122	0.257	1.58	275	13.0	0.036	0.390	34.9	80.0	164	32.0	760	38.0		0.00082 0	0.00410	0.111
GXR-1 Meas	27	0.25	< 4	285	13	0.03	< 5	30	85	152	33	721	25		< 0.002	< 0.005	0.120
GXR-1 Cert	122	0.257	1.58	275	13.0	0.036	0.390	34.9	80.0	164	32.0	760	38.0		0.00082 0	0.00410	0.111
GXR-4 Meas	< 5	1.78	8	214	5	0.29	< 5	< 10	87	37	15	69	42		< 0.002	< 0.005	0.675
GXR-4 Cert	4.80	1.77	7.70	221	0.970	0.29	3.20	6.20	87.0	30.8	14.0	73.0	186		0.00146	0.00420	0.652
GXR-4 Meas	< 5	1.80	8	216	4	0.28	< 5	< 10	87	34	15	69	47		< 0.002	< 0.005	0.683
GXR-4 Cert	4.80	1.77	7.70	221	0.970	0.29	3.20	6.20	87.0	30.8	14.0	73.0	186		0.00146	0.00420	0.652
CZN-3 Meas															43		
CZN-3 Cert															45		
PTM-1a Meas															2.08	48.6	25.1
PTM-1a Cert															2.05	47.44	24.96
PTM-1a Meas															2.04	46.4	23.6
PTM-1a Cert															2.05	47.44	24.96
SDC-1 Meas	< 5		16	165		0.23	< 5	< 10	59	< 5		100	43				
SDC-1 Cert	0.54		17.00	180.00		0.606	0.70	3.10	102.00	0.80		103.00	290.00				
GXR-6 Meas	< 5	0.02	29	36	< 2		< 5	< 10	108	< 5	14	132	48				
GXR-6 Cert	3.60	0.0160	27.6	35.0	0.0180		2.20	1.54	186	1.90	14.0	118	110				
GXR-6 Meas	< 5	0.01	28	38	< 2		< 5	< 10	93	< 5	13	125	43				
GXR-6 Cert	3.60	0.0160	27.6	35.0	0.0180		2.20	1.54	186	1.90	14.0	118	110				
Oreas 72a (4 Acid Digest) Meas		1.58															
Oreas 72a (4 Acid Digest) Cert		1.74															
Oreas 72a (4 Acid Digest) Meas		1.58															
Oreas 72a (4 Acid Digest) Cert		1.74															
Oreas 74a (Fusion) Meas															0.058	3.33	0.127
Oreas 74a (Fusion) Cert															0.058	3.24	0.124
Oreas 74a (Fusion) Meas															0.063	3.31	0.122
Oreas 74a (Fusion) Cert															0.058	3.24	0.124
Oreas 77a (Fusion) Meas															0.171	10.7	0.423
Oreas 77a (Fusion) Cert															0.1675	10.71	0.4400
Oreas 77a															0.167	10.7	0.420

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Ag	Co	Ni	Cu
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%
Lower Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	3	0.002	0.005	0.005
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	4Acid ICPOE S	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2
(Fusion) Meas																	
Oreas 77a (Fusion) Cert															0.1675	10.71	0.4400
BIR-1a Meas															0.006	0.017	0.013
BIR-1a Cert																	
BIR-1a Meas															0.007	0.019	0.012
BIR-1a Cert																	
OREAS 134b (Fusion) Meas															0.012		0.147
OREAS 134b (Fusion) Cert															0.010		0.134
OREAS 134b (Fusion) Meas															0.011		0.136
OREAS 134b (Fusion) Cert															0.010		0.134
MP-1b Meas														48			3.14
MP-1b Cert														47.0			3.07
MP-1b Meas																	3.06
MP-1b Cert																	3.07
DNC-1a Meas	< 5		31	124		0.27			141		16	54	30				
DNC-1a Cert	0.96		31	144		0.29			148		18.0	70	38.0				
DNC-1a Meas	< 5		32	130		0.29			147		17	59	33				
DNC-1a Cert	0.96		31	144		0.29			148		18.0	70	38.0				
CCU-1d Meas														122			
CCU-1d Cert														120.7			
CPB-2 Meas																	0.126
CPB-2 Cert																	0.1213
CPB-2 Meas																	0.127
CPB-2 Cert																	0.1213
CZN-4 Meas															0.011		0.417
CZN-4 Cert															0.0094		0.403
SBC-1 Meas	< 5		21	173		0.51	< 5	< 10	218	< 5	32	174	104				
SBC-1 Cert	1.01		20.0	178.0		0.51	0.89	5.76	220.0	1.60	36.5	186	134.0				
SBC-1 Meas	< 5		21	172		0.51	< 5	< 10	217	< 5	33	180	107				
SBC-1 Cert	1.01		20.0	178.0		0.51	0.89	5.76	220.0	1.60	36.5	186	134.0				
PTC-1b Meas														52	0.315	11.2	8.05
PTC-1b Cert														53.1	0.325	11.29	7.97
PTC-1b Meas															0.324	12.0	8.11
PTC-1b Cert															0.325	11.29	7.97
SdAR-M2 (U.S.G.S.) Meas			5	148				< 10	22	7	31	791	84				
SdAR-M2			4.1	144				2.53	25.2	2.8	32.7	760	259				

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Ag	Co	Ni	Cu
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%
Lower Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	3	0.002	0.005	0.005
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	4Acid ICPOE S	FUS- Na2O2	FUS- Na2O2	FUS- Na2O2
(U.S.G.S.) Cert																	
CCU-1e Meas															0.031		
CCU-1e Cert															0.0301		
CCU-1e Meas															0.032		
CCU-1e Cert															0.0301		
680329 Orig	< 5	0.20	22	25	< 2	0.23	< 5	< 10	129	< 5	17	30	55				
680329 Dup	< 5	0.21	23	25	7	0.31	< 5	< 10	147	< 5	17	28	67				
680344 Orig	8	0.30	19	37	< 2	0.29	18	< 10	115	< 5	9	61	185				
680344 Dup	8	0.30	19	38	6	0.30	16	< 10	115	< 5	9	61	193				
680358 Orig	< 5	0.04	20	62	3	0.22	< 5	< 10	89	< 5	23	24	111				
680358 Dup	< 5	0.04	20	62	< 2	0.26	< 5	< 10	98	< 5	23	25	122				
680360 Orig															0.112	8.09	0.243
680360 Dup															0.111	8.01	0.240
680366 Orig	< 5	0.03	17	60	< 2	0.18	< 5	< 10	78	< 5	18	23	95				
680366 Split PREP DUP	< 5	0.03	16	60	< 2	0.21	< 5	< 10	83	< 5	17	23	109				
680382 Orig	< 5	1.87	47	109	< 2	0.51	< 5	< 10	216	< 5	29	106	44				
680382 Dup	< 5	1.94	47	109	< 2	0.47	< 5	< 10	214	< 5	29	105	49				
680396 Orig	< 5	0.04	39	33	5	0.51	< 5	< 10	230	< 5	18	48	82				
680396 Dup	< 5	0.05	39	33	< 2	0.51	< 5	< 10	230	< 5	18	47	80				
680416 Orig	< 5	0.26	24	33	4	0.23	< 5	< 10	124	< 5	12	29	50				
680416 Split PREP DUP	< 5	0.27	24	33	5	0.35	< 5	< 10	157	< 5	12	29	71				
680420 Orig	< 5	< 0.01	< 4	3	< 2	0.02	< 5	< 10	4	< 5	3	3	32				
680420 Dup	< 5	< 0.01	< 4	3	< 2	0.02	< 5	< 10	4	< 5	3	4	30				
680434 Orig	28	0.50	26	57	3	0.27	23	< 10	105	14	20	845	110				
680434 Dup	30	0.50	26	57	< 2	0.26	26	< 10	105	13	20	826	109				
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5				
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5				
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5				
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5				
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5				
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5				
Method Blank														< 3			
Method Blank														< 0.002	< 0.005	< 0.005	
Method Blank														< 0.002	< 0.005	< 0.005	
Method Blank														< 0.002	< 0.005	< 0.005	



Date Submitted: 16-Nov-17
Invoice No.: A17-13093
Invoice Date: 07-Dec-17
Your Reference: LIC-TE

JMK Exploration Consulting
147 Lakeside Dr.
North Bay ON P1A 3E1
Canada

ATTN: Joerg Kleinboeck

CERTIFICATE OF ANALYSIS

84 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1F2-Tbay Total Digestion ICP(TOTAL)

REPORT **A17-13093**

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

Notes:

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

CERTIFIED BY:

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

Emmanuel Esemé , Ph.D.
Quality Control

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Results

Activation Laboratories Ltd.

Report: A17-13093

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Lower Limit	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
680701	0.5	6.27	47	15	< 1	< 2	0.31	< 0.3	38	69	232	3.63	14	< 1	0.16	2.12	67	224	< 1	3.47	51	0.029	5
680702	0.7	5.28	100	14	< 1	2	0.42	< 0.3	62	116	69	4.71	15	< 1	0.18	2.60	78	290	10	3.40	80	0.039	6
680703	1.0	8.55	171	16	< 1	2	0.76	< 0.3	104	112	255	5.10	18	< 1	0.19	3.06	89	314	16	3.95	80	0.041	4
680704	1.6	7.23	64	15	< 1	< 2	0.33	< 0.3	47	103	557	4.56	17	< 1	0.14	2.87	77	246	3	3.67	62	0.036	7
680705	0.4	7.67	53	19	< 1	< 2	0.50	< 0.3	52	78	71	5.49	20	< 1	0.16	3.52	101	325	< 1	3.38	83	0.045	8
680706	0.6	7.93	97	24	< 1	3	0.31	< 0.3	67	87	81	5.81	19	< 1	0.19	3.68	105	316	< 1	3.47	94	0.046	8
680707	0.9	9.33	706	23	< 1	2	0.55	0.8	503	93	81	6.37	21	< 1	0.16	4.02	99	364	5	4.39	137	0.081	11
680708	3.1	9.66	> 5000	24	1	74	0.72	1.1	3240	107	297	7.31	23	4	0.27	4.36	111	432	187	4.51	656	0.057	18
680709	1.1	9.53	1730	32	1	6	0.70	< 0.3	1100	120	286	5.80	18	5	0.16	3.56	77	342	67	5.09	231	0.076	5
680710	1.1	9.61	1750	24	1	3	0.96	< 0.3	1160	104	233	6.60	21	< 1	0.21	3.95	99	391	40	4.73	209	0.055	3
680711	1.6	8.18	558	28	1	4	0.32	< 0.3	321	101	9	5.17	20	1	0.32	3.08	101	294	12	3.94	181	0.070	4
680712	1.2	4.89	146	37	1	< 2	0.25	< 0.3	89	139	5	4.01	18	< 1	0.28	2.23	85	249	1	3.78	89	0.060	< 3
680713	1.3	6.37	58	40	1	< 2	0.29	< 0.3	33	135	6	4.19	13	< 1	0.40	2.45	82	251	1	3.77	72	0.059	4
680714	1.3	7.41	24	30	1	< 2	0.27	< 0.3	17	122	6	4.25	18	< 1	0.21	2.41	80	228	< 1	3.88	65	0.058	6
680715	1.0	6.80	24	28	< 1	< 2	0.23	< 0.3	20	97	14	4.09	18	< 1	0.18	2.27	76	234	< 1	3.52	62	0.055	5
680716	0.8	7.65	9	58	1	2	0.39	< 0.3	15	63	30	3.98	14	< 1	0.70	2.21	79	226	< 1	3.53	61	0.054	< 3
680717	0.9	7.51	10	51	1	< 2	0.28	< 0.3	13	79	849	3.73	17	< 1	0.46	2.03	71	205	< 1	3.80	61	0.056	4
680718	1.0	7.76	13	57	1	2	0.27	< 0.3	13	92	7	4.30	22	< 1	0.50	2.35	83	232	< 1	3.66	67	0.062	< 3
680719	1.1	7.70	11	69	1	< 2	0.27	< 0.3	13	92	18	4.07	20	< 1	0.59	2.20	79	221	< 1	3.58	60	0.066	< 3
680720	1.3	2.49	1170	104	< 1	< 2	2.94	2.0	1070	413	2190	20.5	20	< 1	0.36	5.30	21	762	1	0.54	> 10000	0.019	41
680721	1.4	7.67	22	58	1	3	0.27	< 0.3	17	102	155	4.48	18	< 1	0.70	2.43	71	250	2	3.48	77	0.071	< 3
680722	1.1	4.54	15	48	< 1	< 2	0.15	< 0.3	15	99	212	3.39	15	< 1	0.42	1.81	73	204	< 1	3.47	65	0.047	6
680723	4.2	7.43	10	48	2	< 2	0.31	1.5	21	135	3180	4.73	19	< 1	0.38	2.35	80	248	< 1	3.34	84	0.064	14
680724	3.4	8.06	28	70	2	< 2	0.28	2.3	25	131	1840	4.37	19	< 1	0.64	2.23	68	240	1	3.76	72	0.061	113
680725	2.1	7.66	24	53	1	3	0.25	0.5	29	98	1330	4.44	16	< 1	0.41	2.21	75	239	< 1	3.60	68	0.059	10
680726	1.4	7.58	12	56	1	< 2	0.25	< 0.3	21	100	418	4.16	21	< 1	0.46	2.15	72	236	1	3.75	59	0.056	< 3
680727	1.2	7.16	18	50	1	< 2	0.22	< 0.3	31	88	520	4.29	18	< 1	0.33	2.11	73	245	< 1	3.52	60	0.054	< 3
680728	0.9	6.93	30	45	< 1	< 2	0.20	< 0.3	44	73	112	3.69	14	< 1	0.27	1.84	70	211	1	3.60	57	0.049	6
680729	1.1	7.15	13	52	< 1	3	0.21	< 0.3	28	90	9	4.02	17	< 1	0.42	2.13	69	244	< 1	3.48	59	0.051	7
159996	0.8	6.75	4	21	< 1	4	2.74	< 0.3	21	80	2480	5.29	15	1	0.20	2.46	54	417	5	3.39	63	0.025	5
159997	0.8	7.46	5	24	1	3	1.03	< 0.3	33	115	446	5.87	16	< 1	0.20	3.70	69	398	< 1	3.47	100	0.042	< 3
159998	0.5	7.47	< 3	23	1	< 2	2.79	< 0.3	32	154	32	6.07	19	< 1	0.29	3.83	71	522	< 1	3.18	103	0.048	< 3
159999	0.7	7.76	< 3	26	1	< 2	1.65	< 0.3	34	134	75	6.74	18	< 1	0.24	4.04	76	465	1	3.18	110	0.037	< 3
160000	9.9	0.69	2460	24	< 1	46	0.71	0.3	2030	56	> 10000	10.4	3	< 1	0.17	0.93	4	213	8	< 0.01	69	0.031	134
680001	< 0.3	8.32	< 3	24	2	3	0.23	< 0.3	31	174	61	7.38	19	< 1	0.17	4.36	72	388	< 1	3.54	107	0.038	< 3
680002	0.5	6.41	< 3	38	1	< 2	3.48	< 0.3	18	46	73	3.39	18	< 1	0.98	1.86	47	467	< 1	3.19	52	0.029	6
680003	< 0.3	7.88	< 3	19	2	< 2	0.89	< 0.3	33	100	15	7.53	18	< 1	0.15	4.11	67	440	< 1	3.38	117	0.033	< 3
680004	0.4	7.78	5	22	2	2	0.59	< 0.3	33	107	31	7.77	17	< 1	0.16	4.23	80	425	< 1	2.96	105	0.053	7
680005	0.5	7.96	< 3	13	2	3	0.25	< 0.3	37	159	9	7.90	19	< 1	0.09	4.39	72	436	< 1	3.25	117	0.038	< 3
680006	0.7	8.59	< 3	14	1	3	0.34	< 0.3	35	181	15	7.97	21	< 1	0.12	4.34	75	463	< 1	3.80	148	0.072	5
680007	1.0	6.10	7	13	1	3	6.39	< 0.3	37	138	19	6.56	19	< 1	0.72	3.42	65	860	< 1	3.36	116	0.040	< 3
680008	0.4	7.76	7	17	2	< 2	0.49	< 0.3	30	133	36	6.97	18	< 1	0.15	3.97	66	413	< 1	3.42	112	0.037	< 3

