2020 YMEP Target Evaluation #20-095 Final Report

on the

Ellen Project, Yukon

Jarvis River Area
NTS 115A/13
Lat. 60°52' N • Long. 137°58' W
Whitehorse Mining District

ELLEN 1 – 20 (*YA97362-366, YB26797-799, YB27078-089*)
ELLEN 25 – 37 (*YB27094-096, YB35480-483, YB36844-849*)
ELLEN 104, 181, 182 (*YE69424, YE69401, YE69180*)
ELLEN 144 - 170 (*YE69464 - YE69490*)
ELLEN 172 - 180 (*YE69492 - YE69500*)
PACER 25 – 56 (*YD90865-896*)
PACER 144, 146, 148, 150 (*YE33418, 420, 422, 424*)

Prepared for:

GROUPTEN METALS

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TRUE POINT EXPLORATION

Summary

This report summarizes the proposed 2020 Target Evaluation program on the Ellen property in the front range of the Kluane Mountains, Yukon. This application is submitted by TruePoint Exploration (TruePoint) on behalf of Group Ten Metals Inc. (G10) to obtain partial funding for its exploration program under the Yukon Mineral Exploration Program (YMEP) under the Target Evaluation module.

The Ellen property is comprised of the Ellen and Pacer claims; 108 quartz claims covering approximately 2,045 hectares on NTS map sheet 115A/13 in the Whitehorse Mining District. The property consists of 72 claims owned by Group Ten Metals Inc. and 36 claims under option from Longford Exploration Services Ltd. The property is located 28 km northwest of Haines Junction and 186 km west of Whitehorse, centered at 60° 52' N Latitude and 137°58' W Longitude.

The regional geology of the area has been summarized from Gordey and Makepeace (2003), Israel and van Zeyl (2005), Israel and Cobbett (2008) and Open File 2014-18 Israel et al (2014). The Ellen Property is situated between the Denali Fault and the Shakwak Valley in a wedge of Triassic volcanic and sedimentary rocks of the Bear Creek Assemblage and the Dezadeash clastic succession (JKD) adjoining the Wrangell Terrane (WR), part of the Insular Super Terrane. The Ellen-Pacer claims are underlain by Triassic meta-volcanic and meta-sediments of the Late Triassic Bear Creek Assemblage. Towards the southeastern portion of the property, on Mt. Decoeli, granitic rocks of the Cretaceous Kluane Ranges Suite (EKK) intrude the Bear Creek strata as dykes and small plugs of quartz monzonite, diorite and aplite. Sills of the Late Triassic Kluane Mafic/Ultramafic Suite occur throughout the Kluane Ranges and are thought to be the subvolcanic feeder of the basic to mafic volcanics of the Nikolai Formation.

Ni-Cu-PGE mineralization potential on the Ellen Project includes:

- Basal accumulations of massive sulphides;
- Disseminated sulphides at the gabbro-ultramafic intrusive contact;
- PGE and Au rich zones associated with hydrothermal quartz-carbonate alteration;
- Disseminated and net textured or massive sulphides in the ultramafic core of each sill;
- Skarn ores akin to carbonates at Wellgreen;
- Cu-rich mineralization in shear zones and deformed intervals of the Nikolai basalt; and
- Cyprus-type volcanogenic massive sulphide (VMS) mineralization in mafic volcanics.

At present, the Kloo occurrence is interpreted as a Cyprus-type VMS deposit within Upper Triassic mafic volcanic rocks (Pautler, 2007; Hoy, 1995). Cyprus-type deposits typically comprise concordant lenses of massive pyrite and chalcopyrite, associated with brecciation or banding, hosted by mafic volcanics underlain by well-developed stockwork zones. Similarly, two mineralized lenses have been delineated at the Kloo occurrence; the Main and Lower horizons. Mineralization is exposed as intense malachite and azurite staining along the canyon of Ellen Creek, with several zones up to 10 m wide consisting of semi-massive pyrite and chalcopyrite layers crosscutting stringers and breccia zones with sulphide cement (Davidson, 2020; Pautler, 2015). Representative high-grade samples from the Main horizon have returned 7.23% Cu, 1.01 g/t Au and 1.01 g/t Pd over 2.5 m.

Exploration on the Ellen Project, undertaken from 1954 to 2019, includes approximately 1,214 m of drilling in 17 holes, hand and blast trenching, whole rock analysis, geochemical soil surveys, electromagnetic (VLF-EM, VTEM, horizontal loop) and magnetic geophysical surveys. Historic exploration has largely focused on the Kloo MINFILE occurrence with limited work targeting peripheral claims.

Recent exploration has traced chalcopyrite mineralization for 800 m to the southeast and 500 m to the northwest along strike from the main occurrence. Moreover, limited geochemical surveys have detected several multi-element anomalies warranting follow-up.

The 2020 YMEP-funded Target Evaluation program was deemed successful with the expansion of the soil geochemistry grids, heavy mineral concentrate sampling, re-logging and sampling of two historical drill holes drilled in 1995 by Probe Resources Ltd, prospecting and detailed geological mapping. A total of $84,011.14 was spent over the duration of the program, with $57,174.45 eligible for YMEP reimbursement. In summary, the exploration program included:

- Soil sampling (n=256) to extend the soil grids established in 2018-2019.
- Collection of four heavy mineral indicator samples from stream gravels to assess the potential for gold, base metal, PGM's and fine-grained metallic indicator minerals.
- Several prospecting traverses in the Davidson Sill area.
- 63 rock samples collected and assayed, including 1 for overlimit Cu.
- Detailed sampling and geological mapping at 1:2500 scale in the Kloo area to extend and further refine previous mapping.
- Logging and re-analysis of historical core from 1995 (stored at the YGS Bostock Core Library). 28 core samples were sent for assay.

A summary of recommendations for the 2021 field season and beyond include:

Soil Sampling
Extend the current soil grid north to the underexplored lowlands, targeting the conductive anomaly that projects to the north of the Kloo prospect, and extend grid to the east along the magnetic trend coincident with the E-W trending thrust fault towards the Davidson Sill. As the grid extends out into the flatter topography where depth of cover increases, consider using Mobile Metal Ion (MMI) geochemistry.

Extend the soil grid to the south and east, broadening coverage over the newly mapped shear zone that carries anomalous Au, Pd and Cu. Traditional soil sampling works well in this area as there is minimal brush / overburden.

Prospecting, Mapping, Rock Sampling
Follow-up mapping and prospecting of the prominent soil anomalies revealed by the 2020 soil sampling campaign (Anomalies A – I). Anomalies D (479 ppb Au) and E (86 ppb Au) are from the 2018 soil program.

Follow-up mapping and prospecting of areas surrounding 2018 high-grade rock samples 3249071 and 1319611, which returned 2,049 ppm Ni and 11,540 ppm Cu, respectively. These are located along the ridge trending northwest of Mount Decoeli.

Further detailed mapping on the west side of Ellen Creek in the area of the Kloo prospect. The area was visited, but not mapped in detail during the 2020 program. In addition to mineralization, quartz-carbonate ± chlorite-epidote stockwork zones, the structure relating to the possible Ellen Creek displacement and black pegmatite schists should be targeted.

Follow-up mapping and prospecting in the area of the bleached ultramafic sill (Davidson Sill) and possible related quartz-carbonate stockwork zone 80 m upslope. This sill is interpreted as the continuation of the same serpentinite sill that was drilled and intersected during the 1969 and 1995 drill programs at the Kloo prospect. In addition, re-sampling of the sill intersected in drillhole 95-5 returned gold values of 1579 ppb Au over 4.57 m including **4499 ppb Au** over 1.52m (end of hole).

Follow-up mapping and prospecting on the upland plateau just NNW of the Kloo prospect. This area was soil sampled in 2020 and produced a broad area with elevated nickel and spot anomalies of gold and copper. Pautler (2007) reported abundant malachite- and azurite-stained float and boulders as well as Qz-Carb-Ep veinlets along cleavage planes and within foliated mafic volcanics (uTBv) on the upland plateau. Abundant peridotite float (4/5 magnetism) is also abundant on the NNW upland plateau. The hand pits/trenches (Pit 01-1; Pit 01-2) reported on the NNE upland plateau also note abundant Cu-bearing Qz-Carb stockwork/stringer mineralization.

Mapping/prospecting on the Pacer SE claims to follow-up indicator minerals found in the heavy mineral concentrate sample 2064308 below the known Mount Archibald Sill. In addition to Ni-Cu PGE indicator minerals present, cinnabar is a possible indicator of epithermal gold and molybdenite is an indicator of possible porphyry Mo or skarn mineralization.

Geophysics and Drilling

Following up on 2018 recommendations (Davidson, 2018):

- Re-interpret VTEM data for Ellen canyon and valley floor conductors.
- Consider drones or unmanned aerial vehicles (UAVs) for magnetic surveys over inaccessible terrain. UAVs fly closer to the ground and have a tighter line spacing than a helicopter or fixed wing survey and can cover steeper terrain than a ground magnetic survey (Yukon-based - http://dronenorth.org/).
- 4 x 300 m holes at the Kloo showing, extending holes to intersect the gold mineralized serpentinite sill below the massive sulphide Cu-Au mineralization.

1 Introduction

This report summarizes the 2020 Target Evaluation program on the Ellen project from July 6-9, 2020 and August 9-18, 2020. The work program aimed to build on the successful previous years' work by Longford Exploration Services Ltd. which completed the work behalf of Group Ten Metals Inc. Longford Exploration Services Ltd provided management and personnel for the 2020 work program on behalf of Group Ten Metals Inc. with assistance by two TruePoint Exploration geologists.

The Ellen project is comprised of 108 mineral claims (2,045 ha) and is located 28 km northwest of Haines Junction and 186 km west of Whitehorse, Yukon Territory. The property is centered at centered at 60° 52' N Latitude and 137°58' W Longitude on NTS map sheet 115A/13 in the Whitehorse Mining District. The Ellen project comprises the Ellen and Pacer claims, owned 100% by Group Ten Metals Inc.

In summary, the 2020 exploration program included:

- Soil sampling (n=256) to extend the soil grids established in 2018-2019.
- Collection of four heavy mineral indicator samples from stream gravels to assess the potential for gold, base metal, PGM's and fine-grained metallic indicator minerals.
- Several prospecting traverses in the Davidson Sill area.
- 63 rock samples collected and assayed, including 1 for overlimit Cu.
- Detailed sampling and geological mapping at 1:2500 scale in the Kloo area to extend and further refine previous mapping.
- Logging and re-analysis of historical core from 1995 (stored at the YGS Bostock Core Library). 28 core samples were sent for assay.

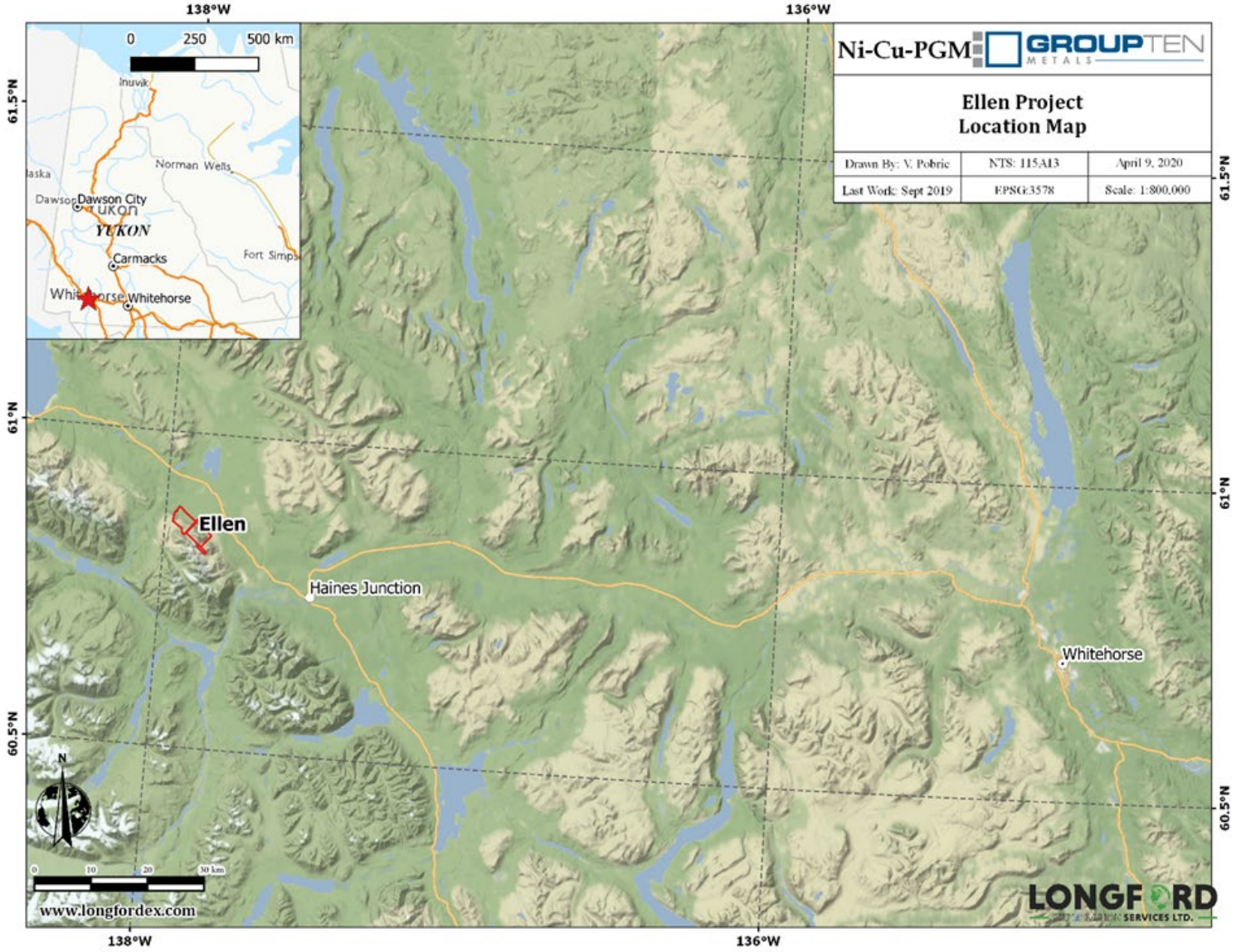
This report largely relies on information compiled by Longford Exploration Services Ltd. who have performed work on the Ellen property for Group Ten Metals Inc. from 2018 to 2020, including the current year's exploration program. Report sections 1.1 to 6 were taken from the 2020 Target Evaluation YMEP Application on the Ellen Project, Yukon, authored by Blackburn and Ahrens (2020). The present report has been written to support and fulfill the 2020 YMEP funding requirements. The report is supplemented by ***Appendix I*** (YMEP Final Submission Form), ***Appendix II*** (Statement of Expenditures), ***Appendix III*** (Soil Descriptions and Assays), ***Appendix IV*** (Soil Geochemistry Plots), ***Appendix V*** (Heavy Mineral Concentrate Description and Analysis), ***Appendix VI*** (Rock Descriptions and Assays), ***Appendix VII*** (Rock Geochemistry Plots), ***Appendix VIII*** (Core Description and Assays), ***Appendix IX*** (Core Photos), ***Appendix X*** (Core Historical Reference and Cross Section) and ***Appendix XI*** (Assay Certificates). A total of $84,011 was spent over the duration of the program, with $57,174.45 eligible for YMEP reimbursement.

1.1 Location & Access

The Ellen property is located 28 km northwest of Haines Junction and 186 km west of Whitehorse, centered at 60° 52' N Latitude and 137°58' W Longitude on NTS map sheet 115A/13 in the Whitehorse Mining District (***Figure 1***, page 9). The project is comprised of the Ellen and Pacer claims; 108 quartz claims covering approximately 2,045 hectares. The property is situated 8 km west of the Alaska Highway and is accessible via a road which leaves the highway approximately 1 km north of the Jarvis River Bridge. This road crosses the Jarvis River and continues past the property to placer mines located on Kimberly Creek. An old tote road connects the Ellen claims to the Kimberly Creek road 250 m west of the Jarvis River crossing.

Airstrips are located at Haines Junction and Silver City with charter helicopter and fixed wing services available at Haines Junction and seasonally from Silver City. Commercial accommodation is available in Haines Junction and Silver City, with the former remaining the best venue for staging exploration in the project area with logistical support that early-stage exploration requires. Helicopter flights have been staged out of Haines Junction to the claim block during the 2018 and 2019 field seasons.

Figure 1. *Ellen Project – Location & Access (from Davidson, 2020)*



1.2 Land Tenure

The project is comprised of the Ellen and Pacer claims; 108 quartz claims, Grouping Certificate HW07772, covering approximately 2,045 hectares, owned by Group Ten Metals Inc. ***Table 1.*** *Claim Status* (below) tabulates the current land package and expiry dates and ***Figure 2.*** *Ellen & Pacer Claims – Location & Access* (page 11) shows the location of the claims. Note expiry dates have been updated since filing the certificate of work and are current as of April 15, 2021.

Table 1. *Claim Status*

Claim Names	Grant No.	Ownership	Expiry	# Of Claims	Grouping
ELLEN 1 - 5	*YA97362 - YA97366*	Group 10 Metals Inc.	2029-11-05	5	HW07772
ELLEN 6 - 8	*YB26797 - YB26799*		2028-11-05	3	
ELLEN 9 - 20	*YB27078 - YB27089*		2029-11-05	12	
ELLEN 25 - 27	*YB27094 - YB27096*		2028-11-05	3	
ELLEN 28 - 37	*YB35480 - YB36849*		2029-11-05	10	
ELLEN 104	*YE69424*		2028-11-05	1	
ELLEN 144 - 170	*YE69464 - YE69490*			27	
ELLEN 172 - 182	*YE69492 - YE69180*			11	
PACER 25 - 56	*YD90865 - YD90896*			32	
PACER 144	*YE33418*			1	
PACER 146	*YE33420*			1	
PACER 148	*YE33422*			1	
PACER 150	*YE33424*			1	

1.2 Physiography & Climate

The Ellen property lies along the west margin of the Shakwak Valley in the front range of the Kluane Mountains. The Shakwak Valley is northwest-southeast oriented, spanning several hundred kilometers from northwestern British Columbia to Alaska. In the Jarvis River area, the valley is 8 to 10 km wide, bounded to the west by the rugged Kluane Ranges and to the east by a steep north facing slope. The property covers an alpine plateau incised by Ellen Creek, a tributary of the Jarvis River, at the northern extent of the prominent massif of Mt. Decoeli. Water is available from tributaries of the Jarvis River, predominantly Ellen Creek flowing northeast. Elevations on the property range from 815 m along the Jarvis River to 1737 m on the north slope of Mt. Decoeli. Outcrop exposure is limited to gullies and steeper slopes, with much of the property overlain by glacial till. The Kloo (115A 041) occurrence is exposed along the banks of Ellen Creek, oriented perpendicular to the Shakwak Valley. Vegetation below the alpine plateau consists of spruce and poplar forest with moderate ground cover broken by tundra. The Haines Junction area has a northern interior climate strongly influenced by the Kluane Ranges of the St. Elias Mountains. The Shakwak Valley is known for high winds generated by extreme relief of the surrounding mountains. Winter temperatures average -20° C while summer temperatures average 20°C, ranging up to 30°C. The exploration season typically extends from late May to early October.

Figure 2. *Ellen & Pacer Claims – Location & Access (from Davidson, 2020)*

2 Property History

The Shakwak Valley and Kluane Ranges have been explored since 1892, when Jack Dalton and E.J. Glaven made an overland trip with four packhorses from the Chilkat River to the shores of Kluane Lake over a foot path which the Chilkat First Nations had used for the preceding two centuries as a trading route to the interior of the Yukon. Dalton established trading posts and improved the trail as far north as the Nordenskold River. Klondike prospectors used the 'Dalton Trail' extensively during the 1898-1900 period en-route to the goldfields of the Klondike, but prospecting in the Kluane Ranges began around 1903 when Silver City (or Kluane) was established at the eastern end of Kluane Lake and became the center of mining activity in the region.

World War II instigated the building of the Alaska Highway in 1942 and the Haines Road followed in 1944. Improved access in the post war period brought on an exploration surge, although no lode mining production is known from the immediate project area. Placer mining on tributaries of the Jarvis River has been intermittently active since the early 1900's, mainly on nearby Telluride and Kimberly Creeks.

The Ellen property covers the Kloo (115A 041) MINFILE occurrence described as a volcanogenic massive sulphide drilled prospect as documented by the YGS. The occurrence is exposed in outcrop along the steep sided Ellen Creek gully, a tributary of the Jarvis River. Exploration on the Ellen project, undertaken from 1954 to 2019, includes approximately 1,214 m of drilling in 17 holes, hand and blast trenching, whole rock analysis, geochemical soil surveys, electromagnetic (VLF-EM, VTEM, horizontal loop) and magnetic geophysical surveys. Most of the drilling ventures were completed early-on in the project history (pre-1969). A second limited diamond drill campaign was completed in 1995 and returned encouraging results. No modern drilling informed by compiled data collected to date has been completed. Sampling procedures, geochemical analysis, results, and interpretations from the 2018 and 2019 program are summarized in ***Section 5*** (pages 22-28).

In addition to the Kloo (115A 041), exploration histories and mineralization styles of nearby MINFILE occurrences have been included for context. These off-claim occurrences include Decoeli (115A 040) and Archibald (115A 036). This information is primarily based on the YGS's MINFILE database (Deklerk & Traynor, 2008).

2.1 **Kloo** (MINFILE 115A 041)

The occurrence is described as a potential Cyprus-type VMS deposit within Upper Triassic mafic volcanic rocks. Mineralization at the main showing is exposed as intense malachite and azurite-stained outcrops along the canyon of Ellen Creek, with several zones up to 10 m-wide consisting of semi-massive pyrite and chalcopyrite layers crosscutting stringers and breccia zones with sulphide. Two mineralized lenses have been delineated colloquially referred to as the Main and Lower horizons (Pautler, 2007; 2015).

1953-54 Originally staked as 'Jude' (*65357*) by R. Reber and optioned to Hudson Bay Mining & Smelting Company Ltd. later that year. Hudson Bay Ltd. explored by EM surveying, diamond drilling of five holes totaling 323 m and the construction of a tote road in 1954.

1962-69 Restaked as 'MC' (*77812*) by T. Worbetts and optioned to E. Kreuger the following year. Canadian Barranca Mines Ltd. optioned the claims in 1965, staking additional contiguous claims 'M' (*92177*) and 'MC' (*Y9065*). Between 1966 and 1969, CBM Ltd. improved the tote road, and explored by geological mapping and prospecting,

geochemical soil, magnetometer and EM-16 surveying and diamond drilling of 7 holes totaling 434 m. Surface sampling returned 3.0% Cu over 9.1 m and 2.0% Cu over 4.6 m from pits along Ellen Creek gully. Drill core returned 3.15% Cu over 5.2 m in hole MC66-1. Hole MC69-4 tested an EM and magnetic anomaly to the east of the main showing intersecting graphite schist and two bands of serpentine containing up to 0.11% Ni (Pautler 2006).

1987-89 Restaked as 'Ellen' (*YA97362*) by R. Stack who conducted prospecting and geochemical rock sampling later that year. R. Stack explored by blast trenching and prospecting in 1989, staking additional contiguous 'Ellen 9-27' (*YB27078*) claims alongside G.S. Davidson who staked 'Ellen 6-8' (*YB26797*). Trenching exposed additional massive chalcopyrite in two layers of shale, as well as a third pyritic sulphide layer in the meta-volcanic rocks over a strike length of approximately 100 m. A chip sample across the uppermost layer returned 8.55% Cu and 789 ppb Au over 2 m. Select samples assayed up to 990 ppb Au, 10.1 g/t Ag, 126 ppm Mo and 2,900 ppb Hg. Both Noranda Exploration Company Ltd. and Total Energold Corp. assessed the property in late 1989 by rock geochemical sampling.

1990-92 Placer Dome Exploration Ltd. assessed the property by rock geochemical sampling in conjunction with exploration work conducted by R. Stack including magnetometer and EM surveying, prospecting, and blast trenching. A fourth massive chalcopyrite layer hosting disseminated sulphides in quartz-calcite-chlorite veins was reported over a thickness of 152.4 m. G.S. Davidson staked additional contiguous 'Ellen 28-31' (*YB35480*) claims later that year. Expansion of the claim block continued in 1992, as R. Stack staked the 'Ellen 32-37' (*YB36844*) claims.

1993-95 Probe Resources Ltd. explored by geochemical rock and soil sampling, and geophysical surveys under option. Strong Au-Cu soil geochemical anomalies coincident with geophysical conductors returned maximum values of 1,340 ppb Au and 4,818 ppm Cu. In 1995, Probe Ltd. diamond drilled 5 holes totaling 457.2 m returning 1.76% Cu over 5 m in DDH 95-1, and 1.96% Cu and 2.1 g/t Au over 2.1 m downdip in DDH 95-3. Holes targeting an EM anomaly intersected a serpentinite sill containing disseminated pyrrhotite. R. Stack carried out blast trenching to the southeast. Additional contiguous claims 'Preston 1-37' (*YB38265*) and 'Brand 1-26' (*YB46491*) were staked by G. Davidson and R. Stack, respectively. G. Davidson also staked 'Jim 1-17' (*YB57649*) 4.5 km northeast of the main showing in 1995.

2001-02 R. Stack and B. Harris carried out prospecting, hand trenching and geochemical rock sampling northwest of the main showing on behalf of Midnight Mines Ltd, preparing a compilation report detailing historic exploration work. Prospecting delineated chalcopyrite stringer mineralization with associated quartz-calcite-chlorite veins 200 m along strike southeast and 300 m along strike northwest of the main occurrence. Expatriate Resources Ltd. assessed the property alongside additional exploration efforts by Stack and Harris in 2002.

2006 R. Stack and B. Harris explored by additional prospecting, geochemical rock sampling and hand trenching. Trench samples from the main horizon returned 7.23% Cu, 1.01 g/t Au and 1.01 g/t Pd over 2.5 m (Pautler, 2007). Prospecting expanded known

chalcopyrite mineralization 800 m along strike southeast and 500 m along strike northwest of the main occurrence.

2011-12 A limited field program consisting of locating and re-sampling of historic trenches, geological mapping and geochemical rock sampling was conducted by J. Pautler, R. Stack and B. Harris. In 2012, a VTEM Survey of 304-line km, conducted by Geotech Ltd., identified eight conductive zones and a strong magnetic anomaly, possibly an ultramafic sill, in the underexplored southwestern portion of the Ellen property.

2017 Longford Exploration Services Ltd. conducted a 3-day field program southeast of the Kloo occurrence, on the 'Pacer' claim block consisting of; geochemical rock (n=16) and soil (n=68) sampling and preliminary property-scale geological mapping. Geochemical sampling revealed moderately anomalous Cu and Ni in soils coincident with geophysical anomalies interpreted to be ultramafic units (Longford, 2018).

2018 A YMEP funded field program consisting of geochemical rock (n=42) and soil (n=726) sampling, and geological mapping was completed by Longford Exploration Services Ltd. on behalf of Group Ten Metals Inc. The program identified three areas of anomalous soil geochemical values coincident with mapped intervals of intensified quartz-carbonate-chlorite veining and breccia in mafic volcanic rocks hosting disseminations and veinlets of pyrite, pyrrhotite and chalcopyrite. A representative massive sulphide sample from the main Kloo showing, K736180, assayed 22% Cu and 6.2 g/t Au. Mapping identified a previously unmapped ultramafic gabbroic sill returning up to 1,718 ppm Ni (Longford, 2019).

2.2 **Decoeli** (MINFILE 115A 040)

The occurrence is described as an ultramafic-mafic gabbroid Cu-Ni-PGE deposit. A serpentinized peridotite-dunite-gabbro sill and smaller gabbro sills cut argillite and dark green meta-volcanic rocks of Triassic age. The footwall contact of the main sill is serpentinized and a chilled marginal gabbro phase at the base contains minor sulphides. Harjay obtained nickel values as high as 2,480 g/t from the peridotite and gabbro. Mineralization was also found in two locations above the main sill. Chalcopyrite and pyrrhotite occur in silicified argillite in the hanging wall of a gabbro sill with reported Au values up to 17 g/t. Boulders of dark green metavolcanics are cut by irregular quartz veins up to 5 cm-wide containing abundant disseminated chalcopyrite. A specimen of the mineralized float assayed 2.42% Cu (Deklerk & Traynor, 2005).

1966-68 Originally staked as 'Kloo' (*Y3599*) by C. Eminger and subsequently re-staked by C. Eminger and C. Ford in 1967 as 'Rex' (*Yl2479*). The 'Bestos' (*Y24061*) claims were staked to the southeast by R. Mazur in 1968.

1978-88 Restaked as 'Green' (*YB8613*) by B. Lueck, and again as 'Vail' (*YB25501*) by G. Davidson the following year.

1989-90 The claims were transferred under option to Noranda ECL after preliminary prospecting and mapping of a serpentinized peridotite-dunite-gabbro sill in 1989. Mineralization was found in two locations above the main sill with assays reporting up to 17 g/t Au, and a select hand sample returning 2.42% Cu. Noranda conducted additional prospecting and

mapping, in conjunction with geochemical soil and magnetometer surveys in 1990.

2007-08 S. Ryan restaked the prospect as the 'Haine' claims and subsequently explored by soil sampling (n=671) and 30-line kilometers of magnetic surveys. Soil samples returned up to 1,354 ppb Au and 1,219 g/t Cu with malachite staining identified in outcrop. Additionally, magnetic highs were interpreted to be coincident with anomalous Au in soil (Ryan, 2009).

2.3 **Archibald** (MINFILE 115A 036)

The occurrence is described as a vein Au-Quartz deposit. Gold occurs with pyrrhotite and chalcopyrite in a quartz-carbonate stockwork cutting siliceous argillite in the hanging wall of a serpentinized gabbro-peridotite sill. The sill is about 150 m thick and at least 4 km long. A specimen from the main showing assayed 19.7 g/t Au, and a quartz-sericite vein nearby contained 2.5% Cu and 1.5 g/t Au. The lower chilled margin of the sill contains visible sulphides and anomalous copper, chromium, and nickel. High grade copper was found in foliated greenstone boulders assaying up to 6.3% Cu (Deklerk & Traynor, 2005).

1966 Originally staked as 'JS' (*Yl0487*) by Golden Gate Exploration Ltd. following an airborne magnetometer survey.

1987-89 Restaked as 'Green' (*YB8613*) by B. Lueck, and as 'Colton' (*YB24624*) by Harjay Exploration Ltd. the following year. Harjay explored by prospecting and mapping, adding the 'Vail' (*YB25501*) claims to the north in 1989.

1990-91 The claim blocks were transferred to Noranda ECL following prospecting and geological mapping. Additional exploration work including geochemical soil and magnetometer surveys were conducted later that year. Noranda relinquished its option in 1991.

1997 D. Makkonen staked additional claims 'Ruby' (*YC08481*) 2 km north of the showing.

2013 Longford Exploration Services Ltd. completed preliminary property-scale lithological and structural mapping in addition to the collection of 91 rock samples, geochemical soil and stream sediments surveys. Interpretation of mineral potential concluded that gabbro-peridotite dykes and sills have potential to host Cu-Ni-PGE massive sulphides, and Cu-Au mineralizing systems are present, perhaps, at a regional scale (Harper & Rogers, 2014).

2020 The main Archibald showing is now covered by the Pacer SE claims group, currently 100% owned by Group Ten Metals Inc. (this discontinuous claim group is not part of the Ellen project).

3 Regional and Property Geology

3.1 Regional Geology and Tectonic Setting

The regional geology of the area has been summarized from Gordey and Makepeace (2003), Israel and van Zeyl (2005), Israel and Cobbett (2008) and Open File 2014-18 Israel *et al.* (2014). The Ellen property is situated between the Denali Fault and the Shakwak Valley in a wedge of Triassic volcanic and sedimentary rocks of the Bear Creek Assemblage and the Dezadeash clastic succession (JKD) adjoining the Wrangell Terrane (WR), part of the Insular Super Terrane (***Figure 3***, page 17).

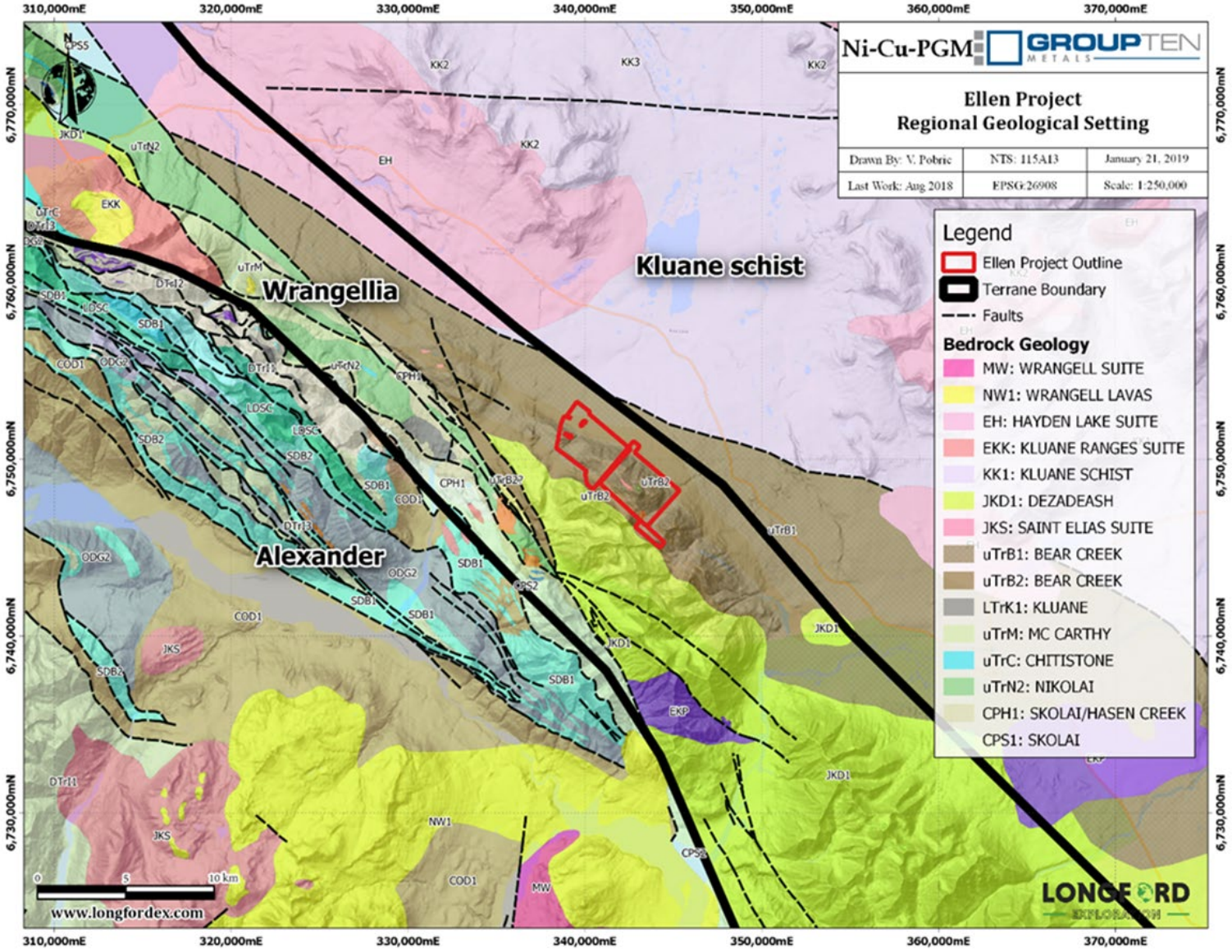
The Ellen-Pacer claims are underlain by Triassic meta-volcanic and meta-sediments of the Late Triassic Bear Creek Assemblage. Towards the southeastern portion of the property, on Mt. Decoeli, granitic rocks of the Cretaceous Kluane Ranges Suite (EKK) intrude the Bear Creek strata as dykes and small plugs of quartz monzonite, diorite and aplite. Sills of the Late Triassic Kluane Mafic/Ultramafic Suite occur throughout the Kluane Ranges and are thought to be the subvolcanic feeder of the basic to mafic volcanics of the Nikolai Formation.

West of the property, the Wrangell Terrane consists of Devonian to Permian arc volcanic, clastic and platform carbonate rocks (PH) overlain by Triassic oceanic rift tholeiitic basalt (uTN), and carbonate rocks and associated sills of the Kluane Mafic-Ultramafic Complex. The Alexander terrane southwest of the area is composed of lower Paleozoic volcanic and sedimentary rocks. The latter includes a large package of limestone (OSDB1). Post accretionary units include Jura-Cretaceous sedimentary rocks (JKD – Dezadeash Group), overlapping Wrangellia and Alexander Terranes, and Tertiary felsic to mafic volcanic rocks with interbedded terrestrial sedimentary rocks of the Bear Creek Assemblage (uTB) that underlie the Ellen property. Intrusions in the region include Jura-Cretaceous (JKS), Cretaceous (EKK) and Neogene plutons (EKP).

The Kluane Mafic/Ultramafic Belt extends through the front ranges of the St. Elias Mountains that cross the Yukon-Alaska border and hosts sills of the Late Triassic Kluane Mafic/Ultramafic Suite that are distinctively coloured (glossy black to dark brown or light green to pale grey when altered) and can be seen as linear topographical features. The Kluane mafic/ultramafic sills are elongated cumulate bodies that locally host Ni-Cu-PGE mineralization. They are layered intrusions with a thin rim of gabbro around the margins grading into an ultramafic core of peridotite and dunite (Hulbert, 1997). The width of the sills ranges from less than 10 to 600m and they can cover up to 20 km in strike length. The sills intrude the older Skolai Group near the contact between the underlying Station Creek Formation and the overlying Hasen Creek Formation. Most of the sills are poorly exposed and some are deformed and altered along faults. Nickel and Copper values increase from east to west along the belt. Compared to other Ni-Cu-PGE deposits worldwide, the belt is known for having high concentrations of PGEs such as Osmium, Iridium, Ruthenium and Rhodium and high Platinum to Palladium ratio (James, 2017).

The major structural feature of the area is the Denali Fault, a large fault zone that lies southwest of the property. It is a northwest trending strike-slip fault with a dextral sense of motion with an offset in the order of 350 km. The northwest trending Duke River Fault separates Wrangellia from the Alexander Terrane. The area mapped as Upper Triassic Bear Creek Assemblage (uTB) and Dezadeash Group (JKD), northeast of the Denali Fault includes the Ellen, Pacer and Haine properties.

Figure 3. *Regional Geology (Davidson, 2020)*



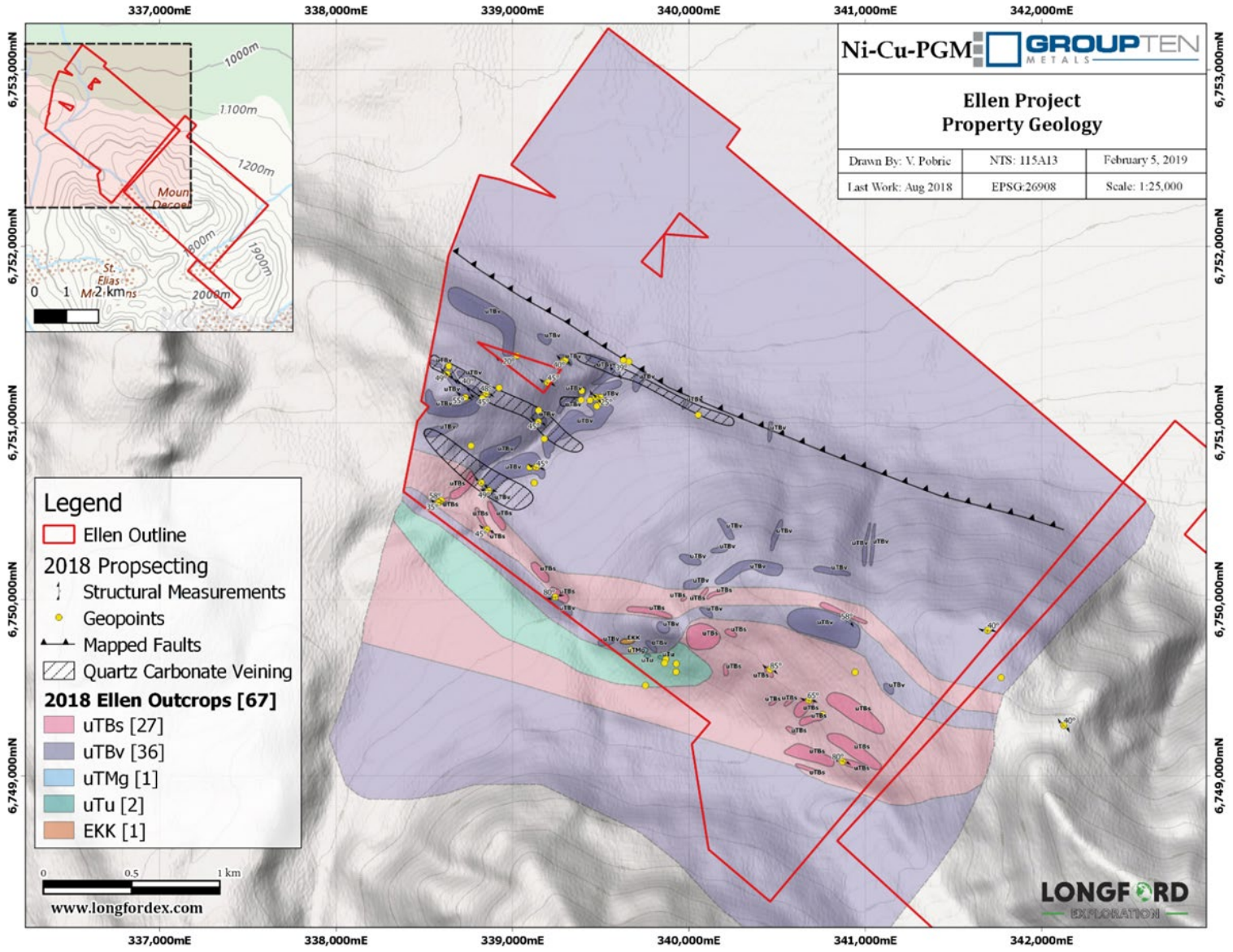
3.2 Property Geology

The Ellen project is primarily underlain by 110°/30° - 50° south-trending greenstone; foliated mafic volcanic rocks, with interbedded phyllite, quartz sericite schist and clastic beds, most likely belonging to the Late Triassic Bear Creek Assemblage (YGS Open File, 2014-18). An abundance of chlorite, epidote ± serpentine occur as alteration products of clino- and orthopyroxenes, amphiboles and feldspar. Small sections of fibrous chlorite and serpentine are seen in various areas throughout the greenstone. The Bear Creek Assemblage has locally been divided into: (uTBm) strongly foliated to massive intermediate to mafic metavolcanic rocks, lesser metaclastics, volcaniclastics and carbonate horizons; (uTBs) meta-siltstone, mudstone and sandstone, phyllitic to schistose and pyritic; and (uTBv) strongly foliated to intermediate to mafic metavolcanic rocks and greenschist.

Towards the southeastern portion of the property, on Mt. Decoeli, granitic rocks of the Cretaceous Kluane Ranges Suite (EKK) intrude the Bear Creek strata as dykes and small plugs of quartz monzonite, diorite and aplite. Diorite, gabbro, and fine-grained peridotite sills of the Kluane Mafic/Ultramafic Suite have been emplaced along thrust faults at the base of the Late Triassic greenstone. The above units are unconformably overlain by Upper Jurassic to Lower Cretaceous Dezadeash Group clastic sedimentary rocks in the southern property area. The overlying Dezadeash Formation sediments mapped at the southwest extent of the Ellen property, consist of (JKD) lithic greywacke, sandstone, siltstone, shale, argillite, and conglomerate with rare tuff.

Sills of the Late Triassic Kluane Mafic/Ultramafic Suite occur throughout the Kluane Ranges and are thought to be the subvolcanic feeder of the basic to mafic volcanics of the Nikolai Formation. Intrusive rocks of the Kluane Mafic/Ultramafic Suite include (uTu) peridotite, dunite and clinopyroxenite as layered intrusions, locally with gabbroic chilled margins and (uTmg) Maple Creek gabbro consisting of fine to coarse grained diabase and gabbro sills and dykes (***Figure 4***, page 19).

Figure 4. *Ellen & Pacer Claims – Local Geology (from Davidson, 2020)*



4 Mineralization Style & Deposit Type

There are four main types of Ni-Cu-PGE mineralization in the Kluane Mafic/Ultramafic Belt found in all the mineralized sills from southeast Alaska to northern B.C. (Hulbert, 1997):

1. Basal accumulations of massive sulphides;
2. Disseminated sulphides at the gabbro-ultramafic contact in each intrusion;
3. PGE- and Au-rich zones associated with hydrothermal quartz-carbonate alteration at the edges of the sills and extending into the country rock; and
4. Disseminated and net textured or massive sulphides in the ultramafic core of each sill.

The best-known deposit, and sole producer in the belt, is Nickel Creek Platinum Corp.'s Wellgreen Deposit. At Wellgreen, PGE's combine with As, Sb, Te, Bi, Ni, S, Co and Fe to form minerals and alloys, including Sperrylite ($PtAs_2$) and Sudburyite (PdSb) (Hulbert, 1997). The Wellgreen Deposit produced nearly 200,000 tonnes of Ni-Cu-PGE ore in 1972 and 1973 and hosts reserves of 49.9 million tonnes grading 0.36% Ni, 0.35% Cu, 0.51 g/t Pt and 0.34 g/t Pd. Additionally, the Kluane Belt Ni-Cu-PGE occurrences are particularly enriched in the rarer platinum group elements osmium, iridium, ruthenium and rhodium (Deklerk & Traynor, 2005).

Other types of mineralization have a limited range in the Kluane Belt (Hulbert, 1997):

1. Skarn ores developed in Permian carbonates at Wellgreen;
2. Ni-rich ores within the footwall in the White River sill;
3. Cu-rich mineralization in shear zones and deformed intervals of Nikolai basalt; and
4. Cyprus type volcanogenic massive sulphide (VMS) mineralization in mafic volcanic rocks.

The Kloo occurrence represents a potential Cyprus-type VMS deposit within Upper Triassic mafic volcanic rocks (Pautler, 2007; Hoy, 1995). Cyprus-type deposits typically comprise concordant lenses of massive pyrite and chalcopyrite, commonly associated with brecciation or banding, hosted by mafic volcanics underlain by well-developed stockwork zones. These zones are associated with intense alteration, hydrothermally altered wall rock, and disseminated to vein and stockwork style mineralization, largely dependent on host competency. Prototypical hosts include tholeiitic or calc-alkaline, ophiolite-related, extrusive basalt sequences (Cox, 1963). Mineralized lenses often appear to be structurally controlled and aligned near steep normal faults (Hoy, 1995).

Cyprus-type VMS deposit ore mineralogy includes pyrite, chalcopyrite, magnetite, sphalerite, with lesser marcasite, galena, pyrrhotite, cubanite, stannite-besterite and hematite in a gangue of talc, chert, magnetite and chlorite. Alteration consists of chlorite, talc, carbonate, sericite and quartz veins in the core of the stringer zone. Additional goethite alteration may occur at the top of the sulphide layer. Pyritic horizons occur distally and can be useful regional indicators (Hoy, 1995).

Mineralization at the main showing, Kloo (115A 041), is exposed as intense malachite and azurite-stained outcrops along the canyon of Ellen Creek (***Figure 5B***, page 21), with several zones up to 10 m-wide consisting of semi-massive pyrite and chalcopyrite layers crosscutting stringers and breccia zones with sulphide cement (Davidson, 2020; Pautler, 2015). Two mineralized lenses have been delineated colloquially referred to as the Main and Lower horizons. Representative high-grade samples from the Main horizon have returned 7.23% Cu, 1.01 g/t Au and 1.01 g/t Pd over 2.5 m. Chalcopyrite occurrences have been traced for 800 m along strike to the southeast and 500 m along strike to the northwest.

***Figure 5. A**-NE face of Mt. Decoeli, **B**. Malachite and azurite-staining in chloritic volcanic rock at Kloo.*

5 2018 & 2019 Exploration Work

The 2018 field program was made possible through YMEP funding with exploration work completed by Longford Exploration Services Ltd. on behalf of Group Ten Metals Inc. The 2018 exploration program consisted of geochemical rock (n=42) and soil (n=726) sampling, and geological mapping. The program identified three areas of anomalous soil geochemical values coincident with mapped intervals of intensified quartz-carbonate-chlorite veining and breccia in mafic volcanic rocks hosting disseminations and veinlets of pyrite, pyrrhotite and chalcopyrite. A representative massive sulphide sample from the main Kloo showing, K736180, assayed 22% Cu and 6.2 g/t Au. Additionally, a previously unmapped ultramafic gabbroic sill assayed 1,718 ppm Ni (Longford, 2019).

The 2019 exploration program consisted of geochemical rock (n=11) and soil (n=48) sampling targeting favourable geology and an aeromagnetic anomaly underlaying the northeast-facing slope of the Shakwak Velley (Davidson, 2020). Geological mapping focused on tracing sulphide mineralization in mafic, chloritic, volcanic rock and in zones of quartz-carbonate-chlorite veining. Traverses across the northwest slope of Mt. Decoeli revealed outcrop of Bear Creek Assemblage sedimentary and volcanic rocks primarily exposed on resistant ridges and in narrow creek gullies. Outcrops consisted of (uTBv) grey brown to green weathering volcanic rock and breccia with inclusions of quartz sericite schist and greenschist. Quartz-carbonate lenses and boudins elongated in the northwest-southeast regional orientation were identified, as well as recessive meta-sedimentary rocks (uTBs) with common quartz boudins and pyrite. Granodiorite dykes and plugs occur at higher elevations on Mt. Decoeli, often indicated by rusty weathering patches caused by disseminated pyrite in siliceous bands. An unusual white-green weathering outcrop of moderately magnetic listwanite on the northeast side of Mt. Decoeli assayed 2,049 ppm Ni. This outcrop is interpreted to be an ultramafic sill coincident with the inferred location of a thrust fault, and corresponding aeromagnetic high stretching the length of the western contiguous claims (Davidson, 2020). A similar interval of talc serpentine schist with 2-5% pyrrhotite was intersected at the base of the Ellen Creek canyon in drill holes 95-4 and 95-5 that targeted a strong EM anomaly.

5.1 Procedures & Geochemical Analysis

Soil samples were collected in Kraft soil sample bags and shipped to Bureau Veritas in Whitehorse for assaying to evaluate the precious metal concentrations present. Samples were dried and sieved to 80 mesh (SS80) and a 0.5g split was analyzed for 33 elements by Aqua Regia ICP-ES (AQ300) as well as a 30g split analyzed for Au, Pt, Pd by Fire Assay ICP-ES (FA330).

Rock samples were packaged in secured numbered plastic bags and shipped to Bureau Veritas in Whitehorse for assaying to evaluate the precious metal concentrations present. Samples were crushed to less than 2mm after which a 250g split was pulverized to below 75µm (PRP70-250) and a 0.5g split was analyzed for 33 elements by Aqua Regia ICP-ES (AQ300) as well as a 30g split analyzed for Au, Pt, Pd by Fire Assay ICP-ES (FA330).

5.2 Geochemical Results & Interpretations

As seen in ***Figures 6-9*** (pages 25-28), in soil concentrations for elements of interest show variable distribution, with relatively poor correlation between Cu and Ni, and consistent element depletion on the plateau east of Ellen Creek. This reduced response is interpreted to be reflective of significant overburden across the upland plateau. The largest copper anomaly, northwest of the Kloo occurrence, is roughly coincident with an E-W trending north dipping thrust fault and a similarly oriented magnetic high extending the width of the northwestern contiguous claims (***Figure 6***, page 25). Eastward, two

additional Cu anomalies are situated south, and upslope, of the inferred thrust fault. These two anomalies appear to be coincident with a central magnetic low paralleling the magnetic high directly north (***Figure 9***, page 28). The easternmost Cu anomaly is also coincident with a smaller Au-Pt-Pd anomaly (***Figure 8***, page 27). Two nickel anomalies appear to be centered about magnetic lows wrapping topography (***Figure 7***, page 26). It should be noted that the shape of the western most Ni anomaly may merely reflect sampling extent, as the anomaly remains open both to the east and west. The southeastern Ni anomaly is also coincident with a smaller Au-Pt-Pd anomaly (***Figure 8***, page 27).

Table 2. *2018-2019 Soil Geochemistry Highlights*

Sample ID	***Cu (ppm)***	***Ni (ppm)***	***Au (ppb)***	***Pt (ppb)***	***Pd (ppb)***
Count	773	773	773	773	773
Average	178	60	11	4	13
Max.	921	536	479	25	77
Min.	0	0	0	0	0
STD	117	33	19	3	9
1318578	181	50	**479**	4	9
3249404	264	72	89	5	31
1318590	174	43	86	6	11
1318918	362	121	15	**25**	72
1318778	287	38	8	4	**77**
1318918	362	121	15	**25**	72
1319173	**921**	49	7	5	15
3249460	852	83	17	11	45
1319174	814	52	7	4	8
1319018	61	**536**	32	1.5	7

Table 3. *2018-2019 Rock Geochemistry Highlights*

Sample ID	Easting	Northing	Description	Cu (ppm)	Ni (ppm)	PGE + Au (ppb)
1319611	341730	6749154	Rusty weathering light grey felsic tuff, brecciated, quartz carbonate veining	11540	6	42
1319616	339926	6749589	Gabbro, green, medium grained, epidote, minor quartz carbonate veining	11	1639	22.5
1319617	339925	6749601	Gabbro, green, medium grained, epidote, minor quartz carbonate veining, magnetic (3), serpentine bands	3	1662	5.5
1319618	339926	6749604	Peridotite, black, fine grained, dusty blue weathering, magnetic (2)	4	1293	5.5
1319619	339926	6749631	Gabbro, gray, fine grained, quartz carbonate alteration near top of sill, 1-2% pyrrhotite, weakly magnetic (2)	1	1180	6.5
1319624	339180	6750909	Tan to brown weathering metavolcanic rock, chloritic, quartz carbonate chlorite veining	1039	52	55
1319625	339874	6749624	Dark grey green gabbro, magnetic (4), serpentine and quartz carbonate veining, fuchsite	2	1269	5.5
1319626	339841	6749579	Gabbro, black to green, fine to medium grained, olivine, minor quartz carbonate veining, magnetic (3)	3	1719	6
1319630	338801	6751137	Dark green chloritic mafic volcanic, common quartz carbonate veins and lenses, malachite	3648	29	106
1319644	338629	6751278	Medium grey schistose meta volcanic, narrow quartz carbonate veins with 5-10% chalcopyrite in the veins	2271	61	31
3249036	342056	6749034	Foliated meta-volcanic rock below EKK, rusty red weathering, disseminated pyr + apy (2-5%)	4672	20	48
3249069	342496	6748358	Disseminated cpy, pyr in quartz vein with malachite + azurite in float.	6361	60	78
3249070	342186	6748690	Quartz vein, 10-15cm wide, with chl, cpy + mal.	2610	15	27
3249071	342960	6749851	Probable ultramafic, listwanite, quartz calcite veining, serpentine, trace pyrr, moderately magnetic	12	**2049**	7
K736180	339470	6751150	Mafic volcanics (basalt), Nikolai volcanic, chloritic, massive sulphides CPY+PO+Malachite+Azurite.	**100000**	30	**6205**
K736181	339589	6751264	Mafic volcanics (basalt), Nikolai volcanic, tr sulphides pyr + cpy + pyrr + mal + Azu.	3880	40	85

Figure 6. *2018-2019 Cu in Soil*

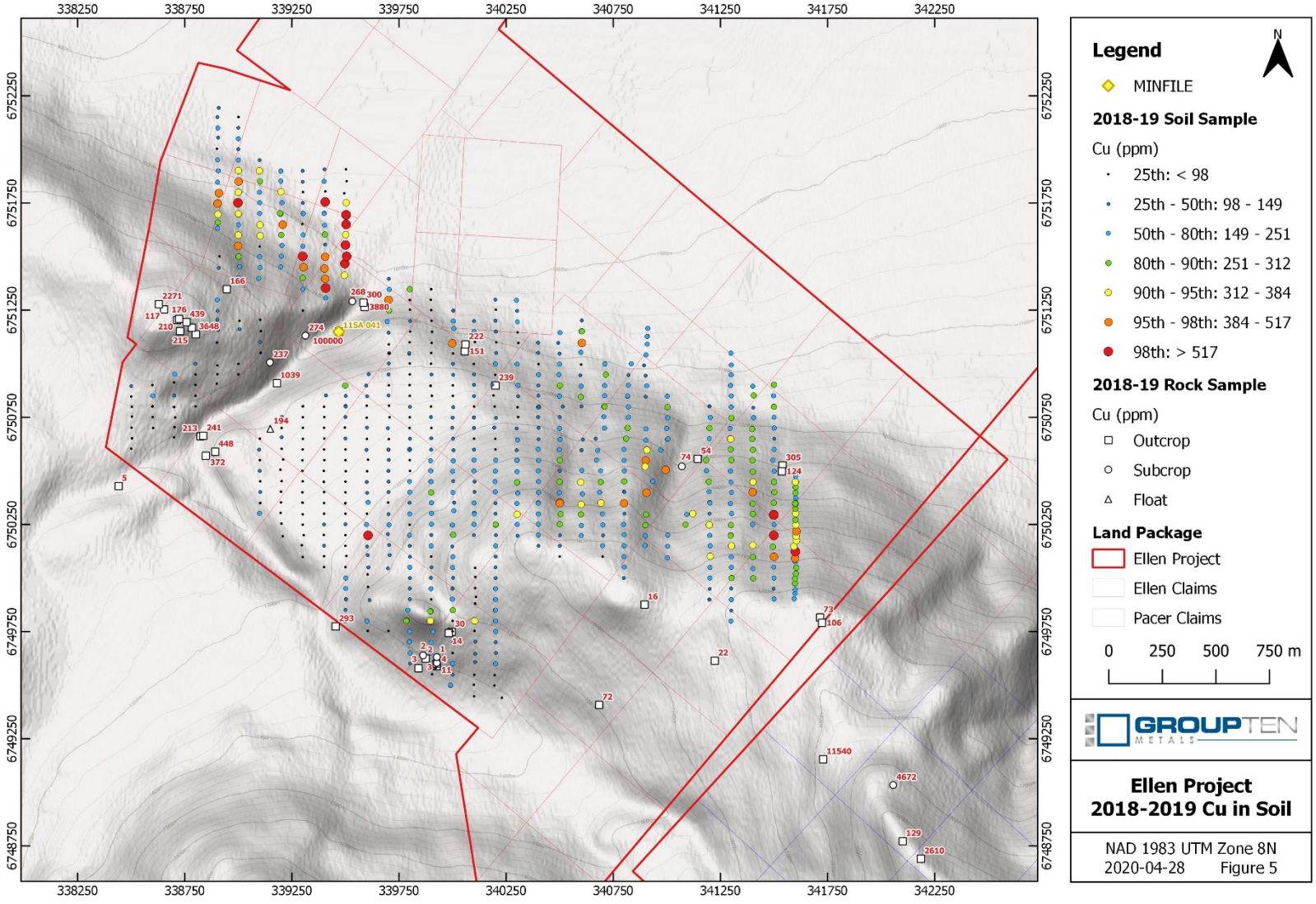


Figure 7. *2018-2019 Ni in Soil*

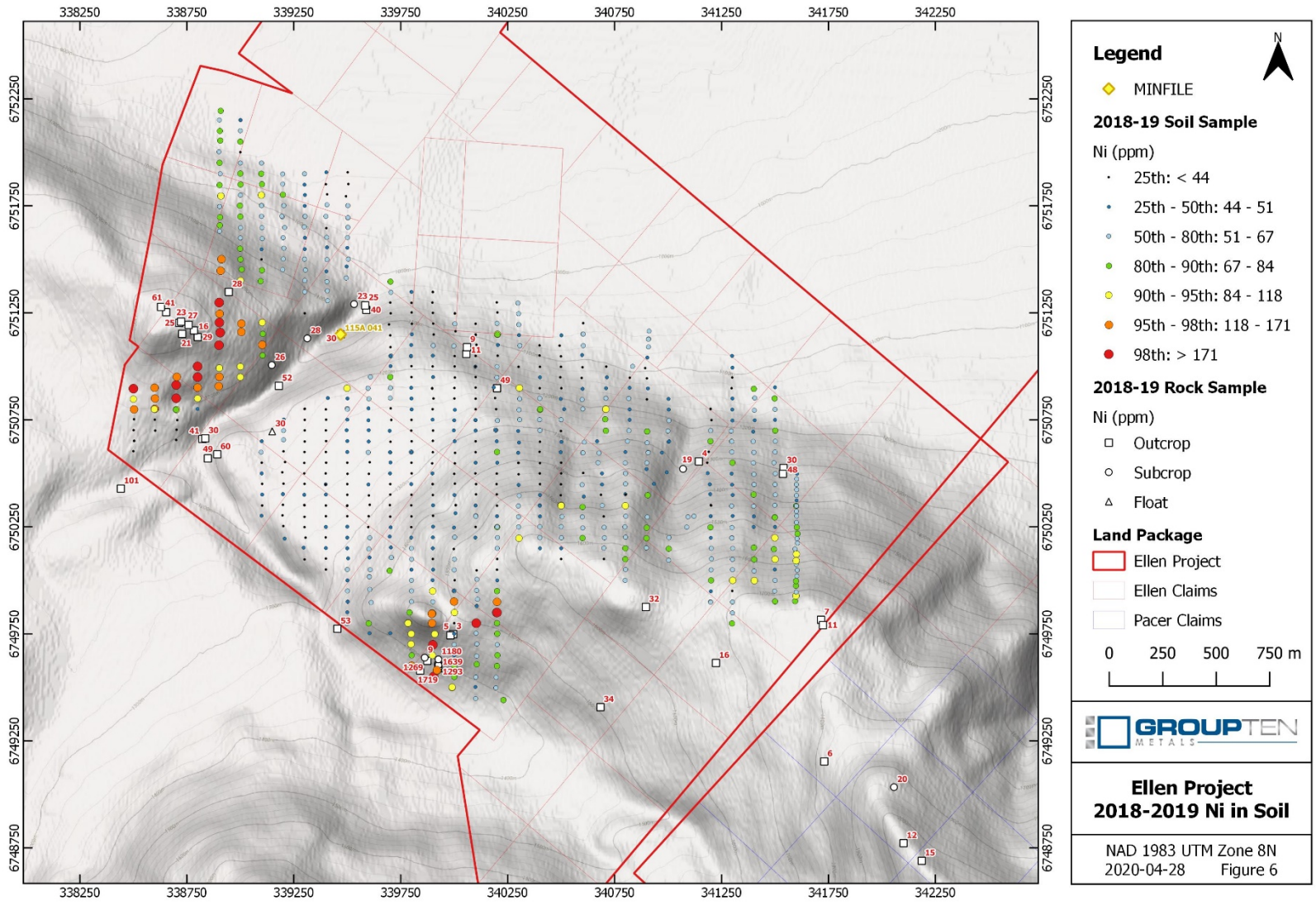


Figure 8. *2018-2019 Au-Pt-Pd in Soil*

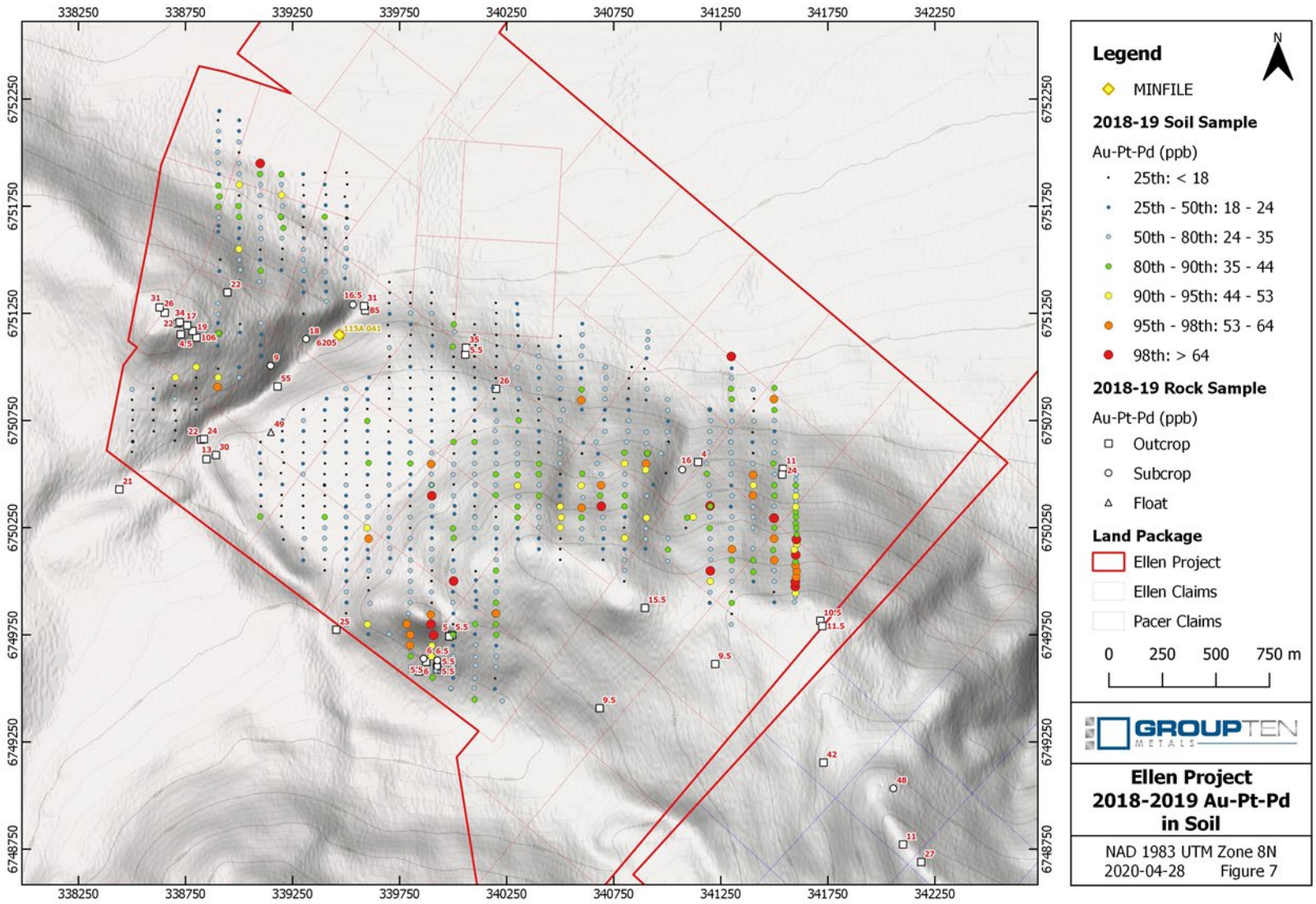
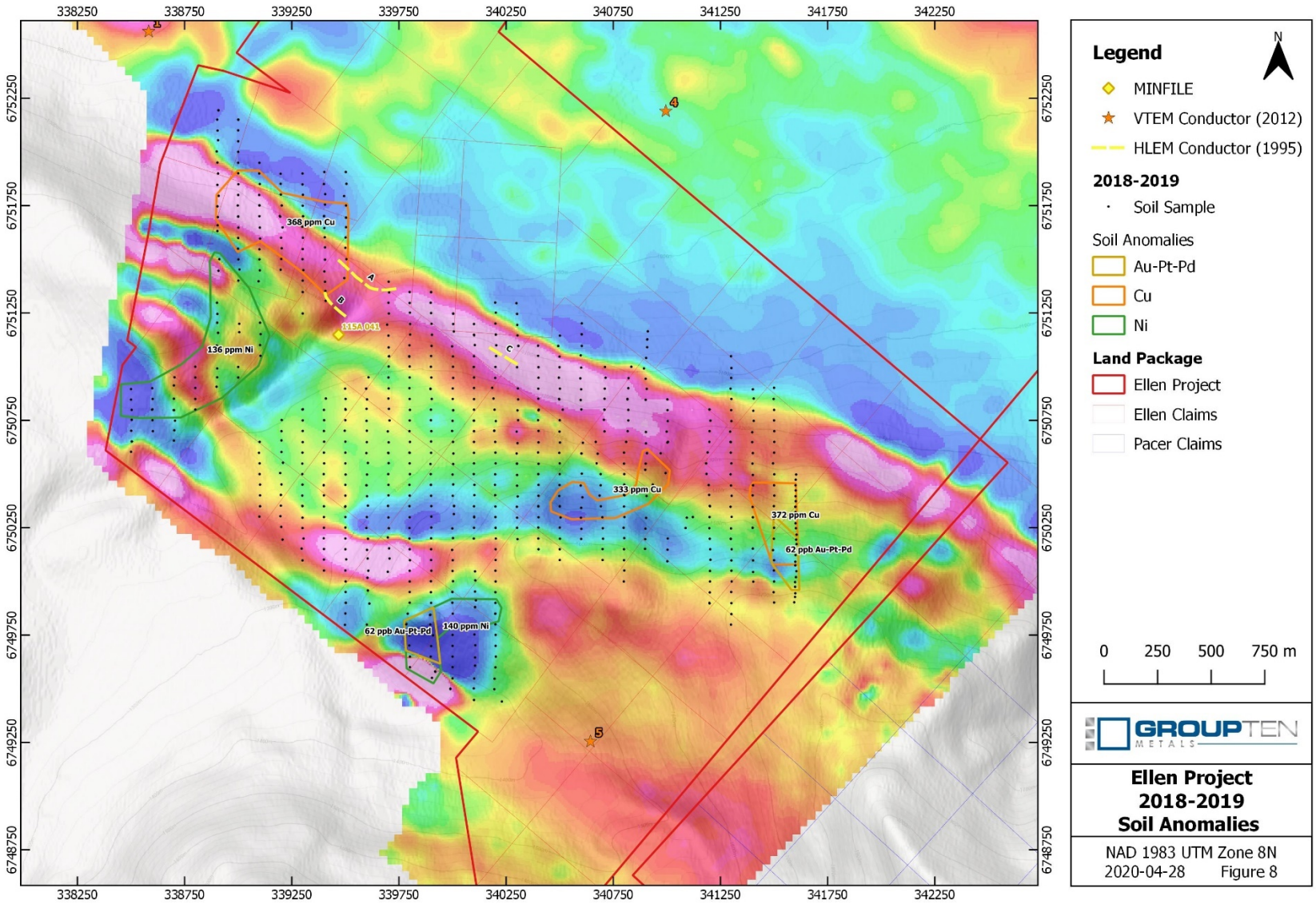


Figure 9. *2018-2019 Soil Anomalies*



6 Target Potential

The Ellen project is highly prospective for Cu-Au VMS associated with differentiated mafic volcanic rocks and Ni-Cu-PGE mineralization associated with late Triassic Ultramafic intrusives. The main style of mineralization on the Ellen property is volcanic hosted Cu-Au massive sulphide with potential for flood basalt associated Ni-Cu-PGE mineralization; the Kloo occurrence is interpreted to be a potential Cyprus-type VMS deposit.

To date, less than 30% of the property has been sufficiently mapped, the mineral potential of the remaining ~1,400 hectares unknown. Moreover, the Ellen project is underlain by units capable of hosting numerous styles of mineralization including four types associated with intrusive sills, skarn carbonates akin to the Wellgreen deposit, Cu-mineralization associated with shear zones in the Nikolai basalt, and potential additional VMS mineralization in mafic volcanics akin to the Kloo showing. Recent prospecting of the southeastern contiguous claims has highlighted the untapped mineral potential of the underexplored claims, with preliminary sampling returning values up to 2,049 ppm Ni and 11,540 ppm Cu.

Geophysical surveying in 1993 identified three conductors along strike from the main mineralized horizon. Conductors A and B remain open to the west and Conductor C to the east due to limitations of the grid. These conductors are coincident with thrust faulting, magnetic highs, and geochemical soil anomalies, and as such are highly prospective. The 2012 VTEM airborne survey outlined five HLEM target locations including conductive zone #5 situated on the claims block. The #5 conductor is described as near surface, gently dipping to the south and oriented roughly E-W (Geotech, 2012). Similar to the above-mentioned conductors, the #5 zone is interpreted to be structurally controlled and coincident with magnetic highs, and as such warrants follow-up.

Exploration on the Ellen project, undertaken from 1954 to 2019, includes approximately 1,214m of drilling in 17 holes, hand/blast trenching, rock and soil geochemistry, electromagnetic (VLF-EM, VTEM, and horizontal loop) and magnetic geophysical surveys. Overall, historic exploration on the Ellen property has largely focused on the Kloo occurrence and adjacent gully exposures, with limited work targeting peripheral claims. Additionally, and important to note, prior to 2018 mineralization on the property was not analyzed for PGE's.

7 2020 Work Program: Geological and Geochemical Surveys

Project manager, Ryan Versloot of Longford Exploration Services Ltd, conducted re-sampling and analyses of historical core drilled in 1995 by Probe Resources Ltd from July 6-9, 2020 at the Yukon Geological Survey's Bostock Core Library in Whitehorse, YT.

A Longford field crew, joined by two TruePoint geologists conducted geological and geochemical exploration surveys on targeted areas of the Ellen claims from August 9 – 18, 2020. Field personnel included: project manager Ryan Versloot, geologists Graham Davidson, Linda Lewis (TruePoint), Povilas Grigutis (TruePoint) and junior geologist Aedan O'Brien. Field work was staged from Wanderer's Inn Backpacker's Hostel in Haines Junction and helicopter

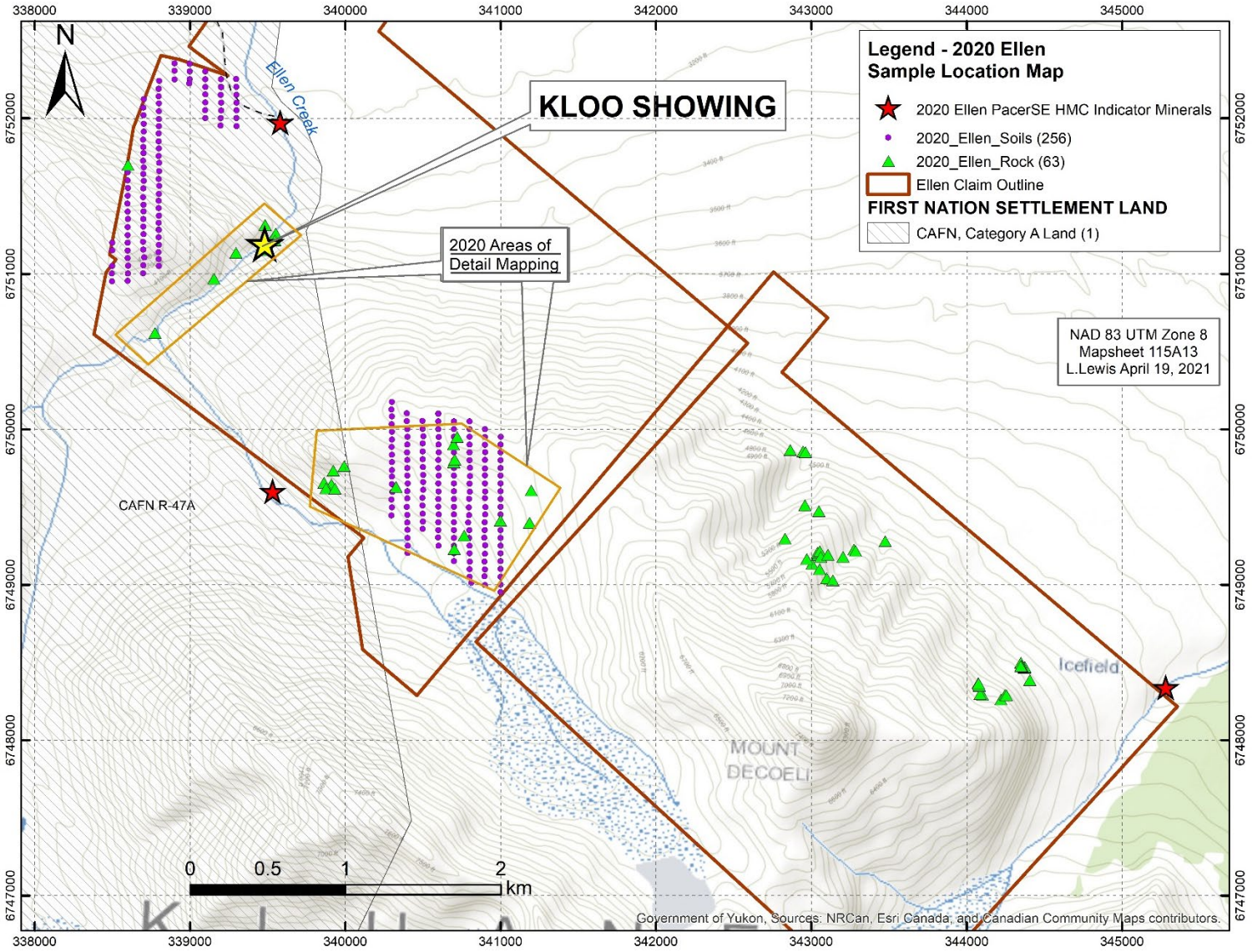
support was provided by Capital Helicopters based out of Haines Junction. A total of 40 man-days were spent on the 2020 Ellen Project.

In summary, the 2020 exploration program included:

- Soil sampling (n=256) to extend the soil grids established in 2018-2019.
- Collection of four heavy mineral indicator samples from stream gravels to assess the potential for gold, base metal, PGM's and fine-grained metallic indicator minerals.
- Several prospecting traverses in the Davidson Sill area.
- 63 rock samples collected and assayed, including 1 for overlimit Cu.
- Detailed sampling and geological mapping at 1:2500 scale in the Kloo area to extend and further refine previous mapping.
- Logging and re-analysis of historical core from 1995 (stored at the YGS Bostock Core Library). 28 core samples were sent for assay.

Figure 10 (page 31) depicts the 2020 sample locations and area of detailed geological mapping on the Ellen claims.

Figure 10. *2020 Ellen sample location map.*



7.1 Soil Geochemical Survey

Soil sampling extended the 2018-2019 soil grid in the northwest and southeast with the aim of covering anomalies that were open ended as well as covering the 2012 VTEM conductor #5 in the 2020 program proposal. Sampling continued the 50 m sample spacing along 100 m spaced lines. A total of 256 samples of the total proposed 700 were collected. One crew member was transferred to a different project and more days were spent on detailed mapping, reducing the number of days available for soil sampling.

Samples were collected in Kraft soil sample bags and shipped to Bureau Veritas in Whitehorse for sample preparation (drying the samples at 60°C, followed by sieving 100 grams of the samples to -80 mesh). Prepped samples were then sent to Bureau Veritas in Vancouver in to evaluate the precious metal concentrations present. 30 grams of the sample were fire assayed for Au-Pt-Pd fire (Code FA330) for Au-Pt-Pd and analyzed by ICP-ES. Sample splits of 0.5 grams were then leached in modified Aqua Regia (partial digestion) and analysed for 34 elements using inductively coupled mass spectrometry (ICP-ES/MS) analytical technique (Code AQ300). Soil descriptions and assay results can be found in ***Appendix III.*** Soil geochemistry plots for select elements (Au, Ag, Cu, Ni, Pd, and Zn) at located in ***Appendix IV*** and assay certificates in ***Appendix XI.***

7.1.1 Soil Sampling Results and Interpretation

The 2020 soil survey extended the previous year's grid in two areas; to the north and west, up to the western claim boundary and to the south. There are several areas of interest.

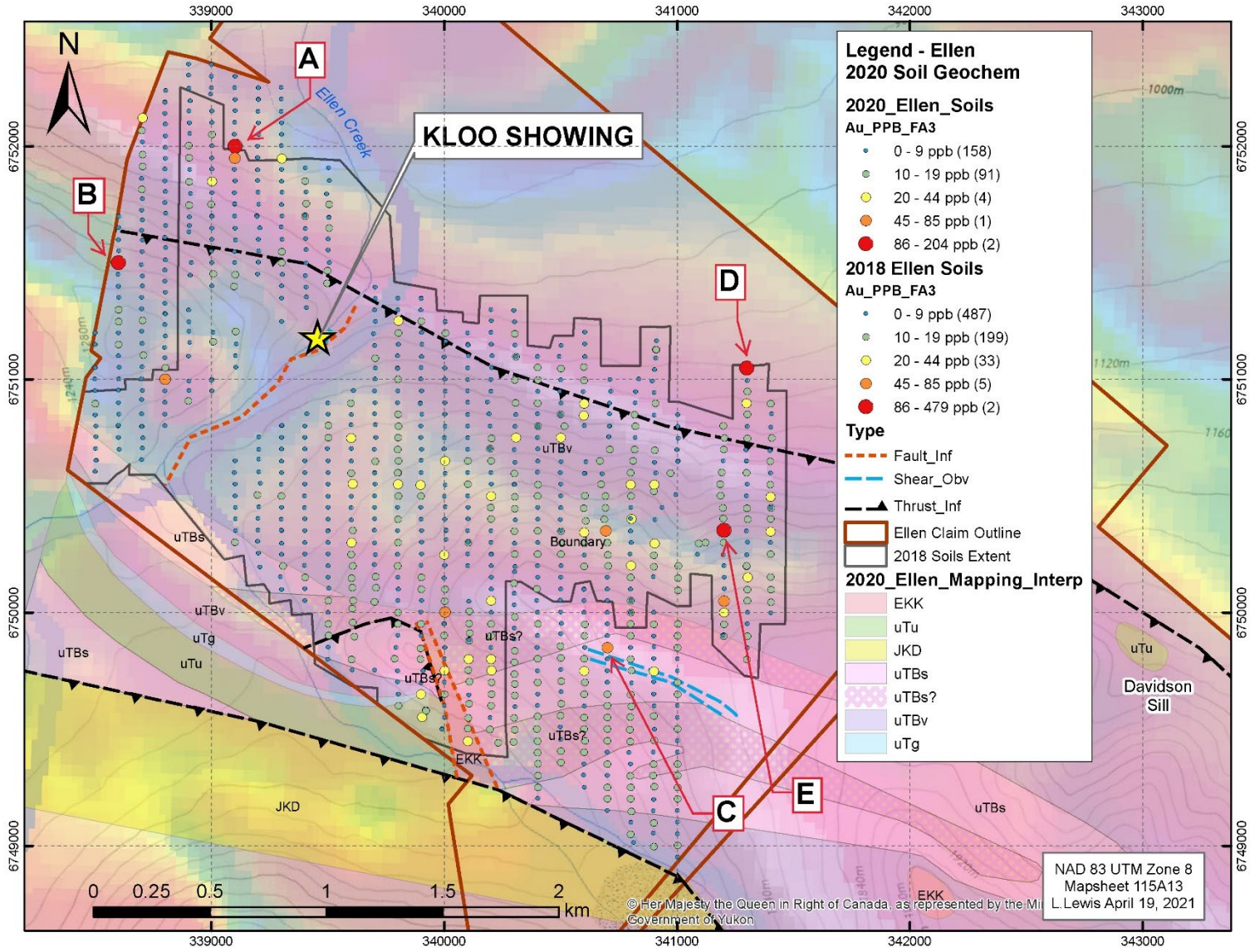
Three gold in soil anomalies (204 ppb, 120 ppb and 76 ppb) are indicative of possible mineralization worth follow-up. Two gold anomalies from the 2018 soil survey also warrant further investigation (***Figure 11***, page 33***).***

A: The 120 ppb Au is coincident with elevated Pd (37 ppb) adjacent to the 2018 sample returning 75 ppb Au and 29 ppb Pd, approximately 750 m northwest of the Kloo showing. It occurs downslope from the northwest-southeast trending magnetic feature that possibly corresponds to the ultramafic sill / thrust fault.

