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2017

PROSPECTING AND GEOCHEMICAL SURVEY REPORT

ON THE

McBean Lake Property

UTM Zone 16 - NAD 83 Projection
531242E, 5499082N

NTS 42E/10

PREPARED BY:
Andrew Tims

November 28, 2018

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INTRODUCTION

This report presents and summarizes the results of a 2 day prospecting and geochemical sampling work program, completed during the period of October 11th and October 12th, 2017, on the Skinner property in the McBean Lake area (Figure 2) of the Thunder Bay Mining District. Harvey M. Buck and Andrew Tims of Thunder Bay, Ontario completed the fieldwork.

LOCATION AND ACCESS

The Skinner property is in the McBean Lake area, approximately 20 kilometres east of Geraldton, 8 kilometres south of Longlac, in the Thunder Bay Mining Division, NTS sheet 42E/1. See Figures 1 &2. Access for prospecting was by ATV from an abandoned sand/gravel pit 25 kilometres south of the town of Long Lac on the haulage road to Terrace Bay. A disused logging road, now an ATV trail, goes 3.3 km to the NNW and crosses the Making Ground River on a trapper's bridge. Approximately 140 m after the bridge, the trail splits. The left fork goes for 1 km to the southeast shore of McBean Lake where a number of boats are stored. The right fork continues for 2.1 km to the adhoc McBean Creek Bridge. The previous three years has seen the bridge over McBean Creak in disrepair due to inactivity of the local trapper. Last year contractors for Greenstone Gold Mines GP Inc. refurbished the bridge to allow grid cutting and geophysical crews access to Viper Property claims adjacent to the Skinner property. During 2017 season the beaver dam used for the crossing was blown open by persons unknown and made impassable.

CLAIMS AND OWNERSHIP

The McBean Lake property consists of 3 contiguous staked claims, comprising approximately 337 hectares (Figure 2). A list of the claims can be found in Table 1 below. Note claim 4274598 is approximately 56 ha in size rather than the standard 64 ha for a 4-unit claim.

Figure 1 McBean Lake Property Location

Township / Area	Legacy Claim Id	Tenure ID	Anniversary Date	Work Required	Total Reserve
MCBEAN LAKE	4274598	178131	2018-12-13	200	0
MCBEAN LAKE	4274598	195135	2019-02-11	400	0
MCBEAN LAKE	4274598	242232	2019-02-11	400	0
MCBEAN LAKE	4274598	252332	2018-12-13	200	0
MCBEAN LAKE	4274598	252333	2018-12-13	200	73
MCBEAN LAKE	4274598	252334	2018-12-13	200	0
MCBEAN LAKE	4274598	264336	2018-12-13	200	0
MCBEAN LAKE	4274598	297375	2019-02-11	400	0
MCBEAN LAKE	4274598	316317	2019-02-11	400	0
MCBEAN LAKE	4274598	337690	2019-02-11	200	0
MCBEAN LAKE	4274599	123986	2018-12-13	400	0
MCBEAN LAKE	4274599	135984	2018-12-13	400	0
MCBEAN LAKE	4274599	151889	2019-02-11	400	0
MCBEAN LAKE	4274599	187985	2018-12-13	200	0
MCBEAN LAKE	4274599	187986	2018-12-13	400	0
MCBEAN LAKE	4274599	235828	2018-12-13	200	0
MCBEAN LAKE	4274599	235829	2019-02-11	400	0
MCBEAN LAKE	4274599	235830	2018-12-13	400	0
MCBEAN LAKE	4274599	237381	2019-02-11	200	0
MCBEAN LAKE	4274599	237382	2019-02-11	400	0
MCBEAN LAKE	4274599	254641	2018-12-13	200	0
MCBEAN LAKE	4274599	343423	2018-12-13	400	0
MCBEAN LAKE	4282600	151889	2019-02-11	400	0
MCBEAN LAKE	4282600	195135	2019-02-11	400	0
MCBEAN LAKE	4282600	212318	2019-02-11	400	0
MCBEAN LAKE	4282600	235829	2019-02-11	400	0
MCBEAN LAKE	4282600	237381	2019-02-11	200	0
MCBEAN LAKE	4282600	237382	2019-02-11	400	0
MCBEAN LAKE	4282600	242232	2019-02-11	400	0
MCBEAN LAKE	4282600	297375	2019-02-11	400	0
MCBEAN LAKE	4282600	316317	2019-02-11	400	0
MCBEAN LAKE	4282600	337690	2019-02-11	200	0

Table 1 McBean Lake Property Claims List

PREVIOUS WORK

No historical assessment data for the immediate area of the property is recorded before 1946. The Theresa Mine, located 5 kilometres to the northeast, produced 4,727 oz of gold and 198 oz of silver from 261,120 milled tons between 1935-1955.

Previous work is as follows:

1934-37	Initial gold discovery at the Theresa Mine site by Moses Fisher; optioned to *Afton Mines Ltd.,*
1934-38	Bulk sampling, limited gold and silver production; 3,647 m of drilling; sinking of shafts 1 & 2; *Theresa Mines Ltd*. was incorporated,
1946	Independent Mining undertakes line-cutting; magnetic and geological surveys on the majority of the present day Skinner property,
1947-49	Shaft #3 at Theresa Mine sunk to 155 m; 10 934 m of drilling,
1950-53	Theresa Mine Mill operated at 106 tons per day; Shaft #3 deepened to 300m; 2 071 m surface and 15 202 m of underground drilling,
1954	Theresa Mine operations halted; patents suspended,
1969	*O. Albert* carried out trenching and stripping on a claim north of Milbean Lake,
1970-72	*Canadian Nickel Co*. conducted a drill program in the McBean Lake area,
1978	*Shell Canada Resources Ltd*. optioned the property held by Roxmark Mines and Discovery West in the Skinner-McBean Lake Area; Questor Surveys completed an AEM survey with ground magnetic and EM follow-up surveys; a nine hole, 1,026 m drill program followed,
1987	Areodat flew an AEM survey over a 186 claim group in the McBean Lake area for *Discovery West Corp* and *Roxmark Mines*; follow-up prospecting, ground mag and EM surveys; two holes, 180 m, were drilled south of Skinner Creek between Skinner Lake and Milbean Lake,
1987-88	*Duration Mines* optioned the Theresa Mine property and dewatered the workings; completed 5 320 m of underground drilling, Duration Mines declared bankruptcy; the mine contractor, *J.S. Redpath* gained ownership of the property as compensation;
1996	1996 Cyprus Canada Inc. staked the original fifteen-claim block in June followed by 23 km of line cutting between Nov and Dec.
1997	An eleven hole, 1,851 metre BQ reconnaissance scale drill program was completed by Cyprus Canada Inc. Seventy-four kilometre's of line for Grid B were cut between June and August. Line cutting was accompanied by a 58.9 kilometre mag/VLF survey. Geological mapping was completed in August. A 13.7 km pole-dipole array IP survey was completed during August. A 10 drill hole, 1,656 meter BQ diamond drill program was conducted by Cyprus Canada Inc. between October 7th and 27th, 1997
2004	Andrew A. Tims staked two claims on June 9th, 2004
2006	A sampling program of 50 "B" horizon and 50 Mobile Metal Ion (MMI) media was undertaken by Andrew A. Tims on old grid lines on the property.