Results

Activation Laboratories Ltd.

Report: A17-13093

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Lower Limit	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
680009	0.5	7.50	27	29	1	3	0.31	< 0.3	41	141	5	6.91	17	< 1	0.17	4.02	78	336	< 1	3.02	93	0.045	4
680010	1.0	8.30	405	22	1	5	1.02	< 0.3	293	206	98	6.22	19	< 1	1.16	3.46	73	369	8	3.45	202	0.031	11
680011	0.7	7.62	44	17	1	5	2.86	< 0.3	48	90	227	6.66	19	< 1	0.44	3.62	68	528	5	2.97	108	0.042	7
680012	3.5	8.68	2250	29	2	129	2.83	< 0.3	1390	87	186	5.96	19	5	1.20	3.73	105	489	77	3.44	338	0.053	19
680013	2.7	9.86	1310	23	1	41	0.19	< 0.3	749	100	180	5.76	21	< 1	0.21	3.58	104	306	203	5.24	320	0.052	33
680014	0.6	5.87	4	22	< 1	< 2	2.01	< 0.3	29	41	5	2.05	15	< 1	0.22	1.49	52	205	< 1	3.61	29	0.028	4
680015	1.2	6.35	55	22	< 1	< 2	0.18	< 0.3	28	58	13	3.23	14	< 1	0.14	1.72	65	200	5	3.61	47	0.041	4
680016	0.4	7.08	19	33	2	< 2	0.30	< 0.3	19	63	40	3.01	15	< 1	0.24	1.58	56	173	< 1	4.00	39	0.046	< 3
680017	1.3	7.42	44	67	2	< 2	0.47	0.4	106	135	516	4.20	22	< 1	0.86	2.19	73	226	< 1	3.24	75	0.053	9
680018	1.0	8.42	910	81	2	5	0.51	< 0.3	624	121	17	3.77	23	2	0.97	2.05	72	206	2	4.02	167	0.073	3
680019	0.5	8.59	16	86	2	< 2	0.45	< 0.3	24	86	10	4.43	23	< 1	0.94	2.41	75	234	< 1	3.81	63	0.059	< 3
680020	1.1	2.77	825	96	< 1	4	2.96	< 0.3	765	744	1490	17.0	17	< 1	0.31	8.19	20	926	1	0.58	> 10000	0.021	25
680021	1.3	8.04	463	82	2	< 2	1.01	< 0.3	272	57	31	4.01	21	< 1	0.98	2.29	77	252	< 1	3.34	146	0.061	< 3
680022	1.3	8.25	2420	74	2	12	0.47	< 0.3	1030	81	9	3.55	20	3	0.87	1.95	71	193	6	3.94	634	0.062	7
680023	0.9	8.63	76	89	2	< 2	0.36	< 0.3	35	96	1	4.13	20	< 1	0.77	2.24	77	223	2	3.98	74	0.072	< 3
680024	0.9	8.46	127	88	2	< 2	0.49	0.9	60	90	4	4.08	19	8	0.88	2.24	79	209	5	3.82	97	0.071	< 3
680025	1.3	7.84	2170	62	2	8	0.67	0.5	1280	104	50	3.11	20	< 1	0.78	1.73	63	188	10	4.23	459	0.071	< 3
680026	1.1	8.13	251	59	2	2	0.56	< 0.3	95	145	5	3.30	22	2	0.62	1.82	63	181	7	4.34	129	0.074	5
680027	1.1	7.99	2080	59	4	12	0.46	< 0.3	1020	128	10	2.91	22	7	0.68	1.60	61	170	7	4.35	567	0.060	11
680028	1.0	8.29	104	65	2	2	0.36	< 0.3	70	81	2	3.67	19	< 1	0.72	2.02	71	200	< 1	4.03	106	0.055	< 3
680029	0.9	7.81	553	52	2	2	0.48	< 0.3	355	88	6	2.96	19	< 1	0.61	1.62	61	163	2	4.46	179	0.069	4
680030	1.6	7.58	2210	75	2	14	0.52	< 0.3	1630	50	29	2.33	16	< 1	1.84	1.27	47	143	14	3.95	728	0.041	8
680031	1.8	7.69	> 5000	82	2	14	1.82	< 0.3	2820	71	17	2.52	13	< 1	1.85	1.37	50	275	7	3.67	1200	0.046	8
680032	1.4	8.14	545	65	2	< 2	0.43	< 0.3	335	73	6	2.49	18	< 1	0.93	1.31	50	136	3	4.50	151	0.068	< 3
680033	0.9	7.87	53	66	2	< 2	0.40	< 0.3	125	74	13	2.41	16	< 1	0.74	1.25	45	138	< 1	4.74	66	0.059	< 3
680034	1.1	7.95	62	69	2	< 2	0.41	< 0.3	171	79	17	3.21	18	< 1	0.72	1.62	58	179	< 1	4.18	81	0.058	5
680035	1.2	7.83	53	55	1	< 2	0.26	< 0.3	53	107	4	4.41	19	< 1	0.52	2.17	73	207	1	3.74	66	0.061	< 3
680036	1.1	7.86	15	59	2	< 2	0.27	< 0.3	19	113	192	4.78	21	< 1	0.57	2.29	74	228	< 1	3.65	64	0.063	< 3
680037	1.3	7.87	5	77	2	< 2	0.28	< 0.3	23	98	344	4.60	23	< 1	0.79	2.19	70	215	< 1	3.50	61	0.066	6
680038	1.1	7.74	3	86	2	< 2	0.26	< 0.3	27	89	11	4.50	19	< 1	0.88	2.29	74	211	< 1	3.28	63	0.055	< 3
680039	1.0	7.70	< 3	69	3	3	0.26	< 0.3	18	76	3	4.60	16	< 1	0.65	2.32	71	222	< 1	3.36	58	0.064	3
680040	< 0.3	0.27	< 3	13	< 1	< 2	0.02	< 0.3	1	6	1	0.33	< 1	< 1	0.03	0.04	8	49	< 1	0.06	2	0.002	< 3
680041	1.1	7.97	< 3	76	2	2	0.27	< 0.3	12	100	< 1	5.06	15	< 1	0.72	2.38	69	231	< 1	3.32	56	0.065	< 3
680042	1.4	7.63	< 3	58	2	3	0.25	0.3	8	98	< 1	5.21	15	< 1	0.52	2.25	61	254	1	3.32	52	0.062	4
680043	1.1	7.69	< 3	78	1	< 2	0.25	< 0.3	15	108	< 1	4.88	22	< 1	0.72	2.27	65	230	< 1	3.29	54	0.060	< 3
680044	1.2	7.18	5	82	1	< 2	0.24	< 0.3	18	161	2	4.45	21	< 1	0.81	2.16	69	216	< 1	3.22	50	0.062	< 3
680045	14.6	5.39	128	74	2	< 2	0.73	< 0.3	68	131	530	5.65	16	< 1	0.63	2.28	72	359	3	2.58	63	0.041	721
680046	1.5	6.73	38	114	< 1	4	3.58	< 0.3	61	109	68	9.59	18	< 1	0.91	4.25	56	1590	< 1	2.05	61	0.035	51
680047	0.6	7.29	21	123	< 1	2	2.86	< 0.3	58	55	97	8.44	20	< 1	0.26	3.09	47	1540	< 1	3.19	65	0.042	36
680048	0.9	7.35	< 3	157	< 1	4	2.55	< 0.3	58	48	89	10.1	20	< 1	0.42	3.33	50	1890	< 1	2.85	69	0.042	38
680049	1.1	7.29	10	182	< 1	4	2.49	< 0.3	62	50	115	10.4	20	< 1	0.56	3.43	53	1980	< 1	2.68	71	0.042	37
680050	1.1	7.48	16	175	< 1	2	2.79	< 0.3	46	48	143	9.09	19	< 1	0.29	3.22	42	2030	< 1	3.55	61	0.043	27

