Ontario

We are committed to providing accessible customer service.
If you need accessible formats or communications supports, please contact us.

Nous tenons à améliorer l’accessibilité des services à la clientèle.
Si vous avez besoin de formats accessibles ou d’aide à la communication, veuillez nous contacter.

2022 Assessment Report
Grass Roots

Thunder Bay Mining District, Ontario
Ashmore Area (G-0472), Croll Area (G-0491
042E10

Thunder Gold Corp.
864 Squire St.
Thunder Bay, ON
P7B 4A8

August 2022

By Cathy Salo & Michael Stares

TABLE OF CONTENTS

Contents

1 SUMMARY

Figure 1: Ontario Location map - Pen Property

Thunder Gold Corp (TGOL.V) formally known as White Metal Resources first staked Pen (Au) property, in 2019 in the general area of Geraldton with an additional 106 claims staked in 2022. The property has easy access off TransCanada Highway 11 and Kenogamissis Lake covers a large area of the claims to the east which is also a good source of access.

The Peninsula Gold Property lies within the east-west trending Beardmore-Geraldton greenstone belt of the Wabigoon Subprovince. This greenstone consists of three faults steeply north dipping series, each containing metasedimentary rocks unconformably overlying metavolcanic rocks (Tomlinson et al., 1994).

The mafic to intermediate metavolcanic rocks comprise three units which are referred to as the Northern, Central and Southern Volcanic Units (NVU, CVU, SVU). Each unit consists of varying proportions of massive lava flow, pillowed lava flows and mafic intrusions, with occasional intercalated, argillites and banded iron formation. The Peninsula Gold Property lies within the CVU unit.

The last hole drilled by Peninsula Gold in 1998 P-7 is described as a well silicified strongly magnetic pyrrhotite-arsenopyrite section from 53.9 m to 56.3 m with the best gold values averaging (weighted average) of 3.33 g/t/ Au across 2.6 m, including 0.45 m of 10.8 g/t/ Au and >20,000 ppm As. Several other sections between 30.8 m and 50.4 m also returned significant gold values ranging from 0.65 g/t Au to 3.24 g/t/ Au (0.6 m).

Silicification (quartz flooding) and arsenopyrite is associated with the higher gold values. The most consistent anomalous gold values are returned from locations where magnetic pyrrhotite also occurs with the quartz flooding and arsenopyrite.

Peninsula Gold Explorations performed work during 1996 and 1997. The work included a VLF and Magnetometer survey geochemical soil sampling and prospecting by F. Houghton. This was followed up in March 1998, by a combination of bulldozer stripping and backhoe trenching on ten predetermined locations of interest on the Property. During early April 1998 eight holes at seven locations were diamond drilled for a total of 403 meters.

In order to locate additional targets from the known area of Hole 98-P7 in the southeast of the property sample was carried out to determine if there would be new gold targets. Except for an Airborne Electromagnetic Very Low Frequency, Airborne Magnetometer which was submitted in 2008 and completed on just a small part of southern western part, all other work was done on the property in the 1990's, therefore prospecting with soil sampling was carried out to get a general overview of the claims on the western block.

Rock sampling, soil sampling and lake bottom sampling began on July 12, 2022 on the western claims for Pen Gold property and commenced on July 21, 2022. The total of 356 samples taken are 356 with 64 rocks samples, 23 lake bottom samples and 269 till samples all being assayed for Gold.

Michael Stares carried out prospecting and Clifford Hickman did both the prospecting and lake bottom soil sampling with Marcus Brisard and Matti Tiitto collecting till soil samples.

The worker-days for this project is as follows: 16 worker-days for the collection of till samples and 3 days for lake bottom with prospecting over 13 workers-days

All sample locations and maps are in Universal Transverse Mercator, (Nad 83, UTM Zone 16).

2 Property Description

The Peninsula Gold Property is located Approximately 2.5 hours east of Thunder Bay and around 2 km east of the town of Geraldton. It is comprised of 226 single cell claims totaling 4637 ha. The approximate center point of the property is 513,590m E and 5,509,470m N (Nad 83, UTM Zone 16). See Map 1 and appendix I for claims. See figure 2 for the outline of the property.

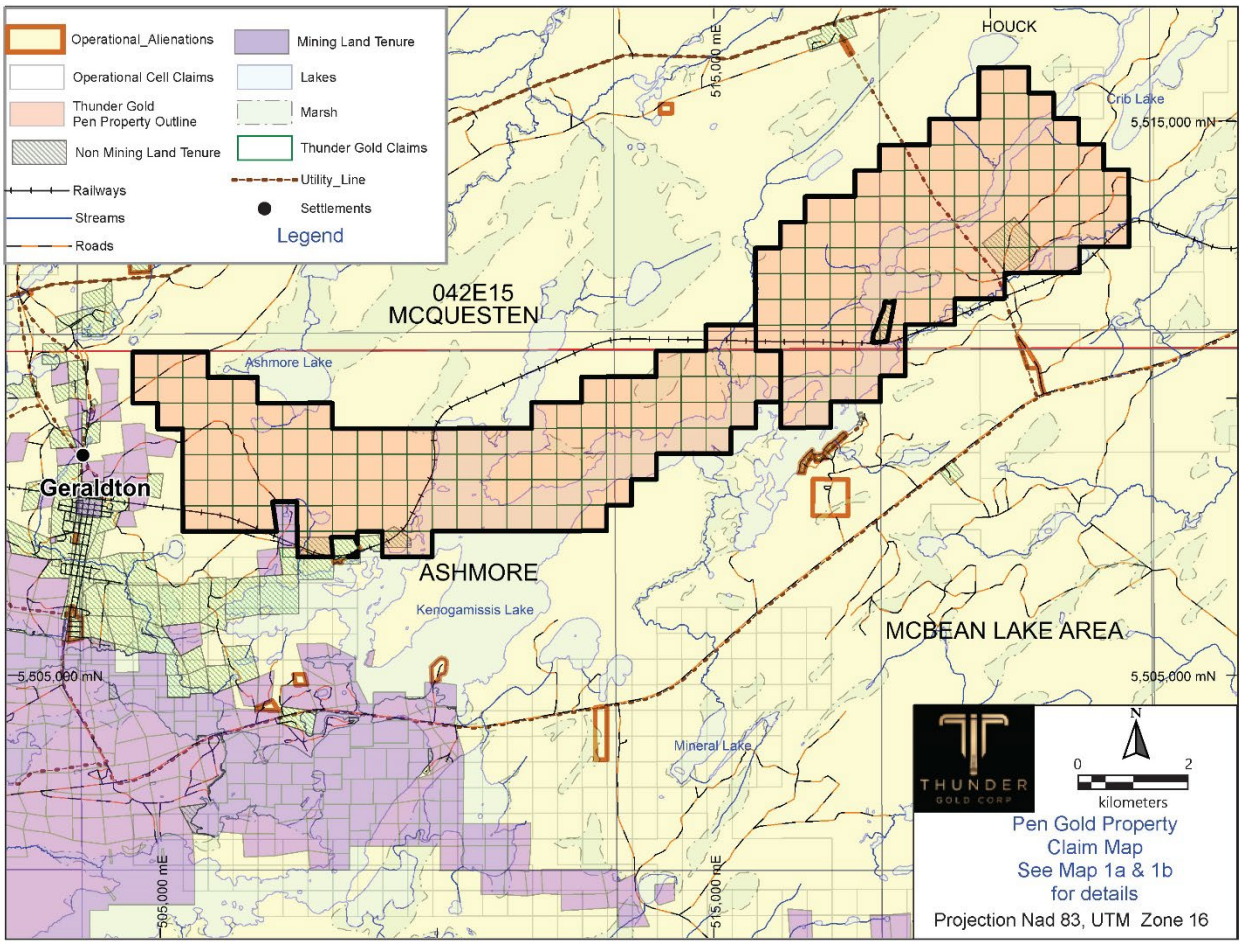


Figure 2: Outline of Pen Property

3 Location, Access and Topography

The property may be reached from a point on Highway 11, about 5 km east of Geraldton, at the Main narrows on Kenogamisis Lake and by boating or skidooing in winter 5 km northeast along the lake to the Pen Gold Property. The property is in both Ashmore, Haul and Mcbean Lake townships. The property is located within NTS block 042E10. The central point of the property is located approximately 513,590m E and 5,509,470m N, Zone 16, NAD 83. The town of Geraldton is located approximately 2 km east of the western boundary of the property. It can be accessed by driving approximately 2.5km south onto highway 584 off highway 11. The property is mainly covered with birch and poplar trees with minimal swamp which a large area of the property covered by Kenogamisis Lake. See Figure 3 for physiography of the property.

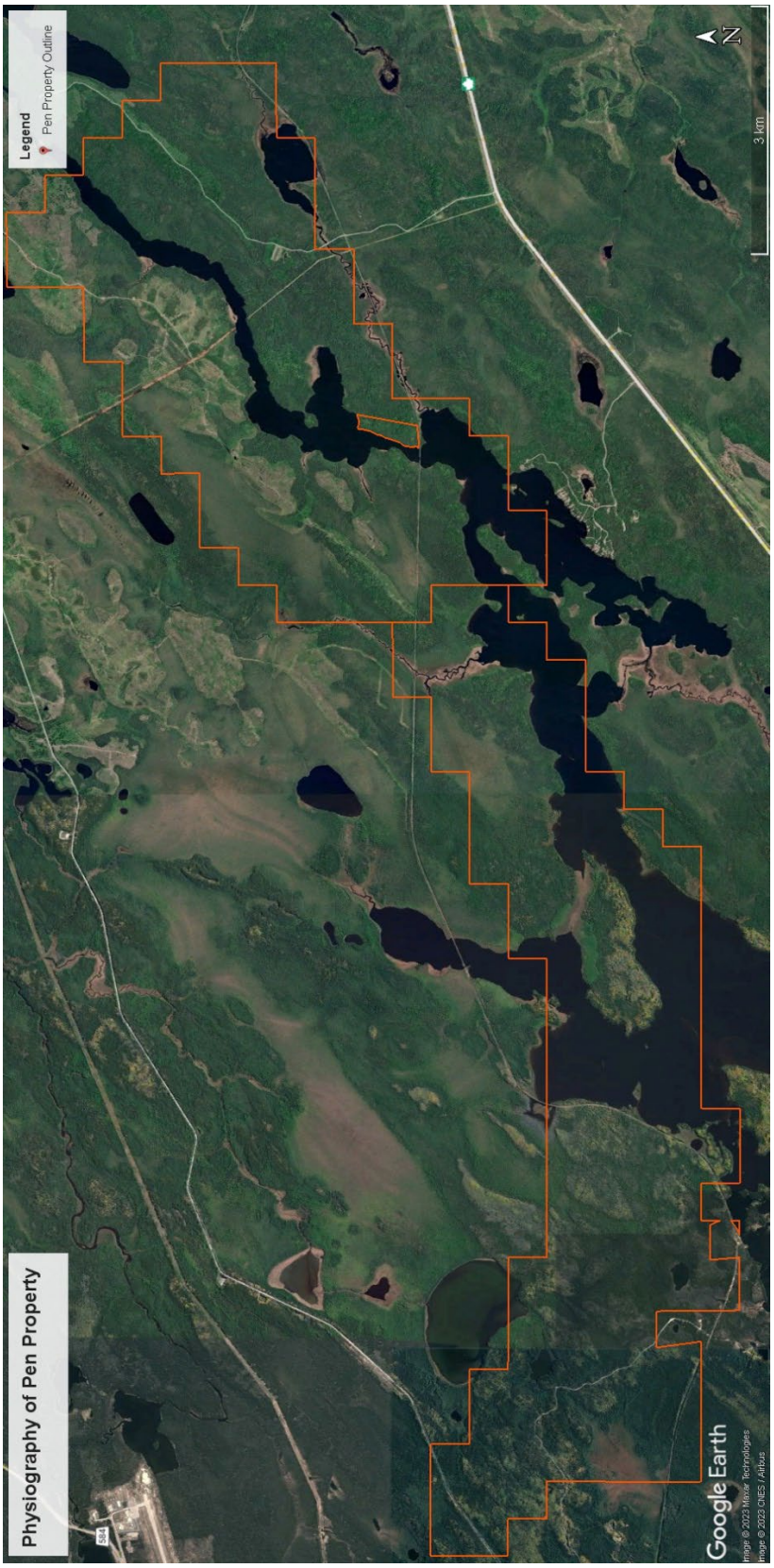


Figure 3: Google image showing physiography of Property.

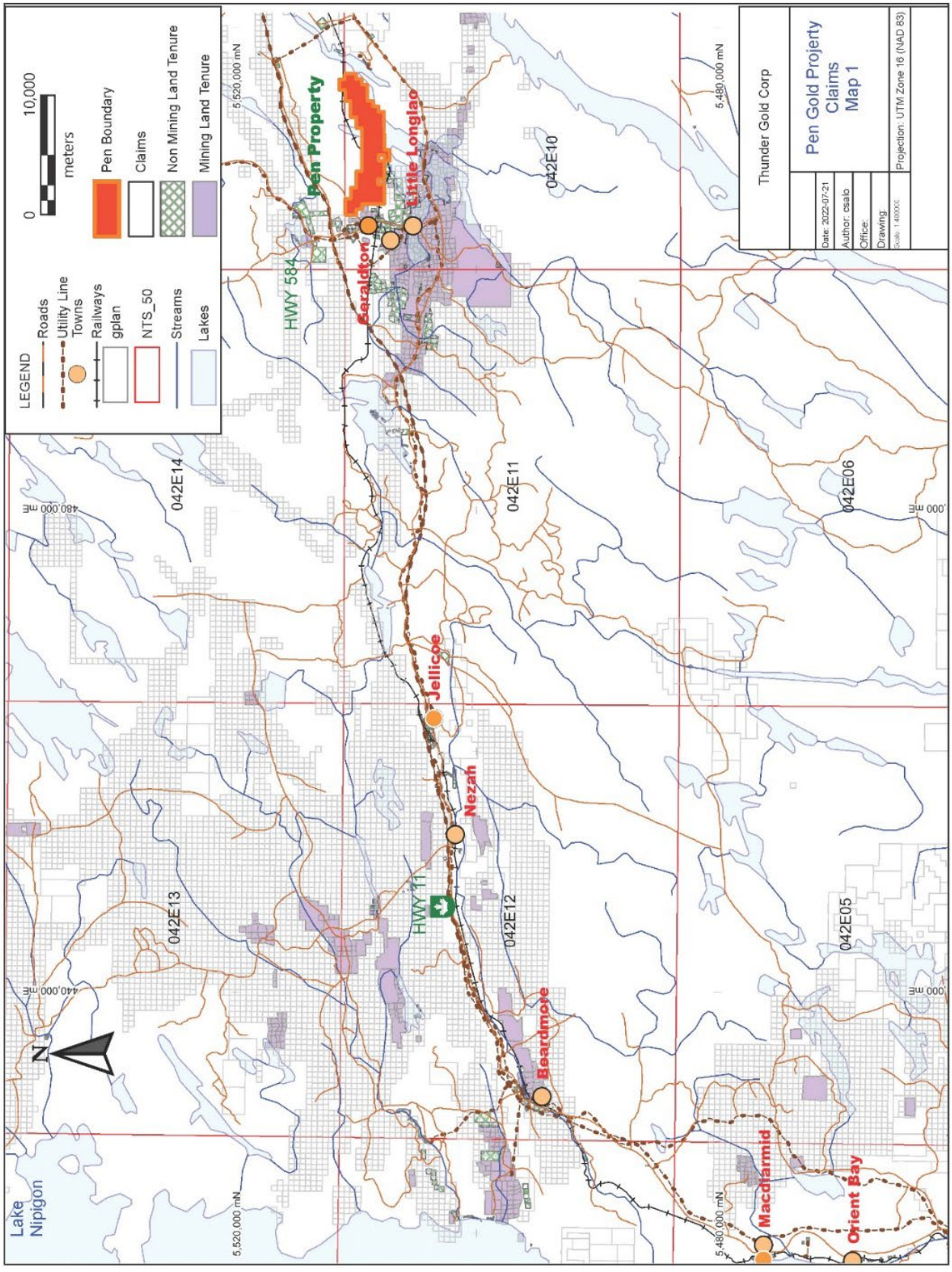


Figure 4: Regional location map

4 PREVIOUS WORK

The Pen property as it is in close proximity to several past gold producers in the "Geraldton Camp" it is likely that the area was prospected in the early 1930's. The earliest record of work on the property area was by Little Long Lac Gold Mines who conducted some type of magnetic survey and drilled 5 holes in the general at the south shore of the property. There is no record of these DDH results.
During 1997 prospecting by Houghton located several old trenches of 1940 to 1960 vintage were on the property. There is no record of these trenches. No record of other work exists until Peninsula gold Mines Ltd. established a winter grid in 1996 (the present grid) and conducted a VLF EM and magnetometer survey outlining several VLF EM conductors. Peninsula Gold Mines Ltd. also conducted some soil sampling, over the south-central part of the grid, which returned several anomalous gold values, from several locations, ranging from 50 ppb gold to 334 ppb gold. In 1997 prospecting was conducted by Frank Houghton to locate locations of interest for backhoe trenching and follow up drilling.

Little Long Lac Gold Mines, 1930's

Conducted a magnetic survey and drilled 5 holes at the south shore of the property. There is no record of these results.

Peninsula Gold Explorations Ltd., 1996 and 1997

Included a VLF and Magnetometer survey geochemical soil sampling and prospecting by F. Houghton.

Of the several locations exposed by mechanical stripping-trenching, the best gold value returns were obtained from a 6 m wide pyrite and aresenopyritic quartz stock-work zone (KK-E Zone) in foliated to sheared mafic volcanics trenched with best value of 5.45 g/t Au in returned grab sample in quartz flooded silicified rock.

Peninsula Gold Explorations Ltd., 1998,

Bulldozer stripping and backhoe trenching on ten predetermined locations of interest on the Property and early April 1998 eight holes were diamond drilled for a total of 403 metres.

Kodiak Exploration Ltd, 2008

Airborne Electromagnetic Very Low Frequency, Airborne Magnetometer

5 Geological Setting

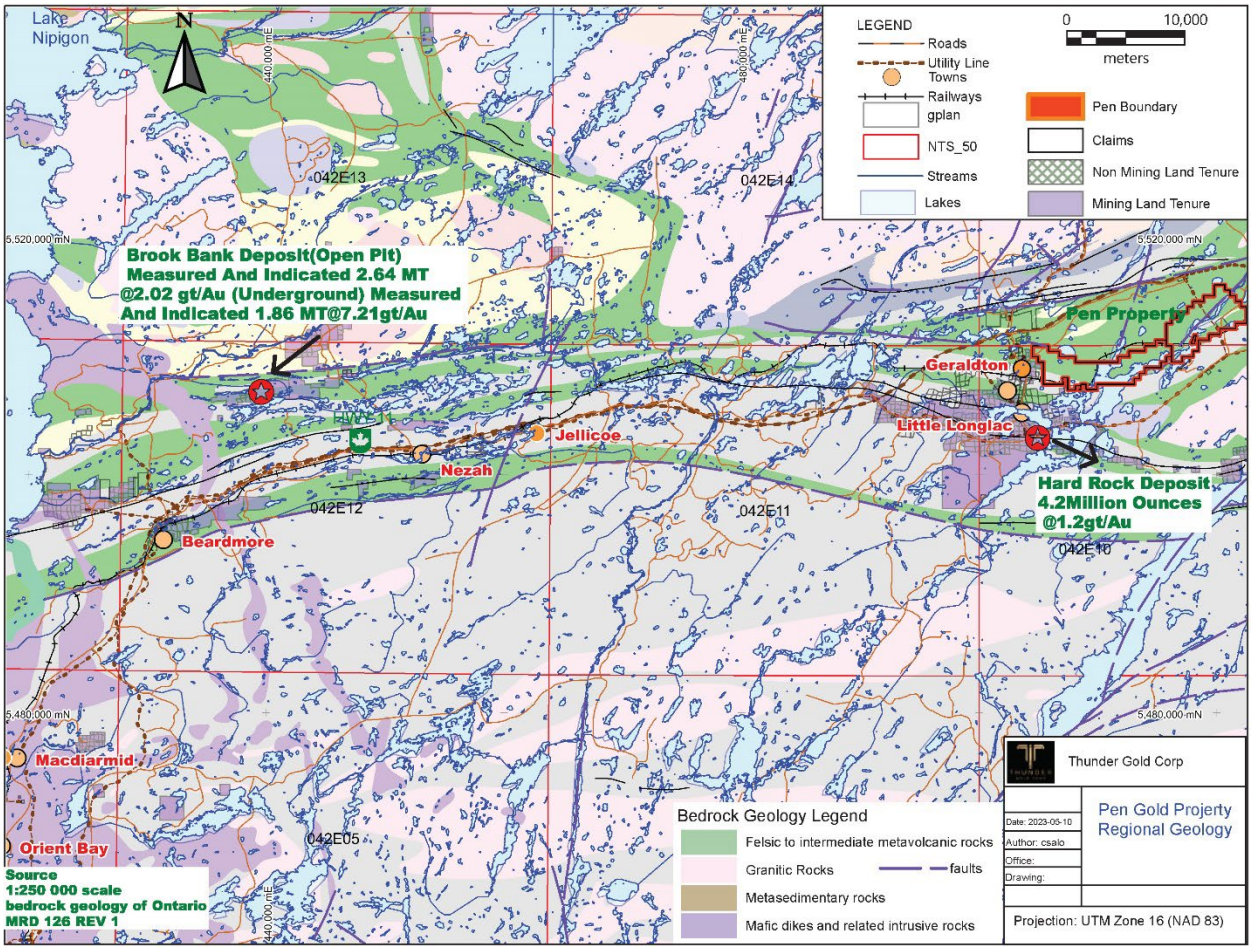


Figure 5: General Bedrock geology

5.1 PROPERTY SETTING AND REGIONAL GEOLOGY

The Peninsula Gold Property lies within the east-west trending Beardmore-Geraldton greenstone belt of the Wabigoon Subprovince. The greenstone best consists of three faults bounded, steeply north dipping series, each containing metasedimentary rocks unconformably overlying metavolcanic rocks (Tomlinson et al., 1994). The metasedimentary rocks young to the north and have an overall coarsening upwards trend (Devaney and Williams 1989).

From north to south, they are interpreted as having developed as alluvial fan, submarine fan and deep water turbidite sediments (Devaney and Fralick 1985; Barrett and Fralick 1985), with sediment supply form the developing Wabigoon in the north (Williams 1990). The mafic to intermediate metavolcanic rocks comprise three units which are referred to as the Northern, Central and Southern Volcanic Units (NVU, CVU, SVU). Each unit consists of varying proportions of massive lava flow, pillowed lava flows and mafic intrusions, with occasional intercalated, argillites and banded iron formation. The Peninsula Gold Property lies within the CVU unit.

The mineralogy of the Beardmore-Geraldton belt generally consists of a typical greenschist facies assemblage with various amounts of chlorite, epidote, albite, tremolite and actinolite, with or without quartz and calcite. The geochemistry of the metavolcanics varies between volcanic units. The NVU constitute a group of high iron tholeiites. The CVU is a group of high-iron tholeiitic andesite and tholeiitic dacites. The SVU is a group of high iron- tholeiites and tholeiitic andesites.

The region has a successful history of exploration activities which resulted in the discovery of numerous occurrences. Although there are no mines currently in operation, the belt boasts significant past production from several deposits. Recent exploration discoveries in the camp by several different companies has helped to renew interest in the Beardmore- Geraldton camp.

Recently there has been exploring on a large block of ground, mainly the Barrick property, which include the past gold producers Hardrock, Macleod Cockshutt, Mosher and Magnet deposits, all of which lie roughly on strike some five to fifteen kilometres west of the Peninsula Gold Property. Cypress is attempting to identify a reserve of 1,000,000 oz Au in one or several shallow open pits. Exploration programs are currently under way. Rox-mark Mines Limited is currently trying to expand upon a

potential reserve of 1,082,000 tons (grade unknown) in the Magnet mine. Rox-mark Mines Limited is currently trying to expand upon a potential reserves 1,082,000 tons (grade unknown) in the Magnet Mine. Rox-mark recently purchased the Northern Empire Mine and Mill in Beardmore. Exploration programs are also ongoing on other properties throughout the camp.