B: Anomaly B along the far west claim boundary, corresponds to 204 ppb Au, coincident with elevated Ni (182 ppm) and Cu (125 ppm). The source of this anomaly is uncertain. It lies approximately along strike of the buried serpentinite sill intersected in historic drill holes 95-4 and 5.

C: Anomaly C in the southeast portion of the grid contains 76 ppb Au, 49 ppb Pd and 254 ppm Cu. Forty-nine ppb Pd was the highest palladium in soils in the 2020 survey. On the Au plot, it appears as a point anomaly, corresponding with the shear zone mapped in 2020. On the Pd geochemistry plot ***(Appendix IV)***, there are numerous anomalies in the area of the newly mapped shear. Surprisingly, the rock samples collected along the shear (bleached, schistose metasediment) carried only a maximum of 13 ppb Pd, which does not explain the anomalous Pd in soils.

Figure 11. *Gold in soil anomalies, 2020 and 2018.*



D: Anomaly D, 479 ppb Au, from the 2018 soil survey is a high priority target for follow-up. Similar to Anomaly A, it occurs downslope of the northwest-southeast trending magnetic feature that possibly corresponds to the ultramafic sill / thrust fault. There are no soil samples north of this anomaly and the grid could be extended here.
E: Anomaly E, 86 ppb Au, also from the 2018 soil survey is a lower priority target which is worth investigation.

The 2020 soils did not reveal many new copper anomalies.

F: In the southeast extension there is a multi-element anomaly consisting of 367 ppm Cu, 391 ppm Ni, 370 ppm Co, 1070 ppm Zn and 10000 Mn *(**Figure 12**, page 35)*. This is an unexplained anomaly. A rock sample from the same area consisted of strongly iron oxide-stained quartz boudins in silicified argillite schist (uTBs?) but carried only a fraction of mineralization compared to that in the soil sample; 28 ppm Cu, 21 ppm Ni, 4 ppm Co, 60 ppm Zn and 761 Mn. In the same southeast area, there is a multi-sample silver-zinc anomaly.
G: Along the central western claim boundary, there is a multi-element point anomaly with 368 ppm Cu, 128 ppm Ni and 36 ppb Pd *(**Figure 12**, page 35)*. There is a significant wide Ni anomaly in the central west end of the claim boundary, discussed below.

The 2020 nickel in soils revealed a significant anomaly.

H: An area approximately 400 m x 400 m near the western claim boundary contains elevated nickel with 17 samples carrying between 212 ppm – 446 ppm Ni *(**Figure 13**, page 36)*. Palladium is also elevated up to a maximum of 35 ppb Pd. For the most part, Cu is surprisingly low except for the one anomaly **(G)** discussed previously. The source of the nickel-palladium is not explained by the surface outcrop. Samples collected in 2018 were described as chloritized mafic volcanic rocks with quartz-carbonate veining (G. Davidson, 2018). One sample, 1319644, was more schistose than most and the narrow quartz-carbonate veins carried up to 5-10% chalcopyrite, assaying 2271 ppm Cu, 21 ppb Pd, but low nickel. 2018 sample 1319630 nearby, contained 3648 ppm Cu with 20 ppb Pd, 77 ppb Au, but minor nickel. The Cu mineralization within the surface outcrops appears to originate from the quartz-carbonate stringers and veinlets in the chloritized mafic volcanic rocks. In summary, this area of elevated nickel in soils is not explained by the surface outcrop and may represent a buried target. Investigation further south, where the ultramafic unit, uTu may extend is warranted.

An area of increased Ag-Zn in soils is located in the southeast portion of the grid.

I: Silver and zinc in soils are background values throughout the 2018-2020 grid except in the southeast portion *(**Figure 14**, page 37)*. Zinc values reach 1962 ppm, Ag up to 2.5 ppm, 367 ppm Cu, and 370 ppm Co. and one sample with 291 ppm Ni. The source of the multi-element anomalies is not explained by the surface geology, but may be related to the thrust fault that defines the unconformable boundary of the Late Triassic Bear Creek assemblage to the north and Late Jurassic to Early Cretaceous Dezadeash Group (JKD) to the south.

Figure 12. *Gold in soil anomalies, 2020 and 2018.*

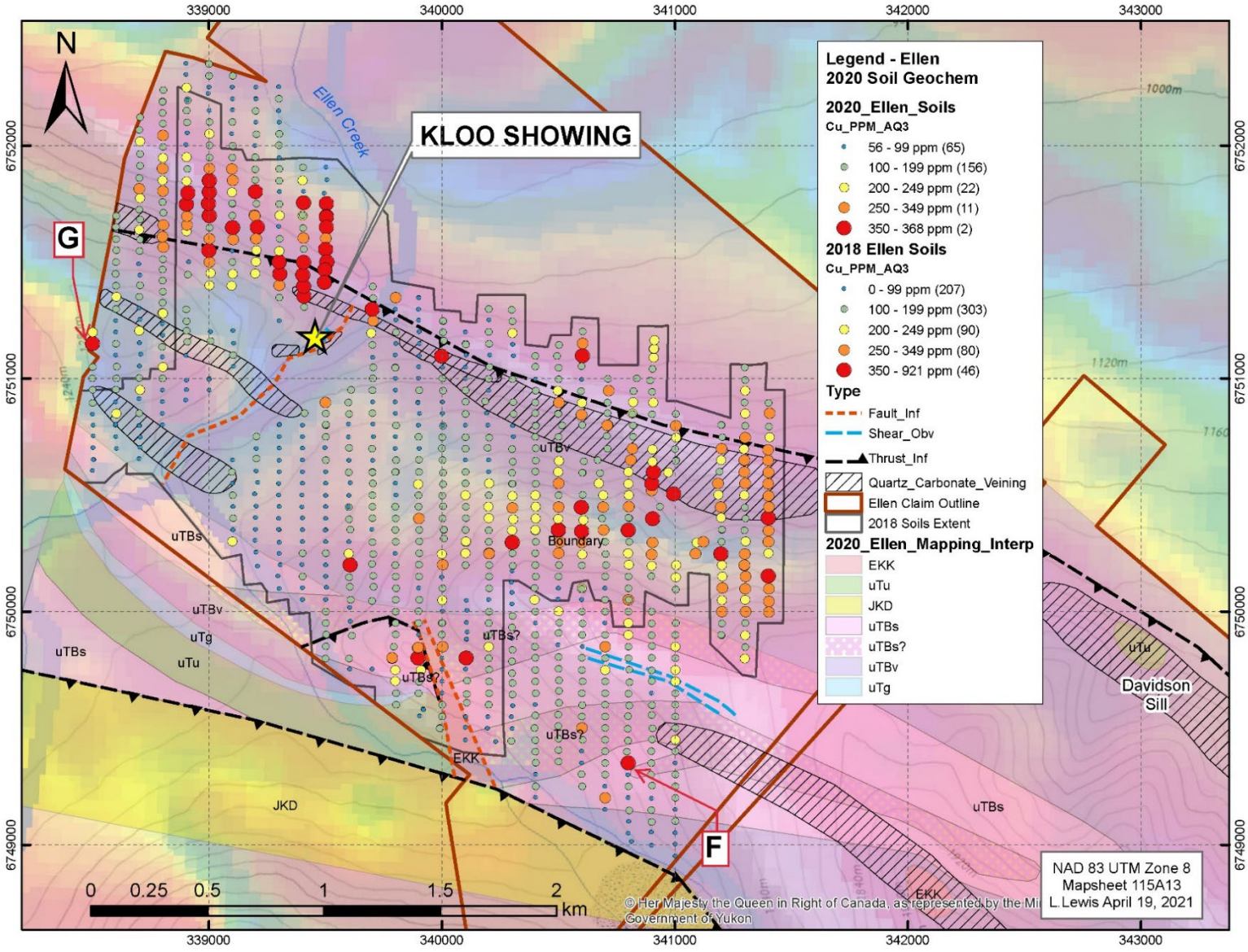


Figure 13. *Nickel in soil anomalies, 2020 and 2018.*

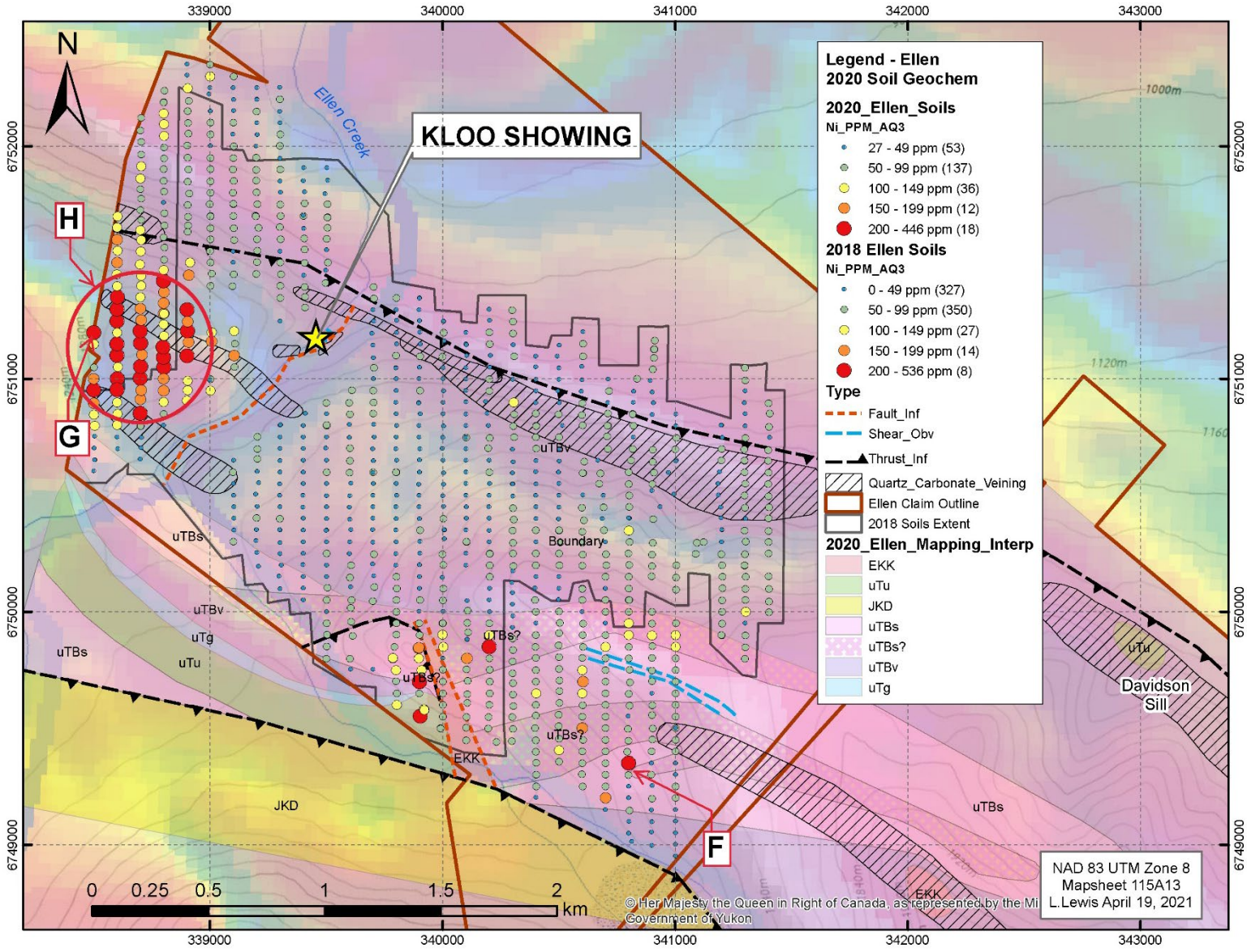
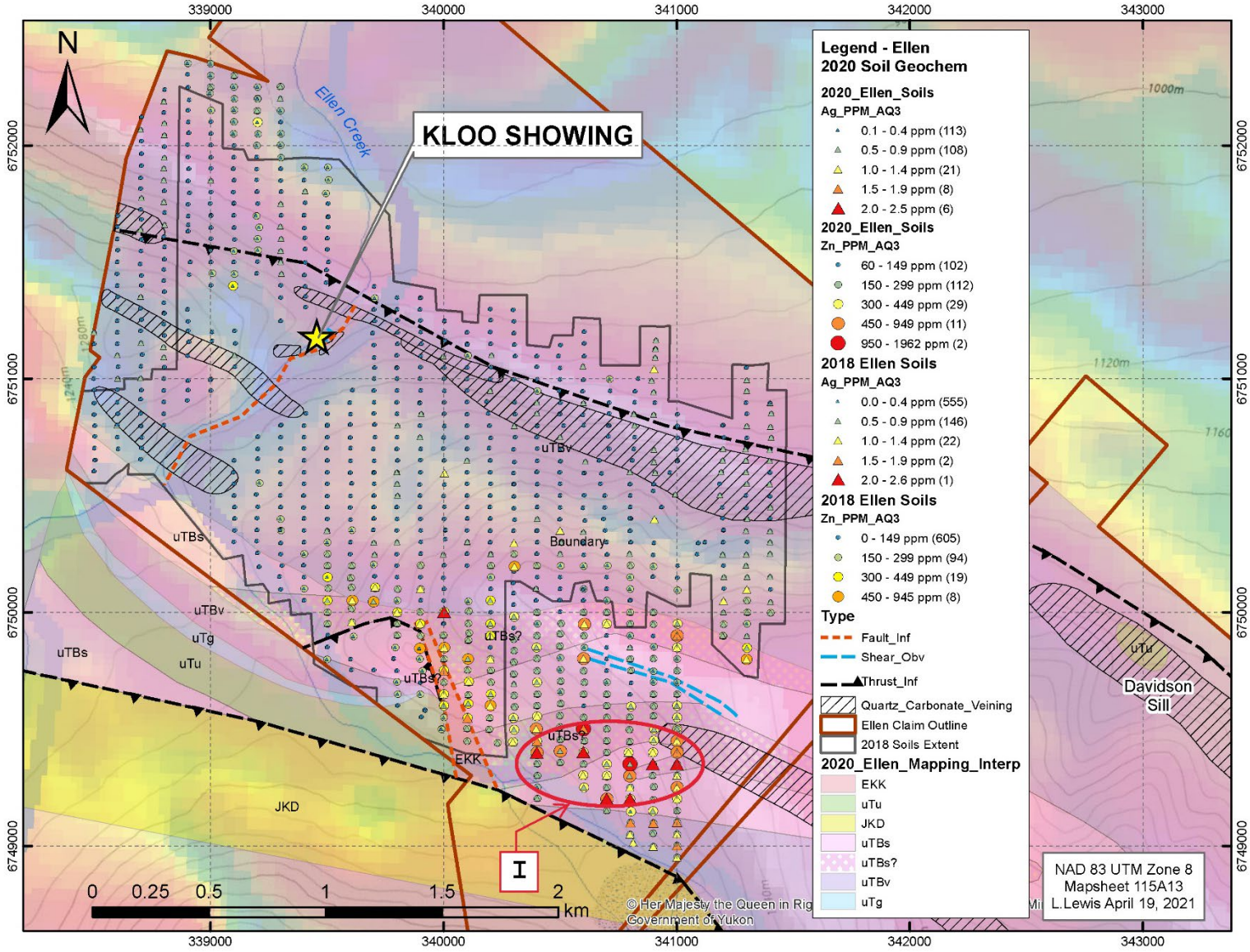


Figure 14. *Silver-zinc in soil anomalies, 2020 and 2018.*



7.2 Heavy Mineral Concentrate – Indicator Mineral Sampling

Heavy mineral concentrate sampling was not planned in the original Ellen target evaluation proposal, but was proposed in the Focused Regional Program on the Kluane Mafic-Ultramafic Belt (Davidson, G. and Versloot, R., 2020). The collection of bulk stream sediment samples for recovery of heavy minerals was undertaken from drainages downstream from the VMS Kloo prospect and downstream from three mafic-ultramafic sills on the Ellen and Pacer SE properties with the goal of identifying indicator minerals indicative of magmatic Ni-Cu-PGE mineralization as well as possible indications of Cu-Au mineralization. Samples were sent to Overburden Drilling Management of Ottawa, Ontario for processing and analysis.

The application of indicator mineral methods to mineral exploration has developed significantly over the past several decades. They are used around the world to explore for a broad spectrum of commodities. Heavy mineral suites now exist for detecting a variety of ore deposits types including diamond, gold, Ni-Cu-PGE, porphyry Cu, massive sulphide, uranium, tungsten and are summarized in ***Table 4*** (page 40), (McClenaghan and Paulen, 2018).

Davidson and Versloot (2020) note that no platinum group element indicator mineral studies have been carried out in the Yukon although they are generally a well understood exploration tool for Ni-Cu-PGE's, thanks to the work of Overburden Drilling Management (ODM) and the GSC. Fedortchuk (2010) analyzed 5 Pt-Fe grains from a placer operation in Burwash Creek (approximately 85 km northwest of the Ellen Property, along the known Kluane ultramafic-mafic trend) and found them to have a notable enrichment in large-ion lithophile elements suggesting an Alaska-Uralian-type mineralization rather than a relation to the Kluane ultramafic-mafic complex.

7.2.1 Heavy Mineral Concentrate Sampling and Sample Preparation

The ideal site for collecting bulk stream sediment -processed for the heavy mineral concentrate fraction, is a reasonably well-sorted, high-energy, mid-channel environment where there is sufficient gravel to permit the entire sample to be taken from the same hole dug into the streambed. Where possible, the upstream head of active longitudinal bars were preferentially selected. Three of the four sites chosen on Ellen – Pacer SE were located downstream of known ultramafic sills and the fourth site was downstream of the Kloo prospect and the serpentinized sill, shown in ***Figure 15***, (page 41).

Roughly 12 – 15 kg of <3 mm stream sediment was collected by wet-sieving onsite into a plastic lined 5-gallon pail. A sample tag was inserted into the bag and closed with a tightfitting lid. The pails were labelled with the sample number and were directly shipped to ODM's laboratory in Ottawa for preparation and analysis.

The unmodified laboratory report produced by ODM is presented in ***Appendix V***. The <2.0 mm fraction of each sample was processed to produce a non-ferromagnetic heavy mineral

concentrate, from which indicator minerals were identified, following the procedures outlined in ***Table 5*** (page 42).

Deposit Type	Ore Elements	Indicator/ Pathfinder Elements	Common Indicator Minerals	Published Reviews and Examples
Kimberlite-hosted diamonds	C	Ba, Cr, K, LREE, Mg, Nb, Ni, P, Rb, Sr, Ta, Ti	Cr-pyrope, Cr-diopside, eclogitic garnet, Mg-ilmenite, chromite, diamond	McClenaghan et al. (2002a), McClenaghan and Kjarsgaard (2007), Nowicki et al. (2007)
Volcanogenic massive sulfide	Cu, Pb, Zn, Ag, Au	Ag, As, Au, Ba, Bi, Cd, Cu, Hg, In, Pb, S, Sb, Tl, Zn	Chalcopyrite, sphalerite, galena, pyrrhotite, gold, pyrite, gahnite, staurolite, cassiterite, spessartine, sillimanite, andalusite, beudantite, jarosite, barite, tourmaline, hogcomite, nigerite	Averill (2001), McClenaghan and Peter (2016), McClenaghan et al. (2015a,b)
Sediment-hosted lead-zinc	Ag, Cu, Pb, Zn	Ag, Cu, Pb, S, Zn	Chalcopyrite, sphalerite, galena, pyrite, barite, spessartine, smithsonite, anglesite, cerussite	Tarplee and Meer (2010), Paulen et al. (2011), Oviatt et al. (2015)
Gold	Au, Ag	Ag, As, Au, B, Ba, Bi, Cu, Co, Fe, Hg, Mn, Sb, Se, Te, U, W	Gold, scheelite, tourmaline, rutile, sulfides, tellurides, PGM, barite, cinnabar	Averill (2001), Sarala et al. (2009), McClenaghan and Cabri (2011)
Magmatic Ni-Cu-PGE	Ni, Cu, PGE	As, Au, Cr, Cu, Mg, Ni, PGE, S	Pentlandite, chalcopyrite, pyrite, millerite, platinum group minerals, chromite, Cr-diopside, enstatite, olivine, Cr-andradite	McClenaghan and Cabri (2011), Averill (2009, 2011), McClenaghan et al. (2011)
Rare metals	REE, Li, Nb, Ta, Zr	Be, Ce, Cl, F, Li, Nb, U, P, REE, Ta, Th, Y, Zr	Pyrochlore, columbite, Ta-minerals, allanite, zircono-silicates, apatite, monazite, fluorite, rhabdophane, arfvedsonite	Batterson and Taylor (2009), Lehtonen et al. (2015), Simandl et al. (2015); Mackay et al. (2015)
Porphyry Cu-Au-Mo	Cu, Mo, Au, Ag	Au, Ag, Cu, Mo, S	Chalcopyrite, chalcocite, pyrite, molybdenite, gold, silver, epidote, tourmaline, apatite, andradite, barite, monazite, rutile, titanite, zircon, jarosite, malachite	Averill (2011), Kelley et al. (2011), Hashmi et al. (2015), Plouffe et al. (2016)
Porphyry Sn-W	Sn, W, Mo	As, Ag, Be, Bi, Cd, Cu, F, In, Mo, Pb, S, Te, W, Zn	Cassiterite, scheelite, wolframite, molybdenite, chalcopyrite, Bi sulfides, sulfides, fluorite, topaz, tourmaline	Snow and Coker (1987a,b), McClenaghan et al. (2017a,b)
Uranium	U	As, Ba, Cu, F, La, Ni, P, Pb, Th, Ti, U, Y, Zn, Zr	Uraninite ([a]pitchblende), thorianite, tourmaline, sulfides, monazite, allanite, zircon, baddeleyite, niccolite, U-Th anatase, U-Th rutile, brannerite, magnetite	Geddes (1982), Boyle (1982), Campbell (2009); Robinson et al. (2016)

PGM, *platinum group minerals;* PGE, *platinum group elements;* REE, *rare earth elements.*
[a]*Pitchblende—brown or black pitchy massive form of uraninite.*
Data compiled from Boyle (1974), Rose et al. (1979), Levinson (1980), and Lehtonen et al. (2015).

Table 4. *Selected mineral deposit types and corresponding common indicator minerals (McClenaghan and Paulen, 2018).*

Figure 15. *Location map for collection sites of heavy mineral concentrate for the recovery of indicator minerals.*

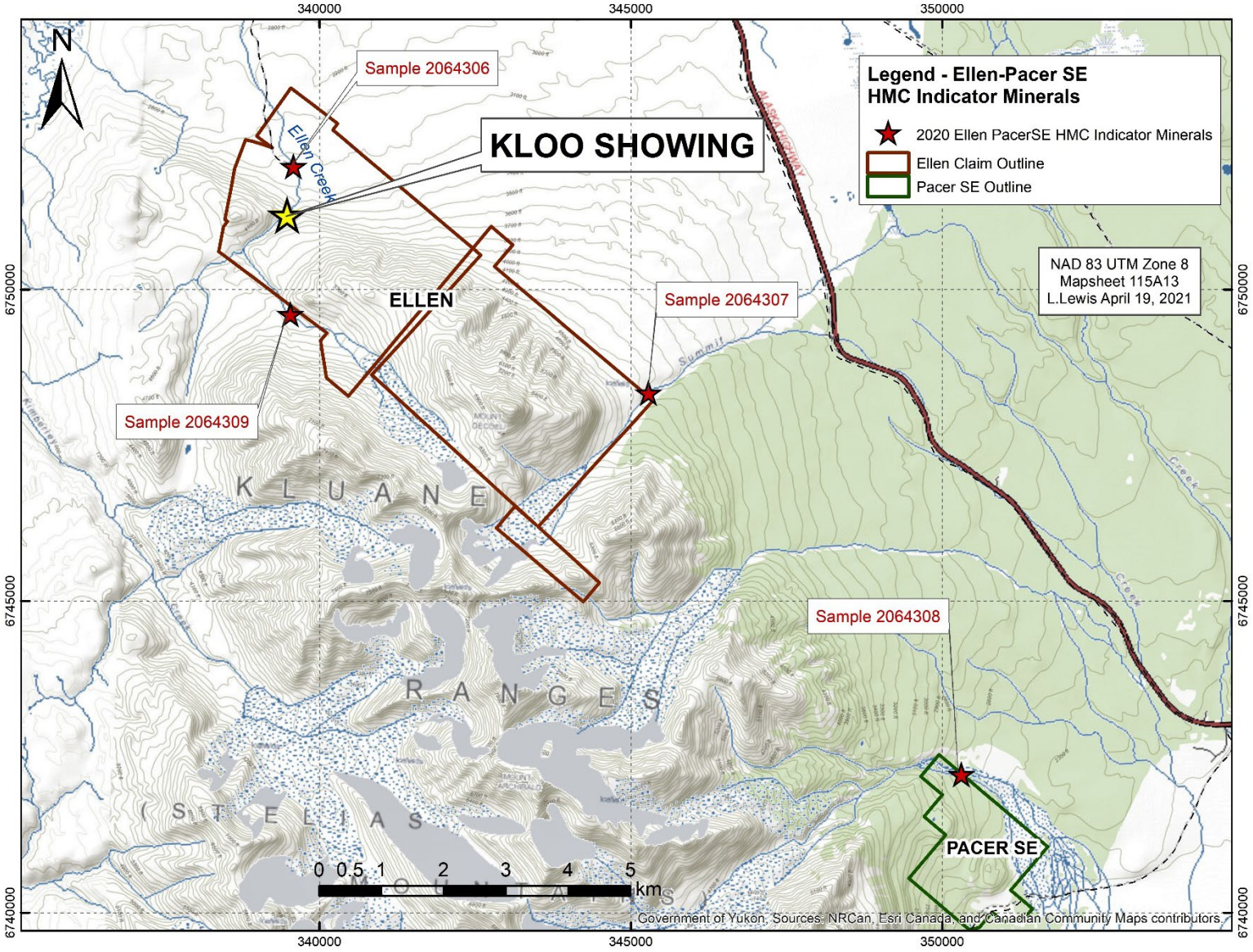
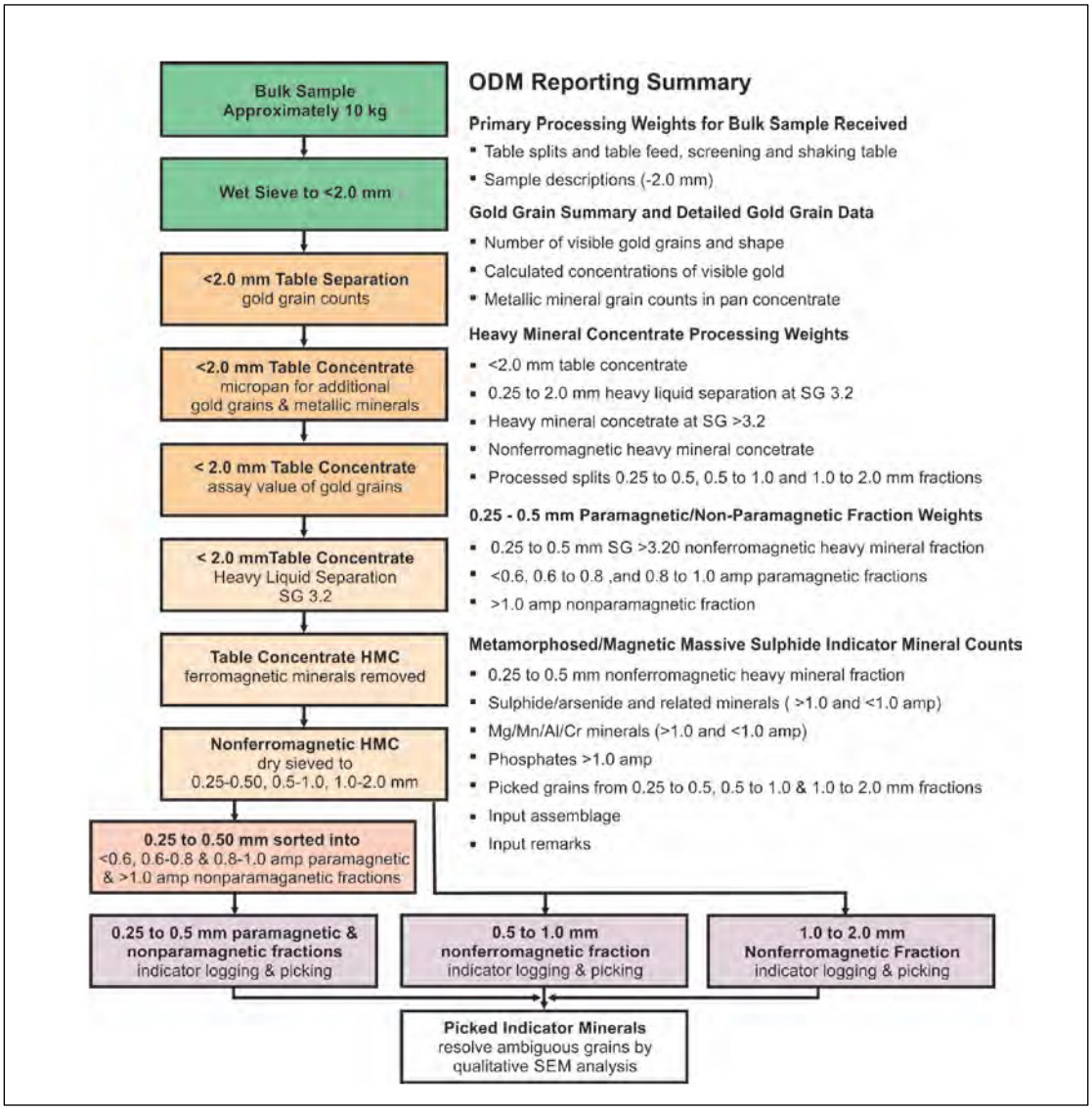


Table 5. *Flow diagram showing ODM's bulk sediment sample preparation process (Jackman, 2021).*



At Overburden Drilling Management (ODM) Limited, all samples were panned for gold, PGMs and fine-grained metallic indicator minerals. Shaking table concentrates were refined by heavy liquid separation at S.G. 3.2 to obtain heavy mineral concentrates (HMCs). 1.2-2.0, 0.5-1.0 mm and nonparamagnetic 0.25-0.5 mm HMC fractions were examined for scheelite by UV lamping. The various non-ferromagnetic fractions of each sample were examined under a binocular microscope by trained personnel at ODM. Indicator mineral grains were counted and a selection of grains verified with a scanning electron microscope (SEM).

7.2.2 Heavy Mineral Concentrate – Indicator Minerals Results and Interpretation

A note on gold grain classification: DiLabio (1990) of the GSC, devised a simple classification scheme for gold in till. Three main classes of shapes are recognized: pristine, modified, and reshaped, forming a progression from undamaged grains to ones that retain none of their original features *(**Figure 16**)*. This sequence represents increasing distance from the bedrock source of the gold. In addition, the relative proportions of the three types should indicate nearness to the bedrock source, at least qualitatively. Averill (2013) suggests pristine gold grains have been transported approximately 100 metres, modified gold grains have been transported up to 500 metres and reshaped grains, >1000 to >10,000 metres.

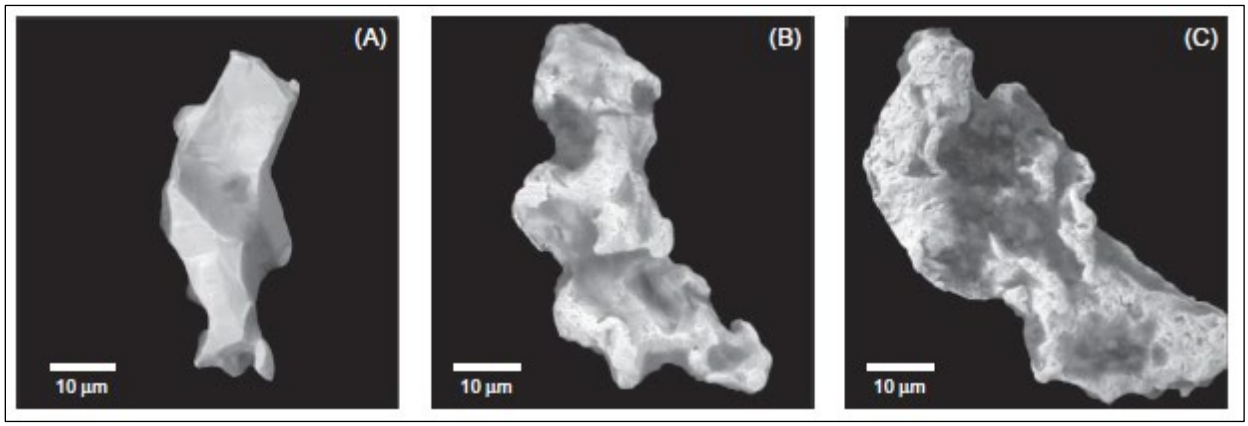


Figure 16. *SEM images of gold grains showing A-pristine; B-modified; C-reshaped (McClenaghan and Paulen, 2018).*

The detailed gold grain data and grain counts for metamorphosed/magmatic massive sulphide indicator minerals are displayed in ***Tables 6 & 7*** (pages 44-45) below. The author is not an expert in the interpretation of heavy mineral indicator results, but some generalizations can be made about the data. In addition, many more samples would be required to plot trends, but the data reveals a glimpse into potential mineralization, although predicting the source location is problematic.

Detailed Gold Grain Data											
Sample Number & Location	Dimensions (µm)			Number of Visible Gold Grains				Nonmag HMC Weight* (g)	Calculated V.G. Assay in HMC (ppb)	Metallic Minerals in Pan Concentrate
	Thickness		Width	Length	Reshaped	Modified	Pristine	Total			
2064306	10	C	50	50		1		1		4	Tr (~5000 grains) pyrite (25-500 µm).
339581_mE	13	C	50	75	1			1		7	
6751975_mN								2	50.4	11	Ellen-Kloo
2064307	10	C	50	50	1			1		4	Tr (~5000 grains) pyrite (25-500 µm).
345281_mE								1	48.8	4	
6748340_mN											Ellen-Decoeli
2064308	No Visible Gold										Tr (1 grain) molybdenite (50 µm).
350306_mE											Tr (3 grains) cinnabar (25 µm).
6742220_mN											Tr (~2000 grains) pyrite (25-500 µm).
											Pacer SE-Mt Archibald
2064309	No Visible Gold										Tr (~2000 grains) pyrite (25-500 µm).
339533_mE											
6749601_mN											Ellen-Upper Ellen Ck

Table 6. *Ellen detailed gold grain data identified by Overburden Drilling Management.*

Metamorphosed/Magmatic Massive Sulphide Indicator Mineral (MMSIM) Counts																			
	0.25 to 0.5 mm Nonferromagnetic Heavy Mineral Fraction																		
	Sulphide/Arsenide + Related Minerals				Mg/Mn/Al/Cr Minerals											Phosphates			
	>1.0 amp			<1.0 amp	>1.0 amp							<1.0 amp				>1.0 amp			
													Olivine						
Sample Number	% Cpy	Misc. Prime MMSIMs	% Pyrite	% Goethite	# Grains + Colour Spinel	Misc. Prime MMSIMs	% Red Rutile	% Ky	% Sil	% Tm	% St	% Sps*	% Fo	% Fay	% Opx	% Cr**	% Ap	% Mz	Remarks	Picked Grains
2064306	0.7 (~120 gr)	Tr malachite (13 gr); 0.5 barite (~80 grains)	15 (~2500 gr)	80	0	0	0	0	Tr	0	0	0	0	0	0	0	0	0	Goethite-augite/epidote-diopside-pyrite assemblage. 0.5-1.0 mm fraction contains 0.5% (~50 grains) chalcopyrite.	1.0-2.0 mm fraction: 20 chalcopyrite 1 malachite 0.5-1.0 mm fraction: 20 representative chalcopyrite 8 malachite 10 barite 0.25-0.5 mm fraction: 20 reperesentative chalcopyrite 13 malachite 10 representative barite
2064307	0.1 (32 gr)	0.2 barite (~80 gr)	15 (~5000 gr)	95	0	Tr Mn-epidote (6 gr); Tr low-Cr diopside (2 gr)	0	0	Tr	0	0	0	0	0	0	Tr (3 gr)	0	0	Goethite/epidote-diopside-pyrite assemblage.	0.5-1.0 mm fraction: 6 chalcopyrite 10 barite 0.25-0.5 mm fraction: 32 chalcopyrite 10 representative barite 6 Mn-epidote 2 low-Cr diopside 3 chromite
2064308	Tr (2 gr)	Tr barite (~60 gr)	5 (~1000 gr)	0.5	0	Tr low-Cr diopside (4 gr)	0	0	Tr	0	0	0	0	0	0	0	0	0	Augite/diopside assemblage.	0.5-1.0 mm fraction: 2 chalcopyrite 4 barite 1 low-Cr diopside 0.25-0.5 mm fraction: 2 chalcopyrite 10 representative barite 4 low-Cr diopside
2064309	Tr (5 gr)	0.1 barite (13 gr)	10 (~1000 gr)	95	0	0	0	0	0	0	0	0	0	0	Tr	Tr (21 gr)	0	0	Goethite/Epidote assemblage. SEM checks from 0.25-0.5 mm fraction: 7 chromite candidates = 6 chromite and 1 chromite with attached fuchsite.	0.5-1.0 mm fraction: 2 chalcopyrite 1 barite 1 chromite 0.25-0.5 mm fraction: 5 chalcopyrite 13 barite 20 chromite 1 chromite + fuchsite

Table 7. *Detail of metamorphosed/magmatic massive sulphide indicator mineral (MMSIM) counts. Reported by ODM.*

SAMPLE 2064306: This sample was collected approximately 750 m downstream of the Kloo prospect and underlying serpentinized sill, along Ellen Creek. The majority of clasts >2.0 mm are described as volcanic/sediments with 5% quartz and a trace of granitic clasts.

Two visible gold grains were picked from the concentrate, including 1 modified grain (transported <500 m) and 1 reshaped gold grain (indicating transport between 1-10 km). The Kloo showing is known to carry gold and the 2020 surface chip sample assayed 1264 ppb Au and 7.056% Cu over 2.0 m (sample 2064220). In addition to the gold grains, ~5000 metallic grains of pyrite were present in the pan concentrate, (marked as "trace").

Analysis of the metamorphosed/magmatic massive sulphide indicator mineral (MMSIM) counts noted a goethite-augite/epidote-diopside-pyrite assemblage containing 0.5% chalcopyrite. The combination of chalcopyrite, pyrite, barite and trace visible gold confirm the VMS-type copper-gold Kloo showing.

SAMPLE 2064307: This sample was collected on Summit Creek, at the far northeast corner of the Ellen claims, below Mount Decoeli. One visible reshaped gold grain along with ~5000 grains of pyrite were tabulated. Of note, there was a higher percentage of quartz clasts present in the sample – 10%.

Within the 0.25 to 0.5 mm nonferromagnetic sulphide and related heavy mineral fraction, 15% pyrite is accompanied by trace chalcopyrite and barite. Goethite is the main constituent in the <1.0-amp sulphide fraction. Present in the Mg/Mn/Al/Cr fraction are Mn-epidote, low-Cr diopside and chromite with a trace of sillimanite.

SAMPLE 2064308: This sample was collected on the northwest edge of the Pacer SE claims, on a west tributary of the Dezadeash River, below the known Mount Archibald ultramafic sill. No visible gold grains were recovered from the pan concentrates, but along with the ubiquitous pyrite (~2000 grains), 1 grain of molybdenite and 3 grains of cinnabar were present in the pan concentrate. Cinnabar is a possible indicator of epithermal gold, while molybdenite is an indicator of possible Porphyry Mo or skarn mineralization.

The traces of chalcopyrite, low-chromium diopside, chromite and sillimanite give evidence for Ni-Cu-PGE mineralization. but no platinum group minerals were recovered.

SAMPLE 2064309: This sample was collected along the southwest Ellen claim boundary, not far downstream of the gabbro / peridotite outcrop that carries between 1293 to 1719 ppm Ni. Besides pyrite, there were no other metallic minerals described from the pan concentrate.

Within the 0.25 to 0.5 mm nonferromagnetic sulphide and related heavy mineral fraction, 10% pyrite is accompanied by trace chalcopyrite and barite. Goethite is the main constituent in the <1.0-amp sulphide fraction (95%). Present in the Mg/Mn/Al/Cr fraction are chromite and a trace of orthopyroxene, both evidence of Ni-Cu mineralization. One of the chromite grains had fuchsite attached. Fuchsite (chrome mica) has been noted as one of the alteration minerals of

the serpentinized ultramafic rocks at the Hemingway property near Timmins, Ontario (http://econgeol.geoscienceworld.org/).

Tables 8 & 9 (page 48) summarize the indicator results and suggest possible deposit types based on McClenaghan and Paulen, 2018 and Averill, 2001.

Indicator minerals tabulated from sample 2064306, downstream of the Kloo showing, is confirmation of the Cu-Au mineralization. Those results in combination with the 2012 VTEM conductive anomaly and re-analysis from historic drill holes 95-4 and 5 provide evidence that the area warrants further exploration, targeting both the VMS-type Cu-Au mineralization the underlying gold mineralized serpentinized sill.

Indicator minerals found in sample 2064307, at the northeast base of Mount Decoeli give confirmation for the continuation of the ultramafic sill (presence of low-Cr diopside and chromite) as well as possible VMS-type mineralization nearby (presence of gold, chalcopyrite and Mn-epidote). More investigation is warranted in the area of the known ultramafic sill.

Sample 2064308 from the Pacer SE claims, below the known Mt. Archibald sill, is also encouraging. Cinnabar, is a possible indicator of epithermal gold and molybdenite indicating possible porphyry Mo or skarn mineralization. Traces of chalcopyrite, low-chromium diopside, chromite and sillimanite indicate the presence Ni-Cu-PGE mineralization.

Sample 2064309, from the southwest Ellen claim boundary, downstream of the gabbro / peridotite outcrop that carries between 1293 to 1719 ppm Ni, contained chromite and a trace of orthopyroxene, both evidence of Ni-Cu mineralization. One of the chromite grains had fuchsite attached.

Table 8. *List of gold and sulphides recovered from pan concentrates and possible deposit types (modified from Averill, 2001).*

Metallic Metal from Pan Concentrates		Grains Picked				Possible Associated Deposits
		2064306	2064307	2064308	2064309	
Gold	Au	2	1	0	0	Epithermal Au, porphyry Cu +/- Au, magmatic Ni-Cu-PGE, VMS
Cinnabar	HgS	0	0	3	0	Epithermal Au
Molybdenite	MoS_2	0	0	1	0	Porphyry Mo; Skarn;
Pyrite	FeS_2	~5000	~5000	~2000	~2000	Ubiquitous - most deposit types

Table 9. *Indicator minerals reported in heavy mineral concentrates and possible deposit types (modified from McClenaghan and Paulen, 2018).*

Gold		Possible Associated Deposits
Reshaped	Au	Gold quartz veins, Porphyry Cu +/- Mo +/- Au; skarn
Modified	Au	Placer
Sulphide/Arsenide + Related Minerals		**Possible Associated Deposits**
Barite	$BaSO_4$	Volcanogenic massive sulphide and SEDEX Pb-Zn-Ba
Chalcopyrite	Cu_3FeS_2	Porphyry Cu +/- Mo +/- Au; Skarn; epithermal; VMS; SEDEX; Cu-Ni-PGE
Goethite	$HFeO_2$	Oxidized porphyry Cu +/- Mo +/- Au; skarn; VMS/MS Cu-Ni; pyrite weathering
Malachite	$Cu_2CO_3(OH)_2$	Oxidized porphyry Cu +/- Mo +/- Au; skarn; VMS/MS Cu-Ni; Cu weathering
Pyrite	FeS_2	Ubiquitous - most deposits
Mg/Mn/Al/Cr Minerals		**Possible Associated Deposits**
Chromite	$Fe^{2+}Cr_2O_4$	Magmatic Cu-Ni-PGE massive sulphide
Low-Cr diopside	$Ca(MgCr)Si_2O_6$	Magmatic Cu-Ni-PGE massive sulphide
Mn-epidote	$Ca_2(Al,Fe,Mn)_3SiO_{12}(OH)$	Volcanogenic massive sulphide
Orthopyroxene	$(Mg,Fe)Si_2O_3$	Magmatic Cu-Ni-PGE massive sulphide; mafic igneous rocks
Sillimanite	Al_2SiO_5	Magmatic Ni-Cu-PGE massive sulphide; VMS; high temp metamorphic rocks

7.3 Geological Mapping and Prospecting *(Povilas Grigutis)*

7.3.1 Rock Sampling and Geochemical Analysis

A total of 63 rock samples were collected during prospecting traverses and detailed geological mapping around the property. Rock descriptions and GPS coordinates were recorded for each sample and geological reference point then entered into an MS Excel spreadsheet (see **Appendix VI**). Rock samples were packaged in numbered plastic bags, secured with plastic zap straps and packed into a rice bag for delivery to Bureau Veritas Laboratories in Whitehorse. Samples were crushed to less than 2mm after which a 250g split was pulverized to below 75µm (PRP70-250) and a 0.5g split was analyzed for 33 elements by Aqua Regia ICP-ES (AQ300) as well as a 30g split analyzed for Au, Pt, Pd by Fire Assay ICP-ES (FA330). Analytical certificates can be found in **Appendix XI**. One additional assay for overlimit Cu in ore were carried out using ICP AES following Aqua Regia Digestion (AQ370-X). Rock geochemistry plots for elements Ag, As, Au, Co, Cu, Ni, Pd, and Zn are located in **Appendix VII**.

TruePoint geologist, Povilas Grigutis compiled the geological data and presentation in the following section, 7.3.2 Property Geology.

7.3.2 Property Geology

The Ellen Property lies northeast of the Denali fault *(**Figure 17**, page 51)* and is primarily underlain by a volcano-sedimentary sequence known as the Late Triassic Bear Creek assemblage (204 Ma) (Israel et al., 2015). This sequence has been locally divided into three main groups *(**Figure 18** – Geological Legend,* page 51*);* foliated and faulted melange-like assemblage of medium to dark green clastic or volcaniclastic rocks ± chert and mudstone (uTBm); meta-siltstone, mudstone and sandstone, phyllitic to schistose and pyritic, locally more graphitic and black shale/phyllite horizons (uTBs); strongly foliated intermediate to mafic metavolcanic rocks (uTBv) interlayered with meta-sedimentary rocks of uTBs (Israel et al., 2015). The latter two types, uTBs and uTBv are dominantly seen on the Ellen claims. Due to the pervasive, propylitic alteration of both, uTBs and uTBv may be difficult to tell apart from one another in the field.

The Bear Creek volcano-sedimentary sequence shows pervasive propylitic-alteration (greenstones and green-schist), with mafic minerals commonly replaced by chlorite-epidote-serpentine assemblages (locally fibrous chlorite) and feldspars altered to a sodic composition (albite). The mafic volcanics (uTBv) are strongly foliated, with planar fabrics trending NW-SE and parallel to bedding planes in chlorite-altered argillites (uTBs) that trend ~110-130˚, dipping 20-60˚ towards the southwest. The role of the Bear Creek volcano-sedimentary sequence in relation to the overall tectonic and stratigraphic regional framework is uncertain, with possible similarities drawn to; Middle to Upper Triassic rocks of the Perseverance Group in the Taku Terrane; Upper Triassic rocks of the Alexander terrane; and the Upper Triassic rocks of the Wrangellia terrane (Israel et al., 2015). The Wrangellia terrane consists of basalt flows of the Nikolai formation (232-228 Ma), the ages and stratigraphic emplacement of the Nikolai basalts

do not fit that of the Bear Creek volcanics (204 Ma), and thus linkages to the Wrangellia terrane are less favourable (Israel et al., 2015).

Fine- to medium-grained ultramafic sills of the Late Triassic Kluane Mafic-Ultramafic Suite (uTu) have been emplaced along thrust faults at the base of the Late Triassic Bear Creek mafic volcanics (uTBv). Ultramafic sills locally possess gabbroic chilled margins (uTg/uTMg). Medium- to coarse-grained diorite, quartz-diorite, quartz-monzonite/pegmatite intrusions of the Early Cretaceous Kluane Range Suite cross-cut volcano-sedimentary sequences (uTBv/uTBs) on the property. The southern extent of the property is mapped as lithic greywackes, siltstone, shales and argillites of the Late Jurassic to Early Cretaceous Dezadeash Group (JKD), which unconformably overlie the Late Triassic Bear Creek Assemblage rocks (Israel et al., 2015).

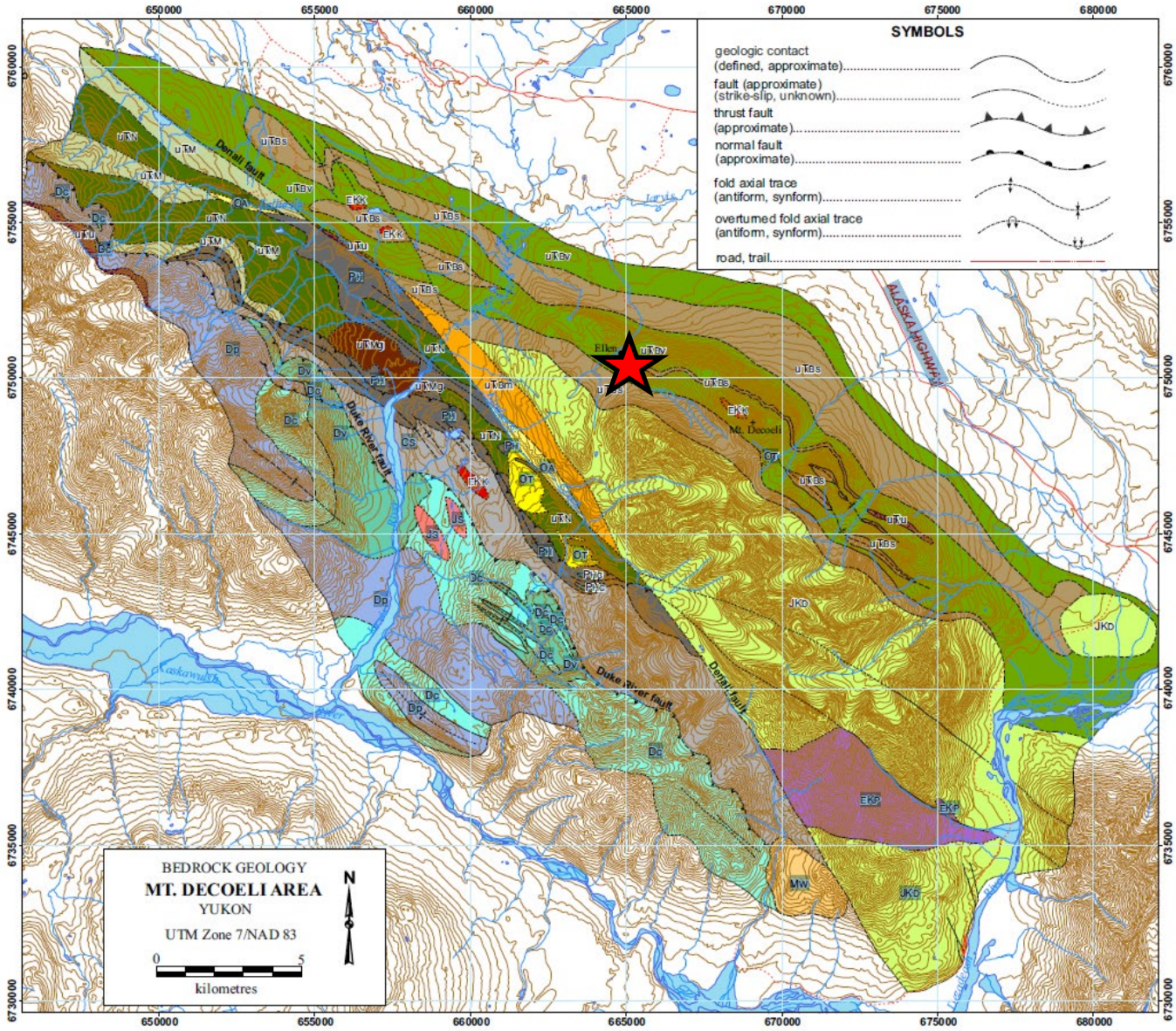


Figure 17. *Preliminary geological map of Mt. Decoeli area, NTS 115A/12, 13 and 115B/9. Open File 2014-2018, Israel et al., 2014. Red 'star' indicates location of Ellen (Kloo) showing.*

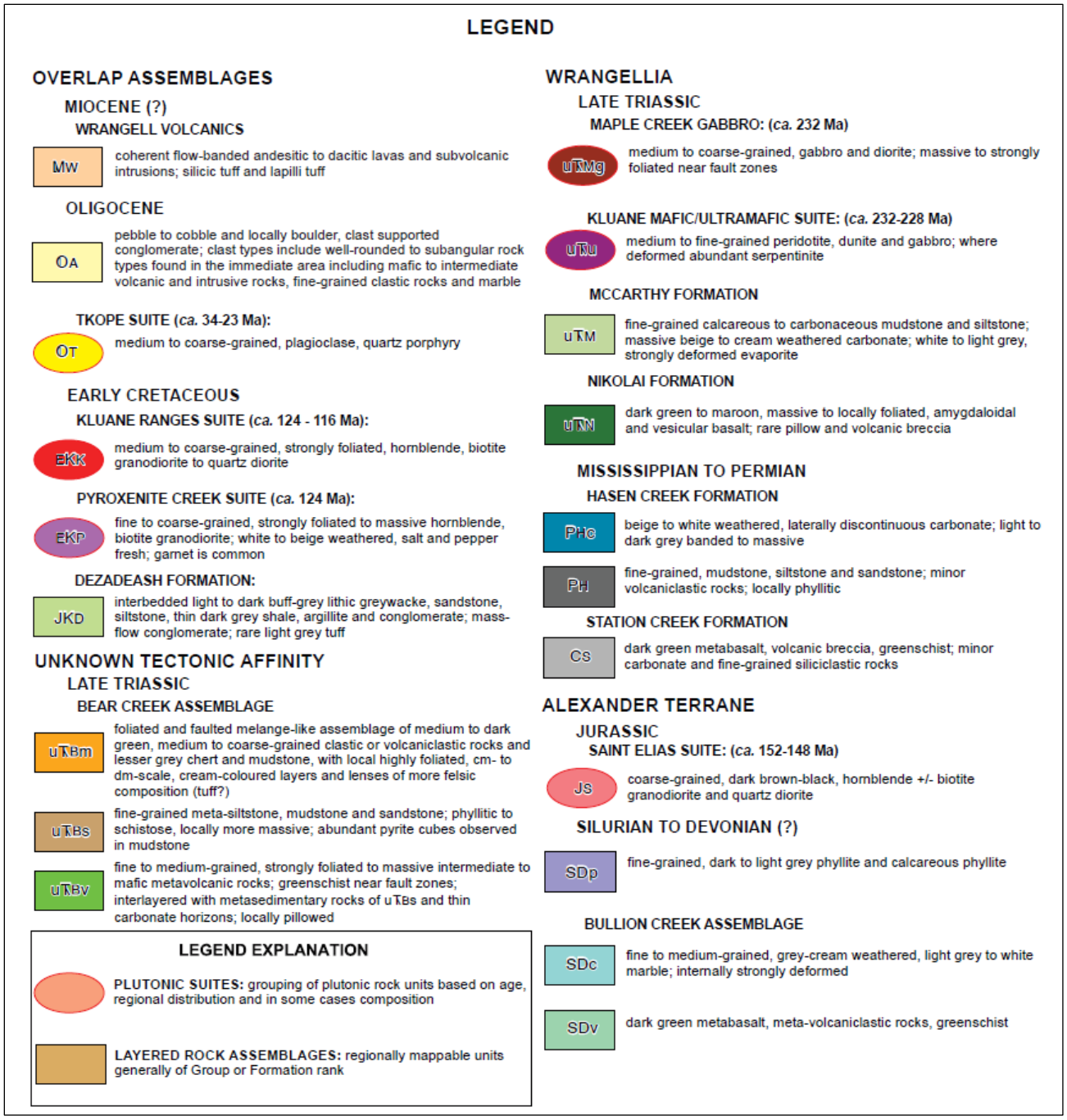


Figure 18. *Geological legend (from Israel et al., 2015).*

Mapping Objectives

A nine-day mapping and prospecting program was undertaken by True Point Exploration geologists. The scope of the field program was to produce detailed 1:2500 scale maps of the previously mapped Ellen property, with specific attention along Ellen Creek towards the Kloo showing. Previous field excursions in the area have produced regional-scale maps of the known ultramafic and gabbroic occurrences on the Ellen claims (Davidson, 1989, 1995, 2018; Pautler, 2006, 2007, 2012). The goal of the 2020 field campaign was to map the Ellen property in greater detail and to contribute to the existing geochemical rock database, while adding to the geological knowledge of the property.

Detailed field observations along with geological mapping, structural and whole rock assay data from the 2020 field campaign produced four field maps (1:2500). Post-season field efforts focused on combining 2020 field data along with previous regional mapping and historical structural and geochemical data to produce an updated geological map of the Ellen-Pacer property (***Figures 19*** and ***20***, pages 54-55) and accompanying geological interpretation.

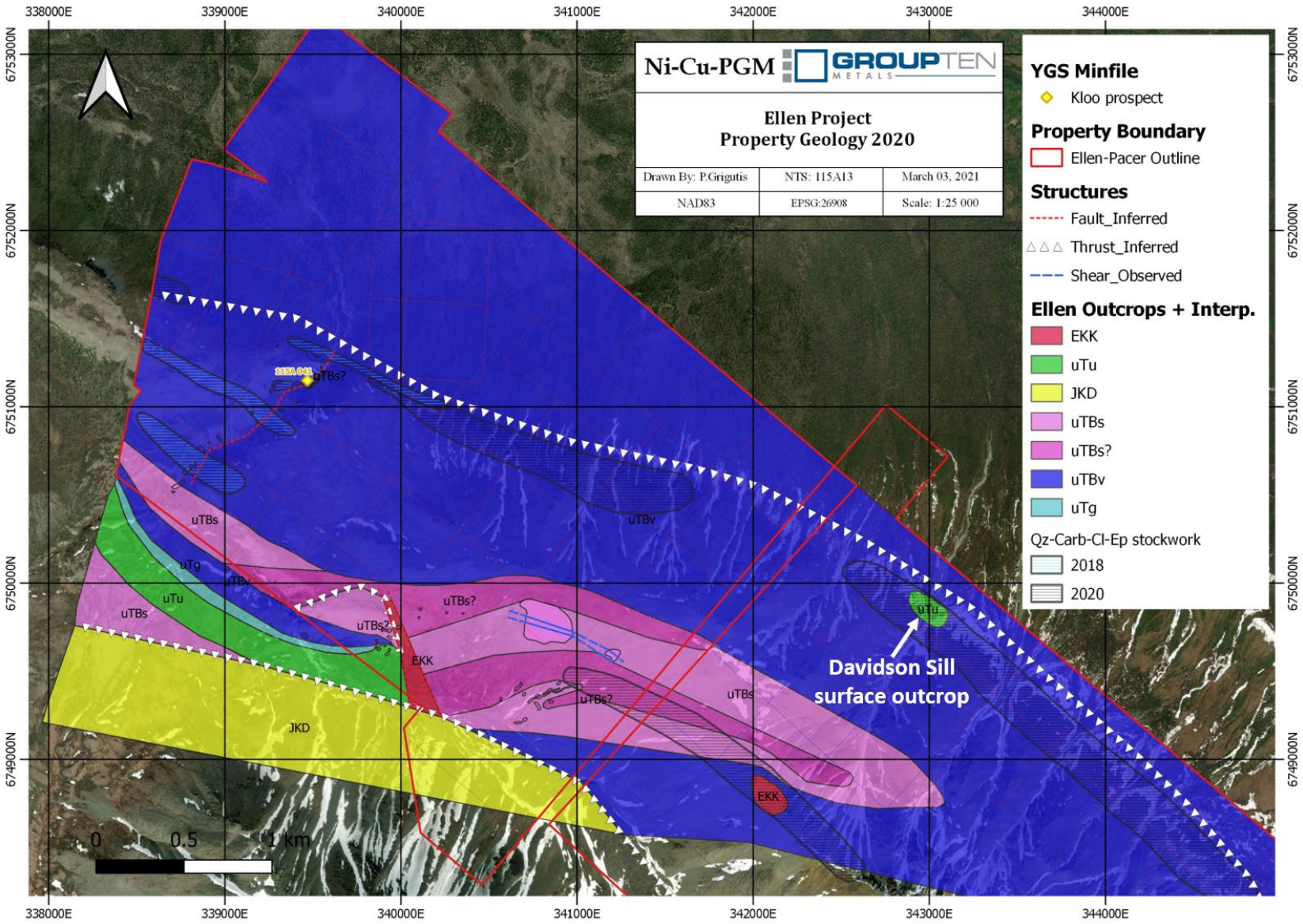


Figure 19. *2020 Ellen-Pacer property geology. Note, location of Davidson sill (peridotite) outcropping.*

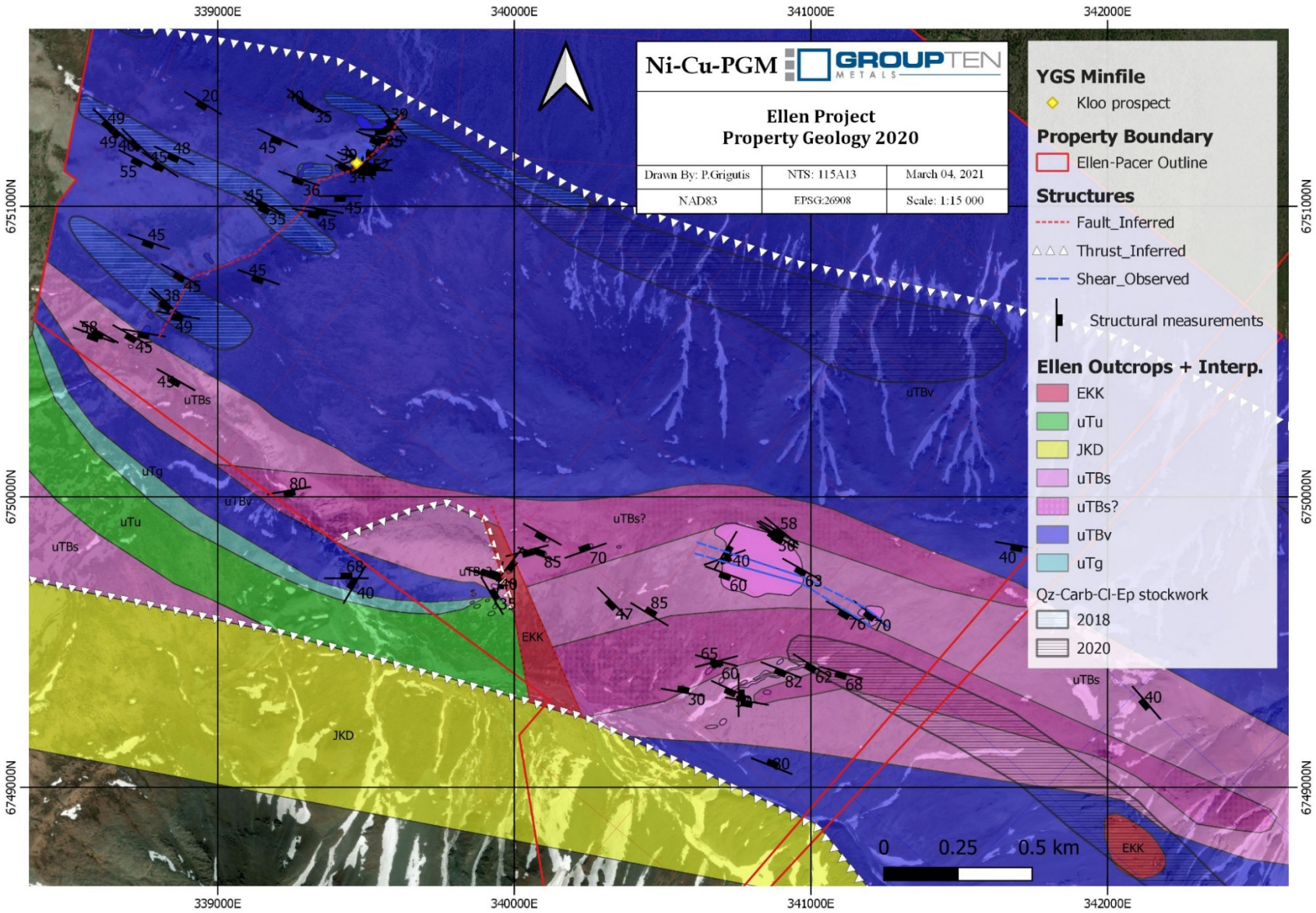


Figure 20. *2020 Ellen-Pacer property geology with structural measurements overlain (foliation in uTBv and bedding in uTBs and uTBs? Units.*

7.3.3 Geological Observations and Interpretation

Black Pegmatite Schist (uTBs?)

During the 2020 field campaign on the Ellen property, a distinctive and easily identifiable black, phyllitic mudstone unit had been observed and mapped by True Point Exploration geologists. The unit occurs amongst the volcano-sedimentary package, specifically interbedded with uTBs meta-sediments, and is easily identifiable in the field. The unit is described as: fine-grained, dark grey to black, pyritic, graphitic, very schistose and fissile nature with contorted beds trending 75-120˚ NE to SE and steeply-dipping ~60-85˚. Abundant pegmatitic sweats/wisps forming along foliation. The pegmatitic sweats are bedding-parallel, pinch- and swelled-forming augen eyes. The unit can be locally Fe- and Mn-oxidized with orange/maroon surface tinges (gossanous) and purple-green sheen on bedding and cleavage planes. Protolith is likely a sedimentary rock such as a shale or mudstone. The black unit is interpreted as a pegmatitic schist (uTBs?) (***Figure 20***).

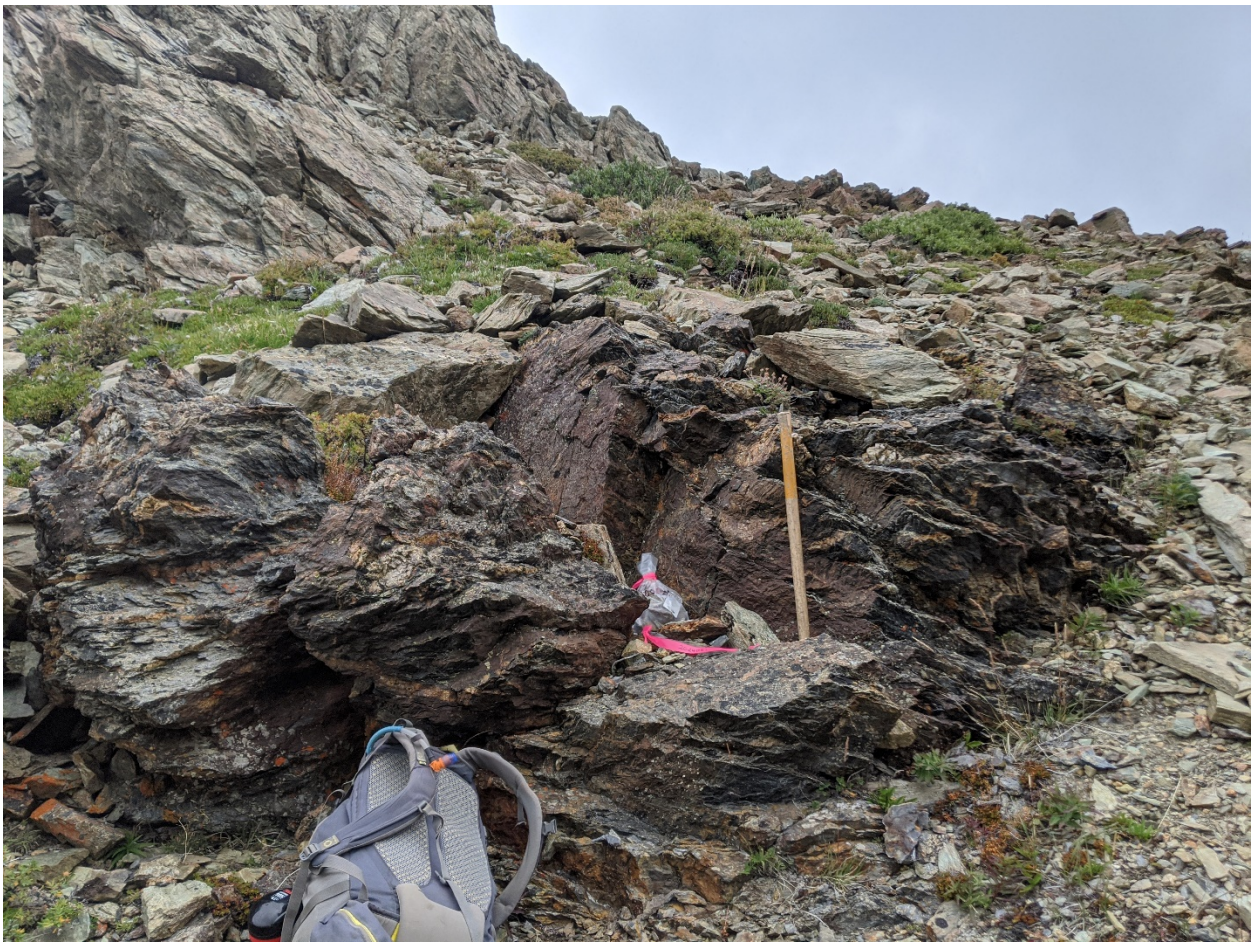


Figure 20. *Black pegmatitic schist (uTBs?). Sample #2064081.*

The pegmatitic schist (uTBs?) has been postulated to be a part of the Early Cretaceous Dezadeash Group (JKD) sediments due to similar field characteristics to JKD shales and interfingered with Late Triassic Bear Creek (uTBs) argillites. However, timing relationships would not support this interfingering theory, as the Early Cretaceous JKD sediments are younger. The black pegmatitic schist (uTBs?) units have been observed to locally occur underneath uTBs argillites, but this is likely due to local thrust faulting in the area. Therefore, the black pegmatitic schist (uTBs?) is interpreted to be a part of the Upper Triassic Bear Creek sediments (uTBs). Israel et al. (2015) also noted a black phyllite horizon that is easily identifiable in the field, which is interpreted to be typical of Upper Triassic Bear Creek assemblage rocks (uTBs). A black phyllitic mudstone was mapped during the 2018 Ellen field campaign by Longford Exploration geologists (Davidson, 2018). In historic 2018 field maps, the black phyllitic mudstone unit was broken out, but grouped under uTBs sediments in the 2018 Property Geology map (***Figure 22***, page 58). Davidson (1995) reported that downstream from the main Kloo showing, chalcopyrite veins are hosted in black, chloritic layers and in quartz-sericite-schist units that are present along the walls of the Ellen creek gully for several hundred metres. Davidson (1995) also intersected black-grey, graphitic shale/schist lenses with Cu-bearing stringers during the 1995 drilling campaign. The black, pegmatitic schist unit (uTBs?) has been observed to be an important host to VMS-like Cu-mineralization (discussed below), and warrants being mapped separately from uTBs, as was done on the 2020 Ellen property geology map (***Figures 19*** and ***20***, pages 54-55).

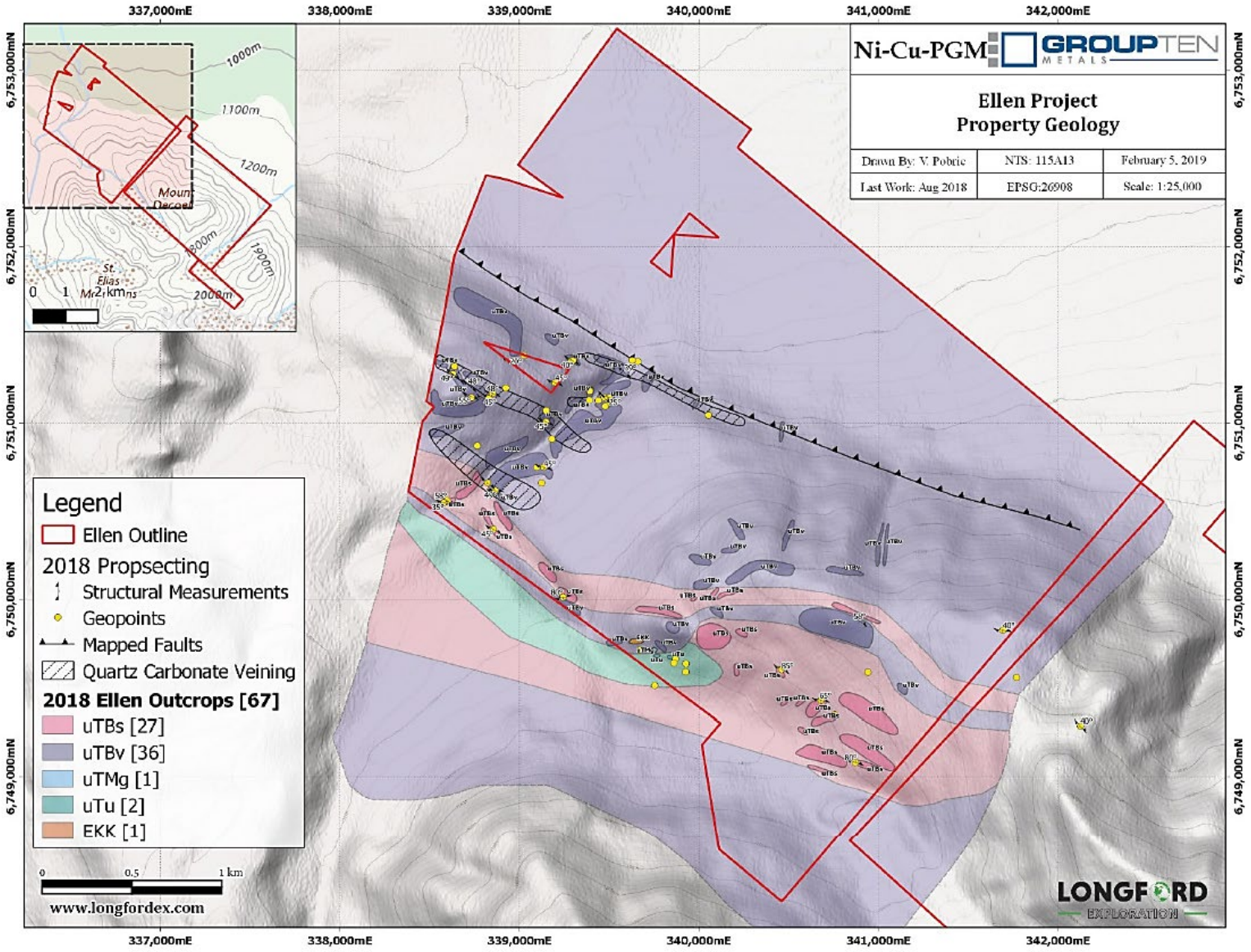


Figure 22. *The Ellen property geology map (taken from 2018 Ellen YMEP – Davidson, 2018).*

Kloo Prospect

Many geologists have visited the Kloo massive sulfide showing before the 2020 field campaign as outlined in the 'work history' section of the Yukon Geological Survey (YGS) Ellen Minfile (Occurrence #: Kloo 115A 041). Intense malachite- and azurite-stained outcrops with significant Cu-values have been previously reported along the canyon of Ellen Creek, with several zones of semi-massive to massive, cm-scale pyrite and chalcopyrite veinlets within mafic volcanics (Pautler 2007, 2012, 2015; Davidson 1989, 1990, 2018; Deklerk 2009). Mineralization at the main Kloo showing is exposed as a metre-scale, massive pyrite-chalcopyrite sulfide lens with intense malachite- and azurite-stained host rocks (***Figure 23***, page 61). Results from Pautler (2006) identified two horizons; Main and Lower. The Main horizon includes 7.23% Cu, 1.01 g/t Au with 1.01 g/t Pd over 2.5m. 2020 sampling of the main Kloo prospect returned 7.06% Cu, 1.26 g/t Au, 6.6 g/t Ag, 72 g/t Mo, 138 g/t Zn, 83 g/t Co, and 0.025 g/t Pd over a 2.0m. chip interval (***Figure 23***, page 61). Chalcopyrite occurrences have been traced for 800m along strike to the southeast and 500m along strike to the northwest. Pautler (2012) described mineralization from the main Ellen showing as: "significant copper-gold values were obtained from an unmapped open cut on the Lower horizon of the Kloo prospect, on the east side of Ellen Creek with 3.70% Cu, 1.19 g/t Au over 5.22m, including 6.25% Cu, 2.13 g/t Au over 2.5m. A stringer zone was observed below the Lower horizon in this area with greenstone cut by chalcopyrite-bearing quartz veins and stringers carrying 6926 and 4475 ppm Cu, respectively. Pautler (2007) states that the Kloo minfile occurrence possibly represents a potential VMS occurrence within Upper Triassic mafic volcanic rocks. The main deposit model for the Ellen property is volcanic hosted copper-gold massive sulfide, possibly of Besshi-style (Pautler, 2006) or of the Cyprus-type (Pautler, 2007). Cyprus-type massive sulphide deposits are primarily summarized from Höy (1995):

> *"Deposits of this type typically comprise one or more concordant lenses of massive pyrite and chalcopyrite (sometimes brecciated or banded) hosted by mafic volcanic rocks, underlain by a well-developed pipe-shaped stockwork zone. The stockwork zone consists of a cross-cutting zone of intense alteration with disseminated, vein and stockwork mineralization and hydrothermally altered wall rock. The lenses may be overlain by or associated with chert layers, locally brecciated and containing disseminated sulphides. Lenses commonly occur in tholeiitic or calc-alkaline marine basalts, commonly pillowed, near a transition with overlying argillaceous sediments generally within ophiolitic complexes formed at oceanic or back-arc spreading ridges and possibly within marginal basins above subduction zones or near volcanic islands within an intraplate environment. Many lenses appear to be structurally controlled, aligned near steep normal faults.*
> *Ore mineralogy includes pyrite, chalcopyrite, magnetite, sphalerite, with lesser marcasite, galena, pyrrhotite, cubanite, stannite-besterite, hematite in a gangue of talc, chert, magnetite and chlorite. Alteration consists of chlorite, talc, carbonate, sericite and quartz veins in the core of the stringer zone, sometimes with an envelope of weak albite with illite alteration. Goethite alteration of the top of the sulphide layer may occur. Pyritic horizons occur distally and can be useful regional indicators."*

Field observations by geologists during the 2020 mapping campaign identified fine-grained, black, shale/schist slivers interbedded within the propylitically-altered mafic volcanic units (previously referred to as greenstone) at and in the vicinity of the Kloo showing. Black shale/schist slivers were observed to surround the up-thrust, massive pyrite-chalcopyrite sulfide lens. Both the massive sulfide lens and shale/schist slivers (uTBs?) are hosted within propylitically-altered mafic volcanic wall rocks (uTBv) (***Figure 24***, page 62). Malachite- and azurite-staining and Ccp-bearing Qz-Carb stringer mineralization are observed to occur within interfingered and propylitically-altered, fine-grained, black, shale/schist lenses (uTBs?) and meta-volcanic units (uTBv) directly across from the Kloo showing (across Ellen Creek towards the east) at a previously excavated (pit?) location. The black shale/schist lenses were themselves hosted and interbedded within chlorite-altered, mafic volcanic rocks of uTBv. These black, graphitic, shale/schist lenses were of similar characteristics to the mapped pegmatitic schist units (uTBs?) upstream along the Ellen Creek (heading south) and elsewhere on the interior Ellen property. The YGS Ellen Minfile (Occurrence #: Kloo 115A 041) reports previous drilling campaigns at Ellen intersected Cu-mineralization within 'graphitic shales'. The 1966 drill program by Hudson Bay drilling tested EM and magnetic anomalies to the east of the main Kloo showing and intersected 'graphitic schists' with minor Cu-mineralization. Blast trenching in 1989 exposed massive chalcopyrite in two layers of 'shale' that also host disrupted 'quartz-veinlets'.

Therefore, the importance of graphitic shales/schists to Cu-mineralization is supported by previous drill campaigns on the property. It is important to stress the intricate link between Cu-sulfide mineralization at the Kloo prospect and these black, pegmatitic schist host-rocks. Therefore, due to Cu-bearing and VMS-like sulfide mineralization (Kloo prospect) associated with these black, shale/schist lenses, it has been warranted these schist units (uTBs?) be mapped separately on the Ellen property geology map (***Figure 19***, page 54). These black pegmatitic schists (uTBs?) should be targeted in future exploration efforts to potentially locate more Cu-sulfide mineralization on the property. The Ellen Project constitutes a property of merit based on the presence of a significant volcanogenic massive sulphide (VMS) showing (Kloo prospect), with high-grade Cu ± Au values and the potential to trace the showing along strike as evidenced by the numerous chalcopyrite occurrences, anomalous Cu-Au soil geochemistry and coincident geophysical anomalies (Pautler, 2007).