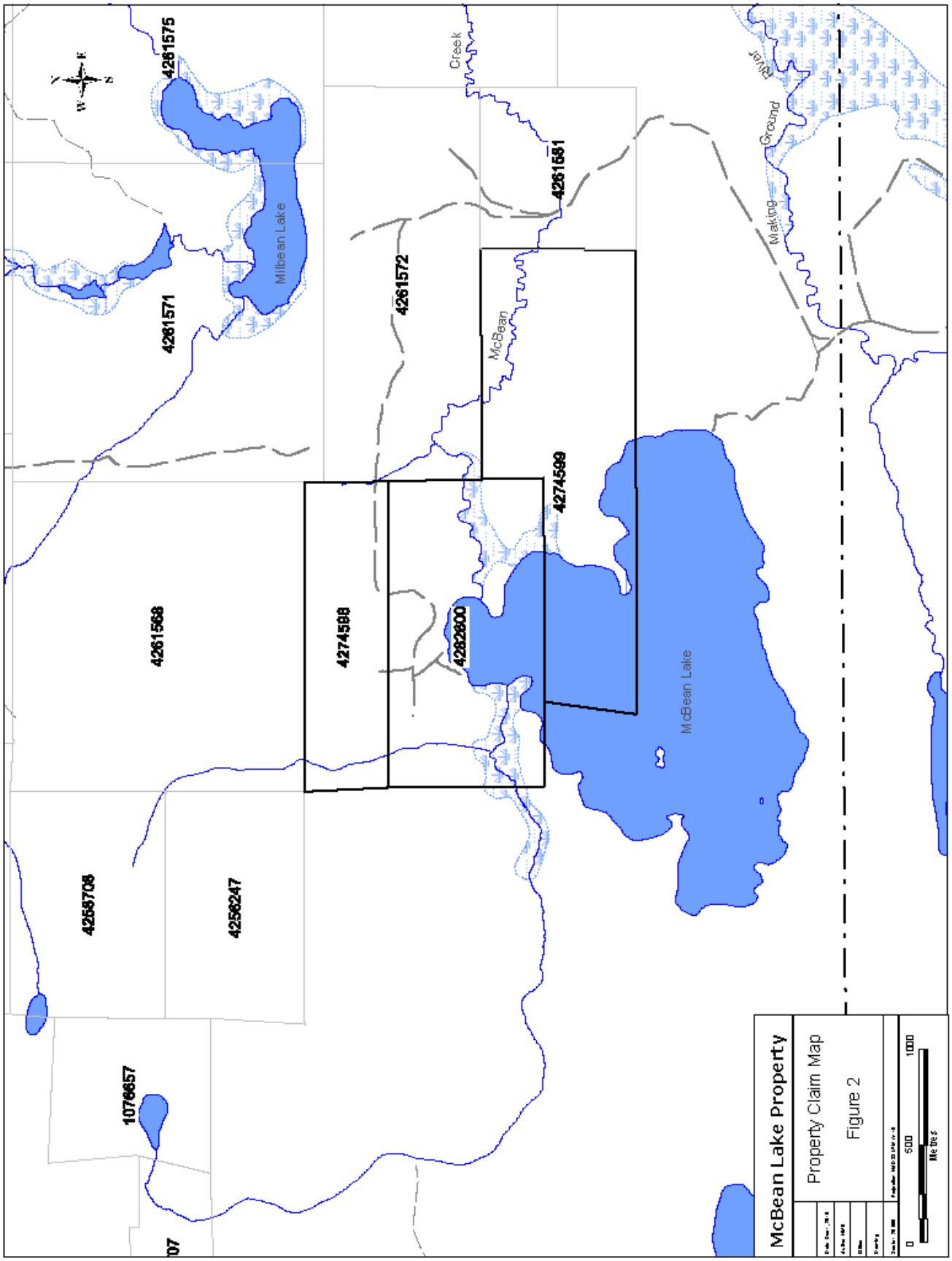

Figure 2 McBean Lake Claim Map

2004	Andrew A. Tims staked two claims on June 9th, 2004
2006	A sampling program of 50 "B" horizon and 50 Mobile Metal Ion (MMI) media was undertaken by Andrew A. Tims on old grid lines on the property.
2007	Two additional claims were staked on May 5th and 6th, 2007 for Andrew A. Tims by SkyBridge Development. No work was completed by SkyBridge and the option lapsed.
2008	A 66 soil sample survey plus prospecting was completed over the core of the property.
2009	Two small magnetic/VLF surveys where completed covering the northern end of McBean Lake and the southern shore of Milbean Lake. A 10 sample prospecting program was completed on claim 30153127.
2010	A prospecting and soil sampling work program was carried out over claims 4253400 and 4221057.
2013	Property restaked in current 3 claim configuration.

Between 1934 and 1968, the Geraldton camp produced approximately 2.9 million ounces of gold at an average grade of 0.17 oz/ton from eleven, moderate to high grade underground operations. Production statistics for the Geraldton camp are listed in Table 2.

Table 2
Mine Production Statistics, Geraldton, Ontario

MINE	PERIOD	TONS	AU OZ.	AU OZ/T	PROD. RATE
1. MacLeod Cockshutt	1938-67	9 404 145	1 366 404	0.15	500-1 000
2. Little Long Lac	1934-53	1 780516	605 449	0.34	250
3. Mosher	1962-66	2 710 657	330 265	0.13	NA
4. Hardrock	1938-51	1 458 375	269 081	0.18	200-500
5. Magnet Consolidated	1938-51	359 912	152 089	0.42	100
6. Consolidated Mosher	1967-68	934 084	109 324	0.12	1000
7. Tombill	1838-42	190 622	69 120	0.36	100
8. Bankfield	1937-42	231 009	66 417	0.29	100
9. Jellex	1939-40	14 722	5 672	0.39	45
10. Theresa	1950-55	26 120	4 727	0.15	106
11. Talmora	1948	6 634	1 417	0.21	50
TOTALS	**1934-68**	**17 102 074**	**2 974 293**	**0.17**	**50-1000**

REGIONAL GEOLOGY

The Beardmore-Geraldton Greenstone Belt has an average width of about 30 km and stretches for about 180 km from Lake Nipigon in the west to within 60 km of Paleozoic cover rocks in the east. It is dominated by a series of repetitive, east trending, isoclinally folded, steeply dipping mafic volcanic and turbiditic

sedimentary units, believed to represent tectonically imbricated stratigraphy from accretionary wedge (Williams, 1986, 1987; Devaney and Williams, 1989). Zones of laterally extensive but thin magnetite iron formation occur within the sedimentary rocks and can be traced magnetically from Lake Nipigon through to the McBean Lake area. The supracrustal units are intruded by syn to post-tectonic gabbro, diorite, tonalite and quartz-feldspar porphyries. During the Proterozoic, all lithologies were intruded by northwest-trending diabase and lesser lamprophyre dikes. Regional structures suggest that the belt is a north facing assemblage (Kresz and Zayachivsky 1993). The Geraldton Gold camp is underlain by the east-southeast striking sediment-volcanic Barton Bay synclinorium (Figure 3a). The sediments are comprised of Precambrian turbidite assemblages with interbeds of banded iron formation and lesser mafic volcaniclastic rocks of the Southern Sedimentary unit (Kresz & Zayachivsky, 1991). Semi-conformable sills of diorite/gabbro, including quartz and quartz-feldspar porphyry intrude these formations. The sediments/volcanics and intrusives have been deformed into tight large and small-scale isoclinal folds. Later intrafold and drag folds have been superimposed on these structures. To the north, the synclinorium is bound by a sequence of mafic volcanic flows and to the south by a major east-southeast tectonic structure known as the Barton Bay deformation zone (BBDZ). See Figure 3a and 3b.

The supracrustal rocks forming the tectono-stratigraphic sequence of Beardmore – Geraldton Belt belt can be subdivided into 3 pairs of east-striking sub-belts informally referred to as: the northern metasedimentary sub-belt (NMB), northern volcanic sub-belt (NVB), central metasedimentary sub-belt (CMB), central volcanic sub-belt (CVB), southern metasedimentary sub-belt (SMB) and southern volcanic sub-belt (SVB). The Longlac fault, which trends NNE through Longlac Lake divided the belt into two metamorphic assembages. Greenschist is the dominant metamorphic grade within the belt west of the Longlac Fault but could ranges up to upper greenschist to amphibolite grade in west of Longlac (Smyk et.al., 2005). The faults have been offset by the Longlac fault producing a horizontal offset of 1 kilometre and a significant displacement in the vertical sense.

Two prominent east-west deformation zones (Barton Bay and McBean lake Deformation Zones) have been recognized in the area with the Barton Bay structure closely associated with iron formation and gold mineralization at Geraldton. In the Geraldton area, the deformation zone is approximately 3.0 kilometres wide and trends ESE. The deformation zone swings ENE to NE in the area of the McBean Lake property, apparently deflected or otherwise influenced by the Croll Lake intrusion (Kresz and Zayachivsky 1993).

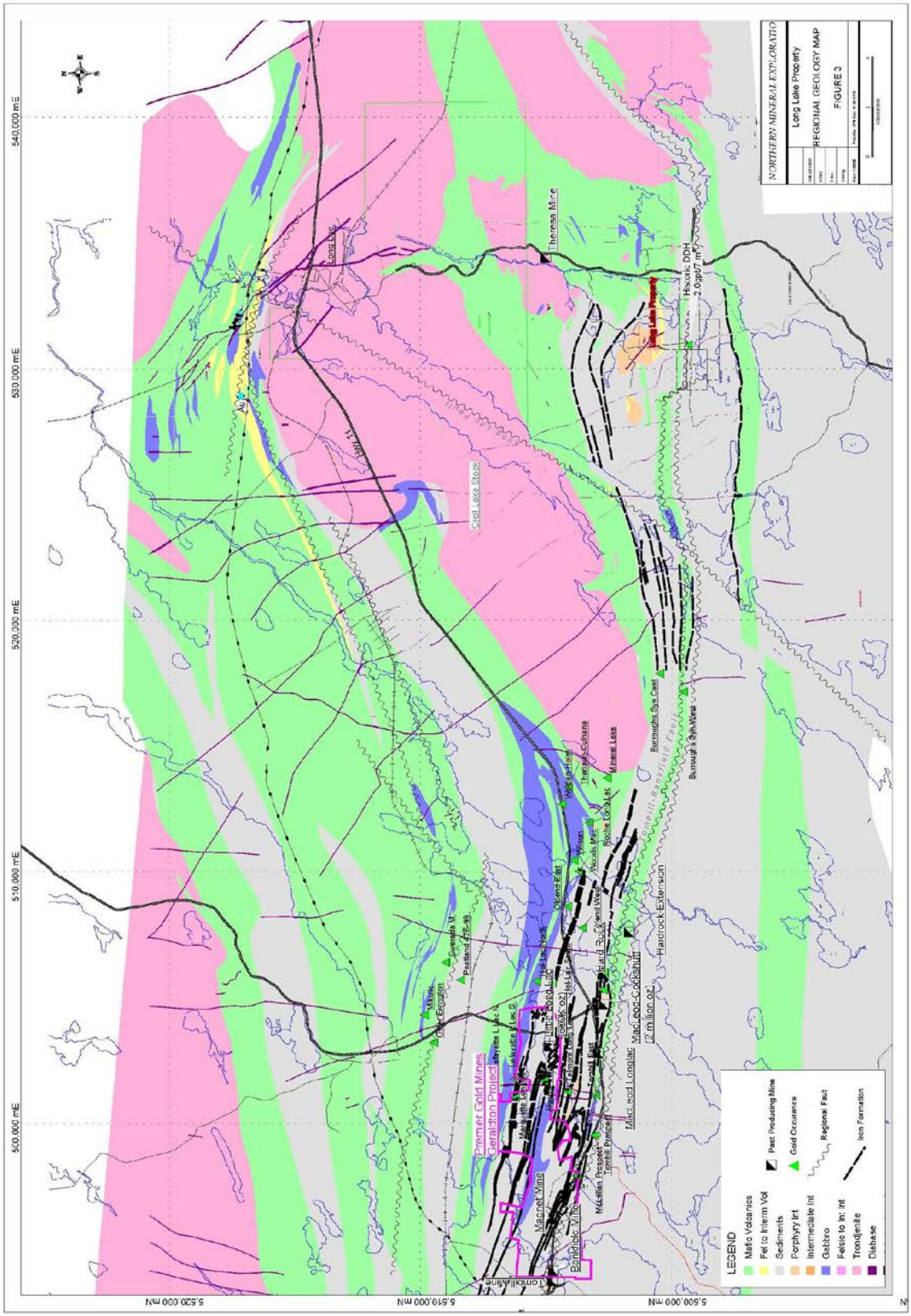

Figure 3 McBean Property Regional Geology Map

PROPERTY GEOLOGY

The McBean property is underlain by an east-west striking, steeply south dipping fine to medium grained volcano-sedimentary succession. A mafic volcanic unit known as the Eldee Lake Volcanic unit (ELV) occupies the northmost 100 m of the property with a poorly sorted biotitic greywacke to the south (Figure 3b). North-northwest striking diabase and aplite dykes intrude these lithological units. The 150 to 200 metre wide ELV assemblage consists of tholeiitic, massive and pillowed flows as well as tuffs and minor lapilli tuffs all exhibiting varying degrees of recrystallization as indicated by the presence of metamorphic amphiboles and locally garnets. The southern greywacke package is fine grain and weakly bedded with graded bedding indicating tops to the south. The contact with the northern sediments and the ELV unit is marked by a strong, continuous AEM anomaly, which corresponds to the Barton Bay fault zone (BBFZ) as described by Kresz S Zayachivsky (1991). The southern contact between the ELV and greywacke succession was not located in outcrop. In close proximity of the contact the ELV becomes strongly altered by ankerite and chlorite and the greywacke moderately fractured and intruded by quartz with a moderate ankerite staining. Drilling by previous operators along this contact, McBean Lake Fault, described the structure as a black line fault or a centimetre-scale gouge occasionally accompanied by fault bounded repetition of lithologies on the meter-scale.