Most of the gold production in the Beardmore-Geraldton camp has come from the sedimentary rocks situated between the SVU and CVU. Large east-west trending deformation mineralization in complex shear zones, such as the Barton Bay deformation zone in Geraldton control many gold structures where drag folds develop in the deformation zones. Gold mineralization occurs primarily in quartz veins that parallel the major shear structures and occupy axial planar cleavage planes of pre-existing fold structures. Quartz vein stock work, pyrite and arsenopyrite accompany nearly all the gold deposits of this belt, as is the case in the 1998 backhoe exposed "North Trench" gold discovery at 1+50E, 0+30N and DDH 1998 P-7 on the Peninsula Gold Property. The gold and the associated sulphides were introduced late in the tectonic history of the camp, gold mineralization is not syngenetically related to the iron formation.

Although most production has come from the sediments located between the CVU and SVU, gold mineralization has been identified in all units. Gold mineralization in the Beardmore-Geraldton camp is structurally controlled by pre-existing fold structures rather than any particular stratigraphic unit. The majority of the Beardmore-Geraldton gold deposits are located in shear zones developed along pre-existing regional fold structures. These axial hinges are structural zones of weakness where shear structures preferentially develop. These shear zones act as conduits for hydrothermal fluids including gold mineralization.

5.2 GENERAL PROPERTY GEOLOGY

The property geology is defined by Pye (1951: Map No. 1951-2) which shows the property to be underlain by easterly trending mafic volcanics intercalated with many thin (less than 100 m wide) interlayers dioritic to gabbroic intrusions. These rocks are cut by numerous, generally northwesterly striking narrow diabase dikes. Two easterly trending faults and one northerly trending fault are also indicated on Map 1951-2. The south easterly striking fault apparently cuts across the area of the old trenches.

The 1998 bulldozer stripping, backhoe trenching exposures and diamond drilling results largely confirmed Pye's interpretation with the exception that dioritic to gabbroic interlayers appear to be massive coarse grained flow centres rather than intrusive units. Where observed, these coarse grain units grade into finer grain meta-andesite with no discernable chill margins. Pyritic and asenopyritic (at some locations), quart and quartz-calcite impregnated east westerly trending chloritic mafic volcanic shears occur at several locations on the property. Drill hole results indicate that magnetic pyrrhotite is also associated with the gold-bearing mineralization and is responsible, at least in some locations, for the magnetic high and low responses depicted in the magnetometer survey results: a very significant observation for planning future gold exploration targets in this area. Gold enrichment is generally greatest at locations of abundant arsenopyrite mineralization.

Non-mineralized or very weakly sulfide mineralized chloritic east-westerly trending shears are common. Foliation and chloritization is pervasive in most of the mafic volcanics.
In summary, the results of work completed to date indicate that significant gold enrichment occurs at those locations where quartz flooding, arsenopyrite and pyrrhotite are present along the east-westerly trending shear systems.

5.2.1 Historic Stripping results and conclusions

Of the several locations exposed by mechanical stripping-trenching, the best gold value returns were obtained from a 6 m wide pyrite and arsenopyrite quartz stock-work zone (KK-E Zone) in foliated to sheared mafic volcanics trenched from here the best value of 5.45 g/t Au was returned from a grab sample in quartz flooded silicified rock containing 10% pyrite and arsenopyrite (>20,000 ppm As). 5 other gold-bearing (over 1 g/t Au) grab samples from this location returned 1.00 to 1.85 g/t Au.

All the more significant gold-bearing locations in this trench contain an arsenopyrite association. This zone was later diamond drilled at four locations: DDH's P-2, P-3, P-4 and P-5, but the drill core samples returned only low gold values.

5.2.2 Historic Diamond Drilling Results and Conclusions

98- P7 drilled south to intersect a strongly magnetic (high-low) east-west trending zone under shallow overburden on the north shore of Kenogamisis Lake due to the close proximity to the lake shoreline, this location could not be stripped or trenched due to environmental regulation reasons.

A well silicified strongly magnetic pyrrhotite-arsenopyrite section from 53.9 m to 56.3 m returned the best gold values averaging (weighted average) of 3.33 g/t Au across 2.6 m, including 0.45 m of 1.8 g/t Au and >20,000 ppm As. Several other sections between 30.8 m and 50.4 m also returned significant gold values ranging from 0.65 g/t Au to 3.24 g/t Au (0.6 m).

Silicification (quartz flooding) and arsenopyrite is everywhere associated with the higher gold values. The most consistent anomalous gold values are returned from locations where magnetic pyrrhotite also occurs with the quartz flooding and arsenopyrite. This is very useful knowledge for planning future exploration in this area because, at least at some magnetic locations, magnetic pyrrhotite is apparently associated with gold enrichment.

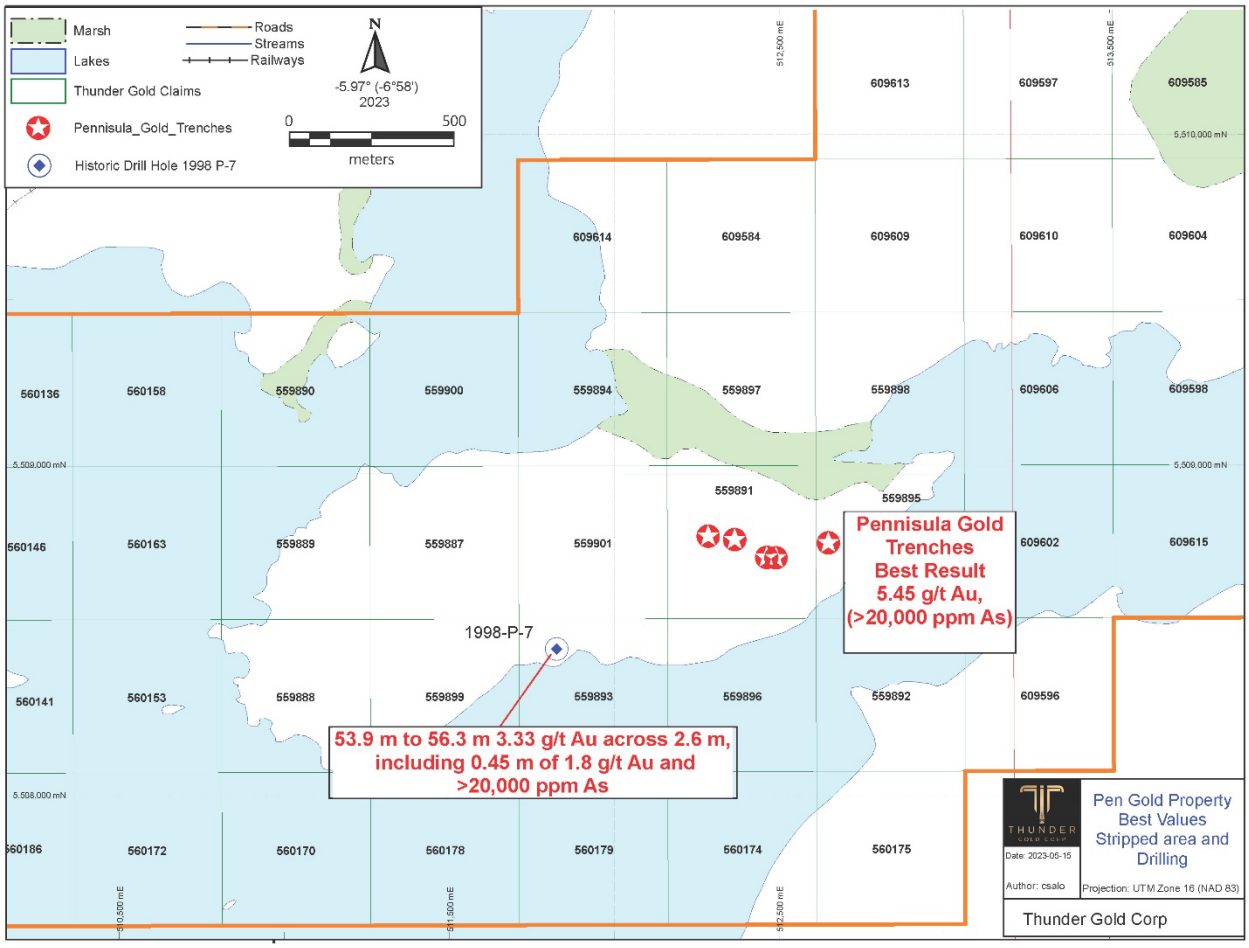


Figure 6: Best values from historic stripping and drilling

6 Exploration

Rock sampling, till sampling and lake bottom sampling began on July 12, 2022, on the western claims for Pen Gold property and commenced on July 21, 2022. The total number of samples taken are 356 with 64 rocks samples, 23 lake bottom samples and 269 till samples with all assayed for Gold.

Prospecting

4 Rock sampling collected located in the sheared iron formation had values which ranged from 4740 to 8950 Au ppb. The Lake bottom samples ranged from 9 to 95 Au ppb. For the till samples there were 8 greater than 50 up and up to 562ppb. See figure 7 for the locations of all these samples and appendix for the descriptions and results. See figure 7 for location map of highlights and appendix for all gold results.

The assays were dropped off at Actlab in Thunder Bay with the rock samples prepared as follows samples crush (< 7 kg) up to 80% passing 2 mm, riffle split (250 g) and pulverize (mild steel) to 95% passing 105 µm included cleaner sand and tested 1A2 Au Fire Assay and 1A3 Au Fire assay.

Table 1:Rock samples highlights of gold results.

Sample Number	Easting	Northing	Sample description	Outcrop	Subcrop	Float	Trench	Alteration	Sulfides	Strike	Au ppb
392752	511866	5508436	Iron Formation in sheared Mafic Volcanic	yes				Silicified, iron carb	5% py		8950
392753	511867	5508437	Iron Formation in sheared Mafic Volcanic		yes			silicified, iron carb, brecciated	1% fine Py, Po, Arsenopy,		226
392763	512290	5508411	sediment		yes			sheared, iron carbonate, silicified,	10% Py, Tr Arsenopy		4740
392765	512285	5508781	sheared sulfide iron formation? I meter wide	yes			yes	sericte, minor Qtz flooding	10% py, tr Zn?	250	157
392768	512419	5508566	sheared mafic volcanic and Iron Formation intermix	yes			yes	chlorite, qtz and iron carbonate	2% py		897
392783	513798	5509259	sheared Mafic/ Iron formation		yes			silicified, iron carbonate	3% Po, Py		266
392784	513805	5509261	sheared Mafic/ Iron formation		yes			silicfied, iron carboante with Qtz Flooding	20% Py,		4570
392785	513810	5509260	sheared Mafic/ Iron formation		yes			silicified , iron arbonate with Qtz Flooding	10% py		5320
392786	513811	5509262	sheared Mafic/ Iron formation		yes			silicified, iron carbonate with qtz Flooded	5% Py		171
392787	513812	5509263	sheared Mafic/ Iron formation		yes			silicified, iron carbonate	20% Cubic Py		509
392788	513813	5509259	sheared Mafic/ Iron formation		yes			silicified, iron carbonate, qtz flooded	10% Py		209
392814	506756	5508489	mafic and possible banded iron formation	yes			yes	rusty silicious zone 6 inches wide	10% py		272

Lake bottom soils had results ranging from 9 to 95 Au ppb. See table below for list of samples. See map 3 for locations.

1. Qtz – Quartz
2. Po – Pyrrhotite
3. Py – Pyrite
4. Tr – trace
5. Carb – carbonate
6. Arsenopy – arsenopyrite

See appendix III for full list of samples and gold results.

Soil “Till” Sampling

The grid was laid out with waypoints with 200m spacing between lines and 50m between samples (no cut grid). The lines are laid out on Nad 83 grid system. 510900 is the first line, then every 200m increments. The samples are laid out on the northing waypoint as they end in 50's and 100m the soils were taken with a soil auger at B horizon. The auger would be cleaned off by hand between samples to eliminate cross contamination. They were packaged in 4 inch by 6 inch paper soil bags and dried out before being sent to the lab for analysis. All samples were tested for gold through fire assay at Act Labs (Code 1A2). 18 of those samples were also run for ICP (code 1E3). Sample numbers S200-S219. There were 26 samples that were unable to be assayed due to errors at the lab. Those sample numbers are as follows. S43, S54-55, S70-72, S76, S89-94, S107, S111-121, S208 and S211.

There were 4 areas of interest with the main on over drill hole 98-P7 with 10 lines were completed at 200m spacing every 50m for total of 5.46 line kilometres and running north south. Another area of till sampling was along the road for one line at 2.64 line kilometers. Another line was completed following the shoreline totaling 1.99 kilometres. A single line running North south was completed to on the western side of the property for 1.32 kilometres and another one to the east for 1.00 kilometres. This totals 11.41 kilometers for all tills.

See Map 3 for both the till sampling and lake bottom sampling locations and results.

The following explains why the samples were taken in various locations.

- S1-S55 and S84 to S145 are soils taken in a north-south grid over the peninsula to cover areas with known gold occurrences. Lines were spaced 200m apart with 50m stations.
- S57-S83 were soils taken to test a weaker broken up mag unit.
- S146-199 and S265-275 were soil taken to the side of a quad trail crossing over a known gold occurrence.
- S220-S264 were taken in a north south direction covering a weaker broken up mag unit that is trending east west.

Table 3: Till samples sample locations and Au results in ppb

Label	Au	Easting	Northing	Description	Vegetation
S1	8	511300	5508950	brown	cedar
S2	< 5	511300	5508900	dark brown	spruce trees
S3	< 5	511300	5508850	brown	birch trees
S4	6	511300	5508800	light brown	swampy pine
S5	6	511300	5508750	light brown	poplar spruce
S6	7	511300	5508700	light brown	poplar spruce
S7	7	511300	5508650	light brown	blown down poplar
S8	6	511300	5508600	light brown	blown down poplar
S9	< 5	511300	5508550	light brown	poplar
S10	6	511300	5508500	light brown	poplar
S11	10	511300	5508450	brown	poplar
S12	6	511300	5508400	brown	poplar
S13	6	511300	5508350	light brown	poplar
S14	6	511300	5508300	light brown	poplar
S15	5	511300	5508250	light brown	poplar
S16	6	511300	5508200	light brown	poplar
S17	8	511300	5508150	light brown	alders
S18	< 5	511302	5508106	brown	cedar
S19	6	512116	5508414	light brown	shoreline
S20	47	512100	5508450	light brown	
S21	< 5	512103	5508485	light brown	poplar
S22	< 5	512100	5508550	light brown	poplar
S23	6	512100	5508600	organics	swamp
S24	14	512100	5508650	dark brown	cedar
S25	43	512100	5508700	organics	cedar
S26	< 5	512100	5508750	organics	cedar
S28	< 5	512100	5508850	grey clay	cedar
S29	< 5	512100	5508900	organics	cedar
S30	< 5	512100	5508950	organics	pine
S31	< 5	512100	5509000	organics	pine
S32	28	512300	5508450	brown	cedar
S33	< 5	512300	5508500	dark brown	poplar
S34	< 5	512300	5508550	brown	poplar
S35	< 5	512300	5508600	light brown	poplar
S36	< 5	512300	5508650	clay brown	outcrop
S37	< 5	512300	5508700	grey clay	pine
S38	< 5	512300	5508750	dark brown	pine

Label	Au	Easting	Northing	Description	Vegetation
S39	< 5	512300	5508800	organics	cedar
S40	< 5	512300	5508850	organics	pine
S41	< 5	512300	5508900	organics	cedar
S42	< 5	512300	5508950	grey clay	pine
S43	na	512300	5509000	organics	cedar
S45	< 5	512500	5508800	sand grey	
S46	< 5	512500	5508750	brown	pine
S47	8	512500	5508700	red sand	outcrop
S48	< 5	512500	5508650	light brown	poplar
S49	< 5	512500	5508600	light brown	cedar
S50	16	512500	5508550	grey clay	poplar
S51	< 5	512500	5508500	brown	cedar
S52	6	512700	5508700	organics	alders
S53	56	512700	5508750	organics	cedar
S54	na	512700	5508800	organics	cedar
S55	na	512700	5508850	organics	pine
S57	< 5	505700	5510750	light brown	alders
S58	< 5	505700	5510700	light brown	pine
S59	5	505700	5510650	light brown	pine
S60	< 5	505700	5510600	organics	pine
S61	< 5	505700	5510550	grey clay	pine
S62	< 5	505700	5510500	grey clay	pine
S63	< 5	505700	5510450	light brown	pine
S64	< 5	505700	5510400	light brown	pine
S65	< 5	505700	5510350	brown	pine
S66	6	505700	5510300	dark brown	pine
S67	5	505695	5510253	brown	pine
S68	na	505697	5510202	brown	pine
S69	7	505693	5510154	brown	pine
S70	na	505702	5510105	organics	pine
S71	na	505704	5510056	organics	pine
S72	na	505698	5510003	organics	pine
S73	5	505697	5509957	clay brown	pine
S74	< 5	505705	5509911	grey clay	poplar
S75	6	505699	5509859	brown	poplar
S76	na	505704	5509804	organics	birch trees
S77	< 5	505700	5509757	clay brown	pine
S78	< 5	505698	5509705	light brown	pine
S79	< 5	505699	5509656	clay brown	birch trees
S80	< 5	505703	5509606	grey clay	poplar

Label	Au	Easting	Northing	Description	Vegetation
S81	< 5	505698	5509546	brown	outcrop
S82	< 5	505698	5509499	brown	outcrop
S83	< 5	505695	5509450	grey clay	poplar
S84	< 5	511098	5508805	brown	outcrop
S85	< 5	511106	5508752	light brown	pine
S86	< 5	511104	5508706	light brown	pine
S87	< 5	511098	5508653	light brown	outcrop
S88	< 5	511099	5508607	light brown	cedar
S89	na	511104	5508556	organics	pine
S90	na	511096	5508508	organics	cedar
S91	na	511105	5508458	organics	cedar
S92	na	511102	5508403	organics	cedar
S93	na	511102	5508357	organics	cedar
S94	na	511101	5508309	organics	cedar
S95	< 5	511093	5508254	light brown	poplar
S96	< 5	511107	5508205	light brown	poplar
S97	< 5	511102	5508179	white sand	cedar
S99	10	510904	5508242	brown	outcrop
S100	5	510896	5508296	white sand	cedar
S101	< 5	510903	5508344	grey clay	birch trees
S102	na	510911	5508413	organics	cedar
S103	6	510900	5508454	light brown	pine
S104	14	510900	5508495	light brown	ash
S105	< 5	511901	5508501	light brown	poplar
S106	< 5	511904	5508554	light brown	pine
S107	na	511901	5508598	organics	pine
S108	< 5	511900	5508647	light brown	pine
S109	na	511898	5508698	brown	pine
S110	< 5	511906	5508747	brown	pine
S111	na	511893	5508798	organics	cedar
S112	na	511900	5508843	organics	cedar
S113	na	511892	5508905	organics	pine
S114	na	511909	5508954	organics	pine
S115	na	511906	5508997	organics	pine
S116	na	511905	5509026	organics	pine
S117	na	511693	5509000	organics	pine
S118	na	511708	5508945	organics	pine
S119	na	511706	5508903	organics	pine
S120	na	511701	5508854	organics	pine
S121	na	511696	5508810	organics	pine

Label	Au	Easting	Northing	Description	Vegetation
S122	< 5	511700	5508757	light brown	poplar
S123	< 5	511697	5508704	clay brown	birch trees
S124	< 5	511697	5508652	light brown	poplar
S125	< 5	511703	5508606	grey clay	cedar
S126	21	511701	5508556	brown	poplar
S127	< 5	511698	5508507	light brown	poplar
S128	< 5	511699	5508451	light brown	cedar
S129	< 5	511701	5508409	light brown	cedar
S130	6	511503	5508252	brown	poplar
S131	562	511502	5508303	organics	poplar
S132	na	511499	5508347	organics	poplar
S133	25	511500	5508394	organics	poplar
S134	< 5	511503	5508444	light brown	poplar
S135	< 5	511507	5508498	white sand	balsam
S136	< 5	511506	5508546	light brown	pine
S137	< 5	511502	5508602	light brown	poplar
S138	< 5	511498	5508650	light brown	poplar
S139	< 5	511506	5508699	brown	poplar
S140	< 5	511502	5508755	light brown	pine
S141	100	511500	5508807	organics	cedar
S142	28	511504	5508855	organics	cedar
S143	49	511502	5508905	organics	pine
S144	29	511498	5508950	organics	pine
S145	17	511506	5509004	organics	alders
S146	< 5	505306	5509212	brown	poplar
S147	< 5	505369	5509198	light brown	poplar
S148	< 5	505416	5509204	light brown	poplar
S149	10	505468	5509230	brown	poplar
S150	< 5	505487	5509256	light brown	poplar
S151	< 5	505526	5509282	brown	poplar
S152	< 5	505558	5509312	brown	pine
S153	< 5	505602	5509350	light brown	poplar
S154	< 5	505663	5509379	brown	poplar
S155	< 5	505727	5509426	light brown	alders
S156	< 5	505772	5509451	white sand	alders
S157	< 5	505821	5509484	light brown	birch trees
S158	< 5	505880	5509517	brown	birch trees
S159	< 5	505925	5509547	brown	poplar
S160	< 5	505971	5509573	dark brown	pine
S161	64	506035	5509569	organics	birch trees

Label	Au	Easting	Northing	Description	Vegetation
S162	15	506099	5509581	white sand	poplar
S163	< 5	506145	5509545	brown	poplar
S164	< 5	506208	5509511	grey clay	spruce trees
S165	< 5	506209	5509426	brown	poplar
S166	< 5	506247	5509386	light brown	pine
S167	< 5	506260	5509345	brown	pine
S168	< 5	506302	5509329	light brown	poplar
S170	< 5	506374	5509341	light brown	pine
S171	< 5	506396	5509347	white sand	poplar
S172	< 5	506455	5509348	brown	pine
S173	< 5	506487	5509340	light brown	pine
S174	< 5	506520	5509336	light brown	pine
S175	< 5	506532	5509320	light brown	pine
S176	< 5	506535	5509291	white sand	pine
S177	11	506531	5509268	brown	pine
S178	< 5	506524	5509218	grey clay	pine
S180	< 5	506516	5509160	dark brown	alders
S181	< 5	506516	5509117	light brown	birch trees
S182	< 5	506517	5509067	light brown	poplar
S183	< 5	506555	5509039	dark brown	pine
S184	< 5	506588	5509018	light brown	pine
S185	< 5	506578	5508980	light brown	pine
S186	5	506568	5508925	red sand	pine
S187	< 5	506593	5508886	red sand	pine
S188	< 5	506604	5508856	brown	poplar
S189	< 5	506624	5508802	red sand	poplar
S190	14	506644	5508773	brown	pine
S191	< 5	506664	5508734	grey clay	poplar
S192	< 5	506692	5508699	brown	poplar
S193	< 5	506717	5508676	brown	poplar
S194	< 5	506736	5508642	light brown	poplar
S195	< 5	506745	5508613	light brown	poplar
S196	5	506765	5508570	organics	alders
S197	29	506759	5508521	light brown	pine
S198	< 5	506788	5508487	brown	swamp
S199	< 5	506788	5508446	brown	pine
S200	< 5	513000	5509395	organics	pine
S201	< 5	512996	5509445	organics	pine
S202	< 5	512999	5509496	organics	pine
S203	< 5	513003	5509550	organics	pine