Figure 23. *Mineralization at the main Kloo showing is exposed as a metre-scale, massive pyrite-chalcopyrite sulfide lens with intense malachite- and azurite-stained host rocks.*

A*. Massive Ccp-Py sulfide lens outcrops and is concordant to strongly up-thrust units of fine-grained, black-schists (uTBs?) and mafic volcanics (uTBv). Strong black-chlorite (propylitic) alteration surrounding massive sulfide lens. TPEx Senior Geologist, L.Lewis in the foreground for scale.* ***B****. Same massive sulfide lens, with evident malachite-azurite staining. Location of 2m. chip-interval (Sample # 2064220.* ***C****. Coarse-grained, Fe-oxidized, massive Ccp-Py sulfide from Kloo showing.* ***D****. Malachite-staining on mafic volcanic (uTBv) wall rocks around vicinity of Kloo showing.*

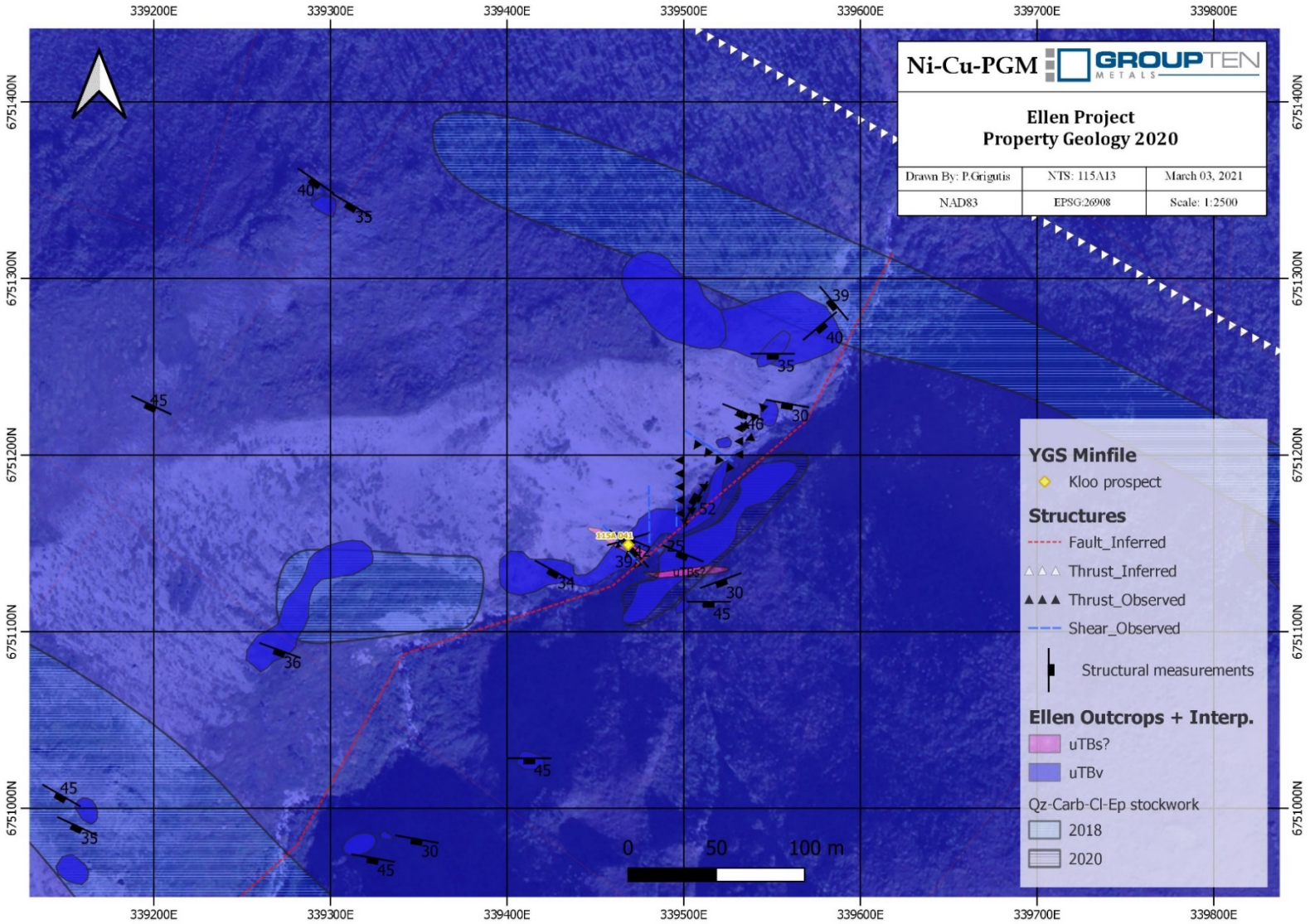


Figure 24. *Property geology and thrust faults in the vicinity of the Ellen – Kloo prospect.*

Note, the presence of fine-grained, black, graphitic, pegmatitic schist (uTBs?) slivers (pink) interfingered within dominantly propylitically-altered mafic volcanics (uTBv) and the inferred fault along Ellen Creek.

Ellen Creek Displacement

It has been previously reported that 'widely divergent attitudes' in several outcrops on the north and south banks of the Ellen Creek gully may suggest that a strong fault or fold axis underlies Ellen Creek (YGS Ellen Minfile. Occurrence #: Kloo 115A 041). 2020 field observations determined dominant strike-and-dip foliation measurements in propylitic-altered mafic volcanics on both sides of Ellen Creek (***Figure 20***, page 56); in the south-southeast bank foliations strike 90-100˚ ESE and dip ~45 SSW; compared to foliations of mafic volcanics in the north-northwest bank which strike 100-120˚ ESE and dip 30-40˚ SSW. Therefore, structural attitudes on the north and south banks of the Ellen Creek gully are slightly different and a NE-SW fault is inferred to run along Ellen creek, as depicted in (***Figure 24***, page 62). Currently, the exact degree and direction of displacement is unknown and further structural investigation of the inferred Ellen Creek fault is necessary.

Conductive Anomaly

There is a very strong conductive anomaly (TauBF: B-Field Z Component, Calculated Time Constant) in the low-lands, off the northern ridge, towards the northern extent of the Ellen claims (***Figure 25***, page 64). The processed VTEM survey is calculated dB/dt time constant (Tau), which is an indicator of a geological unit's electrical conductance. This highly conductive target (maximal Tau) is not correlated with a strong magnetic signature (CVG; Calculated Magnetic Vertical Gradient) (***Figure 26***, page 65). A soil sampling program in 2018 crossed a portion of this highly conductive anomaly and returned multiple soil samples with 350-921 ppm Cu (***Figure 25***, page 64). The northern lowlands have been underexplored due to thick bush, lack of outcrop and likely a very thick package of deposited overburden. However, Mobile Metal Ion (MMI) soil geochemical techniques may prove useful in this part of the property. Early interpretations are that this highly conductive anomaly could be a buried graphitic schist (highly conductive), a similar unit observed to host massive sulfide Cu-mineralization at the Kloo prospect. Additionally, a portion of the high conductive anomaly (TauBF signature) in ***Figure 25*** (page 64), seems to correlate right over the area of the Kloo showing, with an impression of being possibly offset from the main conductive anomaly. If the Ellen Creek is indeed a fault, this could explain the observed displacement. It is postulated that the graphitic-schist host to the VMS-like sulfide mineralization at the Kloo showing, could originate from this conductive anomaly.

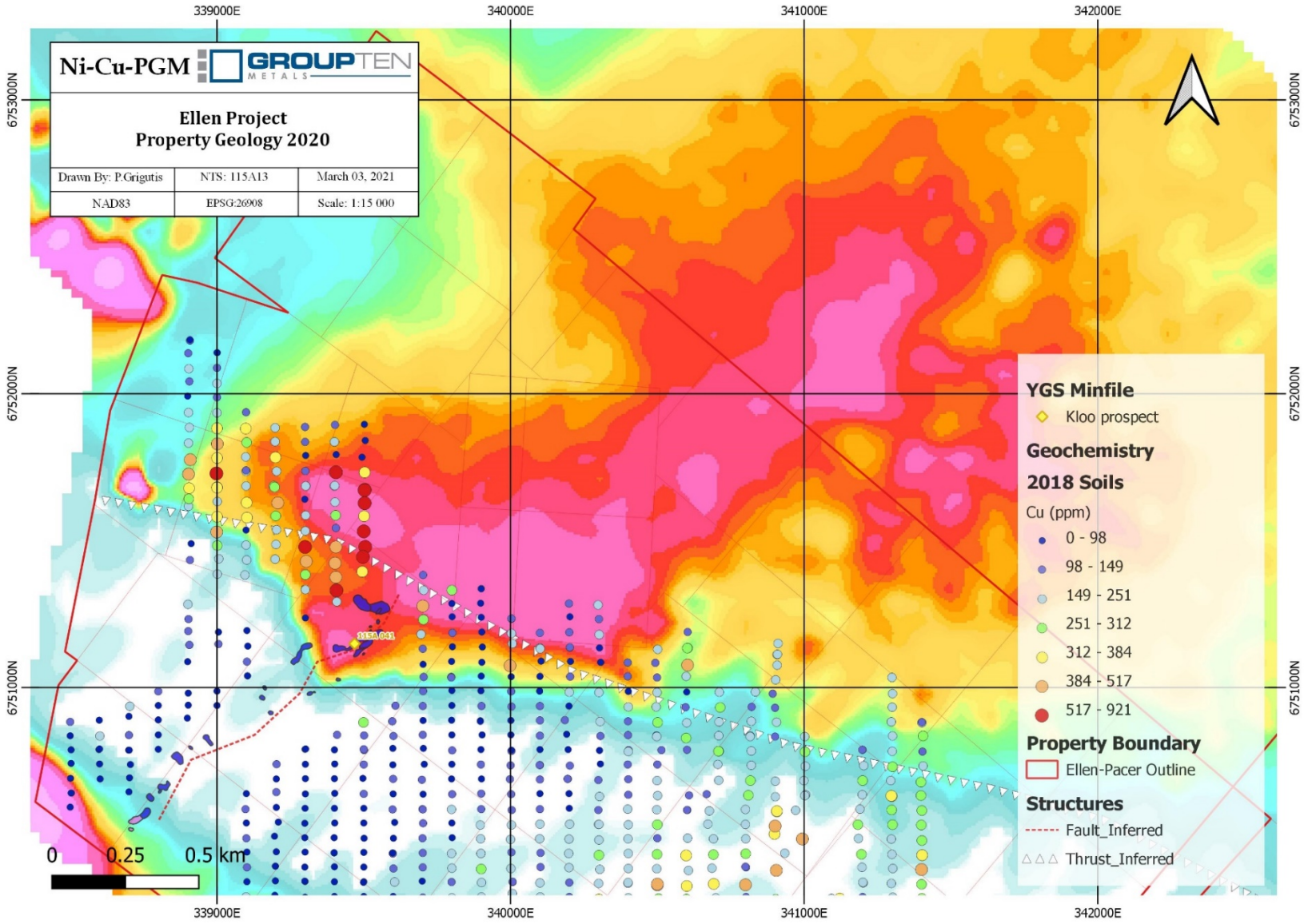


Figure 25. *2018 Cu (ppm) in soils, overlain on top of a TauBF geophysical map. Note, high Cu soil values are concentrated over the very high conductive anomaly***.**

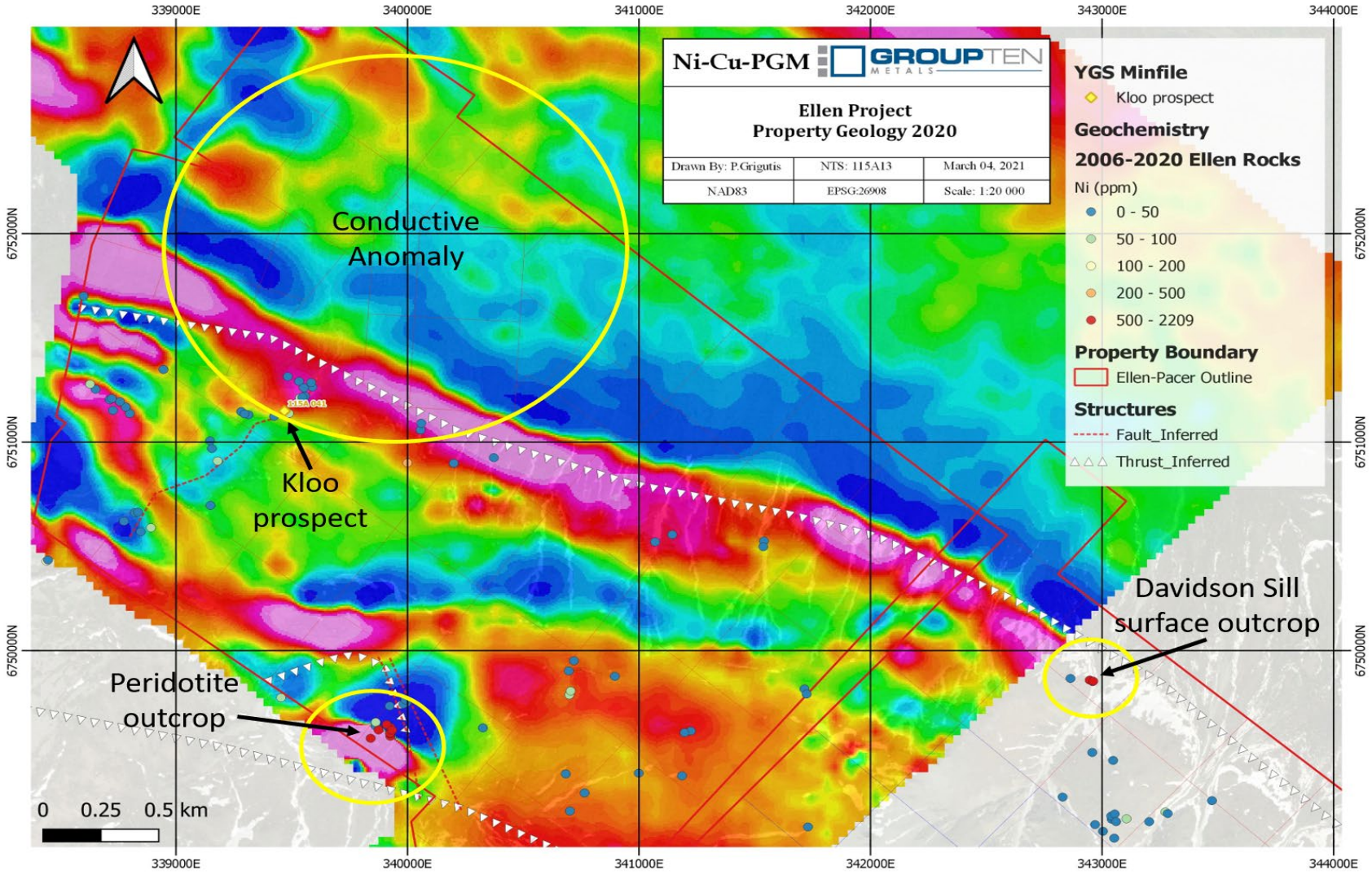


Figure 26. *2006-2020 Ellen rock samples and Ni (ppm) values overlain on a CVG (Calculated Magnetic Vertical Gradient nT/m) geophysical map. High Ni (ppm) values are reported at the outcropping, heavily-bleached/altered, Davidson Sill and the peridotite sill on the SW section of the Ellen property. The highly conductive anomaly (Figure 25) does not have a high magnetic signature*.

Davidson Sill

The 1995 diamond drilling program of the Kloo prospect and neighbouring area drilled foliated, chloritic, mafic volcanic rocks that hosted stringers and patches of chalcopyrite and pyrrhotite and returned wt% Cu levels (Davidson, 1995). A strong HLEM anomaly down section from the main Kloo showing drilled graphitic siltstone and schist hosting a 30m wide serpentinite sill with disseminated Po-Ccp, carrying low grade Ni (~2000 ppm Ni) and Cr (1500 ppm Cr) values (Davidson, 1995). The sequence was interpreted to mark the location of a thrust fault that underlies the mafic volcanic rocks (Davidson, 1995). In 1969, hole MC-4 tested an EM and magnetic anomaly to the east of the main showing and intersected graphite schist and two bands of serpentine, 7.9m and 9.4 m thick, containing nickel values of 0.11 wt% (Baird, 1969). The YGS Ellen Minfile (Occurrence #: Kloo 115A 041) reports that in 1966, Hudson Bay drilling did not intersect a serpentinite sill but only minor copper mineralization in graphitic shale; 3.15% Cu over 5.2 m (Hole MC-1); 1.64% Cu over 10.4 m (Hole MC-2); 1.20% Cu over 5.2 m (Hole MC-3).

During the 2019 field campaign, a heavily bleached ultramafic sill, with possible related Qz-Carb stockwork 80m upslope, was sampled by G. Davidson in one of the gullies on the north-facing flank of Mt. Decoeli (Sample # 3249071; 342960E and 6749851N) (***Figures 19***-page 54, and ***26***-page 65). During the 2020 field campaign, this location was revisited and re-sampled. Three samples at the location were taken (***Figure 26***, page 65); 3.3m chip sample across the heavily bleached and altered ultramafic sill (Sample # 2064157); grab sample of heavily altered and bleached ultramafic sill 15m upslope from chip sample location (Sample # 2064085); and Qz-Hbl-Cl veins with abundant Ccp-Bn mineralization and malachite staining 80m upslope from ultramafic sill occurrence (Sample #: 2064084). It is interpreted that this outcropping ultramafic sill is a continuation of the same one that was drilled and intersected during the 1969 and 1995 drill programs at the location of the Kloo showing. The EM magnetic anomaly, which is interpreted to be an ultramafic sill, is directly on trend and continuous along the inferred thrust fault from this location all the way to Ellen Creek, as shown in the CVG (Calculated Magnetic Vertical Gradient) geophysical map in ***Figure 26*** (page 65).

Quartz-Carbonate Stockwork Zones

Qz-Carb ± Cl-Ep stringer zones were observed to cross-cut both propylitically-altered, variably foliated, mafic volcanic (uTBv) and meta-sedimentary argillite (uTBs) units. Qz-Carb ± Cl-Ep veinlets can be up to ~10cm wide and host visible Ccp-Py ± Bn mineralization. Field observations from the 2020 field mapping campaign support the locations of Qz-Carb ± Cl-Ep stockwork veining outlined in the 2018 Ellen YMEP report (***Figure 22***, page 58) (Davidson, 2018). However, 2020 fieldwork has extended the known Qz-Carb ± Cl-Ep stockwork zones with evident Cu-mineralization (***Figures 19-20***, pages 54-55). The Cu-bearing stockwork system extends over the ultramafic sill anomaly that runs parallel to the inferred thrust fault in the central and northern section of the Ellen and Pacer properties. Additionally, the Cu-bearing stockwork system is found to occur along this linear thrust trend at the outcropping Davidson sill occurrence (***Figures 19*** and ***26***, pages 54 and 65) and as far as the eastern edge of the Pacer claims. The Cu-bearing Qz-Carb-Cl-Ep stockwork system also occurs directly across the Ellen creek gully from the Kloo showing, cross-cutting propylitically-altered, foliated mafic volcanics (uTBv). Field interpretations for the 2020 program postulate that the localized Cu-bearing Qz-Carb-Cl-Ep stockwork system may be related to the hydrothermal fluid

activity associated with proximity to the ultramafic sills. Many of the stockwork zones are proximal to known ultramafic sill occurrences, and the mobility of metals (Cu, Au, PGE) in fluids along fault and structural corridors is likely a common characteristic observed in host-rocks at Ultra (Frohberg) and Ellen (Kloo, Davidson Sill) prospects. However, several Qz-Carb stockwork zones may not be located near known sill occurrences (adjacent and south of Kloo prospect) and may be related to VMS-like stringer mineralization.

Qz-Carb Cu-bearing stockwork mineralization within host rocks had been previously reported on the Ellen property. Davidson (1995) reported narrow quartz-carbonate veins within mafic volcanic and sedimentary rocks at Ellen. The 1995 drilling program reported a cross-cutting relationship between Cu-bearing Qz-Carb stringer zones and associated black chlorite alteration to the host mafic volcanic and meta-sedimentary stratigraphy (Davidson, 1995). Ron Stack and Bill Harris of Midnight Mines Ltd. Reported Qz-Carb-Ccp stringer mineralization in veinlets 300m to the northwest and 200 metres to the southeast of the Kloo showing (Craig, 2002). Pautler (2007) reported several zones (up to 10m wide) consisting of chloritic volcanic rocks with semi-massive lenses and veins of Py-Po-Ccp, as well as cross-cutting Qz-Carb-Ep Cu-bearing stringers and breccia zones with sulphide cement within and 150 downstream of the Kloo showing. Massive dark-green to black hydrothermal chlorite proximal to intense areas of stringer mineralization is common, becoming pervasively weaker with increasing distance away (Pautler, 2007). Pautler (2007) interprets the Cu-Au massive sulfide and stringer mineralization at Kloo and in neighbouring host rocks may represent part of a feeder system with a source area down dip to the south with potential for massive lenses along strike from the main Kloo prospect.

Additionally, abundant malachite- and azurite-stained float and boulders exist on the upland plateau just NNW of the Kloo prospect. Qz-Carb-Ep veinlets are also reported along cleavage planes and within foliated mafic volcanics (uTBv) on the upland plateau. Abundant peridotite float (4/5 magnetism) is also abundant on the NNW upland plateau. The hand pits/trenches (Pit 01-1; Pit 01-2) reported on the NNE upland plateau also note abundant Cu-bearing Qz-Carb stockwork/stringer mineralization (Pautler, 2007), although this area was not visited in 2020.

7.4 Review of 1995 Core and Re-Sampling

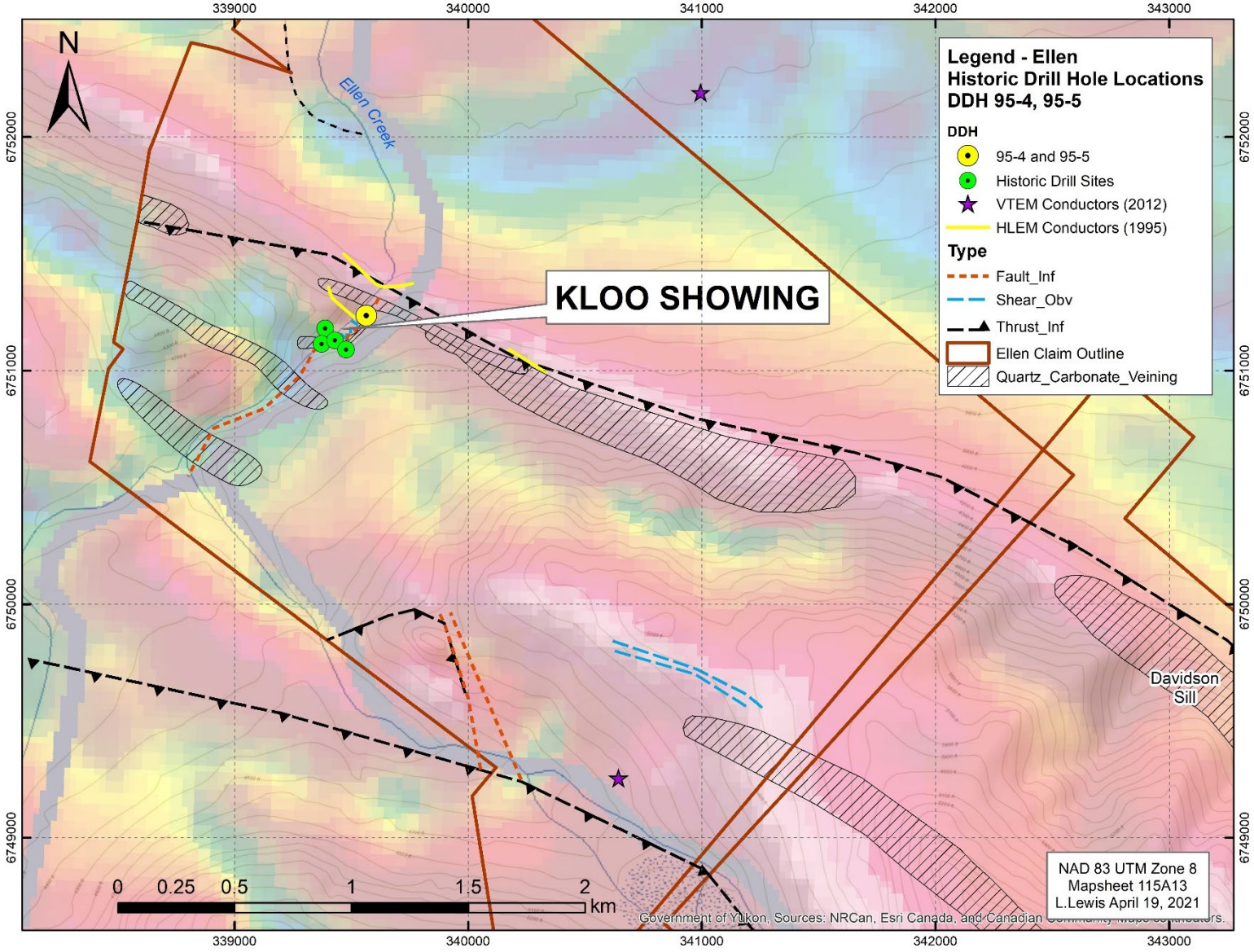
Project manager, Ryan Versloot of Longford Exploration Services Ltd., conducted re-sampling and analyses of historical core drilled in 1995 by Probe Resources Ltd. Re-logging and sampling took place from July 6-9, 2020 at the Yukon Geological Survey's Bostock Core Library in Whitehorse, YT. Twenty-eight (n=28) samples were described and collected for analysis from two drill holes, DDH 95-04 and DDH 95-05 ***(Appendix VIII).***

In 1995, Probe Ltd. diamond drilled 5 holes totaling 457.2 m returning 1.76% Cu over 5 m in DDH 95-1, and 1.96% Cu and 2.1 g/t Au over 2.1 m downdip in DDH 95-3. DDH 95-4 and 5 targeted a strong HLEM anomaly, north of the Kloo showing, that was coincident with graphitic siltstone and schist hosting a serpentinized ultramafic sill containing disseminated pyrrhotite (Davidson, 1995). The sill averaged 0.18% Ni. Pd and Pt were both less than detection. The 1995 analysis of 95-05 returned 183 ppb Au from 85.34-91.44 m (280'-300'). The assessment report did not report assays

past 91.44 m (300') although the EOH was documented at 92.05 m (302'). The objective of the re-sampling was to re-analyze the serpentinized ultramafic sill for the standard 37 elements including Au, Pt and Pd.

Figure 27 (page 69) shows the location of the historical drill holes and ***Figure 28*** (page 70) is the 1995 cross-section of DDH 95-4 and 5 with the updated assays plotted approximately.

Figure 27. *Location map for historic drillholes 95-4 and 95-5.*



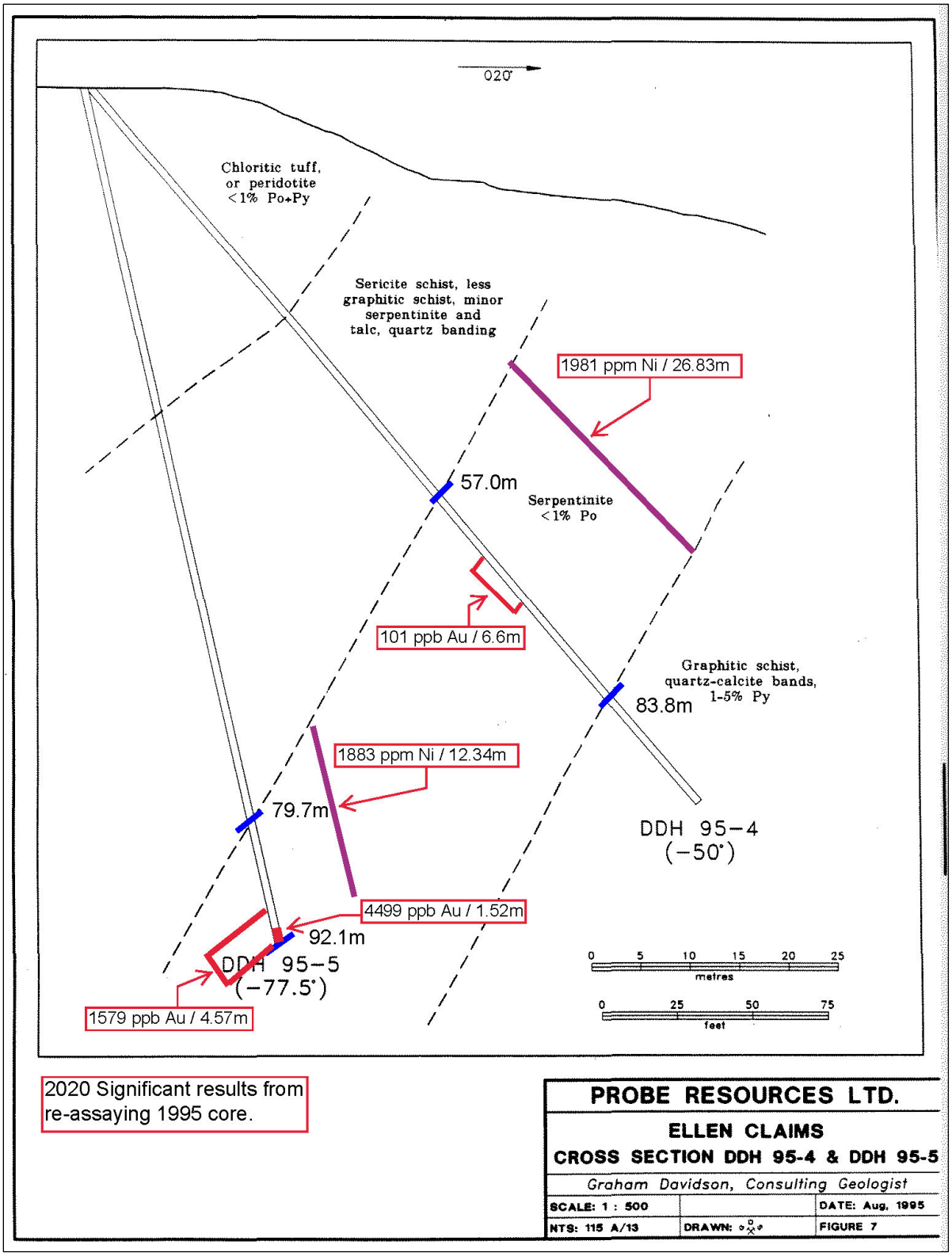


Figure 28. *Historical cross section of DDH 95-4 and 95-5 with 2020 significant assays.*

Sampling of the core entailed halving of the remaining serpentinite rock into predominantly 1.52m intervals. Twenty-eight samples were shipped to Bureau Veritas prep lab in Whitehorse (PRP70-250) and then to Vancouver for assay; 0.5 g for 34 elements using procedure AQ300 and also Fire assay, FA330 with a 30 g sample for Au, Pt and Pd. Being a small sampling program, the Company relied on the Bureau Veritas Laboratories internal duplicate and standard protocols. Core photos can be found in ***Appendix IX.*** Lab certificates are located in ***Appendix XI.***

Re-logging and assaying of the 1995 drill core confirmed the low grade, but consistent nickel mineralization hosted by the serpentinite sill. In DDH 95-4, assays returned 1981 ppm Ni (0.198% Ni) over 26.8m, including a 6.5m wide zone containing 101 ppb Au. DDH 95-5 targeted the down dip extension of the sill and revealed significant gold mineralization at the very end of the hole, including 4499 ppb Au over 1.52m within a wider zone assaying 1579 ppb Au over 4.57m. Drilling unfortunately was terminated in the serpentinite sill before the footwall graphitic schist was encountered, leaving the last sample mineralized. The down dip extension of the sill was also consistently enriched with nickel, assaying 1883 ppm Ni (0.188% Ni) over 12.35m. In both holes, 2020 results were weakly anomalous in Co and Cr, but not elevated in Pt, Pd or Cu. ***Table 10*** summarizes the significant assays from the 2020 re-logging and assaying. The mineralized intervals do not represent true widths.

Table 10. *2020 Significant assays from re-logging and sampling of 1995 Ellen (Kloo) drill core.*

DDH Hole ID	From (m)	To (m)	Width (m)	Au (ppb)	Ni (ppm)
DDH 95-04	57.01	83.84	26.83		1981
including	65.09	71.65	6.55	101	
DDH 95-05	79.73	92.07	12.35		1883
including	87.50	92.07	4.57	**1579**	
including	90.55	92.07	1.52	**4499**	**EOH**

Figure 29 (page 72) is a photo of the core from DDH 95-05, from 82.3-92.0m (EOH). The last sample in the hole returned 4499 ppb Au, and 2325 ppm Ni. Judging from the photo, the serpentinized sill appears weakly competent with less than full recovery, and likely related to the postulated thrust fault emplacement of the sill into the host graphitic siltstones and schist.

Figure 29. *DDH 95-5, Box 19-17, 82.3-92.0 m, EOH.*

Resampling of core from the historical drilling confirms higher grade gold mineralization within the serpentinized sill intersected in 95-05 than in 1995, possibly due to the historical analysis containing a larger proportion of unmineralized rock.

Analysis in 1995 returned:	*182.5 ppb Au*	*280-300'*	*85.34-91.44 m*	*6.1 m*
Analysis in 2020 returned:	1579 ppb Au	287-302'	87.50-92.07 m	4.57 m
Including	4499 ppb Au	297-302'	90.55-92.07 m	1.52 m

2020 results show that where the sill was only weakly anomalous in gold higher up in the section (DDH 95-4), gold grade increases down section in this location, potentially representing a part of a feeder system related to the thrust fault and increased hydrothermal activity.

The higher than previously known gold mineralization within the ultramafic sill north of the Kloo showing lends further evidence to the benefit of continued exploration east towards the Davidson Sill which is interpreted as a continuation of the sill intersected in DDH 95-4 and 5. In addition, further exploration is warranted north of the Kloo showing and thrust fault in the area of the highly conductive anomaly described in the geological mapping and prospecting section of the report (see ***Figures 25*** and ***26***, pages 64-65).

8 Conclusions and Recommendations for Future Work

The 2020 YMEP exploration program on the Ellen property focused on four main goals:

1. Soil sampling (n=256) to extend the soil grids established in 2018-2019.
2. Collection of four heavy mineral indicator samples from stream gravels to assess the potential for gold, base metal, PGM's and fine-grained metallic indicator minerals.
3. Detailed sampling (n=63) and geological mapping at 1:2500 scale in the Kloo area and other areas of the property with previously identified HLEM (1995), VTEM (2012) and aeromagnetic anomalies. Several prospecting traverses in the Mount Decoeli - Davidson Sill

area aimed to further define location and possible mineralization related to the ultramafic sill.

4. Logging and re-analysis of historical core from 1995 to assess for gold and PGE's (core stored at the YGS Bostock Core Library). 28 core samples were sent for assay.

Goal 1 was partially accomplished with 256 of the proposed 700 soil samples collected. One crew member was transferred to a different project and additional days were spent on detailed mapping, reducing the number of days available for soil sampling. The soil anomalies are summarized below and described in more detail in section 7.1.1.

- **A:** The 120 ppb Au is coincident with elevated Pd (37 ppb) northwest of the Kloo showing. This anomaly may be the downslope expression of the ultramafic sill / thrust fault.
- **B:** Anomaly B, 204 ppb Au, coincident with elevated Ni (182 ppm) and Cu (125 ppm). The source of this anomaly is uncertain. It lies approximately along strike of the buried serpentinite sill intersected in historic drill holes 95-4 and 5.
- **C:** Anomaly C in the southeast portion of the grid contains 76 ppb Au, 49 ppb Pd and 254 ppm Cu, corresponding with the shear zone mapped in 2020. On the Pd soil geochemistry plot, there are numerous anomalies in the area of the newly mapped shear carried only a maximum of 13 ppb Pd, which does not explain the anomalous Pd in soils.
- **D:** Anomaly D, 479 ppb Au, from the 2018 soil survey is a high priority target for follow-up. Similar to Anomaly A, it occurs downslope of the northwest-southeast trending magnetic feature that possibly corresponds to the ultramafic sill / thrust fault. There are no soil samples north of this anomaly and the grid could be extended here.
- **E:** Anomaly E, 86 ppb Au, also from the 2018 soil survey is a lower priority target which is worth investigation.
- **F:** In the southeast soil grid extension there is a multi-element anomaly consisting of 367 ppm Cu, 391 ppm Ni, 370 ppm Co, 1070 ppm Zn and 10000 Mn. This is an unexplained anomaly. A rock sample from the same area consisted of strongly iron oxide-stained quartz boudins in silicified argillite schist (uTBs?) but carried only a fraction of mineralization.
- **G:** Along the central western claim boundary, there is a multi-element point anomaly with 368 ppm Cu, 128 ppm Ni and 36 ppb Pd.
- **H:** An area approximately 400 m x 400 m near the western claim boundary contains elevated nickel with 17 samples carrying between 212 ppm – 446 ppm Ni. Palladium is also elevated up to a maximum of 35 ppb Pd. The source of elevated Ni-Pd in soils is not explained by the surface outcrop and may represent a buried target. Investigation further south, where the ultramafic unit, uTu may extend is warranted.
- **I:** In the southeast soil grid extension, zinc values reach 1962 ppm, Ag up to 2.5 ppm, 367 ppm Cu, and 370 ppm Co. and one sample contains 291 ppm Ni. The source of the multi-element anomalies is not explained by the surface geology, but may be related to the thrust fault that defines the unconformable boundary of the Late Triassic Bear Creek assemblage to the north and Late Jurassic to Early Cretaceous Dezadeash Group (JKD) to the south.

Goal 2 tested the effectiveness of the indicator minerals present in four bulk stream sediment samples collected downstream from the VMS Kloo prospect and downstream from three mafic-ultramafic sills on the Ellen and Pacer SE properties. with the aim of providing information about potential economic mineralization associated with precious and base-metal deposits that may exist upstream. The small survey provided new geochemical information including the abundance of gold grains, pan concentrate sulphides plus metamorphosed and magmatic massive sulphide indicator minerals.

Indicator minerals tabulated from sample 2064306, downstream of the Kloo showing, is confirmation of the Cu-Au mineralization. Those results in combination with the 2012 VTEM conductive anomaly and re-analysis from historic drill holes 95-4 and 5 provide evidence that the area warrants further exploration, targeting both the VMS-type Cu-Au mineralization the underlying gold mineralized serpentinized sill.

Indicator minerals found in sample 2064307, at the northeast base of Mount Decoeli give confirmation for the continuation of the ultramafic sill (presence of low-Cr diopside and chromite) as well as possible VMS-type mineralization nearby (presence of gold, chalcopyrite and Mn-epidote). More investigation is warranted in the area of the known ultramafic sill.

Sample 2064308 from the Pacer SE claims, below the known Mt. Archibald sill, is also encouraging. Cinnabar is a possible indicator of epithermal gold and molybdenite indicating possible porphyry Mo or skarn mineralization. Traces of chalcopyrite, low-chromium diopside, chromite and sillimanite provide evidence / confirm the presence Ni-Cu-PGE mineralization.

Sample 2064309, from the southwest Ellen claim boundary, downstream of the gabbro / peridotite outcrop that carries between 1293 to 1719 ppm Ni, contained chromite and a trace of orthopyroxene, both evidence of Ni-Cu mineralization.

Goal 3 Geological Mapping

Black Pegmatite Schist (uTBs?)

The black pegmatitic schist (uTBs?) is interpreted to be a part of the Upper Triassic Bear Creek sediments (uTBs) and not the previously postulated part of the Early Cretaceous Dezadeash Group (JKD)

The 1995 drilling program intersected black-grey, graphitic shale/schist lenses with Cu-bearing stringers (Davidson, 1995). The black, pegmatitic schist unit (uTBs?) has been observed to be an important host to VMS-like Cu-mineralization, and merits being mapped separately from uTBs, as was done on the 2020 Ellen property geology map.

Kloo Prospect

Mineralization at the main Kloo showing is exposed as a metre-scale, massive pyrite-chalcopyrite sulfide lens with intense malachite- and azurite-stained host rocks. Pautler (2006) identified two horizons; Main and Lower. The Main horizon includes 7.23% Cu, 1.01 g/t Au with 1.01 g/t Pd over

2.5m. **2020** sampling of the main Kloo prospect returned 7.06% Cu, 1.26 g/t Au, 6.6 g/t Ag, 72 g/t Mo, 138 g/t Zn, 83 g/t Co, and 0.025 g/t Pd over a 2.0m. chip interval.

Pautler (2012) reported values from the Lower horizon of the Kloo prospect, on the east side of Ellen Creek with 3.70% Cu, 1.19 g/t Au over 5.22m, including 6.25% Cu, 2.13 g/t Au over 2.5m. Chalcopyrite occurrences have been traced for 800m along strike to the southeast and 500m along strike to the northwest.

It is important to stress the intricate link between Cu-sulfide mineralization at the Kloo prospect and the black, pegmatitic schist host-rocks. The black pegmatitic schists (uTBs?) should continue to be mapped separately and targeted in future exploration efforts to potentially locate new Cu-sulfide mineralization on the property. The Ellen Project constitutes a property of merit based on the presence of a significant volcanogenic massive sulphide (VMS) showing (Kloo prospect), with high-grade Cu ± Au values and the potential to trace the showing along strike as evidenced by the numerous chalcopyrite occurrences, anomalous Cu-Au soil geochemistry and coincident geophysical anomalies (Pautler, 2007). The mineralization at Kloo may represent part of a feeder system with a source area down dip to the south with potential for massive lenses along strike from the main Kloo prospect.

Ellen Creek Displacement

It has been previously reported that 'widely divergent attitudes' in several outcrops on the north and south banks of the Ellen Creek gully may suggest that a strong fault or fold axis underlies Ellen Creek.

2020 field observations determined dominant strike-and-dip foliation measurements in propylitic-altered mafic volcanics on both sides of Ellen Creek; in the south-southeast bank, foliations strike 90-100˚ ESE and dip ~45 SSW; compared to foliations of mafic volcanics in the north-northwest bank which strike 100-120˚ ESE and dip 30-40˚ SSW. Therefore, structural attitudes on the north and south banks of the Ellen Creek gully are slightly different and a NE-SW fault is inferred to run along Ellen Creek. Currently, the exact degree and direction of displacement is unknown and further structural investigation of the inferred Ellen Creek fault is necessary.

Conductive Anomaly

There is a very strong conductive anomaly (TauBF: B-Field Z Component, Calculated Time Constant) in the low-lands, off the northern ridge, towards the northern extent of the Ellen claims. This highly conductive target (maximal Tau) is not correlated with a strong magnetic signature. A soil sampling program in 2018 crossed a portion of this highly conductive anomaly and returned multiple soil samples with 350-921 ppm Cu. The northern lowlands have been underexplored due to thick bush, lack of outcrop and likely a very thick package of deposited overburden. However, Mobile Metal Ion (MMI) soil geochemical techniques may prove useful in this part of the property. Early interpretations are that this highly conductive anomaly could be a buried graphitic schist (highly conductive), a similar unit observed to host massive sulfide Cu-mineralization at the Kloo prospect. Additionally, a portion of the high conductive anomaly (TauBF signature) seems to correlate right over the area of the Kloo showing, with an impression of being possibly offset from

the main conductive anomaly. If the Ellen Creek is indeed a fault, this could explain the observed displacement. It is postulated that the graphitic-schist host to the VMS-like sulfide mineralization at the Kloo showing, could originate from this conductive anomaly.

Davidson Sill

During the 2019 field campaign, a heavily bleached ultramafic sill, with possible related Qz-Carb stockwork 80 m upslope, was sampled by G. Davidson in one of the gullies on the north-facing flank of Mt. Decoeli (Sample # 3249071; 342960E and 6749851N, 2049 ppm Ni). During the 2020 field campaign, this location was revisited and re-sampled. Three samples at the location were taken; 3.3m chip sample across the heavily bleached and altered ultramafic sill (Sample # 2064157, 1644 ppm Ni); grab sample of heavily altered and bleached ultramafic sill 15m upslope from chip sample location (Sample # 2064085, 1252 ppm Ni); and Qz-Hbl-Cl veins with abundant Ccp-Bn mineralization and malachite staining 80m upslope from ultramafic sill occurrence (Sample #: 2064084, 6583 ppm Cu). It is interpreted that this outcropping ultramafic sill is a continuation of the same serpentinite sill that was drilled and intersected during the 1969 and 1995 drill programs at the location of the Kloo showing. The EM magnetic anomaly, which is interpreted to be an ultramafic sill, is directly on trend and continuous along the inferred thrust fault from this location all the way to Ellen Creek, as shown in the CVG (Calculated Magnetic Vertical Gradient) geophysical map.

Quartz-Carbonate Stockwork Zones

2020 fieldwork has extended the known Qz-Carb ± Cl-Ep stockwork zones with evident Cu-mineralization. The Cu-bearing stockwork system extends over the ultramafic sill anomaly that runs parallel to the inferred thrust fault in the central and northern section of the Ellen and Pacer properties. Additionally, the Cu-bearing stockwork system is found to occur along this linear thrust trend at the outcropping Davidson sill occurrence and as far as the eastern edge of the Pacer claims. Field interpretations for the 2020 program postulate that the localized Cu-bearing Qz-Carb-Cl-Ep stockwork system may be related to the hydrothermal fluid activity associated with proximity to the ultramafic sills. Many of the stockwork zones are proximal to known ultramafic sill occurrences, and the mobility of metals (Cu, Au, PGE) in fluids along fault and structural corridors is likely a common characteristic observed in host-rocks at Ultra (Frohberg) and Ellen (Kloo, Davidson Sill) prospects. However, several Qz-Carb stockwork zones may not be located near known sill occurrences (adjacent and south of Kloo prospect) and may be related to VMS-like stringer mineralization.

Goal 4: Resampling of 1995 core from the historical drilling just north of Kloo, revealed significantly higher grade gold mineralization within the serpentinized sill intersected in hole **95-05**, possibly due to the historical analysis containing a larger proportion of unmineralized rock. In addition, the last interval in the drill hole was mineralized and potentially remains open at depth.

Analysis in 1995 returned:	*182.5 ppb Au*	*280-300'*	*85.34-91.44 m*	*6.1 m*
Analysis in 2020 returned:	1579 ppb Au	287-302'	87.50-92.07 m	4.57 m
Including	**4499** ppb Au	297-302'	90.55-92.07 m	1.52 m

Re-logging and assaying of the 1995 drill core confirmed the previously defined low grade, but consistent nickel mineralization hosted by the serpentinite sill. DDH 95-04 returned 1981 ppm Ni (0.198% Ni) over 26.8 m, and DDH 95-05 returned 1883 ppm Ni (0.188% Ni) over 12.35 m.

2020 results show that where the sill was only weakly anomalous in gold higher up in the section (DDH 95-04), gold grade increases down section (DDH 95-05) in this location, potentially representing a part of a feeder system related to the thrust fault and increased hydrothermal activity.

The gold mineralization within the ultramafic sill north of the Kloo showing lends additional evidence that continued surface exploration is indicated along strike towards the Davidson Sill which is interpreted as a continuation of the sill intersected in DDH 95-4 and 5. In addition, further exploration is warranted north of the Kloo showing and thrust fault in the area of the highly conductive anomaly described in the geological mapping and prospecting section of the report.

8.1 Recommendations for Future Work

Soil Sampling

Extend the current soil grid north to the underexplored lowlands, targeting the conductive anomaly that projects to the north of the Kloo prospect, and extend grid to the east along the magnetic trend coincident with the E-W trending thrust fault towards the Davidson Sill. As the grid extends out into the flatter topography where depth of cover increases, consider using Mobile Metal Ion (MMI) geochemistry. MMI measures metal ions that are released from mineralized material that travel upward to unconsolidated surface material such as soil, till, sand, etc. With careful soil sampling techniques, specialized chemical ligands and ultra-sensitive instrumentation, SGS is able to measure the ions. Following interpretation, MMI data can indicate anomalous areas. Benefits to using MMI technology for soil geochemistry include:

- few false anomalies,
- focused, sharp anomalies,
- repeatability,
- definition of metal zones and association,
- detection of deeply buried mineralization,
- low background values i.e., low noise, and
- low limits of detection.

Extend the soil grid to the south and east, broadening coverage over the newly mapped shear zone that carries anomalous Au, Pd and Cu. Traditional soil sampling works well in this area as there is minimal brush / overburden.

Prospecting, Mapping, Rock Sampling

Follow-up mapping and prospecting of the prominent soil anomalies revealed by the 2020 soil sampling campaign (Anomalies A – I). Anomalies D (479 ppb Au) and E (86 ppb Au) are from the 2018 soil program.

Follow-up mapping and prospecting of areas surrounding 2018 high-grade rock samples 3249071 and 1319611, which returned 2,049 ppm Ni and 11,540 ppm Cu, respectively. These are located along the ridge trending northwest of Mount Decoeli.

Further detailed mapping on the west side of Ellen Creek in the area of the Kloo prospect. The area was visited, but not mapped in detail during the 2020 program. In addition to mineralization, quartz-carbonate ± chlorite-epidote stockwork zones, the structure relating to the possible Ellen Creek displacement and black pegmatite schists should be targeted.

Follow-up mapping and prospecting in the area of the bleached ultramafic sill (Davidson Sill) and possible related quartz-carbonate stockwork zone 80 m upslope. This sill is interpreted as the continuation of the same serpentinite sill that was drilled and intersected during the 1969 and 1995 drill programs at the Kloo prospect. In addition, re-sampling of the sill intersected in drillhole 95-5 returned gold values of 1579 ppb Au over 4.57 m including **4499 ppb Au** over 1.52m (end of hole).

Follow-up mapping and prospecting on the upland plateau just NNW of the Kloo prospect. This area was soil sampled in 2020 and produced a broad area with elevated nickel and spot anomalies of gold and copper. Pautler (2007) reported abundant malachite- and azurite-stained float and boulders as well as Qz-Carb-Ep veinlets along cleavage planes and within foliated mafic volcanics (uTBv) on the upland plateau. Abundant peridotite float (4/5 magnetism) is also abundant on the NNW upland plateau. The hand pits/trenches (Pit 01-1; Pit 01-2) reported on the NNE upland plateau also note abundant Cu-bearing Qz-Carb stockwork/stringer mineralization.

Mapping/prospecting on the Pacer SE claims to follow-up indicator minerals found in the heavy mineral concentrate sample 2064308 below the known Mount Archibald Sill. In addition to Ni-Cu PGE indicator minerals present, cinnabar is a possible indicator of epithermal gold and molybdenite is an indicator of possible porphyry Mo or skarn mineralization.

Geophysics and Drilling

Following up on 2018 recommendations (Davidson, 2018):

- Re-interpret VTEM data for Ellen canyon and valley floor conductors.
- Consider drones or unmanned aerial vehicles (UAVs) for magnetic surveys over inaccessible terrain. UAVs fly closer to the ground and have a tighter line spacing than a helicopter or fixed wing survey and can cover steeper terrain than a ground magnetic survey (Yukon-based - http://dronenorth.org/).
- 4 x 300 m holes at the Kloo showing, extending holes to intersect the gold mineralized serpentinite sill below the massive sulphide Cu-Au mineralization.

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10 Statement of Qualifications

I, Linda Lewis, P.Geo, of Destruction Bay, Yukon Territory, do hereby certify that:

1. I am a graduate of the University of Regina with a B.Sc. Honours in Geology in 1987.

2. I am a Professional Geoscientist registered with Engineers and Geoscientists British Columbia, License #21125.

3. I have practiced my profession as a mineral exploration geologist with Bema Gold Corp., Northern Freegold Resources Ltd., Imperial Metals Corp., Comaplex Minerals Corp., Golden Predator Canada Corp., and as a geological consultant for 30 years, where I have been involved with the geological exploration of precious and base metal properties and deposits in a variety of capacities.

4. I am co-author of this report and participated as a senior geologist in the 2020 field program.

5. That I am an employee of TruePoint Exploration. (2020 - present). TruePoint is the exploration arm for Group Ten Metals Inc.

6. I consent to the use of this report by Group Ten Metals for such assessment and/or regulatory and financing purposes deemed necessary.

Dated at Vancouver, British Columbia this 7th day of May 2021.

Linda Lewis
TruePoint Exploration
112 Kluane Ave, General Delivery
Destruction Bay, YT Y0B 1H0

I, Povilas Grigutis, of the City of Mississauga, in the Province of Ontario, HEREBY CERTIFY:

1. That I am hired as a contract geologist by TruePoint Exploration, currently fulfilling requirements towards a professional geologist designation. I worked on the Ultra property during the summer of 2020.

2. I am a graduate of Western University (B.Sc. Geology, 2017), and have recently fulfilled requirements for an M.Sc. Geology degree from Western University.

3. I have worked in the field of geology and mineral exploration in Canada (ON, QC, MB, YT) part-time since 2015, including roles as; geological assistant/intern, production and exploration geologist.

4. That I am a contract employee of TruePoint Exploration (2020 - present). TruePoint is the exploration arm for Metallic Group (which includes Group Ten Metals) to which I have been employed since 2020.

5. I consent to the use of this report by Group Ten Metals for such assessment and/or regulatory and financing purposes deemed necessary.

Dated at Mississauga, Ontario this 7th day of May 2021.

Povilas. Grigutis

Povilas. Grigutis B.Sc.
TruePoint Exploration
2618 Pollard Drive
Mississauga, ON, L5C 3H1

Appendix I – Final Submission Form

YMEP FINAL SUBMISSION FORM

		Date submitted: January 31, 2021	
submit by January 31st to: *(winter placer projects may submit at pre-approved date)*	YMEP- EMR/ YTG Street address: 102-300 Main Street Mailing address: Box 2703, K-102 Whitehorse, Yt, Y1A 2C6	YMEP@gov.yk .ca phone: 867-456-3828 fax: 867-667-3198	
CONTACT INFO Linda Lewis		***PROJECT INFO***	
Name:	Group Ten Metals Inc	YMEP no:	20-095
Address:	Suite 904-409 Granville St.	Project name:	Ellen
	Vancouver, BC V6C 1T2	Project type:	Hard Rock
email	llewis@truepointex.com	Project module:	Target Evaluation
Phone:	(250) 231-0207		

Is the final report enclosed? ☐ yes ☑ no

☐ hard copy ☐ pdf copy ☐ digital spreadsheet of station location data

Comment: Final report to be submitted by Monday February 15, 2021

PROJECT SUMMARY

Total project expenditures: 57,174.45

Number of new claims since March 31st:

Has an option resulted since March 31? ☐ yes ☑ no ☐ in negotiation

Number of calendar field days: 14

Number of person-days of employment: 40 paid _____ days of unpaid work

Total no. of samples: 71 rocks silts 256 soils 28 core, 4 HMC other

Total length/volume of trenching/ shafting:

Total number of line-km of geophysics

Total meters drilled _____ diamond drill _____ RC drill _____ auger/percussion drill

Other products (provide details):

This is not an expense claim form. To request reimbursement of expenses, please submit a separate detailed expense claim form.

FINANCIAL SUMMARY

Total daily field allowance	4,000.00	Total contractor costs	
Total field air transportation costs (helicopter/plane)	12,015.00	Total excavating/ heavy equipment costs	
Total truck/ mileage costs	3,980.00	Total assay/analyses costs	11,320.45
Total wages paid	18,400.00	Total reclamation costs	
Total light equipment rental costs	2,750.00	Total report writing cost	2500.00
Other (please specify)	Office trailer 450.00	Total staking costs	
Other (please specify)	Fuel (Helicopter) 1,759.00		

(see reverse)

YMEP FINAL SUBMISSION FORM

Your feedback on any aspect of the program:

The YMEP program aided significantly to facilitate a wide range of activities on the Ellen property including prospecting and mapping outwards from the know Kloo Minfile showing, detailed geological mapping over several geophysical conductors identified in 1995, extending soil grids, especially where known anomalies remain open. In addition, review and re-sampling of a portion of the 1995 Bostock core from the Kloo prospect was undertaken and assayed for PGE's.

The Department of Energy, Mines and Resources may verify all statements related to and made on this form, in any previously submitted reports, interim claims and in the Summary or Technical Report which accompanies it.

I certify that;

1. I am the person, or the representative of the company or partnership, named in the Application for Funding and in the Contribution Agreement under the Yukon Mining Incentives Program.

2. I am a person who is nineteen years of age or older, and I have complied with all the requirements of the said program.

3. I hereby apply for the final payment of a contribution under the Yukon Mineral Exploration Program (YMEP) and declare the information contained within the Summary or Technical Report and this form to be true and accurate.

Date January 31, 2021

Signature of Applicant Linda Lewis

Name (print) Linda Lewis

(see reverse)

Appendix II – Statement of Expenditures

YMEP Expense Claim - Client Copy

Yukon

YMEP no: **20-095**	*project name:* **Ellen**	*applicant name:* **Group Ten Metals Inc.**	
expense claim no: **1/2**	*program type:* **hard rock**	*program module:* **target evaluation**	
date submitted: **31-Jan-21**	*phone:* **(250) 231-0207**	*email:* **llewis@truepointex.com**	
address: **Suite 904-409 Granville St. Vancouver, BC V6C 1T2**			
start/end dates of fieldwork for this claim:	**6-Jul-20** *start*	**18-Aug-20** *end*	*no. of field days/this claim:* **14**

eligible expenses *Please refer to rate guidelines. Provide photocopy of receipts.*

item		unit/days	rate	total
daily field expenses	no persons: 4	34	$100/day	$3,400.00
personnel	*Name (supply statement of qualifications)*			
	Ryan Versloot GIT	4	500.00	$2,000.00
	Graham Davidson PGeo	10	500.00	$5,000.00
	Linda Lewis P Geo	10	500.00	$5,000.00
	Povi Grigutis Geologist	10	400.00	$4,000.00

equipment (rental)	private or commercial	unit/days	rate	total
Radios, sat phone, GPS,Drone	private	40	25.00	$1,000.00
Portable XRF	private	10	175.00	$1,750.00
	private			
	private			
	private			
	private			
	private			
	private			
	private			
	private			
	private			
other	*Please provide details.*			
1 ton truck		19	140.00	$2,660.00
Trailer, 18' 7000 lb covered		9	50.00	$450.00
Fuel-truck		2400	.55	$1,320.00
Helicopter - Long Ranger		8.9	1350.00	$12,015.00
Jet Fuel 122L/hour		1085.8	1.62	$1,759.00
			Total this claim:	$40,354.00

YMEP Expense Claim - Client Copy

Yukon

YMEP no: **20-095**	*project name:* **Ellen**	*applicant name:* **Group Ten Metals Inc.**	
expense claim no: **2/2**	*program type:* **hard rock**	*program module:* **target evaluation**	
date submitted: **31-Jan-21**	*phone:* **(250) 231-0207**	*email:* **llewis@truepointex.com**	
address: **Suite 904-409 Granville St. Vancouver, BC V6C 1T2**			
start/end dates of fieldwork for this claim:	**6-Jul-20** *start*	**18-Aug-20** *end*	*no. of field days/this claim:* **14**

eligible expenses *Please refer to rate guidelines. Provide photocopy of receipts.*

item		unit/days	rate	total
daily field expenses	no persons: 1	6	$100/day	$600.00
personnel	*Name (supply statement of qualifications)*			
	Aedan O'Brien Geologist	6	400.00	$2,400.00

equipment (rental)	private or commercial	unit/days	rate	total
	private			
	private			
	private			
	private			
	private			
	private			
	private			
	private			
	private			
	private			
	private			

other	*Please provide details.*			
Analysis - Soil	B. Veritas	256	21.50	$5,504.00
Analysis - Rock	B. Veritas	71	38.55	$2,737.05
Analysis - HMC, indicator minerals	incl shipping	4	500	$2,000.00
Analysis - core from historical drilling	B. Veritas	28	38.55	$1,079.40
Report Writing			2500.00	$2,500.00
			Total this claim:	$16,820.45

DATE: November 2, 2020

LONGFORD
EXPLORATION SERVICES LTD.

SEND TO:
Group Ten Metals Inc.
#904-409 Granville Street
Vancouver, BC
Canada V6C 1T2
604 357-4790

Longford Exploration Services Ltd.
#460-688 West Hastings Street
Vancouver, BC
Canada V6B 1P1
778-809-7009

Ellen 2020

Personnel		Days	Rate		Line Total
	Project Manager / Geologist - Versloot	July 6 - 9	4	$ 700.00	$ 2,800.00
	Senior Geologist - Lewis	August 9 - 18	10	$ 850.00	$ 8,500.00
	Senior Geologist / P.Geo - Davidson	August 9 - 18	10	$ 750.00	$ 7,500.00
	Geologist - Grigutia	August 9 - 18	10	$ 600.00	$ 6,000.00
	Junior Geologist - O'Brien	August 9 - 14	6	$ 500.00	$ 3,000.00
		total man days	40	**Cat. Total**	**$ 27,800.00**
Food and Lodging			Units	Rate	Line Total
	Food and Groceries		40	$ 55.00	$ 2,200.00
	Lodging	Haines Junction	40	$ 100.00	$ 4,000.00
				Cat. Total	**$ 6,200.00**
Transportation			Units/Days	Unit Price	Line Total
	Truck	1 ton with safety and recovery gear	19	$ 140.00	$ 2,660.00
	Trailer	18' 7000lb covered trailer with gear	9	$ 50.00	$ 450.00
	Fuel	per km for truck	2400	$ 0.55	$ 1,320.00
	Heli	Long Ranger	8.9	$ 1,350.00	$ 12,015.00
	Jet Fuel	122L / hour	1085.8	$ 1.62	$ 1,759.00
				Cat. Total	**$ 18,204.00**
Equipment Rentals			Units	Unit Price	Line Total
	Electronics Kit	Radios, Sat phones, GPS, per man day	40	$ 25.00	$ 1,000.00
	Portable XRF with Stand	per day	10	$ 175.00	$ 1,750.00
				Cat. Total	**$ 2,750.00**
Consumables			Units	Unit Price	Line Total
	Sample bags, flagging tape, office	per man day	40	$ 20.00	$ 800.00
				Cat. Total	**$ 800.00**
Analytical			Units	Unit Price	Line Total
	Analysis - Soil	SS80, AQ200	256	$ 21.50	$ 5,504.00
	Analysis - Core	PRP70-250, FA330, AQ300	28	$ 38.55	$ 1,079.40
	Analysis - Rock	PRP70-250, FA330, AQ300	71	$ 38.55	$ 2,737.05
	Analysys - HMC	ODM for Indicator Mineral, inc shipping	4	$ 500.00	$ 2,000.00
				Cat. Total	**$ 11,320.45**
Post Field			Units	Unit Price	Line Total
	Assessment Report prep and work filing		1	$ 2,500.00	$ 2,500.00
				Cat. Total	**$ 2,500.00**

Estimated Sub Total	**$ 69,574.45**
Management 15%	**$ 10,436.17**
SUB TOTAL	**$ 80,010.61**
GST 5 %	**$ 4,000.53**
Total	**$ 84,011.14**

Appendix III - Soil Descriptions and Assays

2020 Ellen Soils

Sample_ID	Project	Year	Grid	UTM_East	UTM_North	UTM_Elevation	Sample_Type	Colour	Grain_Size	Horizon	Depth_cm	Additional_Comments
1318401	Ellen	2020	NAD83_Z8	340900	6750000	1643	Soil	Dark Brown	MG	B-C	50	
1318402	Ellen	2020	NAD83_Z8	340899	6749949	1665	Soil	Dark Brown	MG	B-C	40	
1318403	Ellen	2020	NAD83_Z8	340899	6749898	1672	Soil	Grey-Black	MG	B	40	
1318404	Ellen	2020	NAD83_Z8	340901	6749852	1670	Soil	Brown	MG	B	40	
1318405	Ellen	2020	NAD83_Z8	340899	6749801	1658	Soil	Grey-Brown	MG	B-C	60	
1318406	Ellen	2020	NAD83_Z8	340900	6749747	1643	Soil	Dark Brown	MG	B	25	
1318407	Ellen	2020	NAD83_Z8	340900	6749702	1631	Soil	Grey-Brown	MG	B	30	
1318408	Ellen	2020	NAD83_Z8	340900	6749650	1618	Soil	Dark Brown	MG	B-C	60	
1318409	Ellen	2020	NAD83_Z8	340901	6749599	1597	Soil	Grey-Brown	MG	B-C	50	
1318410	Ellen	2020	NAD83_Z8	340900	6749556	1587	Soil	Grey-Brown	MG	B	80	
1318411	Ellen	2020	NAD83_Z8	340902	6749498	1579	Soil	Grey	MG	B	100	
1318412	Ellen	2020	NAD83_Z8	340901	6749451	1573	Soil	Grey-Black	FG	B-C	70	
1318413	Ellen	2020	NAD83_Z8	340898	6749400	1566	Soil	Brown	FG	C	60	
1318414	Ellen	2020	NAD83_Z8	340898	6749350	1558	Soil	Brown-Grey	CG	B	35	
1318415	Ellen	2020	NAD83_Z8	340895	6749301	1550	Soil	Light brown- Dark Grey	CG	B	40	
1318416	Ellen	2020	NAD83_Z8	340901	6749253	1544	Soil	Brown	MG	B	45	
1318417	Ellen	2020	NAD83_Z8	340900	6749197	1538	Soil	Light brown - dark brown	CG	B-C	50	
1318418	Ellen	2020	NAD83_Z8	340897	6749148	1530	Soil	Brown	MG	B-C	45	
1318419	Ellen	2020	NAD83_Z8	340899	6749097	1525	Soil	Grey-Brown	CG	B	70	
1318420	Ellen	2020	NAD83_Z8	340897	6749053	1515	Soil	Grey-Brown	CG	B	45	
1318421	Ellen	2020	NAD83_Z8	340899	6748996	1502	Soil	Grey	CG	B	40	
1318422	Ellen	2020	NAD83_Z8	340813	6749012		Soil	Brown	CG	B-C	30	
1318423	Ellen	2020	NAD83_Z8	340800	6749049	1478	Soil	Brown	CG	B-C	50	
1318424	Ellen	2020	NAD83_Z8	340801	6749099	1489	Soil	Brown	CG	B-C	30	
1318425	Ellen	2020	NAD83_Z8	340802	6749147	1497	Soil	Brown	MG	B-C	45	
1318426	Ellen	2020	NAD83_Z8	340800	6749201	1504	Soil	Light Brown	MG	B-C	70	
1318427	Ellen	2020	NAD83_Z8	340800	6749250	1511	Soil	Brown-Grey	CG	B-C	60	
1318428	Ellen	2020	NAD83_Z8	340798	6749299	1518	Soil	Grey-Brown	CG	B	50	
1318429	Ellen	2020	NAD83_Z8	340799	6749350	1534	Soil	Brown-Orange	CG	B-C	60	
1318430	Ellen	2020	NAD83_Z8	340792	6749398	1540	Soil	Grey-Brown	CG	B-C	70	
1318431	Ellen	2020	NAD83_Z8	340798	6749446	1552	Soil	Dark Grey - Brown	CG	B-C	50	
1318432	Ellen	2020	NAD83_Z8	340796	6749497	1560	Soil	Light Brown	CG	B-C	50	
1318433	Ellen	2020	NAD83_Z8	340798	6749551	1572	Soil	Dark Grey	MG	B-C	100	
1318434	Ellen	2020	NAD83_Z8	340802	6749597	1582	Soil	Dark Grey	MG	B-C	100	
1318435	Ellen	2020	NAD83_Z8	340800	6749648	1594	Soil	Light Brown	CG	B-C	60	
1318436	Ellen	2020	NAD83_Z8	340804	6749697	1606	Soil	Grey-Brown	CG	A-B	25	
1318437	Ellen	2020	NAD83_Z8	340803	6749751	1625	Soil	Brown	MG	B-C	50	
1318451	Ellen	2020	NAD83_Z8	338800	6752189	954	Soil	Duplicate of 1318451				actually duplicate of 2065000?
1318452	Ellen	2020	NAD83_Z8	338803	6752239	948	Soil	Grey/ Black	VFG	B	35	Moist. Wet. 25% OG's.
1318453	Ellen	2020	NAD83_Z8	340297	6749445	1439	Soil	Grey	CG	B (ish)	35	Just barely out of creek bed. Thick, chest high bush, but still cg river seds with soil.

Sample_ID	Project	Year	Grid	UTM_East	UTM_North	UTM_Elevation	Sample_Type	Colour	Grain_Size	Horizon	Depth_cm	Additional_Comments
1318454	Ellen	2020	NAD83_Z8	340301	6749497	1456	Soil	Grey/ Black	CG	B	30	Still very PSD. Lots of rocks & pebbles in sample. Still probably creek bank.
1318455	Ellen	2020	NAD83_Z8	340298	6749547	1460	Soil	Grey/ Black	MG/CG	B	35	In a bit of an overgrown ravine. SD improving.
1318456	Ellen	2020	NAD83_Z8	340303	6749596	1473	Soil	Grey	FG	B	30	FG with rocks. SD improving.
1318457	Ellen	2020	NAD83_Z8	340301	6749645	1497	Soil	Dark Brown	FG	B	25	FG with small rocks. 5% OG's. Good.
1318458	Ellen	2020	NAD83_Z8	340301	6749694	1511	Soil	Black/ Orange Brown	FG/MG	B	25	FG/ MG with small rock fragments.
1318459	Ellen	2020	NAD83_Z8	340300	6749736	1525	Soil	Grey/ Dark Brown	FG	B	25	With pebbles.
1318460	Ellen	2020	NAD83_Z8	340300	6749787	1544	Soil	Grey/ Dark Brown	FG	B	30	With pebbles.
1318461	Ellen	2020	NAD83_Z8	340301	6749835	1565	Soil	Dark Brown	FG/MG	B	35	With rock fragments.
1318462	Ellen	2020	NAD83_Z8	340299	6749885	1581	Soil	Dark Brown	FG/MG	B	20	With rock fragments.
1318463	Ellen	2020	NAD83_Z8	340300	6749932	1595	Soil	Dark Brown	FG/ Clay	B	15	With rock fragments.
1318464	Ellen	2020	NAD83_Z8	340301	6749982	1605	Soil	Grey	FG	B	25	Patches of rusty clay.
1318465	Ellen	2020	NAD83_Z8	340299	6750032	1612	Soil	Dark Brown	FG	B	30	With rock fragments.
1318466	Ellen	2020	NAD83_Z8	340300	6750081	1622	Soil	Dark Brown/ Black	FG	B	30	With rock fragments.
1318467	Ellen	2020	NAD83_Z8	340298	6750126	1625	Soil	Dark Brown	FG	B	35	20% OG's.
1318468	Ellen	2020	NAD83_Z8	340301	6750175	1610	Soil	Dark Brown	FG	B	30	25 OG's.
1318469	Ellen	2020	NAD83_Z8	340497	6750052	1646	Soil	Brown	FG	B	20	25% OG's. Top/ Ridge of mountain.
1318470	Ellen	2020	NAD83_Z8	340499	6750001	1639	Soil	Light Brown	FG	B	25	
1318471	Ellen	2020	NAD83_Z8	340503	6749953	1634	Soil	Light Brown	FG	B	25	Grasslands.
1318472	Ellen	2020	NAD83_Z8	340499	6749908	1624	Soil	Dark Brown	FG	B	25	10% OG's.
1318473	Ellen	2020	NAD83_Z8	340498	6749856	1612	Soil	Dark Brown/ Black	FG	B	20	Good.
1318474	Ellen	2020	NAD83_Z8	340499	6749805	1599	Soil	Light Brown/ Grey	FG	B	20	Very little vegetation. PSD.
1318475	Ellen	2020	NAD83_Z8	340500	6749755	1584	Soil	Dark Brown	FG	B	10	Very shallow & Poorly defined soil horizon. Mostly tallus slope with patches of grass.
1318476	Ellen	2020	NAD83_Z8	340502	6749705	1567	Soil	DB	FG	B	20	With rock fragments. 15% OG's.
1318477	Ellen	2020	NAD83_Z8	340502	6749659	1557	Soil	Orange Brown	FG	B	20	Some rock fragments. 20% OG's.
1318478	Ellen	2020	NAD83_Z8	340502	6749609	1546	Soil	Dark Brown	FG	B	30	With rock fragments. 10% OG's.
1318479	Ellen	2020	NAD83_Z8	340497	6749558	1528	Soil	Dark Brown/ Black	FG/ Clay		20	Minor sand & RF.
1318480	Ellen	2020	NAD83_Z8	340497	6749508	1509	Soil	Dark Brown	FG/MG	B	20	
1318481	Ellen	2020	NAD83_Z8	340499	6749455	1494	Soil	Dark Brown	FG/MG	B	20	WRF. 5% OG's.
1318482	Ellen	2020	NAD83_Z8	340500	6749405	1471	Soil	Grey	FG/MG	B	20	WRF. In banks of gulley/ ravine. Not really soil.
1318483	Ellen	2020	NAD83_Z8	340499	6749357	1464	Soil	Grey.	FG	B	25	
2064451	Ellen	2020	NAD83_Z8	338600	6751100	1361	Soil	Grey/ Brown		B	30	Dry
2064452	Ellen	2020	NAD83_Z8	338602	6751051	1356	Soil	Black/ Brown		B/C	15	Moist
2064453	Ellen	2020	NAD83_Z8	338601	6751001	1338	Soil	Black/ Brown		B/C	20	Dry
2064454	Ellen	2020	NAD83_Z8	338599	6750953	1317	Soil	Brown		B	30	Dry
2064455	Ellen	2020	NAD83_Z8	338499	6750951	1292	Soil	Black/ Brown		B	25	Dry
2064456	Ellen	2020	NAD83_Z8	338498	6751000	1300	Soil	Dark Brown		B/C	35	Dry
2064457	Ellen	2020	NAD83_Z8	338500	6751050	1314	Soil	Black/ Brown		B/C	25	Dry

Sample_ID	Project	Year	Grid	UTM_East	UTM_North	UTM_Elevation	Sample_Type	Colour	Grain_Size	Horizon	Depth_cm	Additional_Comments
2064458	Ellen	2020	NAD83_Z8	338500	6751150	1320	Soil	Black/ Brown		B/C	26	Dry
2064459	Ellen	2020	NAD83_Z8	338500	6751199	1320	Soil	Brown/ Grey		B/C	25	Dry
2064460	Ellen	2020	NAD83_Z8	338599	6751149	1373	Soil	Grey/ Brown		B/C	25	Dry
2064461	Ellen	2020	NAD83_Z8	338599	6751199	1363	Soil	Brown/ Grey/ Black		B	30	Damp
2064462	Ellen	2020	NAD83_Z8	338599	6751248	1356	Soil	Grey/ Brown		B	30	Dry
2064463	Ellen	2020	NAD83_Z8	338600	6751299	1345	Soil	Brown/ Grey		B/C	25	Damp
2064464	Ellen	2020	NAD83_Z8	338601	6751351	1321	Soil	Grey/ Brown		B	70	Damp
2064465	Ellen	2020	NAD83_Z8	338600	6751399	1299	Soil	Grey/ Brown		A/B	60	Damp
2064466	Ellen	2020	NAD83_Z8	338598	6751450	1275	Soil	Brown		A	60	Damp
2064467	Ellen	2020	NAD83_Z8	338599	6751501	1256	Soil	Grey/ Brown		B	70	Damp
2064468	Ellen	2020	NAD83_Z8	338601	6751551	1235	Soil	Grey/ Black/ Brown		B	60	Damp
2064469	Ellen	2020	NAD83_Z8	338599	6751599	1214	Soil	Black/ Brown		A/B	80	Damp
2064470	Ellen	2020	NAD83_Z8	338600	6751651	1180	Soil	Brown/ Grey		(80% B)(20%	70	Damp
2064471	Ellen	2020	NAD83_Z8	338601	6751699	1145	Soil	Brown/ Grey		A/B	70	Moist
2064472	Ellen	2020	NAD83_Z8	339300	6751948	964	Soil	Grey/ Brown		B/C	10	Dry
2064473	Ellen	2020	NAD83_Z8	339299	6752001	960	Soil	Grey		B/C	30	Dry
2064474	Ellen	2020	NAD83_Z8	339300	6752050	960	Soil	Grey		B	30	Damp
2064475	Ellen	2020	NAD83_Z8	339301	6752100	959	Soil	Grey		A/B	20	Damp
2064476	Ellen	2020	NAD83_Z8	339299	6752149	958	Soil	Grey/ Brown		B/C	30	Dry
2064477	Ellen	2020	NAD83_Z8	339299	6752201	955	Soil	Dark Grey			35	Damp. Stream Seds.
2064478	Ellen	2020	NAD83_Z8	339298	6752252	952	Soil	Dark Grey			120	Creek sediments. Dry.
2064479	Ellen	2020	NAD83_Z8	339200	6752251	953	Soil	Dark Grey			20	River deposit. Dry.
2064480	Ellen	2020	NAD83_Z8	339200	6752201	955	Soil	Grey			35	River deposit. Damp.
2064481	Ellen	2020	NAD83_Z8	339201	6752199	955	Soil	Dark Grey			35	River deposit. Damp.
2064482	Ellen	2020	NAD83_Z8	339199	6752149	957	Soil	Dark Grey			100	River deposit. Damp.
2064483	Ellen	2020	NAD83_Z8	339201	6752100	959	Soil	Brown		A/B	30	Dry
2064484	Ellen	2020	NAD83_Z8	339202	6752049	960	Soil	Grey			35	River deposit. Dry.
2064485	Ellen	2020	NAD83_Z8	339198	6752000	962	Soil	Grey			30	River deposit. Dry.
2064486	Ellen	2020	NAD83_Z8	339197	6751951	961	Soil	Brown		B	30	
2064487	Ellen	2020	NAD83_Z8	339100	6752000	947	Soil	Brown/ Grey		B	40	Minor Organics. Damp.
2064488	Ellen	2020	NAD83_Z8	339098	6752051	948	Soil	Brown		B	75	Fluvial sand.
2064489	Ellen	2020	NAD83_Z8	339099	6752101	949	Soil	Grey			80	Fluvial sand.
2064490	Ellen	2020	NAD83_Z8	339100	6752153	949	Soil	Grey			20	Fluvial sand.
2064491	Ellen	2020	NAD83_Z8	339100	6752200	949	Soil	Grey			30	Fluvial sand.
2064492	Ellen	2020	NAD83_Z8	339099	6752250	947	Soil	Grey			20	Fluvial sand.
2064493	Ellen	2020	NAD83_Z8	339100	6752300	946	Soil	Grey/ Brown		B	90	Damp. (20% B Horizon)(80% Fluvial)
2064494	Ellen	2020	NAD83_Z8	338999	6752350	939	Soil	Grey			50	Fluvial seds.
2064495	Ellen	2020	NAD83_Z8	338999	6752300	943	Soil	Grey			35	Fluvial. Dry.
2064496	Ellen	2020	NAD83_Z8	338999	6752251	944	Soil	Grey			40	Dry. Fluvial sand and silt.
2064497	Ellen	2020	NAD83_Z8	338996	6752223	945	Soil	Grey			35	Fluvial seds.
2064498	Ellen	2020	NAD83_Z8	338902	6752249	938	Soil	Brown/ Grey			35	Damp.
2064499	Ellen	2020	NAD83_Z8	338901	6752305	937	Soil	Grey			50	Glacial fluvial seds.
2064500	Ellen	2020	NAD83_Z8	338901	6752352	936	Soil	Grey			60	Glacial lacustrine seds.
2064751	Ellen	2020	NAD83_Z8	341002	6749950		Soil	Black		B/C	25	Moist

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2064752	Ellen	2020	NAD83_Z8	341000	6749900		Soil	Brown/Black		B/C	35	Moist
2064753	Ellen	2020	NAD83_Z8	341000	6749850		Soil	Brown/Black		B/C	35	Moist
2064754	Ellen	2020	NAD83_Z8	341000	6749800		Soil	Brown/Black		B/C	30	Moist
2064755	Ellen	2020	NAD83_Z8	341000	6749750		Soil	Brown/Black		B/C	35	Moist
2064756	Ellen	2020	NAD83_Z8	341000	6749700		Soil	Brown/Black		B/C	30	Moist
2064757	Ellen	2020	NAD83_Z8	341000	6749650		Soil	Brown/Black		B/C	35	Moist
2064758	Ellen	2020	NAD83_Z8	341000	6749600		Soil	Brown/Black		B/C	30	Moist
2064759	Ellen	2020	NAD83_Z8	341000	6749550		Soil	Brown/Black		B/C	35	Moist
2064760	Ellen	2020	NAD83_Z8	341000	6749500		Soil	Brown/Black		B/C	35	Moist
2064761	Ellen	2020	NAD83_Z8	341000	6749500		Soil	Brown/Black		B/C	35	Moist
2064762	Ellen	2020	NAD83_Z8	341000	6749450		Soil	Brown/Black		B/C	55	Saturated
2064763	Ellen	2020	NAD83_Z8	341000	6749400		Soil	Black		B/C	35	Moist
2064764	Ellen	2020	NAD83_Z8	341000	6749350		Soil	Black		B/C	30	Moist
2064765	Ellen	2020	NAD83_Z8	341000	6749300		Soil	Brown/Black		B/C	25	Moist
2064766	Ellen	2020	NAD83_Z8	341000	6749250		Soil	Brown/Black		B/C	20	Moist
2064767	Ellen	2020	NAD83_Z8	341000	6749200		Soil	Brown/Black		B/C	30	Moist
2064768	Ellen	2020	NAD83_Z8	341000	6749150		Soil	Brown/Black		B/C	30	Moist
2064769	Ellen	2020	NAD83_Z8	341000	6749100		Soil	Brown/Black		B/C	25	Moist
2064770	Ellen	2020	NAD83_Z8	341000	6749050		Soil	Brown/Black		B/C	30	Moist
2064771	Ellen	2020	NAD83_Z8	341000	6749000		Soil	Grey		Talus	25	Moist
2064772	Ellen	2020	NAD83_Z8	341000	6748950		Soil	Grey		Talus	20	Moist
2064773	Ellen	2020	NAD83_Z8	340700	6749150		Soil	Brown/Black		B/C	30	Moist
2064774	Ellen	2020	NAD83_Z8	340700	6749200		Soil	Brown/Black		B/C	30	Moist
2064775	Ellen	2020	NAD83_Z8	340700	6749250		Soil	Brown/Black		B/C	25	Moist
2064776	Ellen	2020	NAD83_Z8	340700	6749300		Soil	Brown/Black		B/C	30	Moist
2064777	Ellen	2020	NAD83_Z8	340700	6749350		Soil	Brown/Black		B/C	30	Moist
2064778	Ellen	2020	NAD83_Z8	340700	6749400		Soil	Brown/Black		B/C	30	Moist
2064779	Ellen	2020	NAD83_Z8	340700	6749450		Soil	Brown/Black		B/C	30	Moist
2064780	Ellen	2020	NAD83_Z8	340700	6749500		Soil	Brown/Black		B/C	30	Moist
2064781	Ellen	2020	NAD83_Z8	340700	6749500		Soil	Brown/Black		B/C	30	Moist
2064782	Ellen	2020	NAD83_Z8	340700	6749550		Soil	Grey/Brown		B/C	30	Moist
2064783	Ellen	2020	NAD83_Z8	340700	6749600		Soil	Grey/Brown		B/C	30	Moist
2064784	Ellen	2020	NAD83_Z8	340700	6749650		Soil	Grey/Brown		B/C	30	Moist
2064785	Ellen	2020	NAD83_Z8	340700	6749700		Soil	Grey/Brown		B/C	30	Moist
2064786	Ellen	2020	NAD83_Z8	340700	6749750		Soil	Grey/Brown		Talus	20	Moist
2064787	Ellen	2020	NAD83_Z8	340700	6749800		Soil	Grey/Brown		Talus	20	Moist
2064788	Ellen	2020	NAD83_Z8	340700	6749850		Soil	Grey/Brown		Talus	20	Moist
2064789	Ellen	2020	NAD83_Z8	340700	6749900		Soil	Brown		Talus	15	Moist
2064790	Ellen	2020	NAD83_Z8	340700	6749950		Soil	Brown/Black		B/C	25	Moist
2064791	Ellen	2020	NAD83_Z8	340700	6750000		Soil	Black		B/C	20	Wet
2064792	Ellen	2020	NAD83_Z8	340700	6750050		Soil	Brown/Black		B/C	30	Moist
2064793	Ellen	2020	NAD83_Z8	340800	6750050		Soil	Brown/Black		B/C	30	Moist
2064794	Ellen	2020	NAD83_Z8	340800	6750000		Soil	Black/Grey		B/C	25	Moist
2064795	Ellen	2020	NAD83_Z8	340800	6749950		Soil	Black/Grey		B/C	25	Moist

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2064796	Ellen	2020	NAD83_Z8	340800	6749900		Soil	Black/Grey		Talus	15	Moist
2064797	Ellen	2020	NAD83_Z8	340800	6749850		Soil	Black/Grey		B/C	35	Moist
2064798	Ellen	2020	NAD83_Z8	340800	6749800		Soil	Black/Grey		B/C	30	Moist
2064901	Ellen	2020	NAD83_Z8	340401	6749202	1428	Soil	Black/ Grey		B/C	20	Dry
2064902	Ellen	2020	NAD83_Z8	340402	6749249	1426	Soil	Grey/ Black		B/C	25	Dry
2064903	Ellen	2020	NAD83_Z8	340401	6749300	1429	Soil	Grey/ Brown		B	30	Dry
2064904	Ellen	2020	NAD83_Z8	340401	6749351	1440	Soil	Grey/ Brown		B	30	Dry
2064905	Ellen	2020	NAD83_Z8	340399	6749399	1451	Soil	Brown/ Grey		B	30	Dry
2064906	Ellen	2020	NAD83_Z8	340399	6749448	1464	Soil	Grey/ Brown		B	30	Dry
2064907	Ellen	2020	NAD83_Z8	340397	6749500	1484	Soil	Grey/ Brown		B	35	Dry
2064908	Ellen	2020	NAD83_Z8	340399	6749554	1497	Soil	Grey/ Brown		B	30	Dry
2064909	Ellen	2020	NAD83_Z8	340400	6749600	1507	Soil	Grey/ Brown		B	35	Dry
2064910	Ellen	2020	NAD83_Z8	340402	6749650	1524	Soil	Grey/ Brown		B/C	25	Dry
2064911	Ellen	2020	NAD83_Z8	340399	6749700	1536	Soil			B/C	25	Dry
2064912	Ellen	2020	NAD83_Z8	340399	6749750	1551	Soil	Grey/ Brown		B/C	35	Dry
2064913	Ellen	2020	NAD83_Z8	340400	6749801	1565	Soil	Dark Grey		B/C	30	Damp
2064914	Ellen	2020	NAD83_Z8	340398	6749850	1588	Soil	Dark Grey		B/C	30	Damp
2064915	Ellen	2020	NAD83_Z8	340400	6749900	1606	Soil	Dark Grey		B/C	20	Dry
2064916	Ellen	2020	NAD83_Z8	340401	6749951	1617	Soil	Grey		B/C	25	Dry
2064917	Ellen	2020	NAD83_Z8	340400	6750000	1623	Soil	Dark Grey		B/C	30	
2064918	Ellen	2020	NAD83_Z8	340397	6750051	1637	Soil	Dark Grey		B/C	25	Dry
2064919	Ellen	2020	NAD83_Z8	340396	6750101	1645	Soil	Dark Grey		B/C	20	Dry
2064920	Ellen	2020	NAD83_Z8	340600	6750100	1649	Soil	Grey/ Brown		B/C	25	Damp
2064921	Ellen	2020	NAD83_Z8	340599	6750098	1650	Soil	Grey/ Brown		B/C	25	Damp
2064922	Ellen	2020	NAD83_Z8	340600	6750050	1658	Soil	Grey		B/C	20	Damp
2064923	Ellen	2020	NAD83_Z8	340600	6750000	1652	Soil	Grey/ Black		B/C	30	Damp
2064924	Ellen	2020	NAD83_Z8	340602	6749949	1652	Soil	Black		B	40	Damp
2064925	Ellen	2020	NAD83_Z8	340601	6749900	1651	Soil	Grey/ Brown		B	40	Damp
2064926	Ellen	2020	NAD83_Z8	340602	6749850	1641	Soil	Grey		B/C	40	Damp
2064927	Ellen	2020	NAD83_Z8	340600	6749801	1625	Soil	Black		B/C	35	Damp
2064928	Ellen	2020	NAD83_Z8	340600	6749750	1613	Soil	Black		B/C	30	Damp
2064929	Ellen	2020	NAD83_Z8	340603	6749700	1597	Soil	Grey		B/C	40	Dry
2064930	Ellen	2020	NAD83_Z8	340600	6749650	1581	Soil	Grey		B/C	40	Dry
2064931	Ellen	2020	NAD83_Z8	340601	6749599	1566	Soil	Grey/ Black		B/C	30	Damp
2064932	Ellen	2020	NAD83_Z8	340599	6749550	1550	Soil	Grey/ Black		B/C	35	Damp
2064933	Ellen	2020	NAD83_Z8	340600	6749501	1535	Soil	Grey/ Black		B/C	40	Dry
2064934	Ellen	2020	NAD83_Z8	340602	6749450	1522	Soil	Black		B/C	30	Wet
2064935	Ellen	2020	NAD83_Z8	340600	6749400	1504	Soil	Grey/ Black		C	30	Poor C Horizon
2064936	Ellen	2020	NAD83_Z8	340600	6749350	1479	Soil	Grey/ Brown		B/C	40	Dry
2064937	Ellen	2020	NAD83_Z8	340597	6749302	1476	Soil	Grey/ Black		B/C	30	Damp
2064938	Ellen	2020	NAD83_Z8	340601	6749250	1455	Soil	Brown		B/C	30	Wet
2064951	Ellen	2020	NAD83_Z8	338699	6751002	1325	Soil	Light Brown	MG	B	20	Rock Fragments. Dry.
2064952	Ellen	2020	NAD83_Z8	338701	6751054	1349	Soil	Light Brown/ Grey	FG	B	15	Rock Fragments. Dry.
2064953	Ellen	2020	NAD83_Z8	338706	6751104	1366	Soil	Light Brown/ Grey	FG/MG	B/C	25	Rock Fragments.