WORK PROGRAM

The work program consisted of prospecting and a humus sampling. The two aims of the work program was to: 1) trace out the altered mafic footwall to the gold horizon intersected in the 1997 drill by Cyprus Canada 300 m to the east of claim 4282600 and, 2) to follow up on the anomalous gold in humus results from the 2016 geochemistry survey on claim 4274599. Target area 1) encompassed the mafic–sediment contact along the McBean Lake structure where the lithological contacted is overprinted by a biotite-amphibole-garnet alteration envelope with fine-grained arsenopyrite present within deformed blue-grey quartz veinlets.

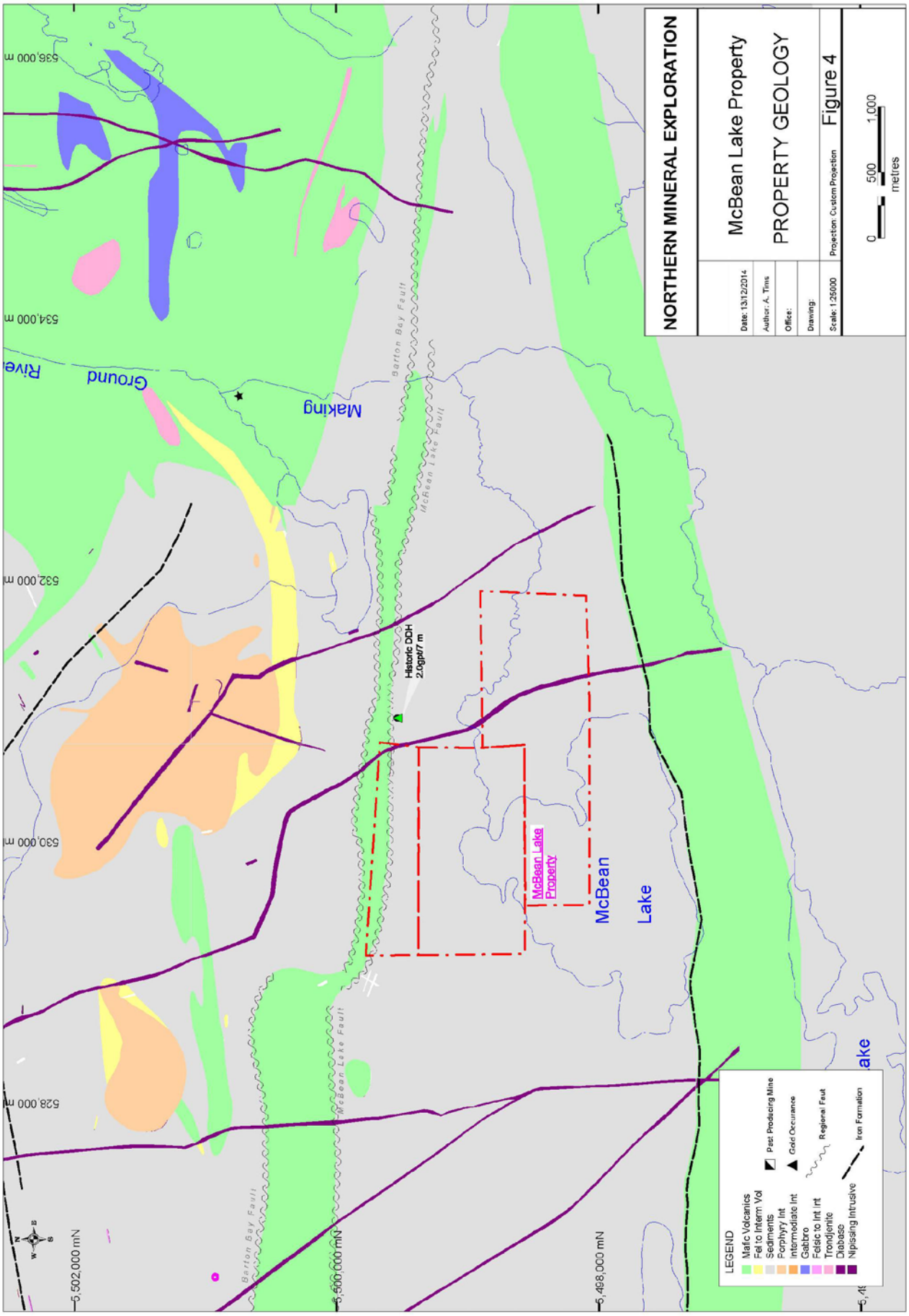

Figure 4 McBean Lake Property Geology

Target Area 2) is south of McBean creek in a portion of the property that has seen little exploration due to the blanketing Quaternary deposit of a bouldery till and low lying topography typified by cedar and tamarack swamp. Humus sampling produced a weak gold response north of an irregularity in the magnetic fabric. Two traverse lines were completed 50 m to the east and west of the 2016 sample line to expand upon the anomalous gold in humus results. The end goal of the work program was to identify areas for diamond drilling.

The above fieldwork was carried between October 11th and October 12th, 2017. Traverses were completed by pace and compass. Sample locations were recorded in UTM NAD83 coordinates with a Garmin 76Cx.

HUMUS SAMPLING

A single 300 m north-south traverse line was used to undertake the survey. Samples were taken every 25 m using a hand soil auger. Humus samples were taken below the lowermost leave litter layer to just above to grey oxidized horizon. Humus sample material varied from brown to black and dry to wet with the majority of the wet humus being very black peat-like material. The southernmost three samples sites possessed a thinnest humic layer less than 30 cm over a base of coble and boulders.

Pace and compass was used to make the sample traverses with locations recorded by a Garmin 76Cx. Sample media was placed into Kraft soil bags, folded closed and strung onto rope. Field data for each sample was recorded on custom designed data sheets. Data collected included: sample number, sample location in both grid as well as UTM coordinates, altitude, depth, vegetation type, colour, sample type, topography, slope direction, texture, plus a section for noting comments or cultural features (see appendix 3). Quality assurance and control of the geochemical data involved taking duplicates at the end of the traverse line. A total of 34 humus soils were hung to dry until delivery to the Activation Laboratories Ltd. (Actlab) preparation lab in Thunder Bay by the author.

At Actlabs, 34 elements were determined in each humus sub-sample. The elements are measured as well as in replicated reference standards using Instrumental Neutron Activation Analysis (INNA) multi-element techniques. This technique provides for ultimate sensitivity for gold and other trace elements. Gold is determined to a detection limit of one (1) ppb. Under Actlab's Code 2A for the INNA analyses of humus samples, the organic humus material is dried at temperatures below 60°C, macerated and a 15 gram aliquot is compressed into a briquette and analyzed using Code 2A. The briquettes are irradiated and their gamma ray spectra are measured and quantified. The advantages of this technique are simplicity and less chance for human error, contamination and loss of gold (such as occurs in ashing). The samples are analyzed in random order.

PROSPECTING

Lithologies

Outcrop prospecting encountered greywacke, chlorite altered mafic volcanic, biotite altered mafic volcanic and diabase. A description of each is as follows:

- Greywacke (coded S3G) is a light to grey-green, poorly sorted, massive to coarsely bedded sediment. The matrix is recrystallized and typically contains 20-50% quartz, <20% feldspar, 5-10% biotite with trace porphyroblasts of amphibole.

- Mafic Flows **(**V3M) are fine to medium grained, medium to dark green-grey, magnetic, massive to weakly foliated with weak to pervasive carbonate alteration and the rare quartz-carbonate veinlet. Coarser units typically possess millimetre scale bands of medium to coarse grain secondary amphibole.

- Biotite Chlorite Schist (V3S) is a biotite altered V3M, exhibiting a coarser re-crystallized groundmass of chlorite and amphibole. Weakly magnetic. The unit was noted in the footwall to the McBean Lake gold zone.

- Diabase Dykes (coded I8) are massive, magnetic, weakly fractured dark grey units. The dykes are feldspar phyric with up to 50% medium grained subhedral plagioclase and have fine-grained, dark coloured chill margins.

Veining

The greywacke typically hosts three generations of quartz veining (Figure 5). The oldest vein generation is a glassy grey, averages 2-3 cm thick , exhibits pinch- swell textures and are sub parallel to the foliation (100°/60S). These veins host minor iron oxide staining and erratic gold values. A second generation is significantly smaller and numerous, 2-5 mm in size, isoclinally folded and highlight the pervasive stretching lineation (31°/250°). The youngest vein set is a dirty white colour, subparallel to the local fracture pattern at 315° and exhibit only minor folding.