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Cu	Ni
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
Lower Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	0.005	0.005
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	FUS- Na2O2	FUS- Na2O2
680701	< 5	0.06	13	19	< 2	0.19	< 5	< 10	78	< 5	23	19	67		
680702	< 5	0.11	7	19	3	0.40	< 5	< 10	150	6	17	22	77		
680703	< 5	0.09	21	22	< 2	0.36	< 5	< 10	146	< 5	23	24	102		
680704	< 5	0.12	22	18	< 2	0.33	< 5	< 10	139	< 5	30	56	81		
680705	< 5	0.09	25	27	< 2	0.19	< 5	< 10	116	< 5	14	25	47		
680706	< 5	0.26	25	33	4	0.33	< 5	< 10	151	< 5	14	27	65		
680707	< 5	0.14	28	31	2	0.43	< 5	10	195	< 5	21	32	85		
680708	6	0.29	66	31	15	0.48	7	10	208	< 5	30	42	104		
680709	< 5	0.11	23	38	7	0.54	< 5	< 10	184	< 5	41	28	104		
680710	< 5	0.10	30	39	10	0.54	< 5	< 10	207	< 5	37	32	92		
680711	< 5	0.06	18	55	4	0.40	< 5	< 10	126	< 5	19	26	147		
680712	< 5	0.03	8	55	7	0.39	< 5	< 10	114	< 5	10	24	155		
680713	< 5	0.02	13	59	4	0.38	< 5	< 10	114	< 5	13	21	163		
680714	< 5	0.02	15	57	< 2	0.33	< 5	< 10	101	< 5	17	34	146		
680715	< 5	0.07	12	55	< 2	0.26	< 5	< 10	84	< 5	12	22	148		
680716	< 5	0.03	16	66	3	0.23	< 5	< 10	86	< 5	20	23	107		
680717	< 5	0.11	15	63	8	0.20	< 5	< 10	88	< 5	21	30	104		
680718	< 5	0.04	16	62	3	0.16	< 5	< 10	64	< 5	18	22	115		
680719	< 5	0.05	15	64	4	0.28	< 5	< 10	90	< 5	17	23	145		
680720	14	11.5	7	40	2	0.10	< 5	< 10	46	< 5	17	154	58		7.88
680721	< 5	0.06	16	55	< 2	0.37	< 5	< 10	109	< 5	22	25	162		
680722	< 5	0.09	7	49	3	0.29	< 5	< 10	86	< 5	7	42	142		
680723	< 5	0.40	15	54	5	0.37	< 5	< 10	105	5	27	314	171		
680724	< 5	0.26	17	65	3	0.40	< 5	< 10	117	< 5	26	485	169		
680725	< 5	0.30	14	62	7	0.35	< 5	< 10	102	< 5	21	151	153		
680726	< 5	0.17	15	64	6	0.33	< 5	< 10	95	< 5	18	26	156		
680727	< 5	0.37	12	65	15	0.31	< 5	< 10	86	< 5	16	31	146		
680728	< 5	0.30	10	58	< 2	0.25	< 5	< 10	67	< 5	30	23	120		
680729	< 5	0.18	13	57	< 2	0.29	< 5	< 10	83	< 5	15	30	141		
159996	< 5	0.41	20	33	7	0.37	< 5	< 10	145	< 5	23	19	82		
159997	< 5	0.18	38	34	8	0.50	< 5	< 10	210	< 5	16	30	76		
159998	< 5	0.08	31	38	< 2	0.20	< 5	< 10	135	< 5	18	30	57		
159999	< 5	0.11	32	38	5	0.32	< 5	< 10	177	< 5	17	32	58		
160000	12	11.3	< 4	2	5	0.03	15	< 10	6	< 5	4	36	23	8.76	
680001	< 5	0.02	34	26	3	0.23	< 5	< 10	133	< 5	15	35	59		
680002	< 5	0.12	15	47	3	0.15	< 5	< 10	73	< 5	17	16	38		
680003	< 5	0.03	37	26	4	0.31	< 5	< 10	159	< 5	19	33	67		
680004	< 5	0.02	35	25	< 2	0.33	< 5	< 10	175	< 5	22	36	68		
680005	< 5	0.02	36	21	3	0.45	< 5	< 10	213	< 5	17	39	76		
680006	< 5	0.01	32	21	< 2	0.37	< 5	< 10	224	< 5	13	42	92		
680007	< 5	0.12	18	48	3	0.54	< 5	< 10	228	< 5	20	29	80		

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Cu	Ni
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
Lower Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	0.005	0.005
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	FUS- Na2O2	FUS- Na2O2
680008	< 5	0.02	29	24	9	0.47	< 5	< 10	227	< 5	15	35	98		
680009	< 5	0.24	30	38	< 2	0.29	< 5	< 10	154	< 5	16	35	67		
680010	< 5	0.10	26	26	< 2	0.20	< 5	< 10	141	< 5	15	31	38		
680011	< 5	0.15	27	31	< 2	0.25	< 5	< 10	136	< 5	20	34	47		
680012	< 5	0.29	31	47	5	0.45	< 5	< 10	189	< 5	27	28	90		
680013	< 5	0.13	23	31	6	0.50	6	< 10	180	< 5	26	27	95		
680014	< 5	< 0.01	8	56	< 2	0.16	< 5	< 10	48	< 5	8	11	70		
680015	< 5	0.01	9	46	3	0.21	< 5	< 10	64	< 5	13	17	138		
680016	< 5	0.02	12	57	< 2	0.29	< 5	< 10	77	< 5	16	15	30		
680017	< 5	0.11	17	61	9	0.34	< 5	< 10	111	< 5	18	78	126		
680018	< 5	0.07	19	75	11	0.39	< 5	< 10	133	8	21	16	134		
680019	< 5	0.01	18	72	< 2	0.20	< 5	< 10	79	< 5	23	18	95		
680020	8	9.45	9	61	3	0.14	< 5	< 10	58	< 5	18	132	54		5.55
680021	< 5	0.05	17	69	2	0.34	< 5	< 10	113	< 5	22	22	128		
680022	< 5	0.11	18	71	5	0.40	< 5	< 10	125	< 5	24	15	139		
680023	< 5	< 0.01	19	76	7	0.27	< 5	< 10	92	< 5	26	20	122		
680024	6	0.01	20	73	< 2	0.35	< 5	< 10	119	< 5	25	19	134		
680025	< 5	0.13	18	71	7	0.40	< 5	< 10	130	< 5	22	52	135		
680026	< 5	0.02	19	74	5	0.42	< 5	< 10	129	6	19	27	148		
680027	< 5	0.09	19	76	5	0.38	< 5	< 10	125	< 5	31	29	127		
680028	6	0.02	19	73	3	0.25	< 5	< 10	104	< 5	19	20	114		
680029	< 5	0.04	16	70	< 2	0.31	< 5	< 10	114	< 5	19	13	123		
680030	< 5	0.09	13	61	2	0.26	< 5	< 10	113	< 5	23	11	95		
680031	< 5	0.22	16	59	3	0.27	< 5	< 10	117	< 5	24	18	104		
680032	< 5	0.03	17	71	5	0.40	< 5	< 10	123	< 5	19	11	138		
680033	< 5	0.02	16	73	< 2	0.12	< 5	< 10	61	< 5	21	13	106		
680034	< 5	0.02	16	73	< 2	0.11	< 5	< 10	59	< 5	21	16	98		
680035	< 5	0.03	17	66	< 2	0.35	< 5	< 10	111	< 5	20	21	149		
680036	< 5	0.05	17	66	3	0.30	< 5	< 10	105	< 5	21	20	142		
680037	< 5	0.11	17	64	6	0.35	< 5	< 10	111	< 5	23	20	138		
680038	< 5	0.06	16	63	< 2	0.21	< 5	< 10	87	< 5	18	21	107		
680039	< 5	0.04	16	57	3	0.29	< 5	< 10	97	< 5	23	21	130		
680040	< 5	< 0.01	< 4	2	< 2	0.02	< 5	< 10	3	< 5	3	3	30		
680041	< 5	0.02	17	62	5	0.29	< 5	< 10	91	< 5	20	23	130		
680042	< 5	0.01	16	58	2	0.34	< 5	< 10	100	< 5	21	28	146		
680043	< 5	0.09	17	57	3	0.26	< 5	< 10	92	< 5	20	25	130		
680044	< 5	0.26	15	56	< 2	0.37	< 5	< 10	105	< 5	18	21	160		
680045	15	1.68	9	81	9	0.32	< 5	< 10	95	< 5	13	46	114		
680046	< 5	2.38	34	107	3	0.56	< 5	< 10	234	< 5	20	107	75		
680047	< 5	1.41	46	83	3	0.48	< 5	< 10	206	< 5	33	115	52		
680048	< 5	1.39	47	60	5	0.45	< 5	< 10	235	< 5	31	140	69		
680049	< 5	1.44	46	53	9	0.59	< 5	< 10	282	< 5	29	150	75		

Results

Activation Laboratories Ltd.

Report: A17-13093

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Cu	Ni
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
Lower Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	0.005	0.005
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	FUS-Na2O2	FUS-Na2O2
680050	< 5	0.90	46	92	5	0.66	< 5	< 10	301	< 5	31	152	77		

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Lower Limit	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
GXR-1 Meas	31.5	2.40	451	708	1	1590	0.89	2.3	6	19	1120	23.6	17	2	0.04	0.21	8	912	15	0.05	42	0.059	743
GXR-1 Cert	31.0	3.52	427	750	1.22	1380	0.960	3.30	8.20	12.0	1110	23.6	13.8	3.90	0.050	0.217	8.20	852	18.0	0.0520	41.0	0.0650	730
GXR-4 Meas	3.5	6.44	98	253	2	13	1.07	0.4	15	43	6510	3.06	19	< 1	4.09	1.70	12	155	324	0.53	47	0.130	66
GXR-4 Cert	4.0	7.20	98.0	1640	1.90	19.0	1.01	0.860	14.6	64.0	6520	3.09	20.0	0.110	4.01	1.66	11.1	155	310	0.564	42.0	0.120	52.0
PTM-1a Meas																							
PTM-1a Cert																							
SDC-1 Meas		7.88	3	630	3		1.05		18	56	26	4.65	18	< 1	2.03	0.98	34	879		1.52	35	0.053	20
SDC-1 Cert		8.34	0.220	630	3.00		1.00		18.0	64.00	30.000	4.82	21.00	0.20	2.72	1.02	34	880.00		1.52	38.0	0.0690	25.00
GXR-6 Meas	0.7	12.5	286	> 1000	1	< 2	0.16	< 0.3	14	57	68	5.78	29	< 1	1.79	0.59	32	1070	5	0.09	28	0.035	91
GXR-6 Cert	1.30	17.7	330	1300	1.40	0.290	0.180	1.00	13.8	96.0	66.0	5.58	35.0	0.0680	1.87	0.609	32.0	1010	2.40	0.104	27.0	0.0350	101
Oreas 72a (4 Acid Digest) Meas			< 3						151	199	304	9.30											6500
Oreas 72a (4 Acid Digest) Cert			14.7						157	228	316	9.63											6930.00
Oreas 72a (4 Acid Digest) Meas			7						155	182	313	9.34											6690
Oreas 72a (4 Acid Digest) Cert			14.7						157	228	316	9.63											6930.00
DNC-1a Meas				103					56	172	93		14				4						259
DNC-1a Cert				118					57	270	100		15				5.2						247
OREAS 13b (4-Acid) Meas	1.2		50						75	9770	2250								7				2280
OREAS 13b (4-Acid) Cert	0.86		57						75	8650.00	2327.000								9.0				2247.000
SBC-1 Meas			27	803	3	2		< 0.3	24	78	28		28				146		2				87
SBC-1 Cert			25.7	788.0	3.20	0.70		0.40	22.7	109			27.0				163		2				83
PTC-1b Meas																							
PTC-1b Cert																							
SdAR-M2 (U.S.G.S.) Meas				> 1000	8	2		5.4	14	28	234		17	1			18		12				53
SdAR-M2 (U.S.G.S.) Cert				990	6.6	1.05		5.1	12.4	49.6	236.000		17.6	1.44			18		13				49
OREAS 922 (Peroxide Fusion) Meas																							
OREAS 922 (Peroxide Fusion) Cert																							
680705 Orig	0.4	7.70	59	19	< 1	< 2	0.50	< 0.3	53	80	71	5.48	20	< 1	0.16	3.52	101	324	< 1	3.43	85	0.046	7
680705 Dup	0.3	7.63	48	19	< 1	< 2	0.50	< 0.3	50	76	70	5.49	20	< 1	0.16	3.52	102	325	< 1	3.34	81	0.045	9
680719 Orig	1.1	7.49	11	69	1	2	0.27	< 0.3	12	94	24	4.01	20	< 1	0.59	2.18	78	215	< 1	3.54	61	0.064	4
680719 Dup	1.1	7.92	11	70	1	< 2	0.27	< 0.3	13	91	12	4.13	20	< 1	0.60	2.22	79	227	< 1	3.62	59	0.067	< 3
680010 Orig	1.1	8.26	395	22	1	4	1.02	< 0.3	288	227	97	6.22	19	2	1.15	3.46	72	369	10	3.49	199	0.031	12
680010 Dup	0.8	8.34	414	22	1	6	1.03	< 0.3	299	186	98	6.21	19	< 1	1.16	3.46	73	370	6	3.42	205	0.031	10

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Lower Limit	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
680016 Orig	0.4	7.08	19	33	2	< 2	0.30	< 0.3	19	63	40	3.01	15	< 1	0.24	1.58	56	173	< 1	4.00	39	0.046	< 3
680016 Split PREP DUP	1.2	8.03	27	34	2	< 2	0.33	< 0.3	19	100	38	3.09	17	< 1	0.23	1.60	54	173	< 1	3.99	37	0.052	< 3
680020 Orig																							
680020 Dup																							
680023 Orig	0.9	8.63	76	89	2	< 2	0.36	< 0.3	35	102	1	4.13	22	< 1	0.77	2.25	75	240	3	4.01	74	0.071	3
680023 Dup	0.9	8.64	75	89	2	2	0.36	< 0.3	35	90	2	4.14	19	< 1	0.77	2.24	80	207	1	3.96	73	0.074	< 3
680048 Orig	0.9	7.34	< 3	157	< 1	5	2.53	< 0.3	58	50	88	10.2	21	< 1	0.43	3.28	49	1880	< 1	2.90	68	0.041	37
680048 Dup	1.0	7.36	3	157	< 1	3	2.57	< 0.3	58	46	91	10.0	19	< 1	0.42	3.37	51	1900	1	2.80	71	0.042	39
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		2	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		4	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank																							