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2064954	Ellen	2020	NAD83_Z8	338701	6751154	1378	Soil	Light Brown/ Grey	FG	B	40	Good.
2064955	Ellen	2020	NAD83_Z8	338699	6751205	1371	Soil	Grey	VFG	B/C	35	Damp
2064956	Ellen	2020	NAD83_Z8	338702	6751253	1359	Soil	Grey	VFG	B/C	40	
2064957	Ellen	2020	NAD83_Z8	338700	6751303	1347	Soil	Grey	VFG	B/C	35	A lot of organics (20%)
2064958	Ellen	2020	NAD83_Z8	338700	6751351	1326	Soil	Grey	VFG/ Clay	B	40	
2064959	Ellen	2020	NAD83_Z8	338702	6751400	1304	Soil	Black/ Brown	VFG	B	40	Deep A layer. 30% OG's.
2064960	Ellen	2020	NAD83_Z8	338702	6751443	1281	Soil	Grey	VFG	B	45	Moist
2064961	Ellen	2020	NAD83_Z8	338698	6751492	1257	Soil	Grey	VFG	B	45	Moist/ Damp
2064962	Ellen	2020	NAD83_Z8	338701	6751547	1229	Soil	Dark grey/ Brown	VFG	B	45	Organic rich
2064963	Ellen	2020	NAD83_Z8	338703	6751597	1204	Soil	Brown	FG	B	40	Organic rich. Moist. 90% Clay.
2064964	Ellen	2020	NAD83_Z8	338700	6751640	1168	Soil	Grey	FG/MG/ Sa	B/C	30	Rock Fragments. Outcrop. Talus/Shale. Poor soil development.
2064965	Ellen	2020	NAD83_Z8	338703	6751683	1137	Soil	Grey	MG/ Sand	B	30	Rock Fragments. Poor soil development. Thick Loam.
2064966	Ellen	2020	NAD83_Z8	338699	6751726	1111	Soil	Grey	MG/ Sand	B	25	Rock Fragments. Poor B development. Dry.
2064967	Ellen	2020	NAD83_Z8	338702	6751775	1075	Soil	Light Brown/ Grey	FG	B	20	Good
2064968	Ellen	2020	NAD83_Z8	338700	6751815	1050	Soil	Grey	FG	B	25	In a dried ravine.
2064969	Ellen	2020	NAD83_Z8	338699	6751861	1030	Soil	Grey	FG/ Clay	B	15	
2064970	Ellen	2020	NAD83_Z8	338703	6751913	1011	Soil	Light Brown/ Grey	FG/ Clay	A/B	20	Orcanics (15%)
2064971	Ellen	2020	NAD83_Z8	338703	6751964	1003	Soil	Light Brown/ Grey	VFG (95%	B/C	25	Rock fragments.
2064972	Ellen	2020	NAD83_Z8	338702	6752018	996	Soil	Grey	FG/MG/ Sa	B	35	30% Organics
2064973	Ellen	2020	NAD83_Z8	338700	6752067	985	Soil	Light Brown/ Grey	VFG	B	35	Damp/ Moist
2064974	Ellen	2020	NAD83_Z8	338703	6752122	971	Soil	Grey	FG/ Clay	B	30	Moist. Rock fragments.
2064975	Ellen	2020	NAD83_Z8	338801	6751050	1343	Soil	Grey/ Light Brown	FG/MG	B	15	Boulder and talus fields. Some rock fragments.
2064976	Ellen	2020	NAD83_Z8	338799	6751093	1351	Soil	Light Brown/ Grey	FG/MG	B	20	Rock fragments.
2064977	Ellen	2020	NAD83_Z8	338798	6751137	1364	Soil	Light Brown	FG	B	20	Boulder fields. Good.
2064978	Ellen	2020	NAD83_Z8	338801	6751185	1365	Soil	Light Brown/ Dark Brown	FG	B	25	Minor rock fragments. 5% OG's.
2064979	Ellen	2020	NAD83_Z8	338799	6751234	1357	Soil	Light Brown/ Brown	FG	B	35	
2064980	Ellen	2020	NAD83_Z8	338800	6751282	1340	Soil	Light Brown/ Brown	FG	B	25	20% OG's.
2064981	Ellen	2020	NAD83_Z8	338800	6751326	1328	Soil	Light Brown/ Grey	FG	B	45	Minor rock fragments. Good.
2064982	Ellen	2020	NAD83_Z8	338801	6751373	1311	Soil	Dark Brown	VFG	A/B	35	Very thick organic horizon.
2064983	Ellen	2020	NAD83_Z8	338799	6751421	1290	Soil	Brown	VFG	A/B	75	No obvious horizon transition.
2064984	Ellen	2020	NAD83_Z8	338801	6751281	1340	Soil	Duplicate of 2064980	Duplicate o	Duplicate of 2064982		Numbers not sequential, forgot to take duplicate and returned to sample site later.
2064985	Ellen	2020	NAD83_Z8	338800	6751469	1258	Soil	Brown	FG	A/B	35	Organic rich. Deep A horizon.
2064986	Ellen	2020	NAD83_Z8	338801	6751513	1226	Soil	Grey	VFG	B	40	Very loamy. Very thick A horizon.
2064987	Ellen	2020	NAD83_Z8	338803	6751565	1187	Soil	Grey	Sandy/ Pel	A/B/C	25	Poor B development. Poor sample. Outcrop.
2064988	Ellen	2020	NAD83_Z8	338799	6751608	1154	Soil	Grey	MG/CG	A/B/C	10	Little/ No soil development. Essentially tallus fines/ infill between boulders.

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2064989	Ellen	2020	NAD83_Z8	338802	6751659	1126	Soil	Grey	FG	B	25	Very poor soil development.
2064990	Ellen	2020	NAD83_Z8	338802	6751712	1120	Soil	Grey	FG	B	20	Poor soil development.
2064991	Ellen	2020	NAD83_Z8	338799	6751757	1073	Soil	Light Brown/ Grey	FG	B	25	Still poor soil development.
2064992	Ellen	2020	NAD83_Z8	338801	6751805	1048	Soil	Grey	FG	B	25	Poor soil development.
2064993	Ellen	2020	NAD83_Z8	338800	6751851	1026	Soil	Grey	FG	B	25	Wet/ Muddy
2064994	Ellen	2020	NAD83_Z8	338800	6751901	1013	Soil	Grey/ Brown	FG	A/B	35	Wet/ Saturated. OG Rich (30%)
2064995	Ellen	2020	NAD83_Z8	338801	6751948	1005	Soil	Grey/ Brown	FG	A/B	20	Very swampy. Wet sample. Poor soil development. 35% OG's.
2064996	Ellen	2020	NAD83_Z8	338801	6751995	993	Soil	Grey	FG	B	35	Moist. Getting drier as moving North.
2064997	Ellen	2020	NAD83_Z8	338801	6752044	981	Soil	Brown/ Grey	VFG	B/C	30	
2064998	Ellen	2020	NAD83_Z8	338801	6752095	969	Soil	Grey	VFG	B/C	25	Moist
2064999	Ellen	2020	NAD83_Z8	338800	6752141	959	Soil	Grey/ Black	VFG	A/B	40	Moist. Very organic rich (30%)
2065000	Ellen	2020	NAD83_Z8	338799	6752188	954	Soil	Grey	FG	B	45	Mostly grey fgclay, some orange fine sand observed.

Sample_ID	Logged_By	% Rock	% Clay	% Sand	Organics	% Silt	Assays_Sample	Type	Au_PPB	Pt_PPB	Pd_PPB	Mo_PPM	Cu_PPM	Pb_PPM	Zn_PPM	Ag_PPM	Ni_PPM	Co_PPM	Mn_PPM	Fe_PER	As_PPM	Th_PPM	Sr_PPM
1318401	P.G	20	20	30	10	20	1318401	Soil	9	8	9	5	170	12	207	0.5	67	25	1090	5.38	58	1	34
1318402	P.G	20	10	40	10	20	1318402	Soil	10	8	10	11	175	14	274	0.7	71	19	896	4.68	36	1	79
1318403	P.G	40	0	30	10	20	1318403	Soil	5	6	12	4	177	10	142	0.15	129	29	1103	4.58	12	1	50
1318404	P.G	25	20	30	5	20	1318404	Soil	8	7	7	6	127	12	191	0.3	64	27	1046	5.29	59	1	22
1318405	P.G	20	20	30	10	20	1318405	Soil	9	10	17	5	183	14	202	0.5	68	30	1436	5.53	96	1	27
1318406	P.G	30	10	40	10	10	1318406	Soil	25	10	24	4	152	9	152	0.4	89	29	961	4.16	15	1	23
1318407	P.G	40	10	30	10	10	1318407	Soil	5	10	15	5	134	9	171	0.4	73	25	835	3.68	17	1	26
1318408	P.G	30	0	40	10	20	1318408	Soil	6	7	9	8	92	11	211	0.6	49	16	801	3.54	21	1	19
1318409	P.G	30	0	40	10	20	1318409	Soil	8	7	10	6	159	14	217	0.5	54	19	873	4.63	49	1	18
1318410	P.G	30	0	40	10	20	1318410	Soil	12	6	10	7	156	11	269	0.5	67	19	805	4.44	34	1	22
1318411	P.G	10	30	30	10	20	1318411	Soil	9	5	11	8	133	9	317	0.6	63	17	872	3.89	25	1	19
1318412	P.G	20	30	10	10	30	1318412	Soil	10	5	8	9	115	11	386	0.6	62	14	753	3.83	27	1	28
1318413	P.G	10	40	30	10	10	1318413	Soil	9	5	8	14	142	12	407	1	54	10	582	4.54	40	1	18
1318414	P.G	50	0	30	10	10	1318414	Soil	17	10	16	16	113	43	258	2.1	40	9	838	6.96	93	1	36
1318415	P.G	40	0	40	10	10	1318415	Soil	13	6	11	8	135	22	272	0.7	50	29	1933	4.3	26	1	12
1318416	P.G	10	20	40	10	20	1318416	Soil	10	5	9	16	102	14	278	0.7	43	7	491	5.27	47	1	12
1318417	P.G	40	0	40	10	10	1318417	Soil	9	6	8	12	99	17	278	0.8	51	15	966	4.19	30	1	18
1318418	P.G	20	20	30	10	20	1318418	Soil	8	8	12	18	121	16	368	0.6	41	13	1133	6.65	65	1	19
1318419	P.G	40	0	30	10	20	1318419	Soil	10	5	6	15	155	14	274	1.6	39	17	845	4.43	38	1	24
1318420	P.G	40	0	40	10	10	1318420	Soil	7	5	9	20	82	19	188	0.7	31	6	587	4.19	42	1	8
1318421	P.G	40	0	40	10	10	1318421	Soil	12	3	10	26	56	17	193	1.2	30	4	402	3.58	45	1	8
1318422	P.G	30	0	40	10	20	1318422	Soil	8	4	9	13	84	16	148	1.2	27	6	427	5.16	44	1	35
1318423	P.G	40	0	40	10	10	1318423	Soil	11	4	8	13	63	14	202	1.1	36	11	600	3.99	34	1	25
1318424	P.G	30	0	40	10	20	1318424	Soil	9	4	12	15	95	16	228	1.6	40	16	810	4.31	35	1	19
1318425	P.G	30	20	30	10	10	1318425	Soil	12	4	11	10	107	11	397	0.4	57	16	891	4.23	32	1	17
1318426	P.G	30	20	30	10	10	1318426	Soil	15	1.5	12	25	89	23	339	2	46	9	646	6.41	67	1	66
1318427	P.G	40	10	30	10	10	1318427	Soil	15	3	12	18	112	19	184	1.1	42	9	730	4.53	35	1	27
1318428	P.G	30	0	40	10	20	1318428	Soil	10	1.5	10	16	93	15	474	0.7	55	9	643	5.41	47	1	22
1318429	P.G	30	10	40	10	10	1318429	Soil	7	3	9	5	367	33	1070	0.5	291	370	10000	5.95	35	3	47
1318430	P.G	40	0	40	10	10	1318430	Soil	9	1.5	12	11	128	29	413	1	66	20	1905	5.34	49	1	41
1318431	P.G	30	20	30	10	10	1318431	Soil	11	1.5	11	9	113	16	285	0.7	60	15	769	3.96	28	1	22
1318432	P.G	40	10	30	10	10	1318432	Soil	14	1.5	19	6	163	13	230	0.8	82	23	895	4.7	29	1	27
1318433	P.G	20	20	30	10	20	1318433	Soil	17	1.5	17	16	102	17	190	0.7	40	7	714	3.58	33	1	51
1318434	P.G	30	20	20	10	20	1318434	Soil	16	1.5	15	15	119	16	363	0.8	61	13	787	3.96	35	1	41
1318435	P.G	30	10	30	10	20	1318435	Soil	15	6	35	3	189	10	138	0.4	85	26	971	3.91	21	1	13
1318436	P.G	60	0	20	10	10	1318436	Soil	4	1.5	21	4	145	10	132	0.4	78	32	850	3.68	14	1	20
1318437	P.G	30	20	20	10	20	1318437	Soil	10	4	18	4	142	8	155	0.5	65	20	840	4.28	24	1	16
1318451	AO						1318451	Soil	8	1.5	14	0.5	164	6	66	0.15	76	17	613	3.2	8	1	35
1318452	AO						1318452	Soil	9	1.5	16	0.5	166	5	70	0.15	79	21	839	3.03	9	1	41
1318453	AO						1318453	Soil	18	1.5	9	13	103	23	380	1.2	67	16	887	4.36	54	1	37

Sample_ID	Logged_By	% Rock	% Clay	% Sand	Organics	% Silt	Assays_Sample	Type	Au_PPB	Pt_PPB	Pd_PPB	Mo_PPM	Cu_PPM	Pb_PPM	Zn_PPM	Ag_PPM	Ni_PPM	Co_PPM	Mn_PPM	Fe_PER	As_PPM	Th_PPM	Sr_PPM
1318454	AO						1318454	Soil	13	1.5	7	10	92	13	300	0.9	56	18	1127	3.51	39	1	40
1318455	AO						1318455	Soil	10	1.5	8	9	90	15	314	0.6	63	26	1369	3.77	32	1	24
1318456	AO						1318456	Soil	8	1.5	10	7	90	12	247	0.7	64	22	1283	3.76	26	1	28
1318457	AO						1318457	Soil	10	5	10	5	109	13	173	0.6	65	17	827	3.37	22	1	51
1318458	AO						1318458	Soil	10	4	12	4	104	15	144	0.5	60	17	944	2.89	16	1	48
1318459	AO						1318459	Soil	13	6	14	5	122	10	160	0.5	68	15	888	3.33	18	1	38
1318460	AO						1318460	Soil	10	4	12	6	120	14	238	0.8	69	22	1176	4.14	22	1	25
1318461	AO						1318461	Soil	11	1.5	10	6	104	13	182	0.6	67	20	1081	3.51	22	1	30
1318462	AO						1318462	Soil	8	1.5	8	7	91	14	183	0.6	50	13	764	3.44	24	1	30
1318463	AO						1318463	Soil	9	4	9	3	116	15	103	0.4	48	19	942	4.32	62	1	23
1318464	AO						1318464	Soil	11	1.5	10	6	132	15	343	0.7	47	17	980	4.8	55	1	62
1318465	AO						1318465	Soil	7	6	9	4	93	11	103	0.4	42	14	857	3.06	24	1	77
1318466	AO						1318466	Soil	9	7	5	6	79	15	134	0.4	39	17	750	3.76	29	1	43
1318467	AO						1318467	Soil	10	3	6	4	96	12	109	0.15	42	20	826	2.91	191	1	91
1318468	AO						1318468	Soil	8	4	6	4	94	11	118	0.15	41	19	751	2.96	144	1	86
1318469	AO						1318469	Soil	9	1.5	4	5	74	14	134	0.4	43	15	677	4.16	37	1	30
1318470	AO						1318470	Soil	9	5	13	4	204	9	135	0.4	60	29	1197	5.45	93	1	25
1318471	AO						1318471	Soil	8	6	13	6	143	11	176	0.5	52	20	890	4.46	101	1	37
1318472	AO						1318472	Soil	9	5	9	7	116	13	224	0.6	58	16	874	3.07	35	1	58
1318473	AO						1318473	Soil	11	5	8	6	93	27	183	0.6	50	14	711	2.69	24	1	65
1318474	AO						1318474	Soil	13	5	11	9	160	16	201	0.3	87	26	1320	3.93	13	1	15
1318475	AO						1318475	Soil	9	6	10	5	140	10	159	0.4	82	25	1079	3.68	17	1	34
1318476	AO						1318476	Soil	19	13	20	6	127	13	190	0.6	68	18	677	3.36	20	1	39
1318477	AO						1318477	Soil	I.S.	I.S.	I.S.	6	122	15	182	0.4	74	20	735	3.47	18	1	25
1318478	AO						1318478	Soil	14	4	17	6	138	14	195	0.6	84	26	1112	3.71	19	1	26
1318479	AO						1318479	Soil	14	3	14	6	153	14	177	0.6	86	26	1156	3.71	18	1	26
1318480	AO						1318480	Soil	I.S.	I.S.	I.S.	6	129	8	196	0.6	76	15	675	3.33	21	1	31
1318481	AO						1318481	Soil	I.S.	I.S.	I.S.	7	113	17	218	0.5	79	24	1141	3.3	20	1	29
1318482	AO						1318482	Soil	13	8	14	6	123	8	554	0.5	141	26	1837	3.86	21	1	31
1318483	AO						1318483	Soil	12	7	9	7	109	10	233	0.5	76	18	756	3.61	22	1	18
2064451	GD	20	60	20			2064451	Soil	7	7	15	0.5	90	8	63	0.5	294	30	735	3.76	11	1	81
2064452	GD	20	50	30	20		2064452	Soil	3	3	8	2	120	10	82	0.15	108	25	763	3.8	13	1	33
2064453	GD	10	50	20	20		2064453	Soil	7	1.5	14	1	163	10	89	0.6	212	31	816	4.15	14	1	34
2064454	GD		20	30	10	40	2064454	Soil	6	1.5	35	1	103	10	91	0.15	227	27	812	3.78	14	1	40
2064455	GD	10	50		20	20	2064455	Soil	6	5	6	2	107	14	97	0.15	213	31	852	3.7	14	1	46
2064456	GD	20	30		20	30	2064456	Soil	4	1.5	9	2	142	11	91	0.15	166	29	847	3.61	12	1	44
2064457	GD	20	40	10	30		2064457	Soil	8	4	11	1	130	9	91	0.15	96	23	745	3.53	14	1	47

Sample_ID	Logged_By	% Rock	% Clay	% Sand	Organics	% Silt	Assays_Sample	Type	Au_PPB	Pt_PPB	Pd_PPB	Mo_PPM	Cu_PPM	Pb_PPM	Zn_PPM	Ag_PPM	Ni_PPM	Co_PPM	Mn_PPM	Fe_PER	As_PPM	Th_PPM	Sr_PPM
2064458	GD	20	40	10	30		2064458	Soil	7	8	36	1	368	10	60	0.15	128	22	580	3.47	10	1	38
2064459	GD	20		30	10	40	2064459	Soil	8	4	17	1	212	10	66	0.5	250	30	805	4.39	10	1	24
2064460	GD	10	40		20	30	2064460	Soil	14	6	18	0.5	197	8	65	0.4	446	47	898	4.63	12	1	24
2064461	GD		40	20	20	20	2064461	Soil	8	1.5	6	1	61	10	62	0.15	139	23	651	3.48	11	1	44
2064462	GD	10	20	20	10	20	2064462	Soil	10	1.5	9	0.5	95	7	62	0.15	317	28	770	3.75	9	1	103
2064463	GD	10	50	10	10	20	2064463	Soil	13	1.5	12	0.5	127	8	63	0.15	213	28	771	3.7	11	1	42
2064464	GD		60	20		20	2064464	Soil	7	1.5	26	1	217	8	72	0.15	267	32	1925	4.11	11	1	33
2064465	GD		40		40	20	2064465	Soil	7	5	16	0.5	121	6	69	0.15	115	24	734	3.63	7	1	32
2064466	GD		70	10		20	2064466	Soil	9	4	12	1	111	7	82	0.15	139	30	981	4.12	7	1	28
2064467	GD	10	70			20	2064467	Soil	204	4	13	0.5	125	7	82	0.15	182	26	1018	3.81	6	1	33
2064468	GD		70	10		20	2064468	Soil	5	1.5	11	0.5	109	7	79	0.15	144	29	934	4	8	1	33
2064469	GD		60		40		2064469	Soil	9	3	12	0.5	133	7	81	0.15	167	27	1303	3.59	8	1	44
2064470	GD						2064470	Soil	5	1.5	11	0.5	122	7	93	0.15	132	26	746	3.94	6	1	34
2064471	GD		70		30		2064471	Soil	6	1.5	14	1	155	8	89	0.15	138	24	759	3.47	6	1	41
2064472	GD	20		20		60	2064472	Soil	22	4	5	5	71	8	161	0.15	39	15	530	4.03	20	1	25
2064473	GD		40	60			2064473	Soil	6	4	7	5	120	9	177	0.3	51	19	735	4.19	20	1	31
2064474	GD		40	60			2064474	Soil	6	1.5	7	6	138	9	212	0.15	59	22	938	4.36	25	1	30
2064475	GD			70	30		2064475	Soil	5	1.5	5	4	94	7	143	0.3	36	18	677	3.8	18	1	29
2064476	GD		20	80			2064476	Soil	6	3	5	5	90	9	172	0.15	43	20	765	4.04	20	1	32
2064477	GD			70	30		2064477	Soil	5	4	5	4	101	8	149	0.5	51	18	771	4.07	19	1	31
2064478	GD			50		50	2064478	Soil	6	1.5	6	5	90	8	171	0.5	47	18	724	4.16	20	1	32
2064479	GD		40			60	2064479	Soil	6	1.5	5	5	79	9	170	0.4	44	20	813	4.39	23	1	34
2064480	GD			30		70	2064480	Soil	5	1.5	4	5	64	7	181	0.15	38	19	775	4.11	20	1	31
2064481	GD			30		70	2064481	Soil	5	1.5	5	5	69	8	198	0.15	40	19	833	4.05	20	1	32
2064482	GD			50		50	2064482	Soil	6	4	7	6	113	8	202	0.6	52	20	850	4.3	23	1	38
2064483	GD		50	20	30		2064483	Soil	6	1.5	3	3	63	8	321	0.3	43	20	1316	3.54	18	1	39
2064484	GD			40		60	2064484	Soil	9	3	6	4	111	8	169	0.15	49	19	774	3.87	18	1	33
2064485	GD			40		60	2064485	Soil	7	1.5	5	5	91	7	197	0.15	43	19	804	3.98	20	1	32
2064486	GD						2064486	Soil	9	6	37	6	193	7	103	0.3	52	21	870	4.59	16	1	42
2064487	GD		70			30	2064487	Soil	120	4	18	3	173	6	134	0.15	54	17	599	3.45	6	1	74
2064488	GD						2064488	Soil	4	1.5	7	5	71	6	154	0.15	37	14	556	3.63	17	1	26
2064489	GD			60		40	2064489	Soil	6	1.5	8	5	144	7	182	0.15	57	21	998	3.99	19	1	35
2064490	GD			60		40	2064490	Soil	7	1.5	5	5	91	8	157	0.3	41	18	722	4.1	20	1	28
2064491	GD			60	20	20	2064491	Soil	6	1.5	5	5	96	8	167	0.15	41	18	676	3.99	21	1	31
2064492	GD			60		40	2064492	Soil	6	1.5	4	4	87	7	169	0.4	39	17	682	3.92	19	1	31
2064493	GD		20	60		20	2064493	Soil	8	1.5	6	6	110	8	204	0.7	52	19	852	4.14	23	1	35
2064494	GD			60	20	20	2064494	Soil	8	1.5	7	5	114	8	209	0.4	53	18	706	4.41	21	1	40
2064495	GD			70		30	2064495	Soil	6	1.5	7	5	114	8	150	0.3	120	28	820	4.55	30	1	30
2064496	GD						2064496	Soil	5	1.5	5	4	84	6	168	0.6	40	16	635	3.74	16	1	26
2064497	GD			60		40	2064497	Soil	I.S.	I.S.	I.S.	4	93	8	164	0.15	43	18	712	3.67	19	1	31
2064498	GD		70			30	2064498	Soil	I.S.	I.S.	I.S.	0.5	227	6	89	0.15	118	24	675	3.38	7	1	40
2064499	GD			60		40	2064499	Soil	I.S.	I.S.	I.S.	4	91	7	146	0.15	44	16	706	3.54	16	1	26
2064500	GD			80		20	2064500	Soil	9	1.5	12	5	96	8	167	0.3	47	19	754	3.73	18	1	30
2064751	GD	20	40	40			2064751	Soil	12	8	10	9	196	13	419	0.7	92	26	1324	4.69	48	1	62

Sample_ID	Logged_By	% Rock	% Clay	% Sand	Organics	% Silt	Assays_Sample	Type	Au_PPB	Pt_PPB	Pd_PPB	Mo_PPM	Cu_PPM	Pb_PPM	Zn_PPM	Ag_PPM	Ni_PPM	Co_PPM	Mn_PPM	Fe_PER	As_PPM	Th_PPM	Sr_PPM
2064752	GD	20	20	40			2064752	Soil	12	13	7	23	184	17	790	1.6	103	25	1230	5.69	63	1	57
2064753	GD	30	25	40			2064753	Soil	18	7	23	10	201	18	427	1.1	104	27	1145	5.38	42	1	31
2064754	GD	20	50	30			2064754	Soil	I.S.	I.S.	I.S.	6	143	12	210	0.4	59	21	867	4.89	50	1	22
2064755	GD	20	50	30			2064755	Soil	I.S.	I.S.	I.S.	5	202	12	234	0.5	99	30	1060	5.28	63	1	31
2064756	GD	20	50	30			2064756	Soil	12	6	15	5	206	15	213	0.4	74	30	1111	5.17	77	1	23
2064757	GD	20	50	30			2064757	Soil	13	8	12	8	129	16	200	0.9	53	17	820	3.63	27	1	34
2064758	GD	20	50	30			2064758	Soil	I.S.	I.S.	I.S.	11	150	11	409	0.7	74	17	788	4.38	40	1	19
2064759	GD	25	40	20	15		2064759	Soil	9	3	12	8	141	12	394	0.9	74	15	761	3.57	27	1	11
2064760	GD	20	50	30			2064760	Soil	9	3	9	12	130	14	327	0.9	50	14	868	4.38	39	1	24
2064761	GD	25	40	35			2064761	Soil	12	6	8	10	117	10	298	0.8	43	14	805	3.92	36	1	20
2064762	GD	20	50	30			2064762	Soil	9	5	8	12	213	11	651	1	87	35	2152	4.3	40	1	18
2064763	GD	20	40	40			2064763	Soil	I.S.	I.S.	I.S.	18	144	15	667	1.8	71	11	473	4.83	46	1	58
2064764	GD	30	30	40			2064764	Soil	13	6	15	29	69	25	249	2.1	44	7	741	5.35	75	1	28
2064765	GD	30	30	40			2064765	Soil	14	5	14	10	129	27	253	1.4	46	20	1796	5.74	60	1	14
2064766	GD	25	35	40			2064766	Soil	10	4	13	19	159	12	752	1.1	74	15	956	6.82	62	1	13
2064767	GD	20	40	40			2064767	Soil	12	1.5	11	12	126	14	382	1.1	64	23	1211	4.16	35	1	27
2064768	GD	25	25	50			2064768	Soil	9	1.5	10	13	96	12	248	0.8	42	9	650	4.68	39	1	19
2064769	GD	25	35	40			2064769	Soil	9	5	12	23	146	19	289	1.5	39	8	519	4.98	79	1	21
2064770	GD	25	45	30			2064770	Soil	9	1.5	9	14	87	14	256	1.3	44	12	639	4.41	39	1	22
2064771	GD	40	30	30			2064771	Soil	13	5	12	23	84	22	180	1.6	37	12	646	6.98	78	1	32
2064772	GD	30	20	50			2064772	Soil	7	5	12	24	84	14	193	1.4	29	7	457	6.11	67	1	18
2064773	GD	25	35	40			2064773	Soil	8	4	6	10	71	10	223	0.9	41	19	924	3.75	29	1	21
2064774	GD	25	35	40			2064774	Soil	10	7	18	19	289	12	883	2.5	168	52	2066	5.39	55	1	10
2064775	GD	30	30	40			2064775	Soil	11	3	8	10	87	11	262	0.9	54	15	950	4.41	35	1	29
2064776	GD	25	25	50			2064776	Soil	9	3	6	14	104	19	337	1	52	30	1398	4.05	35	1	26
2064777	GD	30	30	40			2064777	Soil	10	3	9	10	124	16	434	0.8	76	27	1466	3.93	33	1	23
2064778	GD	25	25	50			2064778	Soil	8	4	16	7	154	17	246	0.8	77	44	8165	4.37	41	1	46
2064779	GD	30	30	40			2064779	Soil	19	1.5	17	6	141	6	248	0.6	76	19	1097	3.61	22	1	17
2064780	GD	30	20	50			2064780	Soil	15	7	15	6	182	11	278	0.7	98	25	1027	4.88	27	1	28
2064781	GD	30	20	50			2064781	Soil	12	4	14	6	162	8	260	0.6	89	23	990	4.56	26	1	25
2064782	GD	25	50	20			2064782	Soil	11	5	12	7	161	10	270	0.6	89	24	1002	4.64	28	1	17
2064783	GD	30	40	30			2064783	Soil	12	7	21	9	186	9	289	0.6	99	26	1067	4.77	25	1	10
2064784	GD	30	50	20			2064784	Soil	14	5	19	9	124	11	212	0.7	57	18	1250	3.96	28	1	14
2064785	GD	25	40	35			2064785	Soil	7	5	12	5	116	5	160	0.4	63	21	827	3.45	18	1	21
2064786	GD	30	30	40			2064786	Soil	6	11	44	3	205	6	139	0.4	88	37	885	3.75	15	1	24
2064787	GD	30	20	50			2064787	Soil	7	9	25	3	181	6	135	0.3	77	30	794	3.72	15	1	21
2064788	GD	20	20	60			2064788	Soil	76	13	49	2	254	4	125	0.4	131	55	978	4.09	12	1	21
2064789	GD	30	10	60			2064789	Soil	I.S.	I.S.	I.S.	3	190	7	134	0.3	92	38	965	3.93	12	1	22
2064790	GD	35	25	40			2064790	Soil	I.S.	I.S.	I.S.	17	87	15	311	1.2	46	10	612	3.9	46	1	86
2064791	GD	25	25	50			2064791	Soil	I.S.	I.S.	I.S.	8	165	9	279	0.5	77	21	1103	4.89	59	1	33
2064792	GD	20	50	30			2064792	Soil	I.S.	I.S.	I.S.	4	164	10	169	0.4	73	25	1026	5.01	77	1	16
2064793	GD	25	50	25			2064793	Soil	12	4	19	4	250	13	123	0.15	69	43	936	5.54	301	1	65
2064794	GD	20	50	30			2064794	Soil	12	5	16	7	121	9	188	0.7	57	17	741	3.89	36	1	70
2064795	GD	30	60	10			2064795	Soil	10	4	18	8	230	11	238	0.5	142	34	1889	4.88	30	1	43

Sample_ID	Logged_By	% Rock	% Clay	% Sand	Organics	% Silt	Assays_Sample	Type	Au_PPB	Pt_PPB	Pd_PPB	Mo_PPM	Cu_PPM	Pb_PPM	Zn_PPM	Ag_PPM	Ni_PPM	Co_PPM	Mn_PPM	Fe_PER	As_PPM	Th_PPM	Sr_PPM
2064796	GD	30	40	30			2064796	Soil	13	10	27	5	222	16	151	0.15	112	45	2296	4.67	25	1	14
2064797	GD	20	60	20			2064797	Soil	9	4	18	7	177	11	148	0.5	60	33	1379	5.86	512	1	32
2064798	GD	20	60	20			2064798	Soil	12	3	12	5	115	9	163	0.7	56	21	894	4.33	29	1	25
2064901	GD			60	10	30	2064901	Soil	7	3	9	7	68	8	209	0.5	42	18	713	3.85	21	1	32
2064902	GD			60	10	30	2064902	Soil	12	1.5	13	6	113	11	216	0.4	61	26	909	4.6	23	1	41
2064903	GD	20	60	20			2064903	Soil	14	7	13	7	97	7	273	0.5	71	17	796	4	24	1	19
2064904	GD		50	30		20	2064904	Soil	10	1.5	10	9	114	9	263	0.7	67	16	765	4.4	29	1	28
2064905	GD		30	60		10	2064905	Soil	12	5	10	20	112	14	674	2.2	75	8	278	5	62	1	48
2064906	GD	20	30	50			2064906	Soil	13	1.5	12	11	109	12	390	1.5	68	23	1081	4.65	40	1	30
2064907	GD	10		50		30	2064907	Soil	14	4	9	14	110	14	502	1.1	83	21	1357	4.88	66	1	25
2064908	GD	20		50		30	2064908	Soil	10	5	9	13	142	18	396	1.3	70	20	1759	4.6	48	1	45
2064909	GD	20	30	50			2064909	Soil	5	1.5	10	7	84	10	217	0.6	60	24	1214	3.91	23	1	26
2064910	GD	20	30	50			2064910	Soil	8	3	20	5	173	7	214	0.6	110	28	978	4.82	18	1	30
2064911	GD	20	30	50			2064911	Soil	16	1.5	9	10	129	13	388	0.7	88	25	1729	4.15	39	1	52
2064912	GD	20	20	60			2064912	Soil	8	1.5	9	7	112	9	267	0.7	56	14	681	3.98	34	1	41
2064913	GD	20	40	40			2064913	Soil	10	5	11	5	128	8	255	0.5	75	23	995	4.62	38	1	38
2064914	GD	20	50	30			2064914	Soil	9	5	13	9	122	10	326	0.7	56	18	881	4.75	42	1	36
2064915	GD	20	30	30	20		2064915	Soil	9	1.5	8	4	107	11	217	0.6	54	22	992	4.21	37	1	38
2064916	GD	20	50	30			2064916	Soil	11	4	10	5	74	11	163	0.4	43	19	845	3.71	27	1	38
2064917	GD	20	40	40			2064917	Soil	9	1.5	11	6	148	12	207	0.8	51	24	971	5.16	55	1	34
2064918	GD	70		30			2064918	Soil	7	6	22	3	208	8	132	0.4	58	26	986	4.95	62	1	27
2064919	GD	20	50	30			2064919	Soil	10	1.5	9	3	131	8	123	0.7	49	20	885	4.93	64	1	19
2064920	GD	20	30	50			2064920	Soil	7	1.5	13	6	206	15	160	0.15	63	36	1198	5.8	172	1	40
2064921	GD	20	30	50			2064921	Soil	9	5	13	4	174	15	143	0.3	58	32	1243	5.43	180	1	39
2064922	GD	20	50	30			2064922	Soil	6	1.5	5	2	89	13	100	0.15	51	35	2039	5.1	119	1	37
2064923	GD	20	40	40			2064923	Soil	7	1.5	10	5	108	9	179	0.5	47	19	859	4.44	52	1	46
2064924	GD	20	60			20	2064924	Soil	13	1.5	11	17	101	13	597	1.2	57	11	594	4.62	55	1	24
2064925	GD	10	50	20	20		2064925	Soil	13	4	13	6	114	8	189	0.8	58	23	881	3.96	22	1	38
2064926	GD	30	40	30			2064926	Soil	6	1.5	6	3	79	11	208	0.15	56	21	1131	2.56	10	1	15
2064927	GD	20	60	20			2064927	Soil	18	7	16	14	149	15	521	1.1	65	12	783	3.39	36	1	88
2064928	GD	20	50	30			2064928	Soil	44	7	28	9	169	10	271	0.7	100	31	1084	4.52	25	1	30
2064929	GD	20	40	30	10		2064929	Soil	16	13	33	3	189	6	161	0.5	170	43	1487	5.01	13	1	17
2064930	GD	20	50	20	10		2064930	Soil	12	8	24	6	164	7	197	0.5	101	27	1059	4.25	17	1	20
2064931	GD	30	20	50			2064931	Soil	6	10	28	4	182	7	146	0.4	96	28	937	3.8	12	1	21
2064932	GD	20	40	20	10		2064932	Soil	16	6	16	12	130	11	266	0.7	78	16	743	4.19	31	1	23
2064933	GD	25	45	20	10		2064933	Soil	12	6	8	23	262	12	1962	1.8	184	32	769	12.65	98	1	11
2064934	GD	20	50	30			2064934	Soil	10	5	15	5	136	10	216	0.5	81	21	984	4.25	21	1	26
2064935	GD	30	30	30	10		2064935	Soil	10	6	13	25	97	21	345	2.4	53	5	188	6.76	79	1	78
2064936	GD	20		40	10	30	2064936	Soil	9	6	11	9	99	11	264	0.7	63	19	970	3.89	26	1	21
2064937	GD	20	30	40	10		2064937	Soil	7	3	12	12	119	12	411	1.1	71	18	940	4.68	35	1	26
2064938	GD	20	50	30			2064938	Soil	9	6	11	10	110	11	383	0.8	60	19	1070	4.28	31	1	21
2064951	AO						2064951	Soil	9	1.5	11	1	104	8	84	0.5	244	31	795	4.09	13	1	36
2064952	AO						2064952	Soil	6	5	10	1	93	7	78	0.15	380	38	822	3.87	11	1	34
2064953	AO						2064953	Soil	11	4	8	1	76	7	78	0.15	182	32	864	3.81	12	1	35

Sample_ID	Logged_By	% Rock	% Clay	% Sand	Organics	% Silt	Assays_Sample	Type	Au_PPB	Pt_PPB	Pd_PPB	Mo_PPM	Cu_PPM	Pb_PPM	Zn_PPM	Ag_PPM	Ni_PPM	Co_PPM	Mn_PPM	Fe_PER	As_PPM	Th_PPM	Sr_PPM
2064954	AO						2064954	Soil	9	5	7	1	65	8	71	0.6	274	28	778	4.03	13	1	29
2064955	AO						2064955	Soil	6	1.5	17	1	236	9	74	0.15	214	26	629	3.72	10	1	35
2064956	AO						2064956	Soil	11	3	9	1	81	11	69	0.15	188	25	696	3.64	11	1	32
2064957	AO						2064957	Soil	9	3	9	1	96	9	70	0.15	172	26	789	3.61	11	1	41
2064958	AO						2064958	Soil	5	4	18	0.5	178	6	73	0.8	149	22	596	3.63	7	1	41
2064959	AO						2064959	Soil	8	4	12	0.5	105	5	77	0.15	119	23	672	3.28	6	1	57
2064960	AO						2064960	Soil	7	1.5	11	0.5	93	7	89	0.15	110	24	746	3.48	7	1	45
2064961	AO						2064961	Soil	5	3	10	0.5	90	7	89	0.15	126	25	841	3.5	7	1	39
2064962	AO						2064962	Soil	6	4	13	0.5	121	8	108	0.15	132	26	813	3.54	8	1	45
2064963	AO						2064963	Soil	7	1.5	10	0.5	112	7	88	0.15	131	22	788	3.14	7	1	48
2064964	AO						2064964	Soil	8	5	16	0.5	244	9	89	0.7	104	24	818	3.92	7	1	37
2064965	AO						2064965	Soil	7	3	6	1	112	8	114	0.15	56	21	612	3.83	8	1	26
2064966	AO						2064966	Soil	6	1.5	11	1	164	6	93	0.15	67	22	722	3.82	6	1	30
2064967	AO						2064967	Soil	8	4	16	0.5	225	6	96	0.7	97	27	848	4.65	6	1	29
2064968	AO						2064968	Soil	12	6	17	0.5	250	7	90	0.15	85	26	810	4.3	4	1	31
2064969	AO						2064969	Soil	4	1.5	13	0.5	164	6	101	0.15	107	25	838	3.62	6	1	40
2064970	AO						2064970	Soil	14	1.5	12	0.5	167	6	95	0.15	109	23	805	3.28	6	1	43
2064971	AO						2064971	Soil	12	4	14	0.5	153	6	90	0.15	98	25	1027	3.55	6	1	39
2064972	AO						2064972	Soil	I.S.	I.S.	I.S.	1	245	6	81	0.15	70	12	489	2.01	5	1	67
2064973	AO						2064973	Soil	12	1.5	17	0.5	149	7	92	0.5	77	23	803	3.55	8	1	40
2064974	AO						2064974	Soil	25	1.5	8	1	107	7	97	0.15	66	20	654	3.69	7	1	33
2064975	AO						2064975	Soil	19	5	18	1	203	10	76	0.15	240	27	766	3.81	11	1	49
2064976	AO						2064976	Soil	8	1.5	6	1	94	9	67	0.5	339	31	697	3.92	13	1	33
2064977	AO						2064977	Soil	9	5	15	1	140	9	72	0.5	389	37	948	4.3	11	1	31
2064978	AO						2064978	Soil	7	1.5	6	1	72	10	76	0.15	133	25	665	3.71	14	1	46
2064979	AO						2064979	Soil	6	3	8	1	85	10	80	0.15	142	23	790	3.52	14	1	50
2064980	AO						2064980	Soil	7	6	19	1	205	11	95	0.15	198	26	775	3.89	12	1	49
2064981	AO						2064981	Soil	6	4	12	1	139	11	84	0.15	189	25	765	3.73	10	1	46
2064982	AO						2064982	Soil	7	4	13	0.5	116	8	76	0.15	173	21	595	3.01	9	1	56
2064983	AO						2064983	Soil	5	7	14	0.5	139	8	82	0.15	217	25	661	3.46	9	1	54
2064984	AO						2064984	Soil	6	3	18	0.5	206	8	84	0.15	135	22	647	3.36	9	1	55
2064985	AO						2064985	Soil	8	5	12	0.5	111	7	74	0.15	136	23	684	3.4	8	1	41
2064986	AO						2064986	Soil	5	1.5	10	0.5	143	8	107	0.15	94	22	720	3.48	7	1	38
2064987	AO						2064987	Soil	7	5	15	0.5	320	10	113	0.15	73	26	979	4.55	5	1	22
2064988	AO						2064988	Soil	5	8	16	0.5	268	4	79	0.15	62	25	808	4.25	4	1	17

Sample_ID	Logged_By	% Rock	% Clay	% Sand	Organics	% Silt	Assays_Sample	Type	Au_PPB	Pt_PPB	Pd_PPB	Mo_PPM	Cu_PPM	Pb_PPM	Zn_PPM	Ag_PPM	Ni_PPM	Co_PPM	Mn_PPM	Fe_PER	As_PPM	Th_PPM	Sr_PPM
2064989	AO						2064989	Soil	6	5	15	1	301	6	112	0.7	64	26	872	4.46	7	1	34
2064990	AO						2064990	Soil	9	5	8	1	196	7	99	0.15	54	22	796	3.94	7	1	30
2064991	AO						2064991	Soil	4	1.5	5	1	110	8	128	0.5	47	20	707	3.76	9	1	28
2064992	AO						2064992	Soil	5	5	20	0.5	289	5	106	0.15	80	28	899	4.42	6	1	38
2064993	AO						2064993	Soil	7	5	19	0.5	242	6	101	0.8	89	29	956	4.34	6	1	37
2064994	AO						2064994	Soil	6	7	22	0.5	280	6	95	0.8	87	28	978	4.47	6	1	32
2064995	AO						2064995	Soil	5	6	17	1	208	7	87	0.7	74	24	1097	3.93	6	1	34
2064996	AO						2064996	Soil	5	4	10	1	147	6	72	0.15	88	21	743	3.82	7	1	30
2064997	AO						2064997	Soil	5	5	14	0.5	268	6	97	0.6	119	20	665	3.34	7	1	55
2064998	AO						2064998	Soil	8	3	13	0.5	190	6	81	0.7	137	22	713	3.35	6	1	49
2064999	AO						2064999	Soil	5	1.5	12	0.5	133	5	80	0.15	100	21	593	3.43	5	1	35
2065000	AO						2065000	Soil	6	5	14	0.5	152	5	77	0.7	80	20	786	3.43	7	1	40

Sample_ID	Cd_PPM	Sb_PPM	Bi_PPM	V_PPM	Ca_PCT	P_PCT	La_PPM	Cr_PPM	Mg_PCT	Ba_PPM	Ti_PCT	B_PPM	Al_PCT	Na_PCT	K_PCT	W_PPM	S_PER	Hg_PPM	Tl_PPM	Ga_PPM	Sc_PPM
1318401	1.1	1.5	1.5	80	0.54	0.044	12	65	1.6	215	0.049	10	2.19	0.005	0.06	1	0.06	0.5	2.5	2.5	8
1318402	1.7	4	1.5	58	0.23	0.086	16	85	1.07	280	0.031	10	1.64	0.01	0.06	1	0.17	0.5	2.5	2.5	7
1318403	1.3	1.5	1.5	83	2.29	0.076	5	246	2.12	137	0.068	10	2.38	0.005	0.06	1	0.025	0.5	2.5	2.5	5
1318404	0.5	1.5	1.5	95	0.19	0.062	10	72	1.68	195	0.025	10	2.41	0.005	0.04	1	0.025	0.5	2.5	2.5	7
1318405	1.8	1.5	1.5	89	0.57	0.036	13	60	1.66	179	0.044	10	2.18	0.005	0.05	1	0.025	0.5	2.5	2.5	10
1318406	1.1	1.5	1.5	59	0.46	0.054	7	156	1.71	108	0.025	10	2.09	0.005	0.05	1	0.06	0.5	2.5	2.5	2.5
1318407	1.5	1.5	1.5	45	0.44	0.067	9	108	1.35	109	0.02	10	1.65	0.005	0.05	1	0.06	0.5	2.5	2.5	2.5
1318408	1.2	1.5	1.5	43	0.15	0.058	9	58	0.95	95	0.017	10	1.38	0.005	0.04	1	0.025	0.5	2.5	2.5	2.5
1318409	1.1	1.5	1.5	56	0.26	0.043	11	50	1.11	105	0.036	10	1.69	0.005	0.04	1	0.025	0.5	2.5	2.5	6
1318410	0.9	1.5	1.5	63	0.28	0.036	12	73	1.32	166	0.032	10	1.95	0.005	0.05	1	0.025	0.5	2.5	2.5	6
1318411	1.3	1.5	1.5	46	0.26	0.046	13	61	1	149	0.014	10	1.42	0.005	0.04	1	0.025	0.5	2.5	2.5	2.5
1318412	2.5	1.5	1.5	41	0.19	0.056	13	48	0.85	147	0.015	10	1.17	0.005	0.04	1	0.025	0.5	2.5	2.5	2.5
1318413	1.3	4	1.5	43	0.09	0.067	24	40	0.61	96	0.008	10	1.19	0.005	0.03	1	0.025	0.5	2.5	2.5	2.5
1318414	1.7	7	1.5	46	0.09	0.134	20	28	0.39	254	0.002	10	1.1	0.005	0.06	1	0.11	0.5	2.5	2.5	2.5
1318415	1.7	1.5	1.5	36	0.09	0.065	31	26	1.03	155	0.005	10	1.58	0.005	0.04	1	0.025	0.5	2.5	2.5	2.5
1318416	1	5	1.5	43	0.06	0.076	11	29	0.65	138	0.014	10	1.17	0.005	0.03	1	0.025	0.5	2.5	2.5	2.5
1318417	1.5	3	1.5	45	0.13	0.071	23	52	0.82	90	0.012	10	1.5	0.005	0.04	1	0.025	0.5	2.5	2.5	2.5
1318418	1.2	6	1.5	42	0.04	0.118	12	25	0.65	93	0.013	10	1.28	0.005	0.04	1	0.11	0.5	2.5	2.5	7
1318419	0.7	5	1.5	43	0.09	0.092	31	31	0.67	79	0.01	10	1.37	0.005	0.04	1	0.11	0.5	2.5	2.5	2.5
1318420	1.2	6	1.5	36	0.09	0.097	11	18	0.61	96	0.003	10	1	0.005	0.04	1	0.025	0.5	2.5	2.5	2.5
1318421	0.25	7	1.5	52	0.06	0.086	8	18	0.76	107	0.002	10	1.12	0.005	0.04	1	0.025	0.5	2.5	2.5	5
1318422	0.5	5	1.5	35	0.08	0.111	11	20	0.55	139	0.003	10	1.24	0.005	0.04	1	0.11	0.5	2.5	2.5	7
1318423	0.7	4	1.5	43	0.07	0.071	10	30	0.68	128	0.011	10	1.33	0.005	0.04	1	0.06	0.5	2.5	2.5	2.5
1318424	0.9	5	1.5	46	0.09	0.084	16	37	0.72	108	0.011	10	1.46	0.005	0.04	1	0.06	0.5	2.5	2.5	2.5
1318425	1.5	1.5	1.5	40	0.07	0.072	15	38	0.79	97	0.029	10	1.38	0.005	0.04	1	0.025	0.5	2.5	2.5	2.5
1318426	2.2	7	1.5	38	0.04	0.135	16	22	0.62	129	0.008	10	0.94	0.02	0.07	1	0.2	0.5	2.5	2.5	2.5
1318427	1.3	4	1.5	37	0.11	0.08	14	34	0.62	169	0.006	10	1.1	0.005	0.05	1	0.08	0.5	2.5	2.5	2.5
1318428	4.1	4	1.5	31	0.06	0.088	15	14	0.49	144	0.0005	10	0.88	0.005	0.04	1	0.07	0.5	2.5	2.5	2.5
1318429	16.2	1.5	1.5	37	0.12	0.127	38	21	0.61	558	0.003	10	2.02	0.005	0.04	1	0.025	0.5	2.5	2.5	8
1318430	4.6	5	1.5	35	0.12	0.106	22	26	0.51	320	0.002	10	1.08	0.005	0.05	1	0.07	0.5	2.5	2.5	2.5
1318431	1.6	1.5	1.5	44	0.3	0.062	13	63	0.99	115	0.013	10	1.44	0.005	0.04	1	0.025	0.5	2.5	2.5	2.5
1318432	1.3	1.5	1.5	58	0.38	0.053	11	103	1.5	144	0.024	10	2.1	0.005	0.06	1	0.025	0.5	2.5	2.5	6
1318433	1.9	4	1.5	29	0.11	0.069	19	24	0.65	208	0.004	10	0.83	0.005	0.06	1	0.16	0.5	2.5	2.5	2.5
1318434	4	5	1.5	35	0.15	0.086	20	37	0.82	141	0.01	10	1.08	0.005	0.05	1	0.08	0.5	2.5	2.5	2.5
1318435	0.9	1.5	1.5	52	0.24	0.029	7	119	1.5	97	0.021	10	1.74	0.005	0.03	1	0.025	0.5	2.5	2.5	5
1318436	1.1	1.5	1.5	49	0.4	0.048	7	117	1.54	89	0.019	10	1.77	0.005	0.04	1	0.025	0.5	2.5	2.5	2.5
1318437	0.8	1.5	1.5	63	0.29	0.024	10	86	1.37	141	0.042	10	1.99	0.005	0.05	1	0.025	0.5	2.5	2.5	6
1318451	0.25	1.5	1.5	58	1.08	0.074	5	72	1.2	123	0.053	10	1.55	0.005	0.05	1	0.05	0.5	2.5	2.5	2.5
1318452	0.25	1.5	1.5	52	1.36	0.081	6	66	1.09	140	0.033	10	1.51	0.005	0.04	1	0.07	0.5	2.5	2.5	2.5
1318453	2.3	7	1.5	30	0.45	0.091	12	31	0.4	291	0.006	10	0.74	0.005	0.09	1	0.11	0.5	2.5	2.5	2.5

Sample_ID	Cd_PPM	Sb_PPM	Bi_PPM	V_PPM	Ca_PCT	P_PCT	La_PPM	Cr_PPM	Mg_PCT	Ba_PPM	Ti_PCT	B_PPM	Al_PCT	Na_PCT	K_PCT	W_PPM	S_PER	Hg_PPM	Tl_PPM	Ga_PPM	Sc_PPM
1318454	3.2	4	1.5	32	0.72	0.081	10	34	0.51	310	0.005	10	0.88	0.005	0.06	1	0.1	0.5	2.5	2.5	2.5
1318455	4.2	3	1.5	39	0.35	0.098	11	60	0.78	201	0.007	10	1.11	0.005	0.07	1	0.09	0.5	2.5	2.5	2.5
1318456	3.5	1.5	1.5	49	0.68	0.099	10	76	1.06	181	0.01	10	1.38	0.005	0.06	1	0.09	0.5	2.5	2.5	2.5
1318457	1.9	1.5	1.5	45	1.43	0.074	10	70	0.99	210	0.011	10	1.27	0.005	0.05	1	0.12	0.5	2.5	2.5	2.5
1318458	2.3	1.5	1.5	40	1.45	0.077	10	72	1.01	141	0.009	10	1.2	0.005	0.04	1	0.13	0.5	2.5	2.5	2.5
1318459	1.5	1.5	1.5	52	1.36	0.079	11	92	1.2	192	0.012	10	1.47	0.005	0.05	1	0.11	0.5	2.5	2.5	2.5
1318460	2.1	1.5	1.5	59	0.54	0.056	14	70	1.3	256	0.017	10	1.83	0.005	0.05	1	0.05	0.5	2.5	2.5	2.5
1318461	1.7	1.5	1.5	51	0.6	0.07	12	80	1.17	185	0.014	10	1.51	0.005	0.05	1	0.08	0.5	2.5	2.5	2.5
1318462	1.2	1.5	1.5	46	0.46	0.08	15	50	0.92	200	0.014	10	1.42	0.005	0.05	1	0.07	0.5	2.5	2.5	2.5
1318463	0.6	1.5	1.5	63	0.42	0.051	9	50	1.23	136	0.044	10	1.99	0.005	0.07	1	0.025	0.5	2.5	2.5	6
1318464	1.8	1.5	1.5	44	0.17	0.074	25	23	0.58	213	0.002	10	1.5	0.01	0.06	1	0.15	0.5	2.5	2.5	6
1318465	1.1	1.5	1.5	44	3.46	0.087	10	36	0.9	183	0.008	10	1.24	0.005	0.05	1	0.1	0.5	2.5	2.5	2.5
1318466	0.25	1.5	1.5	51	0.56	0.081	11	43	0.96	230	0.013	10	1.62	0.005	0.05	1	0.08	0.5	2.5	2.5	2.5
1318467	1	3	1.5	35	1.91	0.117	14	30	0.69	190	0.009	10	1.11	0.005	0.08	1	0.17	0.5	2.5	2.5	2.5
1318468	0.8	1.5	1.5	38	1.66	0.11	15	31	0.7	216	0.01	10	1.18	0.005	0.07	1	0.16	0.5	2.5	2.5	2.5
1318469	0.25	1.5	1.5	63	0.31	0.082	8	56	1.03	167	0.036	10	1.9	0.005	0.06	1	0.07	0.5	2.5	2.5	2.5
1318470	1	1.5	1.5	104	0.52	0.05	12	54	2.03	149	0.06	10	2.57	0.005	0.07	1	0.025	0.5	2.5	7	10
1318471	0.9	1.5	1.5	77	0.63	0.062	12	44	1.31	231	0.011	10	1.82	0.005	0.06	1	0.08	0.5	2.5	5	7
1318472	3.7	4	1.5	41	1.09	0.089	13	42	0.82	182	0.008	10	1.14	0.005	0.05	1	0.17	0.5	2.5	2.5	2.5
1318473	2.3	1.5	1.5	33	1.19	0.077	12	43	0.69	167	0.008	10	0.91	0.005	0.05	1	0.18	0.5	2.5	2.5	2.5
1318474	2.4	1.5	1.5	36	0.93	0.051	20	44	1.08	241	0.007	10	1.32	0.005	0.08	1	0.09	0.5	2.5	2.5	2.5
1318475	1.6	1.5	1.5	61	1.46	0.068	10	116	1.46	218	0.016	10	1.72	0.005	0.06	1	0.1	0.5	2.5	2.5	2.5
1318476	1.8	1.5	1.5	51	1.01	0.064	11	87	1.16	212	0.012	10	1.46	0.01	0.05	1	0.15	0.5	2.5	2.5	2.5
1318477	1.6	1.5	1.5	50	0.72	0.076	10	91	1.15	197	0.012	10	1.49	0.005	0.06	1	0.11	0.5	2.5	2.5	2.5
1318478	2.2	1.5	1.5	52	0.65	0.076	11	111	1.29	226	0.015	10	1.72	0.005	0.05	1	0.09	0.5	2.5	2.5	2.5
1318479	2	1.5	1.5	53	0.7	0.071	10	113	1.28	220	0.015	10	1.7	0.005	0.05	1	0.08	0.5	2.5	2.5	2.5
1318480	2.5	1.5	1.5	43	0.88	0.097	13	77	0.94	235	0.01	10	1.32	0.005	0.05	1	0.1	0.5	2.5	2.5	2.5
1318481	3	1.5	1.5	43	1	0.075	12	81	0.93	251	0.01	10	1.28	0.005	0.04	1	0.11	0.5	2.5	2.5	2.5
1318482	7	1.5	1.5	55	1.39	0.072	11	98	1.15	130	0.018	10	1.37	0.005	0.05	1	0.07	0.5	2.5	2.5	6
1318483	1.3	1.5	1.5	51	0.39	0.053	11	85	1.02	133	0.014	10	1.37	0.005	0.05	1	0.025	0.5	2.5	2.5	5
2064451	0.25	1.5	1.5	65	3.13	0.04	7	183	2.66	122	0.088	10	2	0.01	0.07	1	0.025	0.5	2.5	2.5	6
2064452	0.25	1.5	1.5	65	0.62	0.089	8	87	1.3	89	0.078	10	1.85	0.02	0.11	1	0.08	0.5	2.5	2.5	2.5
2064453	0.25	1.5	1.5	71	0.64	0.059	11	97	1.46	128	0.091	10	2.05	0.01	0.09	1	0.025	0.5	2.5	2.5	6
2064454	0.25	1.5	1.5	58	1.01	0.068	9	116	1.68	141	0.076	10	1.77	0.02	0.1	1	0.08	0.5	2.5	2.5	2.5
2064455	0.25	1.5	1.5	58	0.9	0.089	10	88	1.28	147	0.058	10	1.73	0.02	0.1	1	0.1	0.5	2.5	2.5	2.5
2064456	0.25	1.5	1.5	55	0.96	0.093	9	83	1.29	121	0.06	10	1.63	0.02	0.09	1	0.1	0.5	2.5	5	2.5
2064457	0.25	1.5	1.5	57	1.07	0.104	8	74	1.14	146	0.062	10	1.69	0.02	0.11	1	0.11	0.5	2.5	2.5	2.5

Sample_ID	Cd_PPM	Sb_PPM	Bi_PPM	V_PPM	Ca_PCT	P_PCT	La_PPM	Cr_PPM	Mg_PCT	Ba_PPM	Ti_PCT	B_PPM	Al_PCT	Na_PCT	K_PCT	W_PPM	S_PER	Hg_PPM	Tl_PPM	Ga_PPM	Sc_PPM
2064458	0.25	1.5	1.5	60	1	0.083	8	96	1.29	139	0.072	10	1.75	0.01	0.09	1	0.06	0.5	2.5	2.5	5
2064459	0.25	1.5	1.5	77	0.6	0.034	7	166	2.22	91	0.127	10	2.09	0.01	0.1	1	0.025	0.5	2.5	7	6
2064460	0.25	1.5	1.5	80	0.63	0.027	7	281	3.57	90	0.129	10	2.18	0.005	0.08	1	0.025	0.5	2.5	5	8
2064461	0.25	1.5	1.5	56	1.14	0.054	8	102	1.49	134	0.071	10	1.66	0.01	0.08	1	0.05	0.5	2.5	2.5	2.5
2064462	0.25	1.5	1.5	70	4.81	0.029	7	177	2.21	160	0.153	10	1.79	0.01	0.09	1	0.025	0.5	2.5	2.5	7
2064463	0.25	1.5	1.5	58	1.26	0.048	7	131	1.93	134	0.07	10	1.76	0.01	0.07	1	0.05	0.5	2.5	2.5	2.5
2064464	0.25	1.5	1.5	64	0.87	0.068	8	130	1.84	229	0.055	10	1.99	0.01	0.07	1	0.025	0.5	2.5	2.5	5
2064465	0.25	1.5	1.5	65	0.93	0.066	5	101	1.63	121	0.066	10	1.8	0.005	0.06	1	0.025	0.5	2.5	2.5	2.5
2064466	0.25	1.5	1.5	72	0.75	0.067	6	124	1.91	110	0.081	10	2.01	0.005	0.07	1	0.025	0.5	2.5	5	2.5
2064467	0.25	1.5	1.5	69	0.96	0.062	6	106	1.76	114	0.078	10	1.86	0.005	0.09	1	0.025	0.5	2.5	7	2.5
2064468	0.25	1.5	1.5	70	0.87	0.058	7	117	1.81	129	0.063	10	1.96	0.005	0.08	1	0.025	0.5	2.5	2.5	2.5
2064469	0.25	1.5	1.5	60	1.42	0.066	6	101	1.6	145	0.058	10	1.72	0.005	0.09	1	0.07	0.5	2.5	5	2.5
2064470	0.25	1.5	1.5	70	0.98	0.068	5	115	1.85	121	0.08	10	2.04	0.01	0.08	1	0.025	0.5	2.5	6	6
2064471	0.25	1.5	1.5	60	1.36	0.075	6	105	1.63	141	0.058	10	1.86	0.005	0.07	1	0.06	0.5	2.5	6	2.5
2064472	1	1.5	1.5	50	0.38	0.049	6	53	0.98	118	0.057	10	1.64	0.005	0.06	1	0.025	0.5	2.5	2.5	2.5
2064473	0.25	1.5	1.5	47	0.46	0.068	8	53	1.06	114	0.076	10	1.57	0.005	0.05	1	0.025	0.5	2.5	2.5	2.5
2064474	0.25	1.5	1.5	47	0.41	0.076	10	52	0.99	134	0.07	10	1.55	0.005	0.05	1	0.025	0.5	2.5	2.5	2.5
2064475	0.25	1.5	1.5	44	0.5	0.069	6	47	0.94	78	0.075	10	1.4	0.005	0.06	1	0.025	0.5	2.5	2.5	2.5
2064476	0.8	1.5	1.5	46	0.55	0.066	8	49	0.97	93	0.076	10	1.48	0.005	0.06	1	0.025	0.5	2.5	2.5	2.5
2064477	0.25	1.5	1.5	48	0.52	0.07	8	49	1.01	107	0.085	10	1.53	0.005	0.05	1	0.025	0.5	2.5	2.5	2.5
2064478	0.25	1.5	1.5	46	0.51	0.072	7	46	0.99	81	0.082	10	1.5	0.005	0.05	1	0.025	0.5	2.5	2.5	2.5
2064479	0.25	1.5	1.5	50	0.53	0.053	7	56	1.05	103	0.075	10	1.66	0.005	0.06	1	0.025	0.5	2.5	2.5	2.5
2064480	1.2	1.5	1.5	46	0.5	0.089	6	48	0.99	60	0.073	10	1.48	0.005	0.06	1	0.025	0.5	2.5	2.5	2.5
2064481	2.1	1.5	1.5	44	0.53	0.088	6	46	0.96	68	0.068	10	1.44	0.005	0.06	1	0.025	0.5	2.5	2.5	2.5
2064482	1	1.5	1.5	46	0.55	0.074	8	48	0.96	99	0.082	10	1.47	0.005	0.05	1	0.025	0.5	2.5	2.5	2.5
2064483	3.4	1.5	1.5	47	0.81	0.092	6	44	0.79	196	0.043	10	1.37	0.005	0.08	1	0.06	0.5	2.5	2.5	2.5
2064484	0.8	1.5	1.5	46	0.53	0.073	7	52	1	129	0.065	10	1.52	0.005	0.06	1	0.025	0.5	2.5	2.5	2.5
2064485	1.1	1.5	1.5	45	0.54	0.07	6	50	0.99	79	0.072	10	1.47	0.005	0.05	1	0.025	0.5	2.5	2.5	2.5
2064486	0.25	1.5	1.5	72	0.92	0.077	6	76	1.28	116	0.077	10	1.89	0.005	0.05	1	0.06	0.5	2.5	2.5	2.5
2064487	0.25	1.5	1.5	53	1.82	0.082	6	72	1.17	137	0.044	10	1.73	0.01	0.05	1	0.11	0.5	2.5	6	2.5
2064488	0.25	1.5	1.5	43	0.46	0.062	4	45	0.97	44	0.077	10	1.36	0.005	0.04	1	0.025	0.5	2.5	2.5	2.5
2064489	0.9	1.5	1.5	46	0.66	0.069	8	52	1.02	110	0.077	10	1.53	0.005	0.06	1	0.025	0.5	2.5	2.5	2.5
2064490	0.25	1.5	1.5	46	0.43	0.071	7	48	0.98	79	0.083	10	1.52	0.005	0.05	1	0.025	0.5	2.5	2.5	2.5
2064491	0.8	1.5	1.5	45	0.45	0.067	9	47	0.91	89	0.076	10	1.44	0.005	0.07	1	0.025	0.5	2.5	2.5	2.5
2064492	0.6	1.5	1.5	44	0.47	0.066	7	45	0.92	93	0.081	10	1.41	0.005	0.05	1	0.025	0.5	2.5	2.5	2.5
2064493	1	1.5	1.5	46	0.47	0.076	9	45	0.93	92	0.087	10	1.4	0.005	0.05	1	0.025	0.5	2.5	2.5	2.5
2064494	1.4	1.5	1.5	49	0.65	0.077	8	56	1.1	110	0.083	10	1.65	0.005	0.06	1	0.025	0.5	2.5	2.5	2.5
2064495	0.6	1.5	1.5	53	0.5	0.06	7	150	1.3	69	0.088	10	1.75	0.005	0.06	1	0.025	0.5	2.5	2.5	5
2064496	0.6	1.5	1.5	43	0.49	0.06	6	46	0.99	60	0.091	10	1.42	0.005	0.05	1	0.025	0.5	2.5	2.5	2.5
2064497	1.2	1.5	1.5	45	0.52	0.066	6	46	0.98	70	0.075	10	1.41	0.005	0.05	1	0.025	0.5	2.5	2.5	2.5
2064498	0.25	1.5	1.5	62	1.2	0.07	7	78	1.33	140	0.079	10	1.71	0.005	0.06	1	0.025	0.5	2.5	2.5	2.5
2064499	0.9	1.5	1.5	46	0.41	0.063	6	44	0.96	74	0.093	10	1.39	0.005	0.05	1	0.025	0.5	2.5	2.5	2.5
2064500	1	1.5	1.5	46	0.4	0.069	7	44	0.94	79	0.083	10	1.4	0.005	0.04	1	0.025	0.5	2.5	2.5	2.5
2064751	5.7	1.5	1.5	58	0.39	0.076	19	68	1.12	179	0.049	10	1.56	0.005	0.06	1	0.08	0.5	2.5	2.5	5

Sample_ID	Cd_PPM	Sb_PPM	Bi_PPM	V_PPM	Ca_PCT	P_PCT	La_PPM	Cr_PPM	Mg_PCT	Ba_PPM	Ti_PCT	B_PPM	Al_PCT	Na_PCT	K_PCT	W_PPM	S_PER	Hg_PPM	Tl_PPM	Ga_PPM	Sc_PPM
2064752	11.1	7	1.5	42	0.19	0.097	33	27	0.46	215	0.001	10	0.92	0.02	0.04	1	0.2	0.5	2.5	2.5	7
2064753	5.4	5	1.5	56	0.33	0.066	26	109	1.16	347	0.019	10	1.57	0.005	0.04	1	0.09	0.5	2.5	2.5	7
2064754	1.3	1.5	1.5	85	0.18	0.061	11	62	1.5	183	0.026	10	2.16	0.005	0.05	1	0.07	0.5	2.5	6	7
2064755	2.5	1.5	1.5	94	0.45	0.058	11	122	1.92	217	0.052	10	2.39	0.005	0.07	1	0.07	0.5	2.5	7	9
2064756	1.4	1.5	1.5	86	0.31	0.04	12	71	1.79	155	0.053	10	2.34	0.005	0.07	1	0.025	0.5	2.5	7	9
2064757	1.6	4	1.5	44	0.6	0.087	15	49	0.84	203	0.012	10	1.34	0.005	0.04	1	0.09	0.5	2.5	2.5	2.5
2064758	3.5	4	1.5	50	0.19	0.066	14	53	0.94	152	0.023	10	1.3	0.005	0.05	1	0.025	0.5	2.5	2.5	5
2064759	2.9	1.5	1.5	40	0.15	0.043	14	52	0.77	139	0.011	10	1.13	0.005	0.03	1	0.025	0.5	2.5	2.5	2.5
2064760	2	4	1.5	41	0.14	0.075	17	32	0.64	109	0.01	10	1.14	0.005	0.04	1	0.07	0.5	2.5	2.5	2.5
2064761	1.7	4	1.5	35	0.11	0.065	14	23	0.51	80	0.009	10	0.9	0.005	0.03	1	0.06	0.5	2.5	2.5	2.5
2064762	6.8	4	1.5	41	0.06	0.081	43	31	0.59	66	0.008	10	1.29	0.005	0.04	1	0.08	0.5	2.5	2.5	2.5
2064763	6.2	8	1.5	46	0.04	0.105	23	10	0.07	215	0.0005	10	0.48	0.01	0.05	1	0.12	0.5	2.5	2.5	6
2064764	3.7	11	1.5	43	0.09	0.111	11	18	0.55	284	0.085	10	0.96	0.005	0.05	1	0.1	0.5	2.5	2.5	2.5
2064765	1.3	6	1.5	37	0.09	0.105	19	17	0.55	200	0.004	10	1.41	0.005	0.04	1	0.05	0.5	2.5	2.5	2.5
2064766	3.8	7	1.5	40	0.07	0.107	25	24	0.54	140	0.006	10	1.21	0.005	0.03	1	0.025	0.5	2.5	2.5	8
2064767	2.3	4	1.5	47	0.09	0.079	28	34	0.75	120	0.017	10	1.53	0.005	0.06	1	0.07	0.5	2.5	2.5	2.5
2064768	0.9	4	1.5	49	0.1	0.07	11	37	0.75	127	0.017	10	1.45	0.005	0.04	1	0.05	0.5	2.5	2.5	2.5
2064769	1	8	1.5	50	0.05	0.087	15	24	0.57	152	0.004	10	1.29	0.005	0.04	1	0.06	0.5	2.5	2.5	5
2064770	1.2	4	1.5	52	0.1	0.075	10	43	0.8	146	0.011	10	1.49	0.005	0.04	1	0.06	0.5	2.5	2.5	2.5
2064771	1.1	8	1.5	73	0.21	0.209	9	41	0.72	173	0.012	10	1.45	0.005	0.06	1	0.12	0.5	2.5	5	7
2064772	0.9	7	1.5	61	0.1	0.13	7	27	0.55	158	0.004	10	1.22	0.005	0.03	1	0.06	0.5	2.5	2.5	2.5
2064773	1.7	4	1.5	46	0.14	0.067	12	42	0.78	104	0.02	10	1.33	0.005	0.05	1	0.025	0.5	2.5	2.5	2.5
2064774	9.4	7	1.5	44	0.09	0.096	43	24	0.5	84	0.005	10	2.21	0.005	0.03	1	0.07	0.5	2.5	2.5	16
2064775	1.8	5	1.5	48	0.1	0.077	9	42	0.82	137	0.028	10	1.53	0.005	0.05	1	0.07	0.5	2.5	2.5	2.5
2064776	3	4	1.5	44	0.13	0.102	18	34	0.7	122	0.008	10	1.22	0.005	0.04	1	0.07	0.5	2.5	2.5	2.5
2064777	5.4	4	1.5	37	0.24	0.089	23	37	0.68	193	0.009	10	1.13	0.005	0.04	1	0.05	0.5	2.5	2.5	2.5
2064778	2.5	1.5	1.5	49	0.58	0.205	40	48	0.86	539	0.009	10	1.66	0.005	0.04	1	0.07	0.5	2.5	2.5	2.5
2064779	2.5	1.5	1.5	44	0.22	0.033	8	67	1.02	62	0.018	10	1.34	0.005	0.03	1	0.025	0.5	2.5	2.5	2.5
2064780	2	1.5	1.5	70	0.49	0.048	12	116	1.59	195	0.025	10	1.9	0.005	0.05	1	0.025	0.5	2.5	2.5	7
2064781	2.1	1.5	1.5	63	0.48	0.052	11	98	1.44	171	0.028	10	1.73	0.005	0.05	1	0.025	0.5	2.5	2.5	6
2064782	2.3	1.5	1.5	63	0.37	0.044	11	99	1.48	175	0.018	10	1.76	0.005	0.04	1	0.025	0.5	2.5	2.5	6
2064783	2.5	1.5	1.5	72	0.2	0.036	14	121	1.69	193	0.022	10	1.92	0.005	0.04	1	0.025	0.5	2.5	2.5	7
2064784	1.8	1.5	1.5	41	0.28	0.063	16	52	1.04	188	0.005	10	1.39	0.005	0.06	1	0.05	0.5	2.5	2.5	2.5
2064785	1.8	1.5	1.5	47	0.33	0.071	9	103	1.26	119	0.014	10	1.61	0.005	0.04	1	0.06	0.5	2.5	2.5	2.5
2064786	1.6	1.5	1.5	50	0.39	0.06	6	108	1.53	147	0.03	10	1.78	0.005	0.05	1	0.06	0.5	2.5	2.5	2.5
2064787	1.4	1.5	1.5	51	0.34	0.064	6	95	1.38	101	0.03	10	1.68	0.005	0.04	1	0.05	0.5	2.5	2.5	2.5
2064788	1.7	1.5	1.5	52	0.59	0.061	6	120	1.51	96	0.028	10	1.71	0.005	0.04	1	0.08	0.5	2.5	2.5	2.5
2064789	1.4	1.5	1.5	50	0.72	0.063	6	129	1.72	125	0.033	10	1.87	0.005	0.04	1	0.08	0.5	2.5	2.5	2.5
2064790	2.1	7	1.5	39	0.16	0.091	23	41	0.58	249	0.005	10	0.87	0.04	0.07	1	0.29	0.5	2.5	2.5	2.5
2064791	1.6	3	1.5	68	0.16	0.041	13	89	1.37	253	0.027	10	1.79	0.005	0.04	1	0.06	0.5	2.5	2.5	8
2064792	0.9	1.5	1.5	82	0.23	0.031	9	87	1.71	147	0.051	10	2.21	0.005	0.05	1	0.025	0.5	2.5	2.5	8
2064793	0.7	4	1.5	90	2.07	0.112	10	51	2	130	0.072	10	2.36	0.005	0.08	1	0.025	0.5	2.5	6	8
2064794	1.4	3	1.5	54	0.88	0.102	12	61	1.02	240	0.014	10	1.55	0.01	0.06	1	0.17	0.5	2.5	2.5	2.5
2064795	2.3	3	1.5	68	0.22	0.054	15	239	2.05	172	0.025	10	2.2	0.005	0.04	1	0.1	0.5	2.5	2.5	7