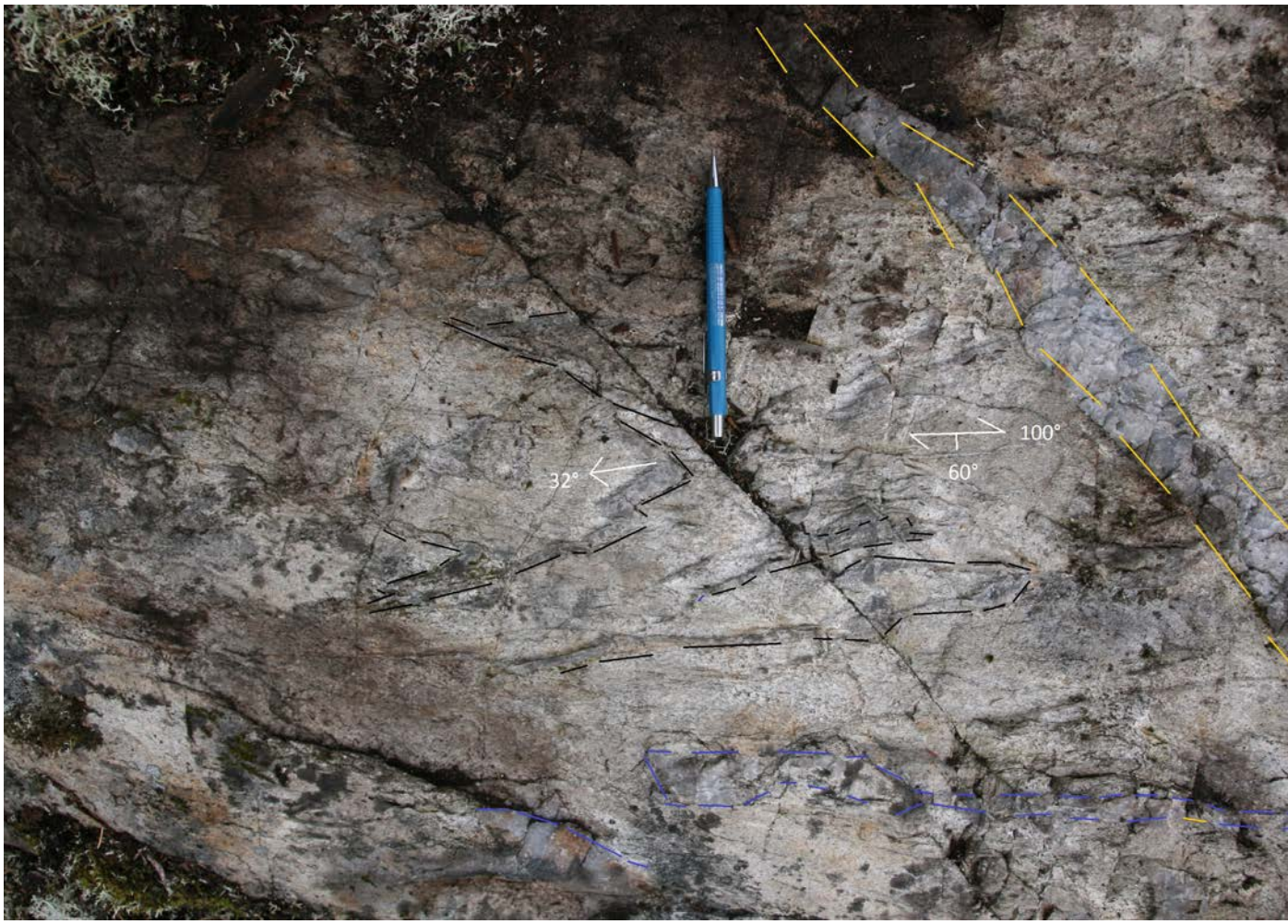

Figure 5 Photo of the 3 vein sets.

PROSPECTING SAMPLES

All prospecting occurred on claim 4274598. Sample locations with gold assays are displayed on Map 1 in Appendix I. Table 2 below lists the gold as results.

Analyzis for gold in the twelve prospecting samples involved fire assay on a 30 gram split with an atomic absorption finish at Activation Laboratories in Ancaster Ontario after being delivered and prepped at ActLab's prep laboratory in Thunder Bay.

Table 3
Assay Results for 2017 Au Sampling

Sample_No	UTME	UTMN	Lithology	Au_ppb
135863	530701	5499498	S3G,Qv	< 5
135864	530275	5499426	S3G,Qv	31
135866	530534	5499618	V3S	9
135867	530610	5499616	V3M	< 5
130208	530441	5499457	S3G	1

DAILY WORK LOG

October 10, 2017: A.Tims & H. Buck travel to Long Lac from Thunder Bay proceeding to the access point into the property. Hauled boat motor and equipment via the ATV into boat cached on McBean Lake. Repaired boat and tested motor;

October 11, 2011: A.Tims & H. Buck revisited a bleached outcrop (530273, 5499430 from the 2014 work program along the old drill trail on claim 4274598. Took two additional samples (135863 and 135864) from adjacent outcrop which exhibited ankerite staining and quartz stringers. Noted additional moss pulling and sampling sites along margins of outcrop by persons unknown……. Bleached and scrubbed additional section of the outcrop. Proceeded east 150 m along drill trail and started prospecting on a northward traverse looking for the V3S footwall lithology to the

McBean Lake Gold Zone. The biotite altered footwall unit eas encountered on cross over portion of traverse. Sample 135866 was collected for whole rock analysis and sample 135865, was taken on an adjacent outcrop, for a gold assay. An outcrop of diabase was also encountered on the cross-over portion of the traverse. A medium-green fine-grained mafic volcanic was encountered on the southward portion of the traverse. A quartz-ankerite veinlet with trace pyrite was collected as sample 135867. An outcrop of S3G was discovered after traverse north of the drill trail while returning to the boat. Sampled 135868 consisting of a 3 cm light grey quartz vein in greywacke (S3G) was collected;

October 12, 2014: A.Tims & H. Buck accessed claim 4274599 by traversing west from ATV trail near McBean Creek. A loop was traversed collecting samples SKH201 to SKH233;

October 14, 2014: Returned to McBean Lake retrieve the motor and store the boat. Drove back to Thunder Bay;

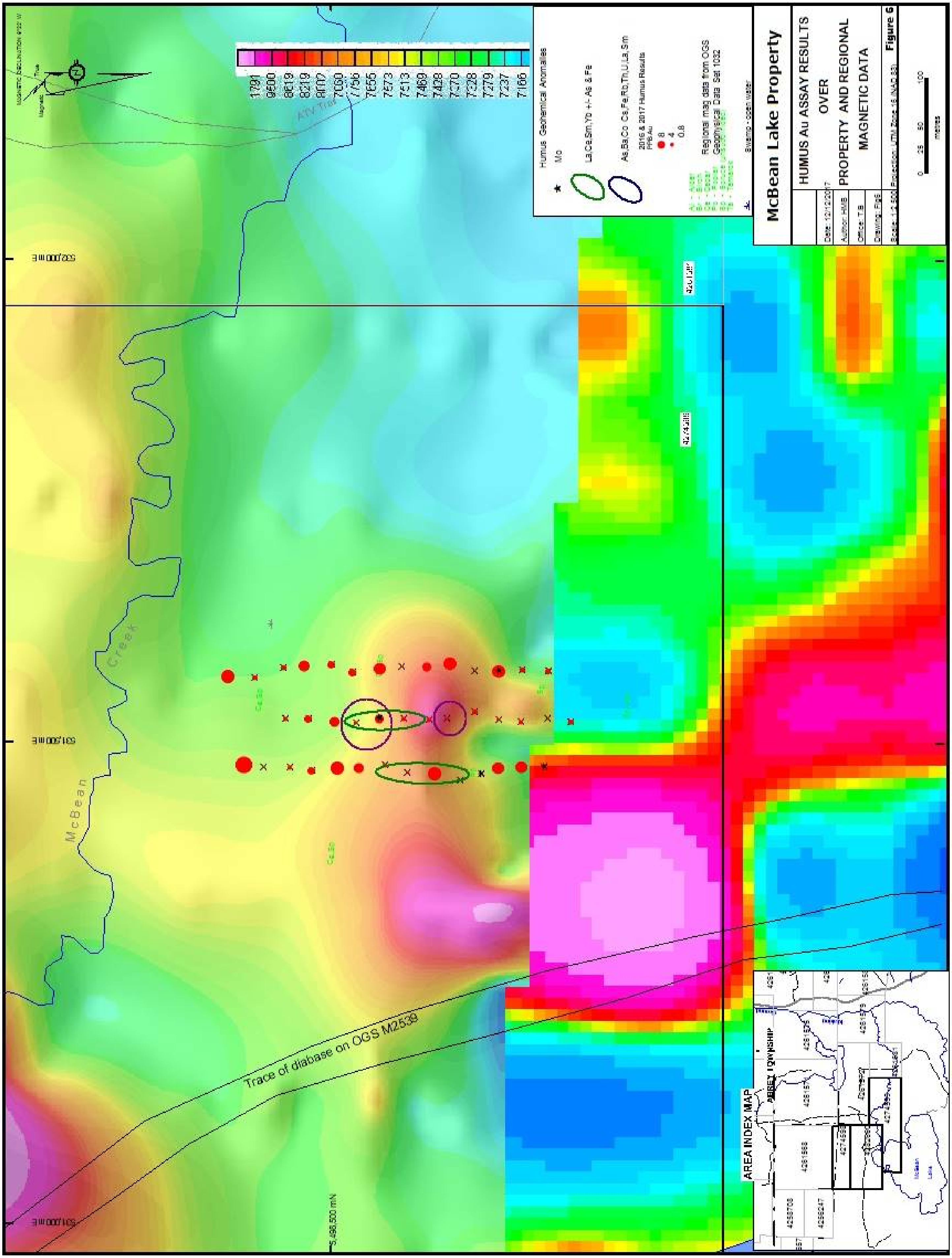

Figure 6 Combined 2017-2016 Humus Au Results over magnetic target

CONCLUSION AND RECOMMENDATIONS

The prospecting program was unable to locate the eastern extension of the historical gold horizon delineated in the 1997 drilling by Cyprus Canada but did location the altered mafic volcanic footwall. Additional outcrop bleaching further supports the presence of a progressive folding history and a shallow stretching lineation, 30°SW, characteristic of the Beardmore-Geraldton Greenstone Belt. .