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Cu	Ni
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
Lower Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	0.005	0.005
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	FUS-Na2O2	FUS-Na2O2
GXR-1 Meas	56	0.25	< 4	289	13	0.03	< 5	40	82	163	34	749	40		
GXR-1 Cert	122	0.257	1.58	275	13.0	0.036	0.390	34.9	80.0	164	32.0	760	38.0		
GXR-4 Meas	7	1.81	8	222	12	0.29	< 5	< 10	89	31	16	69	45		
GXR-4 Cert	4.80	1.77	7.70	221	0.970	0.29	3.20	6.20	87.0	30.8	14.0	73.0	186		
PTM-1a Meas														23.7	46.8
PTM-1a Cert														24.96	47.44
SDC-1 Meas	< 5		16	167		0.22	7	< 10	59	< 5		96	48		
SDC-1 Cert	0.54		17.00	180.00		0.606	0.70	3.10	102.00	0.80		103.00	290.00		
GXR-6 Meas	< 5	0.02	28	35	< 2		< 5	< 10	135	< 5	13	127	67		
GXR-6 Cert	3.60	0.0160	27.6	35.0	0.0180		2.20	1.54	186	1.90	14.0	118	110		
Oreas 72a (4 Acid Digest) Meas		1.63													
Oreas 72a (4 Acid Digest) Cert		1.74													
Oreas 72a (4 Acid Digest) Meas		1.66													
Oreas 72a (4 Acid Digest) Cert		1.74													
DNC-1a Meas	< 5		32	136		0.27			144		17	58	35		
DNC-1a Cert	0.96		31	144		0.29			148		18.0	70	38.0		
OREAS 13b (4-Acid) Meas		1.17										133			
OREAS 13b (4-Acid) Cert		1.2										133			
SBC-1 Meas	< 5		20	177		0.51	< 5	< 10	217	< 5	33	184	105		
SBC-1 Cert	1.01		20.0	178.0		0.51	0.89	5.76	220.0	1.60	36.5	186	134.0		
PTC-1b Meas														8.13	11.6
PTC-1b Cert														7.97	11.29
SdAR-M2 (U.S.G.S.) Meas			4	144				< 10	26	8	30	784	106		
SdAR-M2 (U.S.G.S.) Cert			4.1	144				2.53	25.2	2.8	32.7	760	259		
OREAS 922 (Peroxide Fusion) Meas														0.223	< 0.005
OREAS 922 (Peroxide Fusion) Cert														0.222	0.004
680705 Orig	< 5	0.09	25	27	< 2	0.21	6	< 10	120	< 5	14	25	54		
680705 Dup	< 5	0.09	25	26	< 2	0.16	< 5	< 10	112	< 5	14	26	41		
680719 Orig	< 5	0.05	15	62	4	0.26	< 5	< 10	84	< 5	17	23	141		
680719 Dup	< 5	0.05	15	66	3	0.31	< 5	< 10	96	< 5	17	23	149		
680010 Orig	< 5	0.10	25	26	< 2	0.23	6	< 10	149	< 5	15	31	40		
680010 Dup	< 5	0.10	26	27	< 2	0.18	< 5	< 10	134	< 5	15	31	36		

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Cu	Ni
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
Lower Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	0.005	0.005
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	FUS-Na2O2	FUS-Na2O2
680016 Orig	< 5	0.02	12	57	< 2	0.29	< 5	< 10	77	< 5	16	15	30		
680016 Split PREP DUP	< 5	0.03	14	64	6	0.29	< 5	< 10	78	< 5	20	14	142		
680020 Orig														0.168	5.54
680020 Dup														0.163	5.57
680023 Orig	< 5	< 0.01	19	76	9	0.23	< 5	< 10	81	< 5	26	21	118		
680023 Dup	< 5	< 0.01	19	75	4	0.30	< 5	< 10	104	< 5	26	19	126		
680048 Orig	< 5	1.40	47	61	4	0.41	< 5	< 10	210	< 5	31	140	62		
680048 Dup	< 5	1.39	47	59	5	0.49	< 5	< 10	260	< 5	31	140	76		
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5		
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5		
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	2	< 5	< 1	< 1	< 5		
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5		
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5		
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	3	< 5	< 1	1	< 5		
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5		
Method Blank														< 0.005	< 0.005



Date Submitted: 08-Nov-17
Invoice No.: A17-12669
Invoice Date: 27-Dec-17
Your Reference: LIC-TE

JMK Exploration Consulting
147 Lakeside Dr.
North Bay ON P1A 3E1
Canada

ATTN: Joerg Kleinboeck

CERTIFICATE OF ANALYSIS

61 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1F2 Total Digestion ICP(TOTAL)

REPORT **A17-12669**

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

Notes:

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

CERTIFIED BY:

A handwritten signature in black ink, appearing to read "Elitsa Hrischeva". The signature is written in a cursive style with a horizontal line underneath it.

Elitsa Hrischeva, Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
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Results

Activation Laboratories Ltd.

Report: A17-12669

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Lower Limit	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
159935	< 0.3	7.31	< 3	74	2	< 2	5.14	0.3	64	142	1580	7.37	14	< 1	1.21	5.50	73	1120	< 1	1.22	140	0.016	< 3
159936	< 0.3	7.66	< 3	104	< 1	2	6.86	0.4	44	158	1660	7.67	14	< 1	1.01	4.94	32	1240	< 1	1.38	145	0.019	< 3
159937	< 0.3	6.86	4	21	1	5	3.14	< 0.3	37	161	197	5.35	17	< 1	0.33	3.33	60	559	3	3.48	105	0.042	< 3
159938	< 0.3	7.51	< 3	61	1	< 2	1.19	< 0.3	20	77	15	3.86	17	< 1	0.60	2.67	54	338	< 1	3.82	48	0.069	< 3
159939	< 0.3	8.51	< 3	18	1	3	1.15	< 0.3	32	106	1530	7.19	19	< 1	0.26	4.05	83	425	13	3.55	127	0.063	< 3
159940	< 0.3	0.26	< 3	12	< 1	< 2	0.02	< 0.3	< 1	9	10	0.53	< 1	< 1	0.03	0.03	9	69	< 1	0.03	2	0.001	< 3
159941	0.8	8.52	12	21	3	4	4.06	< 0.3	47	75	33	7.12	20	< 1	0.55	4.29	90	728	9	3.40	143	0.049	7
159942	< 0.3	8.51	< 3	23	1	3	0.21	< 0.3	41	126	1660	7.67	20	< 1	0.19	4.26	89	404	19	3.55	123	0.049	< 3
159943	0.8	7.30	29	14	3	4	0.96	< 0.3	26	96	7570	6.93	18	< 1	0.24	3.68	89	386	4	2.91	79	0.050	10
159944	0.9	9.46	> 5000	27	1	9	2.15	< 0.3	3650	68	212	5.83	20	< 1	1.80	3.51	106	412	80	3.79	457	0.047	< 3
159945	2.1	7.20	> 5000	18	1	901	0.27	0.8	> 10000	55	68	6.68	15	< 1	0.17	3.39	113	324	125	3.05	> 10000	0.042	22
159946	0.8	8.98	164	22	< 1	2	0.27	0.4	96	88	11	5.66	19	< 1	0.25	3.42	126	318	41	5.24	119	0.069	< 3
159947	0.7	8.77	291	19	< 1	5	0.20	< 0.3	201	98	759	4.90	19	< 1	0.29	2.89	103	261	39	5.60	146	0.066	< 3
159948	0.5	8.82	235	26	2	4	0.27	< 0.3	130	100	91	3.98	18	< 1	0.25	2.43	71	207	15	5.07	113	0.069	< 3
159949	0.4	8.64	159	28	2	3	0.28	< 0.3	98	103	18	4.69	18	< 1	0.21	2.87	83	248	3	4.58	114	0.063	< 3
159950	0.4	8.01	95	32	2	< 2	0.27	< 0.3	59	93	16	3.74	16	< 1	0.40	2.23	71	193	1	4.23	78	0.060	< 3
159951	< 0.3	8.12	51	31	2	< 2	0.31	< 0.3	22	80	9	3.89	18	< 1	0.39	2.28	71	202	< 1	4.24	84	0.060	< 3
159952	0.4	9.59	64	16	1	< 2	0.34	< 0.3	21	91	100	3.51	17	< 1	0.13	2.05	61	190	2	6.12	84	0.079	< 3
159953	0.8	7.88	288	18	2	< 2	0.77	< 0.3	106	95	42	4.39	16	< 1	0.21	2.15	66	253	4	4.44	140	0.068	9
159954	0.8	7.64	980	18	7	6	0.29	< 0.3	533	122	163	3.57	15	< 1	0.14	1.99	63	194	35	4.65	268	0.062	6
159955	3.0	8.34	2350	21	23	15	0.46	2.0	1250	117	2250	3.87	15	< 1	0.31	1.85	58	203	104	5.42	535	0.066	58
159956	0.5	8.70	179	19	1	2	0.32	< 0.3	92	108	289	4.50	18	< 1	0.15	2.46	76	238	7	5.02	109	0.072	14
159957	0.4	7.89	223	30	2	< 2	0.43	0.3	146	100	19	5.00	19	< 1	0.25	2.75	84	275	1	4.15	118	0.073	5
159958	0.8	7.86	391	21	1	3	0.51	< 0.3	235	120	2150	4.67	16	< 1	0.25	2.56	87	275	8	3.94	145	0.055	39
159959	1.0	8.32	1130	18	1	4	0.97	< 0.3	711	99	141	3.96	14	< 1	0.46	2.23	77	246	41	4.33	254	0.058	9
159960	0.8	2.25	1090	16	< 1	< 2	2.70	1.1	1010	281	2060	18.4	11	< 1	0.42	4.73	17	682	< 1	0.45	> 10000	0.020	37
159961	0.5	8.30	458	29	1	< 2	0.34	< 0.3	305	103	65	4.14	18	< 1	0.35	2.33	77	239	10	4.53	161	0.071	< 3
159962	0.7	8.22	3260	33	2	17	0.34	< 0.3	1870	97	14	4.41	18	< 1	0.32	2.44	78	290	152	4.26	688	0.062	10
159963	1.2	8.54	1250	134	2	6	1.47	< 0.3	835	97	510	5.29	19	< 1	1.58	3.19	106	343	36	2.98	335	0.070	5
159964	1.4	8.43	> 5000	11	1	13	0.91	< 0.3	5030	116	32	4.62	18	2	0.15	2.74	93	292	53	5.45	973	0.059	31
159965	0.7	6.45	1560	9	1	5	0.28	< 0.3	943	171	9	4.19	18	< 1	0.09	2.53	82	237	19	5.57	263	0.072	< 3
159966	0.9	8.69	4150	13	1	11	1.28	< 0.3	3320	140	39	4.28	19	1	0.78	2.67	93	307	33	4.95	812	0.047	18
159967	1.6	9.69	> 5000	15	6	30	0.61	1.4	3090	136	30	3.79	18	< 1	0.18	2.23	82	223	137	5.81	1020	0.071	177
159968	0.9	8.21	4590	17	1	18	0.81	< 0.3	3080	87	99	3.87	15	< 1	0.21	2.33	87	264	82	4.35	857	0.061	30
159969	0.5	8.13	546	27	2	< 2	0.75	< 0.3	376	86	6	5.12	20	< 1	0.30	3.13	105	308	1	3.69	187	0.061	< 3
159970	1.0	8.08	1260	14	1	4	1.73	0.5	699	88	52	4.25	17	< 1	0.20	2.56	86	347	55	4.19	309	0.057	24
159971	0.6	7.87	1240	14	1	3	0.55	< 0.3	774	111	21	4.60	18	< 1	0.11	2.81	90	271	12	4.21	295	0.058	5
159972	0.6	8.59	732	9	1	3	0.74	< 0.3	487	101	52	5.74	22	< 1	0.17	3.53	107	345	12	4.49	212	0.073	< 3
159973	0.6	9.76	3720	11	1	8	0.48	< 0.3	2260	100	11	5.63	20	3	0.10	3.40	106	311	54	5.11	648	0.076	< 3
159974	1.1	8.24	> 5000	12	1	15	0.81	< 0.3	4340	95	29	4.62	19	< 1	0.14	2.81	88	294	101	5.00	1460	0.051	5
159975	6.4	7.66	> 5000	12	< 1	277	2.80	4.8	> 10000	65	682	4.64	14	< 1	0.28	2.26	71	415	392	4.19	8450	0.057	261
159976	4.4	5.41	> 5000	11	< 1	156	1.60	3.2	> 10000	150	497	3.41	13	< 1	0.21	1.76	61	306	175	5.32	4770	0.053	191