Sample_ID	Cd_PPM	Sb_PPM	Bi_PPM	V_PPM	Ca_PCT	P_PCT	La_PPM	Cr_PPM	Mg_PCT	Ba_PPM	Ti_PCT	B_PPM	Al_PCT	Na_PCT	K_PCT	W_PPM	S_PER	Hg_PPM	Tl_PPM	Ga_PPM	Sc_PPM
2064796	1.3	1.5	1.5	68	0.39	0.069	17	126	2.16	81	0.037	10	2.2	0.005	0.05	1	0.06	0.5	2.5	2.5	8
2064797	0.9	6	1.5	84	0.87	0.037	15	54	1.61	220	0.01	10	2.33	0.005	0.07	1	0.025	0.5	2.5	7	10
2064798	1	1.5	1.5	64	0.3	0.054	10	71	1.35	141	0.029	10	2.07	0.005	0.05	1	0.025	0.5	2.5	2.5	5
2064901	2.5	1.5	1.5	42	0.36	0.085	9	47	0.88	134	0.023	10	1.41	0.005	0.04	1	0.08	0.5	2.5	2.5	2.5
2064902	1.8	1.5	1.5	44	0.44	0.079	10	58	1.08	88	0.058	10	1.58	0.005	0.05	1	0.08	0.5	2.5	2.5	2.5
2064903	2.2	1.5	1.5	51	0.25	0.069	11	90	1.14	163	0.016	10	1.48	0.005	0.05	1	0.025	0.5	2.5	2.5	5
2064904	1.3	1.5	1.5	50	0.22	0.054	14	72	0.98	251	0.014	10	1.5	0.005	0.06	1	0.025	0.5	2.5	2.5	6
2064905	1.9	10	1.5	33	0.21	0.073	15	10	0.13	145	0.0005	10	0.39	0.005	0.05	1	0.07	0.5	2.5	2.5	2.5
2064906	2.8	4	1.5	43	0.18	0.076	19	44	0.64	358	0.009	10	1.23	0.005	0.08	1	0.07	0.5	2.5	2.5	2.5
2064907	4.6	7	1.5	29	0.41	0.088	14	22	0.3	298	0.003	10	0.61	0.005	0.05	1	0.08	0.5	2.5	2.5	2.5
2064908	3.7	5	1.5	30	0.19	0.109	34	24	0.55	181	0.006	10	1.17	0.005	0.06	1	0.11	0.5	2.5	2.5	2.5
2064909	2.5	1.5	1.5	48	0.43	0.098	11	76	1.08	197	0.016	10	1.53	0.005	0.06	1	0.08	0.5	2.5	2.5	2.5
2064910	1.6	1.5	1.5	82	0.52	0.056	10	160	2.09	164	0.025	10	2.31	0.005	0.05	1	0.07	0.5	2.5	2.5	9
2064911	3.8	4	1.5	39	0.34	0.063	16	43	0.69	219	0.007	10	0.9	0.005	0.07	1	0.14	0.5	2.5	2.5	2.5
2064912	1.5	1.5	1.5	48	0.59	0.056	13	47	0.93	147	0.019	10	1.34	0.005	0.06	1	0.07	0.5	2.5	2.5	2.5
2064913	2	1.5	1.5	71	0.93	0.078	11	71	1.35	217	0.08	10	1.77	0.005	0.07	1	0.025	0.5	2.5	2.5	8
2064914	2.6	3	1.5	48	0.27	0.047	13	27	0.69	147	0.046	10	1.26	0.005	0.06	1	0.025	0.5	2.5	2.5	6
2064915	1.6	1.5	1.5	55	0.53	0.053	11	37	1.04	176	0.075	10	1.68	0.01	0.07	1	0.025	0.5	2.5	2.5	5
2064916	1	1.5	1.5	49	0.53	0.073	9	45	0.93	176	0.03	10	1.57	0.005	0.06	1	0.07	0.5	2.5	2.5	2.5
2064917	0.9	1.5	1.5	82	0.27	0.045	13	43	1.34	185	0.083	10	2.05	0.005	0.06	1	0.06	0.5	2.5	2.5	8
2064918	0.5	1.5	1.5	90	0.55	0.025	10	68	1.63	104	0.151	10	2.27	0.01	0.09	1	0.025	0.5	2.5	2.5	8
2064919	0.25	1.5	1.5	83	0.29	0.021	12	59	1.43	156	0.113	10	2.17	0.005	0.07	1	0.025	0.5	2.5	2.5	7
2064920	0.25	3	1.5	80	0.59	0.045	25	39	1.57	205	0.015	10	2.52	0.005	0.09	1	0.025	0.5	2.5	8	11
2064921	0.25	1.5	1.5	68	0.76	0.038	22	35	1.5	196	0.022	10	2.4	0.005	0.09	1	0.025	0.5	2.5	6	9
2064922	0.25	1.5	1.5	62	0.58	0.07	12	32	1.28	102	0.057	10	2.27	0.005	0.06	1	0.025	0.5	2.5	2.5	8
2064923	1.4	1.5	1.5	64	0.92	0.061	11	41	1.08	261	0.035	10	1.89	0.005	0.06	1	0.07	0.5	2.5	5	7
2064924	3.5	5	1.5	36	0.08	0.089	6	15	0.29	449	0.003	10	0.56	0.005	0.04	1	0.05	0.5	2.5	2.5	2.5
2064925	1.3	1.5	1.5	51	0.44	0.075	10	76	1.14	197	0.018	10	1.75	0.005	0.05	1	0.08	0.5	2.5	2.5	2.5
2064926	1.5	1.5	1.5	19	0.1	0.035	18	18	0.97	135	0.003	10	1.08	0.005	0.06	1	0.025	0.5	2.5	2.5	2.5
2064927	7.6	5	1.5	38	0.21	0.079	28	18	0.61	239	0.005	10	1.01	0.03	0.07	1	0.23	0.5	2.5	2.5	2.5
2064928	2.5	1.5	1.5	58	0.39	0.051	12	111	1.52	169	0.041	10	1.72	0.02	0.07	1	0.19	0.5	2.5	2.5	5
2064929	0.7	1.5	1.5	86	0.77	0.041	6	274	2.6	113	0.047	10	2.67	0.005	0.06	1	0.05	0.5	2.5	6	9
2064930	1.3	1.5	1.5	64	0.51	0.048	10	139	1.75	190	0.019	10	1.96	0.005	0.06	1	0.09	0.5	2.5	2.5	6
2064931	1.3	1.5	1.5	49	0.66	0.064	7	155	1.62	144	0.024	10	1.91	0.005	0.07	1	0.07	0.5	2.5	2.5	2.5
2064932	1.3	3	1.5	46	0.72	0.077	12	90	1.17	197	0.009	10	1.39	0.005	0.05	1	0.08	0.5	2.5	2.5	2.5
2064933	2.4	7	1.5	26	0.03	0.099	14	9	0.07	139	0.001	10	0.36	0.005	0.05	1	0.46	0.5	8	2.5	9
2064934	1.2	1.5	1.5	61	0.47	0.041	9	92	1.37	170	0.038	10	1.78	0.005	0.05	1	0.025	0.5	2.5	2.5	6
2064935	1	10	1.5	65	0.13	0.181	17	25	0.17	400	0.001	10	0.59	0.03	0.06	1	0.27	0.5	2.5	2.5	2.5
2064936	1.8	1.5	1.5	45	0.28	0.061	12	57	0.95	190	0.028	10	1.31	0.005	0.05	1	0.025	0.5	2.5	2.5	2.5
2064937	2.4	3	1.5	48	0.11	0.08	17	48	0.79	283	0.01	10	1.39	0.005	0.05	1	0.025	0.5	2.5	2.5	2.5
2064938	2.2	1.5	1.5	44	0.16	0.072	16	45	0.85	130	0.016	10	1.38	0.005	0.05	1	0.025	0.5	2.5	2.5	2.5
2064951	0.25	1.5	1.5	66	0.82	0.064	9	113	1.67	87	0.086	10	1.84	0.01	0.13	1	0.07	0.5	2.5	2.5	2.5
2064952	0.25	1.5	1.5	65	0.8	0.043	9	136	2.07	111	0.153	10	1.89	0.02	0.08	1	0.05	0.5	2.5	2.5	5
2064953	0.25	1.5	1.5	59	0.81	0.111	7	116	1.62	145	0.053	10	1.8	0.01	0.08	1	0.08	0.5	2.5	5	2.5

Sample_ID	Cd_PPM	Sb_PPM	Bi_PPM	V_PPM	Ca_PCT	P_PCT	La_PPM	Cr_PPM	Mg_PCT	Ba_PPM	Ti_PCT	B_PPM	Al_PCT	Na_PCT	K_PCT	W_PPM	S_PER	Hg_PPM	Tl_PPM	Ga_PPM	Sc_PPM
2064954	0.25	1.5	1.5	64	0.57	0.034	9	147	2.12	129	0.101	10	1.83	0.01	0.08	1	0.025	0.5	2.5	2.5	6
2064955	0.25	1.5	1.5	61	0.91	0.084	9	118	1.75	161	0.068	10	1.88	0.01	0.07	1	0.025	0.5	2.5	5	6
2064956	0.25	1.5	1.5	54	0.73	0.06	7	111	1.61	125	0.07	10	1.65	0.01	0.08	1	0.05	0.5	2.5	2.5	2.5
2064957	0.25	1.5	1.5	54	0.98	0.067	8	106	1.56	168	0.071	10	1.62	0.01	0.1	1	0.07	0.5	2.5	2.5	2.5
2064958	0.25	1.5	1.5	67	1.51	0.066	6	98	1.69	101	0.103	10	1.65	0.01	0.17	1	0.08	0.5	2.5	2.5	2.5
2064959	0.25	1.5	1.5	57	2.23	0.074	5	85	1.45	124	0.075	10	1.6	0.01	0.07	1	0.1	0.5	2.5	2.5	2.5
2064960	0.25	1.5	1.5	60	1.55	0.069	6	90	1.51	104	0.075	10	1.71	0.005	0.07	1	0.08	0.5	2.5	2.5	2.5
2064961	0.25	1.5	1.5	61	1.24	0.062	6	98	1.6	105	0.082	10	1.74	0.005	0.09	1	0.07	0.5	2.5	2.5	2.5
2064962	0.25	1.5	1.5	59	1.47	0.073	6	109	1.7	116	0.061	10	1.82	0.01	0.1	1	0.09	0.5	2.5	7	2.5
2064963	0.25	1.5	1.5	53	1.59	0.066	6	92	1.5	122	0.061	10	1.63	0.01	0.07	1	0.09	0.5	2.5	2.5	2.5
2064964	0.25	1.5	1.5	73	1.01	0.067	6	106	1.58	138	0.11	10	1.89	0.01	0.09	1	0.05	0.5	2.5	2.5	5
2064965	0.25	1.5	1.5	77	0.59	0.05	5	76	1.2	100	0.157	10	1.6	0.01	0.09	1	0.025	0.5	2.5	2.5	2.5
2064966	0.25	1.5	1.5	69	0.9	0.062	5	89	1.42	96	0.144	10	1.78	0.005	0.1	1	0.025	0.5	2.5	2.5	2.5
2064967	0.25	1.5	1.5	82	0.83	0.064	6	117	1.89	126	0.114	10	2.34	0.005	0.09	1	0.025	0.5	2.5	6	5
2064968	0.25	1.5	1.5	81	1	0.071	5	112	1.87	86	0.168	10	2.08	0.005	0.09	1	0.025	0.5	2.5	2.5	5
2064969	0.25	1.5	1.5	69	1.27	0.076	6	100	1.67	135	0.084	10	1.95	0.005	0.08	1	0.06	0.5	2.5	2.5	5
2064970	0.25	1.5	1.5	60	1.37	0.076	6	99	1.59	140	0.062	10	1.87	0.01	0.07	1	0.07	0.5	2.5	2.5	2.5
2064971	0.25	1.5	1.5	64	1.26	0.076	5	94	1.55	123	0.08	10	1.85	0.005	0.07	1	0.06	0.5	2.5	2.5	2.5
2064972	0.7	1.5	1.5	35	2.49	0.085	5	45	0.78	100	0.046	10	1.03	0.01	0.07	1	0.13	0.5	2.5	2.5	2.5
2064973	0.25	1.5	1.5	67	1.19	0.068	5	81	1.37	136	0.086	10	1.8	0.005	0.06	1	0.025	0.5	2.5	2.5	2.5
2064974	0.25	1.5	1.5	72	0.88	0.046	5	84	1.36	95	0.142	10	1.75	0.01	0.08	1	0.025	0.5	2.5	2.5	5
2064975	0.25	1.5	1.5	74	1.85	0.032	8	118	1.88	151	0.144	10	1.92	0.02	0.08	1	0.025	0.5	2.5	2.5	6
2064976	0.25	1.5	1.5	68	0.77	0.04	9	160	1.93	110	0.114	10	1.95	0.01	0.09	1	0.025	0.5	2.5	2.5	7
2064977	0.25	1.5	1.5	72	0.84	0.042	8	189	2.45	120	0.119	10	2.03	0.01	0.09	1	0.025	0.5	2.5	2.5	7
2064978	0.25	1.5	1.5	58	1.2	0.069	7	105	1.38	135	0.064	10	1.64	0.02	0.08	1	0.07	0.5	2.5	6	2.5
2064979	0.25	1.5	1.5	54	1.25	0.063	9	84	1.32	144	0.061	10	1.62	0.02	0.09	1	0.08	0.5	2.5	2.5	2.5
2064980	0.25	1.5	1.5	64	1.58	0.068	8	113	1.77	157	0.072	10	1.78	0.02	0.11	1	0.07	0.5	2.5	2.5	5
2064981	0.25	1.5	1.5	58	1.4	0.06	8	109	1.75	147	0.078	10	1.76	0.01	0.1	1	0.07	0.5	2.5	2.5	2.5
2064982	0.25	1.5	1.5	48	2.05	0.068	6	92	1.46	142	0.054	10	1.45	0.01	0.09	1	0.11	0.5	2.5	2.5	2.5
2064983	0.25	1.5	1.5	58	1.9	0.065	6	107	1.76	134	0.076	10	1.68	0.01	0.12	1	0.08	0.5	2.5	2.5	2.5
2064984	0.25	1.5	1.5	59	1.97	0.071	6	93	1.48	140	0.077	10	1.58	0.01	0.1	1	0.1	0.5	2.5	2.5	2.5
2064985	0.25	1.5	1.5	57	1.21	0.064	6	98	1.59	110	0.081	10	1.68	0.01	0.09	1	0.06	0.5	2.5	2.5	2.5
2064986	0.25	1.5	1.5	64	0.9	0.061	7	93	1.43	155	0.074	10	1.78	0.01	0.08	1	0.025	0.5	2.5	6	2.5
2064987	0.25	1.5	1.5	80	0.71	0.072	4	97	1.75	102	0.162	10	2.02	0.01	0.12	1	0.025	0.5	2.5	2.5	2.5
2064988	0.25	1.5	1.5	78	0.7	0.075	3	95	1.74	59	0.239	10	1.98	0.005	0.1	1	0.025	0.5	2.5	2.5	2.5

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2064989	0.25	1.5	1.5	75	0.97	0.066	5	96	1.66	102	0.116	10	2.06	0.005	0.12	1	0.025	0.5	2.5	7	2.5
2064990	0.25	1.5	1.5	72	0.77	0.062	5	77	1.31	92	0.136	10	1.73	0.01	0.1	1	0.025	0.5	2.5	6	2.5
2064991	0.9	1.5	1.5	68	0.64	0.06	5	67	1.06	96	0.109	10	1.65	0.01	0.08	1	0.025	0.5	2.5	5	2.5
2064992	0.25	1.5	1.5	76	1.2	0.069	5	107	1.78	139	0.076	10	2.27	0.005	0.08	1	0.05	0.5	2.5	7	5
2064993	0.25	1.5	1.5	78	1.15	0.066	5	105	1.82	126	0.097	10	2.18	0.005	0.08	1	0.025	0.5	2.5	6	5
2064994	0.25	1.5	1.5	78	0.92	0.069	6	108	1.76	119	0.105	10	2.19	0.005	0.09	1	0.025	0.5	2.5	7	6
2064995	0.25	1.5	1.5	71	1.1	0.073	5	96	1.58	112	0.104	10	1.96	0.005	0.08	1	0.025	0.5	2.5	6	5
2064996	0.25	1.5	1.5	72	0.9	0.069	5	88	1.5	80	0.15	10	1.78	0.005	0.08	1	0.025	0.5	2.5	6	2.5
2064997	0.25	1.5	1.5	58	1.83	0.066	6	83	1.38	132	0.088	10	1.7	0.01	0.08	1	0.09	0.5	2.5	2.5	2.5
2064998	0.25	1.5	1.5	62	1.43	0.064	6	101	1.47	111	0.101	10	1.64	0.01	0.07	1	0.06	0.5	2.5	2.5	5
2064999	0.25	1.5	1.5	68	1.06	0.065	5	89	1.54	116	0.14	10	1.8	0.01	0.06	1	0.025	0.5	2.5	2.5	5
2065000	0.25	1.5	1.5	66	1.13	0.07	6	79	1.32	130	0.103	10	1.7	0.01	0.07	1	0.025	0.5	2.5	2.5	2.5

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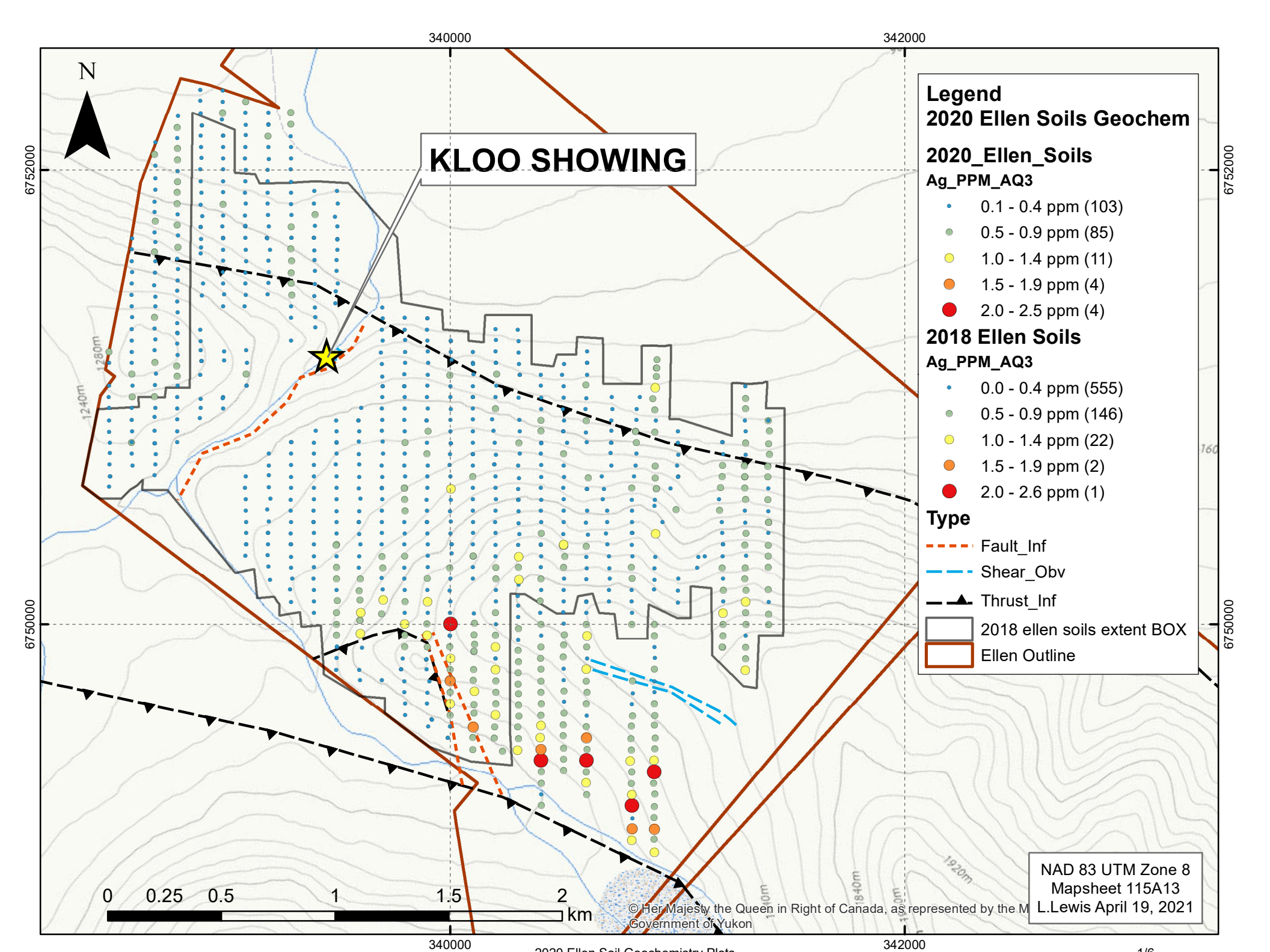
Appendix IV – Soil Geochemistry Plots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KLOO SHOWING
Legend
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2020_Ellen_Soils
Ag_PPM_AQ3
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0.5 - 0.9 ppm (85)
1.0 - 1.4 ppm (11)
1.5 - 1.9 ppm (4)
2.0 - 2.5 ppm (4)
2018 Ellen Soils
Ag_PPM_AQ3
0.0 - 0.4 ppm (555)
0.5 - 0.9 ppm (146)
1.0 - 1.4 ppm (22)
1.5 - 1.9 ppm (2)
2.0 - 2.6 ppm (1)
Type
Fault_Inf
Shear_Obv
Thrust_Inf
2018 ellen soils extent BOX
Ellen Outline
1280m
1240m
1920m
0 0.25 0.5 1 1.5 2 km
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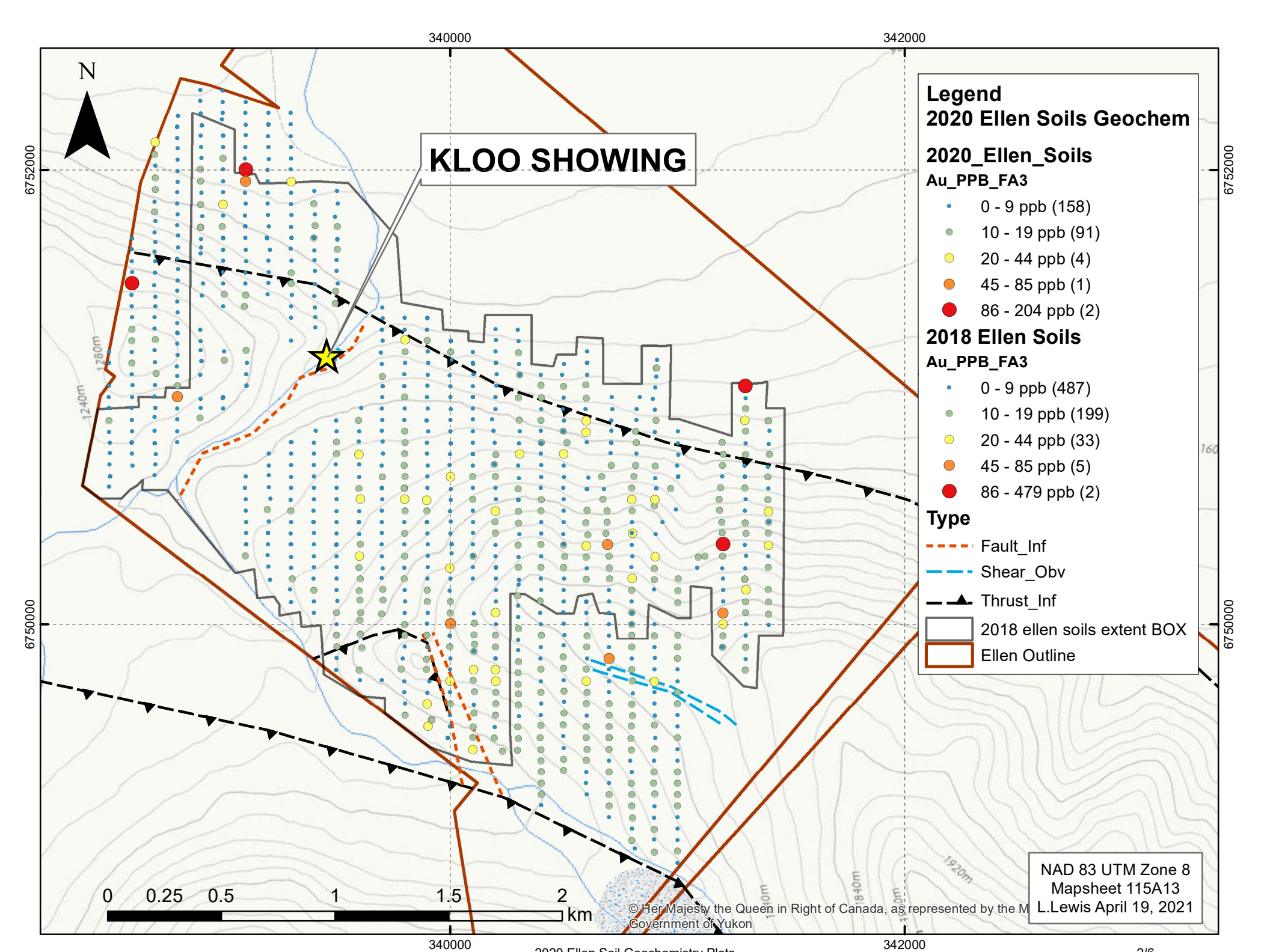
Government of Yukon
NAD 83 UTM Zone 8
Mapsheet 115A13
L.Lewis April 19, 2021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Legend
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2020_Ellen_Soils
Au_PPB_FA3
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10 - 19 ppb (91)
20 - 44 ppb (4)
45 - 85 ppb (1)
86 - 204 ppb (2)
2018 Ellen Soils
Au_PPB_FA3
0 - 9 ppb (487)
10 - 19 ppb (199)
20 - 44 ppb (33)
45 - 85 ppb (5)
86 - 479 ppb (2)
Type
Fault_Inf
Shear_Obv
Thrust_Inf
2018 ellen soils extent BOX
Ellen Outline
1280m
1240m
1920m
0 0.25 0.5 1 1.5 2 km
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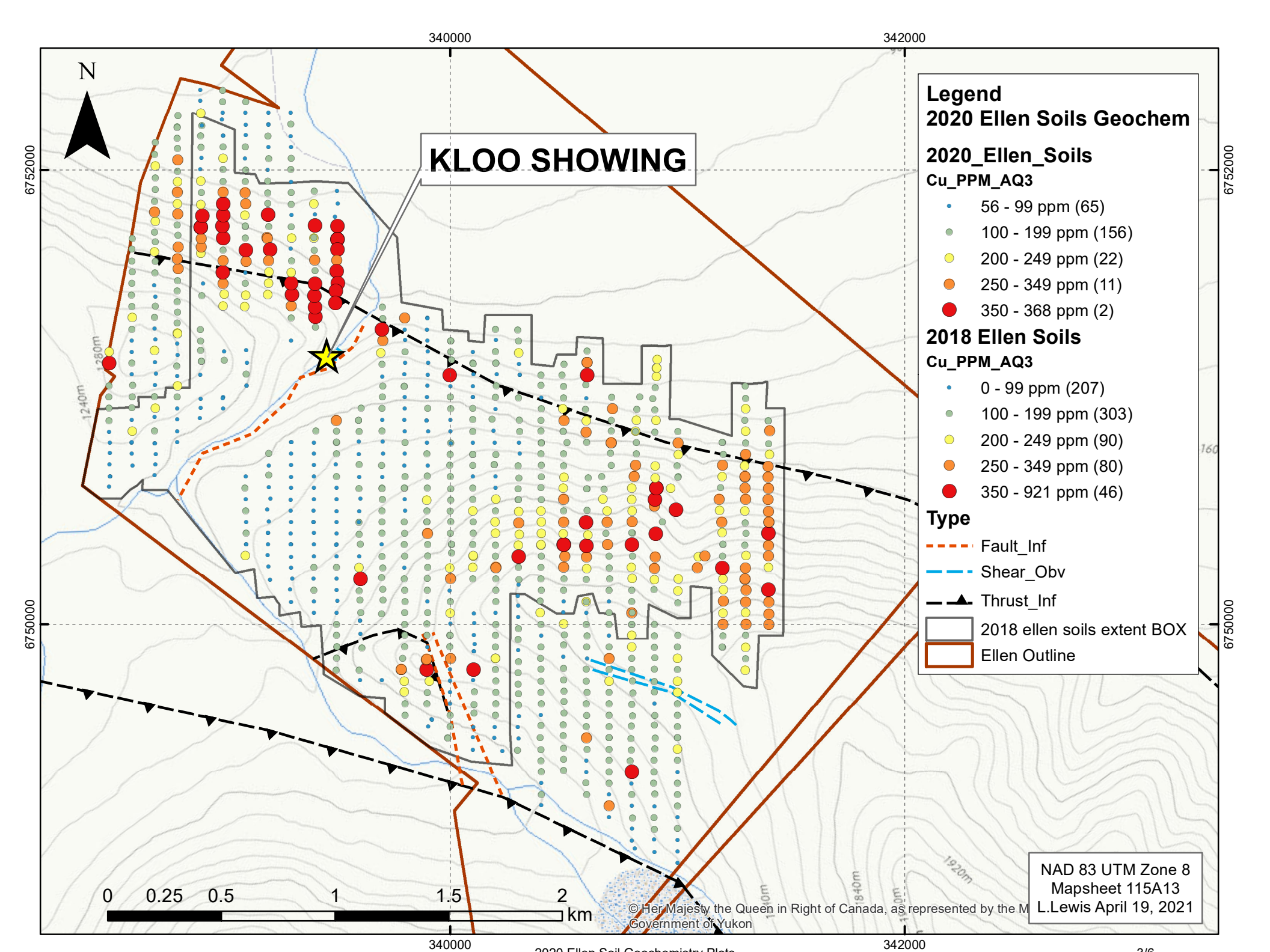
Government of Yukon
NAD 83 UTM Zone 8
Mapsheet 115A13
L.Lewis April 19, 2021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KLOO SHOWING
Legend
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2020_Ellen_Soils
Cu_PPM_AQ3
56 - 99 ppm (65)
100 - 199 ppm (156)
200 - 249 ppm (22)
250 - 349 ppm (11)
350 - 368 ppm (2)
2018 Ellen Soils
Cu_PPM_AQ3
0 - 99 ppm (207)
100 - 199 ppm (303)
200 - 249 ppm (90)
250 - 349 ppm (80)
350 - 921 ppm (46)
Type
Fault_Inf
Shear_Obv
Thrust_Inf
2018 ellen soils extent BOX
Ellen Outline
1280m
1240m
1920m
0 0.25 0.5 1 1.5 2 km
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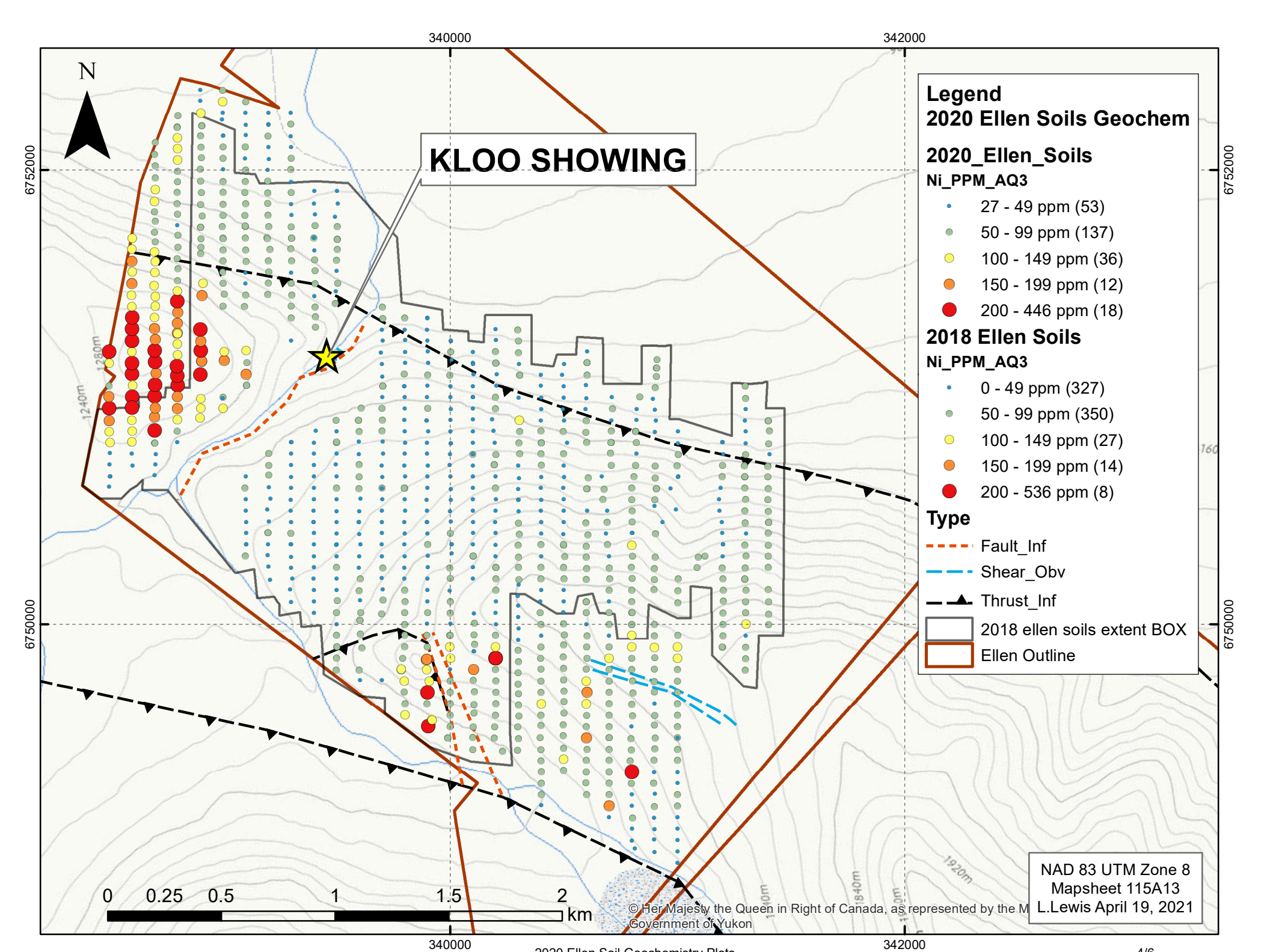
Government of Yukon
NAD 83 UTM Zone 8
Mapsheet 115A13
L.Lewis April 19, 2021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6752000
6750000
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KLOO SHOWING
Legend
2020 Ellen Soils Geochem
2020_Ellen_Soils
Ni_PPM_AQ3
27 - 49 ppm (53)
50 - 99 ppm (137)
100 - 149 ppm (36)
150 - 199 ppm (12)
200 - 446 ppm (18)
2018 Ellen Soils
Ni_PPM_AQ3
0 - 49 ppm (327)
50 - 99 ppm (350)
100 - 149 ppm (27)
150 - 199 ppm (14)
200 - 536 ppm (8)
Type
Fault_Inf
Shear_Obv
Thrust_Inf
2018 ellen soils extent BOX
Ellen Outline
1280m
1240m
1920m
0 0.25 0.5 1 1.5 2 km
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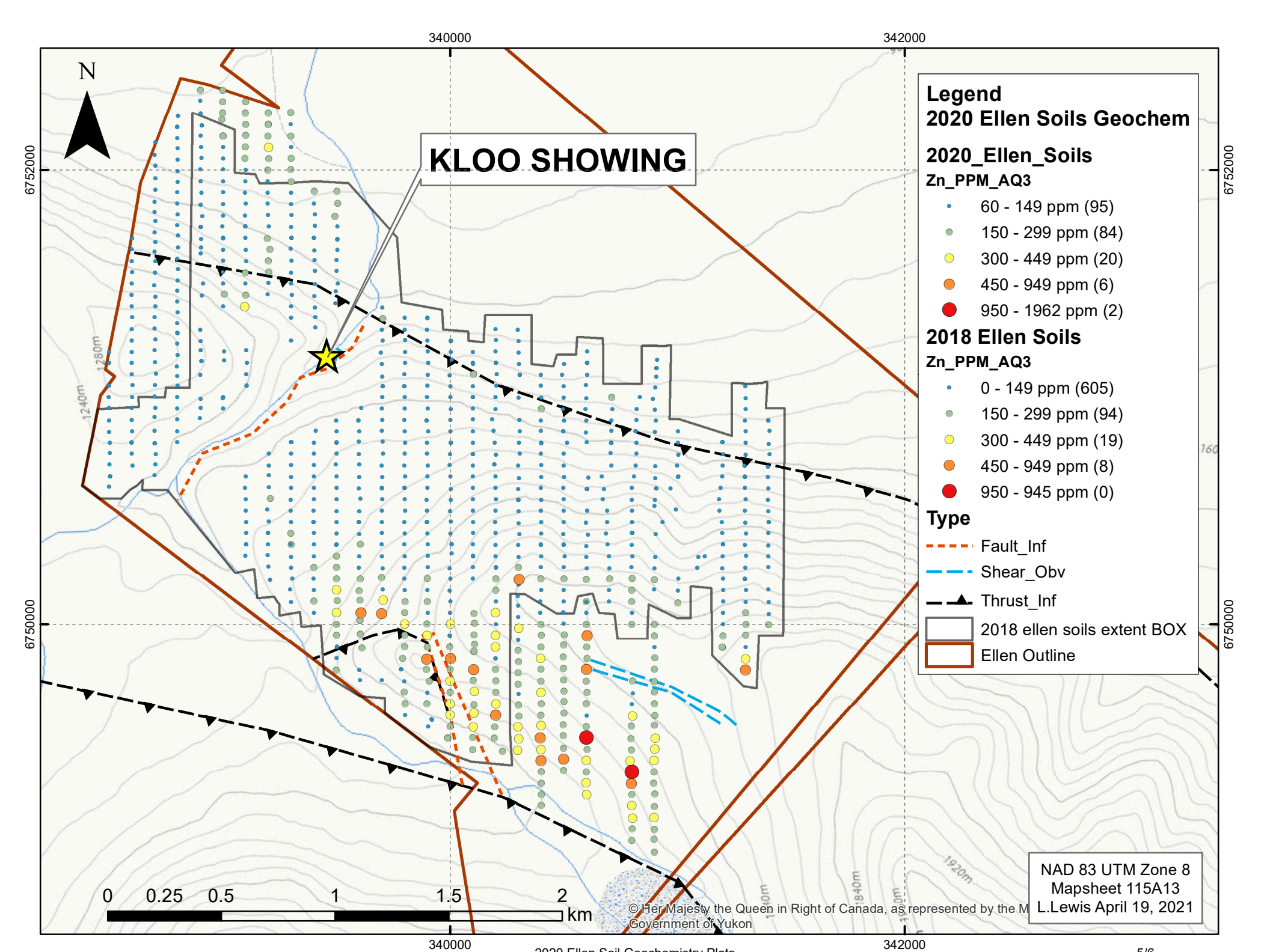
NAD 83 UTM Zone 8
Mapsheet 115A13
L.Lewis April 19, 2021


340000
342000
6752000
6750000
N
KLOO SHOWING
Legend
2020 Ellen Soils Geochem
2020_Ellen_Soils
Zn_PPM_AQ3
60 - 149 ppm (95)
150 - 299 ppm (84)
300 - 449 ppm (20)
450 - 949 ppm (6)
950 - 1962 ppm (2)
2018 Ellen Soils
Zn_PPM_AQ3
0 - 149 ppm (605)
150 - 299 ppm (94)
300 - 449 ppm (19)
450 - 949 ppm (8)
950 - 945 ppm (0)
Type
Fault_Inf
Shear_Obv
Thrust_Inf
2018 ellen soils extent BOX
Ellen Outline
1280m
1240m
1920m
0 0.25 0.5 1 1.5 2 km
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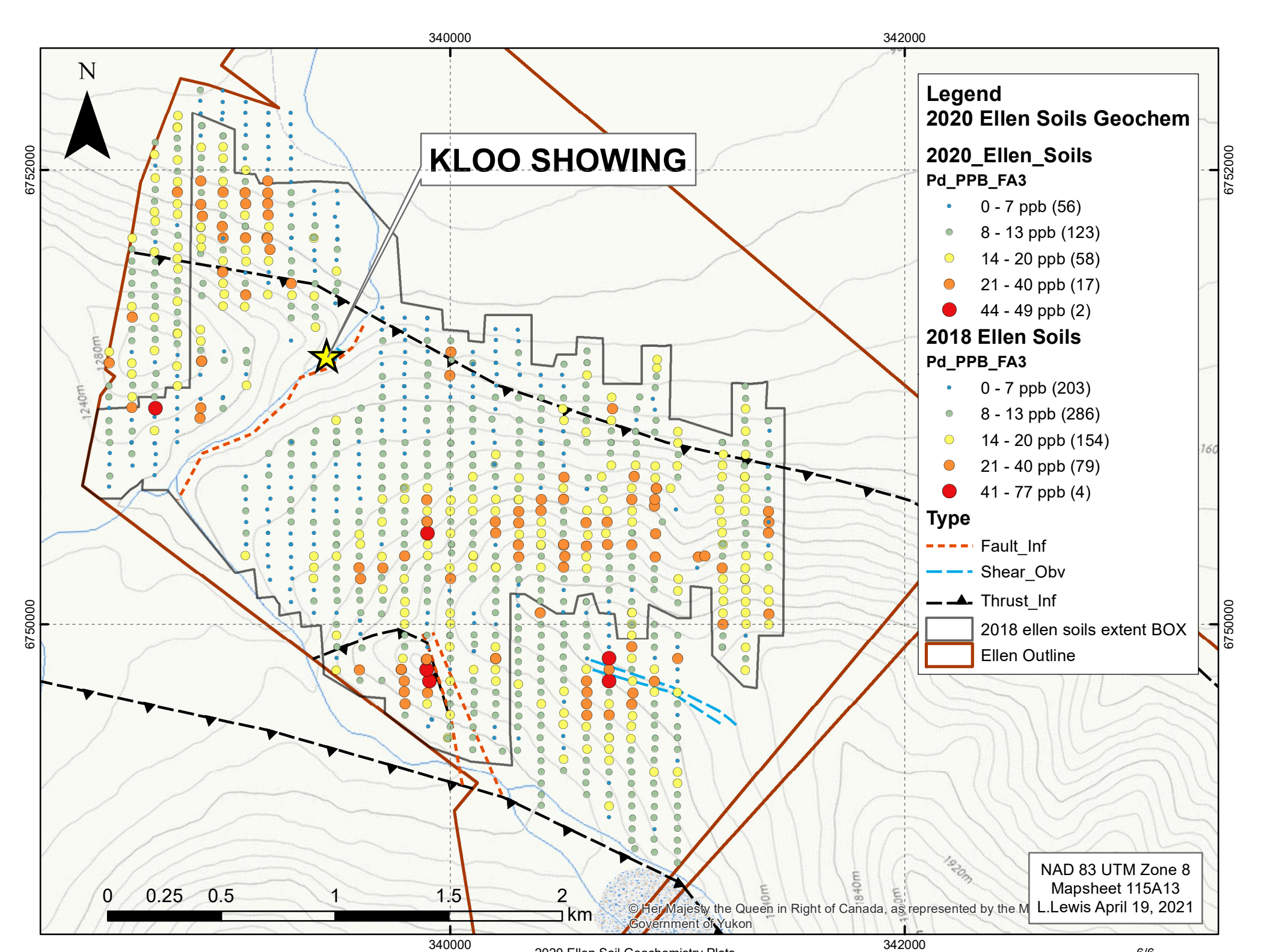
340000
342000
6752000
6750000
N
KLOO SHOWING
Legend
2020 Ellen Soils Geochem
2020_Ellen_Soils
Pd_PPB_FA3
0 - 7 ppb (56)
8 - 13 ppb (123)
14 - 20 ppb (58)
21 - 40 ppb (17)
44 - 49 ppb (2)
2018 Ellen Soils
Pd_PPB_FA3
0 - 7 ppb (203)
8 - 13 ppb (286)
14 - 20 ppb (154)
21 - 40 ppb (79)
41 - 77 ppb (4)
Type
Fault_Inf
Shear_Obv
Thrust_Inf
2018 ellen soils extent BOX
Ellen Outline
1280m
1240m
1920m
0 0.25 0.5 1 1.5 2 km
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L.Lewis April 19, 2021

Appendix V – HMC Description and Analysis

Exploring Heavy Minerals

Overburden Drilling Management Limited
Unit 107, 15 Capella Court
Nepean, Ontario, Canada, K2E 7X1
Tel: (613) 226-1771 Fax: (613) 226-8753
odm@storm.ca www.odm.ca

Laboratory Data Report

Client Information

Longford Exploration Ltd.
460-688 West Hastings Street
Vancouver, BC
V6B 1P1

ryan@longfordex.com jrogers@longfordex.com

Attention: Ryan Versloot James Rogers

Data-File Information

Date:	November 30, 2020
Project name:	
ODM batch number:	2088
Sample numbers:	2064301 to 2064313
Data file:	20202088 - Longford Exploration - Versloot - (Gold, MMSIM) - Oct 2020
Number of samples in this report:	13 *4 samples-Ellen-Pacer
Number of samples processed to date:	13
Total number of samples in project:	13
Preliminary data:	
Final data:	X
Revised data:	

Samples Processed For: Gold, MMSIM

Processing Specifications:

1. Submitted by client: Sand and gravel samples prescreened in the field.
2. One ±300 g archival split taken.
3. All samples panned for gold, PGMs and fine-grained metallic indicator minerals.
4. Shaking table concentrates refined by heavy liquid separation at S.G. 3.2 to obtain heavy mineral concentrates (HMCs).
5. 1.0-2.0, 0.5-1.0 mm and nonparamagnetic (>1.0 amp) 0.25-0.5 mm HMC fractions examined for scheelite by UV lamping.

Notes

Mike Crawford
Laboratory Manager

Overburden Drilling Management Limited - Abbreviations Table

Raw Sample Weights and Descriptions Log

Largest Clast Size Present:

- G: Granules
- P: Pebbles
- C: Cobbles

Clast Composition:

- V/S: Volcanics and/or sediments
- GR: Granitics
- LS: Limestone, carbonates
- OT: Other lithologies (refer to footnotes)
- TR: Only trace present
- NA: Not applicable
- OX: Very oxidized, undifferentiated
- MB: Marble

Matrix Grain Size Distribution:

- S/U: Sorted or unsorted
- SD: Sand (F: Fine; M: Medium; C: Coarse)
- ST: Silt
- CY: Clay
- Y: Fraction present
- +: Fraction more abundant than normal
- -: Fraction less abundant than normal
- N: Fraction not present *4 samples-Ellen-Pacer

Matrix Organics:

- ORG: Y: Organics present in matrix
  N: Organics absent or negligible in matrix
  +: Matrix is mainly organic

Matrix Colour:

Primary:

- BE: Beige
- BR: Brick Red
- GY: Grey
- GB: Grey-beige
- GN: Green
- GG: Grey-green
- PP: Purple
- PK: Pink
- PB: Pink-beige
- MN: Maroon

Secondary (soil):

- OC: Ochre
- BN: Brown
- BK: Black

Secondary Colour Modifier:

- L: Light
- M: Medium
- D: Dark

Detailed Gold Grain Log

- VG: Visible gold grains

Thickness:

- M: Actual measured thickness of grain (µm)
- C: Thickness of grain (µm) calculated from measured width and length

Kimberlite Indicator Mineral (KIM) Log

- GP: Purple to red peridotitic garnet (G9/10 Cr-pyrope)
- GO: Orange mantle garnet; includes both eclogitic pyrope-almandine (G3) and Cr-poor megacrystic pyrope (G1/G2) varieties; may include unchecked (by SEM) grains of common crustal garnet (G5) lacking diagnostic inclusions or crystal faces
- DC: Cr-diopside; distinctly emerald green (paler emerald green low-Cr diopside picked separately)
- IM: Mg-ilmenite; may include unchecked (by SEM) grains of common crustal ilmenite lacking diagnostic inclusions or crystal faces
- CR: Chromite
- FO: Forsterite

Metamorphosed/Magmatic Massive Sulphide Indicator Mineral (MMSIM) and Porphyry Cu Indicator Mineral (PCIM) Logs

- Adr: Andradite
- Ap: Apatite
- Ase: Anatase
- Aspy: Arsenopyrite
- Ax: Axinite
- Ba: Barite
- Cpx: Clinopyroxene
- Cpy: Chalcopyrite
- Cr: Chromite
- Fay: Fayalite
- Gh: Gahnite
- Grs: Grossular
- Gth: Goethite
- Ilm: Ilmenite
- Ky: Kyanite
- Mrc: Marcasite
- Mz: Monazite
- Ol: Olivine
- Opx: Orthopyroxene
- PGM: Platinum group-bearing mineral
- Py: Pyrite
- REM: Rare earth-bearing mineral
- Rt: Red rutile
- Sil: Sillimanite
- Spi: Spinel
- Sps: Spessartine
- St: Staurolite
- Tm: Tourmaline
- Ttn: Titanite
- Zir: Zircon

Other

- HMC: Heavy mineral concentrate
- UV: Ultra-violet
- EPD: Electric-pulse disaggregation
- PGE: Platinum group element

Primary Sample Processing Weights and Descriptions

Client: Longford Exploration Ltd.
File Name: 20202088 - Longford Exploration - Versloot - (Gold, MMSIM) - Oct 2020
Total Number of Samples in this Report: 13 (4 samples from Ellen-Pacer)
ODM Batch Number(s): 2088

	Weight (kg wet)					Screening and Shaking Table Sample Descriptions												
						Clasts (+2.0 mm)					Matrix (-2.0 mm)							
							Percentage				Distribution					Colour		
Sample Number	Bulk Rec'd	Archived Split	Table Split	+2.0 mm Clasts	-2.0 mm Table Feed	Size	V/S	GR	LS	OT*	S/U	SD	ST	CY	ORG	SD	CY	Class
2064306	24.0	0.3	23.7	11.1	12.6	G	95	TR	0	5	S	MC	-	N	N	GY	NA	SAND + GRAVEL
2064307	25.1	0.3	24.8	12.6	12.2	G	90	TR	0	10	S	MC	-	N	N	GY	NA	SAND + GRAVEL
2064308	27.3	0.3	27.0	10.2	16.8	G	95	TR	0	5	S	MC	-	N	N	GY	NA	SAND + GRAVEL
2064309	23.8	0.3	23.5	11.6	11.9	G	95	TR	0	5	S	MC	-	N	N	GY	NA	SAND + GRAVEL

*Clasts listed as OT are Quartz.

Gold Grain Summary

Client: Longford Exploration Ltd.
File Name: 20202088 - Longford Exploration - Versloot - (Gold, MMSIM) - Oct 2020
Total Number of Samples in this Report: 13 (4 samples from Ellen-Pacer)
ODM Batch Number(s): 2088

	Number of Visible Gold Grains				Nonmag HMC	Calculated PPB Visible Gold in HMC			
Sample Number	Total	Reshaped	Modified	Pristine	Weight*	Total	Reshaped	Modified	Pristine
2064306	2	1	1	0	50.4	11	7	4	0
2064307	1	1	0	0	48.8	4	4	0	0
2064308	0	0	0	0	67.2	0	0	0	0
2064309	0	0	0	0	47.6	0	0	0	0

* Calculated PPB Au based on assumed nonmagnetic HMC weight equivalent to 0.4% of the table feed.

Detailed Gold Grain Data

Client: Longford Exploration Ltd.
File Name: 20202088 - Longford Exploration - Versloot - (Gold, MMSIM) - Oct 2020
Total Number of Samples in this Report: 13 (4 samples from Ellen-Pacer)
ODM Batch Number(s): 2088

	Dimensions (µm)			Number of Visible Gold Grains				Nonmag HMC Weight* (g)	Calculated V.G. Assay in HMC (ppb)	
Sample Number	Thickness	Width	Length	Reshaped	Modified	Pristine	Total			Metallic Minerals in Pan Concentrate
2064306	10 C	50	50		1		1		4	Tr (~5000 grains) pyrite (25-500 µm).
	13 C	50	75	1			1		7	
							2	50.4	11	
2064307	10 C	50	50	1			1		4	Tr (~5000 grains) pyrite (25-500 µm).
							1	48.8	4	
2064308	No Visible Gold									Tr (1 grain) molybdenite (50 µm). Tr (3 grains) cinnabar (25 µm). Tr (~2000 grains) pyrite (25-500 µm).
2064309	No Visible Gold									Tr (~2000 grains) pyrite (25-500 µm).

* Calculated PPB Au based on assumed nonmagnetic HMC weight equivalent to 0.4% of the table feed.

0.25-0.5 mm Paramagnetic/Non-Paramagnetic Fraction Weights

Client: Longford Exploration Ltd.

File Name: 20202088 - Longford Exploration - Versloot - (Gold, MMSIM) - Oct 2020

Total Number of Samples in this Report: 13 (4 samples from Ellen-Pacer)

ODM Batch Number(s): 2088

Sample Number	Weight of 0.25-0.5 mm S.G. >3.2 Nonferromagnetic Heavy Mineral Fractions (g)					
		Paramagnetic			Nonparamagnetic	
	Total	Strongly (<0.6 amp)	Moderately (0.6-0.8 amp)	Weakly (0.8-1.0 amp)	>1.0 amp	>1.0 amp Lights*
2064306	3.79	0.03	0.12	1.55	1.68	0.41
2064307	12.94	0.26	3.27	5.01	3.30	1.10
2064308	11.27	1.50	2.74	4.17	2.39	0.47
2064309	3.11	0.02	0.11	1.21	0.96	0.81

*SG <3.20 heavy liquid separation clean-up of >1.0 amp fraction.

Heavy Mineral Concentrate Processing Weights

Client: Longford Exploration Ltd.
File Name: 20202088 - Longford Exploration - Versloot - (Gold, MMSIM) - Oct 2020
Total Number of Samples in this Report: 13 (4 samples from Ellen-Pacer)
ODM Batch Number(s): 2088

	Weight of -2.0 mm Table Concentrate (g)												
			0.25 to 2.0 mm Heavy Liquid Separation at S.G. 3.20										
					HMC S.G.>3.20								
								Nonferromagnetic HMC					
									Processed Split				
									Total		0.25 to 0.5	0.5 to 1.0	1.0 to 2.0
Sample Number	Total	-0.25 mm	Total	Lights S.G. <3.2	Total	-0.25 mm (wash)	Mag	Total	%	Weight	mm	mm	mm
2064306	968.7	305.2	663.5	650.0	13.5	0.9	0.4	12.2	100	12.2	3.8	5.4	3.0
2064307	1206.3	337.5	868.8	845.1	23.7	2.5	0.2	21.0	100	21.0	12.9	6.7	1.4
2064308	1395.3	655.3	740.0	693.2	46.8	3.4	8.5	34.9	57	20.0	11.3	7.5	1.2
2064309	829.3	234.4	594.9	588.5	6.4	0.3	0.1	6.0	100	6.0	3.1	2.3	0.6

Metamorphosed/Magmatic Massive Sulphide Indicator Mineral (MMSIM) Counts

Client: Longford Exploration Ltd.
File Name: 20202088 - Longford Exploration - Versloot - (Gold, MMSIM) - Oct 2020
Total Number of Samples in this Report: 13 (4 samples from Ellen-Pacer)
ODM Batch Number(s): 2088

	0.25 to 0.5 mm Nonferromagnetic Heavy Mineral Fraction																		
	Sulphide/Arsenide + Related Minerals				Mg/Mn/Al/Cr Minerals												Phosphates		
	>1.0 amp			<1.0	>1.0 amp							<1.0 amp					>1.0 amp		
							%						Olivine						
Sample Number	% Cpy	Misc. Prime MMSIMs	% Pyrite	% Goethite	# Grains + Colour Spinel	Misc. Prime MMSIMs	Red Rutile	% Ky	% Sil	% Tm	% St	% Sps*	% Fo	% Fay	% Opx	% Cr**	% Ap	% Mz	Remarks	Picked Grains
2064306	0.7 (~120 gr)	Tr malachite (13 gr); 0.5 barite (~80 grains)	15 (~2500 gr)	80	0	0	0	0	Tr	0	0	0	0	0	0	0	0	0	Goethite-augite/epidote-diopside-pyrite assemblage. 0.5-1.0 mm fraction contains 0.5% (~50 grains) chalcopyrite.	1.0-2.0 mm fraction: 20 chalcopyrite 1 malachite 0.5-1.0 mm fraction: 20 representative chalcopyrite 8 malachite 10 barite 0.25-0.5 mm fraction: 20 reperesntative chalcopyrite 13 malachite 10 representativ barite
2064307	0.1 (32 gr)	0.2 barite (~80 gr)	15 (~5000 gr)	95	0	Tr Mn-epidote (6 gr); Tr low-Cr diopsdie (2 gr)	0	0	Tr	0	0	0	0	0	0	Tr (3 gr)	0	0	Goethite/epidote-diopside-pyrite assemblage.	0.5-1.0 mm fraction: 6 chalcopyrite 10 barite 0.25-0.5 mm fraction: 32 chalcopyrite 10 representative barite 6 Mn-epidote 2 low-Cr diopside 3 chromite
2064308	Tr (2 gr)	Tr barite (~60 gr)	5 (~1000 gr)	0.5	0	Tr low-Cr diopside (4 gr)	0	0	Tr	0	0	0	0	0	0	0	0	0	Augite/diopside assemblage.	0.5-1.0 mm fraction: 2 chalcopyrite 4 barite 1 low-Cr diopside 0.25-0.5 mm fraction: 2 chalcopyrite 10 representative barite 4 low-Cr diopside

*Spessartine may include andradite.
**Chromite may include hercynite, Cr-hercynite and Cr-spinel

Metamorphosed/Magmatic Massive Sulphide Indicator Mineral (MMSIM) Counts

Client: Longford Exploration Ltd.
File Name: 20202088 - Longford Exploration - Versloot - (Gold, MMSIM) - Oct 2020
Total Number of Samples in this Report: 13 (4 samples from Ellen-Pacer)
ODM Batch Number(s): 2088

	0.25 to 0.5 mm Nonferromagnetic Heavy Mineral Fraction																		
	Sulphide/Arsenide + Related Minerals				Mg/Mn/Al/Cr Minerals												Phosphates		
	>1.0 amp			<1.0	>1.0 amp							<1.0 amp					>1.0 amp		
							%						Olivine						
Sample Number	% Cpy	Misc. Prime MMSIMs	% Pyrite	% Goethite	# Grains + Colour Spinel	Misc. Prime MMSIMs	Red Rutile	% Ky	% Sil	% Tm	% St	% Sps*	% Fo	% Fay	% Opx	% Cr**	% Ap	% Mz	Remarks	Picked Grains
2064309	Tr (5 gr)	0.1 barite (13 gr)	10 (~1000 gr)	95	0	0	0	0	0	0	0	0	0	0	Tr	Tr (21 gr)	0	0	Goethite/Epidote assemblage. SEM checks from 0.25-0.5 mm fraction: 7 chromite candidates = 6 chromite and 1 chromite with attached fuchsite.	0.5-1.0 mm fraction: 2 chalcopyrite 1 barite 1 chromite 0.25-0.5 mm fraction: 5 chalcopyrite 13 barite 20 chromite 1 chromite + fuchsite

*Spessartine may include andradite.
**Chromite may include hercynite, Cr-hercynite and Cr-spinel

Appendix VI – Rock Descriptions and Assays

Sample ID	Type	Width (m)	Source	UTM_East	UTM_North	Date	Lithology	Description
2064078	Grab		Subcrop	339552	6751260	2020-08-11	Mafic Volcanic	VERY MAFIC (MORE MAFIC THAN SURROUNDING HOST) FG, NON-MAGNETIC, BLACK SUBCROP THAT WEATHERS A DARK PURPLE-BLACK. WEAK TO MODERATE FOLIATION, BUT STILL VERY MASSIVE + DENSE. MINOR QZ-FELDSPAR, CM-SCALE VEINLETS THAT CROSS-CUT FOLIATION. UNIT STANDS OUT AMONGST DARK GREEN-BLACK FOLIATED MAFIC VOLCANIC HOSTS. POSSIBLE JUST A MORE MAFIC, VOLCANIC UNIT.
2064079	Grab		Outcrop	339546	6751215	2020-08-11	Mafic Volcanic	VERY MAFIC FOLIATED UNIT, OUTCROP (IN PLACE), TRENDING 100 SE, 030 SW (S,D). TALCY-ALTERATION, ROCK FEELS SOAPY. PURPLE-BLACK WEATHERING. UNIT TRUNCATED AT THRUST FAULT. ORANGE SULFIDE MINERAL W/ A PURPLE TINGE ALONG CLEAVAGE - WEATHERED PY? 170 CU, 135 ZN (PXRF).
2064080	Grab		Subcrop	339910	6749645	2020-08-12	Peridotite	MG, EXTRUSIVE, MAFIC TO ULTRMAFIC COMPOSITION OF SUBCROP. HEAVY SERPENTINIZATION/TALC-ALTERATION ALONG FRACTURES/JOINTING PLANES. WEATHERED KIWI-GREEN OLIVINE PHENOS? SILICIFIED. SPINIFEX-LIKE WEATHERING TO AN ORANGE (FE-OX). POSSIBLE HEAVILY ALTERED PERIDOTITE OR GABBRO. 1633 PPM NI, 1849 PPM CR, 44 PPM CU (PXRF).
2064081	Grab		Outcrop	339923	6749734	2020-08-12	Pegmatitic-Schist	VERY GOSSANOUS ORANGE+PURPLE-TINGE OUTCROP (FE-OX, MN-OX) OF PEGMATITIC SCHIST. PEG SWETS ARE ABUNDANT AND FOLP. FG, BLACK, GROUNDMASS. CRENULATION CLEAVAGES WELL DEVELOPED. BRIGHT, FLUORESCENT SHEEN ON CLEAVAGE PLANES (PURPLE+GREEN), SULFIDE? PROBABLY JUST FE + MN-OXIDATION. PINCH + SWELLED QZ VEINS (CM-SCALE) FORMING 'AUGEN-EYES' ALSO FOLP TO SCHIST HOST. SCHIST UNIT ~15M WIDE AND TRUNCATED BY TWO FG, PALE ARGILLITE (META-SED) UNITS TO THE EAST AND WEST. POSSIBLE ARGILLITES DEPOSITED ONTOP OF PEG-SCHIST UNIT.
2064082	Grab		Outcrop	342830	6749297	2020-08-14	Qz-Stockwork	GOSSANOUS, ORANGE COLOURED (FE-OX + HEM) OUTCROP W/ WELL DEVELOPED QZ-STOCKWORK VEINS (CREAM COLOURED) WITH MAFIC VOLCANIC HOST ROCKS. TRACE SULFIDES (PY) AND BLK SPECKS THAT ARE VFG AND ALONG CM-SCALE STOCKWORK VEINS. STRONG FOLIATED, CHLORITE-ALTERED, MAFIC VOLCANIC (FG BASALT?) HOST OVERPRINTED BY FE-OXIDES AND POSSIBLE POTASSIC ALT?
2064083	Grab		Outcrop	343048	6749473	2020-08-14	Mafic Volcanic	FG, MASV, WEAKLY FOLIATED, BLACK MAFIC VOLCANIC. 4/5 MAGNETIC. SERP ALT OCCURS ALONG CLEAVAGE/JOINTING PLANES (FIBROUS SERP). VERY DENSE ROCK. PXRF VALUES SHOW THAT THIS IS NOT AN ULTRAMAFIC OR GABBRO UNIT, JUST A MAFIC VOL. TRACE PY.
2064084	Grab		Float	342864	6749866	2020-08-14	Qz-Hbl-Cl Vein	QZ-HBL-CL VEINS (MULTIPLE CM-WIDE) W/ BELBS OF CCP+BN AND MAL RIMS. ANGULAR FLOAT SAMPLES. JUICY CU-MIN. PROSPECTED UP-SLOPE FROM GRAB LOCATION. SOME CCP IN QZ VEINS WITHIN CL-ALT, FOLIATED MAFIC VOLCANICS OBSERVED (342810E, 6749833N, 1430METRES). POSSIBLE SOURCE OF QZ FLOAT? BUT TRUE SOURCE UNKNOWN. PXRF: UP TO 3.79 WT% CU.
2064085	Grab		Outcrop	342947	6749858	2020-08-14	Bleached sill?	ORANGE WEATHERED OUTCROP, VERY ALTERED BY FE-OXIDES AND/OR POTASSIC ALTERATION? IS PERVASIVE THROUGHOUT. OUTCROP VERY BLEACHED (OFF-WHITE COLOUR). HIGHLY CRENULATED, MAFICS (HBL?) ALIGNING ALONG A DISTINCT FOLIATION AND NOT VERY ALTERED. OUTCROP LITHOLOGY DEBATABLE - COULD BE A BLEACHED SILL? OR SOME SORT OF FELSIC INTRUSIVE AND/OR STOCKWORK ZONE? ABUNDANT MALACHITE THROUGHOUT. PXRF: 3500 NI, 5000 CR (PPM).

Sample ID	Type	Width (m)	Source	UTM_East	UTM_North	Date	Lithology	Description
2064086	Grab		Outcrop	344102	6748290	2020-08-15	Mafic Volcanics	FG, STRONGLY FOLIATED MAFIC VOLCANIC ROCKS THAT HAVE UNDERGONE PROPYLITIC-ALTERATION (GREEN ROCKS). PERVASIVE CHLORITE + EPIDOTE VEINLETS THROUGHOUT. CG, PEGMATITES (QZ-CL-FELD-SERP?-EP) VEINS W/ TRACE DISSEMINATED CCP? + PY. MAL STAINING ALONG FOLIATION IN MAFIC VOLCANIC HOST, STRONGER NEAR CONTACT W/ PEG VEINS. FIBROUS SERPENTINE (HAIRCOMB TEXTURE) IN PEGS + MAFIC VOLCANICS? PXRF: 1.7 WT% CU.
2064087	Grab		Outcrop	344086	6748297	2020-08-15	Qz vein	GOSSANOUS QZ-CARB VEIN (FE-OXIDES PERVASIVE THROUGHOUT + HEM ALONG FRACTURES) WITHIN FOLIATED, MAFIC VOLCANIC HOST UNIT THAT HAS UNDERGONE PROPYLITIC-ALTERATION. QZ-VEIN HAS PY + TRACE CCP? AN UNKNOW GREY SULFIDE? THAT IS NON-MAGNETIC. QZ-CARB VEIN PINCHES, SWELLS FOLIATION PARALLEL AS WELL AS CROSS-CUTS HEAVY PROPYLITIC-ALTERED MAFIC VOLCANICS. PXRF: <200PPM CU.
2064088	Grab		Outcrop	344074	6748367	2020-08-15	Mafic Volcanic	MG, VERY STRONG PROPYLITIC-ALTERED (GREEN ROCK) UNIT W/ HBL PHENOS (MM-SCALE) EITHER ALIGNING INTO A DISTINCT FOLIATION OR INTERLOCKED AMONGST CL+EP MATRIX. UNIT LOOKS LIKE AN ALTERED GABBRO? BUT MORE LIKELY A MAFIC VOLCANIC. HEAVY SERPENTINE ABUNDANCE JUST DOWNSLOPE (~5M BELOW) OUTCROP. PXRF: 560 CU, 150 CR, 71 NI (PPM).
2064089	Grab		Outcrop	344372	6748466	2020-08-16	Qz-Carb vein	HIGH-GRADE GRAB FROM SUMMIT-CREEK SHOWING (HISTORIC 'BH' SHOWING?). ORANGE, FE-OXIDIZED, QZ-CARB POSSIBLE STOCKWORK VEIN SYSTEM W/ CU-MINERALIZATION. HOSTED WITHIN MG, PERVASIVE CHLORITE-ALTERED MAFIC VOLCANICS. MALACHITE + AZURITE STAINING. ALSO AN UNKNOWN GREY SULFIDE MINERAL? CARBONATES WEATHERING OUT, LEAVING BEHIND 'BOX-WORK' LIKE WEATHERING TEXTURE. PXRF: 8100 CU, 1600 AS (PPM).
2064090	Grab		Outcrop	344372	6748466	2020-08-16	Qz-Carb vein	SAME DESCRIPTION AS #2064089: HIGH-GRADE GRAB FROM SUMMIT-CREEK SHOWING (HISTORIC 'BH' SHOWING?). ORANGE, FE-OXIDIZED, QZ-CARB POSSIBLE STOCKWORK VEIN SYSTEM W/ CU-MINERALIZATION. HOSTED WITHIN MG, PERVASIVE CHLORITE-ALTERED MAFIC VOLCANICS. MALACHITE + AZURITE STAINING. ALSO AN UNKNOWN GREY SULFIDE MINERAL? CARBONATES WEATHERING OUT, LEAVING BEHIND 'BOX-WORK' LIKE WEATHERING TEXTURE. PXRF: 3.11 WT% CU, 2785 AS (PPM).
2064091	Grab		Outcrop	340699	6749787	2020-08-18	Meta-sed	OFF-WHITE, HEAVILY FOLIATED, BLEACHED META-SED UNIT (SCHIST?). VERY SCHISTOSE AND BRITTLE. QZ VEINLETS FOLIATION PARALLEL (AUGEN-EYES). BEDS TRENDING 070 NE, 050 SE (S,D). PERVASIVE CHLORITE-ALTERED AND SILICIFIED ARGILITE UNIT (BEDS VISIBLE) ABOVE. PXRF: 170 NI, 480 CR, 46 CO (PPM). POSSIBLE MARGINAL TRANSITION UNIT?
2064092	Grab		Outcrop	340705	6749806	2020-08-18	Meta-sed	SAME DESCRIPTION AS #2064091: OFF-WHITE, HEAVILY FOLIATED, BLEACHED META-SED UNIT (SCHIST?). VERY SCHISTOSE AND BRITTLE. QZ VEINLETS FOLIATION PARALLEL (AUGEN-EYES). BEDS TRENDING 070 NE, 050 SE (S,D). PERVASIVE CHLORITE-ALTERED AND SILICIFIED ARGILITE UNIT (BEDS VISIBLE) ABOVE. PXRF: 388 CR, 199 CU, 130 NI (PPM). POSSIBLE MARGINAL TRANSITION UNIT?
2064093	Grab		Float	340697	6749902	2020-08-18	Intermediate Volcanic	2' BY 3' FOOT GOSSANOUS, GREY-ORANGE-BROWN BOULDER. LOOKS LIKE A FG, INTERMEDIATE VOLCANIC COMPOSITION (ANDESITE?) W/ HBL PHENOS (MM-SCALE) AMONGST A FG-GROUNDMASS. SILICIFIED. TRACE DISSEMINATED PYRITE. HEMATITE ALONG FRACTURES. INTERMEDIATE VOLCANIC CROSS-CUT BY QZ VEINLETS (DO NOT EFFERVESCE W/ HCL). GOSSANOUS BOULDER HAS A BRECCIATED TEXTURE. PXRF: 900 CU, 240 NI, 100 CR (PPM).

Sample ID	Type	Width (m)	Source	UTM_East	UTM_North	Date	Lithology	Description
2064094	Grab		Outcrop	340719	6749951	2020-08-18	Meta-sed	BLACK, VERY FISSILE LAYERING DEVELOPED AND SCHISTOSE TEXTURED, FOLIATED META-SED UNIT (SCHIST?) W/ FE-OXIDIZED QZ-VEINLETS FOLIATION PARALLEL TO BEDDING. QZ-VEINLETS VERY GOSSANOUS. UNIT IS BLACK, AND STANDS OUT AMONGST BLEACHED, CHLORITE-ALTERED AND SILICIFIED ARGILITE HOST UNITS.
2064034	Grab		Outcrop	338601	6751700	2020-08-10	Volcanic	Green Bear Creek mafic volcanic unit, epidote bands and serpentine veins, minor quartz carbonate veining, trace pyrite, magnetic (1).
2064035	Grab		Outcrop	343004	6749133	2020-08-14	Volcanic	Green foliated Bear Creek mafic volcanic unit, quartz carbonate chlorite veining, trace pyrite and malachite, magnetic (1).
2064036	Grab		Outcrop	343053	6749100	2020-08-14	Volcanic	Green foliated Bear Creek mafic volcanic unit, quartz carbonate chlorite veining, trace chalcopyrite and malachite, magnetic (1).
2064037	Grab		Outcrop	343098	6749041	2020-08-14	Volcanic	Green foliated Bear Creek mafic volcanic unit, quartz carbonate chlorite veining, trace chalcopyrite and malachite, magnetic (1).
2064038	Grab		Outcrop	343138	6749029	2020-08-14	Qtz-Carb	Orange weathering quartz carbonate breccia zone, possible argillite or bleached volcanic rocks, approx. 4m wide, cu stain.
2064039	Grab		Outcrop	343274	6749226	2020-08-14	Volcanic	Green Bear Creek mafic volcanic unit, qtz - carb. veining up to 40cm wide trace pyrite and chalcopyrite, magnetic (1).
2064040	Grab		Outcrop	343284	6749218	2020-08-14	Volcanic	Green foliated Bear Creek mafic volcanic unit, quartz carbonate chlorite veining, olivine, trace pyrite and chalcopyrite, magnetic (1).
2064041	Grab		Outcrop	343475	6749280	2020-08-14	Volcanic	Green-grey foliated Bear Creek mafic volcanic unit, 2-5% pyrrhotite + pyrite clots in qtz-carb. veins, magnetic (1).
2064042	Grab		Outcrop	344220	6748262	2020-08-15	Volcanic	Bear Creek meta-volcanic, qtz-carb. veining, tr pyrrhotite and chalcopyrite, trace malachite, magnetic (1).
2064043	Grab		Outcrop	344247	6748291	2020-08-15	Volcanic	Orange weathering carbonate vein zone in dark volcanics, spotty malachite.
2064044	Grab		Outcrop	344256	6748289	2020-08-15	Volcanic	Bear Creek meta-volcanic, qtz-carb. veining, tr pyrrhotite and chalcopyrite, trace malachite, magnetic (1).
2064045	Grab		Outcrop	344406	6748387	2020-08-15	Volcanic	Bear Creek meta-volcanic, qtz-carb. veining, pyrrhotite clots, trace chalcopyrite, trace malachite, magnetic (1).
2064046	Grab		Outcrop	344371	6748471	2020-08-15	Carbonate	Orange weathering quartz carbonate breccia zone, possible argillite or bleached volcanic rocks, approx. 4m wide, cu stain.
2064047	Chip	5	Outcrop	344375	6748470	2020-08-16	Carbonate	Orange weathering quartz carbonate breccia zone, possible argillite or bleached volcanic rocks, approx. 4m wide, cu stain.
2064048	Chip	2.5	Outcrop	344349	6748498	2020-08-16	Carbonate	Orange weathering quartz carbonate breccia zone, possible argillite or bleached volcanic rocks, approx. 4m wide, cu stain.
2064049	Grab		Outcrop	344349	6748498	2020-08-16	Carbonate	Orange weathering quartz carbonate breccia zone, possible argillite or bleached volcanic rocks, approx. 4m wide, cu stain.
2064155	Grab		Outcrop	342970	6749165	2020-08-20	mafic volcanic	fg green rock, pervasive propylitic alteration, serpentine, quartz veins, concentrated py (1%)
2064156	Grab		subcrop	342958	6749511	2020-08-20	mafic volcanic	fg dark grey mafic volcanic, some surficial hematite alteration, moderately magnetic (4/5)
2064157	Chip	3.3	Outcrop	342962	6749853	2020-08-20	peridotite	3.3m chip sample across ultramafic (peridotite), highly altered to serpentine, chlorite, previously sampled by GD
2064217	Grab		Outcrop	338775	6750620	2020-08-10	Quartz-Carbonate Vein	Qtz carbonate vein with trace cpy blebs to 1mm in foliated mafic volcanic. Chloritized veins discontinuous, up to 10cm wide, subparallel to foliation.

Sample ID	Type	Width (m)	Source	UTM_East	UTM_North	Date	Lithology	Description
2064218	Grab		Outcrop	339155	6750969	2020-08-10	Quartz-Carbonate Vein	Quartz-carb veining in fine grained medium green silicified mafic volcanic. 0.25% cpy in veins and along fractures in host volcanic. Trace malachite staining. Increase fe oxide where sulphides increase. Irregular veins to 8cm, pinch and swell.
2064219	Grab		Outcrop	339296	6751135	2020-08-10	Quartz-Carbonate Vein	Quartz-carbonate veining in sheared / foliated mafic volcanic. Stockwork to sub-concordant to foliation; veins 1 - 25cm, discontinuous. NVS. Wallrock along salvages altered to fibrous serpentine.
2064220	Chip	2	Outcrop	339469	6751151	2020-08-11	Massive Sulphide	Kloo-Ellen Showing, 2m chip sample, dark red-brown weathering, 10 - 30% cpy & 10 - 20% pyrite in altered foliated mafic volcanic (or fg seds?) sub concordant & cross cutting stringers and breccia zones. Massive sulphide lenses and pods over 2m. Copper staining (malachite + azurite) extends into footwall and hanging wall rocks, strongest in FW. XRF: 12.5% Cu
2064221	Grab		Outcrop	339483	6751314	2020-08-11	Foliated Mafic Volcanic	Mafic volcanic foliated. Maroon to dark green, blocky weathering, foliated, f to mg, chl altererd, silicified. Trace disseminated pyrite, rare cpy - possible source of wide Cu in soil anomaly. Added a chunk of qz carbonate vein from 5m up slope.
2064222	Grab		Outcrop	339863	6749656	2020-08-12	Metasediment	Patchy rust weathered, thin to thickly bedded metaseds, medium grey - green, fg, silicified contorted beds. 1% X-cutting quartz - carb stringers to 5cm. Trace pyrite in gosson zones. HW to gabbro/diorite/ peridotite stratigraphically below.
2064223	Grab		Outcrop	339875	6749619	2020-08-12	Peridotite	Peridotite Sill; black massive, fg, extrusive outcrop (5/5 mag). Serpentine altered along fractures and veinlets, weakly chlorite altered. Trace sulphides. Dark green to orange weathering, talcy feel along joints. Possible olivine. Minor mm scale qtz, serpentine veinlets. XRF: Cr 3815 ppm, Ni 2025 ppm.
2064224	Grab		Outcrop	339934	6749618	2020-08-12	Peridotite	Chloritic green to orange bornite weathering, increased alteration compared to previous peridotite. Moderately serpentinized; mm serpentine veinlets. Fresh surface is bleached lighter green. Fe - Oxides lining fractures. 4/5 magnetism. Trace FG disseminated sulphides. XRF: Cr 1909 ppm, Ni 1927 ppm.
2064225	Grab		Outcrop	339992	6749763	2020-08-12	Quartz Vein	Quartz vein outcrop in saddle intruding schist (strongly foliated FG black metaseds?) G. Davidson sampled the main vein previously with no anomalous results. Sampled offshoot of main vein. Medium orange to red brown. 8-12 cm wide, stained massive white to orange colour quartz, vuggy, fractures are limonite & hemetite stained but no visible sulphides.
2064226	Grab		Outcrop	340326	6749629	2020-08-12	Schist	Strong orange to red - brown oxide stain, friable, schistose, fg, dark grey to black with 5% rusty quartz boudins and discontinous stringers parallel to foliation, rare trace visible pyrite. Schistose to crenulated, layers defined by very thin quartz bands in rock.
2064227	Grab		Outcrop	343042	6749191	2020-08-14	Mafic Volcanic	Quartz-carb-chlorite vein in green & maroon colored mafic volcanic. Sample from clot of veining, 5-30cm wide, discontinuous, weak fe-oxided stain, minor vugs, no visible sulphides.
2064228	Grab		Outcrop	343040	6749206	2020-08-14	Quartz-Carbonate Vein	Quartz-carb-chlorite veining / breccia in chloritized and epidote altered mafic volcanic. Pod of brecciated mafic volcanic with vuggy quartz-chlorite-carb discontinuous vein with trace cpy (2mm clot in vein). 5-25 cm wide, sub-parallel to layering.
2064229	Grab		Float	343055	6749216	2020-08-14	Quartz Vein	Quartz vein angular float, dirty white massive quartz with dark brown fragments / wall rock; brecciated. Lacks the carbonate alteration of the previous veins sampled. 1% cpy clots to 2mm, weak malachite and azurite stain, minor orange fe-oxides along fractures. Not in-place; unsure of source.

Sample ID	Type	Width (m)	Source	UTM_East	UTM_North	Date	Lithology	Description
2064230	Grab		Subcrop	343061	6749179	2020-08-14	Quartz-Carbonate Vein	Quartz-carbonate vein in strongly chloritized mafic volcanic, close to in-place, similar to 2064228, but increased chlorite and malchite staining. 0.5% cpy in vuggy, yellow-cream colored quartz-carbonate.
2064231	Grab		Float	343106	6749193	2020-08-14	Quartz-Carbonate Vein	Quartz-carbonate-chlorite vein in chloritic mafic volcanic, angular float sample with weak fe-oxide orange stain, similar to 2064230. 1% cpy blebs, 0.5% py, trace sph (? Black).
2064232	Grab		Outcrop	343204	6749179	2020-08-14	Mafic Volcanic	Mafic Volcanic / Basalt? Initially called Peridotie due to magnetism (4/5), but may not be mafic enough to call ultramafic. Possibly fg Gabbro? Dark brown to green-brown weathering, blocky, massive, fg, dark green. Forms cliffs above creek. Sparse quartz-carb stringers to 1cm. No visible sulphides.
2064233	Grab		Outcrop	344082	6748349	2020-08-15	Foliated Mafic Volcanic	Foliated Mafic Volcanic, pyritic. Similar to previous outcrops but increased fe-oxides as orange-brown stain along fractures. 1-3% quartz-carb pods and boudins, 1-20cm, discontinuous, layer-parallel and x-cutting. 1% disseminated py in mafic volc. Foliation / layering 120/36 SW.
2064234	Grab		Outcrop	344077	6748357	2020-08-15	Quartz-Carbonate Vein	Quartz-carb veining in serpentinized Mafic Volcanic. Host rock is moderate to strongly serpentine altered (waxy, fibrous). Sample is a qtz-carb-serp-chl boudin, 15cm wide, 20cm long, cream colored, cg to massive with serpentine lining selvages. No visible sulphides but weak malachite stain.
2064235	Grab		Outcrop	344076	6748366	2020-08-15	Quartz-Carbonate-Py Vein	Quartz-carb-pyrite vein in serpentinized mafic volc. Yellow-white massive quartz-carb vein/pod with elongate black fg inclusions to 3cm, plus chlorite and strongly serpentinized selvages. Weak patchy fe-oxide stain. 0.5% granular pyrite clots to 1cm. Gabbro possibly above and below.
2064236	Grab		Outcrop	344354	6748477	2020-08-16	Mafic Volcanic	Mafic Volcanic, approx 50m west and upslope of showing that Graham Davidson figures is possibly the BH (Bill Harris) showing (the BH showing may have incorrect coordinates?, as it plots further north and outside of the claim boundary). Medium green to orange weathering, f to mg, green, quartz-carb altered mafic volcanic, chloritic, weakly serpentinized hosting concordant and stockwork quarz-carb veins to 30cm. 1% py, trace cpy, trace malachite stain.
2064237	Grab		Outcrop	344352	6748474	2020-08-16	Quartz-Carbonate Vein	Quartz-carbonate vein / stockwork in serpentine-chlorite altered mafic volcanic. 30cm wide sub-concordant to stockwork with trace dissem py, cpy and weak malachite stain. Stratigraphically above main showing. Approx 50m west and upslope of showing that Graham Davidson figures is possibly the BH (Bill Harris) showing (the BH showing may have incorrect coordinates?, as it plots further north and outside of the claim boundary).
2064238	Grab		Outcrop	344349	6748477	2020-08-16	Mafic Volcanic	Foliated Mafic Volcanic, altered. Hanging wall to previous sample, 2064237. Medium green, moderately foliated to weakly schistose, fine grained mafic volcanic. 3% mm scale quartz-carb stringers and clots, weak to mod orange-brown fe-oxide stain. Trace dissem py, trace malachite. Weather deteriorated and forced an early pickup.
2064239	Grab		Outcrop	341197	6749606	2020-08-18	Quartz-Carbonate Vein	Quartz-carb vein in black foliated Argillite, vn is cream to orange-brown, rust colored, vuggy, crumbly, 20 cm wide, trending ~110, dipping steeply south, sub-concordant to foliation. Strong fr-oxide stain, but no visible sulphides. Foliation (Arg) 121/76 SW.
2064240	Grab		Outcrop	341186	6749399	2020-08-18	Argillite	Argillite, silicified, dark grey, fg, very strongly foliated/crenulated. Foliations defined by mm-scale qtz bands. Moderate to patchy strong limonite and hematite along fractures and foliation. 4% qtz-carb concordant stringers and veinletts, 1mm-5cm, vuggy, oxidized, but no visible sulphides. **XRF: Cu-900 ppb, Zn-800 ppb**. First appearance of the strong crenulation cleavage during traverse.