Label	Au	Easting	Northing	Description	Vegetation
S204	< 5	513004	5509602	brown	pine
S205	< 5	513001	5509644	brown	pine
S206	< 5	513002	5509700	brown	pine
S207	16	513000	5509746	organics	pine
S208	na	512995	5509815	organics	pine
S209	103	513003	5509854	organics	pine
S210	45	513004	5509907	organics	pine
S211	na	513001	5509962	organics	pine
S212	14	513011	5510013	organics	pine
S213	< 5	513002	5510059	organics	pine
S214	12	513003	5510100	dark brown	pine
S215	< 5	513000	5510150	light brown	pine
S216	12	513009	5510205	organics	pine
S217	12	513009	5510253	organics	pine
S218	10	512996	5510297	organics	pine
S219	21	513007	5510354	organics	pine
S220	5	509941	5509319	brown	poplar
S221	< 5	509941	5509287	light brown	poplar
S222	< 5	509937	5509261	dark brown	poplar
S223	< 5	509943	5509230	light brown	poplar
S224	12	509949	5509187	light brown	poplar
S225	< 5	509951	5509160	light brown	poplar
S226	< 5	509955	5509131	light brown	poplar
S227	< 5	509961	5509097	light brown	alders
S228	< 5	509969	5509072	light brown	poplar
S229	< 5	509975	5509040	light brown	alders
S230	< 5	509973	5509005	light brown	poplar
S231	6	509970	5508966	light brown	cedar
S232	< 5	509968	5508927	light brown	cedar
S233	15	509966	5508886	organics	cedar
S234	< 5	509944	5508851	light brown	alders
S235	< 5	509935	5508815	light brown	poplar
S236	< 5	509927	5508783	light brown	poplar
S237	46	509920	5508745	organics	poplar
S238	< 5	509909	5508707	light brown	poplar
S239	66	509897	5508673	organics	poplar
S240	< 5	509890	5508638	light brown	poplar
S241	< 5	509871	5508592	red sand	poplar
S242	46	509877	5508544	organics	cedar
S243	< 5	509856	5508502	light brown	birch trees

Label	Au	Easting	Northing	Description	Vegetation
S244	56	509840	5508456	organics	birch trees
S245	56	509797	5508434	organics	alders
S246	22	509777	5508387	organics	alders
S247	28	509756	5508342	organics	alders
S248	34	509731	5508299	organics	alders
S249	11	509707	5508247	organics	alders
S250	25	509683	5508199	organics	alders
S251	31	509656	5508152	organics	alders
S252	< 5	509646	5508107	light brown	alders
S253	< 5	509626	5508056	brown	poplar
S254	< 5	509604	5508010	light brown	poplar
S255	< 5	509562	5507982	red sand	poplar
S256	< 5	509535	5507944	red sand	poplar
S257	17	509507	5507902	brown	poplar
S258	< 5	509496	5507855	brown	poplar
S259	< 5	509467	5507813	brown	poplar
S260	24	509460	5507764	organics	alders
S261	20	509432	5507723	organics	alders
S262	na	509406	5507681	no sample	water
S263	10	509369	5507642	organics	swamp
S264	6	509335	5507616	light brown	poplar
S265	12	506840	5508432	brown	spruce trees
S266	< 5	506875	5508406	red sand	balsam
S267	< 5	506904	5508376	light brown	poplar
S268	< 5	506928	5508347	red sand	poplar
S269	< 5	506956	5508323	red sand	balsam
S270	< 5	506986	5508297	brown	balsam
S271	< 5	507011	5508268	brown	poplar
S272	< 5	507028	5508239	light brown	poplar
S273	< 5	507044	5508207	brown	poplar
S274	< 5	507065	5508180	brown	poplar
S275 Na	< 5 Lost at lab or insignificant sample	507091	5508159	brown	poplar

The till Soils were dried (60ºC) and sieving (-177 µm), with the oversized discarded. These were tested 1A2 Au Fire Assay along with Aqua Regia "Partial" Digestion 1E3.

Lake Bottom Sampling

The lake sediments were collected on two lines with one for 3.77 kilometres running generally NNE and another generally north south for 0.65 kilometres for grand total of 4.42 kilometres.

For the lake bottom sampling a 16 foot boat with a 25hp motor and a lake bottom sampler was dropped to the bottom of the lake and retrieved the samples. The lake bottom sampler is a homemade 2 1/2 inch diameter tube, 2 folding flaps on the inside and is 24 inches long with a rope tied to one end. When the unit is dropped to the bottom of the lake. The flaps fold inside the tube as it rushes through the water and into the sediments. The rope is then poled tight and as the rope tightens and the unit is being pulled out of the sediments, the flaps close inside the tube to trap the sediments in the tube. This is repeated 2 -3 times at each sample site to retrieve enough material for the lab. sieving (-177 µm), with

the oversized discarded. These were tested 1A2 Au Fire Assay along with Aqua Regia “Partial” Digestion 1E3. See appendix IV for the Actlab schedule

The reasons for sampling being carried out in multiple areas is as follows:

- Samples 392771-392778 were taken to test weak conductors over what appears to be a folding magnetic unit.
- Samples 392791-392800 were taken roughly every 300m down strike of the Little Long Lac gold bearing drill hole.

See appendix IV for the Actlab schedule.

Table 2 :Lake bed samples sample locations and Au results in ppb

Sample No.	Easting	Northing	Sample Description	Depth	Au ppb
392771	513218.01	5509181.39	black mud fine silt	6 Feet	95
392772	513268.24	5509121.36	black mud fine silt	6 Feet	45
392773	513338.01	5509058.83	Black fine silt sandy mixed with clay	6 Feet	32
392774	513415.99	5508996.32	fine silt Brown grey	9 Feet	58
392775	513451.92	5508921.92	fine silt Brown grey	11 Feet	9
392776	513473.23	5508841.14	fine grained silt grey	6 Feet	45
392777	513492.96	5508762.70	fine grained silt grey	12 Feet	59
392778	513513.40	5508684.70	fine grained silt grey	6 Feet	40
392792	514477.89	5509408.87	sandy black brown	6 Feet	62
392793	514222.77	5509284.56	mix of black sand and humas,	6 Feet	38
392794	514011.41	5509234.42	black sand and silt	4 Feet	31
392795	513824.78	5509231.94	mix black silt and sand and grey clay	5 Feet	59
392796	513617.83	5509200.73	mix black silt and sand and grey clay	5 Feet	18
392797	513419.98	5509160.99	dark brown with fine silt and sand	6 Feet	26
392798	513116.80	5508927.76	dark brown with fine silt and sand	6 Feet	28
392799	512886.57	5508710.30	dark brown with fine silt and sand	7 Feet	19
392800	512648.37	5508506.06	dark brown with fine silt and sand	10 Feet	26
392820	512345.13	5508362.93	fine grained silt grey	7 Feet	22
392821	511931.99	5508312.75	fine grained silt grey	7 Feet	19
392822	511888.02	5508412.05	fine grained silt grey	5 Feet	9
392823	511587.59	5508260.64	grey clay with black matrix throughout	6 Feet	22
392824	511330.75	5508075.43	grey clay with black matrix throughout	6 Feet	29
392791	514644.51	5509558.51			56

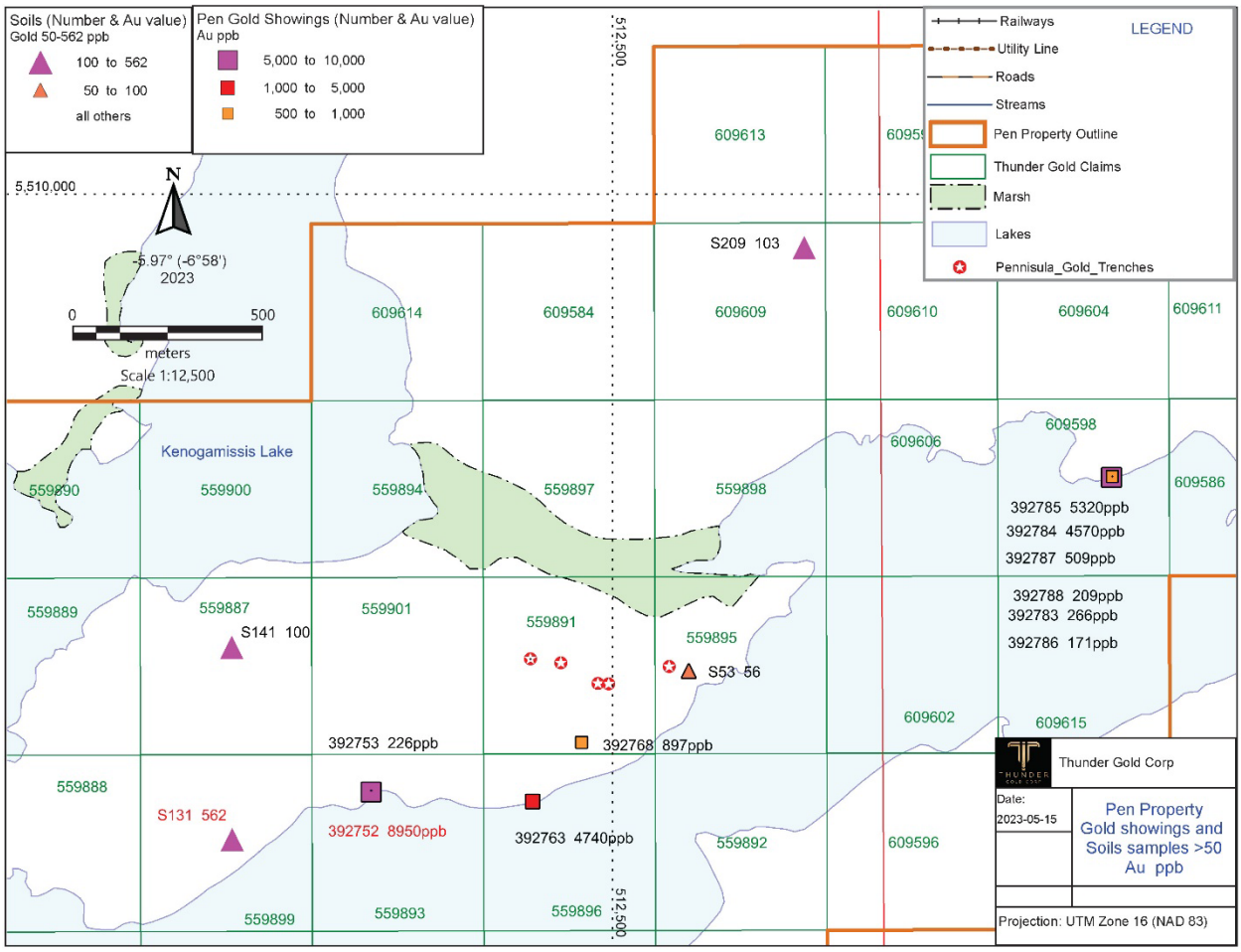


Figure 7: Gold showings rocks and soils. Sample 392752 at 8950 ppb is in the area of 98-P7 historic drilling.

7 RECOMMENDATIONS AND CONCLUSONS

The area as outlined in figure 7 shows that they were anomalous gold in both the soils and rocks, as well as in the area of the 98-P7 drill hole. The correlation of the Anomalous values in the till samples near this drill hole can maybe indicate it comes from a ore deposit and the weathering have increased element abundances above normal crustal levels. Much more work would be required to test this hypothesis.

Below are some recommendations:

1) The magnetic zone at DOH 1998 P-7 location should be detailed with close spaced magnetic traverses, followed by drilling on strike at 15 m intervals east and west of the 1998 drill hole.

2) Other magnetic locations, defined by the 1996 magnetometer survey, should also be further detailed and mechanically stripped and/or backhoe trenched to determine whether a pyrrhotite-arsenopyrite association exists at these locations. Where such locations are found they should be well sampled for assay.

3) The present grid should be extended westward to cover claim 1208515 with 50 m spaced lines over which a magnetometer survey should be conducted. Any magnetic zones that are encountered should be further magnetically detailed and exposed by mechanical stripping and/or trenching.

4) Drilling would follow to test, at depth, those locations where gold enrichment is indicated by the results of the above work, outlined under Nos. 2 and 3.

5) The eastern part of the property which was staked in September 9th, 2022 has little to no work done on it. Airborne geophysics with EM would be a start to located new targets. This should be flown over the complete property to a complete area covered instead of the smaller areas covered but previous and older surveys.

8 Qualifications

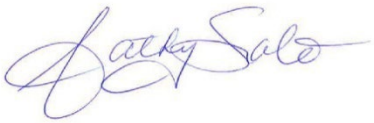
I Cathy Salo, of 475 Francis St. East, Thunder Bay, Ontario, do hereby certify that:

1. I hold a Bachelor of Science Degree in Earth Science (1989) from Memorial University of Newfoundland, St. John's, Newfoundland and Labrador.

2. I have practiced my profession in Ontario since 1989 and have been consulting for junior mining companies in Ontario since 2002 as the sole proprietary of Salo Geoscience Services.

3. I am a professional geologist.

Cathy Salo, P.Geo



Salo Geoscience Services

Date: May 18, 2023

9 References

Barrett, T. J. and Fralick, P. W., 1985: Sediment redeposition in Archean iron formation: examples from the Beardmore-Geraldton Greenstone belt, Ontario; Journal of Sedimentary.

Devaney, J.R. and Fralick, P. W., 1985: Regional sedimentology of the Namewamininkan Group, northern

Ontario: Archean fluvial fans, braided rivers, deltas and an aquabasin; Current Research, Part B, Geological Survey of Canada, Paper 85-1 B, p.125-132.

Houghton, F., 1997: Report on 1997 Prospecting on the Peninsula Exploration Ltd. Peninsula gold property. Unpublished Report in Assessment Files, Ministry of Northern Development and Mines, Thunder Bay, Ontario. Ontario Geological Survey

1998: Airborne Electromagnetic and Total Intensity Magnetic Survey. Tashota-Geraldton-Longlac Area. District of Thunder Bay by Aerodat Limited for the Ontario Geological Survey. Geophysical/Geochemical Series Map. Scale l :20 000. Survey and Compilation, June to December 1998.

Peninsula Gold, 1996: 1996 Geophysics Assessment Files Geochem 1996, Bowdidge, Kenogamissis Lake Property, Ashmore Twp.Pye, E.G.

1950: Geology by H.C. Horwood, 1941, 1946, and E.G. Pye 1950. Map no. 1951-52, Township of Ashmore, District of Thunder Bay, Scale: l inch to 1000 feet.

Tomlinson, K.Y., Hall, R.P., Hughes, K.J. and Thurston, P.C., 1993: Mafic metavolcanic rocks of the Beardmore-Geraldton greenstone belt: Preliminary geochemical findings; in Summary of Fieldwork and Other Activities 1993, Ontario Geological Survey, Miscellaneous Paper 162, p. 54-58.

Tomlinson, K.Y., Hall, R.P., Hughes, K.J. and Thurston, P.C., 1994: Geochemistry of Mafic-Intermediate Volcanic Rocks from the Beardmore-Geraldton Greenstone belt, Northern Ontario. Ontario Geological Survey, Miscellaneous Paper 165, p. 66-73. Barrett, T. J. and Fralick, P. W., 1985: Sediment redeposition in Archean iron formation: examples from the Beardmore-Geraldton Greenstone belt, Ontario; Journal of Sedimentary.

Devaney, J.R. and Fralick, P. W., 1985: Regional sedimentology of the Namewamininkan Group, northern

Ontario: Archean fluvial fans, braided rivers, deltas and an aquabasin; Current Research, Part B, Geological Survey of Canada, Paper 85-1 B, p.125-132.

Houghton, F., 1997: Report on 1997 Prospecting on the Peninsula Exploration Ltd. Peninsula gold property. Unpublished Report in Assessment Files, Ministry of Northern Development and Mines, Thunder Bay, Ontario. Ontario Geological Survey

1998: Airborne Electromagnetic and Total Intensity Magnetic Survey. Tashota-Geraldton-Longlac Area. District of Thunder Bay by Aerodat Limited for the Ontario Geological Survey. Geophysical/Geochemical Series Map. Scale l :20 000. Survey and Compilation, June to December 1998.

Peninsula Gold, 1996: 1996 Geophysics Assessment FilesGeochem 1996, Bowdidge, Kenogamissis Lake Propery, Ashmore Twp.

Pye, E.G., 1950: Geology by H.C. Horwood, 1941, 1946, and E.G. Pye 1950. Map no. 1951-52, Township of Ashmore, District of Thunder Bay, Scale: l inch to 1000 feet.

Tomlinson, K.Y., Hall, R.P., Hughes, K.J. and Thurston, P.C., 1993: Mafic metavolcanic rocks of the Beardmore-Geraldton greenstone belt: Preliminary geochemical findings; in Summary of Fieldwork and Other Activities 1993, Ontario Geological Survey, Miscellaneous Paper 162, p. 54-58.

Tomlinson, K.Y., Hall, R.P., Hughes, K.J. and Thurston, P.C., 1994: Geochemistry of Mafic-Intermediate Volcanic Rocks from the Beardmore-Geraldton Greenstone belt, Northern Ontario. Ontario Geological Survey, Miscellaneous Paper 165, p. 66-73.

APPENDIX I

LIST OF THUNDER GOLD CORP CLAIMS

Tenure No.	Type	Status	Issue Date	Anniversary	Extension	Due date	Owner 100%
609616	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609617	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609618	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609619	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609620	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609621	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609622	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609623	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609624	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609625	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609626	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609629	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609627	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609628	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609630	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609633	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609634	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609584	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609585	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609586	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609587	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609588	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609589	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609590	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609591	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609592	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609593	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609594	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609595	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609596	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609597	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609598	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609599	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609600	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609607	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609601	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609602	SCMC	Active	20200819	20220819	20230819	20230819	TGOL

Tenure No.	Type	Status	Issue Date	Anniversary	Extension	Due date	Owner 100%
609603	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609604	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609605	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609606	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609608	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609609	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609610	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609611	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609612	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609613	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609614	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
609615	SCMC	Active	20200819	20220819	20230819	20230819	TGOL
559888	SCMC	Active	20190930	20220930	20230930	20230930	TGOL
559887	SCMC	Active	20190930	20220930	20230930	20230930	TGOL
559889	SCMC	Active	20190930	20220930	20230930	20230930	TGOL
559890	SCMC	Active	20190930	20220930	20230930	20230930	TGOL
559891	SCMC	Active	20190930	20220930	20230930	20230930	TGOL
559892	SCMC	Active	20190930	20220930	20230930	20230930	TGOL
559893	SCMC	Active	20190930	20220930	20230930	20230930	TGOL
559894	SCMC	Active	20190930	20220930	20230930	20230930	TGOL
559895	SCMC	Active	20190930	20220930	20230930	20230930	TGOL
559896	SCMC	Active	20190930	20220930	20230930	20230930	TGOL
559897	SCMC	Active	20190930	20220930	20230930	20230930	TGOL
559898	SCMC	Active	20190930	20220930	20230930	20230930	TGOL
559899	SCMC	Active	20190930	20220930	20230930	20230930	TGOL
559900	SCMC	Active	20190930	20220930	20230930	20230930	TGOL
559901	SCMC	Active	20190930	20220930	20230930	20230930	TGOL
560156	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560139	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560134	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560135	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560136	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560137	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560138	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560140	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560141	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560147	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560142	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560143	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560144	SCMC	Active	20191001	20221001	20231001	20231001	TGOL

Tenure No.	Type	Status	Issue Date	Anniversary	Extension	Due date	Owner 100%
560145	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560146	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560148	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560149	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560150	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560151	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560152	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560153	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560154	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560155	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560171	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560172	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560173	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560174	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560175	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560178	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560177	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560179	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560186	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560180	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560181	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560182	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560183	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560184	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560185	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560157	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560158	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560159	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560160	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560161	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560162	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560163	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560164	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560165	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560166	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560167	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560168	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560169	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
560170	SCMC	Active	20191001	20221001	20231001	20231001	TGOL
744276	SCMC	Active	20220901	20240901		20240901	TGOL

Tenure No.	Type	Status	Issue Date	Anniversary	Extension	Due date	Owner 100%
744277	SCMC	Active	20220901	20240901		20240901	TGOL
744278	SCMC	Active	20220901	20240901		20240901	TGOL
744279	SCMC	Active	20220901	20240901		20240901	TGOL
744280	SCMC	Active	20220901	20240901		20240901	TGOL
744281	SCMC	Active	20220901	20240901		20240901	TGOL
744282	SCMC	Active	20220901	20240901		20240901	TGOL
744283	SCMC	Active	20220901	20240901		20240901	TGOL
744236	SCMC	Active	20220901	20240901		20240901	TGOL
744237	SCMC	Active	20220901	20240901		20240901	TGOL
744238	SCMC	Active	20220901	20240901		20240901	TGOL
744242	SCMC	Active	20220901	20240901		20240901	TGOL
744239	SCMC	Active	20220901	20240901		20240901	TGOL
744240	SCMC	Active	20220901	20240901		20240901	TGOL
744241	SCMC	Active	20220901	20240901		20240901	TGOL
744243	SCMC	Active	20220901	20240901		20240901	TGOL
744244	SCMC	Active	20220901	20240901		20240901	TGOL
744245	SCMC	Active	20220901	20240901		20240901	TGOL
744284	SCMC	Active	20220901	20240901		20240901	TGOL
744246	SCMC	Active	20220901	20240901		20240901	TGOL
744247	SCMC	Active	20220901	20240901		20240901	TGOL
744248	SCMC	Active	20220901	20240901		20240901	TGOL
744249	SCMC	Active	20220901	20240901		20240901	TGOL
744250	SCMC	Active	20220901	20240901		20240901	TGOL
744251	SCMC	Active	20220901	20240901		20240901	TGOL
744252	SCMC	Active	20220901	20240901		20240901	TGOL
744253	SCMC	Active	20220901	20240901		20240901	TGOL
744254	SCMC	Active	20220901	20240901		20240901	TGOL
744256	SCMC	Active	20220901	20240901		20240901	TGOL
744257	SCMC	Active	20220901	20240901		20240901	TGOL
744258	SCMC	Active	20220901	20240901		20240901	TGOL
744259	SCMC	Active	20220901	20240901		20240901	TGOL
744260	SCMC	Active	20220901	20240901		20240901	TGOL
744261	SCMC	Active	20220901	20240901		20240901	TGOL
744262	SCMC	Active	20220901	20240901		20240901	TGOL
744263	SCMC	Active	20220901	20240901		20240901	TGOL
744264	SCMC	Active	20220901	20240901		20240901	TGOL
744265	SCMC	Active	20220901	20240901		20240901	TGOL
744266	SCMC	Active	20220901	20240901		20240901	TGOL
744267	SCMC	Active	20220901	20240901		20240901	TGOL
744268	SCMC	Active	20220901	20240901		20240901	TGOL

