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2022 Assessment Report Mapping and Prospecting**Sobel Property**

Red Lake Mining Division
Northwestern Ontario
NTS 052N03, 052N04, 052K13 & 052K14

Kinross Gold Corporation

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Work Conducted: June 13 - July 4, 2022

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Summary

This report outlines the results of prospecting/mapping activities carried on the Sobel Property (“The Property”) during 2022 summer season from June 13 to July 4. The Property is located approximately in 25 km to the east from the town of Red Lake, Red Lake Mining Division, northwestern Ontario. The Property has an area of approximately 32 square kilometres (3200Ha) consisting of 9 multi-cell mining claims and 34 single cell mining claims. All claims are currently in good standing until 2024 with Great Bear Resources as the recorded holder. In February 2022 Kinross Gold Corporation completed the acquisition of the Great Bear Resources Ltd.

Bjorkmans Prospecting Inc. of Atikokan, Ontario was contracted by Kinross Gold Corp. to carry out prospecting and mapping on the Property. The purpose of the program was to locate/re-sample historic gold occurrences on the Property, gather data in untested areas, gain better understanding of the geology and evaluate potential for gold mineralization within the Property. The field crew consisted of two geologists (Jessica Bjorkman and Cameron Bushen) and two assistants (Sydney Bernardi and Stuart Maclean). Twenty two days were spent on the property and 200 rock and channel samples were collected. The coordinate system is UTM, datum NAD 83, Zone 15N. All work was supervised by Andrea Diakow, P.Geol., Project Manager for Great Bear Resources.

This report is being submitted to the Ministry of Northern Development and Mines for assessment credit. Expenditures of 61040.00 CAD incurred for 22 days of mapping and prospecting by Bjorkman Prospecting Inc., Atikokan, Ontario.

The Property lies at the junction of two largely east-west trending greenstone belts – Red Lake and Birch-Uchi - within the Uchi Subprovince of the Archean Superior province of the Canadian Shield and the Trout Lake batholith to the north.

The predominant Mesoarchean rocks of Red Lake and Neoarchean rocks of Birch-Confederation greenstone belts, are interpreted to have evolved by eruption and deposition of volcanic sedimentary sequences on the active continental margin (the North Caribou Terrane, 3.0 to 2.7 Ga), followed by subduction related arc volcanism. Continental collision with Winnipeg River terrain at 2.71-2.72 Ga led to subsequent crust thickening and metamorphism (Stott and Corfu, 1991; Sanborn-Barrie et al. 2000, 2001, 2004). Rocks of these greenstone belts are fault bounded to the south with the English River gneiss complex and the north is in intrusive contact with the Berens River Batholith complex. The Balmer (2.99 Ga) and Confederation (2.7 Ga) volcanic assemblages of the Red Lake/Birch-Uchi greenstone belt are predominant within the Red Lake area.

The Red Lake area underwent a complex deformation from non-penetrative deformation (D0) which resulted in overturning and recumbent folding of Balmer assemblage rocks, and two overprinting ductile deformation events (D1 and D2) recorded by two generation of folds and penetrative L-S fabrics throughout the belt. D1 fabrics and folds strike northerly, whereas, D2 structures are east-northeast striking, except in the Cochenour-Campbell-Red Lake “mine trend” (2.71-2.72 Ga), where a high D2 strain zone strikes east-southeast. Deviation in the orientation of D2 fabric is thought to be influenced by injection of McKenzie Island stock (Sanborn-Barrie et al., 2001). Subsequent brittle and semi-brittle structures occur at micro- to macro-scales and have both localized and offset gold mineralization (Dube et al., 2003). This mine-trend through Cochenour-Gullrock Lake Deformation Zone extends across the Sobel property Balmer assemblage (Kendle, 2012). The Property is on the strike extension of the main D2 fold axial plane that is a major interpreted control of gold mineralization at the Red Lake Gold Mine.

The geology of the Property consists of mafic volcanic rocks, with minor felsic to intermediate pyroclastic flows, volcanic and metasedimentary rocks, intruded by gabbro and granitoid masses (Pirie and Kita 1979, Pirie 1980, Fell 2009, Kendle 2012, Smith and Irwin, 2021). The Mesoarchean Balmer assemblage is dominant within the property limits with possible minor the Neoproterozoic Confederation assemblage exposed in its southern part.

The Property has seen exploration activities ranging from regional to local geophysical surveys, prospecting, OGS and Property mapping that have been carried out intermittently since 1958. Geophysical, geological, geochemical work and diamond drilling completed by Tri Origin Exploration between 2003-2012 led to identification of primary rock types, mineralization and alteration assemblages on the Property indicative to gold mineralization at the Red Lake District. Historic geophysical surveys and structural mapping identified possible presence of D2 folds on the Property, east and possibly south plunging folds but due to lack of outcrops data available were not sufficient to determine whether D2 fold is a syncline or overturned anticline (Kendle, 2012). Airborne EM or ground magnetic anomalies coinciding with well delineated IP chargeability responses indicate to a fold system with fold axis areas potentially localising mineralization. Elevated gold values found in soil samples nearby set such areas as primary drill targets. Multiple targets identified by Tri Origin Exploration remain untested and warrant further evaluation (Kendle, 2012).

SGH survey, completed by Great Bear Resources in 2020 for north-eastern portion of the Property, identified two zones potentially prospective for gold mineralization (Smythe and Irwin, 2021). The northern target occurs over locally sediment-filled contact between mafic volcanic units. This contact, traced in historic pits and trenches to the south of the grid, is altered, veined, and sulphide-mineralized. The southern target coincides with the axial trace of folded sediments and mafic flows, providing a potential stratigraphic and structural target for gold mineralization.

Geological mapping carried out by Great Bear Resources in 2020-2021 has identified folded stratigraphy in mafic and volcanic rocks with iron formation and metasediments within the Property. The Property geology was re-interpreted and new map produced based on rock samples collected from historic workings, newly identified and revisited outcrops as well as based on findings from previous operators (Smythe and Irwin, 2022).

Great Bear Resources through interpretation of regional geophysics and geology extrapolation found geological environment of the Sobel to be similar to the Red Lake Mine sequence. Interpreted and mapped stratigraphy, geophysics and SGH sampling suggest folded sequences as drill targets.

2022 prospecting/mapping carried out by Bjorkman Prospecting Inc. found extra evidence of folding in various lithologies and anomalous gold values in close proximity to the structures inferred from the geophysics and property mapping. Such areas warrant drill testing.

It is recommended that a follow-up exploration program of additional detailed mapping, ground geophysics, geochemical survey and diamond drilling be completed.

1. Introduction

The Property is located approximately 25 km to the east from the town of Red Lake within Red Lake Mining Division, northwestern Ontario. Claims comprising the Property are owned by Kinross Gold Corporation (KGC). KGC acquired the Great Bear Resources Ltd. in February 2022. All claims are in good standing and currently registered under the Great Bear Resources Ltd. The UTM coordinates of the property center are 0457370E/5650113N (NAD 83, Zone 15N).

The Property has seen minimal exploration over the years within the current claims. Past work performed by Tri Origin Exploration between 2003-2012 has outlined areas of elevated Au in soils, pinpointed gold occurrences from mapping/prospecting and diamond drilling. The Property hosts several tested/untested and overburden covered IP anomalies. The Great Bear Resources through SGH sampling identified two targets coinciding with folded contacts of geochemically distinct units (iron formation and basalts) and regional D2 axial trace interpreted from geophysics. All these areas along with structures defined by the airborne magnetic survey represent interest.

The purpose of 2022 prospecting program was to gather data in untested areas, to locate/re-sample historic workings and outcrops from previous mapping, gain a better understanding of the geology and evaluate potential for gold mineralization within the Property, which is at an early stage of exploration.

Prospecting/mapping was carried out by Bjorkman Prospecting Inc, Atikokan, Ontario for Kinross Gold Corporation. The field crew consisted of two geologists (Jessica Bjorkman and Cameron Bushen), and two assistants (Sydney Bernardi and Stuart Maclean). All work was supervised by Andrea Diakow, P.Geo, Project Manager for Great Bear Resources.

This report outlines the results of prospecting/mapping activities carried on the Property during 2022 summer season from June 13 to July 4. This report is being submitted to the Ministry of Northern Development and Mines for assessment credit. Expenditures of 61040.00 CAD incurred for 22 days of mapping and prospecting by Bjorkman Prospecting Inc., Atikokan, Ontario.

2. Property Description and Location

The Property lies within the Willans, Ranger, Otter Lake and South of Otter Lake townships in the Red Lake Mining Division, northwestern Ontario (Figure 1-2). The Property is located approximately 25 km east of Red Lake town. The UTM location of the Property center is at 0457370E / 5650113N (NAD 83, Zone 15N).