Sample ID	Type	Width (m)	Source	UTM_East	UTM_North	Date	Lithology	Description
2064241	Grab		Outcrop	340999	6749412	2020-08-18	Argillite	Argillite/Schist, siliceous, micaceous, dark grey, foliated with strong crenulation cleavage developed. Moderate to strong hematite and lesser limonite along fractures and foliation. 5-15% qtz stringers and boudins parallel to foliation, vuggy, gossanous, trace fg py. Foliation 122/62 SW.
2064242	Grab		Outcrop	340765	6749317	2020-08-18	Quartz Vein	Quartz Vein/Boudin in silicified, crenulated Argillite/Schist, hematite and limonite stained quartz stringers and boudins, sub-concordant to foliation, discontinuous, 1-10cm wide, strong fe-oxide stain, trace dissem py. **XRF: Zn-400 ppb.**
2064243	Grab		Outcrop	340702	6749230	2020-08-18	Argillite	Argillite/Schist, gossan, similar to previous samples and pretty much the whole hillside from top to bottom. Dark grey-black, strongly weathered to red-brown hematite + lesser limonite, strongly foliated, at times crenulated, silicified to crumbly where increased shearing/oxidation. 2-4% rusty quartz stringers and boudins, discontinuous, 1-8cm wide. Trace unoxidized pyrite. Ended the traverse to assist with soil sampling.

Sample ID	Structure_1	Azimuth_1	Dip_1	Sampler	Certificate	Wgt_KG	Au_ppb	Pt_ppb	Pd_ppb	Mo_ppm	Cu_ppm	Pb_ppm	Zn_ppm	Ag_ppm	Ni_ppm	Co_ppm	Mn_ppm
2064078				PG	WHI20000302.2	1.29	8	1.5	2	0.5	339	1.5	103	0.15	26	38	1956
2064079	Strike-Dip	100	30	PG	WHI20000302.2	1.46	4	1.5	1	0.5	309	1.5	116	0.4	29	43	1691
2064080				PG	WHI20000302.2	1.87	8	4	6	0.5	8	1.5	2	0.15	1174	81	953
2064081	Strike-Dip	295	70	PG	WHI20000302.2	1.55	12	1.5	4	10	21	7	165	0.7	24	3	254
2064082				PG	WHI20000302.2	1.52	2	5	8	0.5	94	1.5	55	0.15	26	25	1392
2064083				PG	WHI20000302.2	1.01	4	19	26	0.5	261	1.5	72	0.15	28	30	1020
2064084				PG	WHI20000302.2	1.5	15	1.5	1	5	6583	1.5	65	3	6	9	371
2064085				PG	WHI20000302.2	2.41	3	1.5	1	0.5	5	1.5	0.5	0.15	1252	56	446

Sample ID	Structure_1	Azimuth_1	Dip_1	Sampler	Certificate	Wgt_KG	Au_ppb	Pt_ppb	Pd_ppb	Mo_ppm	Cu_ppm	Pb_ppm	Zn_ppm	Ag_ppm	Ni_ppm	Co_ppm	Mn_ppm
2064086	Strike-Dip	110	45	PG	WHI20000302.2	1.59	5	1.5	11	0.5	400	1.5	27	0.15	20	13	559
2064087				PG	WHI20000302.2	1.37	52	1.5	3	0.5	102	1.5	28	0.15	17	13	602
2064088				PG	WHI20000302.2	1.58	2	7	16	0.5	214	1.5	75	0.15	55	30	1040
2064089				PG	WHI20000302.2	1.27	9	4	12	2	1533	1.5	155	0.7	27	22	1251
2064090				PG	WHI20000302.2	1.35	9	4	11	3	2375	1.5	214	0.9	26	22	1195
2064091	Strike-Dip	70	50	PG	WHI20000302.2	2.3	1	6	11	0.5	86	1.5	51	0.15	79	26	835
2064092	Strike-Dip	30	40	PG	WHI20000302.2	2.75	1	7	13	0.5	73	1.5	31	0.15	65	20	601
2064093				PG	WHI20000302.2	1.91	54	6	10	0.5	86	1.5	32	0.15	43	19	401

Sample ID	Structure_1	Azimuth_1	Dip_1	Sampler	Certificate	Wgt_KG	Au_ppb	Pt_ppb	Pd_ppb	Mo_ppm	Cu_ppm	Pb_ppm	Zn_ppm	Ag_ppm	Ni_ppm	Co_ppm	Mn_ppm
2064094				PG	WHI20000302.2	1.89	6	1.5	4	7	24	1.5	112	0.6	19	3	538
2064034				GD	WHI20000302.2	1.09	19	1.5	10	0.5	10	1.5	2	0.15	3	0.5	171
2064035	Foliation	120	30	GD	WHI20000302.2	1.37	21	1.5	12	7	45	4	50	0.15	34	21	644
2064036				GD	WHI20000302.2	1.62	284	1.5	13	0.5	1104	1.5	7	0.15	13	5	171
2064037				GD	WHI20000302.2	1.47	6	1.5	12	0.5	133	4	62	0.15	46	26	659
2064038	Strike	14	80	GD	WHI20000302.2	1.5	9	1.5	4	0.5	29	1.5	34	0.15	21	14	1006
2064039				GD	WHI20000302.2	1.26	7	1.5	21	0.5	144	1.5	82	0.15	51	32	924
2064040				GD	WHI20000302.2	1.28	8	1.5	20	0.5	296	1.5	48	0.15	37	21	744
2064041				GD	WHI20000302.2	2.47	8	1.5	22	0.5	136	1.5	27	0.15	36	19	339
2064042				GD	WHI20000302.2	1.78	4	1.5	11	0.5	72	1.5	23	0.15	36	14	438
2064043	strike	160	50	GD	WHI20000302.2	1.88	24	1.5	7	0.5	227	4	117	0.15	24	44	1743
2064044	jointing	155	50	GD	WHI20000302.2	1.26	6	1.5	8	1	392	1.5	172	0.4	30	57	1958
2064045				GD	WHI20000302.2	2.02	10	1.5	16	0.5	213	1.5	19	0.15	15	11	319
2064046	strike	165	30	GD	WHI20000302.2	1.72	28	1.5	22	4	6629	5	339	2.4	29	31	1719
2064047				GD	WHI20000302.2	2.44	6	1.5	14	2	567	4	144	0.15	32	24	1554
2064048				GD	WHI20000302.2	2.65	6	1.5	11	0.5	87	4	85	0.15	34	20	1433
2064049				GD	WHI20000302.2	2.05	6	1.5	5	0.5	52	4	113	0.15	25	14	1359
2064155				AO	WHI20000302.2	0.9	4	1.5	9	0.5	324	1.5	68	0.15	36	27	920
2064156				AO	WHI20000302.2	1.25	9	6	15	0.5	311	1.5	117	0.15	21	34	1466
2064157				AO	WHI20000302.2	1.8	6	1.5	5	0.5	4	7	10	0.15	1644	76	517
2064217				LL	WHI20000302.2	0.81	133	1.5	2	0.5	284	1.5	4	0.15	5	2	251

Sample ID	Structure_1	Azimuth_1	Dip_1	Sampler	Certificate	Wgt_KG	Au_ppb	Pt_ppb	Pd_ppb	Mo_ppm	Cu_ppm	Pb_ppm	Zn_ppm	Ag_ppm	Ni_ppm	Co_ppm	Mn_ppm
2064218				LL	WHI20000302.2	0.85	17	17	17	0.5	523	1.5	45	0.15	22	23	736
2064219				LL	WHI20000302.2	0.64	4	1.5	1	0.5	7	1.5	8	0.15	5	3	100
2064220	mass sulph	112	42	LL	WHI20000302.2	2.02	1264	7	25	72	70560	8	138	6.6	59	83	1907
2064221				LL	WHI20000302.2	1.23	6	7	11	0.5	193	1.5	78	0.15	35	21	1044
2064222				LL	WHI20000302.2	0.88	5	19	35	0.5	296	1.5	63	0.3	52	28	919
2064223				LL	WHI20000302.2	1.25	15	1.5	1	0.5	7	7	0.5	0.15	1356	104	795
2064224				LL	WHI20000302.2	0.79	15	1.5	4	0.5	17	5	0.5	0.15	1175	82	681
2064225	vein	37	39	LL	WHI20000302.2	0.61	8	1.5	4	1	12	1.5	20	0.15	6	0.5	466
2064226	foliation	136	47	LL	WHI20000302.2	0.98	17	1.5	7	14	125	7	257	0.7	25	2	197
2064227				LL	WHI20000302.2	0.57	12	1.5	4	0.5	18	1.5	2	0.15	2	0.5	104
2064228	foliation	145	40	LL	WHI20000302.2	0.6	7	1.5	6	0.5	401	1.5	8	0.15	7	3	355
2064229				LL	WHI20000302.2	0.85	257	1.5	7	0.5	1717	15	39	0.15	13	6	400

Sample ID	Structure_1	Azimuth_1	Dip_1	Sampler	Certificate	Wgt_KG	Au_ppb	Pt_ppb	Pd_ppb	Mo_ppm	Cu_ppm	Pb_ppm	Zn_ppm	Ag_ppm	Ni_ppm	Co_ppm	Mn_ppm
2064230				LL	WHI20000302.2	0.73	6	1.5	8	0.5	520	1.5	25	0.15	23	11	657
2064231				LL	WHI20000302.2	0.66	347	13	68	0.5	868	1.5	60	0.8	57	32	849
2064232				LL	WHI20000302.2	0.64	7	6	5	0.5	218	1.5	110	0.3	27	42	1345
2064233	foliation	120	36	LL	WHI20000302.2	0.7	46	6	13	0.5	91	5	39	0.3	47	27	704
2064234				LL	WHI20000302.2	0.53	5	1.5	1	0.5	56	1.5	5	0.15	4	5	419
2064235				LL	WHI20000302.2	0.63	10	1.5	1	0.5	22	1.5	2	0.15	4	7	577
2064236				LL	WHI20000302.2	1.11	3	1.5	6	0.5	131	1.5	72	0.15	39	22	1028
2064237				LL	WHI20000302.2	1.02	1	9	15	0.5	91	1.5	58	0.15	33	22	1191
2064238				LL	WHI20000302.2	1.06	5	5	11	0.5	187	1.5	65	0.15	71	30	877
2064239	Foliation	121	76	LL	WHI20000302.2	0.77	1	1.5	1	0.5	37	1.5	42	0.15	8	2	688
2064240				LL	WHI20000302.2	0.95	7	1.5	1	0.5	31	8	70	0.15	25	6	311

Sample ID	Structure_1	Azimuth_1	Dip_1	Sampler	Certificate	Wgt_KG	Au_ppb	Pt_ppb	Pd_ppb	Mo_ppm	Cu_ppm	Pb_ppm	Zn_ppm	Ag_ppm	Ni_ppm	Co_ppm	Mn_ppm
2064241	Foliation	122	62	LL	WHI20000302.2	0.9	10	1.5	3	6	30	5	165	0.9	18	1	287
2064242				LL	WHI20000302.2	0.72	3	1.5	1	0.5	28	6	60	0.15	21	4	761
2064243				LL	WHI20000302.2	1.02	7	1.5	7	15	54	8	106	1.1	19	1	106

Sample ID	Fe_%	As_ppm	Th_ppm	Sr_ppm	Cd_ppm	Sb_ppm	Bi_ppm	V_ppm	Ca_%	P_%	La_ppm	Cr_ppm	Mg_%	Ba_ppm	Ti_%	B_ppm	Al_%	Na_%	K_%	W_ppm
2064078	8.13	1	1	16	0.25	1.5	1.5	158	0.86	0.132	3	16	2.08	193	0.324	10	2.25	0.02	0.41	1
2064079	9.38	1	1	11	0.25	3	1.5	233	0.77	0.137	3	17	2.59	85	0.389	10	3.21	0.02	0.13	1
2064080	4.66	1	1	17	0.25	1.5	1.5	11	0.53	0.0005	0.5	213	12.72	4	0.002	10	0.18	0.005	0.005	1
2064081	2.43	23	1	7	0.7	1.5	1.5	31	0.12	0.042	10	8	0.32	149	0.002	10	0.59	0.005	0.17	1
2064082	5.29	9	1	162	0.6	19	1.5	117	7.12	0.056	4	9	2.81	73	0.002	10	0.22	0.02	0.13	1
2064083	5.98	1	1	16	0.25	1.5	1.5	136	1.2	0.112	3	27	1.72	49	0.382	10	1.97	0.03	0.12	1
2064084	2.29	4	1	6	0.25	1.5	1.5	23	0.97	0.003	0.5	4	0.45	2	0.001	10	0.62	0.005	0.005	1
2064085	3.1	74	1	49	0.25	1.5	1.5	12	0.79	0.001	1	739	16.1	14	0.003	10	0.06	0.005	0.005	1

Sample ID	Fe_%	As_ppm	Th_ppm	Sr_ppm	Cd_ppm	Sb_ppm	Bi_ppm	V_ppm	Ca_%	P_%	La_ppm	Cr_ppm	Mg_%	Ba_ppm	Ti_%	B_ppm	Al_%	Na_%	K_%	W_ppm
2064086	2.38	6	1	69	0.25	1.5	1.5	68	5.51	0.031	1	52	0.96	25	0.273	10	1.42	0.04	0.11	1
2064087	2.48	5	1	87	0.25	15	1.5	56	4.39	0.028	2	23	1.69	45	0.012	10	0.35	0.08	0.05	1
2064088	5.63	1	1	18	0.25	4	1.5	164	1.38	0.093	5	121	2.15	18	0.58	10	2.76	0.04	0.05	1
2064089	3.86	412	1	109	4.9	105	1.5	113	10.08	0.043	2	32	4.18	9	0.003	10	0.25	0.005	0.02	1
2064090	3.72	792	1	100	4.3	216	1.5	121	9.95	0.036	2	34	4.1	7	0.005	10	0.2	0.005	0.01	1
2064091	3.5	5	1	16	0.25	1.5	1.5	62	1.79	0.031	0.5	252	2.09	48	0.139	10	2.29	0.01	0.11	1
2064092	2.48	5	1	15	0.25	1.5	1.5	50	1.69	0.017	0.5	182	1.44	70	0.094	10	1.66	0.01	0.09	1
2064093	2.57	1	1	41	0.25	1.5	1.5	44	0.91	0.093	0.5	114	1.21	24	0.134	10	1.5	0.04	0.06	1

Sample ID	Fe_%	As_ppm	Th_ppm	Sr_ppm	Cd_ppm	Sb_ppm	Bi_ppm	V_ppm	Ca_%	P_%	La_ppm	Cr_ppm	Mg_%	Ba_ppm	Ti_%	B_ppm	Al_%	Na_%	K_%	W_ppm
2064094	2.58	19	1	28	0.25	1.5	1.5	42	0.58	0.046	3	12	0.51	198	0.006	10	0.84	0.01	0.09	1
2064034	1.15	1	1	121	0.25	1.5	1.5	49	2.3	0.033	2	30	0.05	7	0.425	10	1	0.005	0.02	1
2064035	4.04	7	1	24	0.25	1.5	1.5	94	3.87	0.045	1	47	1.27	35	0.278	242	1.81	0.04	0.06	1
2064036	1.18	3	1	51	0.25	1.5	1.5	54	2.17	0.045	2	65	0.32	13	0.427	10	0.82	0.04	0.05	1
2064037	5.05	51	1	11	0.25	1.5	1.5	161	1.02	0.044	3	83	1.69	26	0.441	10	2.21	0.05	0.07	1
2064038	3.66	13	1	98	0.25	6	1.5	64	7.53	0.01	1	14	3.11	13	0.001	10	0.29	0.005	0.1	1
2064039	7.05	3	1	33	0.25	1.5	1.5	194	2.58	0.074	3	132	2.31	29	0.428	10	3.63	0.02	0.13	1
2064040	3.51	6	1	18	0.25	1.5	1.5	93	3.11	0.058	2	91	1.27	8	0.402	10	1.69	0.04	0.04	1
2064041	3.35	1	1	17	0.25	1.5	1.5	76	0.99	0.049	1	105	1.02	13	0.381	10	1.36	0.04	0.01	1
2064042	2.85	1	1	222	0.25	1.5	1.5	66	11.57	0.03	2	87	1.07	370	0.165	250	1.16	0.03	0.02	1
2064043	10.84	3	1	72	0.8	1.5	1.5	272	5.13	0.068	7	8	2.92	51	0.006	10	0.96	0.02	0.16	1
2064044	13.45	3	1	49	0.25	1.5	1.5	281	2.28	0.103	5	15	3.12	557	0.149	10	3.46	0.05	1.06	1
2064045	2.2	4	1	42	0.25	1.5	1.5	93	1.9	0.076	3	28	0.72	11	0.452	10	1.29	0.02	0.005	1
2064046	5.28	1194	1	131	7.4	301	1.5	161	12.58	0.042	3	44	4.36	13	0.002	10	0.23	0.01	0.02	2
2064047	4.9	126	1	126	3.7	42	1.5	126	11.87	0.057	3	44	3.56	20	0.012	10	0.43	0.005	0.04	1
2064048	5.42	11	1	153	1.5	1.5	1.5	201	14.08	0.041	4	38	4.92	31	0.043	10	0.58	0.02	0.05	1
2064049	4.82	17	1	197	2.1	7	1.5	178	18.17	0.02	3	10	6.91	11	0.002	10	0.15	0.01	0.03	1
2064155	5.4	1	1	21	0.25	1.5	1.5	123	4.08	0.085	4	36	2.1	16	0.382	10	2.65	0.04	0.04	1
2064156	9.43	1	1	14	0.25	1.5	1.5	214	1.03	0.127	4	5	1.87	116	0.571	10	2.05	0.04	0.19	1
2064157	4.16	2	1	11	0.25	15	1.5	13	0.51	0.001	2	1153	17.22	47	0.005	10	0.2	0.005	0.01	1
2064217	0.43	1	1	7	0.25	1.5	1.5	9	4.52	0.017	0.5	10	0.13	7	0.052	10	0.19	0.09	0.005	1

Sample ID	Fe_%	As_ppm	Th_ppm	Sr_ppm	Cd_ppm	Sb_ppm	Bi_ppm	V_ppm	Ca_%	P_%	La_ppm	Cr_ppm	Mg_%	Ba_ppm	Ti_%	B_ppm	Al_%	Na_%	K_%	W_ppm
2064218	3.9	4	1	29	0.6	1.5	1.5	110	5.34	0.071	2	10	0.98	21	0.364	10	1.52	0.04	0.03	1
2064219	0.59	1	1	5	0.25	1.5	1.5	10	0.68	0.014	0.5	7	0.22	2	0.053	10	0.29	0.11	0.005	1
2064220	22.28	31	1	3	0.25	1.5	5	227	0.32	0.054	4	143	3.5	9	0.234	10	6.17	0.005	0.03	17
2064221	4.79	1	1	11	0.25	1.5	1.5	126	2.66	0.063	3	51	1.74	20	0.452	10	1.98	0.04	0.04	1
2064222	6.77	1	1	18	0.25	1.5	1.5	83	0.83	0.014	0.5	80	2.81	15	0.18	10	3.48	0.005	0.01	1
2064223	5.9	1	1	100	0.25	8	1.5	12	0.65	0.0005	2	694	16.1	8	0.003	10	0.14	0.005	0.005	1
2064224	3.4	1	1	43	0.25	4	1.5	11	2.22	0.0005	1	275	12.59	3	0.002	10	0.14	0.005	0.005	1
2064225	0.74	6	1	25	0.25	1.5	1.5	4	1.3	0.008	1	5	0.06	31	0.0005	10	0.1	0.005	0.02	1
2064226	5.27	32	1	7	1	5	1.5	44	0.06	0.07	6	15	0.35	179	0.0005	10	0.64	0.005	0.1	1
2064227	0.36	1	1	2	0.25	1.5	1.5	4	0.48	0.011	0.5	5	0.04	6	0.019	10	0.16	0.13	0.005	1
2064228	0.76	1	1	16	0.25	1.5	1.5	21	6.63	0.028	0.5	19	0.21	10	0.102	10	0.32	0.07	0.01	1
2064229	2.15	22	1	7	0.25	1.5	1.5	55	2.07	0.013	0.5	36	0.44	130	0.129	10	0.32	0.03	0.15	1

Sample ID	Fe_%	As_ppm	Th_ppm	Sr_ppm	Cd_ppm	Sb_ppm	Bi_ppm	V_ppm	Ca_%	P_%	La_ppm	Cr_ppm	Mg_%	Ba_ppm	Ti_%	B_ppm	Al_%	Na_%	K_%	W_ppm
2064230	1.91	1	1	12	0.25	1.5	1.5	53	7.11	0.016	0.5	85	0.87	15	0.288	10	0.96	0.05	0.02	1
2064231	4.32	1	1	32	0.25	4	1.5	249	1.23	0.058	2	135	1.87	8	0.44	10	2.41	0.005	0.005	1
2064232	10.3	1	1	37	0.25	6	1.5	242	2.82	0.09	5	14	2.1	194	0.305	10	2.42	0.03	0.24	1
2064233	4.46	7	1	9	0.5	1.5	1.5	108	3.61	0.029	1	115	1.88	14	0.232	10	1.7	0.02	0.02	1
2064234	0.55	3	1	12	0.25	1.5	1.5	10	5.92	0.006	0.5	2	0.16	9	0.009	10	0.22	0.07	0.005	1
2064235	0.81	8	1	50	0.25	1.5	1.5	6	14	0.003	0.5	2	0.08	186	0.01	10	0.1	0.005	0.005	1
2064236	4.39	1	1	27	0.25	1.5	1.5	106	2.88	0.126	7	47	1.77	16	0.137	10	1.95	0.04	0.04	1
2064237	4.92	18	1	102	1	5	1.5	177	11.01	0.031	3	47	4.51	10	0.001	10	0.29	0.01	0.03	1
2064238	4.62	1	1	32	0.25	1.5	1.5	117	2	0.055	3	180	2.12	58	0.234	10	2.35	0.03	0.03	1
2064239	1.4	5	1	58	1	1.5	1.5	8	2.15	0.019	6	4	0.12	38	0.001	10	0.23	0.005	0.02	1
2064240	1.58	2	1	4	1.1	1.5	1.5	10	0.06	0.018	5	5	0.65	86	0.001	10	0.79	0.005	0.06	1

Sample ID	Fe_%	As_ppm	Th_ppm	Sr_ppm	Cd_ppm	Sb_ppm	Bi_ppm	V_ppm	Ca_%	P_%	La_ppm	Cr_ppm	Mg_%	Ba_ppm	Ti_%	B_ppm	Al_%	Na_%	K_%	W_ppm
2064241	3.81	20	1	12	1.2	3	1.5	31	0.08	0.081	4	9	0.55	346	0.062	10	0.83	0.03	0.1	1
2064242	1.27	2	1	10	0.6	1.5	1.5	10	0.18	0.009	7	7	0.59	113	0.002	10	0.73	0.005	0.05	1
2064243	4.53	29	1	8	0.25	5	1.5	57	0.02	0.046	1	14	0.25	194	0.002	10	0.61	0.02	0.12	1

Sample ID	S_%	Hg_ppm	Tl_ppm	Ga_ppm	Sc_ppm	Cu_%	Lab
2064078	0.06	0.5	2.5	2.5	5		Buereau Veritas Commodities Canada Ltd.
2064079	0.33	0.5	2.5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.
2064080	0.025	0.5	2.5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.
2064081	0.025	0.5	2.5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.
2064082	0.025	11	2.5	2.5	21		Buereau Veritas Commodities Canada Ltd.
2064083	0.025	0.5	2.5	6	2.5		Buereau Veritas Commodities Canada Ltd.
2064084	0.54	0.5	2.5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.
2064085	0.025	0.5	2.5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.

Sample ID	S_%	Hg_ppm	Tl_ppm	Ga_ppm	Sc_ppm	Cu_%	Lab
2064086	0.025	0.5	2.5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.
2064087	0.14	13	2.5	2.5	7		Buereau Veritas Commodities Canada Ltd.
2064088	0.025	0.5	2.5	2.5	5		Buereau Veritas Commodities Canada Ltd.
2064089	0.17	17	2.5	2.5	9		Buereau Veritas Commodities Canada Ltd.
2064090	0.21	50	2.5	2.5	8		Buereau Veritas Commodities Canada Ltd.
2064091	0.025	0.5	2.5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.
2064092	0.025	0.5	2.5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.
2064093	0.16	0.5	2.5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.

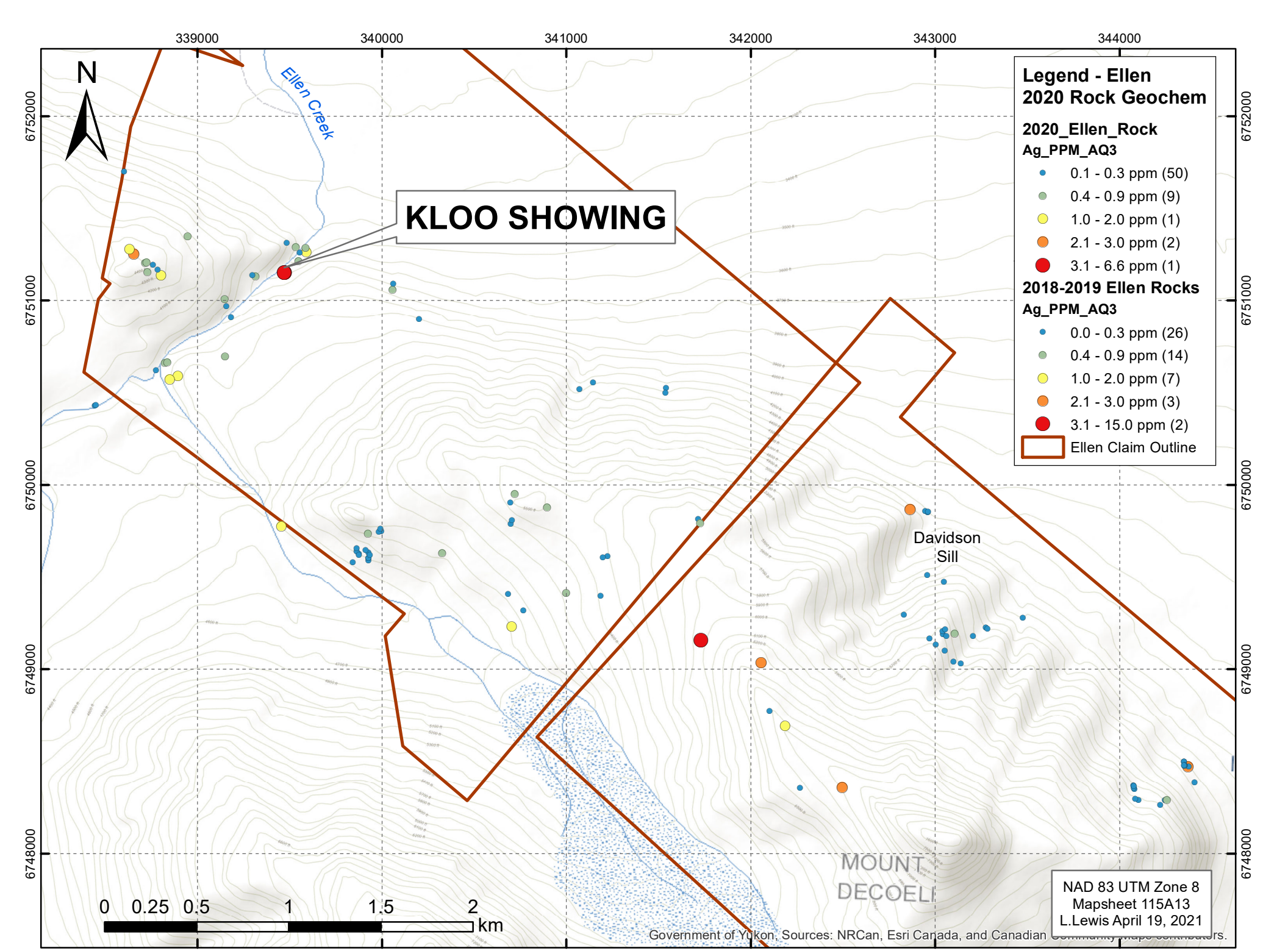
Sample ID	S_%	Hg_ppm	Tl_ppm	Ga_ppm	Sc_ppm	Cu_%	Lab
2064094	0.08	0.5	2.5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.
2064034	0.025	0.5	5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.
2064035	0.025	0.5	2.5	9	2.5		Buereau Veritas Commodities Canada Ltd.
2064036	0.05	0.5	6	2.5	2.5		Buereau Veritas Commodities Canada Ltd.
2064037	0.025	0.5	5	8	2.5		Buereau Veritas Commodities Canada Ltd.
2064038	0.025	0.5	2.5	2.5	6		Buereau Veritas Commodities Canada Ltd.
2064039	0.025	0.5	2.5	6	8		Buereau Veritas Commodities Canada Ltd.
2064040	0.025	0.5	6	7	5		Buereau Veritas Commodities Canada Ltd.
2064041	0.63	0.5	7	2.5	2.5		Buereau Veritas Commodities Canada Ltd.
2064042	0.025	0.5	2.5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.
2064043	0.025	0.5	2.5	2.5	33		Buereau Veritas Commodities Canada Ltd.
2064044	0.12	0.5	2.5	13	20		Buereau Veritas Commodities Canada Ltd.
2064045	0.05	0.5	2.5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.
2064046	0.19	50	2.5	5	13		Buereau Veritas Commodities Canada Ltd.
2064047	0.05	11	2.5	5	14		Buereau Veritas Commodities Canada Ltd.
2064048	0.025	1	2.5	7	16		Buereau Veritas Commodities Canada Ltd.
2064049	0.025	0.5	2.5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.
2064155	0.025	0.5	2.5	7	2.5		Buereau Veritas Commodities Canada Ltd.
2064156	0.11	0.5	2.5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.
2064157	0.025	1	2.5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.
2064217	0.025	0.5	2.5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.

Sample ID	S_%	Hg_ppm	Tl_ppm	Ga_ppm	Sc_ppm	Cu_%	Lab
2064218	0.025	0.5	2.5	9	2.5		Buereau Veritas Commodities Canada Ltd.
2064219	0.025	0.5	2.5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.
2064220	4.23	2	2.5	2.5	21	7.056	Buereau Veritas Commodities Canada Ltd.
2064221	0.025	0.5	5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.
2064222	0.025	0.5	2.5	2.5	6		Buereau Veritas Commodities Canada Ltd.
2064223	0.025	0.5	2.5	2.5	6		Buereau Veritas Commodities Canada Ltd.
2064224	0.025	0.5	2.5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.
2064225	0.025	0.5	2.5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.
2064226	0.025	0.5	2.5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.
2064227	0.025	0.5	2.5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.
2064228	0.025	0.5	2.5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.
2064229	0.07	0.5	2.5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.

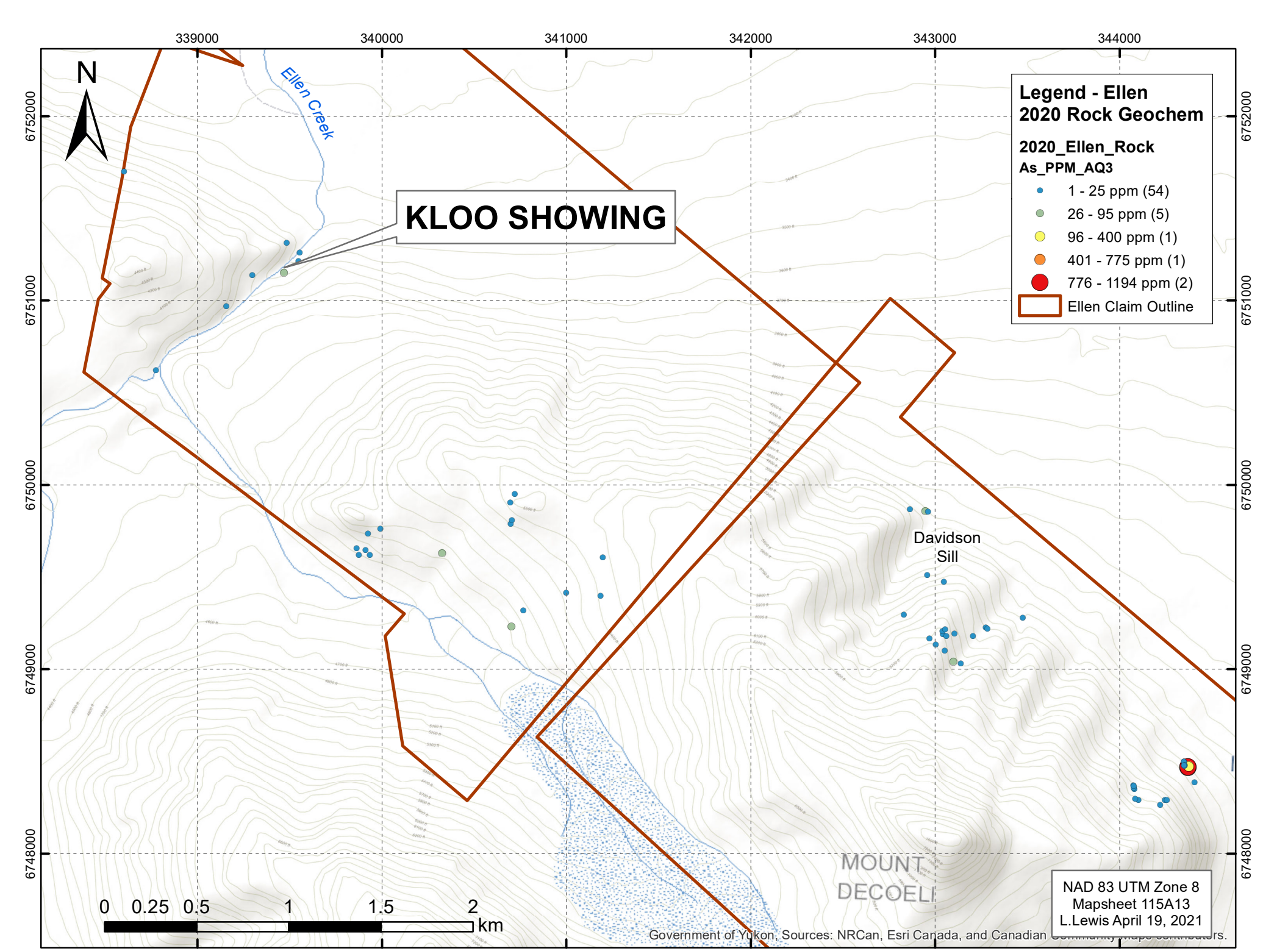
Sample ID	S_%	Hg_ppm	Tl_ppm	Ga_ppm	Sc_ppm	Cu_%	Lab
2064230	0.025	0.5	2.5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.
2064231	0.025	0.5	2.5	7	5		Buereau Veritas Commodities Canada Ltd.
2064232	0.025	0.5	2.5	2.5	15		Buereau Veritas Commodities Canada Ltd.
2064233	1.29	0.5	2.5	7	5		Buereau Veritas Commodities Canada Ltd.
2064234	0.025	0.5	2.5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.
2064235	0.49	0.5	2.5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.
2064236	0.025	0.5	2.5	9	7		Buereau Veritas Commodities Canada Ltd.
2064237	0.025	3	2.5	2.5	23		Buereau Veritas Commodities Canada Ltd.
2064238	0.025	0.5	2.5	8	10		Buereau Veritas Commodities Canada Ltd.
2064239	0.025	0.5	2.5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.
2064240	0.025	0.5	2.5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.

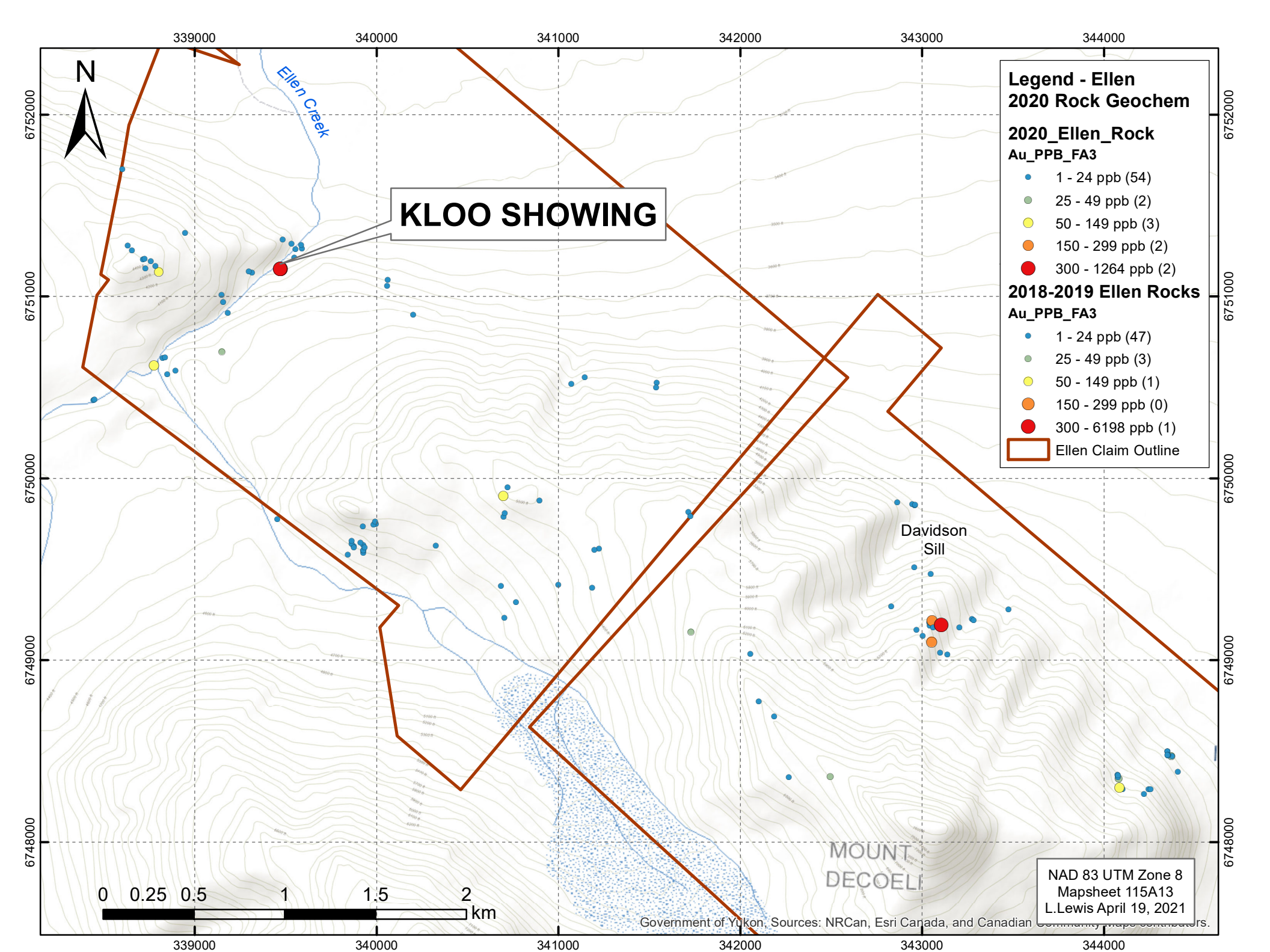
Sample ID	S_%	Hg_ppm	Tl_ppm	Ga_ppm	Sc_ppm	Cu_%	Lab
2064241	0.08	0.5	2.5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.
2064242	0.025	0.5	2.5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.
2064243	0.025	0.5	2.5	2.5	2.5		Buereau Veritas Commodities Canada Ltd.

Appendix VII – Rock Geochemistry Plots

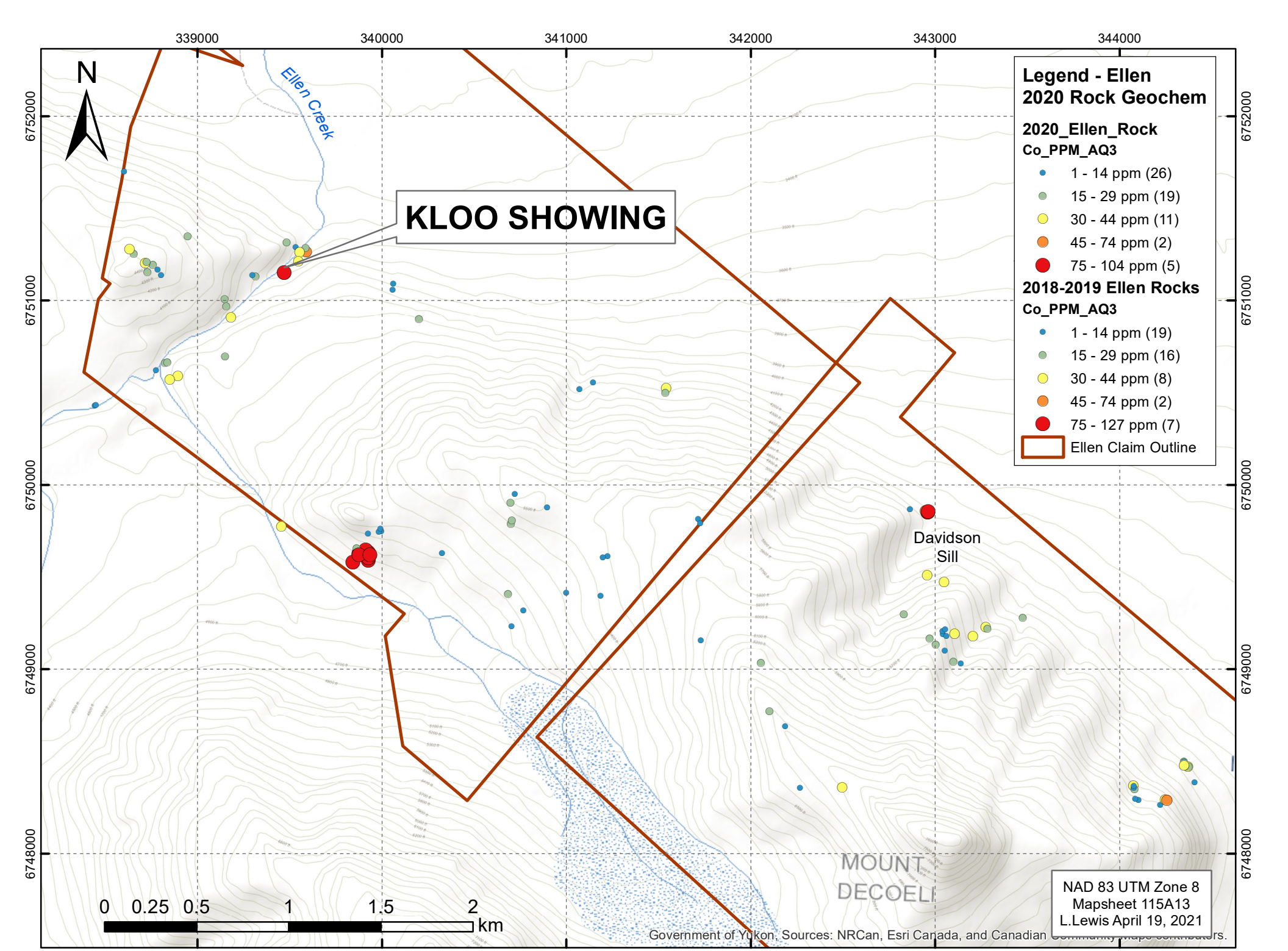


2020 Ellen Rock Geochemistry Plots

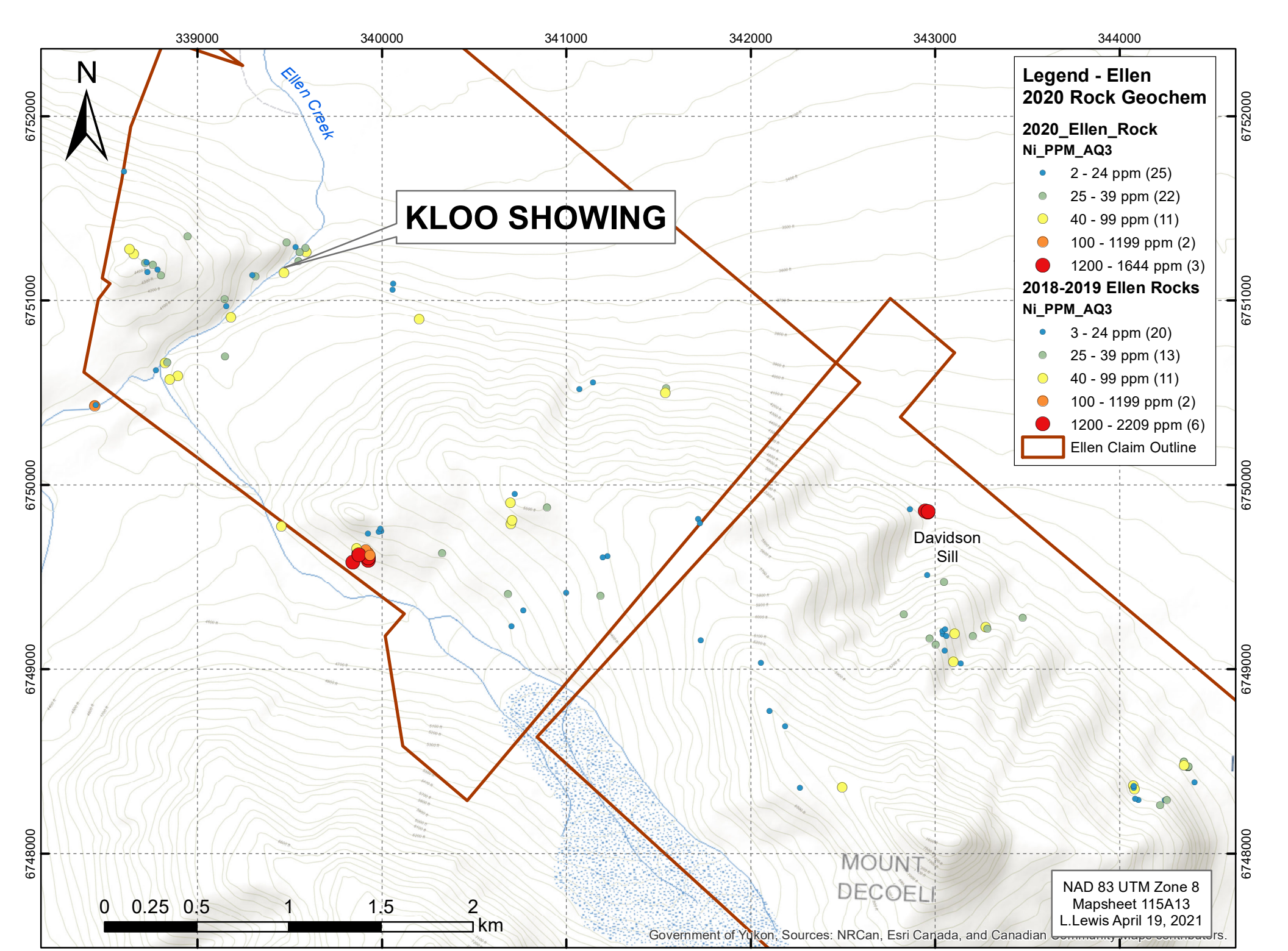

N
Ellen Creek
KLOO SHOWING
Davidson
Sill
MOUNT
DECOELI
Legend - Ellen
2020 Rock Geochem
2020_Ellen_Rock
As_PPM_AQ3
1 - 25 ppm (54)
26 - 95 ppm (5)
96 - 400 ppm (1)
401 - 775 ppm (1)
776 - 1194 ppm (2)
Ellen Claim Outline
339000
340000
341000
342000
343000
344000
6752000
6751000
6750000
6749000
6748000
0 0.25 0.5 1 1.5 2
km
NAD 83 UTM Zone 8
Mapsheet 115A13
L.Lewis April 19, 2021
Government of Yukon, Sources: NRCan, Esri Canada, and Canadian



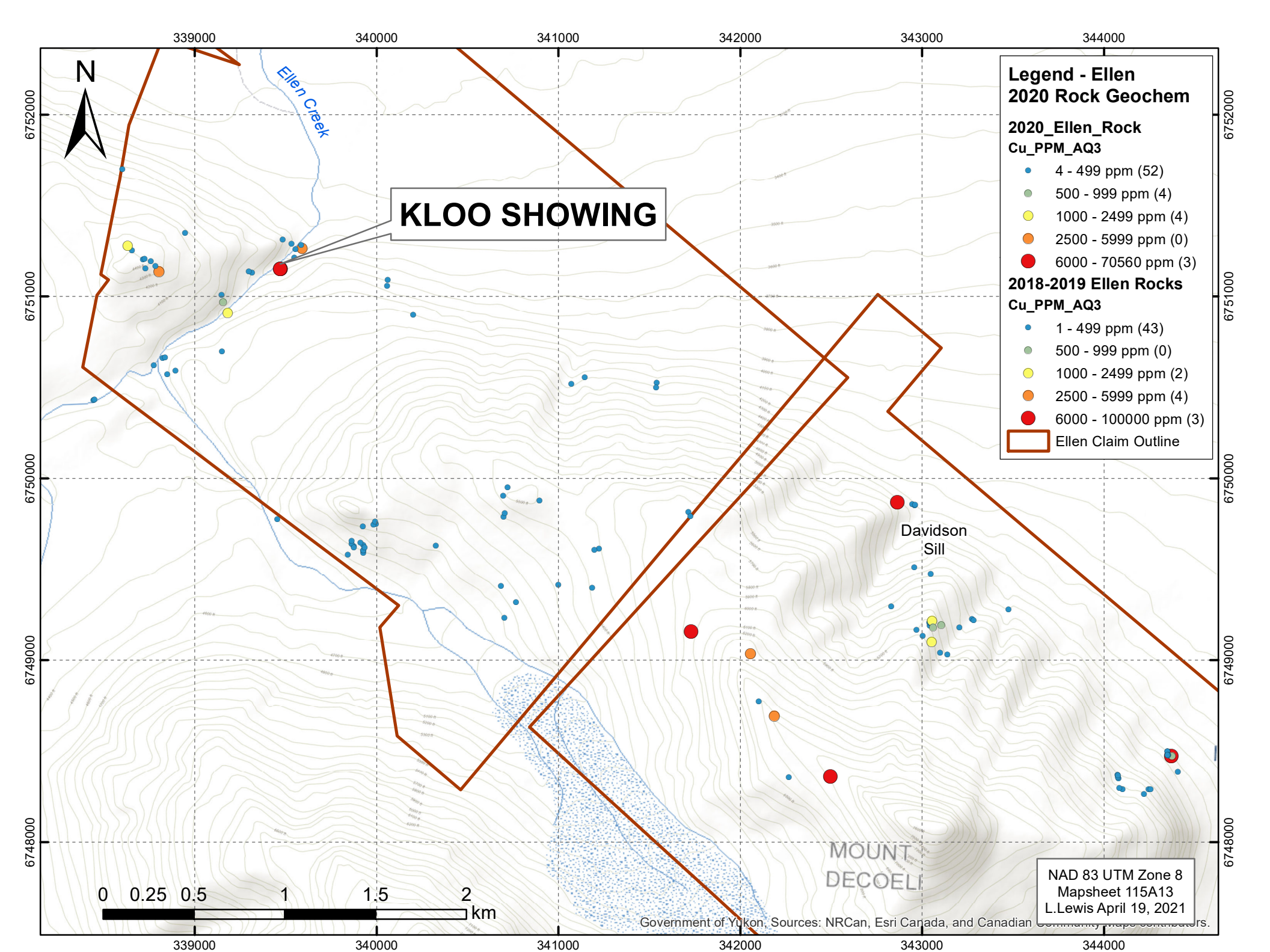
2020 Ellen Rock Geochemistry Plots



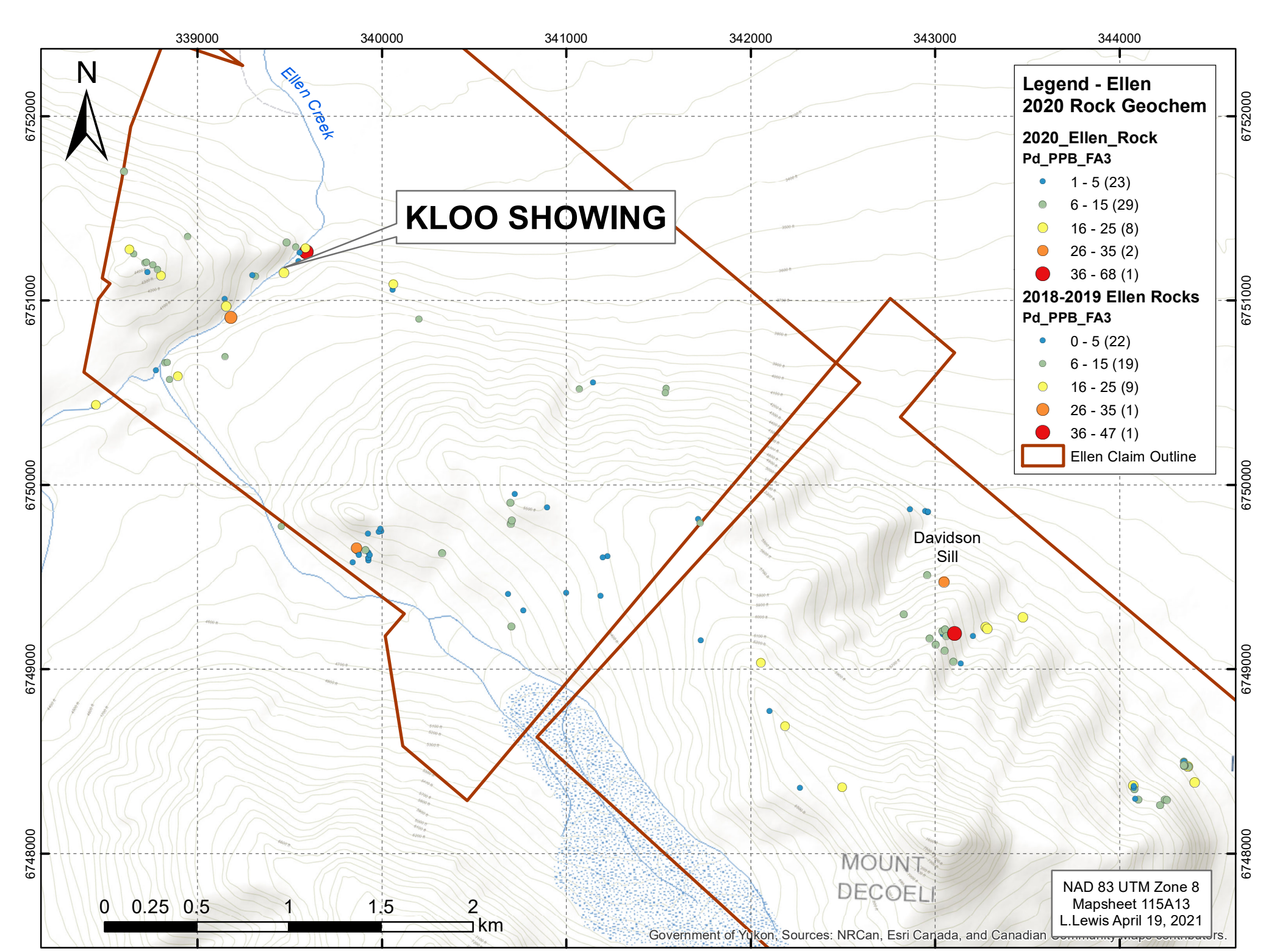
2020 Ellen Rock Geochemistry Plots



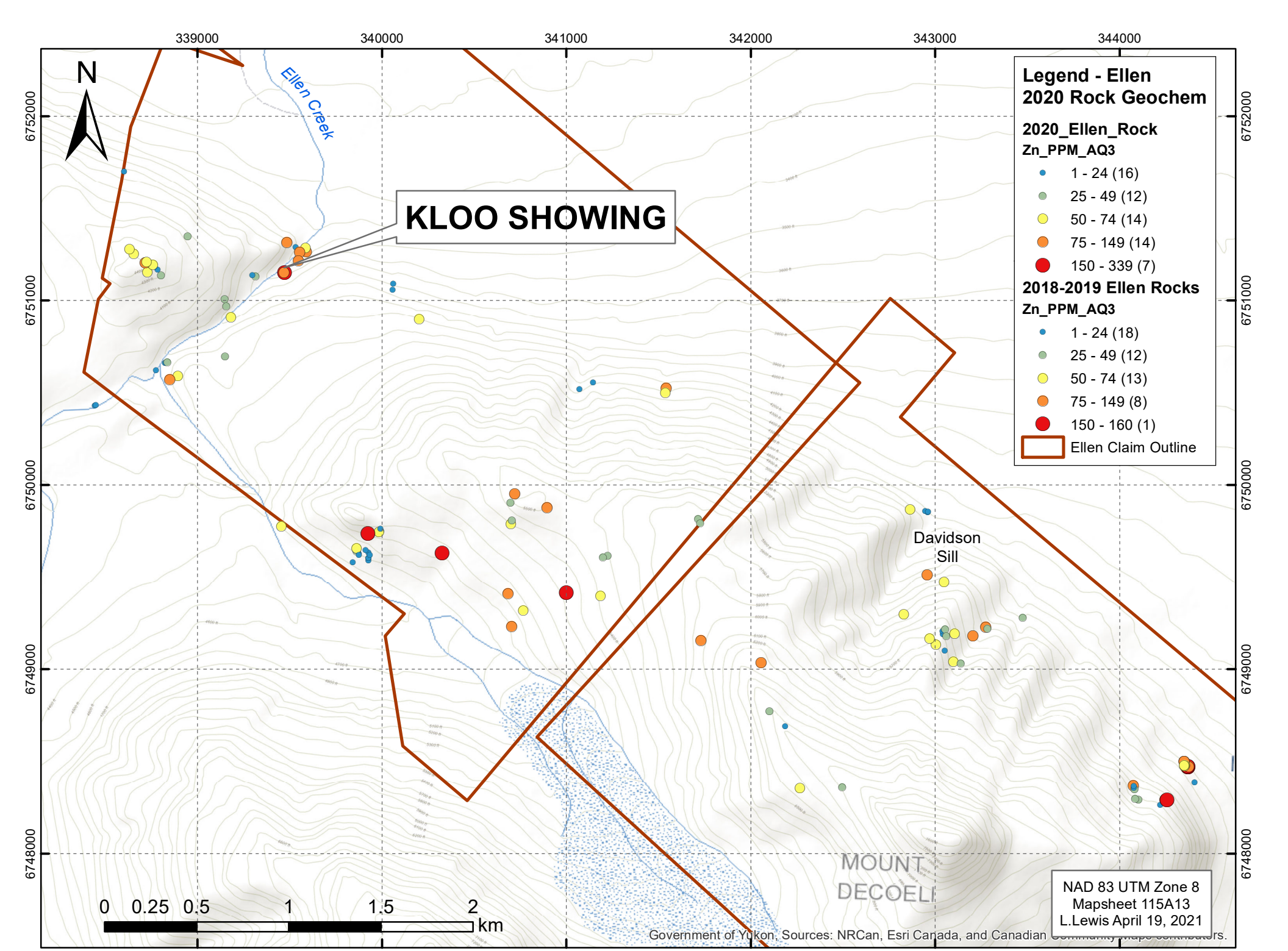
2020 Ellen Rock Geochemistry Plots



2020 Ellen Rock Geochemistry Plots



2020 Ellen Rock Geochemistry Plots



2020 Ellen Rock Geochemistry Plots

Appendix VIII – Core Description and Assays

H.S. Bostock Core Sampling Request

Sampled By: Ryan Versloot

Company: Longford Exploration / Group Ten Metals

Contact Info: ryan@longfordex.com
778-877-5513

File:

Property: Ellen

DDH ID: DH95-04

Date: July 7, 2020

From (m)	To (m)	Intvl (m)	Sample ID	Analyses
52.13	53.66	1.52	3249960	
53.66	57.01	3.35	3249961	
57.01	59.15	2.13	3249962	
59.15	60.37	1.22	3249963	
60.37	61.89	1.52	3249964	
61.89	63.41	1.52	3249965	
63.41	65.09	1.68	3249966	
65.09	66.77	1.68	3249967	
66.77	68.29	1.52	3249968	
68.29	70.12	1.83	3249969	
70.12	71.65	1.52	3249970	
71.65	73.17	1.52	3249971	
73.17	74.70	1.52	3249972	
74.70	76.22	1.52	3249973	
76.22	77.74	1.52	3249974	
77.74	79.27	1.52	3249975	
79.27	80.79	1.52	3249976	
80.79	82.47	1.68	3249977	
82.47	83.84	1.37	3249978	

Analytical Lab: Bureau Veritas

Analytical Details: PRP70-250, AQ300, FA330

Material Returned:

Note: all material must be returned to YGS. Analytical results will be open to the public after confidentiality period.

H.S. Bostock Core Sampling Request

Sampled By: Ryan Versloot

Company: Longford Exploration / Group Ten Metals

Contact Info: ryan@longfordex.com
778-877-5513

File:

Property: Ellen

DDH ID: DH95-05

Date: July 7, 2020

From (m)	To (m)	Intvl (m)	Sample ID	Analyses
58.99	60.06	1.07	3249951	
79.73	81.40	1.68	3249952	
81.40	82.93	1.52	3249953	
82.93	84.45	1.22	3249954	
84.45	85.98	1.52	3249955	
85.98	87.50	1.52	3249956	
87.50	89.02	1.52	3249957	
89.02	90.55	1.52	3249958	
90.55	92.07	1.52	3249959	

Analytical Lab: Bureau Veritas

Analytical Details: PRP70-250, AQ300, FA330

Material Returned:

Note: all material must be returned to YGS. Analytical results will be open to the public after confidentiality period.

Hole_ID	Sample ID	From (ft)	To (ft)	From (m)	To (m)	Length	Comment
DH95-04	3249960	171	176	52.13	53.66	1.52	light grey talc schist, competent, possible serpentine mixed in above
DH95-04	3249961	176	187	53.66	57.01	3.35	poor recovery, light grey-green, trace sulph
DH95-04	3249962	187	194	57.01	59.15	2.13	grading into competent moderate talc serpentinite, trace sulph
DH95-04	3249963	194	198	59.15	60.37	1.22	moderate talc serpentinite, competent, trace sulph
DH95-04	3249964	198	203	60.37	61.89	1.52	moderate talc serpentinite, competent, trace po+py
DH95-04	3249965	203	208	61.89	63.41	1.52	moderate talc serpentinite, competent, trace po+py
DH95-04	3249966	208	213.5	63.41	65.09	1.68	light grey moderate talc serpentinite, competent, trace po
DH95-04	3249967	213.5	219	65.09	66.77	1.68	short soft interval in middle, overall light grey, moderate talc serpentinite, trace po
DH95-04	3249968	219	224	66.77	68.29	1.52	weak brecciation, light grey-green, competent, trace po, mod talc
DH95-04	3249969	224	230	68.29	70.12	1.83	light grey, competent, mod talc, serpentinite, trace po+py
DH95-04	3249970	230	235	70.12	71.65	1.52	start of previous sampling, weak talc + serpentinite, trace po+py
DH95-04	3249971	235	240	71.65	73.17	1.52	moderately serpentinized, light grey-green, trace po on fractures
DH95-04	3249972	240	245	73.17	74.70	1.52	moderate talc, serpentinite, trace po
DH95-04	3249973	245	250	74.70	76.22	1.52	moderate talc, serpentinite, trace po, light grey-green
DH95-04	3249974	250	255	76.22	77.74	1.52	light grey-green, moderate talc, serpentinite, trace po
DH95-04	3249975	255	260	77.74	79.27	1.52	light grey-green, strong talc, serpentinite, trace po
DH95-04	3249976	260	265	79.27	80.79	1.52	light grey, strong talc, serpentinite, trace po
DH95-04	3249977	265	270.5	80.79	82.47	1.68	light grey, strong talc, serpentinite, trace po
DH95-04	3249978	270.5	275	82.47	83.84	1.37	light grey, strong talc, serpentinite, trace po, lower contact
DH95-05	3249951	193.5	197	58.99	60.06	1.07	talc interval between chlorite schist and graphitic schist
DH95-05	3249952	261.5	267	79.73	81.40	1.68	top of serpentinite sill, below dark grey soft schist, trace po
DH95-05	3249953	267	272	81.40	82.93	1.52	very soft, light green talc, trace po
DH95-05	3249954	272	277	82.93	84.45	1.52	very soft talc, not competent, light green, trace po
DH95-05	3249955	277	282	84.45	85.98	1.52	becoming less talc rich, light green to black, trace po+py
DH95-05	3249956	282	287	85.98	87.50	1.52	green-grey serpentinite with moderate talc, trace py+po
DH95-05	3249957	287	292	87.50	89.02	1.52	light grey-green serpentinite with moderate talc, trace po+py
DH95-05	3249958	292	297	89.02	90.55	1.52	dark grey to light green seprentinite, weak talc, 1% po on cleavage planes
DH95-05	3249959	297	302	90.55	92.07	1.52	dark grey to light green seprentinite, weak talc, 1% po on cleavage planes

Hole_ID	Sample ID	Wgt_KG	Au_PPB	Pt_PPB	Pd_PPB	Mo_PPM	Cu_PPM	Pb_PPM	Zn_PPM	Ag_PPM	Ni_PPM	Co_PPM	Mn_PPM	Fe_%
DH95-04	3249960	2.18	6	<3	<2	<1	20	<3	12	<0.3	614	26	330	1.5
DH95-04	3249961	1.52	12	<3	<2	<1	17	<3	16	0.3	1226	54	1011	3.01
DH95-04	3249962	1.76	16	<3	4	<1	21	4	51	0.3	1411	72	762	3.81
DH95-04	3249963	2.1	3	<3	<2	<1	8	5	27	0.4	2348	109	593	3.78
DH95-04	3249964	3.33	31	<3	<2	<1	5	5	9	<0.3	2089	94	831	3.87
DH95-04	3249965	3.01	35	<3	<2	<1	6	6	7	<0.3	2004	89	1041	3.83
DH95-04	3249966	2.27	49	<3	<2	<1	3	4	7	0.4	1995	93	629	3.8
DH95-04	3249967	2.66	115	<3	<2	<1	2	5	7	0.3	2147	94	925	4.12
DH95-04	3249968	2.84	105	<3	<2	<1	2	5	6	<0.3	2073	95	681	4
DH95-04	3249969	2.74	75	<3	5	<1	3	5	7	0.3	2017	89	936	3.84
DH95-04	3249970	0.63	114	<3	<2	<1	4	4	7	0.5	1863	86	791	3.75
DH95-04	3249971	0.76	8	4	5	<1	7	6	8	0.4	2028	91	269	3.94
DH95-04	3249972	0.71	4	<3	<2	<1	4	5	13	<0.3	2273	104	421	3.96
DH95-04	3249973	0.74	7	<3	<2	1	5	4	84	<0.3	2115	88	538	3.66
DH95-04	3249974	0.71	2	<3	3	<1	13	4	8	<0.3	1915	86	450	3.55
DH95-04	3249975	0.51	<2	<3	2	<1	13	4	10	<0.3	1687	78	480	2.83
DH95-04	3249976	0.56	5	3	5	<1	34	<3	15	<0.3	2050	94	612	3.21
DH95-04	3249977	0.73	2	5	<2	<1	16	4	21	<0.3	2005	99	472	3.53
DH95-04	3249978	0.73	4	<3	<2	<1	8	3	23	<0.3	1918	86	487	3.28
DH95-05	3249951	0.8	5	<3	<2	<1	10	<3	17	<0.3	1604	78	516	2.48
DH95-05	3249952	0.79	5	<3	3	<1	10	<3	28	<0.3	1518	78	675	3.08
DH95-05	3249953	0.71	6	<3	<2	<1	11	4	8	<0.3	1875	83	798	3.52
DH95-05	3249954	0.68	4	<3	3	1	10	3	74	<0.3	1602	75	507	3.43
DH95-05	3249955	0.76	3	<3	<2	<1	7	3	8	0.3	1932	87	710	3.48
DH95-05	3249956	0.75	30	<3	<2	<1	2	5	10	<0.3	2067	94	547	4.17
DH95-05	3249957	0.74	185	<3	6	<1	1	6	7	<0.3	1883	88	1112	4.81
DH95-05	3249958	1.05	52	<3	<2	<1	2	5	10	<0.3	1900	94	369	4.15
DH95-05	3249959	0.97	4499	<3	<2	<1	4	5	11	3	2325	110	440	4.61

Hole_ID	Sample ID	As_PPM	U_PPM	Th_PPM	Sr_PPM	Cd_PPM	Sb_PPM	Bi_PPM	V_PPM	Ca_%	P_%	La_PPM	Cr_PPM	Mg_%
DH95-04	3249960	6	<8	<2	82	<0.5	4	<3	28	3.98	0.003	1	636	4.23
DH95-04	3249961	42	<8	<2	109	<0.5	5	<3	21	4.63	0.016	2	710	8.84
DH95-04	3249962	59	<8	<2	93	<0.5	7	<3	37	1.83	0.014	2	1050	12.05
DH95-04	3249963	67	<8	<2	18	<0.5	7	<3	16	0.35	<0.001	2	1366	16.48
DH95-04	3249964	17	<8	<2	69	<0.5	9	<3	14	1.12	<0.001	2	1281	16.41
DH95-04	3249965	21	<8	<2	33	<0.5	6	<3	13	0.53	<0.001	2	1198	17.02
DH95-04	3249966	49	<8	<2	29	<0.5	9	<3	16	0.33	<0.001	2	1212	17.01
DH95-04	3249967	59	<8	<2	17	<0.5	11	<3	17	0.15	<0.001	2	1313	17.93
DH95-04	3249968	67	<8	<2	14	<0.5	10	<3	18	0.11	<0.001	2	1377	17.83
DH95-04	3249969	53	<8	<2	14	<0.5	8	<3	16	0.04	<0.001	2	1262	16.87
DH95-04	3249970	43	<8	<2	21	<0.5	10	<3	15	0.17	<0.001	2	1282	16.8
DH95-04	3249971	18	<8	<2	17	<0.5	8	<3	18	0.13	<0.001	2	1331	15.59
DH95-04	3249972	84	<8	<2	14	<0.5	9	<3	16	0.13	<0.001	2	1587	17.32
DH95-04	3249973	51	<8	<2	7	<0.5	8	<3	54	0.04	0.008	2	1428	16.49
DH95-04	3249974	<2	<8	<2	23	<0.5	7	<3	15	0.27	<0.001	2	1297	13.91
DH95-04	3249975	81	<8	<2	49	<0.5	8	<3	21	1.57	<0.001	1	1306	11.97
DH95-04	3249976	3	<8	<2	58	<0.5	9	<3	17	0.92	<0.001	1	1329	9.61
DH95-04	3249977	136	<8	<2	27	<0.5	11	<3	28	0.67	0.004	2	1749	12.93
DH95-04	3249978	101	<8	<2	33	<0.5	11	<3	20	0.68	<0.001	1	1703	13.16
DH95-05	3249951	165	<8	<2	32	<0.5	8	<3	11	1.41	0.004	1	987	8.01
DH95-05	3249952	52	<8	<2	130	<0.5	8	<3	29	2.21	0.004	2	1268	10.73
DH95-05	3249953	26	<8	<2	138	<0.5	9	<3	17	1.61	0.004	2	1284	14.14
DH95-05	3249954	21	<8	<2	15	0.6	7	<3	49	0.18	0.018	3	1147	12.32
DH95-05	3249955	8	<8	<2	120	<0.5	9	<3	17	1.33	<0.001	1	1583	11.91
DH95-05	3249956	50	<8	<2	68	<0.5	10	<3	21	0.96	<0.001	2	1519	17.07
DH95-05	3249957	62	21	<2	44	<0.5	7	<3	17	0.42	<0.001	2	1320	19.1
DH95-05	3249958	73	<8	<2	12	<0.5	10	<3	22	0.1	<0.001	2	1327	17.83
DH95-05	3249959	69	<8	<2	25	<0.5	10	<3	22	0.19	<0.001	2	1709	18.38

Hole_ID	Sample ID	Ba_PPM	Ti_%	B_PPM	Al_%	Na_%	K_%	W_PPM	S_%	Hg_PPM	Tl_PPM	Ga_PPM	Sc_PPM
DH95-04	3249960	53	0.036	<20	1.43	0.03	0.03	<2	<0.05	<1	<5	<5	<5
DH95-04	3249961	19	0.005	<20	0.4	0.04	0.04	<2	0.36	<1	<5	<5	<5
DH95-04	3249962	30	0.027	24	0.94	0.05	0.09	<2	0.28	<1	<5	<5	7
DH95-04	3249963	6	0.001	44	0.21	0.01	0.03	<2	0.27	<1	<5	7	6
DH95-04	3249964	3	<0.001	48	0.21	<0.01	0.03	<2	0.52	<1	<5	7	5
DH95-04	3249965	1	<0.001	47	0.21	<0.01	0.02	<2	0.51	<1	<5	<5	5
DH95-04	3249966	<1	0.002	53	0.23	<0.01	0.02	<2	0.52	<1	<5	<5	5
DH95-04	3249967	2	0.002	62	0.25	<0.01	0.02	<2	0.43	<1	<5	<5	6
DH95-04	3249968	2	0.003	55	0.27	<0.01	0.02	<2	0.48	<1	<5	<5	6
DH95-04	3249969	1	0.002	62	0.18	<0.01	0.02	<2	0.48	<1	<5	<5	5
DH95-04	3249970	5	0.001	69	0.19	<0.01	0.02	<2	0.43	<1	<5	<5	5
DH95-04	3249971	3	0.006	58	0.29	<0.01	0.02	<2	0.64	<1	<5	<5	6
DH95-04	3249972	4	0.002	52	0.24	<0.01	0.02	<2	0.3	<1	<5	<5	6
DH95-04	3249973	2	0.008	49	0.69	0.01	0.02	<2	0.26	<1	<5	<5	7
DH95-04	3249974	4	0.001	37	0.2	0.01	0.02	<2	0.68	<1	<5	<5	5
DH95-04	3249975	4	0.002	<20	0.35	<0.01	0.01	<2	0.2	<1	<5	5	<5
DH95-04	3249976	6	0.003	23	0.3	0.01	0.02	<2	0.84	<1	<5	<5	<5
DH95-04	3249977	3	0.006	<20	0.51	<0.01	0.01	<2	0.29	<1	<5	5	6
DH95-04	3249978	4	0.002	22	0.36	0.01	0.01	<2	0.28	<1	<5	<5	<5
DH95-05	3249951	23	0.001	<20	0.21	0.01	0.01	<2	0.57	<1	<5	<5	6
DH95-05	3249952	10	0.011	<20	0.58	0.05	0.03	<2	0.42	<1	<5	<5	6
DH95-05	3249953	5	0.007	27	0.33	0.02	0.03	<2	0.56	<1	<5	7	5
DH95-05	3249954	16	0.032	27	0.59	0.02	0.02	<2	0.51	<1	<5	<5	6
DH95-05	3249955	6	0.002	48	0.24	0.02	0.02	<2	0.75	<1	<5	6	5
DH95-05	3249956	6	0.006	82	0.2	0.02	0.03	<2	0.61	<1	<5	6	7
DH95-05	3249957	11	0.003	79	0.19	0.02	0.04	<2	0.44	<1	<5	<5	6
DH95-05	3249958	2	0.006	84	0.22	0.01	0.04	<2	0.5	<1	<5	<5	7
DH95-05	3249959	8	0.004	95	0.23	0.02	0.03	<2	0.61	<1	<5	<5	7

Appendix IX – Core Photos

Core Photos:

DDH 95-4

DDH 95-4 Box 1 – 3: 0.0m - 21.0m

DDH 95-4 Box 4 – 6: 21.0m - 38.1m

DDH 95-4 Box 7 – 9: 38.1m - 53.5m

DDH 95-4 Box 10 – 12: 53.5m - 71.9m

DDH 95-4 Box 13 – 15: 71.9m-88.2m

DDH 95-4 Box 16 – 17: 88.2m - 97.5m EOH

DDH 95-5

DDH 95-5 Box 1 – 3: 0.0 - 19.5m

DDH 95-5 Box 4 – 6: 19.5m - 35.1m

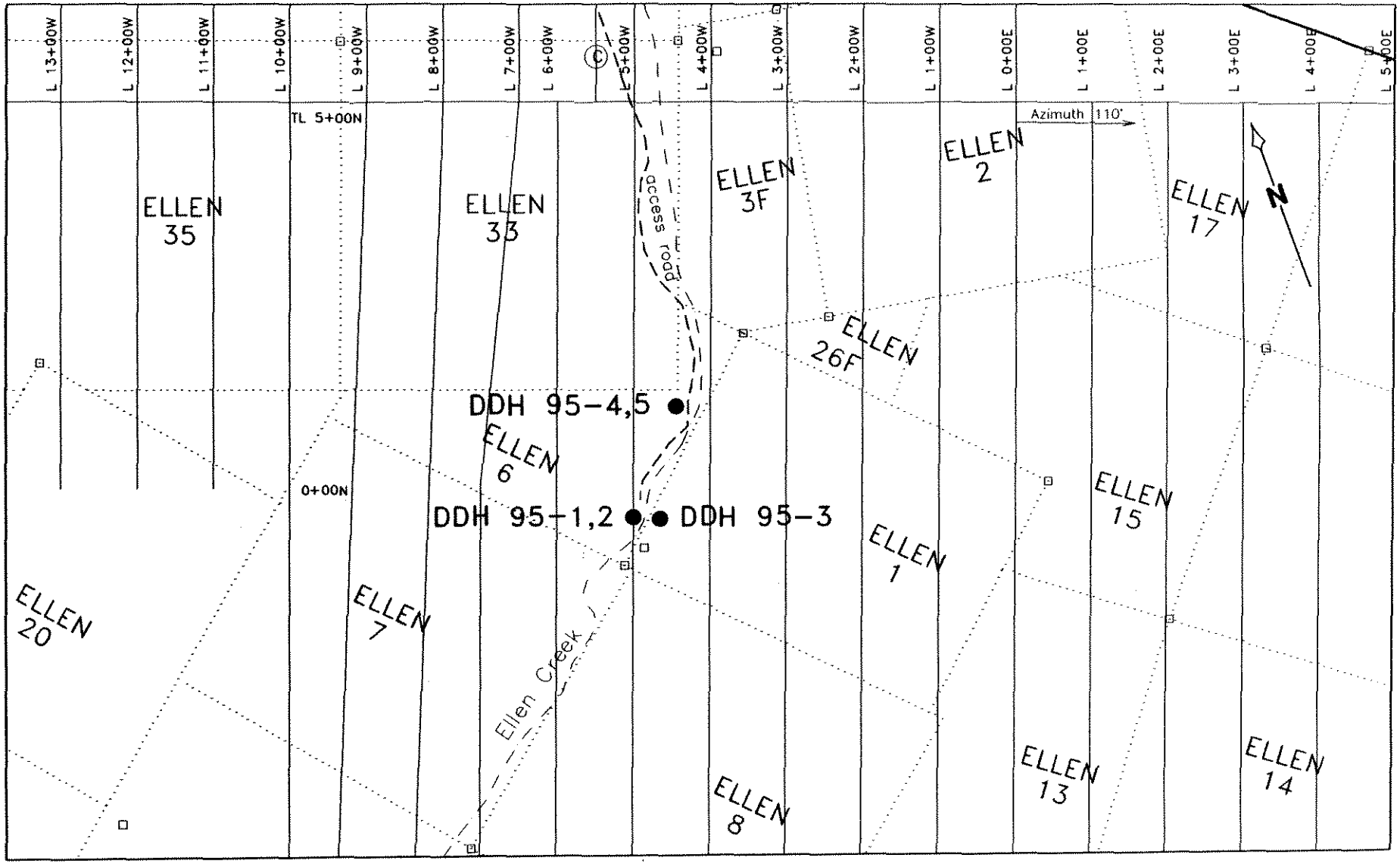
DDH 95-5 Box 7 – 9: 35.1m - 51.7m

DDH 95-5 Box 10 – 12: 51.7m - 67.7m

DDH 95-5 Box 13 – 15: 67.7m - 82.3m

DDH 95-5 Box 16 – 17: 82.3m - 92.0m_EOH

Appendix X – Core Historical Reference and Cross Section



LEGEND

- stream, creek
- 4-wheel drive road
- claim boundary
- property boundary
- grid line
- camp location ©
- diamond drill hole location, number ● DDH 95-3

0 100 200 300 400 500

METRES

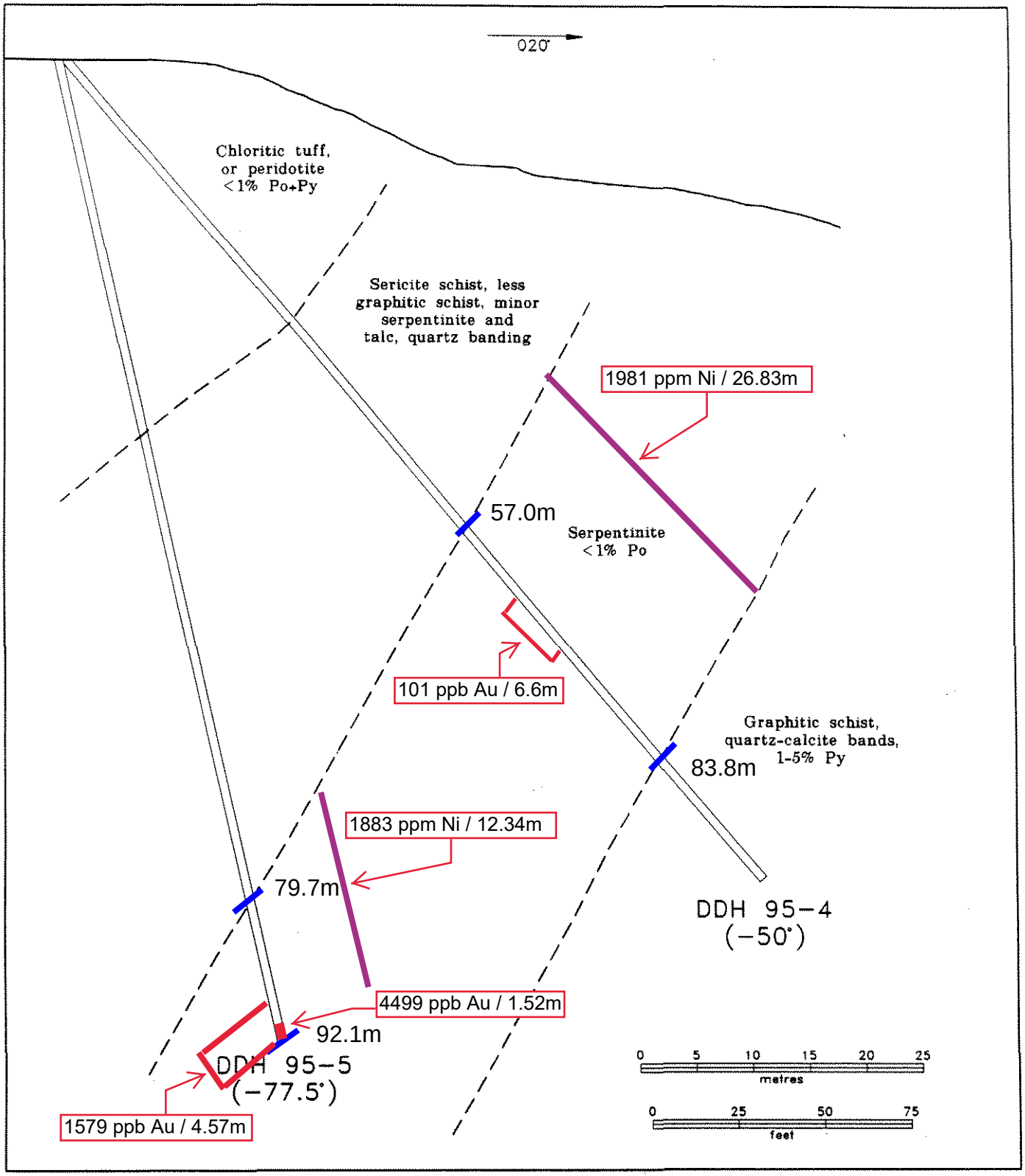
PROBE RESOURCES LTD.