Tenure No.	Type	Status	Issue Date	Anniversary	Extension	Due date	Owner 100%
744269	SCMC	Active	20220901	20240901		20240901	TGOL
744270	SCMC	Active	20220901	20240901		20240901	TGOL
744255	SCMC	Active	20220901	20240901		20240901	TGOL
744272	SCMC	Active	20220901	20240901		20240901	TGOL
744273	SCMC	Active	20220901	20240901		20240901	TGOL
744274	SCMC	Active	20220901	20240901		20240901	TGOL
744275	SCMC	Active	20220901	20240901		20240901	TGOL
744286	SCMC	Active	20220901	20240901		20240901	TGOL
744285	SCMC	Active	20220901	20240901		20240901	TGOL
744287	SCMC	Active	20220901	20240901		20240901	TGOL
744271	SCMC	Active	20220901	20240901		20240901	TGOL
744295	SCMC	Active	20220901	20240901		20240901	TGOL
744296	SCMC	Active	20220901	20240901		20240901	TGOL
744297	SCMC	Active	20220901	20240901		20240901	TGOL
744298	SCMC	Active	20220901	20240901		20240901	TGOL
744299	SCMC	Active	20220901	20240901		20240901	TGOL
744300	SCMC	Active	20220901	20240901		20240901	TGOL
744301	SCMC	Active	20220901	20240901		20240901	TGOL
744288	SCMC	Active	20220901	20240901		20240901	TGOL
744289	SCMC	Active	20220901	20240901		20240901	TGOL
744290	SCMC	Active	20220901	20240901		20240901	TGOL
744291	SCMC	Active	20220901	20240901		20240901	TGOL
744294	SCMC	Active	20220901	20240901		20240901	TGOL
744292	SCMC	Active	20220901	20240901		20240901	TGOL
744293	SCMC	Active	20220901	20240901		20240901	TGOL
744302	SCMC	Active	20220901	20240901		20240901	TGOL
744311	SCMC	Active	20220901	20240901		20240901	TGOL
744312	SCMC	Active	20220901	20240901		20240901	TGOL
744303	SCMC	Active	20220901	20240901		20240901	TGOL
744304	SCMC	Active	20220901	20240901		20240901	TGOL
744305	SCMC	Active	20220901	20240901		20240901	TGOL
744306	SCMC	Active	20220901	20240901		20240901	TGOL
744307	SCMC	Active	20220901	20240901		20240901	TGOL
744308	SCMC	Active	20220901	20240901		20240901	TGOL
744309	SCMC	Active	20220901	20240901		20240901	TGOL
744310	SCMC	Active	20220901	20240901		20240901	TGOL
744220	SCMC	Active	20220901	20240901		20240901	TGOL
744221	SCMC	Active	20220901	20240901		20240901	TGOL
744222	SCMC	Active	20220901	20240901		20240901	TGOL
744223	SCMC	Active	20220901	20240901		20240901	TGOL

Tenure No.	Type	Status	Issue Date	Anniversary	Extension	Due date	Owner 100%
744224	SCMC	Active	20220901	20240901		20240901	TGOL
744225	SCMC	Active	20220901	20240901		20240901	TGOL
744226	SCMC	Active	20220901	20240901		20240901	TGOL
744227	SCMC	Active	20220901	20240901		20240901	TGOL
744228	SCMC	Active	20220901	20240901		20240901	TGOL
744229	SCMC	Active	20220901	20240901		20240901	TGOL
744230	SCMC	Active	20220901	20240901		20240901	TGOL
744231	SCMC	Active	20220901	20240901		20240901	TGOL
744232	SCMC	Active	20220901	20240901		20240901	TGOL
744233	SCMC	Active	20220901	20240901		20240901	TGOL
744234	SCMC	Active	20220901	20240901		20240901	TGOL
744235	SCMC	Active	20220901	20240901		20240901	TGOL
744207	SCMC	Active	20220901	20240901		20240901	TGOL
744208	SCMC	Active	20220901	20240901		20240901	TGOL
744209	SCMC	Active	20220901	20240901		20240901	TGOL
744210	SCMC	Active	20220901	20240901		20240901	TGOL
744211	SCMC	Active	20220901	20240901		20240901	TGOL
744212	SCMC	Active	20220901	20240901		20240901	TGOL
744213	SCMC	Active	20220901	20240901		20240901	TGOL
744214	SCMC	Active	20220901	20240901		20240901	TGOL
744219	SCMC	Active	20220901	20240901		20240901	TGOL
744215	SCMC	Active	20220901	20240901		20240901	TGOL
744216	SCMC	Active	20220901	20240901		20240901	TGOL
744217	SCMC	Active	20220901	20240901		20240901	TGOL
744218	SCMC	Active	20220901	20240901		20240901	TGOL
749120	SCMC	Active	20220921	20240921		20240921	TGOL
749121	SCMC	Active	20220921	20240921		20240921	TGOL
749122	SCMC	Active	20220921	20240921		20240921	TGOL
750114	SCMC	Active	20220926	20240926		20240926	TGOL

TGOL – Thunder Gold Corp

APPENDIX II

LIST OF CONTRACTORS

Name	address	
Wes Hanson		Geology
Cliff Hickman		Prospecting, rock sampling & lake bottom soils
Michael Stares		Prospecting and rock sampling
Salo Geoscience Services		Maps and report
Matti Tiitto		Till sampling
Marcu Brisard		Till sampling
Crown and Anchor - Geraldton (Mick/Cliff)	1801 Main, Geraldton, Ontario P0T 1M0 Canada	Accommodations
ActLab	1201 Walsh St W, Thunder Bay, ON P7E 4X6	Assays

APPENDIX II

LIST OF CONTRACTORS

Name	address	
Wes Hanson		Geology
Cliff Hickman		Prospecting, rock sampling, till sampling & lake bed soils
Michael Stares		Prospecting and rock sampling
Salo Geoscience Services		Maps and report
Matti Tiitto		Lake bed sampling
Marcu Brisard		Lake bed sampling
Crown and Anchor - Geraldton (Mick/Cliff)	1801 Main, Geraldton, Ontario P0T 1M0 Canada	Accommodations
ActLab	1201 Walsh St W, Thunder Bay, ON P7E 4X6	Assays

APPENDIX III

Till Soils 2022

Nad 83, UTM Zone 16

Label	Au	Easting	Northing	Description	Vegetation
S2	< 5	511300	5508900	dark brown	spruce trees
S3	< 5	511300	5508850	brown	birch trees
S9	< 5	511300	5508550	light brown	poplar
S18	< 5	511302	5508106	brown	cedar
S21	< 5	512103	5508485	light brown	poplar
S22	< 5	512100	5508550	light brown	poplar
S26	< 5	512100	5508750	organics	cedar
S28	< 5	512100	5508850	grey clay	cedar
S29	< 5	512100	5508900	organics	cedar
S30	< 5	512100	5508950	organics	pine
S31	< 5	512100	5509000	organics	pine
S33	< 5	512300	5508500	dark brown	poplar
S34	< 5	512300	5508550	brown	poplar
S35	< 5	512300	5508600	light brown	poplar
S36	< 5	512300	5508650	clay brown	outcrop
S37	< 5	512300	5508700	grey clay	pine
S38	< 5	512300	5508750	dark brown	pine
S39	< 5	512300	5508800	organics	cedar
S40	< 5	512300	5508850	organics	pine
S41	< 5	512300	5508900	organics	cedar
S42	< 5	512300	5508950	grey clay	pine
S45	< 5	512500	5508800	sand grey	
S46	< 5	512500	5508750	brown	pine
S48	< 5	512500	5508650	light brown	poplar
S49	< 5	512500	5508600	light brown	cedar
S51	< 5	512500	5508500	brown	cedar
S57	< 5	505700	5510750	light brown	alders
S58	< 5	505700	5510700	light brown	pine
S60	< 5	505700	5510600	organics	pine
S61	< 5	505700	5510550	grey clay	pine
S62	< 5	505700	5510500	grey clay	pine
S63	< 5	505700	5510450	light brown	pine
S64	< 5	505700	5510400	light brown	pine
S65	< 5	505700	5510350	brown	pine
S74	< 5	505705	5509911	grey clay	poplar
S77	< 5	505700	5509757	clay brown	pine
S78	< 5	505698	5509705	light brown	pine
S79	< 5	505699	5509656	clay brown	birch trees
S80	< 5	505703	5509606	grey clay	poplar
S81	< 5	505698	5509546	brown	outcrop
S82	< 5	505698	5509499	brown	outcrop
S83	< 5	505695	5509450	grey clay	poplar
S84	< 5	511098	5508805	brown	outcrop
S85	< 5	511106	5508752	light brown	pine
S86	< 5	511104	5508706	light brown	pine
S87	< 5	511098	5508653	light brown	outcrop

Till Soils 2022

Nad 83, UTM Zone 16

Label	Au	Easting	Northing	Description	Vegetation
S88	< 5	511099	5508607	light brown	cedar
S95	< 5	511093	5508254	light brown	poplar
S96	< 5	511107	5508205	light brown	poplar
S97	< 5	511102	5508179	white sand	cedar
S101	< 5	510903	5508344	grey clay	birch trees
S105	< 5	511901	5508501	light brown	poplar
S106	< 5	511904	5508554	light brown	pine
S108	< 5	511900	5508647	light brown	pine
S110	< 5	511906	5508747	brown	pine
S122	< 5	511700	5508757	light brown	poplar
S123	< 5	511697	5508704	clay brown	birch trees
S124	< 5	511697	5508652	light brown	poplar
S125	< 5	511703	5508606	grey clay	cedar
S127	< 5	511698	5508507	light brown	poplar
S128	< 5	511699	5508451	light brown	cedar
S129	< 5	511701	5508409	light brown	cedar
S134	< 5	511503	5508444	light brown	poplar
S135	< 5	511507	5508498	white sand	balsam
S136	< 5	511506	5508546	light brown	pine
S137	< 5	511502	5508602	light brown	poplar
S138	< 5	511498	5508650	light brown	poplar
S139	< 5	511506	5508699	brown	poplar
S140	< 5	511502	5508755	light brown	pine
S146	< 5	505306	5509212	brown	poplar
S147	< 5	505369	5509198	light brown	poplar
S148	< 5	505416	5509204	light brown	poplar
S150	< 5	505487	5509256	light brown	poplar
S151	< 5	505526	5509282	brown	poplar
S152	< 5	505558	5509312	brown	pine
S153	< 5	505602	5509350	light brown	poplar
S154	< 5	505663	5509379	brown	poplar
S155	< 5	505727	5509426	light brown	alders
S156	< 5	505772	5509451	white sand	alders
S157	< 5	505821	5509484	light brown	birch trees
S158	< 5	505880	5509517	brown	birch trees
S159	< 5	505925	5509547	brown	poplar
S160	< 5	505971	5509573	dark brown	pine
S163	< 5	506145	5509545	brown	poplar
S164	< 5	506208	5509511	grey clay	spruce trees
S165	< 5	506209	5509426	brown	poplar
S166	< 5	506247	5509386	light brown	pine
S167	< 5	506260	5509345	brown	pine
S168	< 5	506302	5509329	light brown	poplar
S170	< 5	506374	5509341	light brown	pine
S171	< 5	506396	5509347	white sand	poplar
S172	< 5	506455	5509348	brown	pine

Till Soils 2022

Nad 83, UTM Zone 16

Label	Au	Easting	Northing	Description	Vegetation
S173	< 5	506487	5509340	light brown	pine
S174	< 5	506520	5509336	light brown	pine
S175	< 5	506532	5509320	light brown	pine
S176	< 5	506535	5509291	white sand	pine
S178	< 5	506524	5509218	grey clay	pine
S180	< 5	506516	5509160	dark brown	alders
S181	< 5	506516	5509117	light brown	birch trees
S182	< 5	506517	5509067	light brown	poplar
S183	< 5	506555	5509039	dark brown	pine
S184	< 5	506588	5509018	light brown	pine
S185	< 5	506578	5508980	light brown	pine
S187	< 5	506593	5508886	red sand	pine
S188	< 5	506604	5508856	brown	poplar
S189	< 5	506624	5508802	red sand	poplar
S191	< 5	506664	5508734	grey clay	poplar
S192	< 5	506692	5508699	brown	poplar
S193	< 5	506717	5508676	brown	poplar
S194	< 5	506736	5508642	light brown	poplar
S195	< 5	506745	5508613	light brown	poplar
S198	< 5	506788	5508487	brown	swamp
S199	< 5	506788	5508446	brown	pine
S200	< 5	513000	5509395	organics	pine
S201	< 5	512996	5509445	organics	pine
S202	< 5	512999	5509496	organics	pine
S203	< 5	513003	5509550	organics	pine
S204	< 5	513004	5509602	brown	pine
S205	< 5	513001	5509644	brown	pine
S206	< 5	513002	5509700	brown	pine
S213	< 5	513002	5510059	organics	pine
S215	< 5	513000	5510150	light brown	pine
S221	< 5	509941	5509287	light brown	poplar
S222	< 5	509937	5509261	dark brown	poplar
S223	< 5	509943	5509230	light brown	poplar
S225	< 5	509951	5509160	light brown	poplar
S226	< 5	509955	5509131	light brown	poplar
S227	< 5	509961	5509097	light brown	alders
S228	< 5	509969	5509072	light brown	poplar
S229	< 5	509975	5509040	light brown	alders
S230	< 5	509973	5509005	light brown	poplar
S232	< 5	509968	5508927	light brown	cedar
S234	< 5	509944	5508851	light brown	alders
S235	< 5	509935	5508815	light brown	poplar
S236	< 5	509927	5508783	light brown	poplar
S238	< 5	509909	5508707	light brown	poplar
S240	< 5	509890	5508638	light brown	poplar
S241	< 5	509871	5508592	red sand	poplar

Till Soils 2022

Nad 83, UTM Zone 16

Label	Au	Easting	Northing	Description	Vegetation
S243	< 5	509856	5508502	light brown	birch trees
S252	< 5	509646	5508107	light brown	alders
S253	< 5	509626	5508056	brown	poplar
S254	< 5	509604	5508010	light brown	poplar
S255	< 5	509562	5507982	red sand	poplar
S256	< 5	509535	5507944	red sand	poplar
S258	< 5	509496	5507855	brown	poplar
S259	< 5	509467	5507813	brown	poplar
S266	< 5	506875	5508406	red sand	balsam
S267	< 5	506904	5508376	light brown	poplar
S268	< 5	506928	5508347	red sand	poplar
S269	< 5	506956	5508323	red sand	balsam
S270	< 5	506986	5508297	brown	balsam
S271	< 5	507011	5508268	brown	poplar
S272	< 5	507028	5508239	light brown	poplar
S273	< 5	507044	5508207	brown	poplar
S274	< 5	507065	5508180	brown	poplar
S275	< 5	507091	5508159	brown	poplar
S131	562	511502	5508303	organics	poplar
S209	103	513003	5509854	organics	pine
S141	100	511500	5508807	organics	cedar
S239	66	509897	5508673	organics	poplar
S161	64	506035	5509569	organics	birch trees
S53	56	512700	5508750	organics	cedar
S244	56	509840	5508456	organics	birch trees
S245	56	509797	5508434	organics	alders
S143	49	511502	5508905	organics	pine
S20	47	512100	5508450	light brown	
S237	46	509920	5508745	organics	poplar
S242	46	509877	5508544	organics	cedar
S210	45	513004	5509907	organics	pine
S25	43	512100	5508700	organics	cedar
S248	34	509731	5508299	organics	alders
S251	31	509656	5508152	organics	alders
S144	29	511498	5508950	organics	pine
S197	29	506759	5508521	light brown	pine
S32	28	512300	5508450	brown	cedar
S142	28	511504	5508855	organics	cedar
S247	28	509756	5508342	organics	alders
S133	25	511500	5508394	organics	poplar
S250	25	509683	5508199	organics	alders
S260	24	509460	5507764	organics	alders
S246	22	509777	5508387	organics	alders
S126	21	511701	5508556	brown	poplar
S219	21	513007	5510354	organics	pine
S261	20	509432	5507723	organics	alders

Till Soils 2022

Nad 83, UTM Zone 16

Label	Au	Easting	Northing	Description	Vegetation
S145	17	511506	5509004	organics	alders
S257	17	509507	5507902	brown	poplar
S50	16	512500	5508550	grey clay	poplar
S207	16	513000	5509746	organics	pine
S162	15	506099	5509581	white sand	poplar
S233	15	509966	5508886	organics	cedar
S24	14	512100	5508650	dark brown	cedar
S104	14	510900	5508495	light brown	ash
S190	14	506644	5508773	brown	pine
S212	14	513011	5510013	organics	pine
S214	12	513003	5510100	dark brown	pine
S216	12	513009	5510205	organics	pine
S217	12	513009	5510253	organics	pine
S224	12	509949	5509187	light brown	poplar
S265	12	506840	5508432	brown	spruce trees
S177	11	506531	5509268	brown	pine
S249	11	509707	5508247	organics	alders
S11	10	511300	5508450	brown	poplar
S99	10	510904	5508242	brown	outcrop
S149	10	505468	5509230	brown	poplar
S218	10	512996	5510297	organics	pine
S263	10	509369	5507642	organics	swamp
S1	8	511300	5508950	brown	cedar
S17	8	511300	5508150	light brown	alders
S47	8	512500	5508700	red sand	outcrop
S6	7	511300	5508700	light brown	poplar spruce
S7	7	511300	5508650	light brown	blown down poplar
S69	7	505693	5510154	brown	pine
S4	6	511300	5508800	light brown	swampy pine
S5	6	511300	5508750	light brown	poplar spruce
S8	6	511300	5508600	light brown	blown down poplar
S10	6	511300	5508500	light brown	poplar
S12	6	511300	5508400	brown	poplar
S13	6	511300	5508350	light brown	poplar
S14	6	511300	5508300	light brown	poplar
S16	6	511300	5508200	light brown	poplar
S19	6	512116	5508414	light brown	shoreline
S23	6	512100	5508600	organics	swamp
S52	6	512700	5508700	organics	alders
S66	6	505700	5510300	dark brown	pine
S75	6	505699	5509859	brown	poplar
S103	6	510900	5508454	light brown	pine
S130	6	511503	5508252	brown	poplar
S231	6	509970	5508966	light brown	cedar
S264	6	509335	5507616	light brown	poplar
S15	5	511300	5508250	light brown	poplar

Till Soils 2022

Nad 83, UTM Zone 16

Label	Au	Easting	Northing	Description	Vegetation
S59	5	505700	5510650	light brown	pine
S67	5	505695	5510253	brown	pine
S73	5	505697	5509957	clay brown	pine
S100	5	510896	5508296	white sand	cedar
S186	5	506568	5508925	red sand	pine
S196	5	506765	5508570	organics	alders
S220	5	509941	5509319	brown	poplar
S43		512300	5509000	organics	cedar
S54		512700	5508800	organics	cedar
S55		512700	5508850	organics	pine
S68		505697	5510202	brown	pine
S70		505702	5510105	organics	pine
S71		505704	5510056	organics	pine
S72		505698	5510003	organics	pine
S76		505704	5509804	organics	birch trees
S89		511104	5508556	organics	pine
S90		511096	5508508	organics	cedar
S91		511105	5508458	organics	cedar
S92		511102	5508403	organics	cedar
S93		511102	5508357	organics	cedar
S94		511101	5508309	organics	cedar
S102		510911	5508413	organics	cedar
S107		511901	5508598	organics	pine
S109		511898	5508698	brown	pine
S111		511893	5508798	organics	cedar
S112		511900	5508843	organics	cedar
S113		511892	5508905	organics	pine
S114		511909	5508954	organics	pine
S115		511906	5508997	organics	pine
S116		511905	5509026	organics	pine
S117		511693	5509000	organics	pine
S118		511708	5508945	organics	pine
S119		511706	5508903	organics	pine
S120		511701	5508854	organics	pine
S121		511696	5508810	organics	pine
S132		511499	5508347	organics	poplar
S208		512995	5509815	organics	pine
S211		513001	5509962	organics	pine
S262		509406	5507681	no sample	water

APPENDIX 4

Quality Analysis ... *Innovative Technologies*

Report No.: **A22-10811**
Report Date: **26-Oct-22**
Date Submitted: **02-Aug-22**
Your Reference: **Pen Property**

Thunder Gold Corp.
684 Squier Street
Thunder Bay Ontario
Canada

ATTN: Wes Hanson

CERTIFICATE OF ANALYSIS

275 Soil samples were submitted for analysis.

The following analytical package(s) were requested:		Testing Date:
1A2-Tbay	QOP AA-Au (Au - Fire Assay AA)	2022-09-17 08:13:41
1E3-Tbay	QOP AquaGeo (Aqua Regia ICPOES)	2022-10-20 18:13:47

REPORT **A22-10811**

Notes:

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

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

Footnote: no material for sample S68 and S262. Samples with no result was Insufficient for further analysis.

Footnote: Sample S207, S208, S209, S210, S211, S212, S216, S217, S218 and S219 are insufficient for 1E3 analysis.

SCC Accredited LAB LAB Accrédité CCN TM

LabID: 673

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

CERTIFIED BY:

Mark Vandergeest
Quality Control Coordinator

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
S1	8																						
S2	< 5																						
S3	< 5																						
S4	6																						
S5	6																						
S6	7																						
S7	7																						
S8	6																						
S9	< 5																						
S10	6																						
S11	10																						
S12	6																						
S13	6																						
S14	6																						
S15	5																						
S16	6																						
S17	8																						
S18	< 5																						
S19	6																						
S20	47																						
S21	< 5																						
S22	< 5																						
S23	6																						
S24	14																						
S25	43																						
S26	< 5																						
S27	< 5																						
S28	< 5																						
S29	< 5																						
S30	< 5																						
S31	< 5																						
S32	28																						
S33	< 5																						
S34	< 5																						
S35	< 5																						
S36	< 5																						
S37	< 5																						
S38	< 5																						
S39	< 5																						
S40	< 5																						
S41	< 5																						
S42	< 5																						
S43																							
S44	< 5																						
S45	< 5																						
S46	< 5																						
S47	8																						
S48	< 5																						
S49	< 5																						
S50	16																						
S51	< 5																						

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
S52	6																						
S53	56																						
S54																							
S55																							
S56	< 5																						
S57	< 5																						
S58	< 5																						
S59	5																						
S60	< 5																						
S61	< 5																						
S62	< 5																						
S63	< 5																						
S64	< 5																						
S65	< 5																						
S66	6																						
S67	5																						
S68																							
S69	7																						
S70																							
S71																							
S72																							
S73	5																						
S74	< 5																						
S75	6																						
S76																							
S77	< 5																						
S78	< 5																						
S79	< 5																						
S80	< 5																						
S81	< 5																						
S82	< 5																						
S83	< 5																						
S84	< 5																						
S85	< 5																						
S86	< 5																						
S87	< 5																						
S88	< 5																						
S89																							
S90																							
S91																							
S92																							
S93																							
S94																							
S95	< 5																						
S96	< 5																						
S97	< 5																						
S98	7																						
S99	10																						
S100	5																						
S101	< 5																						
S102																							

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
S103	6																						
S104	14																						
S105	< 5																						
S106	< 5																						
S107																							
S108	< 5																						
S109																							
S110	< 5																						
S111																							
S112																							
S113																							
S114																							
S115																							
S116																							
S117																							
S118																							
S119																							
S120																							
S121																							
S122	< 5																						
S123	< 5																						
S124	< 5																						
S125	< 5																						
S126	21																						
S127	< 5																						
S128	< 5																						
S129	< 5																						
S130	6																						
S131	562																						
S132																							
S133	25																						
S134	< 5																						
S135	< 5																						
S136	< 5																						
S137	< 5																						
S138	< 5																						
S139	< 5																						
S140	< 5																						
S141	100																						
S142	28																						
S143	49																						
S144	29																						
S145	17																						
S146	< 5																						
S147	< 5																						
S148	< 5																						
S149	10																						
S150	< 5																						
S151	< 5																						
S152	< 5																						
S153	< 5																						

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
S154	< 5																						
S155	< 5																						
S156	< 5																						
S157	< 5																						
S158	< 5																						
S159	< 5																						
S160	< 5																						
S161	64																						
S162	15																						
S163	< 5																						
S164	< 5																						
S165	< 5																						
S166	< 5																						
S167	< 5																						
S168	< 5																						
S169	6																						
S170	< 5																						
S171	< 5																						
S172	< 5																						
S173	< 5																						
S174	< 5																						
S175	< 5																						
S176	< 5																						
S177	11																						
S178	< 5																						
S179	< 5																						
S180	< 5																						
S181	< 5																						
S182	< 5																						
S183	< 5																						
S184	< 5																						
S185	< 5																						
S186	5																						
S187	< 5																						
S188	< 5																						
S189	< 5																						
S190	14																						
S191	< 5																						
S192	< 5																						
S193	< 5																						
S194	< 5																						
S195	< 5																						
S196	5																						
S197	29																						
S198	< 5																						
S199	< 5																						
S200	< 5	< 0.2	< 0.5	10	47	< 1	4	< 2	16	0.15	3	33	27	< 0.5	< 2	3.08	< 1	1	0.14	< 10	< 1	< 0.01	< 10
S201	< 5	< 0.2	< 0.5	10	165	< 1	9	4	14	0.67	11	33	24	< 0.5	< 2	4.25	4	20	1.13	< 10	< 1	0.05	16
S202	< 5	< 0.2	< 0.5	32	158	< 1	9	3	17	0.77	2	34	28	< 0.5	< 2	2.64	4	21	1.20	< 10	< 1	0.05	17
S203	< 5	< 0.2	< 0.5	7	74	< 1	< 1	6	15	1.01	3	23	19	< 0.5	< 2	0.16	2	18	1.79	< 10	< 1	0.02	< 10
S204	< 5	< 0.2	< 0.5	22	155	< 1	9	7	43	1.41	9	29	27	< 0.5	< 2	0.41	10	23	1.99	< 10	< 1	0.03	14