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Lower Limit	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
159977	0.5	7.72	934	9	1	4	1.29	< 0.3	543	141	23	5.17	20	< 1	0.16	3.17	96	371	6	4.26	211	0.073	< 3
159978	0.7	8.47	4130	13	1	7	0.52	< 0.3	2540	112	124	5.04	18	< 1	0.12	3.03	99	285	56	4.23	722	0.075	16
159979	0.6	9.55	856	12	1	4	0.45	< 0.3	478	110	437	5.29	21	< 1	0.13	3.16	97	286	36	5.04	220	0.102	< 3
159980	< 0.3	0.26	50	15	< 1	< 2	0.01	< 0.3	28	9	5	0.46	< 1	< 1	0.05	0.02	9	78	< 1	0.05	10	0.002	< 3
159981	0.4	7.81	416	13	1	2	0.35	< 0.3	238	114	11	5.36	19	< 1	0.12	3.25	102	307	4	3.75	157	0.066	< 3
159982	0.5	8.57	561	11	1	3	0.29	< 0.3	304	162	18	5.80	22	< 1	0.09	3.51	109	320	13	4.28	205	0.072	< 3
159983	0.7	9.50	2290	15	< 1	5	0.38	< 0.3	1260	124	88	4.93	21	< 1	0.15	2.97	95	272	41	5.09	441	0.076	< 3
159984	1.2	9.47	> 5000	13	< 1	30	0.55	< 0.3	4420	104	159	4.92	19	< 1	0.17	2.96	93	281	127	5.07	1410	0.055	11
159985	0.8	8.09	918	9	1	6	0.20	< 0.3	480	161	7	6.57	23	< 1	0.05	4.08	131	359	77	4.41	258	0.080	< 3
159986	2.6	7.97	> 5000	10	1	129	0.66	< 0.3	> 10000	132	2810	5.98	19	< 1	0.12	3.34	119	327	324	3.76	4790	0.060	36
159987	0.6	7.97	855	16	1	4	0.39	< 0.3	536	115	39	5.20	19	< 1	0.12	3.12	108	284	72	3.66	233	0.070	< 3
159988	0.5	7.98	758	16	1	4	0.57	< 0.3	486	116	23	5.11	18	< 1	0.11	3.10	103	292	9	3.72	226	0.067	4
159989	0.6	7.46	2020	17	1	4	0.28	< 0.3	1340	104	120	4.63	17	< 1	0.13	2.80	102	257	49	3.73	358	0.066	4
159990	0.8	7.03	320	17	< 1	2	0.26	< 0.3	253	118	14	4.55	17	< 1	0.16	2.66	96	254	4	3.47	134	0.057	< 3
159991	1.0	7.32	70	115	< 1	10	2.57	0.5	77	53	291	9.48	19	< 1	0.49	2.83	47	1720	< 1	2.89	69	0.045	53
159992	1.0	7.02	59	112	< 1	8	2.88	0.7	91	62	245	9.89	18	< 1	0.59	2.60	34	1730	< 1	3.19	81	0.042	62
159993	1.1	7.15	19	136	< 1	9	2.50	0.4	57	57	241	8.90	18	< 1	0.56	2.55	32	1760	< 1	3.41	61	0.043	54
159994	0.9	6.84	36	97	< 1	8	3.17	0.7	76	59	190	9.74	18	< 1	0.46	2.69	31	1860	< 1	3.18	68	0.042	36
159995	0.9	6.90	28	86	< 1	8	2.80	0.4	71	102	138	9.27	17	< 1	0.33	2.90	24	1780	< 1	3.68	103	0.041	20

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Co	Ni
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
Lower Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	0.002	0.005
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	FUS- Na2O2	FUS- Na2O2
159935	< 5	0.23	33	103	4	0.26	< 5	< 10	167	< 5	14	53	34		
159936	< 5	0.21	36	94	< 2	0.30	< 5	< 10	188	< 5	16	68	40		
159937	< 5	0.15	28	40	4	0.57	< 5	10	223	< 5	22	27	72		
159938	< 5	0.02	19	51	< 2	0.28	< 5	10	106	< 5	16	24	130		
159939	< 5	0.22	31	28	2	0.41	< 5	10	219	< 5	17	37	79		
159940	< 5	< 0.01	< 4	3	< 2	0.02	< 5	< 10	3	< 5	3	21	26		
159941	< 5	0.15	29	32	< 2	0.46	< 5	10	225	< 5	31	43	90		
159942	< 5	0.25	29	26	2	0.42	< 5	< 10	221	< 5	15	45	80		
159943	< 5	0.90	26	21	< 2	0.36	< 5	< 10	169	< 5	38	35	92		
159944	< 5	0.28	17	70	< 2	0.30	9	20	163	< 5	20	36	107		
159945	41	4.05	16	38	< 2	0.03	151	20	97	< 5	13	42	99	4.80	2.64
159946	< 5	0.02	13	47	< 2	0.29	< 5	20	107	< 5	9	34	226		
159947	< 5	0.09	14	39	< 2	0.27	< 5	20	115	5	8	33	182		
159948	< 5	0.03	17	57	< 2	0.43	< 5	20	122	< 5	20	23	173		
159949	< 5	0.02	19	57	< 2	0.23	< 5	10	104	< 5	21	29	144		
159950	< 5	0.02	17	66	< 2	0.28	< 5	10	102	< 5	23	20	146		
159951	< 5	0.01	17	62	< 2	0.22	< 5	10	94	< 5	19	22	128		
159952	< 5	0.04	13	43	< 2	0.42	< 5	20	132	< 5	18	21	168		
159953	6	0.62	13	59	< 2	0.42	< 5	10	128	< 5	22	23	157		
159954	< 5	0.11	12	52	< 2	0.42	< 5	10	118	< 5	47	49	161		
159955	14	0.77	12	49	2	0.44	< 5	20	117	7	133	443	165		
159956	< 5	0.12	15	50	< 2	0.42	< 5	20	143	< 5	16	26	162		
159957	< 5	0.06	19	61	< 2	0.33	< 5	10	118	< 5	18	27	149		
159958	< 5	0.25	17	54	< 2	0.40	< 5	< 10	126	< 5	19	36	149		
159959	< 5	0.17	14	61	< 2	0.39	< 5	< 10	113	< 5	19	23	156		
159960	14	11.5	6	34	< 2	0.09	< 5	< 10	45	< 5	10	158	46		8.18
159961	< 5	0.04	18	64	< 2	0.23	< 5	< 10	107	< 5	16	26	146		
159962	6	0.15	20	66	< 2	0.42	< 5	< 10	137	< 5	21	25	157		
159963	< 5	0.20	19	56	< 2	0.41	< 5	< 10	134	< 5	21	29	162		
159964	7	0.47	15	38	< 2	0.33	15	< 10	142	7	13	551	165		
159965	< 5	0.07	11	28	< 2	0.50	< 5	< 10	165	< 5	5	24	189		
159966	< 5	0.19	15	39	< 2	0.30	8	< 10	148	< 5	16	24	132		
159967	5	0.42	17	46	< 2	0.36	5	< 10	130	10	52	1050	154		
159968	< 5	0.21	15	52	< 2	0.34	7	< 10	114	< 5	17	43	132		
159969	< 5	0.04	22	61	< 2	0.29	< 5	< 10	114	< 5	15	29	147		
159970	< 5	0.16	17	54	< 2	0.41	< 5	< 10	123	< 5	17	69	162		
159971	< 5	0.07	17	46	< 2	0.32	< 5	< 10	115	< 5	14	36	142		
159972	< 5	0.06	20	31	< 2	0.33	< 5	< 10	135	< 5	14	31	161		
159973	< 5	0.16	21	35	< 2	0.43	6	< 10	161	< 5	18	37	178		
159974	< 5	0.28	16	30	< 2	0.24	12	< 10	137	< 5	12	27	144		
159975	21	2.82	17	37	< 2	0.04	83	< 10	106	8	26	3000	31	2.79	

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Co	Ni
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
Lower Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	0.002	0.005
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	FUS- Na2O2	FUS- Na2O2
159976	23	1.49	8	26	< 2	0.24	49	< 10	105	6	11	2410	172	1.65	
159977	< 5	0.08	17	31	< 2	0.42	< 5	< 10	137	< 5	11	37	169		
159978	< 5	0.18	19	34	< 2	0.36	7	< 10	132	< 5	18	32	158		
159979	< 5	0.09	20	33	< 2	0.43	< 5	< 10	146	< 5	19	31	190		
159980	< 5	< 0.01	< 4	2	< 2	0.02	< 5	< 10	3	< 5	3	9	27		
159981	< 5	0.02	18	38	< 2	0.32	< 5	< 10	113	< 5	13	32	158		
159982	< 5	0.03	19	30	< 2	0.38	< 5	< 10	135	< 5	12	39	177		
159983	< 5	0.11	20	31	< 2	0.42	< 5	< 10	141	< 5	18	28	199		
159984	< 5	0.30	19	31	< 2	0.29	10	< 10	135	< 5	18	30	149		
159985	< 5	0.05	18	25	< 2	0.47	< 5	< 10	156	< 5	10	38	193		
159986	28	1.46	19	27	< 2	0.08	45	< 10	138	< 5	29	42	45	1.57	
159987	< 5	0.05	16	49	< 2	0.39	< 5	< 10	109	< 5	16	30	175		
159988	< 5	0.04	16	54	< 2	0.35	< 5	< 10	112	< 5	15	28	161		
159989	< 5	0.10	15	50	< 2	0.38	< 5	< 10	112	< 5	18	28	163		
159990	< 5	0.03	13	47	< 2	0.32	< 5	< 10	96	< 5	15	28	158		
159991	< 5	1.10	46	73	8	0.78	< 5	< 10	337	< 5	29	153	80		
159992	< 5	1.96	42	85	2	0.76	< 5	< 10	331	< 5	27	201	79		
159993	< 5	1.01	43	80	2	0.78	< 5	< 10	334	< 5	27	119	81		
159994	< 5	1.46	42	75	< 2	0.75	< 5	< 10	324	< 5	27	128	75		
159995	< 5	2.09	36	95	< 2	0.74	< 5	< 10	273	< 5	24	115	76		

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Lower Limit	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
GXR-1 Meas	31.4	2.06	443	639	1	1380	0.88	3.8	10	9	1190	23.7	12	5	0.04	0.20	7	849	14	0.04	46	0.056	800
GXR-1 Cert	31.0	3.52	427	750	1.22	1380	0.960	3.30	8.20	12.0	1110	23.6	13.8	3.90	0.050	0.217	8.20	852	18.0	0.0520	41.0	0.0650	730
GXR-1 Meas	31.8	2.30	421	620	1	1390	0.90	3.3	11	10	1200	23.9	14	3	0.04	0.21	8	880	15	0.05	43	0.059	770
GXR-1 Cert	31.0	3.52	427	750	1.22	1380	0.960	3.30	8.20	12.0	1110	23.6	13.8	3.90	0.050	0.217	8.20	852	18.0	0.0520	41.0	0.0650	730
GXR-1 Meas	32.1	2.27	427	636	1	1420	0.90	3.4	10	15	1230	24.3	13	4	0.04	0.21	8	911	15	0.05	43	0.060	782
GXR-1 Cert	31.0	3.52	427	750	1.22	1380	0.960	3.30	8.20	12.0	1110	23.6	13.8	3.90	0.050	0.217	8.20	852	18.0	0.0520	41.0	0.0650	730
DH-1a Meas																							
DH-1a Cert																							
DH-1a Meas																							
DH-1a Cert																							
GXR-4 Meas	3.5	6.89	114	103	2	10	1.09	< 0.3	16	37	7010	3.17	20	< 1	3.02	1.72	11	154	334	0.52	45	0.132	46
GXR-4 Cert	4.0	7.20	98.0	1640	1.90	19.0	1.01	0.860	14.6	64.0	6520	3.09	20.0	0.110	4.01	1.66	11.1	155	310	0.564	42.0	0.120	52.0
GXR-4 Meas	3.2	6.67	97	78	2	14	1.06	0.3	15	35	6720	3.01	16	< 1	3.33	1.68	11	156	319	0.50	40	0.132	47
GXR-4 Cert	4.0	7.20	98.0	1640	1.90	19.0	1.01	0.860	14.6	64.0	6520	3.09	20.0	0.110	4.01	1.66	11.1	155	310	0.564	42.0	0.120	52.0
GXR-4 Meas	3.3	6.63	102	91	2	9	1.07	< 0.3	15	39	7000	3.01	18	< 1	3.45	1.68	11	146	320	0.50	40	0.131	40
GXR-4 Cert	4.0	7.20	98.0	1640	1.90	19.0	1.01	0.860	14.6	64.0	6520	3.09	20.0	0.110	4.01	1.66	11.1	155	310	0.564	42.0	0.120	52.0
PTM-1a Meas																							
PTM-1a Cert																							
PTM-1a Meas																							
PTM-1a Cert																							
PTM-1a Meas																							
PTM-1a Cert																							
SDC-1 Meas		8.06	< 3	622	3		1.07		20	45	32	4.85	21	< 1	1.97	0.99	34	859		1.50	38	0.053	22
SDC-1 Cert		8.34	0.220	630	3.00		1.00		18.0	64.00	30.000	4.82	21.00	0.20	2.72	1.02	34	880.00		1.52	38.0	0.0690	25.00
SDC-1 Meas		8.21	< 3	591	3		1.09		19	45	29	4.78	22	< 1	1.38	1.00	34	883		1.51	35	0.054	22
SDC-1 Cert		8.34	0.220	630	3.00		1.00		18.0	64.00	30.000	4.82	21.00	0.20	2.72	1.02	34	880.00		1.52	38.0	0.0690	25.00
SDC-1 Meas		8.19	< 3	599	3		1.09		19	44	30	4.75	21	< 1	1.74	0.99	34	852		1.50	37	0.053	21
SDC-1 Cert		8.34	0.220	630	3.00		1.00		18.0	64.00	30.000	4.82	21.00	0.20	2.72	1.02	34	880.00		1.52	38.0	0.0690	25.00
GXR-6 Meas	0.5	14.6	308	> 1000	1	< 2	0.20	< 0.3	14	46	74	5.56	29	< 1	1.85	0.61	34	1020	< 1	0.10	28	0.035	97
GXR-6 Cert	1.30	17.7	330	1300	1.40	0.290	0.180	1.00	13.8	96.0	66.0	5.58	35.0	0.0680	1.87	0.609	32.0	1010	2.40	0.104	27.0	0.0350	101
GXR-6 Meas	0.3	13.8	253	> 1000	1	2	0.19	0.4	14	44	70	5.52	31	< 1	1.32	0.62	34	1040	< 1	0.10	26	0.034	93
GXR-6 Cert	1.30	17.7	330	1300	1.40	0.290	0.180	1.00	13.8	96.0	66.0	5.58	35.0	0.0680	1.87	0.609	32.0	1010	2.40	0.104	27.0	0.0350	101
GXR-6 Meas	< 0.3	14.1	254	> 1000	1	< 2	0.20	< 0.3	15	44	71	5.60	31	< 1	1.22	0.62	34	1060	< 1	0.10	26	0.035	94
GXR-6 Cert	1.30	17.7	330	1300	1.40	0.290	0.180	1.00	13.8	96.0	66.0	5.58	35.0	0.0680	1.87	0.609	32.0	1010	2.40	0.104	27.0	0.0350	101
Oreas 74a (Fusion) Meas																							
Oreas 74a (Fusion) Cert																							
Oreas 77a (Fusion) Meas																							
Oreas 77a (Fusion) Cert																							
Oreas 77a																							