ELLEN CLAIMS

GRID PLAN & DRILL HOLE LOCATIONS

Graham Davidson, Consulting Geologist

SCALE: 1 : 7,500		DATE: Aug, 1995
NTS: 115 A/13	DRAWN:	FIGURE: 4



2020 Significant results from re-assaying 1995 core.

PROBE RESOURCES LTD.		
ELLEN CLAIMS		
CROSS SECTION DDH 95-4 & DDH 95-5		
Graham Davidson, Consulting Geologist		
SCALE: 1 : 500		DATE: Aug, 1995
NTS: 115 A/13	DRAWN:	FIGURE 7

DRILL HOLE 95-4, BEARING 020 AT -50
Grid Location 0+78N, 4+34W

DILL HOLE NUMBER	WIDTH	DESCRIPTION	AU PPB	NI %
DDH 95-4, -50 AT 30 BEARING	0-105'	Pale green to black foliated andesitic tuff, sericite, chlorite, quartz and epidote banding, < 1% pyrrhotite and pyrite, minor chalcopyrite		
	105-171'	Light grey siltstone with a few layers of graphitic siltstone, quartz-carbonate bands and veins		
	171-276'	Serpentinite, talc layers at contacts, fine grained pyrrhotite along fractures, as blebs and on cleavage surfaces		
	276-320'	Graphitic schist, quartz bands, 1-5% pyrite		

DRILL HOLE 95-5, BEARING 020 AT -77.5
Grid Location 0+78N, 4+34W

DILL HOLE NUMBER	WIDTH	DESCRIPTION	AU PPB	NI %
DDH 95-5,	0-112'	Black to green chloritic or sericitic tuff, epidote and quartz banding		
	112-189'	Sericite schist, a few chlorite schist layers, quartz banding, < 1% pyrrhotite and pyrite		
	189-261'	Graphitic or sericitic quartz schist, a few talc and black siltstone layers, some serpentinite, < 1% pyrrhotite and pyrite		
	261-302'	Serpentinite, fine grained pyrrhotite along fractures, as blebs and on cleavage surfaces		

Appendix XI – Assay Certificates

BUREAU VERITAS MINERAL LABORATORIES Canada

www.bureauveritas.com/um

Bureau Veritas Commodities Canada Ltd.
9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Longford Exploration Services Ltd.**
460-688 West Hastings St.
Vancouver British Columbia V6B 1P1 Canada

Submitted By:	James Rogers
Receiving Lab:	Canada-Whitehorse
Received:	August 24, 2020
Analysis Start:	September 18, 2020
Report Date:	October 06, 2020
Page:	1 of 10

CERTIFICATE OF ANALYSIS WHI20000303.1

CLIENT JOB INFORMATION

Project:	2019-Ellen
Shipment ID:	
P.O. Number	
Number of Samples:	256

SAMPLE DISPOSAL

PICKUP-PLP	Client to Pickup Pulps
PICKUP-RJT	Client to Pickup Rejects

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
DY060	256	Dry at 60C			WHI
SS80	256	Dry at 60C sieve 100g to -80 mesh			WHI
SVRJT	256	Save all or part of Soil Reject			WHI
FA330	241	Fire assay fusion Au Pt Pd by ICP-ES	30	Completed	VAN
EN002	256	Environmental disposal charge-Fire assay lead waste			VAN
AQ300	256	1:1:1 Aqua Regia digestion ICP-ES analysis	0.5	Completed	VAN
SHP01	256	Per sample shipping charges for branch shipments			VAN

ADDITIONAL COMMENTS

Invoice To: Longford Exploration Services Ltd.
460-688 West Hastings St.
Vancouver British Columbia V6B 1P1
Canada

CC:

BRITISH COLUMBIA CERTIFIED ASSAYER
MARCUS LAU
Production Manager

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.
All results are considered the confidential property of the client. Bureau Veritas assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted.
"*" asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.

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460-688 West Hastings St.
Vancouver British Columbia V6B 1P1 Canada

Project: 2019-Ellen
Report Date: October 06, 2020

CERTIFICATE OF ANALYSIS WHI20000303.1

	Method	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
	Analyte	Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca
	Unit	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01
1318401	Soil	9	8	9	5	170	12	207	0.5	67	25	1090	5.38	58	<2	34	1.1	<3	<3	80	0.54
1318402	Soil	10	8	10	11	175	14	274	0.7	71	19	896	4.68	36	<2	79	1.7	4	<3	58	0.23
1318403	Soil	5	6	12	4	177	10	142	<0.3	129	29	1103	4.58	12	<2	50	1.3	<3	<3	83	2.29
1318404	Soil	8	7	7	6	127	12	191	0.3	64	27	1046	5.29	59	<2	22	0.5	<3	<3	95	0.19
1318405	Soil	9	10	17	5	183	14	202	0.5	68	30	1436	5.53	96	<2	27	1.8	<3	<3	89	0.57
1318406	Soil	25	10	24	4	152	9	152	0.4	89	29	961	4.16	15	<2	23	1.1	<3	<3	59	0.46
1318407	Soil	5	10	15	5	134	9	171	0.4	73	25	835	3.68	17	<2	26	1.5	<3	<3	45	0.44
1318408	Soil	6	7	9	8	92	11	211	0.6	49	16	801	3.54	21	<2	19	1.2	<3	<3	43	0.15
1318409	Soil	8	7	10	6	159	14	217	0.5	54	19	873	4.63	49	<2	18	1.1	<3	<3	56	0.26
1318410	Soil	12	6	10	7	156	11	269	0.5	67	19	805	4.44	34	<2	22	0.9	<3	<3	63	0.28
1318411	Soil	9	5	11	8	133	9	317	0.6	63	17	872	3.89	25	<2	19	1.3	<3	<3	46	0.26
1318412	Soil	10	5	8	9	115	11	386	0.6	62	14	753	3.83	27	<2	28	2.5	<3	<3	41	0.19
1318413	Soil	9	5	8	14	142	12	407	1.0	54	10	582	4.54	40	<2	18	1.3	4	<3	43	0.09
1318414	Soil	17	10	16	16	113	43	258	2.1	40	9	838	6.96	93	<2	36	1.7	7	<3	46	0.09
1318415	Soil	13	6	11	8	135	22	272	0.7	50	29	1933	4.30	26	<2	12	1.7	<3	<3	36	0.09
1318416	Soil	10	5	9	16	102	14	278	0.7	43	7	491	5.27	47	<2	12	1.0	5	<3	43	0.06
1318417	Soil	9	6	8	12	99	17	278	0.8	51	15	966	4.19	30	<2	18	1.5	3	<3	45	0.13
1318418	Soil	8	8	12	18	121	16	368	0.6	41	13	1133	6.65	65	<2	19	1.2	6	<3	42	0.04
1318419	Soil	10	5	6	15	155	14	274	1.6	39	17	845	4.43	38	<2	24	0.7	5	<3	43	0.09
1318420	Soil	7	5	9	20	82	19	188	0.7	31	6	587	4.19	42	<2	8	1.2	6	<3	36	0.09
1318421	Soil	12	3	10	26	56	17	193	1.2	30	4	402	3.58	45	<2	8	<0.5	7	<3	52	0.06
1318422	Soil	8	4	9	13	84	16	148	1.2	27	6	427	5.16	44	<2	35	0.5	5	<3	35	0.08
1318423	Soil	11	4	8	13	63	14	202	1.1	36	11	600	3.99	34	<2	25	0.7	4	<3	43	0.07
1318424	Soil	9	4	12	15	95	16	228	1.6	40	16	810	4.31	35	<2	19	0.9	5	<3	46	0.09
1318425	Soil	12	4	11	10	107	11	397	0.4	57	16	891	4.23	32	<2	17	1.5	<3	<3	40	0.07
1318426	Soil	15	<3	12	25	89	23	339	2.0	46	9	646	6.41	67	<2	66	2.2	7	<3	38	0.04
1318427	Soil	15	3	12	18	112	19	184	1.1	42	9	730	4.53	35	<2	27	1.3	4	<3	37	0.11
1318428	Soil	10	<3	10	16	93	15	474	0.7	55	9	643	5.41	47	<2	22	4.1	4	<3	31	0.06
1318429	Soil	7	3	9	5	367	33	1070	0.5	291	370	>10000	5.95	35	3	47	16.2	<3	<3	37	0.12
1318430	Soil	9	<3	12	11	128	29	413	1.0	66	20	1905	5.34	49	<2	41	4.6	5	<3	35	0.12

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Client: **Longford Exploration Services Ltd.**
460-688 West Hastings St.
Vancouver British Columbia V6B 1P1 Canada

Project: 2019-Ellen
Report Date: October 06, 2020

CERTIFICATE OF ANALYSIS WHI20000303.1

	Method	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
	Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc
	Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm
	MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5
1318401	Soil	0.044	12	65	1.60	215	0.049	<20	2.19	<0.01	0.06	<2	0.06	<1	<5	<5	8
1318402	Soil	0.086	16	85	1.07	280	0.031	<20	1.64	0.01	0.06	<2	0.17	<1	<5	<5	7
1318403	Soil	0.076	5	246	2.12	137	0.068	<20	2.38	<0.01	0.06	<2	<0.05	<1	<5	<5	5
1318404	Soil	0.062	10	72	1.68	195	0.025	<20	2.41	<0.01	0.04	<2	<0.05	<1	<5	<5	7
1318405	Soil	0.036	13	60	1.66	179	0.044	<20	2.18	<0.01	0.05	<2	<0.05	<1	<5	<5	10
1318406	Soil	0.054	7	156	1.71	108	0.025	<20	2.09	<0.01	0.05	<2	0.06	<1	<5	<5	<5
1318407	Soil	0.067	9	108	1.35	109	0.020	<20	1.65	<0.01	0.05	<2	0.06	<1	<5	<5	<5
1318408	Soil	0.058	9	58	0.95	95	0.017	<20	1.38	<0.01	0.04	<2	<0.05	<1	<5	<5	<5
1318409	Soil	0.043	11	50	1.11	105	0.036	<20	1.69	<0.01	0.04	<2	<0.05	<1	<5	<5	6
1318410	Soil	0.036	12	73	1.32	166	0.032	<20	1.95	<0.01	0.05	<2	<0.05	<1	<5	<5	6
1318411	Soil	0.046	13	61	1.00	149	0.014	<20	1.42	<0.01	0.04	<2	<0.05	<1	<5	<5	<5
1318412	Soil	0.056	13	48	0.85	147	0.015	<20	1.17	<0.01	0.04	<2	<0.05	<1	<5	<5	<5
1318413	Soil	0.067	24	40	0.61	96	0.008	<20	1.19	<0.01	0.03	<2	<0.05	<1	<5	<5	<5
1318414	Soil	0.134	20	28	0.39	254	0.002	<20	1.10	<0.01	0.06	<2	0.11	<1	<5	<5	<5
1318415	Soil	0.065	31	26	1.03	155	0.005	<20	1.58	<0.01	0.04	<2	<0.05	<1	<5	<5	<5
1318416	Soil	0.076	11	29	0.65	138	0.014	<20	1.17	<0.01	0.03	<2	<0.05	<1	<5	<5	<5
1318417	Soil	0.071	23	52	0.82	90	0.012	<20	1.50	<0.01	0.04	<2	<0.05	<1	<5	<5	<5
1318418	Soil	0.118	12	25	0.65	93	0.013	<20	1.28	<0.01	0.04	<2	0.11	<1	<5	<5	7
1318419	Soil	0.092	31	31	0.67	79	0.010	<20	1.37	<0.01	0.04	<2	0.11	<1	<5	<5	<5
1318420	Soil	0.097	11	18	0.61	96	0.003	<20	1.00	<0.01	0.04	<2	<0.05	<1	<5	<5	<5
1318421	Soil	0.086	8	18	0.76	107	0.002	<20	1.12	<0.01	0.04	<2	<0.05	<1	<5	<5	5
1318422	Soil	0.111	11	20	0.55	139	0.003	<20	1.24	<0.01	0.04	<2	0.11	<1	<5	<5	7
1318423	Soil	0.071	10	30	0.68	128	0.011	<20	1.33	<0.01	0.04	<2	0.06	<1	<5	<5	<5
1318424	Soil	0.084	16	37	0.72	108	0.011	<20	1.46	<0.01	0.04	<2	0.06	<1	<5	<5	<5
1318425	Soil	0.072	15	38	0.79	97	0.029	<20	1.38	<0.01	0.04	<2	<0.05	<1	<5	<5	<5
1318426	Soil	0.135	16	22	0.62	129	0.008	<20	0.94	0.02	0.07	<2	0.20	<1	<5	<5	<5
1318427	Soil	0.080	14	34	0.62	169	0.006	<20	1.10	<0.01	0.05	<2	0.08	<1	<5	<5	<5
1318428	Soil	0.088	15	14	0.49	144	<0.001	<20	0.88	<0.01	0.04	<2	0.07	<1	<5	<5	<5
1318429	Soil	0.127	38	21	0.61	558	0.003	<20	2.02	<0.01	0.04	<2	<0.05	<1	<5	<5	8
1318430	Soil	0.106	22	26	0.51	320	0.002	<20	1.08	<0.01	0.05	<2	0.07	<1	<5	<5	<5

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Client: **Longford Exploration Services Ltd.**
460-688 West Hastings St.
Vancouver British Columbia V6B 1P1 Canada

Project: 2019-Ellen
Report Date: October 06, 2020

CERTIFICATE OF ANALYSIS WHI20000303.1

	Method	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
	Analyte	Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca
	Unit	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01
1318431	Soil	11	<3	11	9	113	16	285	0.7	60	15	769	3.96	28	<2	22	1.6	<3	<3	44	0.30
1318432	Soil	14	<3	19	6	163	13	230	0.8	82	23	895	4.70	29	<2	27	1.3	<3	<3	58	0.38
1318433	Soil	17	<3	17	16	102	17	190	0.7	40	7	714	3.58	33	<2	51	1.9	4	<3	29	0.11
1318434	Soil	16	<3	15	15	119	16	363	0.8	61	13	787	3.96	35	<2	41	4.0	5	<3	35	0.15
1318435	Soil	15	6	35	3	189	10	138	0.4	85	26	971	3.91	21	<2	13	0.9	<3	<3	52	0.24
1318436	Soil	4	<3	21	4	145	10	132	0.4	78	32	850	3.68	14	<2	20	1.1	<3	<3	49	0.40
1318437	Soil	10	4	18	4	142	8	155	0.5	65	20	840	4.28	24	<2	16	0.8	<3	<3	63	0.29
1318451	Soil	8	<3	14	<1	164	6	66	<0.3	76	17	613	3.20	8	<2	35	<0.5	<3	<3	58	1.08
1318452	Soil	9	<3	16	<1	166	5	70	<0.3	79	21	839	3.03	9	<2	41	<0.5	<3	<3	52	1.36
1318453	Soil	18	<3	9	13	103	23	380	1.2	67	16	887	4.36	54	<2	37	2.3	7	<3	30	0.45
1318454	Soil	13	<3	7	10	92	13	300	0.9	56	18	1127	3.51	39	<2	40	3.2	4	<3	32	0.72
1318455	Soil	10	<3	8	9	90	15	314	0.6	63	26	1369	3.77	32	<2	24	4.2	3	<3	39	0.35
1318456	Soil	8	<3	10	7	90	12	247	0.7	64	22	1283	3.76	26	<2	28	3.5	<3	<3	49	0.68
1318457	Soil	10	5	10	5	109	13	173	0.6	65	17	827	3.37	22	<2	51	1.9	<3	<3	45	1.43
1318458	Soil	10	4	12	4	104	15	144	0.5	60	17	944	2.89	16	<2	48	2.3	<3	<3	40	1.45
1318459	Soil	13	6	14	5	122	10	160	0.5	68	15	888	3.33	18	<2	38	1.5	<3	<3	52	1.36
1318460	Soil	10	4	12	6	120	14	238	0.8	69	22	1176	4.14	22	<2	25	2.1	<3	<3	59	0.54
1318461	Soil	11	<3	10	6	104	13	182	0.6	67	20	1081	3.51	22	<2	30	1.7	<3	<3	51	0.60
1318462	Soil	8	<3	8	7	91	14	183	0.6	50	13	764	3.44	24	<2	30	1.2	<3	<3	46	0.46
1318463	Soil	9	4	9	3	116	15	103	0.4	48	19	942	4.32	62	<2	23	0.6	<3	<3	63	0.42
1318464	Soil	11	<3	10	6	132	15	343	0.7	47	17	980	4.80	55	<2	62	1.8	<3	<3	44	0.17
1318465	Soil	7	6	9	4	93	11	103	0.4	42	14	857	3.06	24	<2	77	1.1	<3	<3	44	3.46
1318466	Soil	9	7	5	6	79	15	134	0.4	39	17	750	3.76	29	<2	43	<0.5	<3	<3	51	0.56
1318467	Soil	10	3	6	4	96	12	109	<0.3	42	20	826	2.91	191	<2	91	1.0	3	<3	35	1.91
1318468	Soil	8	4	6	4	94	11	118	<0.3	41	19	751	2.96	144	<2	86	0.8	<3	<3	38	1.66
1318469	Soil	9	<3	4	5	74	14	134	0.4	43	15	677	4.16	37	<2	30	<0.5	<3	<3	63	0.31
1318470	Soil	9	5	13	4	204	9	135	0.4	60	29	1197	5.45	93	<2	25	1.0	<3	<3	104	0.52
1318471	Soil	8	6	13	6	143	11	176	0.5	52	20	890	4.46	101	<2	37	0.9	<3	<3	77	0.63
1318472	Soil	9	5	9	7	116	13	224	0.6	58	16	874	3.07	35	<2	58	3.7	4	<3	41	1.09
1318473	Soil	11	5	8	6	93	27	183	0.6	50	14	711	2.69	24	<2	65	2.3	<3	<3	33	1.19

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Project: 2019-Ellen
Report Date: October 06, 2020

CERTIFICATE OF ANALYSIS WHI20000303.1

	Method	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
	Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc
	Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm
	MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5
1318431	Soil	0.062	13	63	0.99	115	0.013	<20	1.44	<0.01	0.04	<2	<0.05	<1	<5	<5	<5
1318432	Soil	0.053	11	103	1.50	144	0.024	<20	2.10	<0.01	0.06	<2	<0.05	<1	<5	<5	6
1318433	Soil	0.069	19	24	0.65	208	0.004	<20	0.83	<0.01	0.06	<2	0.16	<1	<5	<5	<5
1318434	Soil	0.086	20	37	0.82	141	0.010	<20	1.08	<0.01	0.05	<2	0.08	<1	<5	<5	<5
1318435	Soil	0.029	7	119	1.50	97	0.021	<20	1.74	<0.01	0.03	<2	<0.05	<1	<5	<5	5
1318436	Soil	0.048	7	117	1.54	89	0.019	<20	1.77	<0.01	0.04	<2	<0.05	<1	<5	<5	<5
1318437	Soil	0.024	10	86	1.37	141	0.042	<20	1.99	<0.01	0.05	<2	<0.05	<1	<5	<5	6
1318451	Soil	0.074	5	72	1.20	123	0.053	<20	1.55	<0.01	0.05	<2	0.05	<1	<5	<5	<5
1318452	Soil	0.081	6	66	1.09	140	0.033	<20	1.51	<0.01	0.04	<2	0.07	<1	<5	<5	<5
1318453	Soil	0.091	12	31	0.40	291	0.006	<20	0.74	<0.01	0.09	<2	0.11	<1	<5	<5	<5
1318454	Soil	0.081	10	34	0.51	310	0.005	<20	0.88	<0.01	0.06	<2	0.10	<1	<5	<5	<5
1318455	Soil	0.098	11	60	0.78	201	0.007	<20	1.11	<0.01	0.07	<2	0.09	<1	<5	<5	<5
1318456	Soil	0.099	10	76	1.06	181	0.010	<20	1.38	<0.01	0.06	<2	0.09	<1	<5	<5	<5
1318457	Soil	0.074	10	70	0.99	210	0.011	<20	1.27	<0.01	0.05	<2	0.12	<1	<5	<5	<5
1318458	Soil	0.077	10	72	1.01	141	0.009	<20	1.20	<0.01	0.04	<2	0.13	<1	<5	<5	<5
1318459	Soil	0.079	11	92	1.20	192	0.012	<20	1.47	<0.01	0.05	<2	0.11	<1	<5	<5	<5
1318460	Soil	0.056	14	70	1.30	256	0.017	<20	1.83	<0.01	0.05	<2	0.05	<1	<5	<5	<5
1318461	Soil	0.070	12	80	1.17	185	0.014	<20	1.51	<0.01	0.05	<2	0.08	<1	<5	<5	<5
1318462	Soil	0.080	15	50	0.92	200	0.014	<20	1.42	<0.01	0.05	<2	0.07	<1	<5	<5	<5
1318463	Soil	0.051	9	50	1.23	136	0.044	<20	1.99	<0.01	0.07	<2	<0.05	<1	<5	<5	6
1318464	Soil	0.074	25	23	0.58	213	0.002	<20	1.50	0.01	0.06	<2	0.15	<1	<5	<5	6
1318465	Soil	0.087	10	36	0.90	183	0.008	<20	1.24	<0.01	0.05	<2	0.10	<1	<5	<5	<5
1318466	Soil	0.081	11	43	0.96	230	0.013	<20	1.62	<0.01	0.05	<2	0.08	<1	<5	<5	<5
1318467	Soil	0.117	14	30	0.69	190	0.009	<20	1.11	<0.01	0.08	<2	0.17	<1	<5	<5	<5
1318468	Soil	0.110	15	31	0.70	216	0.010	<20	1.18	<0.01	0.07	<2	0.16	<1	<5	<5	<5
1318469	Soil	0.082	8	56	1.03	167	0.036	<20	1.90	<0.01	0.06	<2	0.07	<1	<5	<5	<5
1318470	Soil	0.050	12	54	2.03	149	0.060	<20	2.57	<0.01	0.07	<2	<0.05	<1	<5	7	10
1318471	Soil	0.062	12	44	1.31	231	0.011	<20	1.82	<0.01	0.06	<2	0.08	<1	<5	5	7
1318472	Soil	0.089	13	42	0.82	182	0.008	<20	1.14	<0.01	0.05	<2	0.17	<1	<5	<5	<5
1318473	Soil	0.077	12	43	0.69	167	0.008	<20	0.91	<0.01	0.05	<2	0.18	<1	<5	<5	<5

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Project: 2019-Ellen
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CERTIFICATE OF ANALYSIS WHI20000303.1

Method		FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
Analyte		Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca
Unit		ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
MDL		2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01
1318474	Soil	13	5	11	9	160	16	201	0.3	87	26	1320	3.93	13	<2	15	2.4	<3	<3	36	0.93
1318475	Soil	9	6	10	5	140	10	159	0.4	82	25	1079	3.68	17	<2	34	1.6	<3	<3	61	1.46
1318476	Soil	19	13	20	6	127	13	190	0.6	68	18	677	3.36	20	<2	39	1.8	<3	<3	51	1.01
1318477	Soil	I.S.	I.S.	I.S.	6	122	15	182	0.4	74	20	735	3.47	18	<2	25	1.6	<3	<3	50	0.72
1318478	Soil	14	4	17	6	138	14	195	0.6	84	26	1112	3.71	19	<2	26	2.2	<3	<3	52	0.65
1318479	Soil	14	3	14	6	153	14	177	0.6	86	26	1156	3.71	18	<2	26	2.0	<3	<3	53	0.70
1318480	Soil	I.S.	I.S.	I.S.	6	129	8	196	0.6	76	15	675	3.33	21	<2	31	2.5	<3	<3	43	0.88
1318481	Soil	I.S.	I.S.	I.S.	7	113	17	218	0.5	79	24	1141	3.30	20	<2	29	3.0	<3	<3	43	1.00
1318482	Soil	13	8	14	6	123	8	554	0.5	141	26	1837	3.86	21	<2	31	7.0	<3	<3	55	1.39
1318483	Soil	12	7	9	7	109	10	233	0.5	76	18	756	3.61	22	<2	18	1.3	<3	<3	51	0.39
2064751	Soil	12	8	10	9	196	13	419	0.7	92	26	1324	4.69	48	<2	62	5.7	<3	<3	58	0.39
2064752	Soil	12	13	7	23	184	17	790	1.6	103	25	1230	5.69	63	<2	57	11.1	7	<3	42	0.19
2064753	Soil	18	7	23	10	201	18	427	1.1	104	27	1145	5.38	42	<2	31	5.4	5	<3	56	0.33
2064754	Soil	I.S.	I.S.	I.S.	6	143	12	210	0.4	59	21	867	4.89	50	<2	22	1.3	<3	<3	85	0.18
2064755	Soil	I.S.	I.S.	I.S.	5	202	12	234	0.5	99	30	1060	5.28	63	<2	31	2.5	<3	<3	94	0.45
2064756	Soil	12	6	15	5	206	15	213	0.4	74	30	1111	5.17	77	<2	23	1.4	<3	<3	86	0.31
2064757	Soil	13	8	12	8	129	16	200	0.9	53	17	820	3.63	27	<2	34	1.6	4	<3	44	0.60
2064758	Soil	I.S.	I.S.	I.S.	11	150	11	409	0.7	74	17	788	4.38	40	<2	19	3.5	4	<3	50	0.19
2064759	Soil	9	3	12	8	141	12	394	0.9	74	15	761	3.57	27	<2	11	2.9	<3	<3	40	0.15
2064760	Soil	9	3	9	12	130	14	327	0.9	50	14	868	4.38	39	<2	24	2.0	4	<3	41	0.14
2064761	Soil	12	6	8	10	117	10	298	0.8	43	14	805	3.92	36	<2	20	1.7	4	<3	35	0.11
2064762	Soil	9	5	8	12	213	11	651	1.0	87	35	2152	4.30	40	<2	18	6.8	4	<3	41	0.06
2064763	Soil	I.S.	I.S.	I.S.	18	144	15	667	1.8	71	11	473	4.83	46	<2	58	6.2	8	<3	46	0.04
2064764	Soil	13	6	15	29	69	25	249	2.1	44	7	741	5.35	75	<2	28	3.7	11	<3	43	0.09
2064765	Soil	14	5	14	10	129	27	253	1.4	46	20	1796	5.74	60	<2	14	1.3	6	<3	37	0.09
2064766	Soil	10	4	13	19	159	12	752	1.1	74	15	956	6.82	62	<2	13	3.8	7	<3	40	0.07
2064767	Soil	12	<3	11	12	126	14	382	1.1	64	23	1211	4.16	35	<2	27	2.3	4	<3	47	0.09
2064768	Soil	9	<3	10	13	96	12	248	0.8	42	9	650	4.68	39	<2	19	0.9	4	<3	49	0.10
2064769	Soil	9	5	12	23	146	19	289	1.5	39	8	519	4.98	79	<2	21	1.0	8	<3	50	0.05
2064770	Soil	9	<3	9	14	87	14	256	1.3	44	12	639	4.41	39	<2	22	1.2	4	<3	52	0.10

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Project: 2019-Ellen
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		Method	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
		Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc
		Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm
		MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5
1318474	Soil		0.051	20	44	1.08	241	0.007	<20	1.32	<0.01	0.08	<2	0.09	<1	<5	<5	<5
1318475	Soil		0.068	10	116	1.46	218	0.016	<20	1.72	<0.01	0.06	<2	0.10	<1	<5	<5	<5
1318476	Soil		0.064	11	87	1.16	212	0.012	<20	1.46	0.01	0.05	<2	0.15	<1	<5	<5	<5
1318477	Soil		0.076	10	91	1.15	197	0.012	<20	1.49	<0.01	0.06	<2	0.11	<1	<5	<5	<5
1318478	Soil		0.076	11	111	1.29	226	0.015	<20	1.72	<0.01	0.05	<2	0.09	<1	<5	<5	<5
1318479	Soil		0.071	10	113	1.28	220	0.015	<20	1.70	<0.01	0.05	<2	0.08	<1	<5	<5	<5
1318480	Soil		0.097	13	77	0.94	235	0.010	<20	1.32	<0.01	0.05	<2	0.10	<1	<5	<5	<5
1318481	Soil		0.075	12	81	0.93	251	0.010	<20	1.28	<0.01	0.04	<2	0.11	<1	<5	<5	<5
1318482	Soil		0.072	11	98	1.15	130	0.018	<20	1.37	<0.01	0.05	<2	0.07	<1	<5	<5	6
1318483	Soil		0.053	11	85	1.02	133	0.014	<20	1.37	<0.01	0.05	<2	<0.05	<1	<5	<5	5
2064751	Soil		0.076	19	68	1.12	179	0.049	<20	1.56	<0.01	0.06	<2	0.08	<1	<5	<5	5
2064752	Soil		0.097	33	27	0.46	215	0.001	<20	0.92	0.02	0.04	<2	0.20	<1	<5	<5	7
2064753	Soil		0.066	26	109	1.16	347	0.019	<20	1.57	<0.01	0.04	<2	0.09	<1	<5	<5	7
2064754	Soil		0.061	11	62	1.50	183	0.026	<20	2.16	<0.01	0.05	<2	0.07	<1	<5	6	7
2064755	Soil		0.058	11	122	1.92	217	0.052	<20	2.39	<0.01	0.07	<2	0.07	<1	<5	7	9
2064756	Soil		0.040	12	71	1.79	155	0.053	<20	2.34	<0.01	0.07	<2	<0.05	<1	<5	7	9
2064757	Soil		0.087	15	49	0.84	203	0.012	<20	1.34	<0.01	0.04	<2	0.09	<1	<5	<5	<5
2064758	Soil		0.066	14	53	0.94	152	0.023	<20	1.30	<0.01	0.05	<2	<0.05	<1	<5	<5	5
2064759	Soil		0.043	14	52	0.77	139	0.011	<20	1.13	<0.01	0.03	<2	<0.05	<1	<5	<5	<5
2064760	Soil		0.075	17	32	0.64	109	0.010	<20	1.14	<0.01	0.04	<2	0.07	<1	<5	<5	<5
2064761	Soil		0.065	14	23	0.51	80	0.009	<20	0.90	<0.01	0.03	<2	0.06	<1	<5	<5	<5
2064762	Soil		0.081	43	31	0.59	66	0.008	<20	1.29	<0.01	0.04	<2	0.08	<1	<5	<5	<5
2064763	Soil		0.105	23	10	0.07	215	<0.001	<20	0.48	0.01	0.05	<2	0.12	<1	<5	<5	6
2064764	Soil		0.111	11	18	0.55	284	0.085	<20	0.96	<0.01	0.05	<2	0.10	<1	<5	<5	<5
2064765	Soil		0.105	19	17	0.55	200	0.004	<20	1.41	<0.01	0.04	<2	0.05	<1	<5	<5	<5
2064766	Soil		0.107	25	24	0.54	140	0.006	<20	1.21	<0.01	0.03	<2	<0.05	<1	<5	<5	8
2064767	Soil		0.079	28	34	0.75	120	0.017	<20	1.53	<0.01	0.06	<2	0.07	<1	<5	<5	<5
2064768	Soil		0.070	11	37	0.75	127	0.017	<20	1.45	<0.01	0.04	<2	0.05	<1	<5	<5	<5
2064769	Soil		0.087	15	24	0.57	152	0.004	<20	1.29	<0.01	0.04	<2	0.06	<1	<5	<5	5
2064770	Soil		0.075	10	43	0.80	146	0.011	<20	1.49	<0.01	0.04	<2	0.06	<1	<5	<5	<5

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	Method	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
	Analyte	Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca
	Unit	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01
2064771	Soil	13	5	12	23	84	22	180	1.6	37	12	646	6.98	78	<2	32	1.1	8	<3	73	0.21
2064772	Soil	7	5	12	24	84	14	193	1.4	29	7	457	6.11	67	<2	18	0.9	7	<3	61	0.10
2064773	Soil	8	4	6	10	71	10	223	0.9	41	19	924	3.75	29	<2	21	1.7	4	<3	46	0.14
2064774	Soil	10	7	18	19	289	12	883	2.5	168	52	2066	5.39	55	<2	10	9.4	7	<3	44	0.09
2064775	Soil	11	3	8	10	87	11	262	0.9	54	15	950	4.41	35	<2	29	1.8	5	<3	48	0.10
2064776	Soil	9	3	6	14	104	19	337	1.0	52	30	1398	4.05	35	<2	26	3.0	4	<3	44	0.13
2064777	Soil	10	3	9	10	124	16	434	0.8	76	27	1466	3.93	33	<2	23	5.4	4	<3	37	0.24
2064778	Soil	8	4	16	7	154	17	246	0.8	77	44	8165	4.37	41	<2	46	2.5	<3	<3	49	0.58
2064779	Soil	19	<3	17	6	141	6	248	0.6	76	19	1097	3.61	22	<2	17	2.5	<3	<3	44	0.22
2064780	Soil	15	7	15	6	182	11	278	0.7	98	25	1027	4.88	27	<2	28	2.0	<3	<3	70	0.49
2064781	Soil	12	4	14	6	162	8	260	0.6	89	23	990	4.56	26	<2	25	2.1	<3	<3	63	0.48
2064782	Soil	11	5	12	7	161	10	270	0.6	89	24	1002	4.64	28	<2	17	2.3	<3	<3	63	0.37
2064783	Soil	12	7	21	9	186	9	289	0.6	99	26	1067	4.77	25	<2	10	2.5	<3	<3	72	0.20
2064784	Soil	14	5	19	9	124	11	212	0.7	57	18	1250	3.96	28	<2	14	1.8	<3	<3	41	0.28
2064785	Soil	7	5	12	5	116	5	160	0.4	63	21	827	3.45	18	<2	21	1.8	<3	<3	47	0.33
2064786	Soil	6	11	44	3	205	6	139	0.4	88	37	885	3.75	15	<2	24	1.6	<3	<3	50	0.39
2064787	Soil	7	9	25	3	181	6	135	0.3	77	30	794	3.72	15	<2	21	1.4	<3	<3	51	0.34
2064788	Soil	76	13	49	2	254	4	125	0.4	131	55	978	4.09	12	<2	21	1.7	<3	<3	52	0.59
2064789	Soil	I.S.	I.S.	I.S.	3	190	7	134	0.3	92	38	965	3.93	12	<2	22	1.4	<3	<3	50	0.72
2064790	Soil	I.S.	I.S.	I.S.	17	87	15	311	1.2	46	10	612	3.90	46	<2	86	2.1	7	<3	39	0.16
2064791	Soil	I.S.	I.S.	I.S.	8	165	9	279	0.5	77	21	1103	4.89	59	<2	33	1.6	3	<3	68	0.16
2064792	Soil	I.S.	I.S.	I.S.	4	164	10	169	0.4	73	25	1026	5.01	77	<2	16	0.9	<3	<3	82	0.23
2064793	Soil	12	4	19	4	250	13	123	<0.3	69	43	936	5.54	301	<2	65	0.7	4	<3	90	2.07
2064794	Soil	12	5	16	7	121	9	188	0.7	57	17	741	3.89	36	<2	70	1.4	3	<3	54	0.88
2064795	Soil	10	4	18	8	230	11	238	0.5	142	34	1889	4.88	30	<2	43	2.3	3	<3	68	0.22
2064796	Soil	13	10	27	5	222	16	151	<0.3	112	45	2296	4.67	25	<2	14	1.3	<3	<3	68	0.39
2064797	Soil	9	4	18	7	177	11	148	0.5	60	33	1379	5.86	512	<2	32	0.9	6	<3	84	0.87
2064798	Soil	12	3	12	5	115	9	163	0.7	56	21	894	4.33	29	<2	25	1.0	<3	<3	64	0.30
2064901	Soil	7	3	9	7	68	8	209	0.5	42	18	713	3.85	21	<2	32	2.5	<3	<3	42	0.36
2064902	Soil	12	<3	13	6	113	11	216	0.4	61	26	909	4.60	23	<2	41	1.8	<3	<3	44	0.44

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460-688 West Hastings St.
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Project: 2019-Ellen
Report Date: October 06, 2020

CERTIFICATE OF ANALYSIS WHI20000303.1

	Method	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
	Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc
	Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm
	MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5
2064771	Soil	0.209	9	41	0.72	173	0.012	<20	1.45	<0.01	0.06	<2	0.12	<1	<5	5	7
2064772	Soil	0.130	7	27	0.55	158	0.004	<20	1.22	<0.01	0.03	<2	0.06	<1	<5	<5	<5
2064773	Soil	0.067	12	42	0.78	104	0.020	<20	1.33	<0.01	0.05	<2	<0.05	<1	<5	<5	<5
2064774	Soil	0.096	43	24	0.50	84	0.005	<20	2.21	<0.01	0.03	<2	0.07	<1	<5	<5	16
2064775	Soil	0.077	9	42	0.82	137	0.028	<20	1.53	<0.01	0.05	<2	0.07	<1	<5	<5	<5
2064776	Soil	0.102	18	34	0.70	122	0.008	<20	1.22	<0.01	0.04	<2	0.07	<1	<5	<5	<5
2064777	Soil	0.089	23	37	0.68	193	0.009	<20	1.13	<0.01	0.04	<2	0.05	<1	<5	<5	<5
2064778	Soil	0.205	40	48	0.86	539	0.009	<20	1.66	<0.01	0.04	<2	0.07	<1	<5	<5	<5
2064779	Soil	0.033	8	67	1.02	62	0.018	<20	1.34	<0.01	0.03	<2	<0.05	<1	<5	<5	<5
2064780	Soil	0.048	12	116	1.59	195	0.025	<20	1.90	<0.01	0.05	<2	<0.05	<1	<5	<5	7
2064781	Soil	0.052	11	98	1.44	171	0.028	<20	1.73	<0.01	0.05	<2	<0.05	<1	<5	<5	6
2064782	Soil	0.044	11	99	1.48	175	0.018	<20	1.76	<0.01	0.04	<2	<0.05	<1	<5	<5	6
2064783	Soil	0.036	14	121	1.69	193	0.022	<20	1.92	<0.01	0.04	<2	<0.05	<1	<5	<5	7
2064784	Soil	0.063	16	52	1.04	188	0.005	<20	1.39	<0.01	0.06	<2	0.05	<1	<5	<5	<5
2064785	Soil	0.071	9	103	1.26	119	0.014	<20	1.61	<0.01	0.04	<2	0.06	<1	<5	<5	<5
2064786	Soil	0.060	6	108	1.53	147	0.030	<20	1.78	<0.01	0.05	<2	0.06	<1	<5	<5	<5
2064787	Soil	0.064	6	95	1.38	101	0.030	<20	1.68	<0.01	0.04	<2	0.05	<1	<5	<5	<5
2064788	Soil	0.061	6	120	1.51	96	0.028	<20	1.71	<0.01	0.04	<2	0.08	<1	<5	<5	<5
2064789	Soil	0.063	6	129	1.72	125	0.033	<20	1.87	<0.01	0.04	<2	0.08	<1	<5	<5	<5
2064790	Soil	0.091	23	41	0.58	249	0.005	<20	0.87	0.04	0.07	<2	0.29	<1	<5	<5	<5
2064791	Soil	0.041	13	89	1.37	253	0.027	<20	1.79	<0.01	0.04	<2	0.06	<1	<5	<5	8
2064792	Soil	0.031	9	87	1.71	147	0.051	<20	2.21	<0.01	0.05	<2	<0.05	<1	<5	<5	8
2064793	Soil	0.112	10	51	2.00	130	0.072	<20	2.36	<0.01	0.08	<2	<0.05	<1	<5	6	8
2064794	Soil	0.102	12	61	1.02	240	0.014	<20	1.55	0.01	0.06	<2	0.17	<1	<5	<5	<5
2064795	Soil	0.054	15	239	2.05	172	0.025	<20	2.20	<0.01	0.04	<2	0.10	<1	<5	<5	7
2064796	Soil	0.069	17	126	2.16	81	0.037	<20	2.20	<0.01	0.05	<2	0.06	<1	<5	<5	8
2064797	Soil	0.037	15	54	1.61	220	0.010	<20	2.33	<0.01	0.07	<2	<0.05	<1	<5	7	10
2064798	Soil	0.054	10	71	1.35	141	0.029	<20	2.07	<0.01	0.05	<2	<0.05	<1	<5	<5	5
2064901	Soil	0.085	9	47	0.88	134	0.023	<20	1.41	<0.01	0.04	<2	0.08	<1	<5	<5	<5
2064902	Soil	0.079	10	58	1.08	88	0.058	<20	1.58	<0.01	0.05	<2	0.08	<1	<5	<5	<5

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	Method	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
	Analyte	Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca
	Unit	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01
2064903	Soil	14	7	13	7	97	7	273	0.5	71	17	796	4.00	24	<2	19	2.2	<3	<3	51	0.25
2064904	Soil	10	<3	10	9	114	9	263	0.7	67	16	765	4.40	29	<2	28	1.3	<3	<3	50	0.22
2064905	Soil	12	5	10	20	112	14	674	2.2	75	8	278	5.00	62	<2	48	1.9	10	<3	33	0.21
2064906	Soil	13	<3	12	11	109	12	390	1.5	68	23	1081	4.65	40	<2	30	2.8	4	<3	43	0.18
2064907	Soil	14	4	9	14	110	14	502	1.1	83	21	1357	4.88	66	<2	25	4.6	7	<3	29	0.41
2064908	Soil	10	5	9	13	142	18	396	1.3	70	20	1759	4.60	48	<2	45	3.7	5	<3	30	0.19
2064909	Soil	5	<3	10	7	84	10	217	0.6	60	24	1214	3.91	23	<2	26	2.5	<3	<3	48	0.43
2064910	Soil	8	3	20	5	173	7	214	0.6	110	28	978	4.82	18	<2	30	1.6	<3	<3	82	0.52
2064911	Soil	16	<3	9	10	129	13	388	0.7	88	25	1729	4.15	39	<2	52	3.8	4	<3	39	0.34
2064912	Soil	8	<3	9	7	112	9	267	0.7	56	14	681	3.98	34	<2	41	1.5	<3	<3	48	0.59
2064913	Soil	10	5	11	5	128	8	255	0.5	75	23	995	4.62	38	<2	38	2.0	<3	<3	71	0.93
2064914	Soil	9	5	13	9	122	10	326	0.7	56	18	881	4.75	42	<2	36	2.6	3	<3	48	0.27
2064915	Soil	9	<3	8	4	107	11	217	0.6	54	22	992	4.21	37	<2	38	1.6	<3	<3	55	0.53
2064916	Soil	11	4	10	5	74	11	163	0.4	43	19	845	3.71	27	<2	38	1.0	<3	<3	49	0.53
2064917	Soil	9	<3	11	6	148	12	207	0.8	51	24	971	5.16	55	<2	34	0.9	<3	<3	82	0.27
2064918	Soil	7	6	22	3	208	8	132	0.4	58	26	986	4.95	62	<2	27	0.5	<3	<3	90	0.55
2064919	Soil	10	<3	9	3	131	8	123	0.7	49	20	885	4.93	64	<2	19	<0.5	<3	<3	83	0.29
2064920	Soil	7	<3	13	6	206	15	160	<0.3	63	36	1198	5.80	172	<2	40	<0.5	3	<3	80	0.59
2064921	Soil	9	5	13	4	174	15	143	0.3	58	32	1243	5.43	180	<2	39	<0.5	<3	<3	68	0.76
2064922	Soil	6	<3	5	2	89	13	100	<0.3	51	35	2039	5.10	119	<2	37	<0.5	<3	<3	62	0.58
2064923	Soil	7	<3	10	5	108	9	179	0.5	47	19	859	4.44	52	<2	46	1.4	<3	<3	64	0.92
2064924	Soil	13	<3	11	17	101	13	597	1.2	57	11	594	4.62	55	<2	24	3.5	5	<3	36	0.08
2064925	Soil	13	4	13	6	114	8	189	0.8	58	23	881	3.96	22	<2	38	1.3	<3	<3	51	0.44
2064926	Soil	6	<3	6	3	79	11	208	<0.3	56	21	1131	2.56	10	<2	15	1.5	<3	<3	19	0.10
2064927	Soil	18	7	16	14	149	15	521	1.1	65	12	783	3.39	36	<2	88	7.6	5	<3	38	0.21
2064928	Soil	44	7	28	9	169	10	271	0.7	100	31	1084	4.52	25	<2	30	2.5	<3	<3	58	0.39
2064929	Soil	16	13	33	3	189	6	161	0.5	170	43	1487	5.01	13	<2	17	0.7	<3	<3	86	0.77
2064930	Soil	12	8	24	6	164	7	197	0.5	101	27	1059	4.25	17	<2	20	1.3	<3	<3	64	0.51
2064931	Soil	6	10	28	4	182	7	146	0.4	96	28	937	3.80	12	<2	21	1.3	<3	<3	49	0.66
2064932	Soil	16	6	16	12	130	11	266	0.7	78	16	743	4.19	31	<2	23	1.3	3	<3	46	0.72

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	Method	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
	Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc
	Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm
	MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5
2064903	Soil	0.069	11	90	1.14	163	0.016	<20	1.48	<0.01	0.05	<2	<0.05	<1	<5	<5	5
2064904	Soil	0.054	14	72	0.98	251	0.014	<20	1.50	<0.01	0.06	<2	<0.05	<1	<5	<5	6
2064905	Soil	0.073	15	10	0.13	145	<0.001	<20	0.39	<0.01	0.05	<2	0.07	<1	<5	<5	<5
2064906	Soil	0.076	19	44	0.64	358	0.009	<20	1.23	<0.01	0.08	<2	0.07	<1	<5	<5	<5
2064907	Soil	0.088	14	22	0.30	298	0.003	<20	0.61	<0.01	0.05	<2	0.08	<1	<5	<5	<5
2064908	Soil	0.109	34	24	0.55	181	0.006	<20	1.17	<0.01	0.06	<2	0.11	<1	<5	<5	<5
2064909	Soil	0.098	11	76	1.08	197	0.016	<20	1.53	<0.01	0.06	<2	0.08	<1	<5	<5	<5
2064910	Soil	0.056	10	160	2.09	164	0.025	<20	2.31	<0.01	0.05	<2	0.07	<1	<5	<5	9
2064911	Soil	0.063	16	43	0.69	219	0.007	<20	0.90	<0.01	0.07	<2	0.14	<1	<5	<5	<5
2064912	Soil	0.056	13	47	0.93	147	0.019	<20	1.34	<0.01	0.06	<2	0.07	<1	<5	<5	<5
2064913	Soil	0.078	11	71	1.35	217	0.080	<20	1.77	<0.01	0.07	<2	<0.05	<1	<5	<5	8
2064914	Soil	0.047	13	27	0.69	147	0.046	<20	1.26	<0.01	0.06	<2	<0.05	<1	<5	<5	6
2064915	Soil	0.053	11	37	1.04	176	0.075	<20	1.68	0.01	0.07	<2	<0.05	<1	<5	<5	5
2064916	Soil	0.073	9	45	0.93	176	0.030	<20	1.57	<0.01	0.06	<2	0.07	<1	<5	<5	<5
2064917	Soil	0.045	13	43	1.34	185	0.083	<20	2.05	<0.01	0.06	<2	0.06	<1	<5	<5	8
2064918	Soil	0.025	10	68	1.63	104	0.151	<20	2.27	0.01	0.09	<2	<0.05	<1	<5	<5	8
2064919	Soil	0.021	12	59	1.43	156	0.113	<20	2.17	<0.01	0.07	<2	<0.05	<1	<5	<5	7
2064920	Soil	0.045	25	39	1.57	205	0.015	<20	2.52	<0.01	0.09	<2	<0.05	<1	<5	8	11
2064921	Soil	0.038	22	35	1.50	196	0.022	<20	2.40	<0.01	0.09	<2	<0.05	<1	<5	6	9
2064922	Soil	0.070	12	32	1.28	102	0.057	<20	2.27	<0.01	0.06	<2	<0.05	<1	<5	<5	8
2064923	Soil	0.061	11	41	1.08	261	0.035	<20	1.89	<0.01	0.06	<2	0.07	<1	<5	5	7
2064924	Soil	0.089	6	15	0.29	449	0.003	<20	0.56	<0.01	0.04	<2	0.05	<1	<5	<5	<5
2064925	Soil	0.075	10	76	1.14	197	0.018	<20	1.75	<0.01	0.05	<2	0.08	<1	<5	<5	<5
2064926	Soil	0.035	18	18	0.97	135	0.003	<20	1.08	<0.01	0.06	<2	<0.05	<1	<5	<5	<5
2064927	Soil	0.079	28	18	0.61	239	0.005	<20	1.01	0.03	0.07	<2	0.23	<1	<5	<5	<5
2064928	Soil	0.051	12	111	1.52	169	0.041	<20	1.72	0.02	0.07	<2	0.19	<1	<5	<5	5
2064929	Soil	0.041	6	274	2.60	113	0.047	<20	2.67	<0.01	0.06	<2	0.05	<1	<5	6	9
2064930	Soil	0.048	10	139	1.75	190	0.019	<20	1.96	<0.01	0.06	<2	0.09	<1	<5	<5	6
2064931	Soil	0.064	7	155	1.62	144	0.024	<20	1.91	<0.01	0.07	<2	0.07	<1	<5	<5	<5
2064932	Soil	0.077	12	90	1.17	197	0.009	<20	1.39	<0.01	0.05	<2	0.08	<1	<5	<5	<5

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Method		FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
Analyte		Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca
Unit		ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
MDL		2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01
2064933	Soil	12	6	8	23	262	12	1962	1.8	184	32	769	12.65	98	<2	11	2.4	7	<3	26	0.03
2064934	Soil	10	5	15	5	136	10	216	0.5	81	21	984	4.25	21	<2	26	1.2	<3	<3	61	0.47
2064935	Soil	10	6	13	25	97	21	345	2.4	53	5	188	6.76	79	<2	78	1.0	10	<3	65	0.13
2064936	Soil	9	6	11	9	99	11	264	0.7	63	19	970	3.89	26	<2	21	1.8	<3	<3	45	0.28
2064937	Soil	7	3	12	12	119	12	411	1.1	71	18	940	4.68	35	<2	26	2.4	3	<3	48	0.11
2064938	Soil	9	6	11	10	110	11	383	0.8	60	19	1070	4.28	31	<2	21	2.2	<3	<3	44	0.16
2064951	Soil	9	<3	11	1	104	8	84	0.5	244	31	795	4.09	13	<2	36	<0.5	<3	<3	66	0.82
2064952	Soil	6	5	10	1	93	7	78	<0.3	380	38	822	3.87	11	<2	34	<0.5	<3	<3	65	0.80
2064953	Soil	11	4	8	1	76	7	78	<0.3	182	32	864	3.81	12	<2	35	<0.5	<3	<3	59	0.81
2064954	Soil	9	5	7	1	65	8	71	0.6	274	28	778	4.03	13	<2	29	<0.5	<3	<3	64	0.57
2064955	Soil	6	<3	17	1	236	9	74	<0.3	214	26	629	3.72	10	<2	35	<0.5	<3	<3	61	0.91
2064956	Soil	11	3	9	1	81	11	69	<0.3	188	25	696	3.64	11	<2	32	<0.5	<3	<3	54	0.73
2064957	Soil	9	3	9	1	96	9	70	<0.3	172	26	789	3.61	11	<2	41	<0.5	<3	<3	54	0.98
2064958	Soil	5	4	18	<1	178	6	73	0.8	149	22	596	3.63	7	<2	41	<0.5	<3	<3	67	1.51
2064959	Soil	8	4	12	<1	105	5	77	<0.3	119	23	672	3.28	6	<2	57	<0.5	<3	<3	57	2.23
2064960	Soil	7	<3	11	<1	93	7	89	<0.3	110	24	746	3.48	7	<2	45	<0.5	<3	<3	60	1.55
2064961	Soil	5	3	10	<1	90	7	89	<0.3	126	25	841	3.50	7	<2	39	<0.5	<3	<3	61	1.24
2064962	Soil	6	4	13	<1	121	8	108	<0.3	132	26	813	3.54	8	<2	45	<0.5	<3	<3	59	1.47
2064963	Soil	7	<3	10	<1	112	7	88	<0.3	131	22	788	3.14	7	<2	48	<0.5	<3	<3	53	1.59
2064964	Soil	8	5	16	<1	244	9	89	0.7	104	24	818	3.92	7	<2	37	<0.5	<3	<3	73	1.01
2064965	Soil	7	3	6	1	112	8	114	<0.3	56	21	612	3.83	8	<2	26	<0.5	<3	<3	77	0.59
2064966	Soil	6	<3	11	1	164	6	93	<0.3	67	22	722	3.82	6	<2	30	<0.5	<3	<3	69	0.90
2064967	Soil	8	4	16	<1	225	6	96	0.7	97	27	848	4.65	6	<2	29	<0.5	<3	<3	82	0.83
2064968	Soil	12	6	17	<1	250	7	90	<0.3	85	26	810	4.30	4	<2	31	<0.5	<3	<3	81	1.00
2064969	Soil	4	<3	13	<1	164	6	101	<0.3	107	25	838	3.62	6	<2	40	<0.5	<3	<3	69	1.27
2064970	Soil	14	<3	12	<1	167	6	95	<0.3	109	23	805	3.28	6	<2	43	<0.5	<3	<3	60	1.37
2064971	Soil	12	4	14	<1	153	6	90	<0.3	98	25	1027	3.55	6	<2	39	<0.5	<3	<3	64	1.26
2064972	Soil	I.S.	I.S.	I.S.	1	245	6	81	<0.3	70	12	489	2.01	5	<2	67	0.7	<3	<3	35	2.49
2064973	Soil	12	<3	17	<1	149	7	92	0.5	77	23	803	3.55	8	<2	40	<0.5	<3	<3	67	1.19
2064974	Soil	25	<3	8	1	107	7	97	<0.3	66	20	654	3.69	7	<2	33	<0.5	<3	<3	72	0.88

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Project: 2019-Ellen
Report Date: October 06, 2020

CERTIFICATE OF ANALYSIS WHI20000303.1

	Method	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
	Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc
	Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm
	MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5
2064933	Soil	0.099	14	9	0.07	139	0.001	<20	0.36	<0.01	0.05	<2	0.46	<1	8	<5	9
2064934	Soil	0.041	9	92	1.37	170	0.038	<20	1.78	<0.01	0.05	<2	<0.05	<1	<5	<5	6
2064935	Soil	0.181	17	25	0.17	400	0.001	<20	0.59	0.03	0.06	<2	0.27	<1	<5	<5	<5
2064936	Soil	0.061	12	57	0.95	190	0.028	<20	1.31	<0.01	0.05	<2	<0.05	<1	<5	<5	<5
2064937	Soil	0.080	17	48	0.79	283	0.010	<20	1.39	<0.01	0.05	<2	<0.05	<1	<5	<5	<5
2064938	Soil	0.072	16	45	0.85	130	0.016	<20	1.38	<0.01	0.05	<2	<0.05	<1	<5	<5	<5
2064951	Soil	0.064	9	113	1.67	87	0.086	<20	1.84	0.01	0.13	<2	0.07	<1	<5	<5	<5
2064952	Soil	0.043	9	136	2.07	111	0.153	<20	1.89	0.02	0.08	<2	0.05	<1	<5	<5	5
2064953	Soil	0.111	7	116	1.62	145	0.053	<20	1.80	0.01	0.08	<2	0.08	<1	<5	5	<5
2064954	Soil	0.034	9	147	2.12	129	0.101	<20	1.83	0.01	0.08	<2	<0.05	<1	<5	<5	6
2064955	Soil	0.084	9	118	1.75	161	0.068	<20	1.88	0.01	0.07	<2	<0.05	<1	<5	5	6
2064956	Soil	0.060	7	111	1.61	125	0.070	<20	1.65	0.01	0.08	<2	0.05	<1	<5	<5	<5
2064957	Soil	0.067	8	106	1.56	168	0.071	<20	1.62	0.01	0.10	<2	0.07	<1	<5	<5	<5
2064958	Soil	0.066	6	98	1.69	101	0.103	<20	1.65	0.01	0.17	<2	0.08	<1	<5	<5	<5
2064959	Soil	0.074	5	85	1.45	124	0.075	<20	1.60	0.01	0.07	<2	0.10	<1	<5	<5	<5
2064960	Soil	0.069	6	90	1.51	104	0.075	<20	1.71	<0.01	0.07	<2	0.08	<1	<5	<5	<5
2064961	Soil	0.062	6	98	1.60	105	0.082	<20	1.74	<0.01	0.09	<2	0.07	<1	<5	<5	<5
2064962	Soil	0.073	6	109	1.70	116	0.061	<20	1.82	0.01	0.10	<2	0.09	<1	<5	7	<5
2064963	Soil	0.066	6	92	1.50	122	0.061	<20	1.63	0.01	0.07	<2	0.09	<1	<5	<5	<5
2064964	Soil	0.067	6	106	1.58	138	0.110	<20	1.89	0.01	0.09	<2	0.05	<1	<5	<5	5
2064965	Soil	0.050	5	76	1.20	100	0.157	<20	1.60	0.01	0.09	<2	<0.05	<1	<5	<5	<5
2064966	Soil	0.062	5	89	1.42	96	0.144	<20	1.78	<0.01	0.10	<2	<0.05	<1	<5	<5	<5
2064967	Soil	0.064	6	117	1.89	126	0.114	<20	2.34	<0.01	0.09	<2	<0.05	<1	<5	6	5
2064968	Soil	0.071	5	112	1.87	86	0.168	<20	2.08	<0.01	0.09	<2	<0.05	<1	<5	<5	5
2064969	Soil	0.076	6	100	1.67	135	0.084	<20	1.95	<0.01	0.08	<2	0.06	<1	<5	<5	5
2064970	Soil	0.076	6	99	1.59	140	0.062	<20	1.87	0.01	0.07	<2	0.07	<1	<5	<5	<5
2064971	Soil	0.076	5	94	1.55	123	0.080	<20	1.85	<0.01	0.07	<2	0.06	<1	<5	<5	<5
2064972	Soil	0.085	5	45	0.78	100	0.046	<20	1.03	0.01	0.07	<2	0.13	<1	<5	<5	<5
2064973	Soil	0.068	5	81	1.37	136	0.086	<20	1.80	<0.01	0.06	<2	<0.05	<1	<5	<5	<5
2064974	Soil	0.046	5	84	1.36	95	0.142	<20	1.75	0.01	0.08	<2	<0.05	<1	<5	<5	5

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Project: 2019-Ellen
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CERTIFICATE OF ANALYSIS WHI20000303.1

	Method	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
	Analyte	Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca
	Unit	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01
2064975	Soil	19	5	18	1	203	10	76	<0.3	240	27	766	3.81	11	<2	49	<0.5	<3	<3	74	1.85
2064976	Soil	8	<3	6	1	94	9	67	0.5	339	31	697	3.92	13	<2	33	<0.5	<3	<3	68	0.77
2064977	Soil	9	5	15	1	140	9	72	0.5	389	37	948	4.30	11	<2	31	<0.5	<3	<3	72	0.84
2064978	Soil	7	<3	6	1	72	10	76	<0.3	133	25	665	3.71	14	<2	46	<0.5	<3	<3	58	1.20
2064979	Soil	6	3	8	1	85	10	80	<0.3	142	23	790	3.52	14	<2	50	<0.5	<3	<3	54	1.25
2064980	Soil	7	6	19	1	205	11	95	<0.3	198	26	775	3.89	12	<2	49	<0.5	<3	<3	64	1.58
2064981	Soil	6	4	12	1	139	11	84	<0.3	189	25	765	3.73	10	<2	46	<0.5	<3	<3	58	1.40
2064982	Soil	7	4	13	<1	116	8	76	<0.3	173	21	595	3.01	9	<2	56	<0.5	<3	<3	48	2.05
2064983	Soil	5	7	14	<1	139	8	82	<0.3	217	25	661	3.46	9	<2	54	<0.5	<3	<3	58	1.90
2064984	Soil	6	3	18	<1	206	8	84	<0.3	135	22	647	3.36	9	<2	55	<0.5	<3	<3	59	1.97
2064985	Soil	8	5	12	<1	111	7	74	<0.3	136	23	684	3.40	8	<2	41	<0.5	<3	<3	57	1.21
2064986	Soil	5	<3	10	<1	143	8	107	<0.3	94	22	720	3.48	7	<2	38	<0.5	<3	<3	64	0.90
2064987	Soil	7	5	15	<1	320	10	113	<0.3	73	26	979	4.55	5	<2	22	<0.5	<3	<3	80	0.71
2064988	Soil	5	8	16	<1	268	4	79	<0.3	62	25	808	4.25	4	<2	17	<0.5	<3	<3	78	0.70
2064989	Soil	6	5	15	1	301	6	112	0.7	64	26	872	4.46	7	<2	34	<0.5	<3	<3	75	0.97
2064990	Soil	9	5	8	1	196	7	99	<0.3	54	22	796	3.94	7	<2	30	<0.5	<3	<3	72	0.77
2064991	Soil	4	<3	5	1	110	8	128	0.5	47	20	707	3.76	9	<2	28	0.9	<3	<3	68	0.64
2064992	Soil	5	5	20	<1	289	5	106	<0.3	80	28	899	4.42	6	<2	38	<0.5	<3	<3	76	1.20
2064993	Soil	7	5	19	<1	242	6	101	0.8	89	29	956	4.34	6	<2	37	<0.5	<3	<3	78	1.15
2064994	Soil	6	7	22	<1	280	6	95	0.8	87	28	978	4.47	6	<2	32	<0.5	<3	<3	78	0.92
2064995	Soil	5	6	17	1	208	7	87	0.7	74	24	1097	3.93	6	<2	34	<0.5	<3	<3	71	1.10
2064996	Soil	5	4	10	1	147	6	72	<0.3	88	21	743	3.82	7	<2	30	<0.5	<3	<3	72	0.90
2064997	Soil	5	5	14	<1	268	6	97	0.6	119	20	665	3.34	7	<2	55	<0.5	<3	<3	58	1.83
2064998	Soil	8	3	13	<1	190	6	81	0.7	137	22	713	3.35	6	<2	49	<0.5	<3	<3	62	1.43
2064999	Soil	5	<3	12	<1	133	5	80	<0.3	100	21	593	3.43	5	<2	35	<0.5	<3	<3	68	1.06
2065000	Soil	6	5	14	<1	152	5	77	0.7	80	20	786	3.43	7	<2	40	<0.5	<3	<3	66	1.13
2064451	Soil	7	7	15	<1	90	8	63	0.5	294	30	735	3.76	11	<2	81	<0.5	<3	<3	65	3.13
2064452	Soil	3	3	8	2	120	10	82	<0.3	108	25	763	3.80	13	<2	33	<0.5	<3	<3	65	0.62
2064453	Soil	7	<3	14	1	163	10	89	0.6	212	31	816	4.15	14	<2	34	<0.5	<3	<3	71	0.64
2064454	Soil	6	<3	35	1	103	10	91	<0.3	227	27	812	3.78	14	<2	40	<0.5	<3	<3	58	1.01

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		Method	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
		Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc
		Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm
		MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5
2064975	Soil		0.032	8	118	1.88	151	0.144	<20	1.92	0.02	0.08	<2	<0.05	<1	<5	<5	6
2064976	Soil		0.040	9	160	1.93	110	0.114	<20	1.95	0.01	0.09	<2	<0.05	<1	<5	<5	7
2064977	Soil		0.042	8	189	2.45	120	0.119	<20	2.03	0.01	0.09	<2	<0.05	<1	<5	<5	7
2064978	Soil		0.069	7	105	1.38	135	0.064	<20	1.64	0.02	0.08	<2	0.07	<1	<5	6	<5
2064979	Soil		0.063	9	84	1.32	144	0.061	<20	1.62	0.02	0.09	<2	0.08	<1	<5	<5	<5
2064980	Soil		0.068	8	113	1.77	157	0.072	<20	1.78	0.02	0.11	<2	0.07	<1	<5	<5	5
2064981	Soil		0.060	8	109	1.75	147	0.078	<20	1.76	0.01	0.10	<2	0.07	<1	<5	<5	<5
2064982	Soil		0.068	6	92	1.46	142	0.054	<20	1.45	0.01	0.09	<2	0.11	<1	<5	<5	<5
2064983	Soil		0.065	6	107	1.76	134	0.076	<20	1.68	0.01	0.12	<2	0.08	<1	<5	<5	<5
2064984	Soil		0.071	6	93	1.48	140	0.077	<20	1.58	0.01	0.10	<2	0.10	<1	<5	<5	<5
2064985	Soil		0.064	6	98	1.59	110	0.081	<20	1.68	0.01	0.09	<2	0.06	<1	<5	<5	<5
2064986	Soil		0.061	7	93	1.43	155	0.074	<20	1.78	0.01	0.08	<2	<0.05	<1	<5	6	<5
2064987	Soil		0.072	4	97	1.75	102	0.162	<20	2.02	0.01	0.12	<2	<0.05	<1	<5	<5	<5
2064988	Soil		0.075	3	95	1.74	59	0.239	<20	1.98	<0.01	0.10	<2	<0.05	<1	<5	<5	<5
2064989	Soil		0.066	5	96	1.66	102	0.116	<20	2.06	<0.01	0.12	<2	<0.05	<1	<5	7	<5
2064990	Soil		0.062	5	77	1.31	92	0.136	<20	1.73	0.01	0.10	<2	<0.05	<1	<5	6	<5
2064991	Soil		0.060	5	67	1.06	96	0.109	<20	1.65	0.01	0.08	<2	<0.05	<1	<5	5	<5
2064992	Soil		0.069	5	107	1.78	139	0.076	<20	2.27	<0.01	0.08	<2	0.05	<1	<5	7	5
2064993	Soil		0.066	5	105	1.82	126	0.097	<20	2.18	<0.01	0.08	<2	<0.05	<1	<5	6	5
2064994	Soil		0.069	6	108	1.76	119	0.105	<20	2.19	<0.01	0.09	<2	<0.05	<1	<5	7	6
2064995	Soil		0.073	5	96	1.58	112	0.104	<20	1.96	<0.01	0.08	<2	<0.05	<1	<5	6	5
2064996	Soil		0.069	5	88	1.50	80	0.150	<20	1.78	<0.01	0.08	<2	<0.05	<1	<5	6	<5
2064997	Soil		0.066	6	83	1.38	132	0.088	<20	1.70	0.01	0.08	<2	0.09	<1	<5	<5	<5
2064998	Soil		0.064	6	101	1.47	111	0.101	<20	1.64	0.01	0.07	<2	0.06	<1	<5	<5	5
2064999	Soil		0.065	5	89	1.54	116	0.140	<20	1.80	0.01	0.06	<2	<0.05	<1	<5	<5	5
2065000	Soil		0.070	6	79	1.32	130	0.103	<20	1.70	0.01	0.07	<2	<0.05	<1	<5	<5	<5
2064451	Soil		0.040	7	183	2.66	122	0.088	<20	2.00	0.01	0.07	<2	<0.05	<1	<5	<5	6
2064452	Soil		0.089	8	87	1.30	89	0.078	<20	1.85	0.02	0.11	<2	0.08	<1	<5	<5	<5
2064453	Soil		0.059	11	97	1.46	128	0.091	<20	2.05	0.01	0.09	<2	<0.05	<1	<5	<5	6
2064454	Soil		0.068	9	116	1.68	141	0.076	<20	1.77	0.02	0.10	<2	0.08	<1	<5	<5	<5

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Method		FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
Analyte		Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca
Unit		ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
MDL		2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01
2064455	Soil	6	5	6	2	107	14	97	<0.3	213	31	852	3.70	14	<2	46	<0.5	<3	<3	58	0.90
2064456	Soil	4	<3	9	2	142	11	91	<0.3	166	29	847	3.61	12	<2	44	<0.5	<3	<3	55	0.96
2064457	Soil	8	4	11	1	130	9	91	<0.3	96	23	745	3.53	14	<2	47	<0.5	<3	<3	57	1.07
2064458	Soil	7	8	36	1	368	10	60	<0.3	128	22	580	3.47	10	<2	38	<0.5	<3	<3	60	1.00
2064459	Soil	8	4	17	1	212	10	66	0.5	250	30	805	4.39	10	<2	24	<0.5	<3	<3	77	0.60
2064460	Soil	14	6	18	<1	197	8	65	0.4	446	47	898	4.63	12	<2	24	<0.5	<3	<3	80	0.63
2064461	Soil	8	<3	6	1	61	10	62	<0.3	139	23	651	3.48	11	<2	44	<0.5	<3	<3	56	1.14
2064462	Soil	10	<3	9	<1	95	7	62	<0.3	317	28	770	3.75	9	<2	103	<0.5	<3	<3	70	4.81
2064463	Soil	13	<3	12	<1	127	8	63	<0.3	213	28	771	3.70	11	<2	42	<0.5	<3	<3	58	1.26
2064464	Soil	7	<3	26	1	217	8	72	<0.3	267	32	1925	4.11	11	<2	33	<0.5	<3	<3	64	0.87
2064465	Soil	7	5	16	<1	121	6	69	<0.3	115	24	734	3.63	7	<2	32	<0.5	<3	<3	65	0.93
2064466	Soil	9	4	12	1	111	7	82	<0.3	139	30	981	4.12	7	<2	28	<0.5	<3	<3	72	0.75
2064467	Soil	204	4	13	<1	125	7	82	<0.3	182	26	1018	3.81	6	<2	33	<0.5	<3	<3	69	0.96
2064468	Soil	5	<3	11	<1	109	7	79	<0.3	144	29	934	4.00	8	<2	33	<0.5	<3	<3	70	0.87
2064469	Soil	9	3	12	<1	133	7	81	<0.3	167	27	1303	3.59	8	<2	44	<0.5	<3	<3	60	1.42
2064470	Soil	5	<3	11	<1	122	7	93	<0.3	132	26	746	3.94	6	<2	34	<0.5	<3	<3	70	0.98
2064471	Soil	6	<3	14	1	155	8	89	<0.3	138	24	759	3.47	6	<2	41	<0.5	<3	<3	60	1.36
2064472	Soil	22	4	5	5	71	8	161	<0.3	39	15	530	4.03	20	<2	25	1.0	<3	<3	50	0.38
2064473	Soil	6	4	7	5	120	9	177	0.3	51	19	735	4.19	20	<2	31	<0.5	<3	<3	47	0.46
2064474	Soil	6	<3	7	6	138	9	212	<0.3	59	22	938	4.36	25	<2	30	<0.5	<3	<3	47	0.41
2064475	Soil	5	<3	5	4	94	7	143	0.3	36	18	677	3.80	18	<2	29	<0.5	<3	<3	44	0.50
2064476	Soil	6	3	5	5	90	9	172	<0.3	43	20	765	4.04	20	<2	32	0.8	<3	<3	46	0.55
2064477	Soil	5	4	5	4	101	8	149	0.5	51	18	771	4.07	19	<2	31	<0.5	<3	<3	48	0.52
2064478	Soil	6	<3	6	5	90	8	171	0.5	47	18	724	4.16	20	<2	32	<0.5	<3	<3	46	0.51
2064479	Soil	6	<3	5	5	79	9	170	0.4	44	20	813	4.39	23	<2	34	<0.5	<3	<3	50	0.53
2064480	Soil	5	<3	4	5	64	7	181	<0.3	38	19	775	4.11	20	<2	31	1.2	<3	<3	46	0.50
2064481	Soil	5	<3	5	5	69	8	198	<0.3	40	19	833	4.05	20	<2	32	2.1	<3	<3	44	0.53
2064482	Soil	6	4	7	6	113	8	202	0.6	52	20	850	4.30	23	<2	38	1.0	<3	<3	46	0.55
2064483	Soil	6	<3	3	3	63	8	321	0.3	43	20	1316	3.54	18	<2	39	3.4	<3	<3	47	0.81
2064484	Soil	9	3	6	4	111	8	169	<0.3	49	19	774	3.87	18	<2	33	0.8	<3	<3	46	0.53

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Project: 2019-Ellen
Report Date: October 06, 2020

CERTIFICATE OF ANALYSIS WHI20000303.1

	Method	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
	Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc
	Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm
	MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5
2064455	Soil	0.089	10	88	1.28	147	0.058	<20	1.73	0.02	0.10	<2	0.10	<1	<5	<5	<5
2064456	Soil	0.093	9	83	1.29	121	0.060	<20	1.63	0.02	0.09	<2	0.10	<1	<5	5	<5
2064457	Soil	0.104	8	74	1.14	146	0.062	<20	1.69	0.02	0.11	<2	0.11	<1	<5	<5	<5
2064458	Soil	0.083	8	96	1.29	139	0.072	<20	1.75	0.01	0.09	<2	0.06	<1	<5	<5	5
2064459	Soil	0.034	7	166	2.22	91	0.127	<20	2.09	0.01	0.10	<2	<0.05	<1	<5	7	6
2064460	Soil	0.027	7	281	3.57	90	0.129	<20	2.18	<0.01	0.08	<2	<0.05	<1	<5	5	8
2064461	Soil	0.054	8	102	1.49	134	0.071	<20	1.66	0.01	0.08	<2	0.05	<1	<5	<5	<5
2064462	Soil	0.029	7	177	2.21	160	0.153	<20	1.79	0.01	0.09	<2	<0.05	<1	<5	<5	7
2064463	Soil	0.048	7	131	1.93	134	0.070	<20	1.76	0.01	0.07	<2	0.05	<1	<5	<5	<5
2064464	Soil	0.068	8	130	1.84	229	0.055	<20	1.99	0.01	0.07	<2	<0.05	<1	<5	<5	5
2064465	Soil	0.066	5	101	1.63	121	0.066	<20	1.80	<0.01	0.06	<2	<0.05	<1	<5	<5	<5
2064466	Soil	0.067	6	124	1.91	110	0.081	<20	2.01	<0.01	0.07	<2	<0.05	<1	<5	5	<5
2064467	Soil	0.062	6	106	1.76	114	0.078	<20	1.86	<0.01	0.09	<2	<0.05	<1	<5	7	<5
2064468	Soil	0.058	7	117	1.81	129	0.063	<20	1.96	<0.01	0.08	<2	<0.05	<1	<5	<5	<5
2064469	Soil	0.066	6	101	1.60	145	0.058	<20	1.72	<0.01	0.09	<2	0.07	<1	<5	5	<5
2064470	Soil	0.068	5	115	1.85	121	0.080	<20	2.04	0.01	0.08	<2	<0.05	<1	<5	6	6
2064471	Soil	0.075	6	105	1.63	141	0.058	<20	1.86	<0.01	0.07	<2	0.06	<1	<5	6	<5
2064472	Soil	0.049	6	53	0.98	118	0.057	<20	1.64	<0.01	0.06	<2	<0.05	<1	<5	<5	<5
2064473	Soil	0.068	8	53	1.06	114	0.076	<20	1.57	<0.01	0.05	<2	<0.05	<1	<5	<5	<5
2064474	Soil	0.076	10	52	0.99	134	0.070	<20	1.55	<0.01	0.05	<2	<0.05	<1	<5	<5	<5
2064475	Soil	0.069	6	47	0.94	78	0.075	<20	1.40	<0.01	0.06	<2	<0.05	<1	<5	<5	<5
2064476	Soil	0.066	8	49	0.97	93	0.076	<20	1.48	<0.01	0.06	<2	<0.05	<1	<5	<5	<5
2064477	Soil	0.070	8	49	1.01	107	0.085	<20	1.53	<0.01	0.05	<2	<0.05	<1	<5	<5	<5
2064478	Soil	0.072	7	46	0.99	81	0.082	<20	1.50	<0.01	0.05	<2	<0.05	<1	<5	<5	<5
2064479	Soil	0.053	7	56	1.05	103	0.075	<20	1.66	<0.01	0.06	<2	<0.05	<1	<5	<5	<5
2064480	Soil	0.089	6	48	0.99	60	0.073	<20	1.48	<0.01	0.06	<2	<0.05	<1	<5	<5	<5
2064481	Soil	0.088	6	46	0.96	68	0.068	<20	1.44	<0.01	0.06	<2	<0.05	<1	<5	<5	<5
2064482	Soil	0.074	8	48	0.96	99	0.082	<20	1.47	<0.01	0.05	<2	<0.05	<1	<5	<5	<5
2064483	Soil	0.092	6	44	0.79	196	0.043	<20	1.37	<0.01	0.08	<2	0.06	<1	<5	<5	<5
2064484	Soil	0.073	7	52	1.00	129	0.065	<20	1.52	<0.01	0.06	<2	<0.05	<1	<5	<5	<5

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Project: 2019-Ellen
Report Date: October 06, 2020

CERTIFICATE OF ANALYSIS WHI20000303.1

	Method	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
	Analyte	Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca
	Unit	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01
2064485	Soil	7	<3	5	5	91	7	197	<0.3	43	19	804	3.98	20	<2	32	1.1	<3	<3	45	0.54
2064486	Soil	9	6	37	6	193	7	103	0.3	52	21	870	4.59	16	<2	42	<0.5	<3	<3	72	0.92
2064487	Soil	120	4	18	3	173	6	134	<0.3	54	17	599	3.45	6	<2	74	<0.5	<3	<3	53	1.82
2064488	Soil	4	<3	7	5	71	6	154	<0.3	37	14	556	3.63	17	<2	26	<0.5	<3	<3	43	0.46
2064489	Soil	6	<3	8	5	144	7	182	<0.3	57	21	998	3.99	19	<2	35	0.9	<3	<3	46	0.66
2064490	Soil	7	<3	5	5	91	8	157	0.3	41	18	722	4.10	20	<2	28	<0.5	<3	<3	46	0.43
2064491	Soil	6	<3	5	5	96	8	167	<0.3	41	18	676	3.99	21	<2	31	0.8	<3	<3	45	0.45
2064492	Soil	6	<3	4	4	87	7	169	0.4	39	17	682	3.92	19	<2	31	0.6	<3	<3	44	0.47
2064493	Soil	8	<3	6	6	110	8	204	0.7	52	19	852	4.14	23	<2	35	1.0	<3	<3	46	0.47
2064494	Soil	8	<3	7	5	114	8	209	0.4	53	18	706	4.41	21	<2	40	1.4	<3	<3	49	0.65
2064495	Soil	6	<3	7	5	114	8	150	0.3	120	28	820	4.55	30	<2	30	0.6	<3	<3	53	0.50
2064496	Soil	5	<3	5	4	84	6	168	0.6	40	16	635	3.74	16	<2	26	0.6	<3	<3	43	0.49
2064497	Soil	I.S.	I.S.	I.S.	4	93	8	164	<0.3	43	18	712	3.67	19	<2	31	1.2	<3	<3	45	0.52
2064498	Soil	I.S.	I.S.	I.S.	<1	227	6	89	<0.3	118	24	675	3.38	7	<2	40	<0.5	<3	<3	62	1.20
2064499	Soil	I.S.	I.S.	I.S.	4	91	7	146	<0.3	44	16	706	3.54	16	<2	26	0.9	<3	<3	46	0.41
2064500	Soil	9	<3	12	5	96	8	167	0.3	47	19	754	3.73	18	<2	30	1.0	<3	<3	46	0.40

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Project: 2019-Ellen
Report Date: October 06, 2020