Follow-up humus sampling, after the 2016 results over the magnetic anomaly on claim 4274599, continue to show a widespread erratic gold anomaly (figure 6). The anomalous levels of arsenic, iron plus a suite of light rare-earths and uranium-thorium in the analytical results suggests the magnetic anomaly is a fertile felsic intrusive. The flat spruce-cedar terrain over the magnetic-humus target can only be test by diamond drilling during the winter months. A comprehensive higher resolution magnetic survey is required to produce drill targets.

A budget of $145,750 is proposed below.

Proposed Budget

Geophysical Survey
- Mob/Demob (from Thunder Bay) 3,000
- Magnetic Survey (160 km @$225/km) 36,000

Diamond Drilling
- Mob/Demob (from Thunder Bay) ……..... 15,000
- 500 m @ $120/m 60,000

Core Shack Rental (w core saw)
- 15 days @ $150/day 2,250

Transportation: Snow machine & truck
- 15 days @ $300/day 4,500

Assays 250 @ $35/sample 8,750

Reports and Maps 3,000

Contingency (10%) 13,250

TOTAL $145,750

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Tims, A., 2014: Geological and Geochemical Report on the McBean Lake Property. McBean lake Area, Thunder Bay Mining District, 19 p. AFRI

STATEMENT OF QUALIFICATIONS

I, Andrew A. B. Tims, of 317 Sillesdale Cr., Thunder Bay Ontario hereby certify that:

1.) I am the author of this report.

2.) I graduated from Carleton University, in Ottawa, with a Bachelor of Science Degree in Geology (1989).

3.) I possess a lifetime prospector's license and have been practising my profession in mineral exploration industry for the past 30 years.

4.) I am a practising member of the Association of Professional Geoscientist of Ontario as well as a Fellow of the Geological Association of Canada.

Thunder Bay, Ontario
November 28, 2018

Andrew Tims, P.Geo
Northern Mineral Exploration Services

APPENDIX 1 – Sample Location and Assay Maps

529,500 mE | 530,000 mE | 530,500 mE | 531,000 mE | 531,500 mE

5,499,500 mN

5,499,000 mN

5,498,500 mN

5,498,000 mN

MAGNETIC DECLINATION 6°22' W

Magnetic | True

4274598

4274599

4282600

4261572

135,867

135,866

135,865

135,868

135,864

135,863

SK9710

SK9709

Ce | Ce,Sp | Sp,Ce | Sp,Po | Sp,Ta | Ce,Ta | Ce,Ta,Sp | Sp,Br | Sp,Al | Al,Sp | Sp,Al,Br | Sp,Br,Ce | Po,Sp | Po,Sp,Ce | Po,Sp,Br | Sp

SKH201 | SKH202 | SKH203 | SKH204 | SKH205 | SKH206 | SKH207 | SKH208 | SKH209 | SKH210 | SKH211 | SKH212 | SKH213 | SKH214 | SKH215 | SKH216 | SKH217 | SKH218 | SKH219 | SKH220 | SKH221 | SKH222 | SKH223 | SKH224 | SKH225 | SKH226 | SKH227 | SKH228 | SKH229 | SKH230 | SKH231 | SKH232

Assay Sample (ppb Au)

Humus Sample (ppb Au)

McBean Lake Property

PROSPECTING AND HUMUS SAMPLE MAP

Date:1/12/2017

Author: A.T

Office: T.B

Drawing: Final1

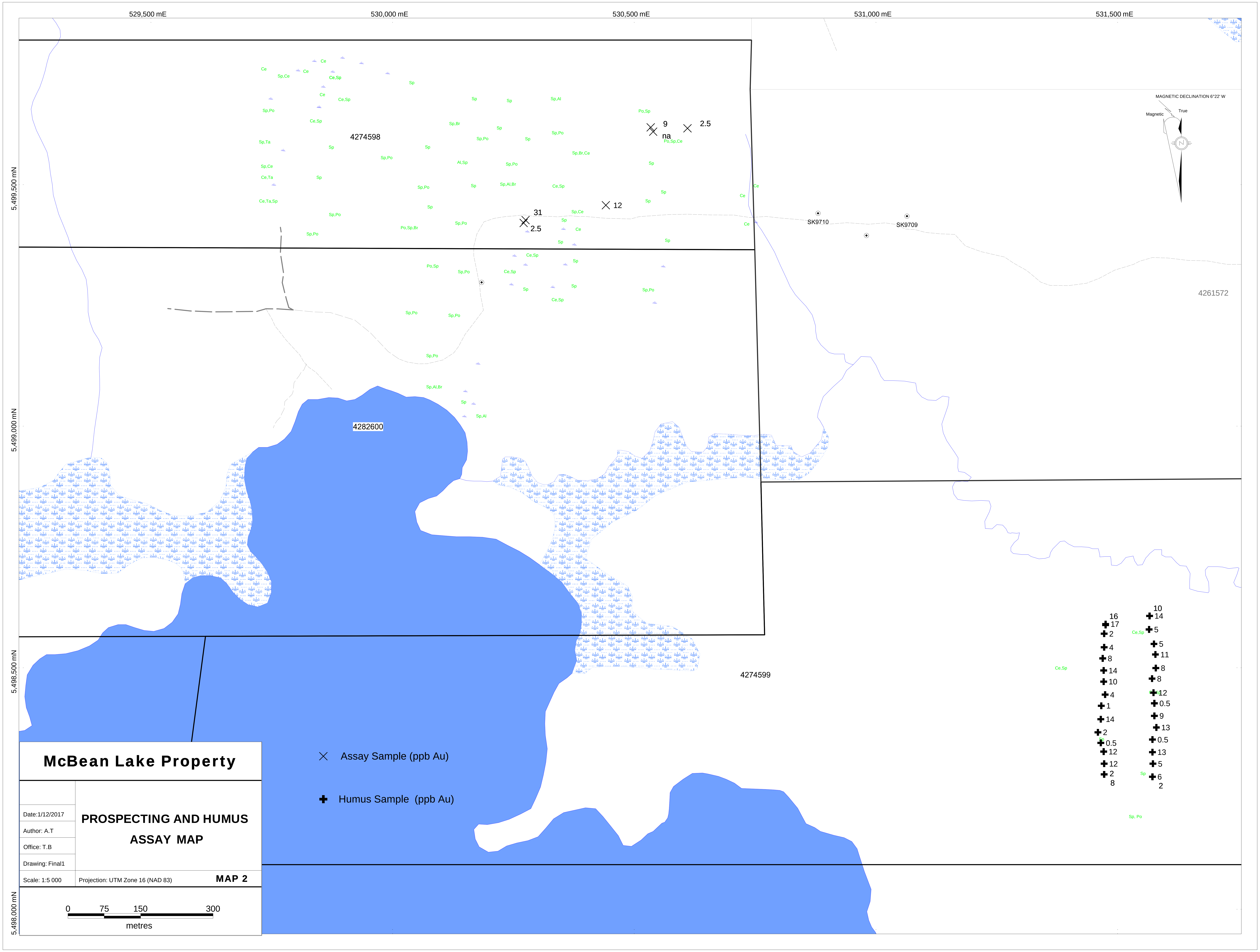
Scale: 1:5 000

Projection: UTM Zone 16 (NAD 83)

MAP 1

0 75 150 300

metres


529,500 mE
530,000 mE
530,500 mE
531,000 mE
531,500 mE
5,499,500 mN
5,499,000 mN
5,498,500 mN
5,498,000 mN
MAGNETIC DECLINATION 6°22' W
Magnetic
True
4274598
4282600
4274599
4261572
SK9710
SK9709
McBean Lake Property
Date:1/12/2017
Author: A.T
Office: T.B
Drawing: Final1
PROSPECTING AND HUMUS ASSAY MAP
Scale: 1:5 000
Projection: UTM Zone 16 (NAD 83)
MAP 2
0 75 150 300
metres
Assay Sample (ppb Au)
Humus Sample (ppb Au)

APPENDIX 2 – Rock and Humus Sample Assay Certificate

Quality Analysis ... *Innovative Technologies*

Date Submitted: 16-Oct-17
Invoice No.: A17-11428
Invoice Date: 21-Nov-17
Your Reference: Skinner

Northern Mineral Exploration
317
Sillesdale Cres
Thunder Bay ON P7C1S7
Canada

ATTN: Andrew Tims

CERTIFICATE OF ANALYSIS

40 Humus samples were submitted for analysis.

The following analytical package(s) were requested:

Code 1A2 Au - Fire Assay AA

Code 2A-15g Humus INAA(INAAGEO)

Code 4LITHO (1-10) Major Elements Fusion ICP(WRA)/Trace Elements Fusion ICP/MS(WRA4B2)

REPORT **A17-11428**

Notes:

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

We recommend using option 4B1 for accurate levels of the base metals Cu, Pb, Zn, Ni and Ag. Option 4B-INAA for As, Sb, high W >100ppm, Cr >1000ppm and Sn >50ppm by Code 5D. Values for these elements provided by Fusion ICP/MS, are order of magnitude only and are provided for general information. Mineralized samples should have the Quant option selected or request assays for values which exceed the range of option 4B1. Total includes all elements in % oxide to the left of total.