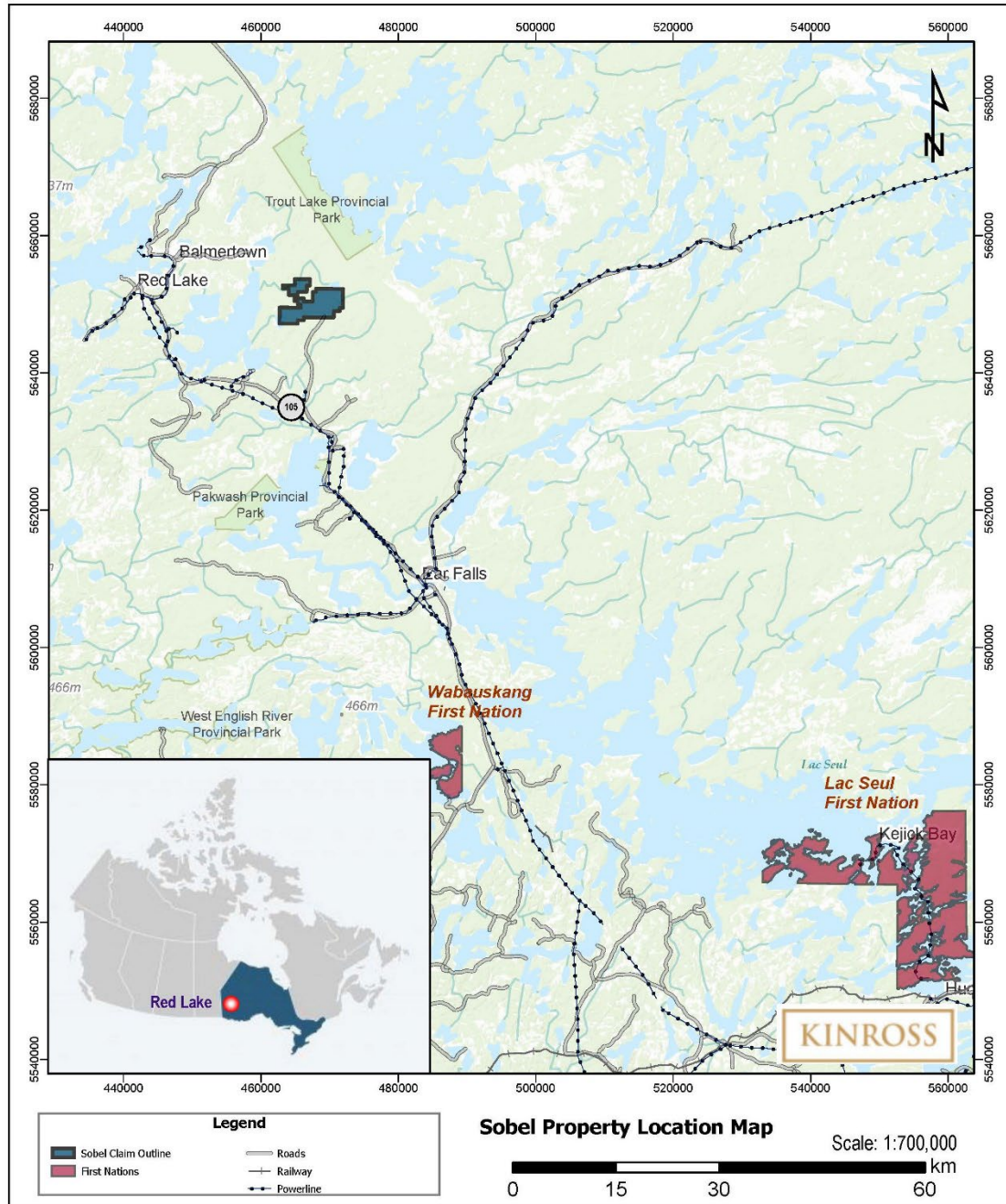


Figure 1. Property Location Map

3. Claims and Ownership

The Property has an area of approximately 32 square kilometres (3200Ha) consisting of 9 multi-cell mining claims and 34 single cell mining claims (Table 1, Figure 2). The claims lie within the Willans, Ranger, Otter Lake and South of Otter Lake townships in the Red Lake Mining Division, northwestern Ontario (Figure 2). All claims are currently in good standing until 2024 with Great Bear Resources (GBR Ltd.) as the recorded holder (Table 1). In February 2022 Kinross Gold Corporation completed the acquisition of the Great Bear Resources Ltd.