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
S205	< 5	< 0.2	< 0.5	25	647	< 1	32	10	84	2.93	11	25	68	0.6	< 2	0.72	29	40	4.56	10	< 1	0.04	12
S206	< 5	< 0.2	< 0.5	9	200	< 1	10	4	15	0.69	2	37	25	< 0.5	< 2	4.82	4	19	1.13	< 10	< 1	0.06	16
S207	16																						
S208																							
S209	103																						
S210	45																						
S211																							
S212	14																						
S213	< 5	< 0.2	< 0.5	15	165	< 1	9	4	15	0.74	< 2	36	25	< 0.5	< 2	2.92	4	20	1.22	< 10	< 1	0.06	18
S214	12	< 0.2	< 0.5	9	210	< 1	11	4	18	0.88	< 2	34	32	< 0.5	< 2	3.08	5	23	1.34	< 10	< 1	0.06	19
S215	< 5	< 0.2	< 0.5	5	179	< 1	9	4	19	0.94	< 2	34	31	< 0.5	< 2	0.76	5	24	1.39	< 10	< 1	0.06	19
S216	12																						
S217	12																						
S218	10																						
S219	21																						
S220	5																						
S221	< 5																						
S222	< 5																						
S223	< 5																						
S224	12																						
S225	< 5																						
S226	< 5																						
S227	< 5																						
S228	< 5																						
S229	< 5																						
S230	< 5																						
S231	6																						
S232	< 5																						
S233	15																						
S234	< 5																						
S235	< 5																						
S236	< 5																						
S237	46																						
S238	< 5																						
S239	66																						
S240	< 5																						
S241	< 5																						
S242	46																						
S243	< 5																						
S244	56																						
S245	56																						
S246	22																						
S247	28																						
S248	34																						
S249	11																						
S250	25																						
S251	31																						
S252	< 5																						
S253	< 5																						
S254	< 5																						
S255	< 5																						

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
S256	< 5																						
S257	17																						
S258	< 5																						
S259	< 5																						
S260	24																						
S261	20																						
S262																							
S263	10																						
S264	6																						
S265	12																						
S266	< 5																						
S267	< 5																						
S268	< 5																						
S269	< 5																						
S270	< 5																						
S271	< 5																						
S272	< 5																						
S273	< 5																						
S274	< 5																						
S275	< 5																						

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
S1																
S2																
S3																
S4																
S5																
S6																
S7																
S8																
S9																
S10																
S11																
S12																
S13																
S14																
S15																
S16																
S17																
S18																
S19																
S20																
S21																
S22																
S23																
S24																
S25																
S26																
S27																
S28																
S29																
S30																
S31																
S32																
S33																
S34																
S35																
S36																
S37																
S38																
S39																
S40																
S41																
S42																
S43																
S44																
S45																
S46																
S47																
S48																
S49																
S50																
S51																

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
S52																
S53																
S54																
S55																
S56																
S57																
S58																
S59																
S60																
S61																
S62																
S63																
S64																
S65																
S66																
S67																
S68																
S69																
S70																
S71																
S72																
S73																
S74																
S75																
S76																
S77																
S78																
S79																
S80																
S81																
S82																
S83																
S84																
S85																
S86																
S87																
S88																
S89																
S90																
S91																
S92																
S93																
S94																
S95																
S96																
S97																
S98																
S99																
S100																
S101																
S102																

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
S103																
S104																
S105																
S106																
S107																
S108																
S109																
S110																
S111																
S112																
S113																
S114																
S115																
S116																
S117																
S118																
S119																
S120																
S121																
S122																
S123																
S124																
S125																
S126																
S127																
S128																
S129																
S130																
S131																
S132																
S133																
S134																
S135																
S136																
S137																
S138																
S139																
S140																
S141																
S142																
S143																
S144																
S145																
S146																
S147																
S148																
S149																
S150																
S151																
S152																
S153																

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
S154																
S155																
S156																
S157																
S158																
S159																
S160																
S161																
S162																
S163																
S164																
S165																
S166																
S167																
S168																
S169																
S170																
S171																
S172																
S173																
S174																
S175																
S176																
S177																
S178																
S179																
S180																
S181																
S182																
S183																
S184																
S185																
S186																
S187																
S188																
S189																
S190																
S191																
S192																
S193																
S194																
S195																
S196																
S197																
S198																
S199																
S200	0.13	0.015	0.029	0.15	< 2	< 1	32	< 0.01	< 20	3	< 2	< 10	2	< 10	< 1	< 1
S201	1.62	0.017	0.046	< 0.01	< 2	2	35	0.08	< 20	< 1	< 2	< 10	22	< 10	6	3
S202	1.23	0.015	0.041	0.01	< 2	3	24	0.08	< 20	< 1	< 2	< 10	23	< 10	7	3
S203	0.15	0.008	0.010	0.01	< 2	2	12	0.28	< 20	3	< 2	< 10	68	< 10	2	3
S204	0.28	0.011	0.015	0.01	< 2	3	14	0.12	< 20	< 1	< 2	< 10	52	< 10	4	2

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
S205	0.68	0.011	0.028	0.03	2	4	14	0.17	< 20	< 1	< 2	< 10	111	< 10	4	3
S206	2.15	0.018	0.050	0.01	< 2	3	36	0.08	< 20	< 1	< 2	< 10	21	< 10	6	3
S207																
S208																
S209																
S210																
S211																
S212																
S213	1.42	0.016	0.045	< 0.01	< 2	3	26	0.09	< 20	< 1	< 2	< 10	24	< 10	6	3
S214	1.27	0.016	0.046	0.01	< 2	3	28	0.08	< 20	< 1	< 2	< 10	26	< 10	7	2
S215	0.43	0.016	0.041	< 0.01	< 2	3	18	0.10	< 20	< 1	< 2	< 10	28	< 10	6	2
S216																
S217																
S218																
S219																
S220																
S221																
S222																
S223																
S224																
S225																
S226																
S227																
S228																
S229																
S230																
S231																
S232																
S233																
S234																
S235																
S236																
S237																
S238																
S239																
S240																
S241																
S242																
S243																
S244																
S245																
S246																
S247																
S248																
S249																
S250																
S251																
S252																
S253																
S254																
S255																

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
S256																
S257																
S258																
S259																
S260																
S261																
S262																
S263																
S264																
S265																
S266																
S267																
S268																
S269																
S270																
S271																
S272																
S273																
S274																
S275																

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-6 Meas		0.2	< 0.5	69	1050	< 1	21	99	124	6.51	235	32	719	1.0	< 2	0.12	14	78	5.60	20	2	0.98	< 10
GXR-6 Cert		1.30	1.00	66.0	1010	2.40	27.0	101	118	17.7	330	9.80	1300	1.40	0.290	0.180	13.8	96.0	5.58	35.0	0.0680	1.87	13.9
GXR-6 Meas		0.3	< 0.5	69	1050	< 1	22	100	124	6.56	238	28	718	1.0	< 2	0.11	14	77	5.54	20	2	0.96	< 10
GXR-6 Cert		1.30	1.00	66.0	1010	2.40	27.0	101	118	17.7	330	9.80	1300	1.40	0.290	0.180	13.8	96.0	5.58	35.0	0.0680	1.87	13.9
GXR-6 Meas		0.3	< 0.5	70	1060	< 1	21	102	126	6.56	233	29	720	1.0	< 2	0.12	14	78	5.53	20	2	0.96	< 10
GXR-6 Cert		1.30	1.00	66.0	1010	2.40	27.0	101	118	17.7	330	9.80	1300	1.40	0.290	0.180	13.8	96.0	5.58	35.0	0.0680	1.87	13.9
OREAS 98 (Aqua Regia) Meas		40.4		> 10000				268	1140						24		96						
OREAS 98 (Aqua Regia) Cert		42.8		147000				343	1300						93		110						
OREAS 98 (Aqua Regia) Meas		42.1		> 10000				275	1180						30		98						
OREAS 98 (Aqua Regia) Cert		42.8		147000				343	1300						93		110						
OREAS 98 (Aqua Regia) Meas		42.3		> 10000				276	1170						33		99						
OREAS 98 (Aqua Regia) Cert		42.8		147000				343	1300						93		110						
OREAS 922 (AQUA REGIA) Meas		0.7	< 0.5	2210	764	< 1	34	61	254	2.67	5		74	0.8	6	0.36	20	44	5.08	< 10		0.40	34
OREAS 922 (AQUA REGIA) Cert		0.851	0.28	2176	730	0.69	34.3	60	256	2.72	6.12		70	0.65	10.3	0.324	19.4	40.7	5.05	7.62		0.376	32.5
OREAS 922 (AQUA REGIA) Meas		0.7	< 0.5	2270	774	< 1	33	62	264	2.74	5		73	0.8	7	0.36	20	44	5.23	< 10		0.39	34
OREAS 922 (AQUA REGIA) Cert		0.851	0.28	2176	730	0.69	34.3	60	256	2.72	6.12		70	0.65	10.3	0.324	19.4	40.7	5.05	7.62		0.376	32.5
OREAS 922 (AQUA REGIA) Meas		0.7	< 0.5	2230	771	< 1	35	61	266	2.71	5		71	0.8	9	0.36	20	44	5.20	< 10		0.39	34
OREAS 922 (AQUA REGIA) Cert		0.851	0.28	2176	730	0.69	34.3	60	256	2.72	6.12		70	0.65	10.3	0.324	19.4	40.7	5.05	7.62		0.376	32.5
OREAS 923 (AQUA REGIA) Meas		1.3	< 0.5	4310	867	< 1	32	86	331	2.69	5		59	0.7	13	0.36	23	40	5.77	< 10		0.33	31
OREAS 923 (AQUA REGIA) Cert		1.62	0.40	4248	850	0.84	32.7	81	335	2.80	7.07		54	0.61	21.8	0.326	22.2	39.4	5.91	8.01		0.322	30.0
OREAS 923 (AQUA REGIA) Meas		1.4	< 0.5	4390	872	< 1	31	87	343	2.73	8		59	0.7	15	0.36	23	40	5.90	< 10		0.33	31
OREAS 923 (AQUA REGIA) Cert		1.62	0.40	4248	850	0.84	32.7	81	335	2.80	7.07		54	0.61	21.8	0.326	22.2	39.4	5.91	8.01		0.322	30.0
OREAS 923 (AQUA REGIA) Meas		1.7	< 0.5	4500	889	< 1	31	91	340	2.76	7		53	0.7	13	0.37	23	41	5.96	< 10		0.33	32
OREAS 923 (AQUA REGIA) Cert		1.62	0.40	4248	850	0.84	32.7	81	335	2.80	7.07		54	0.61	21.8	0.326	22.2	39.4	5.91	8.01		0.322	30.0
Oreas 96 (Aqua Regia) Meas		10.9		> 10000				90	407						15		45						
Oreas 96 (Aqua Regia) Cert		11.50		39100.00				100	448						27.9		49.2						
Oreas 96 (Aqua		11.2		> 10000				90	411						19		45						

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
Regia) Meas																							
Oreas 96 (Aqua Regia) Cert		11.50		39100.00				100	448						27.9		49.2						
Oreas 96 (Aqua Regia) Meas		11.5		> 10000				92	425						< 2		47						
Oreas 96 (Aqua Regia) Cert		11.50		39100.00				100	448						27.9		49.2						
OREAS 45f (Aqua Regia) Meas				343	163	< 1	223	8	25	6.29			135	1.1	< 2	0.06	39	334	13.2	20	1	0.08	< 10
OREAS 45f (Aqua Regia) Cert				336	150	1.19	192	12.4	22.2	4.81			158	0.980	0.170	0.0750	39.2	341	13.7	20.3	0.0310	0.0820	10.7
OREAS 45f (Aqua Regia) Meas				345	160	< 1	222	9	25	6.21			135	1.1	< 2	0.06	38	332	13.3	20	4	0.08	< 10
OREAS 45f (Aqua Regia) Cert				336	150	1.19	192	12.4	22.2	4.81			158	0.980	0.170	0.0750	39.2	341	13.7	20.3	0.0310	0.0820	10.7
OREAS 45f (Aqua Regia) Meas				344	165	< 1	226	9	25	6.34			137	1.1	< 2	0.06	40	341	13.3	20	< 1	0.08	< 10
OREAS 45f (Aqua Regia) Cert				336	150	1.19	192	12.4	22.2	4.81			158	0.980	0.170	0.0750	39.2	341	13.7	20.3	0.0310	0.0820	10.7
OREAS 238 (Fire Assay) Meas	3100																						
OREAS 238 (Fire Assay) Cert	3030																						
OREAS 238 (Fire Assay) Meas	3070																						
OREAS 238 (Fire Assay) Cert	3030																						
OREAS 238 (Fire Assay) Meas	2980																						
OREAS 238 (Fire Assay) Cert	3030																						
OREAS 238 (Fire Assay) Meas	2900																						
OREAS 238 (Fire Assay) Cert	3030																						
OREAS 238 (Fire Assay) Meas	3020																						
OREAS 238 (Fire Assay) Cert	3030																						
OREAS 238 (Fire Assay) Meas	2990																						
OREAS 238 (Fire Assay) Cert	3030																						
OREAS 238 (Fire Assay) Meas	3040																						
OREAS 238 (Fire Assay) Cert	3030																						
OREAS 238 (Fire Assay) Meas	2970																						
OREAS 238 (Fire Assay) Cert	3030																						
OREAS 238 (Fire Assay) Meas	3010																						
OREAS 238 (Fire Assay) Cert	3030																						
OREAS 238 (Fire Assay) Meas	3050																						
OREAS 238 (Fire	3030																						

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
Assay) Cert																							
Oreas E1336 (Fire Assay) Meas	493																						
Oreas E1336 (Fire Assay) Cert	510.000																						
Oreas E1336 (Fire Assay) Meas	494																						
Oreas E1336 (Fire Assay) Cert	510.000																						
Oreas E1336 (Fire Assay) Meas	502																						
Oreas E1336 (Fire Assay) Cert	510.000																						
Oreas E1336 (Fire Assay) Meas	496																						
Oreas E1336 (Fire Assay) Cert	510.000																						
Oreas E1336 (Fire Assay) Meas	490																						
Oreas E1336 (Fire Assay) Cert	510.000																						
Oreas E1336 (Fire Assay) Meas	491																						
Oreas E1336 (Fire Assay) Cert	510.000																						
Oreas E1336 (Fire Assay) Meas	503																						
Oreas E1336 (Fire Assay) Cert	510.000																						
Oreas E1336 (Fire Assay) Meas	504																						
Oreas E1336 (Fire Assay) Cert	510.000																						
Oreas E1336 (Fire Assay) Meas	491																						
Oreas E1336 (Fire Assay) Cert	510.000																						
Oreas E1336 (Fire Assay) Meas	496																						
Oreas E1336 (Fire Assay) Cert	510.000																						
Oreas 620 (Aqua Regia) Meas		40.9	159	1800	442	7	14	> 5000	> 10000	1.20	50		< 10	0.7	2	1.24	14	17	2.64	< 10	2	0.28	24
Oreas 620 (Aqua Regia) Cert		38.4	161	1750	414	9	14	7740	31200	1.12	47		450	0.6	2	1.29	12	17	2.58	6	2	0.31	25
Oreas 620 (Aqua Regia) Meas		41.6	160	1840	437	7	13	> 5000	> 10000	1.20	50		11	0.7	< 2	1.24	14	19	2.64	< 10	3	0.28	25
Oreas 620 (Aqua Regia) Cert		38.4	161	1750	414	9	14	7740	31200	1.12	47		450	0.6	2	1.29	12	17	2.58	6	2	0.31	25
Oreas 620 (Aqua Regia) Meas		42.5	166	1870	453	8	12	> 5000	> 10000	1.24	52		< 10	0.8	3	1.28	14	16	2.72	< 10	2	0.29	25
Oreas 620 (Aqua Regia) Cert		38.4	161	1750	414	9	14	7740	31200	1.12	47		450	0.6	2	1.29	12	17	2.58	6	2	0.31	25
S9 Orig	< 5																						
S9 Dup	6																						
S19 Orig	7																						
S19 Dup	5																						
S24 Orig	17																						

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
S24 Dup	11																						
S44 Orig	< 5																						
S44 Dup	< 5																						
S56 Orig	< 5																						
S56 Dup	< 5																						
S58 Orig	< 5																						
S58 Dup	< 5																						
S79 Orig	< 5																						
S79 Dup	< 5																						
S95 Orig	< 5																						
S95 Dup	< 5																						
S99 Orig	8																						
S99 Dup	12																						
S124 Orig	< 5																						
S124 Dup	< 5																						
S125 Orig	< 5																						
S125 Dup	< 5																						
S128 Orig	< 5																						
S128 Dup	< 5																						
S141 Orig	110																						
S141 Dup	90																						
S149 Orig	9																						
S149 Dup	11																						
S159 Orig	< 5																						
S159 Dup	< 5																						
S163 Orig	7																						
S163 Dup	< 5																						
S184 Orig	< 5																						
S184 Dup	< 5																						
S194 Orig	< 5																						
S194 Dup	< 5																						
S198 Orig	< 5																						
S198 Dup	< 5																						
S215 Orig		< 0.2	< 0.5	5	177	< 1	9	4	19	0.94	2	34	32	< 0.5	< 2	0.76	5	24	1.39	< 10	< 1	0.06	19
S215 Dup		< 0.2	< 0.5	5	181	< 1	9	4	19	0.94	< 2	34	31	< 0.5	< 2	0.76	5	24	1.39	< 10	< 1	0.06	19
S219 Orig	22																						
S219 Dup	19																						
S229 Orig	< 5																						
S229 Dup	< 5																						
S233 Orig	14																						
S233 Dup	15																						
S254 Orig	< 5																						
S254 Dup	< 5																						
S264 Orig	5																						
S264 Dup	6																						
S268 Dup	< 5																						
Method Blank	5																						
Method Blank	< 5																						
Method Blank	< 5																						
Method Blank	< 5																						
Method Blank	< 5																						

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
Method Blank	< 5																						
Method Blank	< 5																						
Method Blank	< 5																						
Method Blank	< 5																						
Method Blank	< 5																						
Method Blank	< 5																						
Method Blank	< 5																						
Method Blank	< 5																						
Method Blank	< 5																						
Method Blank	< 5																						
Method Blank	< 5																						
Method Blank	5																						
Method Blank	5																						
Method Blank	< 5																						
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	37	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	31	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	43	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	1	< 2	< 2	< 0.01	< 2	38	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	37	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	37	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-6 Meas	0.37	0.057	0.034	0.01	4	19	28		< 20	1	< 2	< 10	158	< 10	4	7
GXR-6 Cert	0.609	0.104	0.0350	0.0160	3.60	27.6	35.0		5.30	0.0180	2.20	1.54	186	1.90	14.0	110
GXR-6 Meas	0.37	0.057	0.034	0.01	3	19	28		< 20	< 2	< 10	156	< 10	4	7	
GXR-6 Cert	0.609	0.104	0.0350	0.0160	3.60	27.6	35.0		5.30	0.0180	2.20	1.54	186	1.90	14.0	110
GXR-6 Meas	0.37	0.056	0.034	0.01	5	19	28		< 20	< 1	< 2	< 10	156	< 10	4	8
GXR-6 Cert	0.609	0.104	0.0350	0.0160	3.60	27.6	35.0		5.30	0.0180	2.20	1.54	186	1.90	14.0	110
OREAS 98 (Aqua Regia) Meas					15											
OREAS 98 (Aqua Regia) Cert					15											
OREAS 98 (Aqua Regia) Meas					16											
OREAS 98 (Aqua Regia) Cert					15											
OREAS 98 (Aqua Regia) Meas					17											
OREAS 98 (Aqua Regia) Cert					15											
OREAS 922 (AQUA REGIA) Meas	1.25	0.019	0.062	0.37	2	3	16		< 20		< 2	< 10	31	< 10	16	10
OREAS 922 (AQUA REGIA) Cert	1.33	0.021	0.063	0.386	0.57	3.15	15.0		14.5		0.14	1.98	29.4	1.12	16.0	22.3
OREAS 922 (AQUA REGIA) Meas	1.29	0.019	0.063	0.38	4	3	16		< 20		< 2	< 10	32	< 10	16	11
OREAS 922 (AQUA REGIA) Cert	1.33	0.021	0.063	0.386	0.57	3.15	15.0		14.5		0.14	1.98	29.4	1.12	16.0	22.3
OREAS 922 (AQUA REGIA) Meas	1.28	0.019	0.063	0.37	5	4	16		< 20		< 2	< 10	32	< 10	16	9
OREAS 922 (AQUA REGIA) Cert	1.33	0.021	0.063	0.386	0.57	3.15	15.0		14.5		0.14	1.98	29.4	1.12	16.0	22.3
OREAS 923 (AQUA REGIA) Meas	1.33		0.059	0.66	3	3	14		< 20		< 2	< 10	31	< 10	15	14
OREAS 923 (AQUA REGIA) Cert	1.43		0.061	0.684	0.58	3.09	13.6		14.3		0.12	1.80	30.6	1.96	14.3	22.5
OREAS 923 (AQUA REGIA) Meas	1.36		0.060	0.67	< 2	3	14		< 20		< 2	< 10	31	< 10	14	13
OREAS 923 (AQUA REGIA) Cert	1.43		0.061	0.684	0.58	3.09	13.6		14.3		0.12	1.80	30.6	1.96	14.3	22.5
OREAS 923 (AQUA REGIA) Meas	1.38		0.061	0.68	3	3	14		< 20		< 2	< 10	31	< 10	15	12
OREAS 923 (AQUA REGIA) Cert	1.43		0.061	0.684	0.58	3.09	13.6		14.3		0.12	1.80	30.6	1.96	14.3	22.5
Oreas 96 (Aqua Regia) Meas				3.73	7											
Oreas 96 (Aqua Regia) Cert				4.38	4.53											
Oreas 96 (Aqua				3.72	6											

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
Regia) Meas																
Oreas 96 (Aqua Regia) Cert				4.38	4.53											
Oreas 96 (Aqua Regia) Meas				3.86	6											
Oreas 96 (Aqua Regia) Cert				4.38	4.53											
OREAS 45f (Aqua Regia) Meas	0.16	0.031	0.020	0.02		26	13	0.11	< 20		< 2	< 10	183		4	15
OREAS 45f (Aqua Regia) Cert	0.152	0.0320	0.0220	0.0270		31.4	13.2	0.0970	7.67		0.120	1.09	217		6.74	30.0
OREAS 45f (Aqua Regia) Meas	0.16	0.031	0.020	0.02		26	13	0.10	< 20		< 2	< 10	183		4	13
OREAS 45f (Aqua Regia) Cert	0.152	0.0320	0.0220	0.0270		31.4	13.2	0.0970	7.67		0.120	1.09	217		6.74	30.0
OREAS 45f (Aqua Regia) Meas	0.16	0.031	0.020	0.02		27	13	0.11	< 20		< 2	< 10	188		4	15
OREAS 45f (Aqua Regia) Cert	0.152	0.0320	0.0220	0.0270		31.4	13.2	0.0970	7.67		0.120	1.09	217		6.74	30.0
OREAS 238 (Fire Assay) Meas																
OREAS 238 (Fire Assay) Cert																
OREAS 238 (Fire Assay) Meas																
OREAS 238 (Fire Assay) Cert																
OREAS 238 (Fire Assay) Meas																
OREAS 238 (Fire Assay) Cert																
OREAS 238 (Fire Assay) Meas																
OREAS 238 (Fire Assay) Cert																
OREAS 238 (Fire Assay) Meas																
OREAS 238 (Fire Assay) Cert																
OREAS 238 (Fire Assay) Meas																
OREAS 238 (Fire Assay) Cert																
OREAS 238 (Fire Assay) Meas																
OREAS 238 (Fire Assay) Cert																
OREAS 238 (Fire Assay) Meas																
OREAS 238 (Fire Assay) Cert																
OREAS 238 (Fire Assay) Meas																
OREAS 238 (Fire Assay) Cert																
OREAS 238 (Fire Assay) Meas																
OREAS 238 (Fire																