CERTIFIED BY:

Emmanuel Eseme , Ph.D.
Quality Control

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

Analyte Symbol	Au	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn	Ga	Ge
Unit Symbol	ppb	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	5	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.001	0.01		0.01	1	1	5	20	1	20	10	30	1	1
Method Code	FA-AA	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
SKH201																							
SKH202																							
SKH203																							
SKH204																							
SKH205																							
SKH206																							
SKH207																							
SKH208																							
SKH209																							
SKH210																							
SKH211																							
SKH212																							
SKH213																							
SKH214																							
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SKH216																							
SKH217																							
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SKH225																							
SKH226																							
SKH227																							
SKH228																							
SKH229																							
SKH230																							
SKH231																							
SKH232																							
SKH233																							
SKH234																							
135863	< 5																						
135864	31																						
135866	9																						
135867	< 5																						
135868	12																						
135865		50.78	12.01	17.70	0.222	5.92	8.93	1.44	0.21	1.958	0.14	0.54	99.85	47	< 1	450	40	39	50	170	130	18	2

Analyte Symbol	As	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	5	2	2	1	2	1	2	0.5	0.2	1	0.5	0.5	2	0.1	0.1	0.05	0.1	0.1	0.05	0.1	0.1	0.1	0.1
Method Code	FUS-MS	FUS-MS	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
SKH201																							
SKH202																							
SKH203																							
SKH204																							
SKH205																							
SKH206																							
SKH207																							
SKH208																							
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SKH211																							
SKH212																							
SKH213																							
SKH214																							
SKH215																							
SKH216																							
SKH217																							
SKH218																							
SKH219																							
SKH220																							
SKH221																							
SKH222																							
SKH223																							
SKH224																							
SKH225																							
SKH226																							
SKH227																							
SKH228																							
SKH229																							
SKH230																							
SKH231																							
SKH232																							
SKH233																							
SKH234																							
135863																							
135864																							
135866																							
135867																							
135868																							
135865	16	3	95	41	113	5	6	0.6	< 0.2	1	2.2	< 0.5	32	5.3	14.6	2.21	11.3	4.0	1.61	5.8	1.1	7.5	1.6

Analyte Symbol	Er	Tm	Yb	Lu	Hf	Ta	W	Tl	Pb	Bi	Th	U	Au	Ag	As	Ba	Br	Ca	Co	Cr	Cs	Fe	Hf
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	%	ppm
Lower Limit	0.1	0.05	0.1	0.01	0.2	0.1	1	0.1	5	0.4	0.1	0.1	1	2	1	100	1	0.5	1	1	0.5	0.05	0.5
Method Code	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
SKH201													8	< 2	14	300	46	5.6	< 1	7	< 0.5	0.28	< 0.5
SKH202													2	< 2	14	< 100	46	5.7	< 1	2	< 0.5	0.22	< 0.5
SKH203													12	< 2	25	< 100	30	5.2	1	10	< 0.5	0.34	< 0.5
SKH204													12	< 2	19	< 100	20	5.1	2	6	< 0.5	0.28	< 0.5
SKH205													< 1	< 2	16	< 100	24	3.9	5	< 1	< 0.5	0.17	< 0.5
SKH206													2	< 2	18	500	30	4.1	7	27	< 0.5	1.11	1.5
SKH207													14	< 2	37	500	13	0.6	10	54	3.3	1.85	3.7
SKH208													1	< 2	62	700	14	5.9	21	103	3.7	3.25	4.4
SKH209													4	< 2	74	700	25	6.1	23	84	4.7	2.89	3.5
SKH210													10	< 2	26	< 100	28	4.1	4	13	< 0.5	0.44	0.7
SKH211													14	< 2	26	200	32	5.1	7	11	< 0.5	0.41	0.6
SKH212													8	< 2	24	200	49	6.0	4	11	< 0.5	0.58	< 0.5
SKH213													4	< 2	18	200	44	5.4	4	8	< 0.5	0.48	< 0.5
SKH214													2	< 2	31	500	59	5.7	26	8	< 0.5	0.54	< 0.5
SKH215													17	< 2	34	< 100	30	4.6	4	9	< 0.5	0.44	< 0.5
SKH216													16	< 2	29	200	32	5.3	3	9	< 0.5	0.44	0.6
SKH217													14	< 2	28	200	54	4.7	7	10	0.7	0.47	< 0.5
SKH218													10	< 2	29	200	61	5.3	6	10	< 0.5	0.52	< 0.5
SKH219													5	< 2	17	400	43	7.6	7	8	< 0.5	0.33	< 0.5
SKH220													5	< 2	18	500	57	9.1	7	7	< 0.5	0.43	< 0.5
SKH221													11	< 2	25	200	61	7.0	< 1	13	< 0.5	0.68	< 0.5
SKH222													8	< 2	19	400	57	7.0	5	9	< 0.5	0.55	< 0.5
SKH223													8	< 2	26	200	36	5.7	4	7	< 0.5	0.34	< 0.5
SKH224													12	< 2	17	400	61	7.5	5	10	< 0.5	0.38	< 0.5
SKH225													< 1	< 2	27	300	54	7.9	5	8	< 0.5	0.30	< 0.5
SKH226													9	< 2	18	300	67	9.3	4	5	< 0.5	0.33	< 0.5
SKH227													13	< 2	22	400	50	7.4	5	6	< 0.5	0.32	< 0.5
SKH228													< 1	< 2	12	400	54	10.7	4	8	< 0.5	0.27	< 0.5
SKH229													13	< 2	28	400	84	8.6	7	10	< 0.5	0.50	0.9
SKH230													5	< 2	15	100	26	3.9	1	3	< 0.5	0.17	< 0.5
SKH231													6	< 2	12	< 100	12	3.5	1	4	< 0.5	0.16	< 0.5
SKH232													2	< 2	6	< 100	10	2.8	< 1	3	< 0.5	0.12	< 0.5
SKH233													< 1	< 2	2	200	42	< 0.5	7	14	< 0.5	0.68	0.8
SKH234													< 1	< 2	2	< 100	38	< 0.5	7	12	< 0.5	0.75	< 0.5
135863																							
135864																							
135866																							
135867																							
135868																							
135865	4.6	0.68	4.2	0.63	3.3	1.0	< 1	< 0.1	< 5	1.0	0.4	0.1											