CERTIFICATE OF ANALYSIS WHI20000303.1

	Method	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
	Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc
	Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm
	MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5
2064485	Soil	0.070	6	50	0.99	79	0.072	<20	1.47	<0.01	0.05	<2	<0.05	<1	<5	<5	<5
2064486	Soil	0.077	6	76	1.28	116	0.077	<20	1.89	<0.01	0.05	<2	0.06	<1	<5	<5	<5
2064487	Soil	0.082	6	72	1.17	137	0.044	<20	1.73	0.01	0.05	<2	0.11	<1	<5	6	<5
2064488	Soil	0.062	4	45	0.97	44	0.077	<20	1.36	<0.01	0.04	<2	<0.05	<1	<5	<5	<5
2064489	Soil	0.069	8	52	1.02	110	0.077	<20	1.53	<0.01	0.06	<2	<0.05	<1	<5	<5	<5
2064490	Soil	0.071	7	48	0.98	79	0.083	<20	1.52	<0.01	0.05	<2	<0.05	<1	<5	<5	<5
2064491	Soil	0.067	9	47	0.91	89	0.076	<20	1.44	<0.01	0.07	<2	<0.05	<1	<5	<5	<5
2064492	Soil	0.066	7	45	0.92	93	0.081	<20	1.41	<0.01	0.05	<2	<0.05	<1	<5	<5	<5
2064493	Soil	0.076	9	45	0.93	92	0.087	<20	1.40	<0.01	0.05	<2	<0.05	<1	<5	<5	<5
2064494	Soil	0.077	8	56	1.10	110	0.083	<20	1.65	<0.01	0.06	<2	<0.05	<1	<5	<5	<5
2064495	Soil	0.060	7	150	1.30	69	0.088	<20	1.75	<0.01	0.06	<2	<0.05	<1	<5	<5	5
2064496	Soil	0.060	6	46	0.99	60	0.091	<20	1.42	<0.01	0.05	<2	<0.05	<1	<5	<5	<5
2064497	Soil	0.066	6	46	0.98	70	0.075	<20	1.41	<0.01	0.05	<2	<0.05	<1	<5	<5	<5
2064498	Soil	0.070	7	78	1.33	140	0.079	<20	1.71	<0.01	0.06	<2	<0.05	<1	<5	<5	<5
2064499	Soil	0.063	6	44	0.96	74	0.093	<20	1.39	<0.01	0.05	<2	<0.05	<1	<5	<5	<5
2064500	Soil	0.069	7	44	0.94	79	0.083	<20	1.40	<0.01	0.04	<2	<0.05	<1	<5	<5	<5

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QUALITY CONTROL REPORT WHI20000303.1

	Method	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
	Analyte	Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca
	Unit	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
	MDL	2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01
Pulp Duplicates																					
1318409	Soil	8	7	10	6	159	14	217	0.5	54	19	873	4.63	49	<2	18	1.1	<3	<3	56	0.26
REP 1318409	QC				6	165	13	225	0.5	56	20	921	4.86	51	<2	20	1.1	<3	<3	60	0.29
1318412	Soil	10	5	8	9	115	11	386	0.6	62	14	753	3.83	27	<2	28	2.5	<3	<3	41	0.19
REP 1318412	QC	6	9	12																	
1318458	Soil	10	4	12	4	104	15	144	0.5	60	17	944	2.89	16	<2	48	2.3	<3	<3	40	1.45
REP 1318458	QC				4	102	11	143	0.5	60	17	938	2.86	16	<2	46	2.2	<3	<3	41	1.42
1318461	Soil	11	<3	10	6	104	13	182	0.6	67	20	1081	3.51	22	<2	30	1.7	<3	<3	51	0.60
REP 1318461	QC	8	<3	7																	
1318479	Soil	14	3	14	6	153	14	177	0.6	86	26	1156	3.71	18	<2	26	2.0	<3	<3	53	0.70
REP 1318479	QC	I.S.	I.S.	I.S.																	
2064761	Soil	12	6	8	10	117	10	298	0.8	43	14	805	3.92	36	<2	20	1.7	4	<3	35	0.11
REP 2064761	QC				10	121	10	313	0.8	45	14	837	4.07	37	<2	21	1.8	4	<3	37	0.12
2064797	Soil	9	4	18	7	177	11	148	0.5	60	33	1379	5.86	512	<2	32	0.9	6	<3	84	0.87
REP 2064797	QC				8	177	11	148	0.5	60	33	1418	6.03	510	<2	32	0.9	6	<3	84	0.88
2064911	Soil	16	<3	9	10	129	13	388	0.7	88	25	1729	4.15	39	<2	52	3.8	4	<3	39	0.34
REP 2064911	QC	20	6	13																	
2064933	Soil	12	6	8	23	262	12	1962	1.8	184	32	769	12.65	98	<2	11	2.4	7	<3	26	0.03
REP 2064933	QC	12	<3	11																	
2064935	Soil	10	6	13	25	97	21	345	2.4	53	5	188	6.76	79	<2	78	1.0	10	<3	65	0.13
REP 2064935	QC				26	97	22	350	2.4	54	5	185	6.76	80	<2	78	1.1	10	<3	65	0.13
2064977	Soil	9	5	15	1	140	9	72	0.5	389	37	948	4.30	11	<2	31	<0.5	<3	<3	72	0.84
REP 2064977	QC	6	7	15																	
2064983	Soil	5	7	14	<1	139	8	82	<0.3	217	25	661	3.46	9	<2	54	<0.5	<3	<3	58	1.90
REP 2064983	QC				<1	144	8	85	<0.3	225	26	689	3.59	10	<2	55	<0.5	<3	<3	61	1.97
2064469	Soil	9	3	12	<1	133	7	81	<0.3	167	27	1303	3.59	8	<2	44	<0.5	<3	<3	60	1.42
REP 2064469	QC				<1	134	8	81	<0.3	169	28	1315	3.62	8	<2	45	<0.5	<3	<3	62	1.47
2064473	Soil	6	4	7	5	120	9	177	0.3	51	19	735	4.19	20	<2	31	<0.5	<3	<3	47	0.46
REP 2064473	QC	5	4	7																	

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QUALITY CONTROL REPORT WHI20000303.1

	Method	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
	Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc
	Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm
	MDL	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5
Pulp Duplicates																	
1318409	Soil	0.043	11	50	1.11	105	0.036	<20	1.69	<0.01	0.04	<2	<0.05	<1	<5	<5	6
REP 1318409	QC	0.045	11	54	1.19	110	0.047	<20	1.82	<0.01	0.05	<2	<0.05	<1	<5	<5	6
1318412	Soil	0.056	13	48	0.85	147	0.015	<20	1.17	<0.01	0.04	<2	<0.05	<1	<5	<5	<5
REP 1318412	QC																
1318458	Soil	0.077	10	72	1.01	141	0.009	<20	1.20	<0.01	0.04	<2	0.13	<1	<5	<5	<5
REP 1318458	QC	0.075	10	72	1.00	135	0.009	<20	1.21	<0.01	0.04	<2	0.13	<1	<5	<5	<5
1318461	Soil	0.070	12	80	1.17	185	0.014	<20	1.51	<0.01	0.05	<2	0.08	<1	<5	<5	<5
REP 1318461	QC																
1318479	Soil	0.071	10	113	1.28	220	0.015	<20	1.70	<0.01	0.05	<2	0.08	<1	<5	<5	<5
REP 1318479	QC																
2064761	Soil	0.065	14	23	0.51	80	0.009	<20	0.90	<0.01	0.03	<2	0.06	<1	<5	<5	<5
REP 2064761	QC	0.066	15	23	0.55	85	0.009	<20	0.98	<0.01	0.04	<2	0.06	<1	<5	<5	<5
2064797	Soil	0.037	15	54	1.61	220	0.010	<20	2.33	<0.01	0.07	<2	<0.05	<1	<5	7	10
REP 2064797	QC	0.038	15	53	1.66	227	0.011	<20	2.38	<0.01	0.07	<2	<0.05	<1	<5	7	10
2064911	Soil	0.063	16	43	0.69	219	0.007	<20	0.90	<0.01	0.07	<2	0.14	<1	<5	<5	<5
REP 2064911	QC																
2064933	Soil	0.099	14	9	0.07	139	0.001	<20	0.36	<0.01	0.05	<2	0.46	<1	8	<5	9
REP 2064933	QC																
2064935	Soil	0.181	17	25	0.17	400	0.001	<20	0.59	0.03	0.06	<2	0.27	<1	<5	<5	<5
REP 2064935	QC	0.184	17	25	0.17	394	0.001	<20	0.59	0.04	0.06	<2	0.28	<1	<5	<5	<5
2064977	Soil	0.042	8	189	2.45	120	0.119	<20	2.03	0.01	0.09	<2	<0.05	<1	<5	<5	7
REP 2064977	QC																
2064983	Soil	0.065	6	107	1.76	134	0.076	<20	1.68	0.01	0.12	<2	0.08	<1	<5	<5	<5
REP 2064983	QC	0.066	7	110	1.84	136	0.078	<20	1.75	0.01	0.12	<2	0.08	<1	<5	<5	<5
2064469	Soil	0.066	6	101	1.60	145	0.058	<20	1.72	<0.01	0.09	<2	0.07	<1	<5	5	<5
REP 2064469	QC	0.066	6	102	1.62	146	0.062	<20	1.74	0.01	0.09	<2	0.07	<1	<5	<5	<5
2064473	Soil	0.068	8	53	1.06	114	0.076	<20	1.57	<0.01	0.05	<2	<0.05	<1	<5	<5	<5
REP 2064473	QC																

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Client: **Longford Exploration Services Ltd.**
460-688 West Hastings St.
Vancouver British Columbia V6B 1P1 Canada

Project: 2019-Ellen
Report Date: October 06, 2020

QUALITY CONTROL REPORT WHI20000303.1

		FA330 Au ppb 2	FA330 Pt ppb 3	FA330 Pd ppb 2	AQ300 Mo ppm 1	AQ300 Cu ppm 1	AQ300 Pb ppm 3	AQ300 Zn ppm 1	AQ300 Ag ppm 0.3	AQ300 Ni ppm 1	AQ300 Co ppm 1	AQ300 Mn ppm 2	AQ300 Fe % 0.01	AQ300 As ppm 2	AQ300 Th ppm 2	AQ300 Sr ppm 1	AQ300 Cd ppm 0.5	AQ300 Sb ppm 3	AQ300 Bi ppm 3	AQ300 V ppm 1	AQ300 Ca % 0.01
2064497	Soil	I.S.	I.S.	I.S.	4	93	8	164	<0.3	43	18	712	3.67	19	<2	31	1.2	<3	<3	45	0.52
REP 2064497	QC	I.S.	I.S.	I.S.																	
2064500	Soil	9	<3	12	5	96	8	167	0.3	47	19	754	3.73	18	<2	30	1.0	<3	<3	46	0.40
REP 2064500	QC				5	95	8	165	<0.3	47	19	754	3.67	19	<2	28	0.9	<3	<3	45	0.40
Reference Materials																					
STD BVGEO01	Standard				10	4279	187	1762	2.7	166	24	733	3.81	122	12	58	5.6	<3	23	72	1.35
STD BVGEO01	Standard				10	4188	186	1772	2.6	169	23	737	3.81	119	12	56	5.9	3	23	73	1.32
STD BVGEO01	Standard				10	4383	184	1678	2.5	156	22	701	3.66	119	11	52	5.9	<3	25	71	1.29
STD BVGEO01	Standard				10	4338	180	1715	2.9	168	24	703	3.65	123	13	55	6.3	4	26	75	1.28
STD DS11	Standard				14	145	130	349	2.0	77	13	1055	3.18	43	7	70	1.9	6	11	47	1.04
STD DS11	Standard				13	142	127	342	2.8	76	12	1031	3.07	43	5	65	1.8	6	10	44	1.00
STD DS11	Standard				13	142	132	332	1.7	73	11	991	3.01	43	5	61	2.3	8	10	46	1.00
STD DS11	Standard				13	141	134	345	1.8	76	12	1029	3.07	42	5	65	2.1	7	10	45	1.00
STD KO74421	Standard	526	467	495																	
STD KO74421	Standard	527	467	488																	
STD KO74421	Standard	514	451	488																	
STD KO74421	Standard	540	483	498																	
STD KO74421	Standard	522	468	490																	
STD OREAS262	Standard				<1	117	55	156	0.5	63	26	547	3.32	36	8	36	<0.5	<3	<3	21	3.05
STD OREAS262	Standard				<1	116	55	156	0.5	63	26	541	3.34	36	8	36	<0.5	<3	<3	22	3.05
STD OREAS262	Standard				<1	119	57	159	0.5	67	27	572	3.47	37	9	37	<0.5	<3	<3	22	3.12
STD OREAS262	Standard				<1	115	53	138	0.4	60	25	514	3.21	35	7	34	0.6	<3	<3	20	2.83
STD OREAS262	Standard				<1	117	54	156	0.5	64	26	548	3.32	36	7	35	0.6	<3	<3	20	3.04
STD OREAS262	Standard				<1	116	55	155	0.5	63	27	552	3.33	36	8	36	0.6	<3	<3	21	3.02
STD OREAS262	Standard				<1	117	56	141	0.4	61	25	529	3.25	37	7	34	0.6	4	<3	21	2.86
STD OREAS262	Standard				<1	118	59	151	0.6	64	27	546	3.22	38	8	35	0.7	3	<3	22	2.92
STD OREAS47	Standard	45	30	46																	
STD PD05	Standard	529	447	621																	
STD PD05	Standard	532	447	634																	

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460-688 West Hastings St.
Vancouver British Columbia V6B 1P1 Canada

Project: 2019-Ellen
Report Date: October 06, 2020

QUALITY CONTROL REPORT WHI20000303.1

		AQ300 P % 0.001	AQ300 La ppm 1	AQ300 Cr ppm 1	AQ300 Mg % 0.01	AQ300 Ba ppm 1	AQ300 Ti % 0.001	AQ300 B ppm 20	AQ300 Al % 0.01	AQ300 Na % 0.01	AQ300 K % 0.01	AQ300 W ppm 2	AQ300 S % 0.05	AQ300 Hg ppm 1	AQ300 Tl ppm 5	AQ300 Ga ppm 5	AQ300 Sc ppm 5
2064497	Soil	0.066	6	46	0.98	70	0.075	<20	1.41	<0.01	0.05	<2	<0.05	<1	<5	<5	<5
REP 2064497	QC																
2064500	Soil	0.069	7	44	0.94	79	0.083	<20	1.40	<0.01	0.04	<2	<0.05	<1	<5	<5	<5
REP 2064500	QC	0.069	7	43	0.93	78	0.081	<20	1.38	<0.01	0.04	<2	<0.05	<1	<5	<5	<5
Reference Materials																	
STD BVGEO01	Standard	0.070	26	180	1.32	339	0.234	<20	2.30	0.20	0.89	4	0.67	<1	<5	<5	6
STD BVGEO01	Standard	0.070	25	173	1.32	343	0.235	<20	2.26	0.19	0.90	<2	0.68	<1	<5	<5	6
STD BVGEO01	Standard	0.070	24	165	1.30	335	0.223	<20	2.25	0.19	0.88	<2	0.66	<1	<5	<5	6
STD BVGEO01	Standard	0.073	26	167	1.34	334	0.223	<20	2.27	0.19	0.89	<2	0.70	<1	<5	<5	6
STD DS11	Standard	0.067	18	58	0.84	427	0.095	<20	1.17	0.07	0.40	2	0.26	<1	<5	<5	<5
STD DS11	Standard	0.065	16	56	0.81	418	0.088	<20	1.09	0.07	0.39	3	0.26	<1	<5	<5	<5
STD DS11	Standard	0.067	15	56	0.82	392	0.082	<20	1.09	0.07	0.39	<2	0.28	<1	5	6	<5
STD DS11	Standard	0.066	16	57	0.81	409	0.088	<20	1.09	0.07	0.38	<2	0.26	<1	5	<5	<5
STD KO74421	Standard																
STD KO74421	Standard																
STD KO74421	Standard																
STD KO74421	Standard																
STD KO74421	Standard																
STD OREAS262	Standard	0.038	15	43	1.17	248	0.003	<20	1.30	0.07	0.31	<2	0.25	<1	<5	6	<5
STD OREAS262	Standard	0.038	16	42	1.18	252	0.003	<20	1.31	0.07	0.32	<2	0.25	<1	<5	6	<5
STD OREAS262	Standard	0.038	15	46	1.23	258	0.003	<20	1.33	0.07	0.31	<2	0.25	<1	<5	7	<5
STD OREAS262	Standard	0.037	13	39	1.16	240	0.002	<20	1.14	0.07	0.28	<2	0.26	<1	<5	<5	<5
STD OREAS262	Standard	0.037	13	41	1.17	245	0.003	<20	1.19	0.07	0.28	<2	0.25	<1	<5	<5	<5
STD OREAS262	Standard	0.038	14	41	1.18	251	0.003	<20	1.25	0.07	0.30	<2	0.25	<1	<5	<5	<5
STD OREAS262	Standard	0.038	14	42	1.18	247	0.003	<20	1.22	0.07	0.30	<2	0.26	<1	<5	<5	<5
STD OREAS262	Standard	0.040	15	42	1.20	247	0.002	<20	1.26	0.07	0.30	<2	0.27	<1	<5	<5	<5
STD OREAS47	Standard																
STD PD05	Standard																
STD PD05	Standard																

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		FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
		Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V	Ca
		ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
		2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1	0.01
STD PD05	Standard	536	440	620																	
STD PD05	Standard	507	430	589																	
STD PD05	Standard	522	443	606																	
STD PG04	Standard	1034	959	1255																	
STD PG04	Standard	1025	903	1210																	
STD PG04	Standard	1050	965	1277																	
STD DS11 Expected					13.9	156	138	345	1.71	81.9	14.2	1055	3.2082	42.8	7.65	67.3	2.37	7.2	12.2	50	1.063
STD BVGEO01 Expected					10.8	4415	187	1741	2.53	163	25	733	3.7	121	14.4	55	6.5	2.2	25.6	73	1.3219
STD OREAS262 Expected						118	56	154	0.45	62	26.9	530	3.284	35.8	9.33	36	0.61	3.39		22.5	2.98
STD OREAS47 Expected		44.3	29.2	44.2																	
STD PG04 Expected		996	910	1210																	
STD PD05 Expected		519	430	596																	
STD KO74421 Expected		518	459	466																	
BLK	Blank				<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<1	<0.5	<3	<3	<1	<0.01
BLK	Blank				<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<1	<0.5	<3	<3	<1	<0.01
BLK	Blank				<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<1	<0.5	<3	<3	<1	<0.01
BLK	Blank				<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<1	<0.5	<3	<3	<1	<0.01
BLK	Blank				<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<1	<0.5	<3	<3	<1	<0.01
BLK	Blank				<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<1	<0.5	<3	<3	<1	<0.01
BLK	Blank				<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<1	<0.5	<3	<3	<1	<0.01
BLK	Blank				<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<1	<0.5	<3	<3	<1	<0.01
BLK	Blank	<2	<3	2																	
BLK	Blank	3	<3	3																	
BLK	Blank	<2	<3	<2																	
BLK	Blank	<2	<3	<2																	
BLK	Blank	4	<3	<2																	
BLK	Blank	<2	<3	<2																	
BLK	Blank	<2	<3	<2																	
BLK	Blank	9	<3	<2																	

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		AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
		P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc
		%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm
		0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5
STD PD05	Standard																
STD PD05	Standard																
STD PD05	Standard																
STD PG04	Standard																
STD PG04	Standard																
STD PG04	Standard																
STD DS11 Expected		0.0701	18.6	61.5	0.85	417	0.0976	6	1.129	0.0694	0.4	2.9	0.2835	0.3	4.9	4.7	3.1
STD BVGEO01 Expected		0.0727	25.9	171	1.2963	340	0.233		2.347	0.1924	0.89	3.5	0.6655			7.37	5.97
STD OREAS262 Expected		0.04	15.9	41.7	1.17	248	0.003		1.3	0.071	0.312		0.269			3.9	3.24
STD OREAS47 Expected																	
STD PG04 Expected																	
STD PD05 Expected																	
STD KO74421 Expected																	
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<1	<5	<5	<5
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<1	<5	<5	<5
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<1	<5	<5	<5
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<1	<5	<5	<5
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<1	<5	<5	<5
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<1	<5	<5	<5
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<1	<5	<5	<5
BLK	Blank	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<1	<5	<5	<5
BLK	Blank																
BLK	Blank																
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		FA330 Au ppb 2	FA330 Pt ppb 3	FA330 Pd ppb 2	AQ300 Mo ppm 1	AQ300 Cu ppm 1	AQ300 Pb ppm 3	AQ300 Zn ppm 1	AQ300 Ag ppm 0.3	AQ300 Ni ppm 1	AQ300 Co ppm 1	AQ300 Mn ppm 2	AQ300 Fe % 0.01	AQ300 As ppm 2	AQ300 Th ppm 2	AQ300 Sr ppm 1	AQ300 Cd ppm 0.5	AQ300 Sb ppm 3	AQ300 Bi ppm 3	AQ300 V ppm 1	AQ300 Ca % 0.01
BLK	Blank	2	<3	3																	

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		AQ300 P % 0.001	AQ300 La ppm 1	AQ300 Cr ppm 1	AQ300 Mg % 0.01	AQ300 Ba ppm 1	AQ300 Ti % 0.001	AQ300 B ppm 20	AQ300 Al % 0.01	AQ300 Na % 0.01	AQ300 K % 0.01	AQ300 W ppm 2	AQ300 S % 0.05	AQ300 Hg ppm 1	AQ300 Tl ppm 5	AQ300 Ga ppm 5	AQ300 Sc ppm 5
BLK	Blank																

Exploring Heavy Minerals

Overburden Drilling Management Limited
Unit 107, 15 Capella Court
Nepean, Ontario, Canada, K2E 7X1
Tel: (613) 226-1771 Fax: (613) 226-8753
odm@storm.ca www.odm.ca

Laboratory Data Report

Client Information

Longford Exploration Ltd.
460-688 West Hastings Street
Vancouver, BC
V6B 1P1

ryan@longfordex.com jrogers@longfordex.com

Attention: Ryan Versloot James Rogers

Data-File Information

Date:	November 30, 2020
Project name:	
ODM batch number:	2088
Sample numbers:	2064301 to 2064313
Data file:	20202088 - Longford Exploration - Versloot - (Gold, MMSIM) - Oct 2020
Number of samples in this report:	13 *4 samples-Ellen-Pacer
Number of samples processed to date:	13
Total number of samples in project:	13
Preliminary data:	
Final data:	X
Revised data:	

Samples Processed For: Gold, MMSIM

Processing Specifications:

1. Submitted by client: Sand and gravel samples prescreened in the field.
2. One ±300 g archival split taken.
3. All samples panned for gold, PGMs and fine-grained metallic indicator minerals.
4. Shaking table concentrates refined by heavy liquid separation at S.G. 3.2 to obtain heavy mineral concentrates (HMCs).
5. 1.0-2.0, 0.5-1.0 mm and nonparamagnetic (>1.0 amp) 0.25-0.5 mm HMC fractions examined for scheelite by UV lamping.

Notes

Mike Crawford
Laboratory Manager

Overburden Drilling Management Limited - Abbreviations Table

Raw Sample Weights and Descriptions Log

Largest Clast Size Present:

- G: Granules
- P: Pebbles
- C: Cobbles

Clast Composition:

- V/S: Volcanics and/or sediments
- GR: Granitics
- LS: Limestone, carbonates
- OT: Other lithologies (refer to footnotes)
- TR: Only trace present
- NA: Not applicable
- OX: Very oxidized, undifferentiated
- MB: Marble

Matrix Grain Size Distribution:

- S/U: Sorted or unsorted
- SD: Sand (F: Fine; M: Medium; C: Coarse)
- ST: Silt
- CY: Clay
- Y: Fraction present
- +: Fraction more abundant than normal
- -: Fraction less abundant than normal
- N: Fraction not present *4 samples-Ellen-Pacer

Matrix Organics:

- ORG: Y: Organics present in matrix
  N: Organics absent or negligible in matrix
  +: Matrix is mainly organic

Matrix Colour:

Primary:

- BE: Beige
- BR: Brick Red
- GY: Grey
- GB: Grey-beige
- GN: Green
- GG: Grey-green
- PP: Purple
- PK: Pink
- PB: Pink-beige
- MN: Maroon

Secondary (soil):

- OC: Ochre
- BN: Brown
- BK: Black

Secondary Colour Modifier:

- L: Light
- M: Medium
- D: Dark

Detailed Gold Grain Log

- VG: Visible gold grains

Thickness:

- M: Actual measured thickness of grain (µm)
- C: Thickness of grain (µm) calculated from measured width and length

Kimberlite Indicator Mineral (KIM) Log

- GP: Purple to red peridotitic garnet (G9/10 Cr-pyrope)
- GO: Orange mantle garnet; includes both eclogitic pyrope-almandine (G3) and Cr-poor megacrystic pyrope (G1/G2) varieties; may include unchecked (by SEM) grains of common crustal garnet (G5) lacking diagnostic inclusions or crystal faces
- DC: Cr-diopside; distinctly emerald green (paler emerald green low-Cr diopside picked separately)
- IM: Mg-ilmenite; may include unchecked (by SEM) grains of common crustal ilmenite lacking diagnostic inclusions or crystal faces
- CR: Chromite
- FO: Forsterite

Metamorphosed/Magmatic Massive Sulphide Indicator Mineral (MMSIM) and Porphyry Cu Indicator Mineral (PCIM) Logs

- Adr: Andradite
- Ap: Apatite
- Ase: Anatase
- Aspy: Arsenopyrite
- Ax: Axinite
- Ba: Barite
- Cpx: Clinopyroxene
- Cpy: Chalcopyrite
- Cr: Chromite
- Fay: Fayalite
- Gh: Gahnite
- Grs: Grossular
- Gth: Goethite
- Ilm: Ilmenite
- Ky: Kyanite
- Mrc: Marcasite
- Mz: Monazite
- Ol: Olivine
- Opx: Orthopyroxene
- PGM: Platinum group-bearing mineral
- Py: Pyrite
- REM: Rare earth-bearing mineral
- Rt: Red rutile
- Sil: Sillimanite
- Spi: Spinel
- Sps: Spessartine
- St: Staurolite
- Tm: Tourmaline
- Ttn: Titanite
- Zir: Zircon

Other

- HMC: Heavy mineral concentrate
- UV: Ultra-violet
- EPD: Electric-pulse disaggregation
- PGE: Platinum group element

Primary Sample Processing Weights and Descriptions

Client: Longford Exploration Ltd.
File Name: 20202088 - Longford Exploration - Versloot - (Gold, MMSIM) - Oct 2020
Total Number of Samples in this Report: 13 (4 samples from Ellen-Pacer)
ODM Batch Number(s): 2088

	Weight (kg wet)					Screening and Shaking Table Sample Descriptions												
						Clasts (+2.0 mm)					Matrix (-2.0 mm)							
							Percentage				Distribution					Colour		
Sample Number	Bulk Rec'd	Archived Split	Table Split	+2.0 mm Clasts	-2.0 mm Table Feed	Size	V/S	GR	LS	OT*	S/U	SD	ST	CY	ORG	SD	CY	Class
2064306	24.0	0.3	23.7	11.1	12.6	G	95	TR	0	5	S	MC	-	N	N	GY	NA	SAND + GRAVEL
2064307	25.1	0.3	24.8	12.6	12.2	G	90	TR	0	10	S	MC	-	N	N	GY	NA	SAND + GRAVEL
2064308	27.3	0.3	27.0	10.2	16.8	G	95	TR	0	5	S	MC	-	N	N	GY	NA	SAND + GRAVEL
2064309	23.8	0.3	23.5	11.6	11.9	G	95	TR	0	5	S	MC	-	N	N	GY	NA	SAND + GRAVEL

*Clasts listed as OT are Quartz.

Gold Grain Summary

Client: Longford Exploration Ltd.
File Name: 20202088 - Longford Exploration - Versloot - (Gold, MMSIM) - Oct 2020
Total Number of Samples in this Report: 13 (4 samples from Ellen-Pacer)
ODM Batch Number(s): 2088

	Number of Visible Gold Grains				Nonmag HMC	Calculated PPB Visible Gold in HMC			
Sample Number	Total	Reshaped	Modified	Pristine	Weight*	Total	Reshaped	Modified	Pristine
2064306	2	1	1	0	50.4	11	7	4	0
2064307	1	1	0	0	48.8	4	4	0	0
2064308	0	0	0	0	67.2	0	0	0	0
2064309	0	0	0	0	47.6	0	0	0	0

* Calculated PPB Au based on assumed nonmagnetic HMC weight equivalent to 0.4% of the table feed.

Detailed Gold Grain Data

Client: Longford Exploration Ltd.
File Name: 20202088 - Longford Exploration - Versloot - (Gold, MMSIM) - Oct 2020
Total Number of Samples in this Report: 13 (4 samples from Ellen-Pacer)
ODM Batch Number(s): 2088

	Dimensions (µm)			Number of Visible Gold Grains				Nonmag HMC Weight* (g)	Calculated V.G. Assay in HMC (ppb)	
Sample Number	Thickness	Width	Length	Reshaped	Modified	Pristine	Total			Metallic Minerals in Pan Concentrate
2064306	10 C	50	50		1		1		4	Tr (~5000 grains) pyrite (25-500 µm).
	13 C	50	75	1			1		7	
							2	50.4	11	
2064307	10 C	50	50	1			1		4	Tr (~5000 grains) pyrite (25-500 µm).
							1	48.8	4	
2064308	No Visible Gold									Tr (1 grain) molybdenite (50 µm). Tr (3 grains) cinnabar (25 µm). Tr (~2000 grains) pyrite (25-500 µm).
2064309	No Visible Gold									Tr (~2000 grains) pyrite (25-500 µm).

* Calculated PPB Au based on assumed nonmagnetic HMC weight equivalent to 0.4% of the table feed.

0.25-0.5 mm Paramagnetic/Non-Paramagnetic Fraction Weights

Client: Longford Exploration Ltd.

File Name: 20202088 - Longford Exploration - Versloot - (Gold, MMSIM) - Oct 2020

Total Number of Samples in this Report: 13 (4 samples from Ellen-Pacer)

ODM Batch Number(s): 2088

Sample Number	Weight of 0.25-0.5 mm S.G. >3.2 Nonferromagnetic Heavy Mineral Fractions (g)					
		Paramagnetic			Nonparamagnetic	
	Total	Strongly (<0.6 amp)	Moderately (0.6-0.8 amp)	Weakly (0.8-1.0 amp)	>1.0 amp	>1.0 amp Lights*
2064306	3.79	0.03	0.12	1.55	1.68	0.41
2064307	12.94	0.26	3.27	5.01	3.30	1.10
2064308	11.27	1.50	2.74	4.17	2.39	0.47
2064309	3.11	0.02	0.11	1.21	0.96	0.81

*SG <3.20 heavy liquid separation clean-up of >1.0 amp fraction.

Heavy Mineral Concentrate Processing Weights

Client: Longford Exploration Ltd.
File Name: 20202088 - Longford Exploration - Versloot - (Gold, MMSIM) - Oct 2020
Total Number of Samples in this Report: 13 (4 samples from Ellen-Pacer)
ODM Batch Number(s): 2088

	Weight of -2.0 mm Table Concentrate (g)												
			0.25 to 2.0 mm Heavy Liquid Separation at S.G. 3.20										
					HMC S.G.>3.20								
								Nonferromagnetic HMC					
									Processed Split				
									Total		0.25 to 0.5	0.5 to 1.0	1.0 to 2.0
Sample Number	Total	-0.25 mm	Total	Lights S.G. <3.2	Total	-0.25 mm (wash)	Mag	Total	%	Weight	mm	mm	mm
2064306	968.7	305.2	663.5	650.0	13.5	0.9	0.4	12.2	100	12.2	3.8	5.4	3.0
2064307	1206.3	337.5	868.8	845.1	23.7	2.5	0.2	21.0	100	21.0	12.9	6.7	1.4
2064308	1395.3	655.3	740.0	693.2	46.8	3.4	8.5	34.9	57	20.0	11.3	7.5	1.2
2064309	829.3	234.4	594.9	588.5	6.4	0.3	0.1	6.0	100	6.0	3.1	2.3	0.6

Metamorphosed/Magmatic Massive Sulphide Indicator Mineral (MMSIM) Counts

Client: Longford Exploration Ltd.
File Name: 20202088 - Longford Exploration - Versloot - (Gold, MMSIM) - Oct 2020
Total Number of Samples in this Report: 13 (4 samples from Ellen-Pacer)
ODM Batch Number(s): 2088

	0.25 to 0.5 mm Nonferromagnetic Heavy Mineral Fraction																		
	Sulphide/Arsenide + Related Minerals				Mg/Mn/Al/Cr Minerals												Phosphates		
	>1.0 amp			<1.0	>1.0 amp							<1.0 amp					>1.0 amp		
							%						Olivine						
Sample Number	% Cpy	Misc. Prime MMSIMs	% Pyrite	% Goethite	# Grains + Colour Spinel	Misc. Prime MMSIMs	Red Rutile	% Ky	% Sil	% Tm	% St	% Sps*	% Fo	% Fay	% Opx	% Cr**	% Ap	% Mz	Remarks	Picked Grains
2064306	0.7 (~120 gr)	Tr malachite (13 gr); 0.5 barite (~80 grains)	15 (~2500 gr)	80	0	0	0	0	Tr	0	0	0	0	0	0	0	0	0	Goethite-augite/epidote-diopside-pyrite assemblage. 0.5-1.0 mm fraction contains 0.5% (~50 grains) chalcopyrite.	1.0-2.0 mm fraction: 20 chalcopyrite 1 malachite 0.5-1.0 mm fraction: 20 representative chalcopyrite 8 malachite 10 barite 0.25-0.5 mm fraction: 20 reperesntative chalcopyrite 13 malachite 10 representativ barite
2064307	0.1 (32 gr)	0.2 barite (~80 gr)	15 (~5000 gr)	95	0	Tr Mn-epidote (6 gr); Tr low-Cr diopsdie (2 gr)	0	0	Tr	0	0	0	0	0	0	Tr (3 gr)	0	0	Goethite/epidote-diopside-pyrite assemblage.	0.5-1.0 mm fraction: 6 chalcopyrite 10 barite 0.25-0.5 mm fraction: 32 chalcopyrite 10 representative barite 6 Mn-epidote 2 low-Cr diopside 3 chromite
2064308	Tr (2 gr)	Tr barite (~60 gr)	5 (~1000 gr)	0.5	0	Tr low-Cr diopside (4 gr)	0	0	Tr	0	0	0	0	0	0	0	0	0	Augite/diopside assemblage.	0.5-1.0 mm fraction: 2 chalcopyrite 4 barite 1 low-Cr diopside 0.25-0.5 mm fraction: 2 chalcopyrite 10 representative barite 4 low-Cr diopside

*Spessartine may include andradite.
**Chromite may include hercynite, Cr-hercynite and Cr-spinel

Metamorphosed/Magmatic Massive Sulphide Indicator Mineral (MMSIM) Counts

Client: Longford Exploration Ltd.
File Name: 20202088 - Longford Exploration - Versloot - (Gold, MMSIM) - Oct 2020
Total Number of Samples in this Report: 13 (4 samples from Ellen-Pacer)
ODM Batch Number(s): 2088

	0.25 to 0.5 mm Nonferromagnetic Heavy Mineral Fraction																		
	Sulphide/Arsenide + Related Minerals				Mg/Mn/Al/Cr Minerals												Phosphates		
	>1.0 amp			<1.0	>1.0 amp							<1.0 amp					>1.0 amp		
							%						Olivine						
Sample Number	% Cpy	Misc. Prime MMSIMs	% Pyrite	% Goethite	# Grains + Colour Spinel	Misc. Prime MMSIMs	Red Rutile	% Ky	% Sil	% Tm	% St	% Sps*	% Fo	% Fay	% Opx	% Cr**	% Ap	% Mz	Remarks	Picked Grains
2064309	Tr (5 gr)	0.1 barite (13 gr)	10 (~1000 gr)	95	0	0	0	0	0	0	0	0	0	0	Tr	Tr (21 gr)	0	0	Goethite/Epidote assemblage. SEM checks from 0.25-0.5 mm fraction: 7 chromite candidates = 6 chromite and 1 chromite with attached fuchsite.	0.5-1.0 mm fraction: 2 chalcopyrite 1 barite 1 chromite 0.25-0.5 mm fraction: 5 chalcopyrite 13 barite 20 chromite 1 chromite + fuchsite

*Spessartine may include andradite.
**Chromite may include hercynite, Cr-hercynite and Cr-spinel

BUREAU VERITAS MINERAL LABORATORIES Canada

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9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Longford Exploration Services Ltd.**
460-688 West Hastings St.
Vancouver British Columbia V6B 1P1 Canada

Submitted By:	James Rogers
Receiving Lab:	Canada-Whitehorse
Received:	August 24, 2020
Analysis Start:	October 23, 2020
Report Date:	November 17, 2020
Page:	1 of 4

CERTIFICATE OF ANALYSIS WHI20000302.2

CLIENT JOB INFORMATION

Project:	Ellen
Shipment ID:	
P.O. Number	
Number of Samples:	63

SAMPLE DISPOSAL

PICKUP-PLP	Client to Pickup Pulps
PICKUP-RJT	Client to Pickup Rejects

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP70-250	63	Crush, split and pulverize 250 g rock to 200 mesh			WHI
FA330	63	Fire assay fusion Au Pt Pd by ICP-ES	30	Completed	VAN
EN002	63	Environmental disposal charge-Fire assay lead waste			VAN
AQ300	63	1:1:1 Aqua Regia digestion ICP-ES analysis	0.5	Completed	VAN
SHP01	63	Per sample shipping charges for branch shipments			VAN
AQ370-X	1	1:1:1 Aqua Regia digestion ICP-ES analysis	1	Completed	VAN

ADDITIONAL COMMENTS

Version 2 : AQ370-Cu included.

Invoice To: Longford Exploration Services Ltd.
460-688 West Hastings St.
Vancouver British Columbia V6B 1P1
Canada

CC:

BRITISH COLUMBIA CERTIFIED ASSAYER
MARCUS LAU
Production Manager

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.
All results are considered the confidential property of the client. Bureau Veritas assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted.
"*" asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.

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Client: **Longford Exploration Services Ltd.**
460-688 West Hastings St.
Vancouver British Columbia V6B 1P1 Canada

Project: Ellen
Report Date: November 17, 2020

CERTIFICATE OF ANALYSIS WHI20000302.2

Method		WGHT	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
Analyte		Wgt	Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V
Unit		kg	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
MDL		0.01	2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1
2064034	Rock	1.09	19	<3	10	<1	10	<3	2	<0.3	3	<1	171	1.15	<2	<2	121	<0.5	<3	<3	49
2064035	Rock	1.37	21	<3	12	7	45	4	50	<0.3	34	21	644	4.04	7	<2	24	<0.5	<3	<3	94
2064036	Rock	1.62	284	<3	13	<1	1104	<3	7	<0.3	13	5	171	1.18	3	<2	51	<0.5	<3	<3	54
2064037	Rock	1.47	6	<3	12	<1	133	4	62	<0.3	46	26	659	5.05	51	<2	11	<0.5	<3	<3	161
2064038	Rock	1.50	9	<3	4	<1	29	<3	34	<0.3	21	14	1006	3.66	13	<2	98	<0.5	6	<3	64
2064039	Rock	1.26	7	<3	21	<1	144	<3	82	<0.3	51	32	924	7.05	3	<2	33	<0.5	<3	<3	194
2064040	Rock	1.28	8	<3	20	<1	296	<3	48	<0.3	37	21	744	3.51	6	<2	18	<0.5	<3	<3	93
2064041	Rock	2.47	8	<3	22	<1	136	<3	27	<0.3	36	19	339	3.35	<2	<2	17	<0.5	<3	<3	76
2064042	Rock	1.78	4	<3	11	<1	72	<3	23	<0.3	36	14	438	2.85	<2	<2	222	<0.5	<3	<3	66
2064043	Rock	1.88	24	<3	7	<1	227	4	117	<0.3	24	44	1743	10.84	3	<2	72	0.8	<3	<3	272
2064044	Rock	1.26	6	<3	8	1	392	<3	172	0.4	30	57	1958	13.45	3	<2	49	<0.5	<3	<3	281
2064045	Rock	2.02	10	<3	16	<1	213	<3	19	<0.3	15	11	319	2.20	4	<2	42	<0.5	<3	<3	93
2064046	Rock	1.72	28	<3	22	4	6629	5	339	2.4	29	31	1719	5.28	1194	<2	131	7.4	301	<3	161
2064047	Rock	2.44	6	<3	14	2	567	4	144	<0.3	32	24	1554	4.90	126	<2	126	3.7	42	<3	126
2064048	Rock	2.65	6	<3	11	<1	87	4	85	<0.3	34	20	1433	5.42	11	<2	153	1.5	<3	<3	201
2064049	Rock	2.05	6	<3	5	<1	52	4	113	<0.3	25	14	1359	4.82	17	<2	197	2.1	7	<3	178
2064155	Rock	0.90	4	<3	9	<1	324	<3	68	<0.3	36	27	920	5.40	<2	<2	21	<0.5	<3	<3	123
2064156	Rock	1.25	9	6	15	<1	311	<3	117	<0.3	21	34	1466	9.43	<2	<2	14	<0.5	<3	<3	214
2064157	Rock	1.80	6	<3	5	<1	4	7	10	<0.3	1644	76	517	4.16	2	<2	11	<0.5	15	<3	13
2064217	Rock	0.81	133	<3	2	<1	284	<3	4	<0.3	5	2	251	0.43	<2	<2	7	<0.5	<3	<3	9
2064218	Rock	0.85	17	17	17	<1	523	<3	45	<0.3	22	23	736	3.90	4	<2	29	0.6	<3	<3	110
2064219	Rock	0.64	4	<3	<2	<1	7	<3	8	<0.3	5	3	100	0.59	<2	<2	5	<0.5	<3	<3	10
2064220	Rock	2.02	1264	7	25	72	>10000	8	138	6.6	59	83	1907	22.28	31	<2	3	<0.5	<3	5	227
2064221	Rock	1.23	6	7	11	<1	193	<3	78	<0.3	35	21	1044	4.79	<2	<2	11	<0.5	<3	<3	126
2064222	Rock	0.88	5	19	35	<1	296	<3	63	0.3	52	28	919	6.77	<2	<2	18	<0.5	<3	<3	83
2064223	Rock	1.25	15	<3	<2	<1	7	7	<1	<0.3	1356	104	795	5.90	<2	<2	100	<0.5	8	<3	12
2064224	Rock	0.79	15	<3	4	<1	17	5	<1	<0.3	1175	82	681	3.40	<2	<2	43	<0.5	4	<3	11
2064225	Rock	0.61	8	<3	4	1	12	<3	20	<0.3	6	<1	466	0.74	6	<2	25	<0.5	<3	<3	4
2064226	Rock	0.98	17	<3	7	14	125	7	257	0.7	25	2	197	5.27	32	<2	7	1.0	5	<3	44
2064227	Rock	0.57	12	<3	4	<1	18	<3	2	<0.3	2	<1	104	0.36	<2	<2	2	<0.5	<3	<3	4

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Client: **Longford Exploration Services Ltd.**
460-688 West Hastings St.
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Project: Ellen
Report Date: November 17, 2020

CERTIFICATE OF ANALYSIS WHI20000302.2

	Method	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ370
	Analyte	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc	Cu
	Unit	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm	%
	MDL	0.01	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5	0.001
2064034	Rock	2.30	0.033	2	30	0.05	7	0.425	<20	1.00	<0.01	0.02	<2	<0.05	<1	5	<5	<5	
2064035	Rock	3.87	0.045	1	47	1.27	35	0.278	242	1.81	0.04	0.06	<2	<0.05	<1	<5	9	<5	
2064036	Rock	2.17	0.045	2	65	0.32	13	0.427	<20	0.82	0.04	0.05	<2	0.05	<1	6	<5	<5	
2064037	Rock	1.02	0.044	3	83	1.69	26	0.441	<20	2.21	0.05	0.07	<2	<0.05	<1	5	8	<5	
2064038	Rock	7.53	0.010	1	14	3.11	13	0.001	<20	0.29	<0.01	0.10	<2	<0.05	<1	<5	<5	6	
2064039	Rock	2.58	0.074	3	132	2.31	29	0.428	<20	3.63	0.02	0.13	<2	<0.05	<1	<5	6	8	
2064040	Rock	3.11	0.058	2	91	1.27	8	0.402	<20	1.69	0.04	0.04	<2	<0.05	<1	6	7	5	
2064041	Rock	0.99	0.049	1	105	1.02	13	0.381	<20	1.36	0.04	0.01	<2	0.63	<1	7	<5	<5	
2064042	Rock	11.57	0.030	2	87	1.07	370	0.165	250	1.16	0.03	0.02	<2	<0.05	<1	<5	<5	<5	
2064043	Rock	5.13	0.068	7	8	2.92	51	0.006	<20	0.96	0.02	0.16	<2	<0.05	<1	<5	<5	33	
2064044	Rock	2.28	0.103	5	15	3.12	557	0.149	<20	3.46	0.05	1.06	<2	0.12	<1	<5	13	20	
2064045	Rock	1.90	0.076	3	28	0.72	11	0.452	<20	1.29	0.02	<0.01	<2	0.05	<1	<5	<5	<5	
2064046	Rock	12.58	0.042	3	44	4.36	13	0.002	<20	0.23	0.01	0.02	2	0.19	>50	<5	5	13	
2064047	Rock	11.87	0.057	3	44	3.56	20	0.012	<20	0.43	<0.01	0.04	<2	0.05	11	<5	5	14	
2064048	Rock	14.08	0.041	4	38	4.92	31	0.043	<20	0.58	0.02	0.05	<2	<0.05	1	<5	7	16	
2064049	Rock	18.17	0.020	3	10	6.91	11	0.002	<20	0.15	0.01	0.03	<2	<0.05	<1	<5	<5	<5	
2064155	Rock	4.08	0.085	4	36	2.10	16	0.382	<20	2.65	0.04	0.04	<2	<0.05	<1	<5	7	<5	
2064156	Rock	1.03	0.127	4	5	1.87	116	0.571	<20	2.05	0.04	0.19	<2	0.11	<1	<5	<5	<5	
2064157	Rock	0.51	0.001	2	1153	17.22	47	0.005	<20	0.20	<0.01	0.01	<2	<0.05	1	<5	<5	<5	
2064217	Rock	4.52	0.017	<1	10	0.13	7	0.052	<20	0.19	0.09	<0.01	<2	<0.05	<1	<5	<5	<5	
2064218	Rock	5.34	0.071	2	10	0.98	21	0.364	<20	1.52	0.04	0.03	<2	<0.05	<1	<5	9	<5	
2064219	Rock	0.68	0.014	<1	7	0.22	2	0.053	<20	0.29	0.11	<0.01	<2	<0.05	<1	<5	<5	<5	
2064220	Rock	0.32	0.054	4	143	3.50	9	0.234	<20	6.17	<0.01	0.03	17	4.23	2	<5	<5	21	7.056
2064221	Rock	2.66	0.063	3	51	1.74	20	0.452	<20	1.98	0.04	0.04	<2	<0.05	<1	5	<5	<5	
2064222	Rock	0.83	0.014	<1	80	2.81	15	0.180	<20	3.48	<0.01	0.01	<2	<0.05	<1	<5	<5	6	
2064223	Rock	0.65	<0.001	2	694	16.10	8	0.003	<20	0.14	<0.01	<0.01	<2	<0.05	<1	<5	<5	6	
2064224	Rock	2.22	<0.001	1	275	12.59	3	0.002	<20	0.14	<0.01	<0.01	<2	<0.05	<1	<5	<5	<5	
2064225	Rock	1.30	0.008	1	5	0.06	31	<0.001	<20	0.10	<0.01	0.02	<2	<0.05	<1	<5	<5	<5	
2064226	Rock	0.06	0.070	6	15	0.35	179	<0.001	<20	0.64	<0.01	0.10	<2	<0.05	<1	<5	<5	<5	
2064227	Rock	0.48	0.011	<1	5	0.04	6	0.019	<20	0.16	0.13	<0.01	<2	<0.05	<1	<5	<5	<5	

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Project: Ellen
Report Date: November 17, 2020

CERTIFICATE OF ANALYSIS WHI20000302.2

	Method	WGHT	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
	Analyte	Wgt	Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V
	Unit	kg	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.01	2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1
2064228	Rock	0.60	7	<3	6	<1	401	<3	8	<0.3	7	3	355	0.76	<2	<2	16	<0.5	<3	<3	21
2064229	Rock	0.85	257	<3	7	<1	1717	15	39	<0.3	13	6	400	2.15	22	<2	7	<0.5	<3	<3	55
2064230	Rock	0.73	6	<3	8	<1	520	<3	25	<0.3	23	11	657	1.91	<2	<2	12	<0.5	<3	<3	53
2064231	Rock	0.66	347	13	68	<1	868	<3	60	0.8	57	32	849	4.32	<2	<2	32	<0.5	4	<3	249
2064232	Rock	0.64	7	6	5	<1	218	<3	110	0.3	27	42	1345	10.30	<2	<2	37	<0.5	6	<3	242
2064233	Rock	0.70	46	6	13	<1	91	5	39	0.3	47	27	704	4.46	7	<2	9	0.5	<3	<3	108
2064234	Rock	0.53	5	<3	<2	<1	56	<3	5	<0.3	4	5	419	0.55	3	<2	12	<0.5	<3	<3	10
2064235	Rock	0.63	10	<3	<2	<1	22	<3	2	<0.3	4	7	577	0.81	8	<2	50	<0.5	<3	<3	6
2064236	Rock	1.11	3	<3	6	<1	131	<3	72	<0.3	39	22	1028	4.39	<2	<2	27	<0.5	<3	<3	106
2064237	Rock	1.02	<2	9	15	<1	91	<3	58	<0.3	33	22	1191	4.92	18	<2	102	1.0	5	<3	177
2064238	Rock	1.06	5	5	11	<1	187	<3	65	<0.3	71	30	877	4.62	<2	<2	32	<0.5	<3	<3	117
2064239	Rock	0.77	<2	<3	<2	<1	37	<3	42	<0.3	8	2	688	1.40	5	<2	58	1.0	<3	<3	8
2064240	Rock	0.95	7	<3	<2	<1	31	8	70	<0.3	25	6	311	1.58	2	<2	4	1.1	<3	<3	10
2064241	Rock	0.90	10	<3	3	6	30	5	165	0.9	18	1	287	3.81	20	<2	12	1.2	3	<3	31
2064242	Rock	0.72	3	<3	<2	<1	28	6	60	<0.3	21	4	761	1.27	2	<2	10	0.6	<3	<3	10
2064243	Rock	1.02	7	<3	7	15	54	8	106	1.1	19	1	106	4.53	29	<2	8	<0.5	5	<3	57
2064078	Rock	1.29	8	<3	2	<1	339	<3	103	<0.3	26	38	1956	8.13	<2	<2	16	<0.5	<3	<3	158
2064079	Rock	1.46	4	<3	<2	<1	309	<3	116	0.4	29	43	1691	9.38	<2	<2	11	<0.5	3	<3	233
2064080	Rock	1.87	8	4	6	<1	8	<3	2	<0.3	1174	81	953	4.66	<2	<2	17	<0.5	<3	<3	11
2064081	Rock	1.55	12	<3	4	10	21	7	165	0.7	24	3	254	2.43	23	<2	7	0.7	<3	<3	31
2064082	Rock	1.52	2	5	8	<1	94	<3	55	<0.3	26	25	1392	5.29	9	<2	162	0.6	19	<3	117
2064083	Rock	1.01	4	19	26	<1	261	<3	72	<0.3	28	30	1020	5.98	<2	<2	16	<0.5	<3	<3	136
2064084	Rock	1.50	15	<3	<2	5	6583	<3	65	3.0	6	9	371	2.29	4	<2	6	<0.5	<3	<3	23
2064085	Rock	2.41	3	<3	<2	<1	5	<3	<1	<0.3	1252	56	446	3.10	74	<2	49	<0.5	<3	<3	12
2064086	Rock	1.59	5	<3	11	<1	400	<3	27	<0.3	20	13	559	2.38	6	<2	69	<0.5	<3	<3	68
2064087	Rock	1.37	52	<3	3	<1	102	<3	28	<0.3	17	13	602	2.48	5	<2	87	<0.5	15	<3	56
2064088	Rock	1.58	2	7	16	<1	214	<3	75	<0.3	55	30	1040	5.63	<2	<2	18	<0.5	4	<3	164
2064089	Rock	1.27	9	4	12	2	1533	<3	155	0.7	27	22	1251	3.86	412	<2	109	4.9	105	<3	113
2064090	Rock	1.35	9	4	11	3	2375	<3	214	0.9	26	22	1195	3.72	792	<2	100	4.3	216	<3	121
2064091	Rock	2.30	<2	6	11	<1	86	<3	51	<0.3	79	26	835	3.50	5	<2	16	<0.5	<3	<3	62

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Project: Ellen
Report Date: November 17, 2020

CERTIFICATE OF ANALYSIS WHI20000302.2

	Method	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ370
	Analyte	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc	Cu
	Unit	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm	%
	MDL	0.01	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5	0.001
2064228	Rock	6.63	0.028	<1	19	0.21	10	0.102	<20	0.32	0.07	0.01	<2	<0.05	<1	<5	<5	<5	
2064229	Rock	2.07	0.013	<1	36	0.44	130	0.129	<20	0.32	0.03	0.15	<2	0.07	<1	<5	<5	<5	
2064230	Rock	7.11	0.016	<1	85	0.87	15	0.288	<20	0.96	0.05	0.02	<2	<0.05	<1	<5	<5	<5	
2064231	Rock	1.23	0.058	2	135	1.87	8	0.440	<20	2.41	<0.01	<0.01	<2	<0.05	<1	<5	7	5	
2064232	Rock	2.82	0.090	5	14	2.10	194	0.305	<20	2.42	0.03	0.24	<2	<0.05	<1	<5	<5	15	
2064233	Rock	3.61	0.029	1	115	1.88	14	0.232	<20	1.70	0.02	0.02	<2	1.29	<1	<5	7	5	
2064234	Rock	5.92	0.006	<1	2	0.16	9	0.009	<20	0.22	0.07	<0.01	<2	<0.05	<1	<5	<5	<5	
2064235	Rock	14.00	0.003	<1	2	0.08	186	0.010	<20	0.10	<0.01	<0.01	<2	0.49	<1	<5	<5	<5	
2064236	Rock	2.88	0.126	7	47	1.77	16	0.137	<20	1.95	0.04	0.04	<2	<0.05	<1	<5	9	7	
2064237	Rock	11.01	0.031	3	47	4.51	10	0.001	<20	0.29	0.01	0.03	<2	<0.05	3	<5	<5	23	
2064238	Rock	2.00	0.055	3	180	2.12	58	0.234	<20	2.35	0.03	0.03	<2	<0.05	<1	<5	8	10	
2064239	Rock	2.15	0.019	6	4	0.12	38	0.001	<20	0.23	<0.01	0.02	<2	<0.05	<1	<5	<5	<5	
2064240	Rock	0.06	0.018	5	5	0.65	86	0.001	<20	0.79	<0.01	0.06	<2	<0.05	<1	<5	<5	<5	
2064241	Rock	0.08	0.081	4	9	0.55	346	0.062	<20	0.83	0.03	0.10	<2	0.08	<1	<5	<5	<5	
2064242	Rock	0.18	0.009	7	7	0.59	113	0.002	<20	0.73	<0.01	0.05	<2	<0.05	<1	<5	<5	<5	
2064243	Rock	0.02	0.046	1	14	0.25	194	0.002	<20	0.61	0.02	0.12	<2	<0.05	<1	<5	<5	<5	
2064078	Rock	0.86	0.132	3	16	2.08	193	0.324	<20	2.25	0.02	0.41	<2	0.06	<1	<5	<5	5	
2064079	Rock	0.77	0.137	3	17	2.59	85	0.389	<20	3.21	0.02	0.13	<2	0.33	<1	<5	<5	<5	
2064080	Rock	0.53	<0.001	<1	213	12.72	4	0.002	<20	0.18	<0.01	<0.01	<2	<0.05	<1	<5	<5	<5	
2064081	Rock	0.12	0.042	10	8	0.32	149	0.002	<20	0.59	<0.01	0.17	<2	<0.05	<1	<5	<5	<5	
2064082	Rock	7.12	0.056	4	9	2.81	73	0.002	<20	0.22	0.02	0.13	<2	<0.05	11	<5	<5	21	
2064083	Rock	1.20	0.112	3	27	1.72	49	0.382	<20	1.97	0.03	0.12	<2	<0.05	<1	<5	6	<5	
2064084	Rock	0.97	0.003	<1	4	0.45	2	0.001	<20	0.62	<0.01	<0.01	<2	0.54	<1	<5	<5	<5	
2064085	Rock	0.79	0.001	1	739	16.10	14	0.003	<20	0.06	<0.01	<0.01	<2	<0.05	<1	<5	<5	<5	
2064086	Rock	5.51	0.031	1	52	0.96	25	0.273	<20	1.42	0.04	0.11	<2	<0.05	<1	<5	<5	<5	
2064087	Rock	4.39	0.028	2	23	1.69	45	0.012	<20	0.35	0.08	0.05	<2	0.14	13	<5	<5	7	
2064088	Rock	1.38	0.093	5	121	2.15	18	0.580	<20	2.76	0.04	0.05	<2	<0.05	<1	<5	<5	5	
2064089	Rock	10.08	0.043	2	32	4.18	9	0.003	<20	0.25	<0.01	0.02	<2	0.17	17	<5	<5	9	
2064090	Rock	9.95	0.036	2	34	4.10	7	0.005	<20	0.20	<0.01	0.01	<2	0.21	>50	<5	<5	8	
2064091	Rock	1.79	0.031	<1	252	2.09	48	0.139	<20	2.29	0.01	0.11	<2	<0.05	<1	<5	<5	<5	

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Project: Ellen
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CERTIFICATE OF ANALYSIS WHI20000302.2

	Method	WGHT	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
	Analyte	Wgt	Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V
	Unit	kg	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.01	2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1
2064092	Rock	2.75	<2	7	13	<1	73	<3	31	<0.3	65	20	601	2.48	5	<2	15	<0.5	<3	<3	50
2064093	Rock	1.91	54	6	10	<1	86	<3	32	<0.3	43	19	401	2.57	<2	<2	41	<0.5	<3	<3	44
2064094	Rock	1.89	6	<3	4	7	24	<3	112	0.6	19	3	538	2.58	19	<2	28	<0.5	<3	<3	42

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CERTIFICATE OF ANALYSIS WHI20000302.2

	Method	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ370
	Analyte	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc	Cu
	Unit	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm	%
	MDL	0.01	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5	0.001
2064092	Rock	1.69	0.017	<1	182	1.44	70	0.094	<20	1.66	0.01	0.09	<2	<0.05	<1	<5	<5	<5	
2064093	Rock	0.91	0.093	<1	114	1.21	24	0.134	<20	1.50	0.04	0.06	<2	0.16	<1	<5	<5	<5	
2064094	Rock	0.58	0.046	3	12	0.51	198	0.006	<20	0.84	0.01	0.09	<2	0.08	<1	<5	<5	<5	

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QUALITY CONTROL REPORT WHI20000302.2

	Method	WGHT	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
	Analyte	Wgt	Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Th	Sr	Cd	Sb	Bi	V
	Unit	kg	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.01	2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	2	1	0.5	3	3	1
Pulp Duplicates																					
2064219	Rock	0.64	4	<3	<2	<1	7	<3	8	<0.3	5	3	100	0.59	<2	<2	5	<0.5	<3	<3	10
REP 2064219	QC					<1	7	<3	8	<0.3	5	3	101	0.60	<2	<2	5	<0.5	<3	<3	10
2064084	Rock	1.50	15	<3	<2	5	6583	<3	65	3.0	6	9	371	2.29	4	<2	6	<0.5	<3	<3	23
REP 2064084	QC		10	<3	<2	6	6743	<3	66	3.0	6	9	377	2.33	5	<2	6	<0.5	<3	<3	23
Core Reject Duplicates																					
2064230	Rock	0.73	6	<3	8	<1	520	<3	25	<0.3	23	11	657	1.91	<2	<2	12	<0.5	<3	<3	53
DUP 2064230	QC		8	<3	9	<1	606	<3	29	<0.3	27	12	667	2.10	<2	<2	11	<0.5	<3	<3	61
Reference Materials																					
STD BVGEO01	Standard					10	4203	184	1665	2.7	158	23	690	3.55	115	12	55	6.0	4	24	70
STD CDN-ME-9A	Standard																				
STD CDN-ME-14A	Standard																				
STD DS11	Standard					15	151	144	354	2.1	79	13	1051	3.23	45	8	71	2.3	7	12	48
STD KO74421	Standard		517	453	479																
STD KO74421	Standard		517	456	480																
STD OREAS262	Standard					<1	120	55	150	0.5	62	26	545	3.25	35	8	35	0.7	<3	<3	21
STD OREAS262	Standard					<1	118	58	155	0.5	62	26	540	3.39	37	7	36	0.6	3	<3	22
STD PD05	Standard		522	432	601																
STD PD05	Standard		509	421	591																
STD PD05	Standard		502	412	594																
STD PD05	Standard		532	446	627																
STD PG04	Standard		1033	948	1233																
STD PG04	Standard		955	870	1175																
STD BVGEO01 Expected						10.8	4415	187	1741	2.53	163	25	733	3.7	121	14.4	55	6.5	2.2	25.6	73
STD DS11 Expected						13.9	156	138	345	1.71	81.9	14.2	1055	3.2082	42.8	7.65	67.3	2.37	7.2	12.2	50
STD OREAS262 Expected							118	56	154	0.45	62	26.9	530	3.284	35.8	9.33	36	0.61	3.39		22.5
STD PG04 Expected			996	910	1210																
STD PD05 Expected			519	430	596																
STD KO74421 Expected			518	459	466																

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Bureau Veritas Commodities Canada Ltd.
9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Client: **Longford Exploration Services Ltd.**
460-688 West Hastings St.
Vancouver British Columbia V6B 1P1 Canada

Project: Ellen
Report Date: November 17, 2020

QUALITY CONTROL REPORT WHI20000302.2

	Method	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ370
	Analyte	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc	Cu
	Unit	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm	%
	MDL	0.01	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5	0.001
Pulp Duplicates																			
2064219	Rock	0.68	0.014	<1	7	0.22	2	0.053	<20	0.29	0.11	<0.01	<2	<0.05	<1	<5	<5	<5	
REP 2064219	QC	0.68	0.015	<1	7	0.22	2	0.052	<20	0.29	0.11	<0.01	<2	<0.05	<1	<5	<5	<5	
2064084	Rock	0.97	0.003	<1	4	0.45	2	0.001	<20	0.62	<0.01	<0.01	<2	0.54	<1	<5	<5	<5	
REP 2064084	QC	0.99	0.003	<1	4	0.46	2	0.002	<20	0.63	<0.01	<0.01	<2	0.55	<1	<5	<5	<5	
Core Reject Duplicates																			
2064230	Rock	7.11	0.016	<1	85	0.87	15	0.288	<20	0.96	0.05	0.02	<2	<0.05	<1	<5	<5	<5	
DUP 2064230	QC	6.82	0.015	<1	101	0.97	15	0.335	<20	1.06	0.04	0.02	<2	<0.05	<1	<5	<5	<5	
Reference Materials																			
STD BVGEO01	Standard	1.25	0.072	24	166	1.31	329	0.226	<20	2.22	0.19	0.88	<2	0.68	<1	<5	<5	6	
STD CDN-ME-9A	Standard																		0.671
STD CDN-ME-14A	Standard																		1.214
STD DS11	Standard	1.09	0.069	18	60	0.86	443	0.096	<20	1.19	0.08	0.41	2	0.29	<1	<5	7	<5	
STD KO74421	Standard																		
STD KO74421	Standard																		
STD OREAS262	Standard	2.90	0.039	16	42	1.22	253	0.003	<20	1.31	0.07	0.32	<2	0.27	<1	<5	<5	<5	
STD OREAS262	Standard	3.10	0.039	16	43	1.20	255	0.003	<20	1.36	0.07	0.32	<2	0.26	<1	<5	7	<5	
STD PD05	Standard																		
STD PD05	Standard																		
STD PD05	Standard																		
STD PD05	Standard																		
STD PG04	Standard																		
STD PG04	Standard																		
STD BVGEO01 Expected		1.3219	0.0727	25.9	171	1.2963	340	0.233		2.347	0.1924	0.89	3.5	0.6655			7.37	5.97	
STD DS11 Expected		1.063	0.0701	18.6	61.5	0.85	417	0.0976	6	1.129	0.0694	0.4	2.9	0.2835	0.3	4.9	4.7	3.1	
STD OREAS262 Expected		2.98	0.04	15.9	41.7	1.17	248	0.003		1.3	0.071	0.312		0.269			3.9	3.24	
STD PG04 Expected																			
STD PD05 Expected																			
STD KO74421 Expected																			

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Client: **Longford Exploration Services Ltd.**
460-688 West Hastings St.
Vancouver British Columbia V6B 1P1 Canada

Project: Ellen

Report Date: November 17, 2020

QUALITY CONTROL REPORT WHI20000302.2

		WGHT Wgt kg 0.01	FA330 Au ppb 2	FA330 Pt ppb 3	FA330 Pd ppb 2	AQ300 Mo ppm 1	AQ300 Cu ppm 1	AQ300 Pb ppm 3	AQ300 Zn ppm 1	AQ300 Ag ppm 0.3	AQ300 Ni ppm 1	AQ300 Co ppm 1	AQ300 Mn ppm 2	AQ300 Fe % 0.01	AQ300 As ppm 2	AQ300 Th ppm 2	AQ300 Sr ppm 1	AQ300 Cd ppm 0.5	AQ300 Sb ppm 3	AQ300 Bi ppm 3	AQ300 V ppm 1
STD CDN-ME-9A Expected																					
STD CDN-ME-14A Expected																					
BLK	Blank					<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<2	<1	<0.5	<3	<3	<1
BLK	Blank					<1	<1	<3	1	<0.3	<1	<1	<2	<0.01	<2	<2	<1	<0.5	<3	<3	<1
BLK	Blank		4	<3	<2																
BLK	Blank		6	<3	<2																
BLK	Blank		4	<3	<2																
BLK	Blank		4	<3	<2																
BLK	Blank																				
Prep Wash																					
ROCK-WHI	Prep Blank		9	<3	<2	<1	1	<3	26	<0.3	1	3	460	1.90	<2	<2	20	<0.5	<3	<3	24
ROCK-WHI	Prep Blank		10	<3	2	<1	1	<3	29	<0.3	<1	3	472	1.82	<2	<2	21	<0.5	<3	<3	23

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Vancouver British Columbia V6B 1P1 Canada

Project: Ellen
Report Date: November 17, 2020

QUALITY CONTROL REPORT WHI20000302.2

		AQ300 Ca % 0.01	AQ300 P % 0.001	AQ300 La ppm 1	AQ300 Cr ppm 1	AQ300 Mg % 0.01	AQ300 Ba ppm 1	AQ300 Ti % 0.001	AQ300 B ppm 20	AQ300 Al % 0.01	AQ300 Na % 0.01	AQ300 K % 0.01	AQ300 W ppm 2	AQ300 S % 0.05	AQ300 Hg ppm 1	AQ300 Tl ppm 5	AQ300 Ga ppm 5	AQ300 Sc ppm 5	AQ370 Cu % 0.001
STD CDN-ME-9A Expected																			0.654
STD CDN-ME-14A Expected																			1.24
BLK	Blank	<0.01	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<1	<5	<5	<5	
BLK	Blank	<0.01	<0.001	<1	<1	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<1	<5	<5	<5	
BLK	Blank																		
BLK	Blank																		
BLK	Blank																		
BLK	Blank																		
BLK	Blank																		<0.001
Prep Wash																			
ROCK-WHI	Prep Blank	0.57	0.041	6	4	0.44	56	0.093	<20	0.83	0.07	0.08	<2	<0.05	<1	<5	5	<5	
ROCK-WHI	Prep Blank	0.62	0.041	6	3	0.46	56	0.087	<20	0.83	0.06	0.08	<2	<0.05	<1	<5	<5	<5	

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Client: **Longford Exploration Services Ltd.**
460-688 West Hastings St.
Vancouver British Columbia V6B 1P1 Canada

Submitted By:	James Rogers
Receiving Lab:	Canada-Whitehorse
Received:	July 09, 2020
Analysis Start:	July 25, 2020
Report Date:	August 07, 2020
Page:	1 of 2

CERTIFICATE OF ANALYSIS WHI20000093.1

CLIENT JOB INFORMATION

Project:	2019-Ellen
Shipment ID:	
P.O. Number	
Number of Samples:	28

SAMPLE DISPOSAL

PICKUP-PLP	Client to Pickup Pulps
PICKUP-RJT	Client to Pickup Rejects

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP70-250	28	Crush, split and pulverize 250 g rock to 200 mesh			WHI
FA330	28	Fire assay fusion Au Pt Pd by ICP-ES	30	Completed	VAN
AQ300	28	1:1:1 Aqua Regia digestion ICP-ES analysis	0.5	Completed	VAN
SHP01	28	Per sample shipping charges for branch shipments			VAN
BAT01	1	Batch charge of <50 samples			VAN

ADDITIONAL COMMENTS

Invoice To: Longford Exploration Services Ltd.
460-688 West Hastings St.
Vancouver British Columbia V6B 1P1
Canada

CC:

BRITISH COLUMBIA CERTIFIED ASSAYER
MARCUS LAU
Production Manager

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.
All results are considered the confidential property of the client. Bureau Veritas assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted.
"*" asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.

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Client: **Longford Exploration Services Ltd.**
460-688 West Hastings St.
Vancouver British Columbia V6B 1P1 Canada

Project: 2019-Ellen
Report Date: August 07, 2020

CERTIFICATE OF ANALYSIS WHI20000093.1

	Method	WGHT	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
	Analyte	Wgt	Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Th	Sr	Cd	Sb	Bi
	Unit	kg	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.01	2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	8	2	1	0.5	3	3
3249951	Rock	0.80	5	<3	<2	<1	10	<3	17	<0.3	1604	78	516	2.48	165	<8	<2	32	<0.5	8	<3
3249952	Rock	0.79	5	<3	3	<1	10	<3	28	<0.3	1518	78	675	3.08	52	<8	<2	130	<0.5	8	<3
3249953	Rock	0.71	6	<3	<2	<1	11	4	8	<0.3	1875	83	798	3.52	26	<8	<2	138	<0.5	9	<3
3249954	Rock	0.68	4	<3	3	1	10	3	74	<0.3	1602	75	507	3.43	21	<8	<2	15	0.6	7	<3
3249955	Rock	0.76	3	<3	<2	<1	7	3	8	0.3	1932	87	710	3.48	8	<8	<2	120	<0.5	9	<3
3249956	Rock	0.75	30	<3	<2	<1	2	5	10	<0.3	2067	94	547	4.17	50	<8	<2	68	<0.5	10	<3
3249957	Rock	0.74	185	<3	6	<1	1	6	7	<0.3	1883	88	1112	4.81	62	21	<2	44	<0.5	7	<3
3249958	Rock	1.05	52	<3	<2	<1	2	5	10	<0.3	1900	94	369	4.15	73	<8	<2	12	<0.5	10	<3
3249959	Rock	0.97	4499	<3	<2	<1	4	5	11	3.0	2325	110	440	4.61	69	<8	<2	25	<0.5	10	<3
3249960	Rock	2.18	6	<3	<2	<1	20	<3	12	<0.3	614	26	330	1.50	6	<8	<2	82	<0.5	4	<3
3249961	Rock	1.52	12	<3	<2	<1	17	<3	16	0.3	1226	54	1011	3.01	42	<8	<2	109	<0.5	5	<3
3249962	Rock	1.76	16	<3	4	<1	21	4	51	0.3	1411	72	762	3.81	59	<8	<2	93	<0.5	7	<3
3249963	Rock	2.10	3	<3	<2	<1	8	5	27	0.4	2348	109	593	3.78	67	<8	<2	18	<0.5	7	<3
3249964	Rock	3.33	31	<3	<2	<1	5	5	9	<0.3	2089	94	831	3.87	17	<8	<2	69	<0.5	9	<3
3249965	Rock	3.01	35	<3	<2	<1	6	6	7	<0.3	2004	89	1041	3.83	21	<8	<2	33	<0.5	6	<3
3249966	Rock	2.27	49	<3	<2	<1	3	4	7	0.4	1995	93	629	3.80	49	<8	<2	29	<0.5	9	<3
3249967	Rock	2.66	115	<3	<2	<1	2	5	7	0.3	2147	94	925	4.12	59	<8	<2	17	<0.5	11	<3
3249968	Rock	2.84	105	<3	<2	<1	2	5	6	<0.3	2073	95	681	4.00	67	<8	<2	14	<0.5	10	<3
3249969	Rock	2.74	75	<3	5	<1	3	5	7	0.3	2017	89	936	3.84	53	<8	<2	14	<0.5	8	<3
3249970	Rock	0.63	114	<3	<2	<1	4	4	7	0.5	1863	86	791	3.75	43	<8	<2	21	<0.5	10	<3
3249971	Rock	0.76	8	4	5	<1	7	6	8	0.4	2028	91	269	3.94	18	<8	<2	17	<0.5	8	<3
3249972	Rock	0.71	4	<3	<2	<1	4	5	13	<0.3	2273	104	421	3.96	84	<8	<2	14	<0.5	9	<3
3249973	Rock	0.74	7	<3	<2	1	5	4	84	<0.3	2115	88	538	3.66	51	<8	<2	7	<0.5	8	<3
3249974	Rock	0.71	2	<3	3	<1	13	4	8	<0.3	1915	86	450	3.55	<2	<8	<2	23	<0.5	7	<3
3249975	Rock	0.51	<2	<3	2	<1	13	4	10	<0.3	1687	78	480	2.83	81	<8	<2	49	<0.5	8	<3
3249976	Rock	0.56	5	3	5	<1	34	<3	15	<0.3	2050	94	612	3.21	3	<8	<2	58	<0.5	9	<3
3249977	Rock	0.73	2	5	<2	<1	16	4	21	<0.3	2005	99	472	3.53	136	<8	<2	27	<0.5	11	<3
3249978	Rock	0.73	4	<3	<2	<1	8	3	23	<0.3	1918	86	487	3.28	101	<8	<2	33	<0.5	11	<3

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PHONE (604) 253-3158

Client: **Longford Exploration Services Ltd.**
460-688 West Hastings St.
Vancouver British Columbia V6B 1P1 Canada

Project: 2019-Ellen
Report Date: August 07, 2020

CERTIFICATE OF ANALYSIS WHI20000093.1

	Method	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
	Analyte	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc
	Unit	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm
	MDL	1	0.01	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5
3249951	Rock	11	1.41	0.004	1	987	8.01	23	0.001	<20	0.21	0.01	0.01	<2	0.57	<1	<5	<5	6
3249952	Rock	29	2.21	0.004	2	1268	10.73	10	0.011	<20	0.58	0.05	0.03	<2	0.42	<1	<5	<5	6
3249953	Rock	17	1.61	0.004	2	1284	14.14	5	0.007	27	0.33	0.02	0.03	<2	0.56	<1	<5	7	5
3249954	Rock	49	0.18	0.018	3	1147	12.32	16	0.032	27	0.59	0.02	0.02	<2	0.51	<1	<5	<5	6
3249955	Rock	17	1.33	<0.001	1	1583	11.91	6	0.002	48	0.24	0.02	0.02	<2	0.75	<1	<5	6	5
3249956	Rock	21	0.96	<0.001	2	1519	17.07	6	0.006	82	0.20	0.02	0.03	<2	0.61	<1	<5	6	7
3249957	Rock	17	0.42	<0.001	2	1320	19.10	11	0.003	79	0.19	0.02	0.04	<2	0.44	<1	<5	<5	6
3249958	Rock	22	0.10	<0.001	2	1327	17.83	2	0.006	84	0.22	0.01	0.04	<2	0.50	<1	<5	<5	7
3249959	Rock	22	0.19	<0.001	2	1709	18.38	8	0.004	95	0.23	0.02	0.03	<2	0.61	<1	<5	<5	7
3249960	Rock	28	3.98	0.003	1	636	4.23	53	0.036	<20	1.43	0.03	0.03	<2	<0.05	<1	<5	<5	<5
3249961	Rock	21	4.63	0.016	2	710	8.84	19	0.005	<20	0.40	0.04	0.04	<2	0.36	<1	<5	<5	<5
3249962	Rock	37	1.83	0.014	2	1050	12.05	30	0.027	24	0.94	0.05	0.09	<2	0.28	<1	<5	<5	7
3249963	Rock	16	0.35	<0.001	2	1366	16.48	6	0.001	44	0.21	0.01	0.03	<2	0.27	<1	<5	7	6
3249964	Rock	14	1.12	<0.001	2	1281	16.41	3	<0.001	48	0.21	<0.01	0.03	<2	0.52	<1	<5	7	5
3249965	Rock	13	0.53	<0.001	2	1198	17.02	1	<0.001	47	0.21	<0.01	0.02	<2	0.51	<1	<5	<5	5
3249966	Rock	16	0.33	<0.001	2	1212	17.01	<1	0.002	53	0.23	<0.01	0.02	<2	0.52	<1	<5	<5	5
3249967	Rock	17	0.15	<0.001	2	1313	17.93	2	0.002	62	0.25	<0.01	0.02	<2	0.43	<1	<5	<5	6
3249968	Rock	18	0.11	<0.001	2	1377	17.83	2	0.003	55	0.27	<0.01	0.02	<2	0.48	<1	<5	<5	6
3249969	Rock	16	0.04	<0.001	2	1262	16.87	1	0.002	62	0.18	<0.01	0.02	<2	0.48	<1	<5	<5	5
3249970	Rock	15	0.17	<0.001	2	1282	16.80	5	0.001	69	0.19	<0.01	0.02	<2	0.43	<1	<5	<5	5
3249971	Rock	18	0.13	<0.001	2	1331	15.59	3	0.006	58	0.29	<0.01	0.02	<2	0.64	<1	<5	<5	6
3249972	Rock	16	0.13	<0.001	2	1587	17.32	4	0.002	52	0.24	<0.01	0.02	<2	0.30	<1	<5	<5	6
3249973	Rock	54	0.04	0.008	2	1428	16.49	2	0.008	49	0.69	0.01	0.02	<2	0.26	<1	<5	<5	7
3249974	Rock	15	0.27	<0.001	2	1297	13.91	4	0.001	37	0.20	0.01	0.02	<2	0.68	<1	<5	<5	5
3249975	Rock	21	1.57	<0.001	1	1306	11.97	4	0.002	<20	0.35	<0.01	0.01	<2	0.20	<1	<5	5	<5
3249976	Rock	17	0.92	<0.001	1	1329	9.61	6	0.003	23	0.30	0.01	0.02	<2	0.84	<1	<5	<5	<5
3249977	Rock	28	0.67	0.004	2	1749	12.93	3	0.006	<20	0.51	<0.01	0.01	<2	0.29	<1	<5	5	6
3249978	Rock	20	0.68	<0.001	1	1703	13.16	4	0.002	22	0.36	0.01	0.01	<2	0.28	<1	<5	<5	<5

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Client: **Longford Exploration Services Ltd.**
460-688 West Hastings St.
Vancouver British Columbia V6B 1P1 Canada

Project: 2019-Ellen
Report Date: August 07, 2020

QUALITY CONTROL REPORT WHI20000093.1

	Method	WGHT	FA330	FA330	FA330	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
	Analyte	Wgt	Au	Pt	Pd	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Th	Sr	Cd	Sb	Bi
	Unit	kg	ppb	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	MDL	0.01	2	3	2	1	1	3	1	0.3	1	1	2	0.01	2	8	2	1	0.5	3	3
Pulp Duplicates																					
3249962	Rock	1.76	16	<3	4	<1	21	4	51	0.3	1411	72	762	3.81	59	<8	<2	93	<0.5	7	<3
REP 3249962	QC		10	<3	<2																
Reference Materials																					
STD DS11	Standard					14	151	136	351	1.6	71	12	1034	3.23	45	<8	5	70	2.0	7	12
STD KO74421	Standard		522	462	480																
STD OREAS262	Standard					<1	118	57	155	1.0	63	27	532	3.41	36	<8	8	36	<0.5	<3	<3
STD PD05	Standard		520	430	595																
STD DS11 Expected						13.9	156	138	345	1.71	81.9	14.2	1055	3.2082	42.8		7.65	67.3	2.37	7.2	12.2
STD OREAS262 Expected							118	56	154	0.45	62	26.9	530	3.284	35.8		9.33	36	0.61	3.39	
STD PD05 Expected			519	430	596																
STD KO74421 Expected			518	459	466																
BLK	Blank					<1	<1	<3	<1	<0.3	<1	<1	<2	<0.01	<2	<8	<2	<1	<0.5	<3	<3
BLK	Blank		3	<3	<2																
Prep Wash																					
ROCK-WHI	Prep Blank		3	<3	<2	<1	3	<3	29	<0.3	<1	3	494	1.86	<2	21	<2	26	<0.5	<3	<3
ROCK-WHI	Prep Blank		<2	<3	<2	<1	4	<3	29	<0.3	<1	3	504	1.89	<2	<8	<2	27	<0.5	<3	<3

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460-688 West Hastings St.
Vancouver British Columbia V6B 1P1 Canada

Project: 2019-Ellen
Report Date: August 07, 2020

QUALITY CONTROL REPORT WHI20000093.1

	Method	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300	AQ300
	Analyte	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	S	Hg	Tl	Ga	Sc
	Unit	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	%	ppm	ppm	ppm	ppm
	MDL	1	0.01	0.001	1	1	0.01	1	0.001	20	0.01	0.01	0.01	2	0.05	1	5	5	5
Pulp Duplicates																			
3249962	Rock	37	1.83	0.014	2	1050	12.05	30	0.027	24	0.94	0.05	0.09	<2	0.28	<1	<5	<5	7
REP 3249962	QC																		
Reference Materials																			
STD DS11	Standard	46	1.05	0.071	18	56	0.80	451	0.096	<20	1.20	0.08	0.44	2	0.27	<1	6	<5	<5
STD KO74421	Standard																		
STD OREAS262	Standard	22	2.94	0.038	15	46	1.20	261	0.003	<20	1.36	0.07	0.33	<2	0.27	<1	<5	7	<5
STD PD05	Standard																		
STD DS11 Expected		50	1.063	0.0701	18.6	61.5	0.85	417	0.0976	6	1.129	0.0694	0.4	2.9	0.2835	0.3	4.9	4.7	3.1
STD OREAS262 Expected		22.5	2.98	0.04	15.9	41.7	1.17	248	0.003		1.3	0.071	0.312		0.269			3.9	3.24
STD PD05 Expected																			
STD KO74421 Expected																			
BLK	Blank	<1	<0.01	<0.001	<1	2	<0.01	<1	<0.001	<20	<0.01	<0.01	<0.01	<2	<0.05	<1	<5	<5	<5
BLK	Blank																		
Prep Wash																			
ROCK-WHI	Prep Blank	22	0.71	0.038	7	6	0.44	64	0.089	<20	0.92	0.10	0.12	3	<0.05	<1	<5	<5	<5
ROCK-WHI	Prep Blank	24	0.70	0.039	7	5	0.45	69	0.096	<20	0.92	0.10	0.12	<2	<0.05	<1	<5	<5	<5