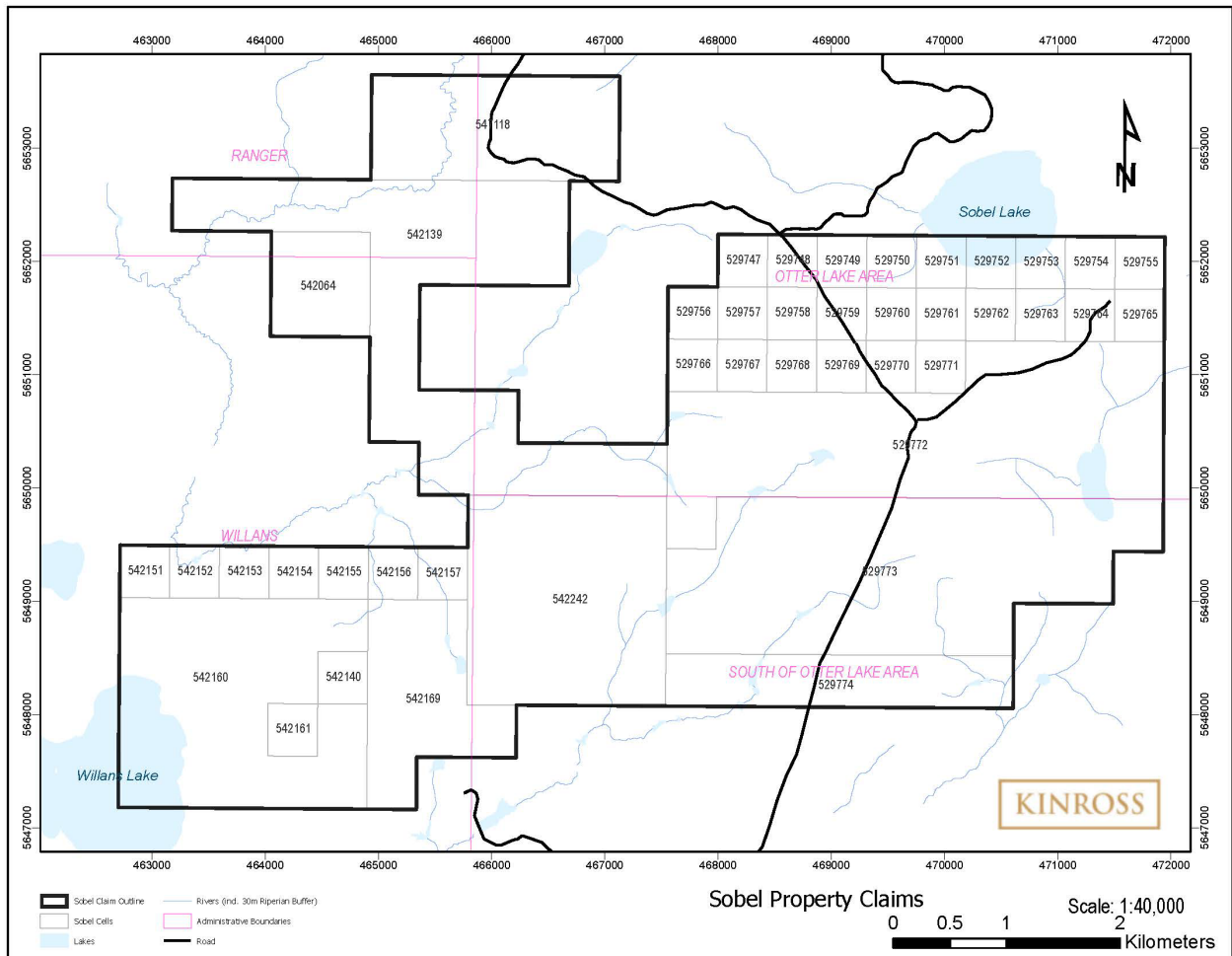


Figure 2. Property Claims

Table 1. Sobel Property Claims

Claim	Township	Title	Type	Status	Issue Date	Claim Due Date	Holder
542242	Willans, South of Otter Lake Area	MCMC	Multi-cell Mining Claim	Active	2019-02-15	2024-02-13	(100) GBR LTD.
542169	Willans, South of Otter Lake Area	MCMC	Multi-cell Mining Claim	Active	2019-02-13	2024-02-13	(100) GBR LTD.
542152	Willans	SCMC	Single Cell Mining Claim	Active	2019-02-13	2024-02-13	(100) GBR LTD.
542151	Willans	SCMC	Single Cell Mining Claim	Active	2019-02-13	2024-02-13	(100) GBR LTD.
542153	Willans	SCMC	Single Cell Mining Claim	Active	2019-02-13	2024-02-13	(100) GBR LTD.
542154	Willans	SCMC	Single Cell Mining Claim	Active	2019-02-13	2024-02-13	(100) GBR LTD.
542155	Willans	SCMC	Single Cell Mining Claim	Active	2019-02-13	2024-02-13	(100) GBR LTD.
542156	Willans	SCMC	Single Cell Mining Claim	Active	2019-02-13	2024-02-13	(100) GBR LTD.
542157	Willans	SCMC	Single Cell Mining Claim	Active	2019-02-13	2024-02-13	(100) GBR LTD.
547118	Ranger, Otter Lake Area	MCMC	Multi-cell Mining Claim	Active	2019-04-01	2024-04-01	(100) GBR LTD.
542139	Ranger, Otter Lake Area, Willans	MCMC	Multi-cell Mining Claim	Active	2019-02-13	2024-02-13	(100) GBR LTD.
542064	Ranger, Willans	MCMC	Multi-cell Mining Claim	Active	2019-02-13	2024-02-13	(100) GBR LTD.
542160	Willans	MCMC	Multi-cell Mining Claim	Active	2019-02-13	2024-02-13	(100) GBR LTD.
542140	Willans	SCMC	Single Cell Mining Claim	Active	2019-02-13	2024-02-13	(100) GBR LTD.
542161	Willans	SCMC	Single Cell Mining Claim	Active	2019-02-13	2024-02-13	(100) GBR LTD.
529772	Otter Lake Area, South of Otter Lake Area	MCMC	Multi-cell Mining Claim	Active	2018-08-27	2024-08-27	(100) GBR LTD.
529747	Otter Lake Area	SCMC	Single Cell Mining Claim	Active	2018-08-27	2024-08-27	(100) GBR LTD.
529748	Otter Lake Area	SCMC	Single Cell Mining Claim	Active	2018-08-27	2024-08-27	(100) GBR LTD.
529749	Otter Lake Area	SCMC	Single Cell Mining Claim	Active	2018-08-27	2024-08-27	(100) GBR LTD.
529750	Otter Lake Area	SCMC	Single Cell Mining Claim	Active	2018-08-27	2024-08-27	(100) GBR LTD.
529751	Otter Lake Area	SCMC	Single Cell Mining Claim	Active	2018-08-27	2024-08-27	(100) GBR LTD.
529752	Otter Lake Area	SCMC	Single Cell Mining Claim	Active	2018-08-27	2024-08-27	(100) GBR LTD.
529753	Otter Lake Area	SCMC	Single Cell Mining Claim	Active	2018-08-27	2024-08-27	(100) GBR LTD.
529754	Otter Lake Area	SCMC	Single Cell Mining Claim	Active	2018-08-27	2024-08-27	(100) GBR LTD.
529755	Otter Lake Area	SCMC	Single Cell Mining Claim	Active	2018-08-27	2024-08-27	(100) GBR LTD.
529756	Otter Lake Area	SCMC	Single Cell Mining Claim	Active	2018-08-27	2024-08-27	(100) GBR LTD.
529757	Otter Lake Area	SCMC	Single Cell Mining Claim	Active	2018-08-27	2024-08-27	(100) GBR LTD.
529758	Otter Lake Area	SCMC	Single Cell Mining Claim	Active	2018-08-27	2024-08-27	(100) GBR LTD.

Claim	Township	Title	Type	Status	Issue Date	Claim Due Date	Holder
529759	Otter Lake Area	SCMC	Single Cell Mining Claim	Active	2018-08-27	2024-08-27	(100) GBR LTD.
529760	Otter Lake Area	SCMC	Single Cell Mining Claim	Active	2018-08-27	2024-08-27	(100) GBR LTD.
529761	Otter Lake Area	SCMC	Single Cell Mining Claim	Active	2018-08-27	2024-08-27	(100) GBR LTD.
529762	Otter Lake Area	SCMC	Single Cell Mining Claim	Active	2018-08-27	2024-08-27	(100) GBR LTD.
529763	Otter Lake Area	SCMC	Single Cell Mining Claim	Active	2018-08-27	2024-08-27	(100) GBR LTD.
529764	Otter Lake Area	SCMC	Single Cell Mining Claim	Active	2018-08-27	2024-08-27	(100) GBR LTD.
529765	Otter Lake Area	SCMC	Single Cell Mining Claim	Active	2018-08-27	2024-08-27	(100) GBR LTD.
529766	Otter Lake Area	SCMC	Single Cell Mining Claim	Active	2018-08-27	2024-08-27	(100) GBR LTD.
529767	Otter Lake Area	SCMC	Single Cell Mining Claim	Active	2018-08-27	2024-08-27	(100) GBR LTD.
529768	Otter Lake Area	SCMC	Single Cell Mining Claim	Active	2018-08-27	2024-08-27	(100) GBR LTD.
529769	Otter Lake Area	SCMC	Single Cell Mining Claim	Active	2018-08-27	2024-08-27	(100) GBR LTD.
529770	Otter Lake Area	SCMC	Single Cell Mining Claim	Active	2018-08-27	2024-08-27	(100) GBR LTD.
529771	Otter Lake Area	SCMC	Single Cell Mining Claim	Active	2018-08-27	2024-08-27	(100) GBR LTD.
529773	South of Otter Lake Area	MCMC	Multi-cell Mining Claim	Active	2018-08-27	2024-08-27	(100) GBR LTD.
529774	South of Otter Lake Area	MCMC	Multi-cell Mining Claim	Active	2018-08-27	2024-08-27	(100) GBR LTD.

4. Access, Infrastructure, Climate and Physiography

Access to the Property is via a series of logging roads that depart from Chukuni River forestry road which is connected to Highway 105 (Figure 3).

The climate in the region is mid latitude continental, with cold winters and warm summers. Temperatures range from - 40°C in the winter to the + 40°C in the summer, with snow cover between November and May.

Nearby communities are Red Lake, Balmertown and Cochenour.

Infrastructure includes road network, airport, hydroline, hospital services etc.

The topography of the area is characteristic of the southern part of the Canadian Shield with low rolling hills and intervening lowlands with lakes, muskeg and marshes. Low to moderate relief with elevations ranging from approximately 350 to 400 metres.

The area is covered with mature boreal forest with tree species ranging from predominant black spruce, jackpine, balsam fir, white birch and lesser stands of poplar. Over the years large areas on the Property have been deforested and replanted with spruce and pine.

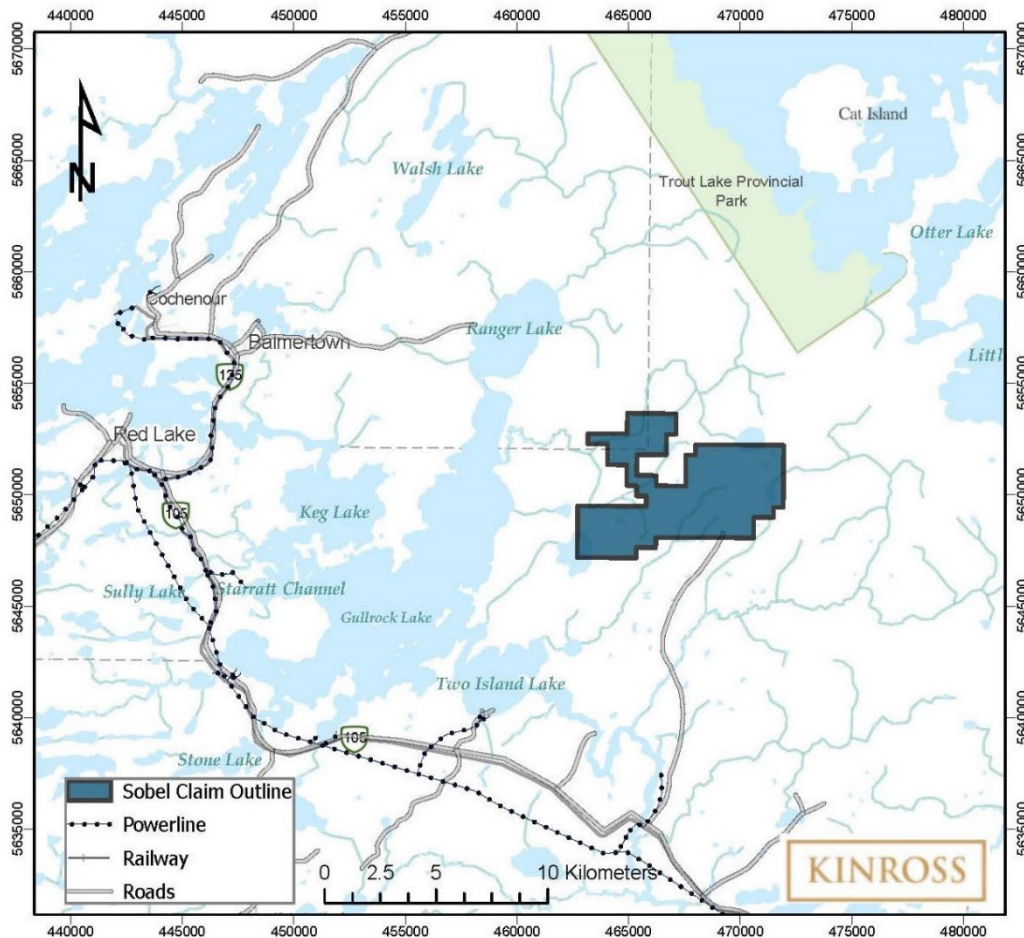


Figure 3. Property Access Map

5. Exploration History

The Property has seen relatively little exploration over the years with most of the work ranging from geophysics, prospecting and diamond drilling. The lack of activities might largely be due to limited outcrop exposure and poor access in earlier times. Previous work is summarised in Table 2. Ontario MNDM assessment records indicate that the first recorded exploration was 1958.