Analyte Symbol	Hg	Ir	Mo	Na	Ni	Rb	Sb	Sc	Se	Sr	Ta	Th	U	W	Zn	La	Ce	Nd	Sm	Eu	Tb	Yb	Lu
Unit Symbol	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.5	5	0.5	100	10	20	0.1	0.1	2	100	0.5	0.5	0.1	1	20	0.1	1	3	0.1	0.2	0.2	0.1	0.1
Method Code	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
SKH201	< 0.5	< 5	2.6	600	< 10	< 20	0.5	0.8	< 2	< 100	< 0.5	0.8	0.1	< 1	< 20	2.7	4	8	0.5	< 0.2	< 0.2	0.2	< 0.1
SKH202	< 0.5	< 5	1.7	600	< 10	< 20	0.4	0.7	< 2	< 100	< 0.5	0.9	< 0.1	< 1	30	2.4	4	< 3	0.4	< 0.2	< 0.2	0.3	< 0.1
SKH203	< 0.5	< 5	0.5	900	< 10	< 20	0.8	1.3	< 2	< 100	< 0.5	0.9	0.2	< 1	50	3.8	5	15	0.7	< 0.2	< 0.2	0.3	< 0.1
SKH204	< 0.5	< 5	0.7	700	< 10	< 20	0.6	1.0	< 2	< 100	< 0.5	0.6	< 0.1	< 1	50	3.2	4	< 3	0.6	< 0.2	< 0.2	0.1	< 0.1
SKH205	< 0.5	< 5	2.4	500	< 10	< 20	0.2	0.4	< 2	< 100	< 0.5	< 0.5	< 0.1	< 1	60	1.6	3	< 3	0.3	< 0.2	< 0.2	< 0.1	< 0.1
SKH206	< 0.5	< 5	< 0.5	2500	< 10	< 20	0.4	4.2	< 2	< 100	< 0.5	4.0	1.1	< 1	< 20	24.2	29	37	3.5	0.5	0.3	0.9	< 0.1
SKH207	< 0.5	< 5	< 0.5	7800	< 10	80	0.8	7.7	< 2	< 100	< 0.5	5.3	0.6	< 1	60	25.4	31	26	3.5	0.6	< 0.2	1.3	0.2
SKH208	< 0.5	< 5	< 0.5	18000	< 10	80	0.5	13.2	< 2	< 100	< 0.5	8.4	3.3	< 1	< 20	35.7	53	29	5.1	1.0	< 0.2	1.9	0.2
SKH209	< 0.5	< 5	< 0.5	9300	< 10	120	0.4	11.4	< 2	< 100	< 0.5	9.0	2.3	< 1	70	56.3	57	46	7.9	1.4	0.4	1.5	0.2
SKH210	< 0.5	< 5	0.6	1200	< 10	< 20	0.6	1.4	< 2	< 100	< 0.5	1.6	0.2	< 1	60	5.4	7	12	0.9	< 0.2	< 0.2	0.4	< 0.1
SKH211	< 0.5	< 5	< 0.5	1100	< 10	< 20	0.8	1.3	< 2	< 100	< 0.5	1.1	0.2	< 1	60	4.6	6	< 3	0.7	< 0.2	< 0.2	0.3	< 0.1
SKH212	< 0.5	< 5	< 0.5	1000	< 10	< 20	0.7	1.3	< 2	< 100	< 0.5	1.3	0.1	< 1	40	4.4	7	12	0.7	< 0.2	< 0.2	0.3	< 0.1
SKH213	< 0.5	< 5	< 0.5	700	< 10	< 20	0.5	1.0	< 2	< 100	< 0.5	1.0	< 0.1	< 1	50	3.5	5	< 3	0.6	< 0.2	< 0.2	< 0.1	< 0.1
SKH214	< 0.5	< 5	< 0.5	900	< 10	< 20	0.4	1.5	< 2	< 100	< 0.5	2.0	< 0.1	< 1	140	4.7	10	18	0.7	< 0.2	< 0.2	0.4	< 0.1
SKH215	< 0.5	< 5	0.6	1100	< 10	< 20	1.1	1.4	< 2	< 100	< 0.5	1.9	0.3	< 1	50	4.1	6	3	0.7	< 0.2	< 0.2	0.3	< 0.1
SKH216	< 0.5	< 5	< 0.5	1100	< 10	< 20	1.0	1.3	< 2	< 100	< 0.5	1.1	< 0.1	< 1	60	4.1	5	< 3	0.7	< 0.2	< 0.2	0.3	< 0.1
SKH217	< 0.5	< 5	< 0.5	900	< 10	< 20	0.6	1.1	< 2	< 100	< 0.5	1.5	< 0.1	< 1	110	3.9	7	9	0.6	< 0.2	< 0.2	0.4	< 0.1
SKH218	< 0.5	< 5	< 0.5	900	< 10	< 20	0.6	1.2	2	< 100	< 0.5	1.3	< 0.1	< 1	110	4.0	7	15	0.7	< 0.2	< 0.2	0.3	< 0.1
SKH219	< 0.5	< 5	< 0.5	700	< 10	< 20	0.4	1.1	< 2	< 100	< 0.5	1.3	0.6	< 1	80	3.6	6	10	0.6	< 0.2	< 0.2	< 0.1	< 0.1
SKH220	< 0.5	< 5	0.8	900	< 10	< 20	0.5	1.3	< 2	< 100	< 0.5	1.4	< 0.1	< 1	90	4.3	7	< 3	0.8	< 0.2	< 0.2	0.3	< 0.1
SKH221	< 0.5	< 5	0.8	1000	< 10	< 20	0.7	1.3	< 2	< 100	< 0.5	1.3	0.2	< 1	70	4.3	5	12	0.7	< 0.2	< 0.2	0.1	< 0.1
SKH222	< 0.5	< 5	< 0.5	900	< 10	< 20	0.6	1.1	< 2	< 100	< 0.5	1.0	< 0.1	< 1	60	4.0	4	8	0.6	< 0.2	< 0.2	0.4	< 0.1
SKH223	< 0.5	< 5	< 0.5	1000	< 10	< 20	0.8	1.2	< 2	< 100	< 0.5	1.4	< 0.1	< 1	80	3.7	4	3	0.6	< 0.2	< 0.2	0.3	< 0.1
SKH224	< 0.5	< 5	0.6	900	< 10	< 20	0.6	1.1	< 2	< 100	< 0.5	1.0	< 0.1	< 1	70	3.7	6	10	0.6	< 0.2	< 0.2	0.4	< 0.1
SKH225	< 0.5	< 5	2.2	700	< 10	< 20	0.5	0.8	< 2	< 100	< 0.5	0.8	< 0.1	< 1	110	3.1	4	12	0.6	< 0.2	< 0.2	0.1	< 0.1
SKH226	< 0.5	< 5	2.5	700	< 10	< 20	0.7	1.0	< 2	< 100	< 0.5	1.3	0.1	< 1	100	3.3	5	14	0.6	< 0.2	< 0.2	0.1	< 0.1
SKH227	< 0.5	< 5	0.9	800	< 10	< 20	0.7	1.0	< 2	< 100	< 0.5	1.0	< 0.1	< 1	100	3.2	4	8	0.6	< 0.2	< 0.2	0.1	< 0.1
SKH228	< 0.5	< 5	< 0.5	700	< 10	< 20	0.4	1.0	< 2	< 100	< 0.5	1.0	< 0.1	< 1	80	2.8	5	9	0.6	< 0.2	< 0.2	0.2	< 0.1
SKH229	< 0.5	< 5	3.6	1200	< 10	< 20	0.8	1.7	< 2	< 100	< 0.5	2.2	0.4	< 1	80	5.2	6	6	1.0	< 0.2	< 0.2	0.4	< 0.1
SKH230	< 0.5	< 5	1.0	300	< 10	< 20	0.3	0.5	< 2	< 100	< 0.5	0.5	< 0.1	< 1	30	1.6	3	6	0.2	< 0.2	< 0.2	< 0.1	< 0.1
SKH231	< 0.5	< 5	< 0.5	300	< 10	< 20	0.3	0.4	< 2	< 100	< 0.5	< 0.5	< 0.1	< 1	20	1.8	3	< 3	0.2	< 0.2	< 0.2	0.2	< 0.1
SKH232	< 0.5	< 5	0.6	300	< 10	< 20	0.2	0.3	< 2	< 100	< 0.5	< 0.5	0.1	< 1	30	1.3	3	< 3	0.2	< 0.2	< 0.2	< 0.1	< 0.1
SKH233	< 0.5	< 5	< 0.5	2400	< 10	< 20	0.2	3.0	< 2	< 100	< 0.5	1.4	0.5	< 1	30	5.3	9	3	0.7	< 0.2	< 0.2	0.4	< 0.1
SKH234	< 0.5	< 5	1.1	2400	< 10	< 20	0.2	3.8	< 2	< 100	< 0.5	1.3	0.2	< 1	< 20	5.3	9	7	0.7	< 0.2	< 0.2	0.3	< 0.1
135863																							
135864																							
135866																							
135867																							
135868																							
135865																							

Analyte Symbol	Mass
Unit Symbol	g
Lower Limit	
Method Code	INAA
SKH201	15.7
SKH202	15.3
SKH203	15.1
SKH204	15.4
SKH205	15.7
SKH206	15.3
SKH207	15.6
SKH208	15.6
SKH209	15.7
SKH210	15.5
SKH211	15.7
SKH212	15.6
SKH213	15.8
SKH214	15.6
SKH215	15.5
SKH216	15.4
SKH217	15.6
SKH218	15.3
SKH219	15.5
SKH220	15.7
SKH221	15.8
SKH222	15.7
SKH223	15.9
SKH224	15.8
SKH225	15.6
SKH226	15.7
SKH227	15.7
SKH228	15.3
SKH229	15.7
SKH230	15.4
SKH231	15.6
SKH232	15.4
SKH233	15.9
SKH234	15.3
135863	
135864	
135866	
135867	
135868	
135865	

Analyte Symbol	Au	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn	Ga	Ge
Unit Symbol	ppb	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	5	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.001	0.01		0.01	1	1	5	20	1	20	10	30	1	1
Method Code	FA-AA	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
NIST 694 Meas		10.55	1.82	0.74	0.010	0.33	41.71	0.85	0.53	0.110	30.20					1584							
NIST 694 Cert		11.2	1.80	0.790	0.0116	0.330	43.6	0.860	0.510	0.110	30.2					1740							
DNC-1 Meas		46.72	18.32	9.76	0.150	10.09	11.68	1.91	0.23	0.480	0.07			31		154	260	54	240	100			
DNC-1 Cert		47.15	18.34	9.97	0.150	10.13	11.49	1.890	0.234	0.480	0.070			31		148	270	57	247	100			
GBW 07113 Meas		71.99	13.04	3.21	0.140	0.15	0.61	2.51	5.41	0.280	0.04			5	4	< 5							
GBW 07113 Cert		72.8	13.0	3.21	0.140	0.160	0.590	2.57	5.43	0.300	0.0500			5.00	4.00	5.00							
LKSD-3 Meas																	80	32		40	150		
LKSD-3 Cert																	87.0	30.0		35.0	152		
TDB-1 Meas																	250		100	340	150		
TDB-1 Cert																	251		92	323	155		
W-2a Meas		52.93	15.38	10.92	0.160	6.14	11.28	2.21	0.62	1.120	0.13			35	< 1	273	100	44	80	110	80	16	1
W-2a Cert		52.4	15.4	10.7	0.163	6.37	10.9	2.14	0.626	1.06	0.130			36.0	1.30	262	92.0	43.0	70.0	110	80.0	17.0	1.00
SY-4 Meas		49.95	19.90	6.10	0.110	0.51	8.27	6.95	1.68	0.280	0.13			1	3	7							
SY-4 Cert		49.9	20.69	6.21	0.108	0.54	8.05	7.10	1.66	0.287	0.131			1.1	2.6	8.0							
CTA-AC-1 Meas																					40		
CTA-AC-1 Cert																					38.0		
BIR-1a Meas		47.13	15.35	11.37	0.170	9.94	13.81	1.77	0.02	0.960	0.02			43	< 1	333	370	50	170	120	70		
BIR-1a Cert		47.96	15.50	11.30	0.175	9.700	13.30	1.82	0.030	0.96	0.021			44	0.58	310	370	52	170	125	70		
NCS DC86312 Meas																							
NCS DC86312 Cert																							
NCS DC70009 (GBW07241) Meas																	30			930	100	15	11
NCS DC70009 (GBW07241) Cert																	30			960	100	16.5	11.2
OREAS 100a (Fusion) Meas																		17		170			
OREAS 100a (Fusion) Cert																		18.1		169			
OREAS 101a (Fusion) Meas																		46		400			
OREAS 101a (Fusion) Cert																		48.8		430			
OREAS 101b (Fusion) Meas																		46		420			
OREAS 101b (Fusion) Cert																		47		420			
JR-1 Meas																			< 20	< 10	< 30	14	
JR-1 Cert																			1.67	2.68	30.6	16.1	
L-STD-4 Meas																							
L-STD-4 Cert																							

Analyte Symbol	Au	SiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	TiO2	P2O5	LOI	Total	Sc	Be	V	Cr	Co	Ni	Cu	Zn	Ga	Ge
Unit Symbol	ppb	%	%	%	%	%	%	%	%	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	5	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	0.001	0.01		0.01	1	1	5	20	1	20	10	30	1	1
Method Code	FA-AA	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
OREAS 218 Meas	536																						
OREAS 218 Cert	531																						
135868 Orig	12																						
135868 Dup	11																						
135865 Orig		50.96	11.76	17.37	0.218	5.93	8.96	1.45	0.21	1.912	0.14	0.54	99.44	48	< 1	451	40	39	40	170	140	18	2
135865 Dup		50.59	12.26	18.04	0.226	5.92	8.90	1.44	0.21	2.004	0.13	0.54	100.3	47	< 1	450	40	39	50	170	130	18	2
Method Blank		< 0.01	< 0.01	0.01	0.002	< 0.01	< 0.01	< 0.01	< 0.01	< 0.001	< 0.01			< 1	< 1	< 5	< 20	< 1	< 20	< 10	< 30	< 1	< 1
Method Blank	< 5																						
Method Blank	< 5																						