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
Assay) Cert																
Oreas E1336 (Fire Assay) Meas																
Oreas E1336 (Fire Assay) Cert																
Oreas E1336 (Fire Assay) Meas																
Oreas E1336 (Fire Assay) Cert																
Oreas E1336 (Fire Assay) Meas																
Oreas E1336 (Fire Assay) Cert																
Oreas E1336 (Fire Assay) Meas																
Oreas E1336 (Fire Assay) Cert																
Oreas E1336 (Fire Assay) Meas																
Oreas E1336 (Fire Assay) Cert																
Oreas E1336 (Fire Assay) Meas																
Oreas E1336 (Fire Assay) Cert																
Oreas E1336 (Fire Assay) Meas																
Oreas E1336 (Fire Assay) Cert																
Oreas E1336 (Fire Assay) Meas																
Oreas E1336 (Fire Assay) Cert																
Oreas E1336 (Fire Assay) Meas																
Oreas E1336 (Fire Assay) Cert																
Oreas E1336 (Fire Assay) Meas																
Oreas E1336 (Fire Assay) Cert																
Oreas 620 (Aqua Regia) Meas	0.26	0.115	0.031	2.58	61		19		< 20		< 2	< 10	8	< 10	7	33
Oreas 620 (Aqua Regia) Cert	0.27	0.117	0.031	2.47	62		20		7		0.5	2.2	7	0.79	7	57
Oreas 620 (Aqua Regia) Meas	0.27	0.117	0.031	2.60	60		20		< 20		< 2	< 10	8	< 10	7	36
Oreas 620 (Aqua Regia) Cert	0.27	0.117	0.031	2.47	62		20		7		0.5	2.2	7	0.79	7	57
Oreas 620 (Aqua Regia) Meas	0.27	0.120	0.030	2.66	66		20		< 20		< 2	< 10	8	< 10	7	18
Oreas 620 (Aqua Regia) Cert	0.27	0.117	0.031	2.47	62		20		7		0.5	2.2	7	0.79	7	57
S9 Orig																
S9 Dup																
S19 Orig																
S19 Dup																
S24 Orig																

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
S24 Dup																
S44 Orig																
S44 Dup																
S56 Orig																
S56 Dup																
S58 Orig																
S58 Dup																
S79 Orig																
S79 Dup																
S95 Orig																
S95 Dup																
S99 Orig																
S99 Dup																
S124 Orig																
S124 Dup																
S125 Orig																
S125 Dup																
S128 Orig																
S128 Dup																
S141 Orig																
S141 Dup																
S149 Orig																
S149 Dup																
S159 Orig																
S159 Dup																
S163 Orig																
S163 Dup																
S184 Orig																
S184 Dup																
S194 Orig																
S194 Dup																
S198 Orig																
S198 Dup																
S215 Orig	0.43	0.016	0.041	< 0.01	< 2	3	18	0.10	< 20	< 1	< 2	< 10	28	< 10	6	2
S215 Dup	0.43	0.016	0.040	< 0.01	< 2	3	18	0.10	< 20	< 1	< 2	< 10	28	< 10	6	2
S219 Orig																
S219 Dup																
S229 Orig																
S229 Dup																
S233 Orig																
S233 Dup																
S254 Orig																
S254 Dup																
S264 Orig																
S264 Dup																
S268 Dup																
Method Blank																
Method Blank																
Method Blank																
Method Blank																
Method Blank																

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
Method Blank																
Method Blank																
Method Blank																
Method Blank																
Method Blank																
Method Blank																
Method Blank																
Method Blank																
Method Blank																
Method Blank																
Method Blank																
Method Blank																
Method Blank																
Method Blank																
Method Blank	< 0.01	0.005	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	2	< 2	< 10	< 1	< 10	< 1	< 1
Method Blank	< 0.01	0.004	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	1	< 2	< 10	< 1	< 10	< 1	< 1
Method Blank	< 0.01	0.006	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1
Method Blank	< 0.01	0.005	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1
Method Blank	< 0.01	0.005	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1
Method Blank	< 0.01	0.005	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1

Quality Analysis ... *Innovative Technologies*

Report No.: **A22-10813**
Report Date: **21-Sep-22**
Date Submitted: **02-Aug-22**
Your Reference: **Pen Property**

Thunder Gold Corp.
684 Squier Street
Thunder Bay Ontario
Canada

ATTN: Wes Hanson

CERTIFICATE OF ANALYSIS

66 Rock samples were submitted for analysis.

The following analytical package(s) were requested:		Testing Date:
1A2-Tbay	QOP AA-Au (Au - Fire Assay AA)	2022-09-14 19:34:13
1A3-Tbay	QOP AA-Au (Au - Fire Assay Gravimetric)	2022-09-19 19:02:50

REPORT **A22-10813**

Notes:

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

SCC Accredited LAB Accrédité CCN TM

LabID: 673

CERTIFIED BY:

Rob Hoffman
Region Manager

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

Analyte Symbol	Au	Au
Unit Symbol	ppb	g/tonne
Lower Limit	5	0.03
Method Code	FA-AA	FA-GRA
392751	57	
392752	> 5000	8.95
392753	226	
392754	18	
392755	59	
392756	> 5000	9.27
392757	29	
392758	49	
392759	15	
392760	< 5	
392761	< 5	
392762	7	
392763	4740	
392764	41	
392765	157	
392766	< 5	
392767	24	
392768	897	
392769	22	
392770	< 5	
392801	< 5	
392802	< 5	
392803	< 5	
392804	< 5	
392805	< 5	
392806	13	
392807	10	
392808	11	
392809	6	
392810	< 5	
392811	< 5	
392812	< 5	
392813	34	
392814	272	
392815	24	
392816	< 5	
392817	< 5	
392818	< 5	
392819	> 5000	7.22
392825	26	
392826	12	
392827	10	
392828	7	
392829	8	
392830	7	
392831	5	
392832	< 5	
392833	< 5	
392834	< 5	
392835	16	

Analyte Symbol	Au	Au
Unit Symbol	ppb	g/tonne
Lower Limit	5	0.03
Method Code	FA-AA	FA-GRA
392836	< 5	
392837	< 5	
392838	24	
392839	35	
392779	< 5	
392780	9	
392781	6	
392782	21	
392783	266	
392784	4570	
392785	> 5000	5.32
392786	171	
392787	509	
392788	209	
392789	8	
392790	< 5	

Analyte Symbol	Au	Au
Unit Symbol	ppb	g/tonne
Lower Limit	5	0.03
Method Code	FA-AA	FA-GRA
OREAS 229b (Fire Assay) Meas		11.8
OREAS 229b (Fire Assay) Cert		11.95
OREAS 229b (Fire Assay) Meas		12.1
OREAS 229b (Fire Assay) Cert		11.95
OREAS 238 (Fire Assay) Meas	3050	
OREAS 238 (Fire Assay) Cert	3030	
OREAS 238 (Fire Assay) Meas	3060	
OREAS 238 (Fire Assay) Cert	3030	
OREAS 238 (Fire Assay) Meas	2990	
OREAS 238 (Fire Assay) Cert	3030	
OREAS 257b (Fire Assay) Meas		14.1
OREAS 257b (Fire Assay) Cert		14.220
OREAS 257b (Fire Assay) Meas		14.4
OREAS 257b (Fire Assay) Cert		14.220
Oreas E1336 (Fire Assay) Meas	508	
Oreas E1336 (Fire Assay) Cert	510.000	
Oreas E1336 (Fire Assay) Meas	515	
Oreas E1336 (Fire Assay) Cert	510.000	
Oreas E1336 (Fire Assay) Meas	515	
Oreas E1336 (Fire Assay) Cert	510.000	
Oreas E1336 (Fire Assay) Meas	503	
Oreas E1336 (Fire Assay) Cert	510.000	
OREAS L15 Meas	> 5000	
OREAS L15 Cert	7180	
392752 Orig		8.49
392752 Dup		9.42
392759 Orig	16	
392759 Dup	15	
392766 Orig	< 5	
392766 Dup	< 5	
392805 Orig	< 5	
392805 Dup	< 5	
392825 Orig	31	
392825 Dup	21	

Analyte Symbol	Au	Au
Unit Symbol	ppb	g/tonne
Lower Limit	5	0.03
Method Code	FA-AA	FA-GRA
392834 Orig	< 5	
392834 Dup	< 5	
392835 Orig	16	
392835 Split PREP DUP	15	
392836 Orig	7	
392836 Dup	< 5	
392839 Orig	35	
392839 Split PREP DUP	24	
392790 Orig	< 5	
392790 Split PREP DUP	< 5	
Method Blank	< 5	
Method Blank	< 5	
Method Blank	< 5	
Method Blank	< 5	
Method Blank	< 5	
Method Blank	< 5	
Method Blank	< 5	
Method Blank		< 0.03
Method Blank		< 0.03

Quality Analysis ... *Innovative Technologies*

Report No.: **A22-10815**
Report Date: **26-Oct-22**
Date Submitted: **02-Aug-22**
Your Reference: **Pen Property**

Thunder Gold Corp.
684 Squier Street
Thunder Bay Ontario
Canada

ATTN: Wes Hanson

CERTIFICATE OF ANALYSIS

23 Lake Sediments samples were submitted for analysis.

The following analytical package(s) were requested:		Testing Date:
1A2-Tbay	QOP AA-Au (Au - Fire Assay AA)	2022-09-16 12:38:37
1E3-Tbay	QOP AquaGeo (Aqua Regia ICPOES)	2022-10-20 18:13:47

REPORT **A22-10815**

Notes:

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

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

SCC Accredited LAB LAB Accrédité CCN TM

LabID: 673

CERTIFIED BY:

Mark Vandergeest
Quality Control Coordinator

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

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
392771	95	< 0.2	< 0.5	21	247	< 1	13	8	42	0.59	24	50	38	< 0.5	< 2	0.62	6	20	1.01	< 10	< 1	0.05	14
392772	45	< 0.2	< 0.5	10	205	< 1	10	5	32	0.52	15	42	29	< 0.5	< 2	0.60	5	18	0.90	< 10	< 1	0.05	14
392773	32	< 0.2	< 0.5	5	108	< 1	5	2	8	0.39	3	29	16	< 0.5	< 2	0.92	2	12	0.60	< 10	< 1	0.03	10
392774	58	< 0.2	< 0.5	12	306	< 1	10	6	34	0.43	12	38	24	< 0.5	< 2	0.87	4	15	0.85	< 10	< 1	0.04	13
392775	9	< 0.2	< 0.5	11	310	< 1	12	4	44	0.74	10	39	42	< 0.5	< 2	0.71	6	26	1.34	< 10	< 1	0.07	16
392776	45	< 0.2	< 0.5	13	358	< 1	15	9	52	0.80	14	45	46	< 0.5	< 2	0.66	6	27	1.46	< 10	< 1	0.07	17
392777	59	< 0.2	< 0.5	16	464	< 1	14	7	44	0.61	18	33	38	< 0.5	< 2	3.25	6	20	1.37	< 10	< 1	0.06	12
392778	40	< 0.2	< 0.5	8	190	< 1	9	5	28	0.48	9	32	21	< 0.5	< 2	0.58	5	20	0.92	< 10	< 1	0.04	15
392791	56	< 0.2	< 0.5	10	151	< 1	7	5	27	0.38	9	30	18	< 0.5	< 2	0.47	4	15	0.72	< 10	< 1	0.03	12
392792	62	< 0.2	< 0.5	15	323	< 1	11	6	33	0.50	26	34	29	< 0.5	< 2	0.74	5	17	0.86	< 10	< 1	0.04	12
392793	38	< 0.2	< 0.5	7	138	< 1	6	4	20	0.33	16	31	15	< 0.5	< 2	0.46	3	12	0.59	< 10	< 1	0.03	10
392794	31	< 0.2	< 0.5	6	107	1	7	3	19	0.34	10	35	14	< 0.5	< 2	0.45	3	24	0.58	< 10	< 1	0.03	11
392795	59	< 0.2	< 0.5	13	279	< 1	10	6	26	0.56	9	36	26	< 0.5	< 2	3.25	4	17	1.03	< 10	< 1	0.06	14
392796	18	< 0.2	< 0.5	4	106	< 1	5	4	15	0.32	6	34	14	< 0.5	< 2	0.45	3	10	0.51	< 10	< 1	0.03	13
392797	26	< 0.2	< 0.5	6	130	< 1	7	4	18	0.39	5	38	19	< 0.5	< 2	1.59	3	14	0.80	< 10	< 1	0.03	12
392798	28	< 0.2	< 0.5	6	155	< 1	6	5	17	0.34	24	31	14	< 0.5	< 2	0.40	4	11	0.61	< 10	< 1	0.03	12
392799	19	< 0.2	< 0.5	6	187	< 1	8	3	21	0.43	17	34	20	< 0.5	< 2	0.78	4	15	0.80	< 10	< 1	0.04	12
392800	26	< 0.2	< 0.5	7	260	< 1	8	4	29	0.50	10	35	26	< 0.5	< 2	0.82	4	17	0.96	< 10	< 1	0.04	13
392820	22	< 0.2	< 0.5	4	114	< 1	4	4	15	0.30	6	32	12	< 0.5	< 2	0.50	3	10	0.56	< 10	< 1	0.02	12
392821	19	< 0.2	< 0.5	7	305	< 1	9	4	16	0.47	6	39	20	< 0.5	< 2	4.95	3	15	0.86	< 10	< 1	0.05	12
392822	9	< 0.2	< 0.5	9	416	< 1	10	6	17	0.61	5	37	27	< 0.5	< 2	5.75	4	19	1.17	< 10	< 1	0.07	13
392823	22	< 0.2	< 0.5	7	193	< 1	9	5	18	0.50	4	39	21	< 0.5	< 2	3.99	4	19	1.19	< 10	< 1	0.06	12
392824	29	< 0.2	< 0.5	7	157	< 1	8	4	18	0.42	6	37	17	< 0.5	< 2	3.00	3	16	0.91	< 10	< 1	0.04	11

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
392771	0.27	0.021	0.056	0.10	3	2	16	0.08	< 20	3	< 2	< 10	19	< 10	5	2
392772	0.27	0.017	0.053	0.09	< 2	2	15	0.08	< 20	1	< 2	< 10	17	< 10	5	3
392773	0.52	0.015	0.036	0.02	< 2	1	18	0.08	< 20	< 1	< 2	< 10	12	< 10	3	1
392774	0.45	0.016	0.046	0.08	< 2	1	13	0.06	< 20	5	< 2	< 10	15	< 10	4	2
392775	0.35	0.018	0.056	0.10	< 2	3	19	0.09	< 20	< 1	< 2	< 10	22	< 10	6	3
392776	0.33	0.020	0.063	0.09	< 2	3	19	0.09	< 20	3	< 2	< 10	23	< 10	7	3
392777	0.89	0.016	0.049	0.16	< 2	2	27	0.06	< 20	2	< 2	< 10	17	< 10	5	2
392778	0.27	0.016	0.058	0.06	< 2	2	15	0.09	< 20	1	< 2	< 10	19	< 10	5	2
392791	0.21	0.013	0.052	0.05	< 2	2	13	0.07	< 20	3	< 2	< 10	15	< 10	4	2
392792	0.24	0.014	0.049	0.13	< 2	2	15	0.06	< 20	3	< 2	< 10	16	< 10	5	3
392793	0.17	0.012	0.047	0.05	< 2	1	13	0.07	< 20	< 1	< 2	< 10	13	< 10	4	2
392794	0.19	0.013	0.052	0.05	< 2	2	13	0.08	< 20	1	< 2	< 10	14	< 10	4	2
392795	1.07	0.016	0.056	0.05	< 2	2	30	0.08	< 20	1	< 2	< 10	18	< 10	5	3
392796	0.19	0.012	0.055	0.03	< 2	1	13	0.07	< 20	< 1	< 2	< 10	13	< 10	4	2
392797	0.73	0.014	0.052	0.03	< 2	2	18	0.07	< 20	< 1	< 2	< 10	16	< 10	4	3
392798	0.14	0.012	0.055	0.06	< 2	2	13	0.07	< 20	< 1	< 2	< 10	15	< 10	4	2
392799	0.39	0.014	0.051	0.09	< 2	2	15	0.07	< 20	< 1	< 2	< 10	16	< 10	5	3
392800	0.43	0.014	0.057	0.05	< 2	2	15	0.07	< 20	6	< 2	< 10	17	< 10	5	2
392820	0.24	0.011	0.050	0.04	< 2	1	11	0.06	< 20	< 1	< 2	< 10	12	< 10	4	2
392821	1.90	0.017	0.050	0.02	< 2	2	40	0.08	< 20	1	< 2	< 10	17	< 10	5	4
392822	1.90	0.019	0.049	0.02	< 2	2	47	0.09	< 20	< 1	< 2	< 10	21	< 10	5	6
392823	1.37	0.016	0.055	0.03	< 2	2	34	0.08	< 20	< 1	< 2	< 10	22	< 10	5	4
392824	1.05	0.015	0.053	0.03	< 2	2	28	0.08	< 20	< 1	< 2	< 10	18	< 10	5	3

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-6 Meas		0.2	< 0.5	69	1050	< 1	21	99	124	6.51	235	32	719	1.0	< 2	0.12	14	78	5.60	20	2	0.98	< 10
GXR-6 Cert		1.30	1.00	66.0	1010	2.40	27.0	101	118	17.7	330	9.80	1300	1.40	0.290	0.180	13.8	96.0	5.58	35.0	0.0680	1.87	13.9
GXR-6 Meas		0.3	< 0.5	69	1050	< 1	22	100	124	6.56	238	28	718	1.0	< 2	0.11	14	77	5.54	20	2	0.96	< 10
GXR-6 Cert		1.30	1.00	66.0	1010	2.40	27.0	101	118	17.7	330	9.80	1300	1.40	0.290	0.180	13.8	96.0	5.58	35.0	0.0680	1.87	13.9
GXR-6 Meas		0.3	< 0.5	70	1060	< 1	21	102	126	6.56	233	29	720	1.0	< 2	0.12	14	78	5.53	20	2	0.96	< 10
GXR-6 Cert		1.30	1.00	66.0	1010	2.40	27.0	101	118	17.7	330	9.80	1300	1.40	0.290	0.180	13.8	96.0	5.58	35.0	0.0680	1.87	13.9
OREAS 98 (Aqua Regia) Meas		40.4		> 10000				268	1140						24		96						
OREAS 98 (Aqua Regia) Cert		42.8		147000				343	1300						93		110						
OREAS 98 (Aqua Regia) Meas		42.1		> 10000				275	1180						30		98						
OREAS 98 (Aqua Regia) Cert		42.8		147000				343	1300						93		110						
OREAS 98 (Aqua Regia) Meas		42.3		> 10000				276	1170						33		99						
OREAS 98 (Aqua Regia) Cert		42.8		147000				343	1300						93		110						
OREAS 922 (AQUA REGIA) Meas		0.7	< 0.5	2210	764	< 1	34	61	254	2.67	5		74	0.8	6	0.36	20	44	5.08	< 10		0.40	34
OREAS 922 (AQUA REGIA) Cert		0.851	0.28	2176	730	0.69	34.3	60	256	2.72	6.12		70	0.65	10.3	0.324	19.4	40.7	5.05	7.62		0.376	32.5
OREAS 922 (AQUA REGIA) Meas		0.7	< 0.5	2270	774	< 1	33	62	264	2.74	5		73	0.8	7	0.36	20	44	5.23	< 10		0.39	34
OREAS 922 (AQUA REGIA) Cert		0.851	0.28	2176	730	0.69	34.3	60	256	2.72	6.12		70	0.65	10.3	0.324	19.4	40.7	5.05	7.62		0.376	32.5
OREAS 922 (AQUA REGIA) Meas		0.7	< 0.5	2230	771	< 1	35	61	266	2.71	5		71	0.8	9	0.36	20	44	5.20	< 10		0.39	34
OREAS 922 (AQUA REGIA) Cert		0.851	0.28	2176	730	0.69	34.3	60	256	2.72	6.12		70	0.65	10.3	0.324	19.4	40.7	5.05	7.62		0.376	32.5
OREAS 923 (AQUA REGIA) Meas		1.3	< 0.5	4310	867	< 1	32	86	331	2.69	5		59	0.7	13	0.36	23	40	5.77	< 10		0.33	31
OREAS 923 (AQUA REGIA) Cert		1.62	0.40	4248	850	0.84	32.7	81	335	2.80	7.07		54	0.61	21.8	0.326	22.2	39.4	5.91	8.01		0.322	30.0
OREAS 923 (AQUA REGIA) Meas		1.4	< 0.5	4390	872	< 1	31	87	343	2.73	8		59	0.7	15	0.36	23	40	5.90	< 10		0.33	31
OREAS 923 (AQUA REGIA) Cert		1.62	0.40	4248	850	0.84	32.7	81	335	2.80	7.07		54	0.61	21.8	0.326	22.2	39.4	5.91	8.01		0.322	30.0
OREAS 923 (AQUA REGIA) Meas		1.7	< 0.5	4500	889	< 1	31	91	340	2.76	7		53	0.7	13	0.37	23	41	5.96	< 10		0.33	32
OREAS 923 (AQUA REGIA) Cert		1.62	0.40	4248	850	0.84	32.7	81	335	2.80	7.07		54	0.61	21.8	0.326	22.2	39.4	5.91	8.01		0.322	30.0
Oreas 96 (Aqua Regia) Meas		10.9		> 10000				90	407						15		45						
Oreas 96 (Aqua Regia) Cert		11.50		39100.00				100	448						27.9		49.2						
Oreas 96 (Aqua		11.2		> 10000				90	411						19		45						