The major operator during 2003 - 2022 was Tri Origin Exploration Ltd. Past exploration work on the Red Lake Extension (RLX) property (the former name for Sobel Property) is described by Boyd (2006), Kendle (2012-2017).

Great Bear Resources completed SGH sampling and field mapping during 2020-2021 (Smythe, Irwin, 2021, 2022).

Notable Historic Work/ Nearby Exploration:

SGH sampling (2021) – Great Bear Resources. Two targets identified.

Diamond Drilling (2009) – Tri Origin Exploration. Several holes at governmental storage facility in Red Lake.

VTEM (2008) – Geotech Ltd for Tri Origin Exploration. Several products available.

Overburden drilling and humus sampling throughout early 2000s.

Table 2. Previous Exploration

Date	Work Type	Results	Company	Assessment File
2021	Mapping, Prospecting	249 samples/assays 1 map	Great Bear Resources Ltd.	20000020235
2021	Mapping, Prospecting and SHS sampling	399 samples 73 rock samples	Great Bear Resources Ltd.	20000020060
2017	Geology and Petrology Geochemistry	72 rock samples for WRA	Tri Origin Exploration Ltd.	20000013597
2013	IP/Resistivity, Ground Magnetic survey	20525 line km on the NE part of the property, 21825m IP, 14 lines on grids A,B,C. Map 1:20000	JVX Advanced Geophysics Tri Origin Exploration Ltd.	20000008469
2013	Diamond Drilling Geochemistry	6 holes/818.5m RLX-12-02 significant Au-values 94 samples 1327 soil samples	Tri Origin Exploration Ltd.	20000009199
2012	Geological Mapping	70 rock samples for Au and ME analysis, 24 grab samples for WRA. <u>48 assays below DL</u> 22 assays up to 0.168ppmAu	Tri Origin Exploration Ltd.	20000009085
2012	IP, linecutting	21.8 line km, numerous IP- anomalies on NW pprtion of the property	Tri Origin Exploration Ltd.	20000008528

Date	Work Type	Results	Company	Assessment File
2012	Geochemical survey	364 soil and 963 humus samples Up to 0.142 ppmAu east of Willans Lake	Tri Origin Exploration Ltd.	20000014754 20000008689
2011	Diamond Drilling	5 holes/839m RLX-11-02: 135 ppb Au in quartz-tourmaline vein RLX-11-03 215ppb Au RLX-11-04 350 ppb Au, Numerous samples with Au	Tri Origin Exploration Ltd.	
2011	Geochemical Sampling	46 humus and 256 soil samples, Au to 0.533ppm to NW of Willans Lake, up to 0.4ppm east of Willans Lake		20000008694
2010	Geological Mapping, Humus and Soil Sampling	1137 humus samples 952 soil samples, 1 map <u>Au in Areas 1-2:</u> up to 0.055 ppm in soils, up to 0.26pm in humus	Tri Origin Exploration Ltd.	20000007017
2009	Diamond Drilling Mapping Soil sampling Geochemistry	6 holes/914m Anomalous gold in <u>RLX-09-04</u> A174451=0.194ppm A174458=0.197ppm <u>RLX-09-05</u> A174445=0.034ppm (QV) A174436=0.021ppm (BIF) A174438=0.010ppm (BIF) 93 core samples, 403 soil samples 585 humus samples Map at 1:5000	Tri Origin Exploration Ltd.	Several holes in governmental storage facility in Red Lake 20000005453
2009	Diamond Drilling, Geochemistry	5 holes/753m 55 samples EM anomalies are felsic intrusives. Unreliable soil and humus geochemistry	Tri Origin Exploration Ltd.	20000005672 Several holes in governmental storage facility in Red Lake
2008	AEM, IP, Geochemistry	1452 line km, IP-5.05 line km, 1920 humus samples, 2263 assays	Tri Origin Exploration Ltd.	20000003997
2008	VTEM	5050m of TMI, 1VDTMI, RMA at 1:20000	Tri Origin Exploration Ltd.	
2007	OB Drilling	23 holes/267.8m Not encouraging	Tri Origin Exploration Ltd.	20000003086
2006	Prospecting/ Mapping/ OB drilling, Soil and rock geochemistry	Au in humus and B-horizon soil and rock samples in 2km wide corridor trending NW-central east. Similarity of rocks to ones in Red Lake camp	Tri Origin Exploration Ltd.	20000001128
2006	EM, IP, Mag/ Magnetometer survey		Tri Origin Exploration Ltd	20000001879

Date	Work Type	Results	Company	Assessment File
2006	Diamond Drilling	6 hole/927.7m to test IP anomalies and gold in humus samples	Tri Origin Exploration Ltd.	20000001974
2006	Diamond Drilling	3 holes/520.2m to test 3 IP anomalies and gold humus Geochem targets RLX -05-01 returned 10-30 ppb Au 13m wide sulphide zone in RLX-05-02 has strong ground IP response.	Tri Origin Exploration Ltd.	Core stored @ Rubicon Mineral's core facility at McFinley Red Lake 20000001086
2005	IP survey	26.78 Line km	Tri Origin Exploration Ltd.	20000001048
2004	OB Drilling	310 holes, 310 basal till samples, Gullrock property	Crossroads Expl Inc	52N04SE2022
2004	Diamond Drilling, IP, Mag/ Magnetometer survey, Geochemistry Soil Sampling	4 DDH/651m 53 OBDH/210 2 surveys/34.5 km 221 humus sample analysis 382 humus soil samples	Tri Origin Exploration Ltd.	20000013663
1997	EM VLF, Mapping		Lucero Resc Corp	52N03SW2001
1993	Mapping, Mag Magnetometer survey		Hemlo Gold Mines Inc	52N04SE9950
1991	EM VLF, Mag Magnetometer survey		Placer Dome Ltd	52N03SW0550
1990	Mapping		Placer Dome Ltd	52K13NE9137
1989	AEM survey		Noranda Mining and Expl.	
1981	EM, MAG/ Magnetometer survey		Gold Fields Res Can Ltd	52N03SW0004 52K03SW0005
1979	Mapping In Willans twp	Map P2214, very few OCs with mafic volcanic rocks to the north, intermediate to felsic volcanic rocks and intrusives to the south	OGS	Pirie and Kita
1978	AEM survey	No anomalies on the RLX	OGS	
1978	Diamond Drilling	1 hole (160-3-1)/86.3m	Selco Mining Corporation	52N03SW0006
1978	Diamond Drilling	1 hole (160-6-1)/106.7m	Selco Mining Corporation	52N03SW0008
1976	HLEM and Mag Survey	2 grids at NW of RLX, No outcrops, 1 weak anomaly	Selco Mining Corporation	
1958	Diamond Drilling	2 holes/305.7m Illegible hand written logs	New Dickenson Mines	52K14NW0042 52K14NW0043

6. Geological Setting

Regional Geology

The Property lies at the junction of two largely east-west trending greenstone belts within the Uchi Subprovince of the Archean Superior province and the Trout Lake batholith to the north (Figure 4,5).

Greenstone belts of the Red Lake area have 300 MY history of tectono-magmatic deformation with episodes of magmatism, sedimentation and intense hydrothermal activity (Sanborn-Barrie et al., 2001).

The predominant Mesoproterozoic rocks of Red Lake (east trending) and Neoproterozoic rocks of Birch-Confederation (north trending) greenstone belts, two coherent belts comprising Uchi Subprovince, are interpreted to have evolved by eruption and deposition of volcanic sedimentary sequences on the active continental margin (the North Caribou Terrane, 3.0 to 2.7 Ga), followed by subduction related arc volcanism. Continental collision with Winnipeg River terrain at 2.71-2.7 Ga led to subsequent crust thickening and metamorphism (Stott and Corfu, 1991; Sanborn-Barrie et al. 2000, 2001).