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Lower Limit	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
(Fusion) Meas																							
Oreas 77a (Fusion) Cert																							
Oreas 77a (Fusion) Meas																							
Oreas 77a (Fusion) Cert																							
OREAS 131a (Fusion) Meas																							
OREAS 131a (Fusion) Cert																							
OREAS 101a (Fusion) Meas																							
OREAS 101a (Fusion) Cert																							
OREAS 134a (Fusion) Meas																							
OREAS 134a (Fusion) Cert																							
DNC-1a Meas				93					56	152	98		12				4				251		< 3
DNC-1a Cert				118					57	270	100		15				5.2				247		6.3
DNC-1a Meas				93					56	189	101		14				4				253		< 3
DNC-1a Cert				118					57	270	100		15				5.2				247		6.3
DNC-1a Meas				96					57	201	101		14				5				256		< 3
DNC-1a Cert				118					57	270	100		15				5.2				247		6.3
CZN-4 Meas																							
CZN-4 Cert																							
SBC-1 Meas			20	703	3	4		0.5	24	67	31		28				156		2		89		26
SBC-1 Cert			25.7	788.0	3.20	0.70		0.40	22.7	109	31.0000		27.0				163		2		83		35.0
SBC-1 Meas			19	394	3	4		0.5	24	66	37		26				150		9		85		28
SBC-1 Cert			25.7	788.0	3.20	0.70		0.40	22.7	109	31.0000		27.0				163		2		83		35.0
SBC-1 Meas			21	519	3	4		0.5	24	74	29		26				151		2		85		28
SBC-1 Cert			25.7	788.0	3.20	0.70		0.40	22.7	109	31.0000		27.0				163		2		83		35.0
OREAS 45d (4-Acid) Meas		8.17	9	191	< 1	< 2	0.20		35	538	397	14.2	21		0.44	0.25	21	523	< 1	0.09	246	0.035	20
OREAS 45d (4-Acid) Cert		8.150	13.8	183.0	0.79	0.31	0.185		29.50	549	371	14.5	21.20		0.412	0.245	21.5	490.000	2.500	0.101	231.0	0.042	21.8
OREAS 45d (4-Acid) Meas		7.97	5	168	< 1	< 2	0.20		34	493	388	13.9	22		0.42	0.24	20	500	< 1	0.09	245	0.033	18
OREAS 45d (4-Acid) Cert		8.150	13.8	183.0	0.79	0.31	0.185		29.50	549	371	14.5	21.20		0.412	0.245	21.5	490.000	2.500	0.101	231.0	0.042	21.8
PTC-1b Meas																							
PTC-1b Cert																							

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Lower Limit	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
PTC-1b Meas																							
PTC-1b Cert																							
SdAR-M2 (U.S.G.S.) Meas				> 1000	7	< 2		5.8	15	53	270		17	1			18		12		59		917
SdAR-M2 (U.S.G.S.) Cert				990	6.6	1.05		5.1	12.4	49.6	236.0000		17.6	1.44			18		13		49		808
SdAR-M2 (U.S.G.S.) Meas				956	7	< 2		5.4	14	34	256		17	< 1			18		11		52		847
SdAR-M2 (U.S.G.S.) Cert				990	6.6	1.05		5.1	12.4	49.6	236.0000		17.6	1.44			18		13		49		808
SdAR-M2 (U.S.G.S.) Meas				975	7	< 2		5.6	14	33	258		18	1			18		12		52		857
SdAR-M2 (U.S.G.S.) Cert				990	6.6	1.05		5.1	12.4	49.6	236.0000		17.6	1.44			18		13		49		808
OREAS 621 (Peroxide Fusion) Meas																							
OREAS 621 (Peroxide Fusion) Cert																							
159940 Orig	< 0.3	0.25	< 3	11	< 1	< 2	0.02	< 0.3	< 1	7	10	0.55	< 1	< 1	0.03	0.03	9	72	< 1	0.03	2	0.001	< 3
159940 Dup	< 0.3	0.26	< 3	12	< 1	< 2	0.02	< 0.3	< 1	11	10	0.52	< 1	< 1	0.03	0.03	9	65	< 1	0.03	2	0.001	< 3
159958 Orig	0.8	7.70	382	21	1	3	0.51	< 0.3	235	123	2140	4.61	16	< 1	0.24	2.54	85	267	8	3.88	145	0.055	39
159958 Dup	0.9	8.01	400	22	1	3	0.52	< 0.3	236	116	2160	4.73	17	< 1	0.25	2.59	88	283	8	4.00	145	0.055	39
159979 Orig	0.7	9.69	860	12	1	5	0.46	< 0.3	484	107	447	5.38	21	< 1	0.14	3.20	98	289	36	5.11	221	0.104	< 3
159979 Dup	0.6	9.41	852	12	1	4	0.45	< 0.3	473	113	428	5.20	22	< 1	0.13	3.12	95	283	35	4.97	218	0.101	< 3
159984 Orig	1.2	9.47	> 5000	13	< 1	30	0.55	< 0.3	4420	104	159	4.92	19	< 1	0.17	2.96	93	281	127	5.07	1410	0.055	11
159984 Split PREP DUP	1.2	9.95	> 5000	13	1	41	0.60	< 0.3	5080	123	170	5.14	21	< 1	0.18	3.06	98	298	147	5.31	1620	0.054	13
159986 Orig																							
159986 Dup																							
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	0.10	< 3	< 7	< 1	< 2	0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	0.20	< 3	< 7	< 1	< 2	0.03	< 0.3	< 1		< 1	0.02	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	0.04	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	5
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1	2	< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank																							
Method Blank																							
Method Blank																							
Method Blank																							

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Co	Ni
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
Lower Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	0.002	0.005
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	FUS-Na2O2	FUS-Na2O2
GXR-1 Meas	21	0.24	< 4	277	14	0.03	< 5	40	87	142	32	819	25		
GXR-1 Cert	122	0.257	1.58	275	13.0	0.036	0.390	34.9	80.0	164	32.0	760	38.0		
GXR-1 Meas	30	0.25	< 4	289	16	0.03	< 5	40	86	149	33	798	12		
GXR-1 Cert	122	0.257	1.58	275	13.0	0.036	0.390	34.9	80.0	164	32.0	760	38.0		
GXR-1 Meas	30	0.25	< 4	293	14	0.03	< 5	40	88	150	34	804	11		
GXR-1 Cert	122	0.257	1.58	275	13.0	0.036	0.390	34.9	80.0	164	32.0	760	38.0		
DH-1a Meas								2630							
DH-1a Cert								2629							
DH-1a Meas								2640							
DH-1a Cert								2629							
GXR-4 Meas	< 5	1.81	9	219	< 2	0.29	< 5	< 10	92	34	16	81	44		
GXR-4 Cert	4.80	1.77	7.70	221	0.970	0.29	3.20	6.20	87.0	30.8	14.0	73.0	186		
GXR-4 Meas	< 5	1.78	8	210	3	0.29	< 5	< 10	89	35	15	75	42		
GXR-4 Cert	4.80	1.77	7.70	221	0.970	0.29	3.20	6.20	87.0	30.8	14.0	73.0	186		
GXR-4 Meas	6	1.78	8	209	3	0.29	< 5	< 10	89	34	16	74	40		
GXR-4 Cert	4.80	1.77	7.70	221	0.970	0.29	3.20	6.20	87.0	30.8	14.0	73.0	186		
PTM-1a Meas														2.09	48.3
PTM-1a Cert														2.05	47.44
PTM-1a Meas														2.08	48.4
PTM-1a Cert														2.05	47.44
PTM-1a Meas														2.10	48.3
PTM-1a Cert														2.05	47.44
SDC-1 Meas	< 5		16	170		0.19	< 5	< 10	54	< 5		108	37		
SDC-1 Cert	0.54		17.00	180.00		0.606	0.70	3.10	102.00	0.80		103.00	290.00		
SDC-1 Meas	< 5		17	174		0.16	< 5	< 10	49	< 5		105	41		
SDC-1 Cert	0.54		17.00	180.00		0.606	0.70	3.10	102.00	0.80		103.00	290.00		
SDC-1 Meas	< 5		16	173		0.12	< 5	< 10	43	< 5		105	35		
SDC-1 Cert	0.54		17.00	180.00		0.606	0.70	3.10	102.00	0.80		103.00	290.00		
GXR-6 Meas	< 5	0.02	30	42	< 2		< 5	< 10	142	< 5	14	135	93		
GXR-6 Cert	3.60	0.0160	27.6	35.0	0.0180		2.20	1.54	186	1.90	14.0	118	110		
GXR-6 Meas	< 5	0.02	27	41	< 2		< 5	< 10	145	< 5	13	136	74		
GXR-6 Cert	3.60	0.0160	27.6	35.0	0.0180		2.20	1.54	186	1.90	14.0	118	110		
GXR-6 Meas	< 5	0.02	27	44	< 2		< 5	< 10	147	< 5	13	135	73		
GXR-6 Cert	3.60	0.0160	27.6	35.0	0.0180		2.20	1.54	186	1.90	14.0	118	110		
Oreas 74a (Fusion) Meas														0.057	3.18
Oreas 74a (Fusion) Cert														0.058	3.24
Oreas 77a (Fusion) Meas														0.164	10.7
Oreas 77a (Fusion) Cert														0.1675	10.71

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Co	Ni
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
Lower Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	0.002	0.005
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	FUS- Na2O2	FUS- Na2O2
Oreas 77a (Fusion) Meas														0.167	10.4
Oreas 77a (Fusion) Cert														0.1675	10.71
Oreas 77a (Fusion) Meas														0.166	10.4
Oreas 77a (Fusion) Cert														0.1675	10.71
OREAS 131a (Fusion) Meas														0.002	
OREAS 131a (Fusion) Cert															
OREAS 101a (Fusion) Meas														0.005	
OREAS 101a (Fusion) Cert															
OREAS 134a (Fusion) Meas														0.011	
OREAS 134a (Fusion) Cert															
DNC-1a Meas	< 5		31	125		0.27			138		17	59	34		
DNC-1a Cert	0.96		31	144		0.29			148		18.0	70	38.0		
DNC-1a Meas	< 5		31	130		0.28			139		17	61	35		
DNC-1a Cert	0.96		31	144		0.29			148		18.0	70	38.0		
DNC-1a Meas	< 5		32	132		0.29			144		17	62	35		
DNC-1a Cert	0.96		31	144		0.29			148		18.0	70	38.0		
CZN-4 Meas														0.011	
CZN-4 Cert														0.0094	
SBC-1 Meas	< 5		21	173		0.48	< 5	< 10	218	< 5	36	196	115		
SBC-1 Cert	1.01		20.0	178.0		0.51	0.89	5.76	220.0	1.60	36.5	186	134.0		
SBC-1 Meas	< 5		21	171		0.47	< 5	< 10	212	< 5	35	193	102		
SBC-1 Cert	1.01		20.0	178.0		0.51	0.89	5.76	220.0	1.60	36.5	186	134.0		
SBC-1 Meas	< 5		21	171		0.51	< 5	< 10	214	< 5	35	190	114		
SBC-1 Cert	1.01		20.0	178.0		0.51	0.89	5.76	220.0	1.60	36.5	186	134.0		
OREAS 45d (4-Acid) Meas	< 5	0.05	57	33		0.20	< 5	< 10	120	< 5	13	48	77		
OREAS 45d (4-Acid) Cert	0.82	0.049	49.30	31.30		0.773	0.27	2.63	235.0	1.62	9.53	45.7	141		
OREAS 45d (4-Acid) Meas	< 5	0.04	55	31		0.19	< 5	< 10	113	< 5	13	45	59		
OREAS 45d (4-Acid) Cert	0.82	0.049	49.30	31.30		0.773	0.27	2.63	235.0	1.62	9.53	45.7	141		
PTC-1b Meas														0.325	11.3
PTC-1b Cert														0.325	11.29
PTC-1b Meas														0.322	11.1