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
Regia) Meas																							
Oreas 96 (Aqua Regia) Cert		11.50		39100.00				100	448						27.9		49.2						
Oreas 96 (Aqua Regia) Meas		11.5		> 10000				92	425						< 2		47						
Oreas 96 (Aqua Regia) Cert		11.50		39100.00				100	448						27.9		49.2						
OREAS 45f (Aqua Regia) Meas				343	163	< 1	223	8	25	6.29			135	1.1	< 2	0.06	39	334	13.2	20	1	0.08	< 10
OREAS 45f (Aqua Regia) Cert				336	150	1.19	192	12.4	22.2	4.81			158	0.980	0.170	0.0750	39.2	341	13.7	20.3	0.0310	0.0820	10.7
OREAS 45f (Aqua Regia) Meas				345	160	< 1	222	9	25	6.21			135	1.1	< 2	0.06	38	332	13.3	20	4	0.08	< 10
OREAS 45f (Aqua Regia) Cert				336	150	1.19	192	12.4	22.2	4.81			158	0.980	0.170	0.0750	39.2	341	13.7	20.3	0.0310	0.0820	10.7
OREAS 45f (Aqua Regia) Meas				344	165	< 1	226	9	25	6.34			137	1.1	< 2	0.06	40	341	13.3	20	< 1	0.08	< 10
OREAS 45f (Aqua Regia) Cert				336	150	1.19	192	12.4	22.2	4.81			158	0.980	0.170	0.0750	39.2	341	13.7	20.3	0.0310	0.0820	10.7
OREAS 238 (Fire Assay) Meas	2970																						
OREAS 238 (Fire Assay) Cert	3030																						
Oreas E1336 (Fire Assay) Meas	492																						
Oreas E1336 (Fire Assay) Cert	510.000																						
Oreas 620 (Aqua Regia) Meas		40.9	159	1800	442	7	14	> 5000	> 10000	1.20	50		< 10	0.7	2	1.24	14	17	2.64	< 10	2	0.28	24
Oreas 620 (Aqua Regia) Cert		38.4	161	1750	414	9	14	7740	31200	1.12	47		450	0.6	2	1.29	12	17	2.58	6	2	0.31	25
Oreas 620 (Aqua Regia) Meas		41.6	160	1840	437	7	13	> 5000	> 10000	1.20	50		11	0.7	< 2	1.24	14	19	2.64	< 10	3	0.28	25
Oreas 620 (Aqua Regia) Cert		38.4	161	1750	414	9	14	7740	31200	1.12	47		450	0.6	2	1.29	12	17	2.58	6	2	0.31	25
Oreas 620 (Aqua Regia) Meas		42.5	166	1870	453	8	12	> 5000	> 10000	1.24	52		< 10	0.8	3	1.28	14	16	2.72	< 10	2	0.29	25
Oreas 620 (Aqua Regia) Cert		38.4	161	1750	414	9	14	7740	31200	1.12	47		450	0.6	2	1.29	12	17	2.58	6	2	0.31	25
392772 Orig	46																						
392772 Dup	43																						
392791 Orig		< 0.2	< 0.5	10	152	< 1	8	6	28	0.38	10	34	18	< 0.5	< 2	0.47	4	15	0.73	< 10	< 1	0.03	12
392791 Dup		< 0.2	< 0.5	9	150	< 1	7	5	25	0.37	9	25	17	< 0.5	< 2	0.46	4	14	0.71	< 10	< 1	0.03	12
392792 Orig	63																						
392792 Dup	60																						
392821 Orig	18																						
392821 Dup	19																						
392824 Orig		< 0.2	< 0.5	7	158	< 1	8	4	18	0.43	6	36	18	< 0.5	< 2	3.04	3	15	0.92	< 10	< 1	0.04	12
392824 Dup		< 0.2	< 0.5	6	156	< 1	8	5	18	0.42	6	38	17	< 0.5	< 2	2.97	3	16	0.90	< 10	< 1	0.04	11
Method Blank	< 5																						
Method Blank	< 5																						
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	37	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	31	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	43	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	1	< 2	< 2	< 0.01	< 2	38	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	37	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10

Analyte Symbol	Au	Ag	Cd	Cu	Mn	Mo	Ni	Pb	Zn	Al	As	B	Ba	Be	Bi	Ca	Co	Cr	Fe	Ga	Hg	K	La
Unit Symbol	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
Lower Limit	5	0.2	0.5	1	5	1	1	2	2	0.01	2	10	10	0.5	2	0.01	1	1	0.01	10	1	0.01	10
Method Code	FA-AA	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
Method Blank		< 0.2	< 0.5	< 1	< 5	< 1	< 1	< 2	< 2	< 0.01	< 2	37	< 10	< 0.5	< 2	< 0.01	< 1	< 1	< 0.01	< 10	< 1	< 0.01	< 10

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
GXR-6 Meas	0.37	0.057	0.034	0.01	4	19	28		< 20	1	< 2	< 10	158	< 10	4	7
GXR-6 Cert	0.609	0.104	0.0350	0.0160	3.60	27.6	35.0		5.30	0.0180	2.20	1.54	186	1.90	14.0	110
GXR-6 Meas	0.37	0.057	0.034	0.01	3	19	28		< 20	< 2	< 10	156	< 10	4	7	
GXR-6 Cert	0.609	0.104	0.0350	0.0160	3.60	27.6	35.0		5.30	0.0180	2.20	1.54	186	1.90	14.0	110
GXR-6 Meas	0.37	0.056	0.034	0.01	5	19	28		< 20	< 1	< 2	< 10	156	< 10	4	8
GXR-6 Cert	0.609	0.104	0.0350	0.0160	3.60	27.6	35.0		5.30	0.0180	2.20	1.54	186	1.90	14.0	110
OREAS 98 (Aqua Regia) Meas					15											
OREAS 98 (Aqua Regia) Cert					15											
OREAS 98 (Aqua Regia) Meas					16											
OREAS 98 (Aqua Regia) Cert					15											
OREAS 98 (Aqua Regia) Meas					17											
OREAS 98 (Aqua Regia) Cert					15											
OREAS 922 (AQUA REGIA) Meas	1.25	0.019	0.062	0.37	2	3	16		< 20		< 2	< 10	31	< 10	16	10
OREAS 922 (AQUA REGIA) Cert	1.33	0.021	0.063	0.386	0.57	3.15	15.0		14.5		0.14	1.98	29.4	1.12	16.0	22.3
OREAS 922 (AQUA REGIA) Meas	1.29	0.019	0.063	0.38	4	3	16		< 20		< 2	< 10	32	< 10	16	11
OREAS 922 (AQUA REGIA) Cert	1.33	0.021	0.063	0.386	0.57	3.15	15.0		14.5		0.14	1.98	29.4	1.12	16.0	22.3
OREAS 922 (AQUA REGIA) Meas	1.28	0.019	0.063	0.37	5	4	16		< 20		< 2	< 10	32	< 10	16	9
OREAS 922 (AQUA REGIA) Cert	1.33	0.021	0.063	0.386	0.57	3.15	15.0		14.5		0.14	1.98	29.4	1.12	16.0	22.3
OREAS 923 (AQUA REGIA) Meas	1.33		0.059	0.66	3	3	14		< 20		< 2	< 10	31	< 10	15	14
OREAS 923 (AQUA REGIA) Cert	1.43		0.061	0.684	0.58	3.09	13.6		14.3		0.12	1.80	30.6	1.96	14.3	22.5
OREAS 923 (AQUA REGIA) Meas	1.36		0.060	0.67	< 2	3	14		< 20		< 2	< 10	31	< 10	14	13
OREAS 923 (AQUA REGIA) Cert	1.43		0.061	0.684	0.58	3.09	13.6		14.3		0.12	1.80	30.6	1.96	14.3	22.5
OREAS 923 (AQUA REGIA) Meas	1.38		0.061	0.68	3	3	14		< 20		< 2	< 10	31	< 10	15	12
OREAS 923 (AQUA REGIA) Cert	1.43		0.061	0.684	0.58	3.09	13.6		14.3		0.12	1.80	30.6	1.96	14.3	22.5
Oreas 96 (Aqua Regia) Meas				3.73	7											
Oreas 96 (Aqua Regia) Cert				4.38	4.53											
Oreas 96 (Aqua				3.72	6											

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
Regia) Meas																
Oreas 96 (Aqua Regia) Cert				4.38	4.53											
Oreas 96 (Aqua Regia) Meas				3.86	6											
Oreas 96 (Aqua Regia) Cert				4.38	4.53											
OREAS 45f (Aqua Regia) Meas	0.16	0.031	0.020	0.02		26	13	0.11	< 20		< 2	< 10	183		4	15
OREAS 45f (Aqua Regia) Cert	0.152	0.0320	0.0220	0.0270		31.4	13.2	0.0970	7.67		0.120	1.09	217		6.74	30.0
OREAS 45f (Aqua Regia) Meas	0.16	0.031	0.020	0.02		26	13	0.10	< 20		< 2	< 10	183		4	13
OREAS 45f (Aqua Regia) Cert	0.152	0.0320	0.0220	0.0270		31.4	13.2	0.0970	7.67		0.120	1.09	217		6.74	30.0
OREAS 45f (Aqua Regia) Meas	0.16	0.031	0.020	0.02		27	13	0.11	< 20		< 2	< 10	188		4	15
OREAS 45f (Aqua Regia) Cert	0.152	0.0320	0.0220	0.0270		31.4	13.2	0.0970	7.67		0.120	1.09	217		6.74	30.0
OREAS 238 (Fire Assay) Meas																
OREAS 238 (Fire Assay) Cert																
Oreas E1336 (Fire Assay) Meas																
Oreas E1336 (Fire Assay) Cert																
Oreas 620 (Aqua Regia) Meas	0.26	0.115	0.031	2.58	61		19		< 20		< 2	< 10	8	< 10	7	33
Oreas 620 (Aqua Regia) Cert	0.27	0.117	0.031	2.47	62		20		7		0.5	2.2	7	0.79	7	57
Oreas 620 (Aqua Regia) Meas	0.27	0.117	0.031	2.60	60		20		< 20		< 2	< 10	8	< 10	7	36
Oreas 620 (Aqua Regia) Cert	0.27	0.117	0.031	2.47	62		20		7		0.5	2.2	7	0.79	7	57
Oreas 620 (Aqua Regia) Meas	0.27	0.120	0.030	2.66	66		20		< 20		< 2	< 10	8	< 10	7	18
Oreas 620 (Aqua Regia) Cert	0.27	0.117	0.031	2.47	62		20		7		0.5	2.2	7	0.79	7	57
392772 Orig																
392772 Dup																
392791 Orig	0.21	0.013	0.052	0.05	< 2	2	13	0.07	< 20	1	< 2	< 10	15	< 10	4	2
392791 Dup	0.20	0.012	0.053	0.05	< 2	1	13	0.07	< 20	4	< 2	< 10	14	< 10	4	2
392792 Orig																
392792 Dup																
392821 Orig																
392821 Dup																
392824 Orig	1.07	0.015	0.052	0.03	< 2	2	28	0.08	< 20	< 1	< 2	< 10	18	< 10	5	3
392824 Dup	1.04	0.015	0.054	0.03	< 2	2	27	0.07	< 20	2	< 2	< 10	18	< 10	4	3
Method Blank																
Method Blank																
Method Blank	< 0.01	0.005	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	2	< 2	< 10	< 1	< 10	< 1	< 1
Method Blank	< 0.01	0.004	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	1	< 2	< 10	< 1	< 10	< 1	< 1
Method Blank	< 0.01	0.006	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1
Method Blank	< 0.01	0.005	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1
Method Blank	< 0.01	0.005	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1

Analyte Symbol	Mg	Na	P	S	Sb	Sc	Sr	Ti	Th	Te	Tl	U	V	W	Y	Zr
Unit Symbol	%	%	%	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.01	0.001	0.001	0.01	2	1	1	0.01	20	1	2	10	1	10	1	1
Method Code	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP	AR-ICP
Method Blank	< 0.01	0.005	< 0.001	< 0.01	< 2	< 1	< 1	< 0.01	< 20	< 1	< 2	< 10	< 1	< 10	< 1	< 1

APPENDIX 5

ALFRED LAKE
MCQUESTEN
HOUCK
Crib
Lake
Rutal Lake
Map 1a
5,512,500 mN
Octopus Lake
Ashmore Lake
Yak Lake
Cray Lake
5,507,500 mN
507,500 mE
512,500 mE
ASHMORE
CROLL
Crabtree Lake

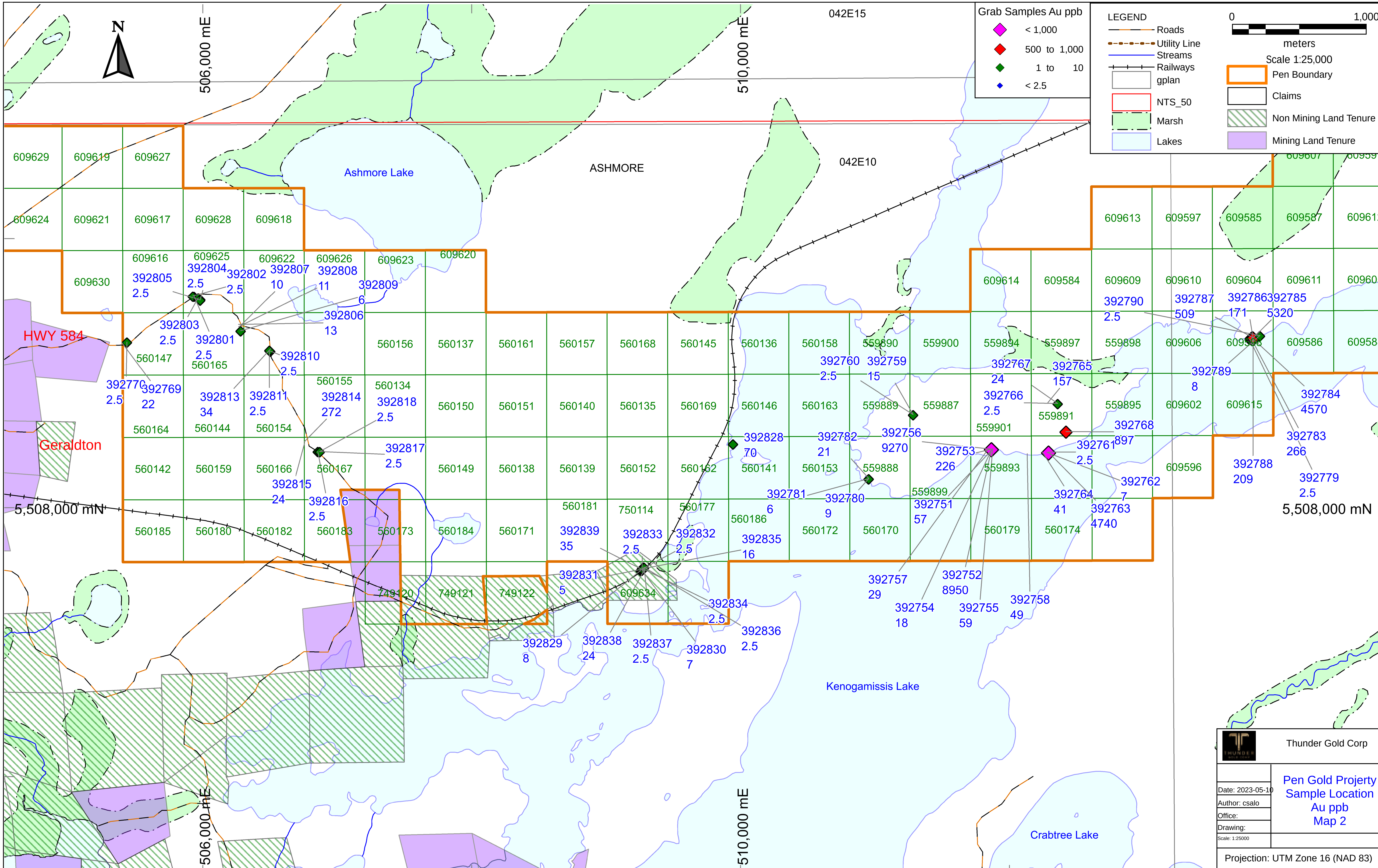
510,000 mE
514,000 mE
N
042E15
042E10
ASHMORE
Ashmore Lake
Kenogamissis Lake
Geraldton
5,508,000 mN
5,512,000 mN
506,000 mE
510,000 mE

744225
744208
744221
744207
744232
744209
744231
609608
609595
744217
744211
609607
609591
609600
609594
609603
744218
609629
609619
609627
609624
609621
609617
609628
609618
609613
609597
609585
609587
609612
609589
609593
609590
744223
609630
609616
609625
609622
609626
609623
609620
609614
609584
609609
609610
609604
609611
609605
609599
609601
744210
560147
560165
560160
560148
560156
560137
560161
560157
560168
560145
560136
560158
559890
559900
559894
559897
559898
609606
609598
609586
609588
609592
560164
560144
560154
560155
560134
560150
560151
560140
560135
560169
560146
560163
559889
559887
559901
559891
559895
609602
609615
560142
560159
560166
560167
560143
560149
560138
560139
560152
560162
560141
560153
559888
559899
559893
559896
559892
609596
560185
560180
560182
560183
560173
560184
560171
560181
750114
560177
560186
560172
560170
560178
560179
560174
560175
749120
749121
749122
609634
609633

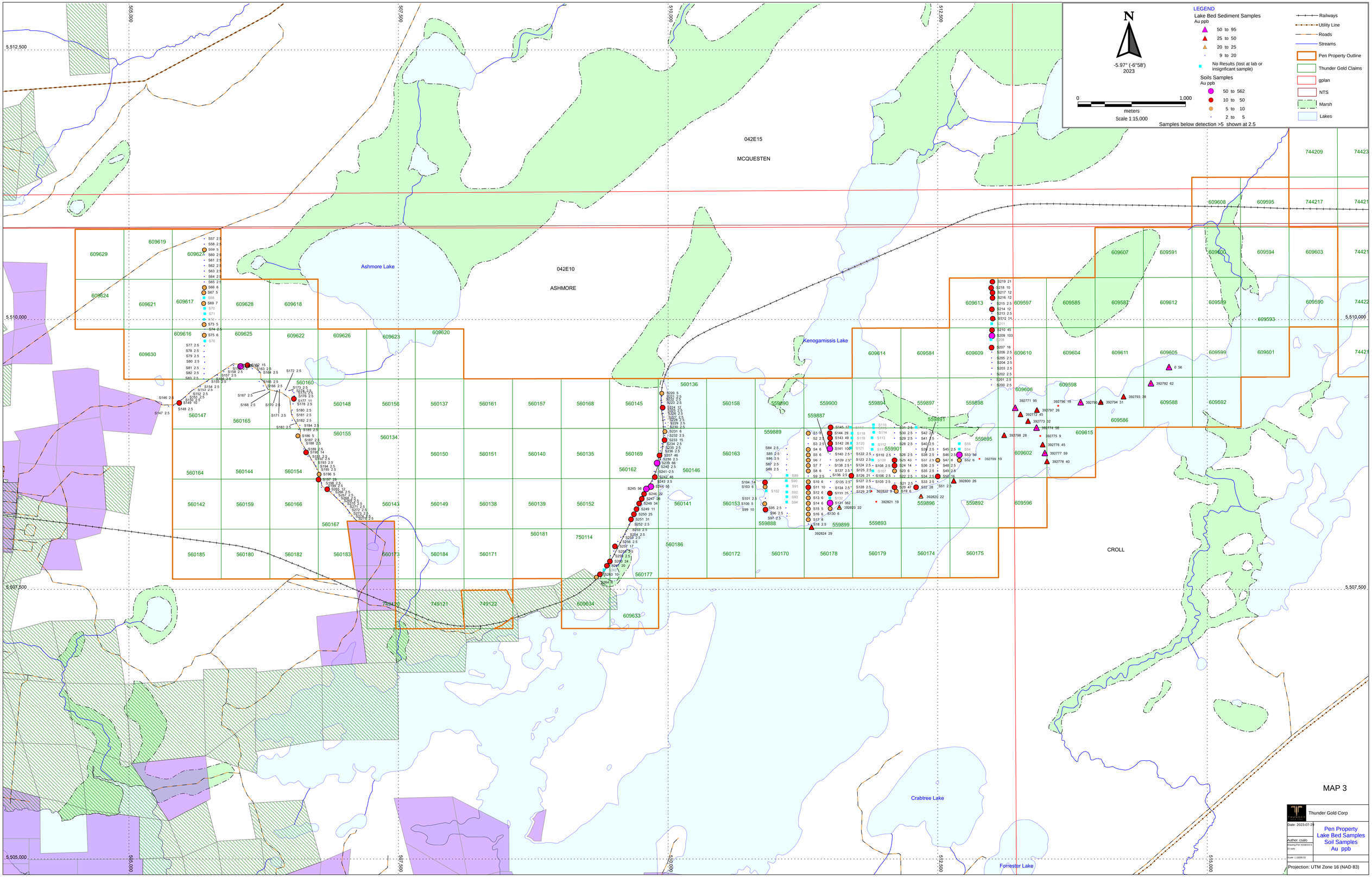
LEGEND
Roads
Utility Line
Streams
Railways
gplan
NTS_50
Marsh
Lakes
0
1,000
meters
Scale 1:30,000
Pen Boundary
Claims
Non Mining Land Tenure
Mining Land Tenure

Thunder Gold Corp
Pen Gold Projerty
Claims
Map 1
Date: 2023-05-10
Author: csalo
Office:
Drawing:
Projection: UTM Zone 16 (NAD 83)

ALFRED LAKE
MCQUESTEN
HOUCK
Map 1B
5,512,500 mN
5,507,500 mN
507,500 mE
ASHMORE
CROLL
516,000 mE
520,000 mE
744300 744283 744291
744262 744260 744299 744309 744276 744280
744258 744237 744252 744250 744295 744305 744307 744289 744277
744256 744244 744263 744271 744253 744282 744308 744303 744310 744281 744284
744228 744215 744255 744267 744269 744270 744259 744288 744304 744301 744311 744312 744298
744225 744227 744214 744243 744272 744274 744268 744249 744278 744306 744302 744279 744293 744294
744208 744221 744230 744216 744242 744266 744273 744275 744248 744287 744286
744207 744232 744233 744224 744241 744264 744265 744247 744238 744285
744209 744231 744229 744213 744251 744236 744245 744254
609608 609595 744217 744211 744234 744212 744261 744246
609607 609591 609600 609594 609603 744218 744235 744220 744240 744257
609613 609597 609585 609587 609612 609589 609593 609590 744223 744222 744219 744239
609614 609584 609609 609610 609604 609611 609605 609599 609601 744210 744226
0136 560158 559890 559900 559894 559897 559898 609606 609598 609586 609588 609592
0146 560163 559889 559887 559901 559891 559895 609602 609615
0141 560153 559888 559899 559893 559896 559892 609596
Octopus Lake
N
5,514,000 mN
5,510,000 mN
Geraldton
ALFRED LAKE
042E15
ASHMORE
042E10
LONGLAC AREA
MCBEAN LAKE AREA
512,000 mE
516,000 mE
LEGEND
Road
Utility Line
Streams
Railways
gplan
NTS_50
Marsh
Lakes
0
1,000
meters
Scale 1:30,000
Pen Boundary
Claims
Non Mining Land Tenure
Mining Land Tenure
Thunder Gold Corp
Pen Gold Projerty
Claims
Map 1B
Date: 2023-05-10
Author: csalo
Office:
Drawing:
Projection: UTM Zone 16 (NAD 83)



Grab Samples Au ppb
< 1,000
500 to 1,000
1 to 10
< 2.5
LEGEND
Roads
Utility Line
Streams
Railways
gplan
NTS_50
Marsh
Lakes
0
1,000
meters
Scale 1:25,000
Pen Boundary
Claims
Non Mining Land Tenure
Mining Land Tenure
N
506,000 mE
510,000 mE
042E15
042E10
ASHMORE
Ashmore Lake
Kenogamissis Lake
Crabtree Lake
HWY 584
Geraldton
5,508,000 mN
609629
609619
609627
609624
609621
609617
609628
609618
609616
609625
609622
609626
609623
609620
609630
392805
2.5
392804
2.5
392802
2.5
392807
10
392808
11
392809
6
392806
13
392803
2.5
392801
2.5
392810
2.5
392770
2.5
392769
22
392813
34
392811
2.5
392814
272
392818
2.5
392817
2.5
392815
24
392816
2.5
560147
560165
560155
560134
560156
560137
560161
560157
560168
560145
560136
560158
559890
559900
559894
559897
559898
609606
609586
609588
560164
560144
560154
560150
560151
560140
560135
560169
560146
560163
559889
559887
559901
559891
559895
609602
609615
560142
560159
560166
560167
560149
560138
560139
560152
560162
560141
560153
559888
559893
609596
560185
560180
560182
560183
560173
560184
560171
560181
750114
560177
560186
560172
560170
559899
560179
560174
749120
749121
749122
609634
609613
609597
609585
609587
609612
609607
609591
609614
609584
609609
609610
609604
609611
609605
392790
2.5
392787
509
392786
171
392785
5320
392789
8
392784
4570
392783
266
392788
209
392779
2.5
392760
2.5
392759
15
392767
24
392765
157
392766
2.5
392768
897
392761
2.5
392762
7
392764
41
392763
4740
392828
70
392782
21
392756
9270
392753
226
392781
6
392780
9
392751
57
392757
29
392754
18
392752
8950
392755
59
392758
49
392839
35
392833
2.5
392832
2.5
392835
16
392831
5
392834
2.5
392836
2.5
392829
8
392838
24
392837
2.5
392830
7
Thunder Gold Corp
Pen Gold Projerty
Sample Location
Au ppb
Map 2
Date: 2023-05-10
Author: csalo
Office:
Drawing:
Scale: 1:25000
Projection: UTM Zone 16 (NAD 83)