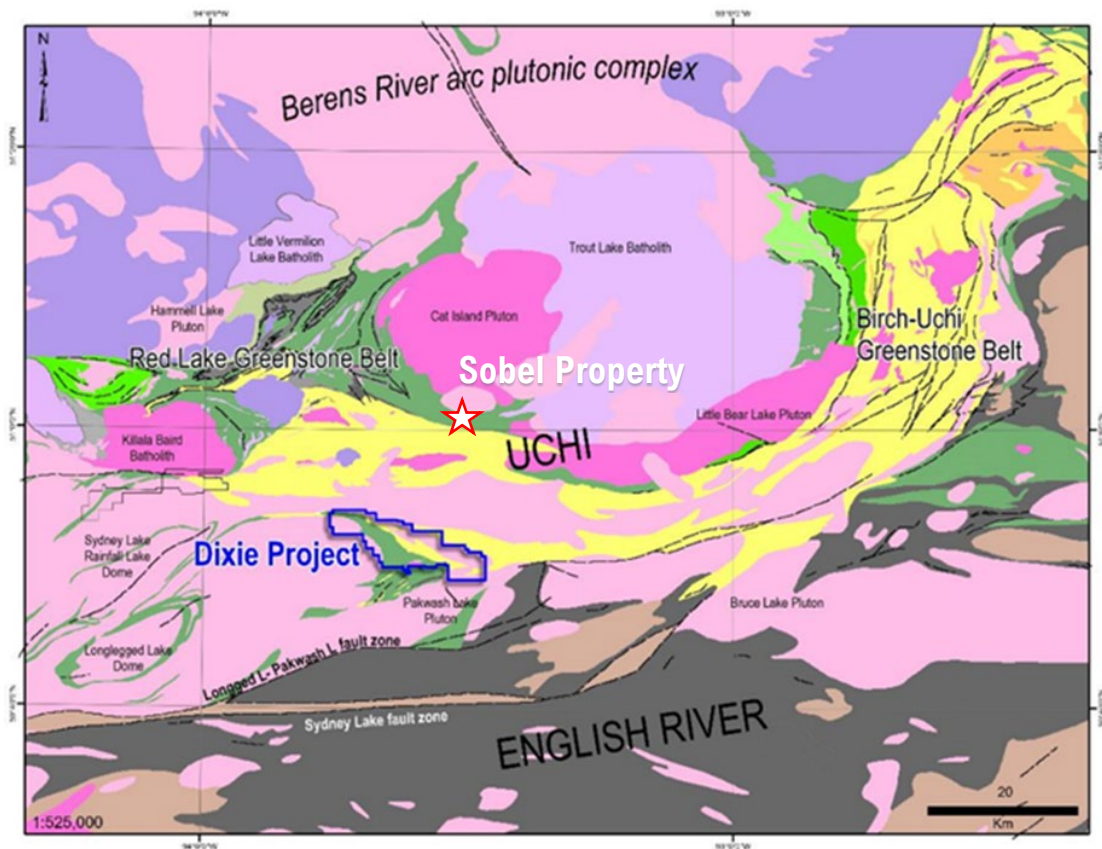


Figure 4. Regional Geology

English River: 2.704-2.696 Ga, Uchi 2.75-2.99 Ga. GSC, Open file 4256 – published 2004

Both greenstone belts in the Red Lake District are dominated by the Mesoproterozoic Balmer and the Neoproterozoic Confederation Lake volcanic assemblages (Sanborn-Barrie *et al.*, 2001, 2004).

The Balmer Assemblage (2989-2964 MA) consists mainly of tholeiitic to komatiitic flows, sills and sub-volcanic intrusions, with lesser abundance of iron formation, rhyolitic flows and associated pyroclastic, and clastic sedimentary rock. It is the host to all major gold deposits in the Red Lake area.

Confederation assemblage (2750-2735 Ma) – is represented with three sequences:

- 1) McNeely calc-alkaline sequence (central Red Lake) consisting of intermediate to mafic volcanic rocks.
- 2) Heyson tholeiitic sequence (southeastern Red Lake) composed of felsic volcanics and interlayered with mafic flows, dacitic tuff and plagioclase-phyric basaltic andesites.
- 3) Graves sequence (northern Red Lake) consisting of basal polymictic conglomerate, intermediate pyroclastic rocks, syn-volcanic diorite and tonalite.

The supracrustal rocks have been intruded by a number of intrusive bodies including serpentinized peridotite, gabbro, diabase, and small felsic dykes and stocks.

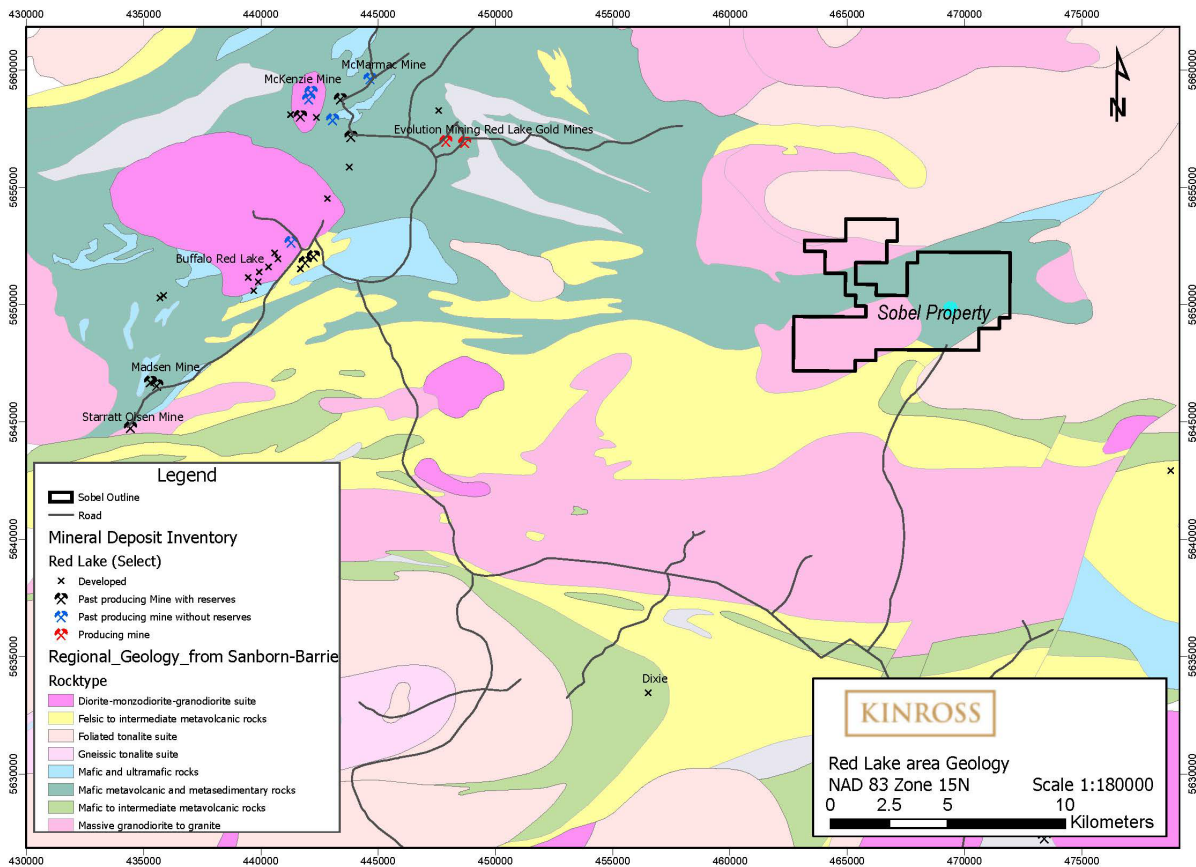


Figure 5. Regional Geology

Property Geology

The geology of the Property is based on mapping conducted by OGS in the late 1970s (Figure 5), work conducted by Tri Origin and Great Bear Resources (Figure 6). Bedrock consists mainly of mafic volcanics and granites with minor metasedimentary units.

The Property is located along the interpreted strike extension of the main D2 fold axial plane that is a major interpreted control of gold mineralization at the Red Lake Gold Mine, operated by Evolution Mining. This structure occurs within the Cochenour-Gullrock Lake Deformation Zone and within Balmer-type volcanic assemblages, which host the majority of the gold production in the Red Lake camp (Kendle, 2012).

The most prevalent rock types on the Property include oxide facies iron formation, mafic volcanic flows, felsic-intermediate pyroclastic flows and shallow intrusions, and intrusive granodiorites (Figure 6). Lithology description is taken from (Smythe and Irwin, 2022).

Sedimentary

Oxide Facies Iron Formation

Rust-weathered, grey, green, and white banded, thinly bedded, highly deformed/folded iron formation. Comprises 50% white, siliceous chert beds (cm-scale) and 50% dark, strongly magnetic, magnetite rich bands. Rare, greenish, coarse-grained amphibole rich beds. Local strong silica alteration with trace-10% pyrite+pyrrhotite. Outcrops occur in areas of strong magnetic response in SE portion of the Property. Altered, veined and sulphide mineralized iron formation was identified in historic trenches and pits on the Property.

Volcanic

Massive Basalt

Green to dark blue green, locally chlorite +/- biotite altered, fine-grained to aphanitic, massive basalt. When biotite alteration is present, a weak to moderate foliation defined by the alignment of biotite grains. Alteration of these units consists of fine-grained biotite 1-5%, chlorite, plus minor late-stage epidote and carbonate. Locally, mineralization consists of trace fine grained pyrite and magnetite (modified from Kendle, 2012).