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Co	Ni
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%
Lower Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	0.002	0.005
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	FUS-Na2O2	FUS-Na2O2
PTC-1b Cert														0.325	11.29
SdAR-M2 (U.S.G.S.) Meas			4	142				< 10	28	8	29	879	123		
SdAR-M2 (U.S.G.S.) Cert			4.1	144				2.53	25.2	2.8	32.7	760	259		
SdAR-M2 (U.S.G.S.) Meas			4	144				< 10	26	9	30	842	112		
SdAR-M2 (U.S.G.S.) Cert			4.1	144				2.53	25.2	2.8	32.7	760	259		
SdAR-M2 (U.S.G.S.) Meas			4	146				< 10	27	9	30	845	110		
SdAR-M2 (U.S.G.S.) Cert			4.1	144				2.53	25.2	2.8	32.7	760	259		
OREAS 621 (Peroxide Fusion) Meas														0.003	
OREAS 621 (Peroxide Fusion) Cert														0.003	
159940 Orig	< 5	< 0.01	< 4	3	< 2	0.02	< 5	< 10	3	< 5	3	19	25		
159940 Dup	< 5	< 0.01	< 4	3	< 2	0.02	< 5	< 10	4	< 5	3	23	28		
159958 Orig	< 5	0.25	17	54	5	0.40	< 5	< 10	126	< 5	18	36	148		
159958 Dup	< 5	0.25	18	55	< 2	0.40	< 5	< 10	127	< 5	19	36	151		
159979 Orig	< 5	0.09	21	33	< 2	0.44	< 5	< 10	148	< 5	19	31	195		
159979 Dup	< 5	0.09	20	33	< 2	0.42	< 5	< 10	144	< 5	19	32	185		
159984 Orig	< 5	0.30	19	31	< 2	0.29	10	< 10	135	< 5	18	30	149		
159984 Split PREP DUP	< 5	0.33	20	32	< 2	0.28	14	< 10	139	< 5	19	36	164		
159986 Orig														1.58	0.493
159986 Dup														1.56	0.498
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5		
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5		
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5		
Method Blank	< 5	< 0.01	< 4	5	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5		
Method Blank	< 5	< 0.01	< 4	8	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5		
Method Blank	< 5	< 0.01	< 4	2	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	2	< 5		
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5		
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	1	< 5		
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5		
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5		
Method Blank														< 0.002	< 0.005
Method Blank														< 0.002	< 0.005
Method Blank														< 0.002	< 0.005
Method Blank														< 0.002	< 0.005



Date Submitted: 02-Nov-17
Invoice No.: A17-12330
Invoice Date: 28-Nov-17
Your Reference: LIC-TE

JMK Exploration Consulting
147 Lakeside Dr.
North Bay ON P1A 3E1
Canada

ATTN: Joerg Kleinboeck

CERTIFICATE OF ANALYSIS

34 Rock samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1F2 Total Digestion ICP(TOTAL)

REPORT **A17-12330**

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

Notes:

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

CERTIFIED BY:

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

Emmanuel Esemé , Ph.D.
Quality Control

ACTIVATION LABORATORIES LTD.
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Results

Activation Laboratories Ltd.

Report: A17-12330

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Lower Limit	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
159901	< 0.3	7.24	< 3	97	2	< 2	9.23	< 0.3	48	198	158	7.89	15	< 1	0.90	3.96	48	2910	< 1	1.37	108	0.016	8
159902	< 0.3	7.57	7	17	2	3	1.42	< 0.3	44	86	600	7.41	23	< 1	0.47	5.03	79	509	< 1	2.91	118	0.052	< 3
159903	< 0.3	7.85	6	23	13	3	3.30	< 0.3	35	55	124	6.48	21	< 1	0.41	5.22	76	572	< 1	3.67	127	0.036	< 3
159904	0.3	9.24	16	227	3	5	0.33	< 0.3	21	115	16	4.85	25	< 1	2.45	3.04	88	287	< 1	3.04	74	0.076	< 3
159905	0.3	8.08	103	65	1	< 2	0.79	< 0.3	82	63	19	4.23	17	< 1	2.30	2.54	89	292	6	3.51	62	0.062	< 3
159906	< 0.3	6.10	34	19	1	< 2	0.38	< 0.3	37	65	28	3.18	12	< 1	0.78	1.90	64	200	2	2.72	42	0.039	< 3
159907	0.6	6.82	25	28	2	< 2	1.20	< 0.3	45	62	46	3.70	14	< 1	1.24	2.28	78	306	< 1	2.75	48	0.045	3
159908	0.5	6.78	57	54	< 1	2	1.79	< 0.3	104	78	105	3.97	15	< 1	1.31	2.21	81	349	< 1	2.74	66	0.045	< 3
159909	0.9	8.11	1230	19	2	9	1.17	< 0.3	890	110	35	5.71	23	< 1	1.24	3.29	123	421	102	3.29	179	0.067	5
159910	0.9	7.14	3530	12	< 1	8	0.32	< 0.3	2300	110	6	5.25	19	2	0.26	2.87	102	308	73	4.27	347	0.059	< 3
159911	< 0.3	6.59	812	18	< 1	2	0.23	< 0.3	591	75	2	3.41	15	< 1	0.30	1.90	62	205	6	3.71	105	0.043	< 3
159912	< 0.3	7.36	51	141	3	< 2	0.29	< 0.3	42	99	3	4.02	21	< 1	1.18	2.44	78	235	< 1	3.06	58	0.058	< 3
159913	< 0.3	8.03	224	127	3	< 2	0.35	< 0.3	130	101	6	4.54	23	< 1	1.28	2.57	77	255	2	3.94	92	0.070	< 3
159914	< 0.3	7.69	113	92	2	< 2	0.34	< 0.3	56	106	3	4.65	21	< 1	0.82	2.65	86	268	< 1	3.63	90	0.063	< 3
159915	0.6	9.26	965	24	2	5	0.36	< 0.3	447	114	7	6.13	26	< 1	0.28	3.78	113	351	67	5.05	310	0.076	< 3
159916	1.2	9.09	> 5000	13	2	35	0.62	< 0.3	5890	124	57	6.36	25	< 1	0.49	3.95	116	379	166	4.86	1490	0.088	7
159917	2.4	7.34	> 5000	10	1	195	0.48	0.3	> 10000	99	216	6.65	22	< 1	0.16	3.82	107	393	549	3.79	8150	0.059	13
159918	2.0	10.1	1140	12	2	38	0.41	< 0.3	563	109	24	7.33	26	< 1	0.40	4.34	128	436	477	4.63	295	0.082	4
159919	1.1	8.61	> 5000	11	1	58	0.29	< 0.3	4150	120	139	6.75	23	< 1	0.12	4.05	121	410	338	5.04	1190	0.062	4
159920	< 0.3	0.27	107	16	< 1	< 2	0.01	< 0.3	57	4	3	0.32	< 1	< 1	0.06	0.03	8	54	2	0.09	12	0.002	< 3
159921	0.5	8.92	227	12	1	12	0.46	< 0.3	114	110	210	6.88	25	< 1	0.24	4.10	122	421	39	4.73	169	0.077	3
159922	0.3	7.74	209	21	2	3	0.25	< 0.3	102	86	401	5.89	22	< 1	0.18	3.44	109	354	14	4.33	124	0.068	< 3
159923	< 0.3	7.08	64	47	1	< 2	0.25	< 0.3	31	113	70	4.49	19	1	0.52	2.56	88	250	1	3.71	72	0.056	< 3
159924	< 0.3	8.32	123	38	1	3	0.26	< 0.3	48	117	284	5.54	20	< 1	0.40	3.11	109	308	2	3.87	104	0.066	< 3
159925	< 0.3	8.01	267	39	< 1	< 2	0.25	< 0.3	170	107	15	5.50	20	< 1	0.44	2.99	113	300	9	3.45	97	0.059	< 3
159926	< 0.3	7.64	44	46	1	2	0.29	< 0.3	27	103	9	4.89	21	< 1	0.50	2.60	92	279	< 1	3.57	76	0.068	< 3
159927	0.3	8.08	58	66	1	2	0.29	< 0.3	33	120	20	5.23	21	< 1	0.75	2.73	95	284	1	3.86	83	0.070	< 3
159928	< 0.3	6.21	60	53	1	2	0.35	< 0.3	52	142	41	4.74	19	< 1	0.94	2.51	87	266	3	3.63	83	0.070	< 3
159929	< 0.3	7.43	23	47	1	2	0.28	< 0.3	28	132	25	5.11	21	< 1	0.64	2.66	94	288	< 1	3.64	80	0.063	< 3
159930	0.3	7.37	21	69	2	< 2	0.47	< 0.3	25	111	52	5.06	21	< 1	1.01	2.55	89	278	< 1	3.37	80	0.069	< 3
159931	0.5	7.25	19	76	2	< 2	0.27	< 0.3	19	106	26	5.13	21	< 1	1.00	2.51	91	282	< 1	3.33	71	0.066	< 3
159932	0.4	7.42	43	94	2	< 2	0.29	< 0.3	35	103	178	4.76	22	< 1	1.27	2.24	76	264	< 1	3.62	66	0.063	4
159933	0.4	8.10	27	76	2	3	0.26	< 0.3	21	112	531	5.61	24	< 1	1.02	2.76	97	304	< 1	3.34	63	0.066	< 3
159934	1.0	8.02	28	69	2	< 2	0.27	< 0.3	23	105	852	5.49	23	< 1	0.87	2.70	92	307	1	3.45	64	0.067	< 3

Results

Activation Laboratories Ltd.

Report: A17-12330

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Co
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
Lower Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	0.002
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	FUS- Na2O2
159901	< 5	0.09	33	72	< 2	0.27	< 5	< 10	177	13	20	35	37	
159902	< 5	0.23	31	29	4	0.46	< 5	< 10	241	< 5	19	41	70	
159903	< 5	0.16	61	37	< 2	0.36	< 5	10	205	< 5	98	38	80	
159904	< 5	0.03	23	63	< 2	0.53	< 5	< 10	161	< 5	20	28	183	
159905	< 5	0.03	11	40	< 2	0.25	< 5	10	81	< 5	11	24	170	
159906	< 5	0.03	8	42	< 2	0.20	< 5	< 10	56	< 5	8	17	106	
159907	< 5	0.06	9	50	< 2	0.23	< 5	10	69	< 5	13	29	153	
159908	< 5	0.05	9	34	< 2	0.25	< 5	10	74	< 5	11	38	162	
159909	< 5	0.10	11	29	7	0.33	< 5	10	104	< 5	12	73	211	
159910	< 5	0.14	9	25	3	0.30	8	10	89	< 5	8	47	204	
159911	< 5	0.04	11	37	< 2	0.30	< 5	< 10	73	< 5	12	22	139	
159912	< 5	< 0.01	15	72	< 2	0.23	< 5	< 10	78	< 5	17	24	134	
159913	< 5	0.02	18	74	< 2	0.27	< 5	< 10	96	< 5	24	26	155	
159914	< 5	0.01	18	66	< 2	0.28	< 5	< 10	90	< 5	22	26	141	
159915	< 5	0.06	18	47	< 2	0.53	< 5	20	158	< 5	30	34	191	
159916	10	0.45	18	43	< 2	0.49	22	20	169	< 5	32	36	177	
159917	21	2.70	20	31	< 2	0.15	162	20	180	< 5	20	39	140	3.92
159918	< 5	0.11	36	34	< 2	0.48	< 5	30	213	< 5	28	46	186	
159919	< 5	0.23	22	31	< 2	0.38	10	20	177	< 5	21	40	165	
159920	< 5	< 0.01	< 4	2	< 2	0.02	< 5	< 10	3	< 5	3	3	26	
159921	< 5	0.03	33	34	< 2	0.34	< 5	20	143	< 5	23	40	172	
159922	< 5	0.03	20	46	< 2	0.32	< 5	10	106	< 5	22	35	161	
159923	< 5	0.01	16	62	< 2	0.26	< 5	< 10	78	< 5	17	32	135	
159924	< 5	0.05	18	56	3	0.40	< 5	10	117	< 5	22	33	168	
159925	< 5	0.05	15	49	2	0.35	< 5	< 10	102	< 5	20	30	167	
159926	< 5	0.03	15	57	< 2	0.37	< 5	< 10	106	< 5	20	29	160	
159927	< 5	0.04	17	65	< 2	0.42	< 5	< 10	119	< 5	21	32	174	
159928	< 5	0.02	14	54	< 2	0.41	< 5	10	114	< 5	15	27	185	
159929	< 5	0.01	15	58	< 2	0.38	< 5	< 10	106	< 5	19	27	185	
159930	< 5	0.02	18	60	< 2	0.36	< 5	< 10	111	< 5	21	28	175	
159931	< 5	0.02	16	62	3	0.32	< 5	< 10	104	< 5	19	28	174	
159932	< 5	0.06	16	67	< 2	0.24	< 5	< 10	92	< 5	22	30	149	
159933	< 5	0.09	17	58	2	0.44	< 5	< 10	121	< 5	22	30	187	
159934	< 5	0.13	17	58	5	0.42	< 5	< 10	117	< 5	24	34	180	