Analyte Symbol	As	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	5	2	2	1	2	1	2	0.5	0.2	1	0.5	0.5	2	0.1	0.1	0.05	0.1	0.1	0.05	0.1	0.1	0.1	0.1
Method Code	FUS-MS	FUS-MS	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
NIST 694 Meas																							
NIST 694 Cert																							
DNC-1 Meas		3	151	16	37						0.9		107	3.6			4.7		0.60				
DNC-1 Cert		5	144.0	18.0	38						0.96		118	3.6			5.20		0.59				
GBW 07113 Meas			42	45	405								499										
GBW 07113 Cert			43.0	43.0	403								506										
LKSD-3 Meas	26	72					< 2	2.5			1.0	2.4		51.4	96.2		46.9	8.3	1.40			5.2	
LKSD-3 Cert	27.0	78.0					2.00	2.70			1.30	2.30		52.0	90.0		44.0	8.00	1.50			4.90	
TDB-1 Meas		25												17.7	41.9		25.0		2.10				
TDB-1 Cert		23												17	41		23		2.1				
W-2a Meas	< 5	20	199	19	92	8	< 2					0.9	174	10.7	23.4		13.6	3.5			0.7		0.8
W-2a Cert	1.20	21.0	190	24.0	94.0	7.90	0.600					0.990	182	10.0	23.0		13.0	3.30			0.630		0.760
SY-4 Meas			1195	113	538								348										
SY-4 Cert			1191	119	517								340										
CTA-AC-1 Meas														> 2000	> 3000		1100	157	43.8	120	12.9		
CTA-AC-1 Cert														2176	3326		1087	162	46.7	124	13.9		
BIR-1a Meas			110	13	15	< 1							7	0.6	1.8		2.3	1.1	0.52	1.9		3.8	
BIR-1a Cert			110	16	18	0.6							6	0.63	1.9		2.5	1.1	0.55	2.0		4	
NCS DC86312 Meas														> 2000	181		1540			225	33.6	185	33.7
NCS DC86312 Cert														2360	190		1600			225.0	34.6	183	36
NCS DC70009 (GBW07241) Meas	69	458						1.6	1.0	> 1000	3.2	40.9		23.9	59.9	8.00	32.2	12.2	0.15	14.8	3.0	21.8	4.3
NCS DC70009 (GBW07241) Cert	69.9	500						1.8	1.3	1700	3.1	41		23.7	60.3	7.9	32.9	12.5	0.16	14.8	3.3	20.7	4.5
OREAS 100a (Fusion) Meas							23							262	466	46.8	151	23.8	3.51	22.8	3.5	23.6	4.8
OREAS 100a (Fusion) Cert							24.1							260	463	47.1	152	23.6	3.71	23.6	3.80	23.2	4.81
OREAS 101a (Fusion) Meas							21							773	1350	127	383	48.0	7.95	44.1	5.8	32.0	6.3
OREAS 101a (Fusion) Cert							21.9							816	1396	134	403	48.8	8.06	43.4	5.92	33.3	6.46
OREAS 101b (Fusion) Meas							20							821	1400	132	395	51.0	8.41		5.3	33.0	6.5
OREAS 101b (Fusion) Cert							21							789	1331	127	378	48	7.77		5.37	32.1	6.34
JR-1 Meas	16	254				15	3		< 0.2	3		19.4		19.5	45.9	5.90	23.0	5.8		5.5	0.9	5.4	1.1
JR-1 Cert	16.3	257				15.2	3.25		0.028	2.86		20.8		19.7	47.2	5.58	23.3	6.03		5.06	1.01	5.69	1.11
L-STD-4 Meas																							
L-STD-4 Cert																							
OREAS 218 Meas																							

Analyte Symbol	As	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	5	2	2	1	2	1	2	0.5	0.2	1	0.5	0.5	2	0.1	0.1	0.05	0.1	0.1	0.05	0.1	0.1	0.1	0.1
Method Code	FUS-MS	FUS-MS	FUS-ICP	FUS-ICP	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-ICP	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
OREAS 218 Cert																							
135868 Orig																							
135868 Dup																							
135865 Orig	15	3	93	40	112	5	6	0.6	< 0.2	1	2.1	< 0.5	32	5.3	14.7	2.19	11.4	4.0	1.60	5.8	1.1	7.5	1.6
135865 Dup	17	3	97	42	113	5	6	0.7	< 0.2	1	2.2	< 0.5	32	5.2	14.5	2.23	11.2	3.9	1.62	5.8	1.1	7.5	1.6
Method Blank	< 5	< 2	< 2	< 1	< 2	< 1	< 2	< 0.5	< 0.2	< 1	< 0.5	< 0.5	< 2	< 0.1	< 0.1	< 0.05	< 0.1	< 0.1	< 0.05	< 0.1	< 0.1	< 0.1	< 0.1
Method Blank																							
Method Blank																							

Analyte Symbol	Er	Tm	Yb	Lu	Hf	Ta	W	Tl	Pb	Bi	Th	U	Br	Ca	Co	Fe	Na	Sb	Sc	Zn	La	Ce	Sm
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.1	0.05	0.1	0.01	0.2	0.1	1	0.1	5	0.4	0.1	0.1	1	0.5	1	0.05	100	0.1	0.1	20	0.1	1	0.1
Method Code	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
NIST 694 Meas																							
NIST 694 Cert																							
DNC-1 Meas			1.9																				
DNC-1 Cert			2.0																				
GBW 07113 Meas																							
GBW 07113 Cert																							
LKSD-3 Meas			2.9	0.44	4.7	0.7					10.9	4.4											
LKSD-3 Cert			2.70	0.400	4.80	0.700					11.4	4.60											
TDB-1 Meas			3.4								2.8												
TDB-1 Cert			3.4								2.7												
W-2a Meas	2.3		2.1	0.33	2.5	0.5	1	0.1	9	< 0.4	2.4	0.6											
W-2a Cert	2.50		2.10	0.330	2.60	0.500	0.300	0.200	9.30	0.0300	2.40	0.530											
SY-4 Meas																							
SY-4 Cert																							
CTA-AC-1 Meas			11.2	1.10	1.2	2.6					21.3	4.2											
CTA-AC-1 Cert			11.4	1.08	1.13	2.65					21.8	4.4											
BIR-1a Meas			1.6		0.6																		
BIR-1a Cert			1.7		0.60																		
NCS DC86312 Meas	97.3	13.4	84.1	11.8							23.5												
NCS DC86312 Cert	96.2	15.1	87.79	11.96							23.6												
NCS DC70009 (GBW07241) Meas	13.4	2.30	15.8	2.31			2290				28.8												
NCS DC70009 (GBW07241) Cert	13.4	2.2	14.9	2.4			2200				28.3												
OREAS 100a (Fusion) Meas	15.0	2.31	15.3	2.25							49.0	133											
OREAS 100a (Fusion) Cert	14.9	2.31	14.9	2.26							51.6	135											
OREAS 101a (Fusion) Meas	19.3	2.70	17.6	2.50							33.5	395											
OREAS 101a (Fusion) Cert	19.5	2.90	17.5	2.66							36.6	422											
OREAS 101b (Fusion) Meas	19.5	2.83	18.2	2.62							38.9	412											
OREAS 101b (Fusion) Cert	18.7	2.66	17.6	2.58							37.1	396											
JR-1 Meas	3.8	0.66	4.6	0.66	4.3	1.7	2	1.5	19	0.6	25.1	8.6											
JR-1 Cert	3.61	0.67	4.55	0.71	4.51	1.86	1.59	1.56	19.3	0.56	26.7	8.88											
L-STD-4 Meas													6	3.8	< 1	0.11	300	0.2	0.2	30	0.8	1	0.1
L-STD-4 Cert													5.60	3.67	0.600	0.110	365	0.160	0.240	32.0	0.800	1.41	0.130
OREAS 218 Meas																							

Analyte Symbol	Er	Tm	Yb	Lu	Hf	Ta	W	Tl	Pb	Bi	Th	U	Br	Ca	Co	Fe	Na	Sb	Sc	Zn	La	Ce	Sm
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.1	0.05	0.1	0.01	0.2	0.1	1	0.1	5	0.4	0.1	0.1	1	0.5	1	0.05	100	0.1	0.1	20	0.1	1	0.1
Method Code	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
OREAS 218 Cert																							
135868 Orig																							
135868 Dup																							
135865 Orig	4.7	0.69	4.3	0.64	3.3	1.1	< 1	< 0.1	< 5	1.0	0.4	0.1											
135865 Dup	4.6	0.67	4.1	0.62	3.4	0.8	< 1	< 0.1	< 5	1.1	0.4	0.1											
Method Blank	< 0.1	< 0.05	< 0.1	< 0.01	< 0.2	< 0.1	< 1	< 0.1	< 5	< 0.4	< 0.1	< 0.1											
Method Blank																							
Method Blank																							

Ontario

MINISTRY OF NORTHERN DEVELOPMENT AND MINES

MLAS Map Viewer

MLAS Map

Notes:

Legend

Provincial Grid Cell
- Available
- Pending
- Unavailable

Mining Claim

Mining Lease
- Surface Rights Only
- Mining Rights Only
- Surface and Mining Rights

Mining Licence of Occupation
- Surface Rights Only
- Mining Rights Only
- Surface and Mining Rights

Mining Patent
- Surface Rights Only
- Mining Rights Only
- Surface and Mining Rights

Boundary Claim

Legacy Claim

Mining Claim - History

Mining Land Tenure - History

Mining Division

MNDM Townships and Areas

Provincial Grid Group

Non-Mining Land Tenure
- Patent, Surface Rights Only
- Patent, Mining Rights Only
- Patent, Surface and Mining Rights
- Lease, Surface Rights Only

0 0.59 km

Projection: Web Mercator

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