Pillow Basalt

Grey-green to dark bluish green, fine-grained to aphanitic pillowed volcanic flows. Pillow selvages comprise white/buff grey to grey-green coarser grained material composed of varying amounts of chlorite, epidote, and carbonate. Strongly deformed/flattened. Estimated sizes of pillows ranges from 50 cm to 1m along the apparent long axis. Mineralization consists of traces of fine-grained pyrite and magnetite similar to the massive flow units (modified from Kendle, 2012).

Mafic Tuff (Compositionally Layered Mafic volcanic)

Rusty weathered, green, beige and grey banded, strongly foliated, deformed, mafic tuff. Banding from 1mm to 10cm in thickness. Foliation parallel carbonate stringers are common. Local garnet porphyroblasts up to 3mm and sillimanite was observed in drill core (modified from Kendle, 2012).

Intermediate-Felsic Volcanic Rocks

Buff weathered, grey, very fine grained felsic volcanic flow. Contains 1-2% quartz fragments (3-5mm). Moderately foliated. Trace pyrite locally.

Intrusive

Massive Granodiorite to Granite

Pink to pink-grey, coarse- to medium-grained, massive, equigranular granite to gneiss. Contains 5-20% platy biotite, locally in booklets up to 2cm (almost pegmatitic). Occurs as large, polished outcrops in the NW and SW areas of the Property. These outcrops locally contain rafts(?) of grey, fine grained, quartz-feldspar phyric felsic volcanic. Also occurs as dykes (10cm to >5m) cross-cutting fabric in mafic volcanic outcrops.

Mafic dykes

Fine-grained, late-stage mafic dykes. Generally trending parallel to the trend of the main foliation; contain little alteration or mineralization.

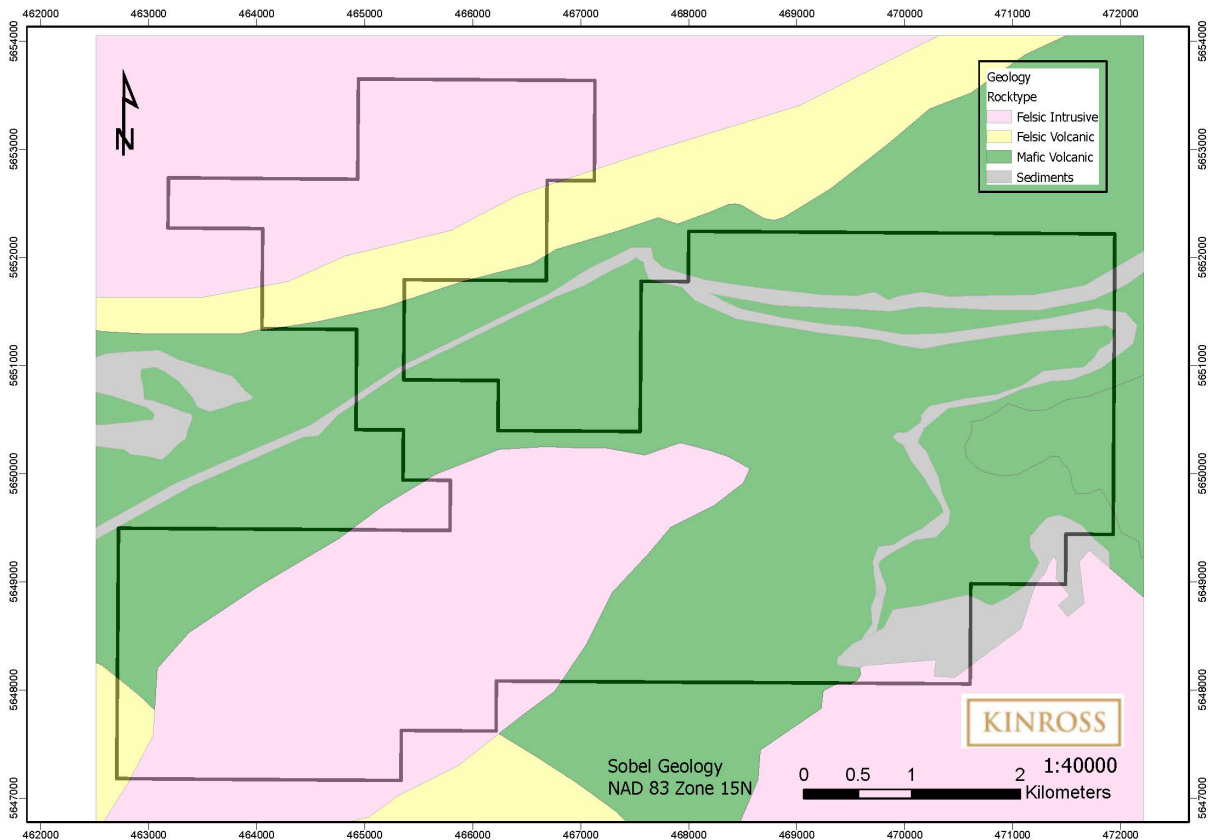


Figure 6. Property Geology (modified from Smythe and Irwin, 2022).

7. Exploration

In summer 2022 from June 14 to July 4 an exploration work program consisting of prospecting and mapping was completed on the Property by Bjorkman Prospecting Inc, Atikokan, Ontario.

The purpose was to gather field information on lithology and structure of the Property based on which further interpretation of geology features would become possible for better understanding of mineralization control and evaluating the potential for economic gold mineralization.

Using historic reports, maps and satellite images crew of 2 geologists and 2 assistants located and sampled previously unidentified outcrops, visited and resampled many historic workings and outcrops from previous field work, tested areas of anomalous mineral occurrences and airborne geophysical anomalies.

Numerous areas of the Property have no outcrop exposure or covered by swamp or lakes restricting access to areas of interest. 22 days of traversing and mapping resulted to a good coverage in central and south-eastern portion of the Property. Outcrops encountered were located by handheld GPS devices. Daily traversing, sample and outcrop locations are in Appendix E. Daily logs with outcrop photos and detailed description are in Appendix C.

A total of 210 samples (including control samples) were collected and taken to ALS Canada Ltd for FA-AA and multi-element ICP-MS analysis. All samples were delivered to the ALS Lab by J.Bjorkman where they were weight, crushed, split to 250g and pulverized until 85% passed through a 75 um mesh. Rejects were required to be disposed.

Preparation codes and analytical techniques are shown (Table 3, 4). Assay results and Certificates of Analysis are in Appendix D.

Table 3. ALS Sample Preparation

ALS Canada	
Sample Preparation	Description
WEI-21	Received Sample Weight
CRU-31	Fine crushing – 70% <2mm
LOG-21	Sample Logging- ClientBarCode
CRU-QC	Crushing QC Test
PUL-QC	Pulverizing QC Test
SPL-21	Split Sample – riffle splitter
PUL-31	Pulverize up to 250g 85% <75 um

Table 4. ALS Analytical Procedures

ALS Analytical Procedures		
ALS Code	Description	Instrument
ME-MS61	48 element four acid ICP-MS	
ME-MS61L	Super Trace Lowest DL 4A by ICP-MS	
PGM-MS23	Pt, Pd, Au 30g FA ICP-MS	ICP-MS
Au-AA25	Ore Grade Au 30g FA AA finish	AAS
Au-AA23 Au 30g FA-AA finish	Au 30g FA-AA finish	AAS

A review of field data indicates:

Lithology encountered on the Property includes mafic volcanic (89 samples), mafic intrusive (13 samples), felsic volcanic (3 samples) and intrusive (18 samples) and chemical sediments IF/BIF (42 samples). Rock type is found to be consistent with previous mapping (2012, 2022). Rock description is somewhat different.

Ultramafic outcrop is found at 470101E/ 5649801N, sample F064001 is described as black, coarse grained (5-10mm), pyroxene or hornblende, poikilitic texture, cut by 0.5cm quartz vein, finely disseminated pyrite and chalcopyrite in host and in quartz vein. No gold.

Geological description of all samples include color, mineral composition, grain size, texture, mineralization, alteration and its intensity, and magnetic intensity where and if it was observed.

31 outcrops have been recorded with 17 in mafic volcanic, 11 in iron formation, and 2 in mafic intrusion. No outcrop map has been produced.

A total of 118 structural measurements were made from rocks exposed. Structural data include measurements of bedding (5), strike-slip faults (2), shear zones (6), dykes (8), foliation (43), fold axis known (2) and unknown (1), fractures (21), quartz veins (24). See map (Appendix E).

A total of 4 chip samples were taken over 1m intervals in the trench at 469715E/5649018N. Samples F064017, F064018, F064019 and F064021 returned low values.

Quartz veining is present. A total of 24 QV-samples were taken with 7 samples from quartz veins in mafic volcanic. Two quartz veins from mafic volcanic returned low values, the rest returned values below detection limit. Elevated gold values in quartz veins are related with late-stage veining in association with sulphides. Samples F064121 and F064122 from later 1-4 cm quartz veins with pyrrhotite, chalcopyrite and molybdenite returned 0.015 ppm Au and 0.018 ppm Au respectively.