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Lower Limit	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
GXR-1 Meas	31.6	2.18	459	618	1	1380	0.88	2.4	10	13	1120	23.5	15	2	0.04	0.21	8	880	14	0.05	39	0.060	737
GXR-1 Cert	31.0	3.52	427	750	1.22	1380	0.960	3.30	8.20	12.0	1110	23.6	13.8	3.90	0.050	0.217	8.20	852	18.0	0.0520	41.0	0.0650	730
GXR-1 Meas	31.5	2.28	448	656	1	1390	0.89	2.8	12	16	1130	23.8	10	5	0.04	0.21	8	898	14	0.05	41	0.060	730
GXR-1 Cert	31.0	3.52	427	750	1.22	1380	0.960	3.30	8.20	12.0	1110	23.6	13.8	3.90	0.050	0.217	8.20	852	18.0	0.0520	41.0	0.0650	730
GXR-4 Meas	3.4	6.67	110	123	2	18	1.04	< 0.3	15	42	6510	3.03	17	< 1	4.08	1.67	11	152	324	0.51	39	0.130	43
GXR-4 Cert	4.0	7.20	98.0	1640	1.90	19.0	1.01	0.860	14.6	64.0	6520	3.09	20.0	0.110	4.01	1.66	11.1	155	310	0.564	42.0	0.120	52.0
GXR-4 Meas	3.5	6.86	107	198	2	10	1.06	< 0.3	15	36	6500	3.09	16	< 1	2.98	1.70	11	151	326	0.51	38	0.134	44
GXR-4 Cert	4.0	7.20	98.0	1640	1.90	19.0	1.01	0.860	14.6	64.0	6520	3.09	20.0	0.110	4.01	1.66	11.1	155	310	0.564	42.0	0.120	52.0
PTM-1a Meas																							
PTM-1a Cert																							
SDC-1 Meas		8.03	4	618	3		1.09		19	40	30	4.93	23	< 1	1.69	1.01	35	892		1.54	34	0.056	21
SDC-1 Cert		8.34	0.220	630	3.00		1.00		18.0	64.00	30.000	4.82	21.00	0.20	2.72	1.02	34	880.00		1.52	38.0	0.0690	25.00
SDC-1 Meas		7.80	< 3	630	3		1.05		18	37	29	4.80	21	< 1	1.81	0.98	34	874		1.52	33	0.054	20
SDC-1 Cert		8.34	0.220	630	3.00		1.00		18.0	64.00	30.000	4.82	21.00	0.20	2.72	1.02	34	880.00		1.52	38.0	0.0690	25.00
GXR-6 Meas	0.3	13.0	290	> 1000	1	< 2	0.17	< 0.3	15	61	70	5.66	30	< 1	1.62	0.64	36	1070	2	0.10	24	0.036	95
GXR-6 Cert	1.30	17.7	330	1300	1.40	0.290	0.180	1.00	13.8	96.0	66.0	5.58	35.0	0.0680	1.87	0.609	32.0	1010	2.40	0.104	27.0	0.0350	101
GXR-6 Meas	0.4	13.1	222	> 1000	1	< 2	0.17	< 0.3	13	45	67	5.37	31	< 1	1.62	0.60	34	988	3	0.10	24	0.032	88
GXR-6 Cert	1.30	17.7	330	1300	1.40	0.290	0.180	1.00	13.8	96.0	66.0	5.58	35.0	0.0680	1.87	0.609	32.0	1010	2.40	0.104	27.0	0.0350	101
DNC-1a Meas				99					56	127	96		16				4				250		3
DNC-1a Cert				118					57	270	100		15				5.2				247		6.3
DNC-1a Meas				103					57	114	98		15				4				252		< 3
DNC-1a Cert				118					57	270	100		15				5.2				247		6.3
CZN-4 Meas																							
CZN-4 Cert																							
SBC-1 Meas			24	697	3	4		< 0.3	24	89	34		28				149		1		84		30
SBC-1 Cert			25.7	788.0	3.20	0.70		0.40	22.7	109	31.0000		27.0				163		2		83		35.0
SBC-1 Meas			26	737	3	3		0.3	24	79	30		28				150		1		83		26
SBC-1 Cert			25.7	788.0	3.20	0.70		0.40	22.7	109	31.0000		27.0				163		2		83		35.0
PTC-1b Meas																							
PTC-1b Cert																							
SdAR-M2 (U.S.G.S.) Meas				985	7	< 2		5.5	13	43	231		17	< 1			17		12		48		808
SdAR-M2 (U.S.G.S.) Cert				990	6.6	1.05		5.1	12.4	49.6	236.0000		17.6	1.44			18		13		49		808
SdAR-M2 (U.S.G.S.) Meas				> 1000	7	< 2		5.3	13	35	237		16	1			18		13		48		820
SdAR-M2 (U.S.G.S.) Cert				990	6.6	1.05		5.1	12.4	49.6	236.0000		17.6	1.44			18		13		49		808
OREAS 922 (Peroxide Fusion) Meas																							
OREAS 922																							

Analyte Symbol	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Lower Limit	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
(Peroxide Fusion) Cert																							
CCU-1e Meas																							
CCU-1e Cert																							
159917 Orig																							
159917 Dup																							
159934 Orig	1.0	8.02	28	69	2	< 2	0.27	< 0.3	23	105	852	5.49	23	< 1	0.87	2.70	92	307	1	3.45	64	0.067	< 3
159934 Split PREP DUP	1.0	8.40	30	73	2	3	0.28	< 0.3	23	117	862	5.80	23	< 1	0.92	2.85	96	315	1	3.58	66	0.070	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	0.02	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1	1	< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank	< 0.3	< 0.01	< 3	< 7	< 1	< 2	< 0.01	< 0.3	< 1		< 1	< 0.01	< 1	< 1	< 0.01	< 0.01	< 1		< 1	< 0.01	< 1	< 0.001	< 3
Method Blank																							

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Co
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
Lower Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	0.002
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	FUS- Na2O2
GXR-1 Meas	32	0.25	< 4	274	17	0.03	< 5	40	84	133	34	739	32	
GXR-1 Cert	122	0.257	1.58	275	13.0	0.036	0.390	34.9	80.0	164	32.0	760	38.0	
GXR-1 Meas	16	0.25	< 4	276	16	0.03	< 5	40	84	119	33	762	29	
GXR-1 Cert	122	0.257	1.58	275	13.0	0.036	0.390	34.9	80.0	164	32.0	760	38.0	
GXR-4 Meas	< 5	1.78	8	218	8	0.29	< 5	< 10	88	28	15	71	41	
GXR-4 Cert	4.80	1.77	7.70	221	0.970	0.29	3.20	6.20	87.0	30.8	14.0	73.0	186	
GXR-4 Meas	< 5	1.78	8	219	5	0.29	< 5	< 10	87	28	15	73	45	
GXR-4 Cert	4.80	1.77	7.70	221	0.970	0.29	3.20	6.20	87.0	30.8	14.0	73.0	186	
PTM-1a Meas														2.08
PTM-1a Cert														2.05
SDC-1 Meas	< 5		16	185		0.20	< 5	< 10	53	< 5		100	42	
SDC-1 Cert	0.54		17.00	180.00		0.606	0.70	3.10	102.00	0.80		103.00	290.00	
SDC-1 Meas	< 5		16	176		0.14	< 5	< 10	44	< 5		102	43	
SDC-1 Cert	0.54		17.00	180.00		0.606	0.70	3.10	102.00	0.80		103.00	290.00	
GXR-6 Meas	< 5	0.01	23	37	4		< 5	< 10	143	< 5	11	126	70	
GXR-6 Cert	3.60	0.0160	27.6	35.0	0.0180		2.20	1.54	186	1.90	14.0	118	110	
GXR-6 Meas	< 5	0.01	25	36	4		< 5	< 10	107	< 5	11	124	61	
GXR-6 Cert	3.60	0.0160	27.6	35.0	0.0180		2.20	1.54	186	1.90	14.0	118	110	
DNC-1a Meas	< 5		32	140		0.29			142		17	59	36	
DNC-1a Cert	0.96		31	144		0.29			148		18.0	70	38.0	
DNC-1a Meas	< 5		32	140		0.29			143		18	60	37	
DNC-1a Cert	0.96		31	144		0.29			148		18.0	70	38.0	
CZN-4 Meas														0.009
CZN-4 Cert														0.009
SBC-1 Meas	< 5		20	182		0.53	< 5	< 10	221	< 5	33	179	117	
SBC-1 Cert	1.01		20.0	178.0		0.51	0.89	5.76	220.0	1.60	36.5	186	134.0	
SBC-1 Meas	< 5		21	179		0.53	< 5	10	221	< 5	33	187	119	
SBC-1 Cert	1.01		20.0	178.0		0.51	0.89	5.76	220.0	1.60	36.5	186	134.0	
PTC-1b Meas														0.335
PTC-1b Cert														0.325
SdAR-M2 (U.S.G.S.) Meas			4	144				< 10	26	11	30	776	126	
SdAR-M2 (U.S.G.S.) Cert			4.1	144				2.53	25.2	2.8	32.7	760	259	
SdAR-M2 (U.S.G.S.) Meas			4	151				< 10	26	12	30	803	102	
SdAR-M2 (U.S.G.S.) Cert			4.1	144				2.53	25.2	2.8	32.7	760	259	
OREAS 922 (Peroxide Fusion) Meas														0.003
OREAS 922 (Peroxide Fusion)														0.002

Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Co
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
Lower Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	0.002
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	FUS-Na2O2
Cert														
CCU-1e Meas														0.031
CCU-1e Cert														0.0301
159917 Orig														3.90
159917 Dup														3.94
159934 Orig	< 5	0.13	17	58	5	0.42	< 5	< 10	117	< 5	24	34	180	
159934 Split PREP DUP	< 5	0.13	17	59	< 2	0.44	< 5	< 10	122	< 5	26	34	185	
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5	
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5	
Method Blank	< 5	< 0.01	< 4	< 1	< 2	< 0.01	< 5	< 10	< 2	< 5	< 1	< 1	< 5	
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Lico Energy Metals
Teledyne Property
Phase 1 Diamond Drill Report
Expense Summary

Geology/Labour	Joerg Kleinboeck	Invoice	Item	Units	Total
Geology/Labour	Joerg Kleinboeck	311017	\$650/day	8 days	\$ 5,200.00
Geology/Labour	Joerg Kleinboeck	151117	\$650/day	6 days	\$ 3,900.00
Geology/Labour	Joerg Kleinboeck	301117	\$650/day	10.5 days	\$ 6,825.00
Geology/Labour	Joerg Kleinboeck	151117	\$650/day	11.5 days	\$ 7,475.00
Geology/Labour	Joerg Kleinboeck	311217	\$650/day	3.0 days	\$ 1,950.00
Geology/Labour	Kalevi Hannila	151117	\$625/day	4.0 days	\$ 2,500.00
Geology/Labour	Shane Hewitt, Al Jackson	151117	\$275/day	11.0 days	\$ 3,025.00
Geology/Labour	Kalevi Hannila	301117	\$625/day	4.0 days	\$ 2,500.00
Geology/Labour	Shane Hewitt, Al Jackson	301117	\$275/day	9.75 days	\$ 2,681.25
Geology/Labour	Shane Hewitt, Al Jackson	151217	\$275/day	22.5 days	\$ 6,187.50
					\$ 42,243.75

Drilling	Chenier	320	\$ 53,792.50	1	\$ 53,792.50
	Chenier	322	\$ 55,509.45	1	\$ 55,509.45
	Chenier	323	\$62,156.90	1	\$ 62,156.90
					\$ 171,458.85

Mob-demob	Chenier	320	\$ 3,520.00	1	\$ 3,520.00
	Chenier	323	\$ 3,520.00	1	\$ 3,520.00
					\$ 7,040.00

Report Writing	Joerg Kleinboeck	300919	\$ 875.00	1	\$ 875.00
	Joerg Kleinboeck	310719	\$ 875.00	1	\$ 875.00
					\$ 1,750.00

Assays	Act Labs	A17-12330Rev			\$ 816.00
	Act Labs	A17-13093B			\$ 151.81
	Act Labs	A17-12330B-Rev			\$ 22.50
	Act Labs	A17-12330C			\$ 339.19
	Act Labs	A17-12669REV			\$ 1,464.00
	Act Labs	A17-12669B			\$ 76.50
	Act Labs	A17-13093			\$ 3,048.00
	Act Labs	A17-13093B			\$ 151.81
	Act Labs	A17-13750			\$ 3,174.50
	Act Labs	A17-13750B			\$ 670.76
	Act Labs	A17-14250			\$ 6,390.00
	Act Labs	A17-14250B			\$ 234.50
	Act Labs	A17-14250			\$ 212.60
	Act Labs	A17-07634			\$ 217.88
	Act Labs	A17-14250			\$ 6,390.00
	Act Labs	A17-14250C			\$ 244.49
					\$ 23,604.54

Food					\$ 697.00
					\$ 697.00

Lodging					\$ 1,600.00
					\$ 1,600.00

Supplies					\$ 4,959.00
					\$ 4,959.00

Rental					\$ 3,189.00
					\$ 3,189.00

Shipping of Supplies					\$ 15.00
					\$ 15.00

Total: \$ 256,557.14