LEGEND
Lake Bed Sediment Samples
Au ppb
50 to 95
25 to 50
20 to 25
9 to 20
No Results (lost at lab or insignficant sample)
Soils Samples
Au ppb
50 to 562
10 to 50
5 to 10
2 to 5
Samples below detection >5 shown at 2.5
Railways
Utility Line
Roads
Streams
Pen Property Outline
Thunder Gold Claims
gplan
NTS
Marsh
Lakes
N
-5.97° (-6°58')
2023
0
1,000
meters
Scale 1:15,000
MAP 3
Thunder Gold Corp
Date: 2023-07-29
Author: csalo
Drawing:Pen ASSESS S 22 soils
Scale: 1:15000.02
Pen Property
Lake Bed Samples
Soil Samples
Au ppb
Projection: UTM Zone 16 (NAD 83)
5,512,500
5,510,000
5,507,500
5,505,000
505,000
507,500
510,000
512,500
515,000
042E15
MCQUESTEN
042E10
ASHMORE
CROLL
Ashmore Lake
Kenogamissis Lake
Crabtree Lake
Forrester Lake

506,000 mE
510,000 mE
514,000 mE
14,000 mE
5,510,000 mN
5,510,000 mN
5,506,000 mN
042E15
042E10
MCQUESTEN
HOUCK
ASHMORE
CROLL
Ashmore Lake
Kenogamissis Lake
Crabtree Lake
Low area swamp cedar vegatation
Low area wet, black spruce
Low lying spruce
High dry area spuce popular
Tall mature pines
Tall mature pine
Cedar and sand beach
Cedar and sand
Low area swampy
Thick small spruce
Cedar swamp on shore line
Cedar swamp wet
Pennisula Gold Trenches
744208
744221
744207
744232
744209
744231
609608
609595
744217
744211
609607
609591
609600
609594
609603
744218
609629
609619
609627
609624
609621
609617
609628
609618
609613
609597
609585
609587
609612
609589
609593
609590
744223
609630
609616
609625
609622
609626
609623
609620
609614
609584
609609
609610
609604
609611
609605
609599
609601
744210
560147
560165
560160
560148
560156
560137
560161
560157
560168
560145
560136
560158
559890
559900
559894
559897
559898
609606
609598
609586
609588
609592
560164
560144
560154
560155
560134
560150
560151
560140
560135
560169
560146
560163
559889
559887
559901
559891
559895
609602
609615
560142
560159
560166
560167
560143
560149
560138
560139
560152
560162
560141
560153
559888
559899
559893
559896
559892
609596
560185
560180
560182
560183
560173
560184
560171
560181
750114
560177
560186
560172
560170
560178
560179
560174
560175
749120
749121
749122
609634
609633
Legend
Iron Formation
Mafics
Metasediments
Boulders
Diabase
Carbonate Zone
Gabbro
Intermediate to felsic rocks
Congolmerate Breccia
Lapilli Tuff
Non Mining Land Tenure
Mining Land Tenure
Marsh
Lakes
Thunder Gold Pen Outline
Thunder Gold Claims
Operational_Cell_Claims
gplan
Roads
Streams
Railways
Pennisula_Gold_Trenches
Vegetation
N
-5.97° (-6°58')
2023
0
2,000
meters
Scale 1:30,000
THUNDER GOLD CORP
Pen Gold Property
Outcrops
MAP 3
Date: 2023-05-15
Author: csalo
Projection: UTM Zone 16 (NAD 83)
Thunder Gold Corp

LEGEND

Roads
Streams
Railways
Thunder Gold Claims
Thunder Gold Pen Outline
gplan
Non Mining Land Tenure
Mining Land Tenure
Marsh
Lakes

Prospecting
MS_July_12
MS_July_13
MS_July_14
MS_July_15
MS_July_18
MS_July_19
MS_July_20
MS_July_21

Prospecting and supervision soils
CH July 12
CH July_13
CH July_14
CH July_15
CH July_18
CH July_19
CH July_20
CH July_21

Soils MT & MB
July 13
July 18
July 19
Tracks

MS = Mick Stares
CH= Cliff Hickman
MB = Marcus Brisard
MT = Matti tiitto

0 100
meters
Scale 1:3,000

N

506,000 mE
510,000 mE
514,000 mE
5,510,000 mN
5,506,000 mN

MCQUESTEN
042E10
ASHMORE
CROLL

July 15
July 15
July 20
Ju.y 31
Uly 13
July 19
July 18

609629 609619 609627
609624 609621 609617 609628 609618
609630 609616 609625 609622 609626 609623 609620
560147 560165 560160 560148 560156 560137 560161 560157 560168 560145
560164 560144 560154 560155 560134 560150 560151 560140 560135 560169
560142 560159 560166 560167 560143 560149 560138 560139 560152 560162
560185 560180 560182 560183 560173 560184 560171 560181 750114 560177
749120 749121 749122 609634 609633
560136 560158 559890 559900 559894 559897 559898 609606 609586 609588 609592
560146 560163 559889 559887 559901 559891 559895 609602 609615
560141 560153 559888 559899 559893 559896 559892 609596
560186 560172 560170 560178 560179 560174 560175
609614 609584 609609 609610 609604 609611 609605 609599 609601
609613 609597 609585 609587 609612 609589 609593
609607 609591 609600 609594
609608 609595

Thunder Gold Corp	
Date: 2023-05-15 Author: csalo	Pen Gold Property Tracks MAP 4
Projection: UTM Zone 16 (NAD 83)	

APPENDIX 6

ACTLABS.COM

30 YEARS OF INNOVATION Since 1987

Geochemistry Schedule of Services & Fees

2023 CANADIAN

SCC Accredited LAB Accrédité CCN

ISO 9001:2015 Certified TRC The Registrar Company

February 27, 2023

Sample Preparation

To obtain meaningful analytical results, it is imperative that sample collection and preparation be done properly. Actlabs can advise on sampling protocol for your field program if requested. Once the samples arrive in the laboratory, Actlabs will ensure that they are prepared properly. As a routine practice with rock and core, the entire sample is crushed to a nominal -2 mm, mechanically split to obtain a representative sample and then pulverized to at least 95% -105 microns (µm). All of our steel mills are mild steel and do not introduce Cr or Ni contamination. Quality of crushing and pulverization is routinely checked as part of our quality assurance program. Samples submitted in an unorganized fashion will be subject to a sorting surcharge and may substantially slow turnaround time. Providing an accurate detailed sample list by e-mail will also aid in improving turnaround time and for Quality Control purposes.

Rock, Core and Drill Cuttings		
Code	**Description**	**Price**
RX1	Dry, crush (< 7 kg) up to 80% passing 2 mm, riffle split (250 g) and pulverize (mild steel) to 95% passing 105 µm included cleaner sand	$12.80
RX1-ORE	Dry, crush Crush up to 90% passing 2 mm	add $2.25
RX1+500	500 grams pulverized	add $1.30
RX1+800	800 grams pulverized	add $2.35
RX1+1000	1000 grams pulverized	add $2.90
RX1-SD	Dry, crush (< 7 kg) up to 80% passing 2 mm, rotary split (250 g) and pulverized (mild steel) to 95% passing 105µm	$12.70
RX1-SD-ORE	Dry, crush up to 90% passing 2 mm	add $2.25
RX3	Oversize charge per kilogram for crushing	$1.35
RX4	Pulverization only (mild steel) (coarse pulp or crushed rock) (< 800 g)	$7.75
RX5	Pulverize ceramic (100 g)	$21.50
RX6	Hand pulverize small samples (agate mortar & pestle) (<5g)	$21.50
RX7	Crush and split (< 7 kg)	$5.80
RX8	Sample prep only surcharge, no analyses	$6.00
RX9	Compositing (per composite) dry weight	$4.85
RX10	Weight (kg) as received	$2.35
RX11	Checking quality of pulps or rejects prepared by other labs and issuing report	$11.50
RX14	Core cutting	On Request
RX15	Special Preparation/Hour	$80.00
RX16	Specific Gravity on Core	$16.75
RX16-W	Specific Gravity (WAX) on friable samples	$24.00
RX17	Specific Gravity on the pulp	$17.85
RX17-GP	Specific Gravity on the pulp by gas pycnometer	$18.90
RX18	Subsample split for 3rd party (up to 1kg)	$3.50

Note: Larger sample sizes than listed above can be pulverized at additional cost.

Our Sample Preparation pricing is all-inclusive including: sorting, drying, labeling, new reject bags, using cleaner sand between each sample and crushing samples up to 7 kg.

Soils, Stream and Lake Bottom Sediments, and Heavy Minerals		
Code	**Description**	**Price**
S1	Drying (60°C) and sieving (-177 µm) save all portions	$4.85
S1 DIS	Drying (60°C) and sieving (-177 µm), discard oversize	$4.75
S1-230	Drying (60°C) and sieving (-63 µm), save oversize	$6.25
S1-230 DIS	Drying (60°C) and sieving (-63 µm), discard oversize	$5.75
S2	Lake bottom sediment preparation crush & sieve (-177 µm)	$9.70
S3	Alternate size fractions and bracket sieving, add	$3.15
S4	Selective Extractions drying (40°C) & sieving (-177 µm)	$4.85
SGH-1	SGH drying (40°C) & sieving (-177 µm)	$4.85
S5	Wet or damp samples submitted in plastic bags, add	$2.25
S8	Sieve analysis (4 sieve sizes) coarser than 53 µm	$85.00
S9	Particle size analysis (laser)	On Request

Precious Metals Analysis

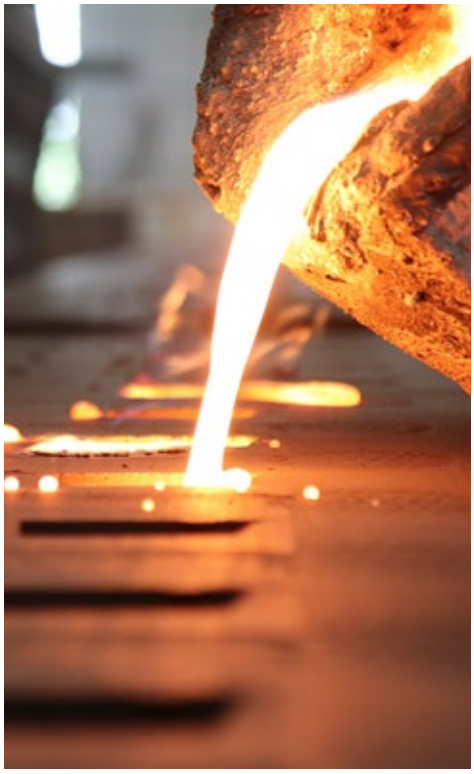
Gold and Silver Analyses - Geochem				
Code	Method	Sample Weight (g)	Metric Range (ppb)	Price
1A1	Au Fire Assay – INAA	30	1 – 20,000	$23.00
1A2	Au Fire Assay – AA	30	5 – 5,000	$19.85
1A2B-30	Au Fire Assay – AA	30	5 – 10,000	$20.25
1A2-50	Au Fire Assay – AA	50	5 – 5,000	$23.00
1A2B-50	Au Fire Assay – AA	50	5 – 10,000	$23.75
1A2-ICP	Au Fire Assay – ICP-OES	30	2 – 30,000	$21.00
1A2-ICP-50	Au Fire Assay – ICP-OES	50	2 – 30,000	$24.00
1A2-ICPMS	Au Fire Assay - ICP-MS	30	0.5 - 30,000	$28.75
1A6	Au BLEG - ICP-MS	1,000	0.1 - 10,000	$48.75
1A6-50	Au Cyanide Extraction - ICP-MS Ag or Cu add-on, for each additional, add	50	0.02 - 1,000	$16.50 $5.75
1A8-Au	Au Aqua Regia - ICP-MS	30	0.2 - 2,000	$22.00
1E-Ag	Ag Aqua Regia - ICP-OES	0.5	0.2 - 100 ppm	$8.50

Use of 50g sample for fire assay may not provide optimum recovery.
For proper fire assay fusion, Actlabs may reduce the sample weights to 15g or smaller at its discretion

Gold and Silver Analyses - Assay				
Code	Method	Sample Weight (g)	Metric Range (g/t)	Price
1A3-30	Au Fire Assay - Gravimetric	30	0.03 - 10,000	$26.00
1A3-50	Au Fire Assay - Gravimetric	50	0.02 - 10,000	$29.00
1A3-Ag (Au, Ag)	Au, Ag Fire Assay - Gravimetric	30	0.03 - 10,000 (Au) 3 - 10,000 (Ag)	$33.00
1A4 *	Au Fire Assay - Metallic Screen	500	0.03 – 10,000	$80.00
1A4-1000 *	Au Fire Assay - Metallic Screen	1,000	0.03 – 10,000	$91.00
8-Ag	Ag Fire Assay – Gravimetric	30	3 - 10,000	$29.00

* A representative 500 gram or 1000 gram (or customized) sample split is sieved at 149µm, with assays performed on the entire +149 µm fraction and two splits of the -149 µm fraction. It is important not to over pulverize the sample too finely; as tests have shown gold will plate out on the mill and be lost. When assays have been completed on the coarse and fine portions of the bulk sample, a final assay is calculated based on the weight of each fraction.

When submitting samples for precious metals analysis, please provide at least 2-3 times the listed sample weight to allow for quality control analysis



Gold, Platinum, Palladium and Rhodium

Code	Method	Sample Weight (g)	Range (ppb)				Price
			Au	Pt	Pd	Rh	
1C-Exploration	Fire Assay - ICP-MS	30	2 - 30,000	1 - 30,000	1 - 30,000	-	$28.00
1C-Research	Fire Assay - ICP-MS	30	1 - 30,000	0.1 - 30,000	0.1 - 30,000	-	$36.25
1C-Rhodium	Fire Assay - ICP-MS	30	-	-	-	1 - 10,000	$45.00
1C-Rhodium	Fire Assay - ICP-MS	30	-	-	-	5 - 10,000	$34.00
1C-OES	Fire Assay - ICP-OES	30	2 - 30,000	5 - 30,000	5 - 30,000	-	$24.00
1C-OES-ORE *	Fire Assay - ICP-OES	30	0.006 - 1000 g/t	0.001 - 1000 g/t	0.001 - 1000 g/t	-	$40.00

* If above 1000g/t, see Concentrate Testing

Platinum Group Elements

Code	Method	Sample Weight (g)	Range (ppb)							Price
			Os	Ir	Ru	Rh	Pt	Pd	Au	
1B1	NiS Fire Assay - INAA	30	2-20,000	0.1-10,000	5-50,000	0.2-20,000	5*-100,000	2-100,000	0.5-20,000	1-2 samples $382.00 3+ samples $192.00
1B2	NiS Fire Assay - ICP-MS	30	-	1-10,000	1-10,000	1-10,000	1-10,000	1-10,000	1-10,000	1-2 samples $382.00 3+ samples $192.00

* Detection limits for Pt are increased with high Au/Pt ratios and limits for other elements will be affected by abnormally high Au, Sb and Cu content. Samples with high Au can be reanalyzed by Code 1C exploration or research. Zn concentrates are not amenable to the nickel sulphide fire assay. Au results by Code 1B1 or 1B2 can be low by nickel sulphide fire assay. For accurate Au values, please request Code 1C-exploration.

Aqua Regia "Partial" Digestion

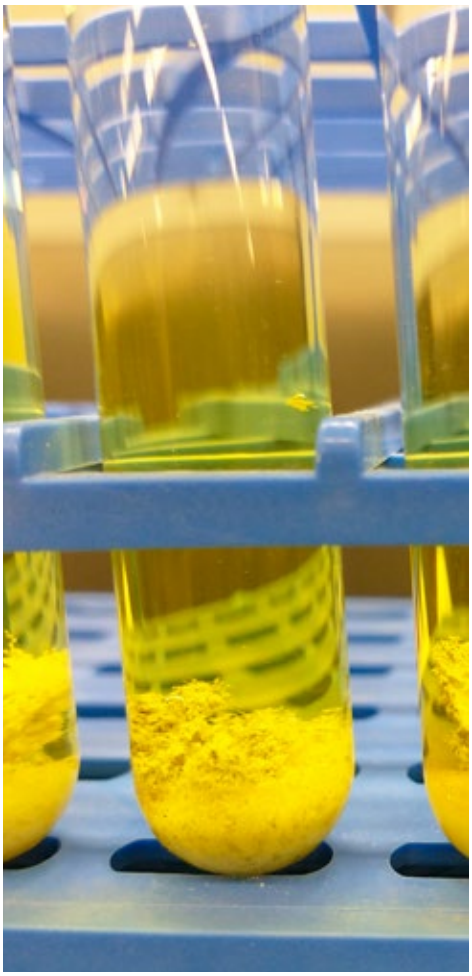
This digestion uses a combination of concentrated hydrochloric and nitric acids to leach sulphides, some oxides and some silicates. Mineral phases which are hardly (if at all) attacked include barite, zircon, monazite, sphene, chromite, gahnite, garnet, ilmenite, rutile and cassiterite. The balance of silicates and oxides are only slightly to moderately attacked, depending on the degree of alteration. Generally, but not always, most base metals and gold are usually dissolved.

Note: Results from acid digestions may be lab dependent or lab operator dependent. Actlabs has automated this aspect of digestion using a microprocessor designed hotbox to accurately reproduce digestion conditions every time.

Note: For Code Ultratrace 1, Code Ultratrace 2 and Code UT-1M, Au is semi-quantitative when using a 0.5g sample.

15g or 30g is recommend for soils, sediments and vegetation samples only.

Packages that involve 15g and 30g sample size will require RX10 (pulp weight report)



	ICP-OES (ppm)		ICP-MS (ppm)		ICP-OES + ICP-MS (ppm)
Package	**1E**	**1E3**	**UT-1M**	**Ultratrace 1**	**Ultratrace 2**
Ag	0.2 - 100	0.2 - 100	0.1 - 100	0.002 - 100	0.002 - 100
Al	-	0.01 - 10 %	0.01 - 8 %	0.01 - 8 %	0.01 - 8 %
As	-	2 - 10,000	0.5 - 10,000	0.1 - 10,000	0.1 - 10,000
Au	-	-	0.5 - 1,000 ppb	0.5 - 10,000 ppb	0.5 - 10,000 ppb
B	-	10 - 10,000	20 - 2,000	1 - 5,000	1 - 5,000
Ba	-	10 - 10,000	1 - 10,000	0.5 - 6,000	0.5 - 6,000
Be	-	0.5 - 1,000	-	0.1 - 1,000	0.1 - 1,000
Bi	-	2 - 10,000	0.1 - 2,000	0.02 - 2,000	0.02 - 2,000
Ca	-	0.01 - 10 %	0.01 - 50 %	0.01 - 50 %	0.01 - 50 %
Cd	0.5 - 2,000	0.5 - 2,000	0.1 - 2,000	0.01 - 2,000	0.01 - 1,000
Ce	-	-	-	0.01 - 10,000	0.01 - 10,000
Co	-	1 - 10,000	0.1 - 5,000	0.1 - 5,000	0.1 - 5,000
Cr	-	1 - 10,000	1 - 10,000	1 - 10,000	1 - 10,000
Cs	-	-	-	0.02 - 500	0.02 - 500
Cu	1 - 10,000	1 - 10,000	0.2 - 10,000	0.2 - 10,000	0.2 - 10,000
Dy	-	-	-	0.1 - 1,000	0.1 - 1,000
Er	-	-	-	0.1 - 1,000	0.1
Eu	-	-	-	0.1 - 100	0.1
Fe	-	0.01 - 30 %	0.01 - 30 %	0.01 - 30 %	0.01 - 30 %
Ga	-	10 - 10,000	1 - 1,000	0.02 - 500	0.02 - 500
Gd	-	-	-	0.1 - 1,000	0.1 - 1,000
Ge	-	-	-	0.1 - 500	0.1 - 500
Hf	-	-	-	0.1 - 500	0.1 - 500
Hg	1 - 10,000	1 - 10,000	0.01 - 50	10 - 10,000ppb	10 - 10,000 ppb
Ho	-	-	-	0.1 - 1,000	0.1 - 1,000
In	-	-	-	0.02 - 500	0.02 - 500
K	-	0.01 - 10 %	0.01 - 5 %	0.01 - 5 %	0.01 - 5 %
La	-	10 - 10,000	1 - 10,000	0.5 - 10,000	0.5 - 1,000
Li	-	-	-	0.1 - 10,000	0.1 - 10,000
Lu	-	-	-	0.1 - 100	0.1 - 100
Mg	-	0.01 - 25 %	0.01 - 10 %	0.01 - 10 %	0.01 - 10 %
Mn	2 - 100,000	5 - 100,000	1 - 10,000	1 - 10,000	1 - 10,000
Mo	2 - 10,000	1 - 10,000	0.1 - 10,000	0.01 - 10,000	0.01 - 10,000
Na	-	0.001 - 10 %	0.001 - 5 %	0.001 - 5 %	0.001 - 5 %
Nb	-	-	-	0.1 - 500	0.1 - 500
Nd	-	-	-	0.02 -5,000	0.02 - 5,000
Ni	1 - 10,000	1 - 10,000	0.1 - 10,000	0.1 - 10,000	0.1 - 10,000
P	-	0.001 - 5 %	0.001 - 5 %	0.001 - 5 %	0.001 - 5 %
Pb	2 - 5,000	2 - 5,000	0.1 - 5,000	0.1 - 5,000	0.1 - 5,000
Pr	-	-	-	0.1 -1,000	0.1 - 1,000
Rb	-	-	-	0.1 - 500	0.1 - 500
Re	-	-	-	0.001 - 100	0.001 - 100
S +	0.01 - 20 %	0.01 - 20 %	1 - 20 %	1 - 20 %	0.001 - 20 %
Sb	-	2 - 10,000	0.1 - 500	0.02 - 500	0.02 - 500
Sc	-	1 - 10,000	0.1 - 10,000	0.1 - 10,000	0.1 - 10,000
Se	-	-	0.5 - 10,000	0.1 - 10,000	0.1 - 10,000
Sm	-	-	-	0.1 - 100	0.1 - 100
Sn	-	-	-	0.05 - 200	0.05 - 200
Sr	-	1 - 10,000	1 - 5,000	0.5 - 5,000	0.5 - 5,000
Ta	-	-	-	0.05 - 50	0.05 - 50
Tb	-	-	-	0.1 - 100	0.1 - 100
Te	-	1 - 500	0.2 - 500	0.02 - 500	0.02 - 500
Th	-	20 - 10,000	0.1 - 200	0.1 - 200	0.1 - 200
Ti	-	0.01 - 10 %	0.001 - 10 %	0.001 - 10 %	0.01 - 10 %
Tl	-	2 - 10,000	0.1 - 500	0.02 - 500	0.02 - 500
Tm	-	-	-	0.1 - 1,000	0.1 - 1,000
U	-	10 - 10,000	-	0.1 - 10,000	0.1 - 10,000
V	-	1 - 10,000	2 - 1,000	1 - 1,000	1 - 1,000
W	-	10 - 200	0.1 - 200	0.1 - 200	0.1 - 200
Y	-	1 - 1,000	-	0.01 - 500	0.01 - 500
Yb	-	-	-	0.1 - 200	0.1 - 200
Zn	1 - 10,000	2 - 10,000	1 - 5,000	0.1 - 5,000	0.1 - 5,000
Zr	-	1 - 10,000	-	0.1- 5,000	0.1 - 5,000
0.5g Price:	$14.00	$14.75	$23.00	$26.00	$30.75
		15g Price	$33.00	$35.00	
		30g Price	$37.00	$38.00	

Extraction of each element by Aqua Regia is dependent on mineralogy
+ Sulphide sulphur and soluble sulphates are extracted