All rocks exhibit ductile and brittle deformation observed in folds, strongly foliated shear zones, and faults.

Folded structure measurements were taken from 3 locations and various lithology units. For all sites presence of veining is reported.

The strike lines of the fold axes and dips measured at the contact between mafic volcanic and sediments in the south (at 469325E/ 5648184N, Figure 28, Appendix C) are not consistent with previous measurement in sediments, but that is what one would expect with plunging folds. Samples F064070, F064071, F064072 taken from mafic volcanic returned assays below detection level. Assay results did not confirm anomalous gold values of 0.014ppm Au in samples 30801 and 30802 taken from sediments at this location in 2021 mapping (Smythe and Irwin, 2022).

The evidence of the z-folds present at 469507E/ 5648228N in sedimentary outcrop will help to decipher large-scale fold in further structural analysis as direction in which observation was made is known. Sample 30804 from 2021 mapping returned 0.006 ppm Au. Tri Origin Exploration in 2009 drill tested thin and steeply dipping

to the north EM conductor associated with highly magnetic rocks in this area. Drill hole RLX-09-04 intersected sediments intruded by granitic dykes and assays returned values 0.194 ppm Au for A174451 and 0.197 ppm Au for A174458 (Fell, 2009).

Another Z-fold axis is at 470240.136E/ 5649715.839N in iron formation. Samples F064064 - F06466 returned values below detection limit. Note from J.Bjorkman warns that sample could possibly be felsensmeer (Figure 24-25, Appendix C). This parasitic fold is near interpreted E-W trending axial trace. Adjacent to this axial trace are anomalous gold values 0.489 ppm Au in sample F064067, 0.015 ppm Au in sample F064056, 0.015 ppm Au in sample F064121 and 0.021 ppm Au from sample 116177 from 2021 program (Figure 8). Drillhole RLX-09-02, drilled by Tri Origin in 2009 to test a strong EM response and copper anomaly in humus geochemistry, was collared in the coarse-grained dyke, went through heavily strained mafic volcanic/metasediments with trace Py-Cpy and at depth 43.9m hole went into relatively undeformed pillowed mafic volcanic with semi-massive to stringer Po and Cpy to depth 129.5m. No gold (Fell, 2009).

Foliation shows two trends: 1) in the east and south-east of claims 529773 and 529774 mafic flows strike on average 200°-245° and dip 70° to the west (NE-trend), 2) in central part of the 529773 claim and further to the north in entire 529772 claim mafic volcanic rocks strike on average 88° and dip 73° to the south (EW-trend) (See Map, Appendix E).

Evidence of faulting was found at 469762E/ 5649081N where crew stripped off a banded iron formation outcrop (Figure 32, Appendix C), measured the general trend of the bands and 12 cm quartz vein that were weakly crenulated at 51°SW/133°. Quartz vein exhibits 30 cm of dextral displacement along a fault dipping roughly 84°SE/042° (Figure 33, Appendix C). Samples F064078, F064079 and F064081 returned assay values below detection limit.

Another fault was found within 10m with approximately 1m of dextral displacement (?). Fault dips roughly 73°SE/065° and intersects both the small blast pit (1m x 1m) at the north-east end of the outcropping iron formation and trench which is approximately 12 metres to the south-west (Figure 34, 35, Appendix C).

Shear zone measurements were taken from 6 locations. One weak shear zone trending 85°S/065° at the contact between basalt and iron formation at 469835E/5648780N yielded 0.015 ppm Au in F064027.

Out of 12 trenches examined only 2 trenches returned anomalous gold values:

- 1) 8m x 1.2m trench oriented 95° lengthwise at 469838E/5648779N returned 0.015 ppm Au in sample F064027 (west end) and 0.011 ppm Au in sample F064027 (east end).
- 2) Trench with basalt intruded by 8-cm wide unmineralized felsic dyke/vein on the west end (Figure 5, Appendix C) and massive Po on the east end at 469713E/ 56490221N returned 0.017 ppm Au in sample F064022.

Alteration observed on the Property consists of chlorite, biotite, silica and carbonate with later epidote and hematite. Eight (8) alteration zones have been reported and sampled. Two bolder grabs sampled as F064182 and F064199 returned 0.024 ppm Au and 0.013 ppm Au respectively. Sample F064182 (0.024 ppm Au) was taken from 1sq m strongly silicified (sugary) rusty and banded zone with trace sulphides. Sample F064199 (0.013 ppm Au) is described as medium-grained (1-5mm) rusty banded magnetite-pyrite-bearing angular float.

Mineralization includes pyrrhotite, pyrite and chalcopyrite in mafic volcanic rocks, and pyrite, chalcopyrite and molybdenite in felsic dykes.

No representative hand-specimen of outcrops was collected for future use and whole rock analysis.

A review of analytical data indicates:

Out of 200 samples 103 samples (52%) returned values below detection limit, 20 samples (10%) returned values >0.01 ppm Au. Gold values over 0.01 ppm are considered to be anomalous and listed in Table 5.

Table 5. 2022 Samples with values over 0.01 ppm Au

Sample	Au_ppm	Cert	Lab	Method	Northing	Easting	Rock Type
F064022	0.017	TB22185261	ALS	Au-AA23	5649022.091	469713.749	Mafic Volcanic
F064027	0.015	TB22185248	ALS	Au-AA23	5648779.518	469834.914	Iron Formation
F064031	0.011	TB22185261	ALS	Au-AA23	5648780.236	469841.102	Iron Formation?MV?
F064045	0.023	TB22185248	ALS	Au-AA23	5648863.633	469840.228	Mafic Volcanic
F064047	0.688	TB22185248	ALS	Au-AA23	5649001.545	469889.844	Mafic Volcanic
F064056	0.015	TB22185248	ALS	Au-AA23	5649658.340	470063.719	Mafic Volcanic
F064067	0.489	TB22185248	ALS	Au-AA23	5649719.645	470429.482	QV in Iron Formation
F064089	0.013	TB22185248	ALS	Au-AA23	5649203.228	469801.693	Mafic Volcanic
F064091	0.013	TB22185248	ALS	Au-AA23	5649197.743	469741.726	Felsic Volcanic
F064097	0.069	TB22185248	ALS	Au-AA23	5649184.756	469685.961	Felsic Dyke
F064121	0.015	TB22185248	ALS	PGM-MS23	5649834.000	469397.600	Quartz Vein
F064122	0.018	TB22185248	ALS	PGM-MS23	5649834.000	469397.809	Quartz Vein
F064137	0.028	TB22185248	ALS	PGM-MS23	5649430.000	468658.461	Quartz Vein
F064141	0.036	TB22185248	ALS	PGM-MS23	5649397.000	468677.439	Felsic Dyke
F064165	0.012	TB22185248	ALS	PGM-MS23	5649185.000	471208.164	Mafic Volcanic
F064167	0.021	TB22185248	ALS	PGM-MS23	5649167.000	471207.384	Mafic Volcanic
F064182	0.024	TB22185248	ALS	Au-AA23	5649613.260	468233.320	Mafic Volcanic
F064188	0.06	TB22185248	ALS	PGM-MS23	5649427.000	468753.559	Quartz Vein
F064199	0.013	TB22185248	ALS	Au-AA23	5650509.475	469743.394	Mafic Volcanic
F064202	0.175	TB22185248	ALS	Au-AA23	5650291.968	469529.644	Felsic Dyke

Results

Gold values obtained from the prospecting program are shown in Property geology and geophysics maps (Figures 7, 8.)

2022 exploration program added 20 anomalous gold values. The highest gold value from this program is 0.688 ppm Au for sample F064047 taken from 1-2 cm saccharoidal quartz vein in locally rusty and sulphide mineralised mafic volcanic with biotite at 469890E/ 5649001N. Additional high values were obtained from felsic dyke with pyrite, chalcopyrite and molybdenite 0.175 ppm Au for sample F064202 at 469530E/ 5650292N and 0.489 ppm Au from quartz vein in folded iron formation at 470429E/ 5649720N.

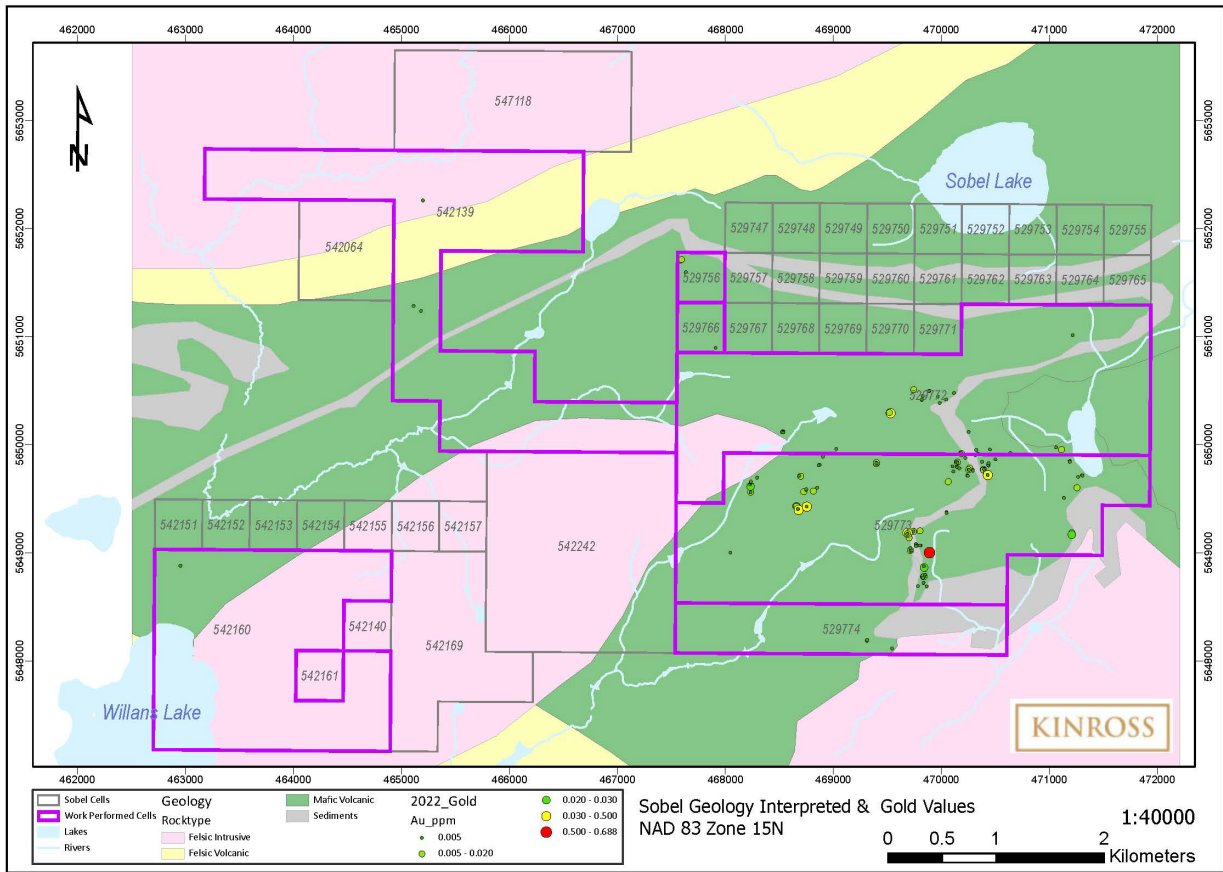


Figure 7. Gold values and geology

2020-2021 exploration program had 14 samples with Au-values over 0.01 ppm Au (considered as anomalous). Some of those values were confirmed by 2022 results. Sample 116095 (0.008 ppm Au) is confirmed by sample F064089 (0.013 ppm Au), sample 116177 (0.024 ppm Au) is confirmed by F064056 (0.015 ppm Au), sample 116269 (0.012 ppm Au) is confirmed by 116176 (0.008 ppm Au).

Sample 30831 with the highest value 0.029ppm Au from 2020 mapping was not located, but while looking for it crew found new historical trench (Figure 7-8, Appendix C) in magnetized and sulphide mineralised mafic volcanic. Samples F064027 and F064031 returned 0.015ppm Au and 0.011ppm Au respectively.

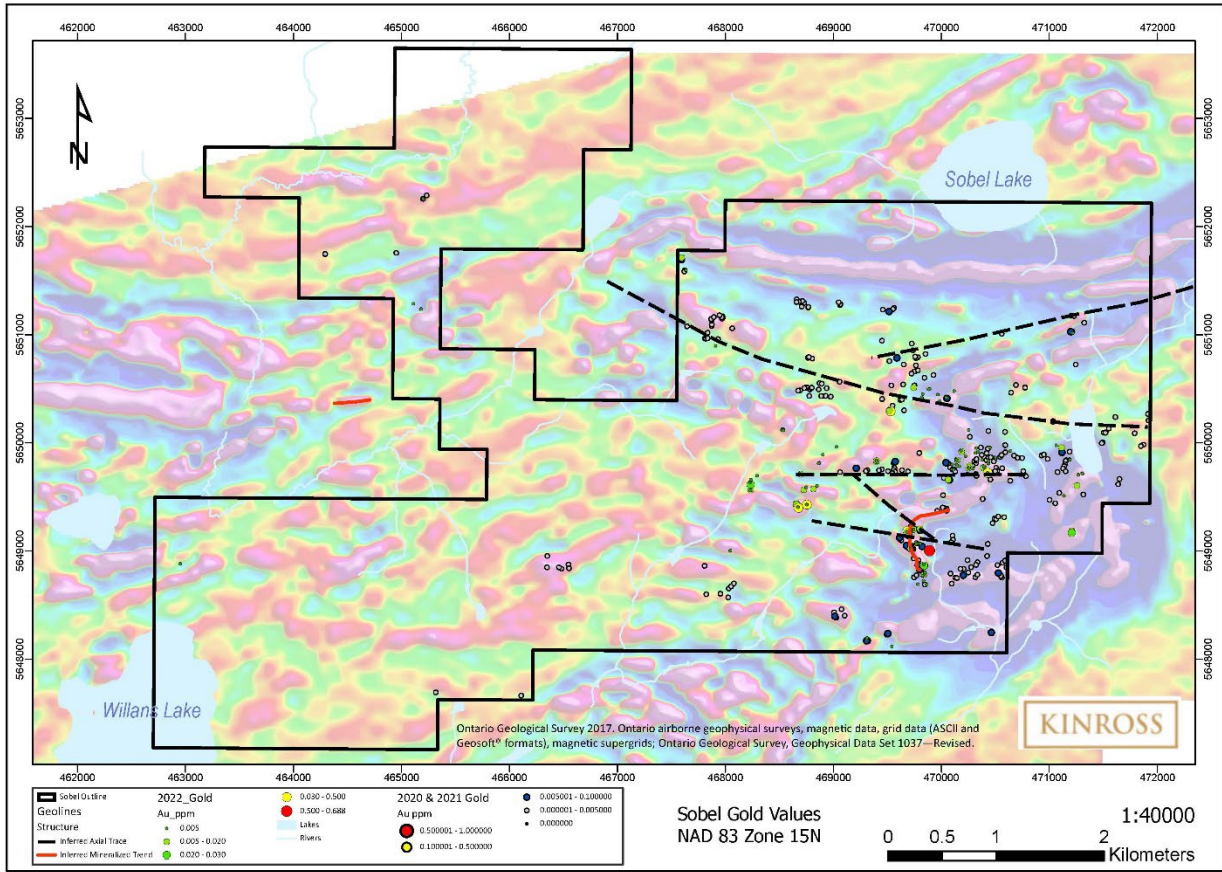


Figure 8. Gold values and geophysics

(2VD – the second vertical derivative of the magnetic field data, OGS 2017, GDS 1037)

Lithology on the Property is dominated with mafic volcanic which is subdivided into massive, pillowed and compositionally layered.

Massive mafic volcanic, sampled in 35 assays returned 4 values in a range 0.015-0.688 ppm Au (Table 5). Those values appear to be associated with late-stage quartz veining. Samples F064045 and F064047 taken from locally rusty and sulphide mineralized (Po, Py, Cpy) mafic volcanic returned 0.023 ppm Au and 0.688 ppm Au respectively. Sample F064047 with 0.688 ppm Au is the highest gold value on the Property so far and was taken from 1-2 cm saccharoidal quartz vein in mafic volcanic with biotite at 469889E/ 5649001N.

Foliated mafic volcanic tested in 31 samples returned anomalous 0.012 ppm Au in sample F064165 and 0.021 ppm Au in sample F064167.

Pillowed mafic volcanic sampled in F064089 at 469801.693E/ 5649203.228N yielded 0.013 ppm Au.

Basalt with seemingly unmineralized granitic dykes returned 0.017 ppm Au in sample F064022 (Figure 5, Appendix C). This grab sample was taken near historical trench previously sampled and where crew took four one-meter chip samples (Figure 6, Appendix C). Chip samples returned low values.

Felsic volcanic and intrusive rocks, iron formation, metasediments and mafic dykes present on the Property in minor amounts show following:

Mafic Intrusive probed in 13 samples have no gold;

Felsic Volcanic Tuff sampled in F064090 returned 0.009 ppm Au, sample F064091 returned 0.013 ppm Au;

Felsic dykes, 0.03-1m wide, white to pink, medium grained (1-5mm) and exhibiting equigranular texture, were tested in 16 samples. Returned assay values are 0.069 ppm Au for sample F064097, 0.036 ppm Au for sample F064141 and 0.175 ppm Au for sample F064202. Pyrite, molybdenite and chalcopyrite are present in majority of felsic dykes;

No gold in banded iron formation, all 17 samples returned values below detection limit;

Iron formation sampled in 25 assays returned values ranging between 0.007-0.015 ppm Au in 5 samples. The highest value 0.489 ppm Au in sample F064067 came from quartz vein in folded iron formation at 470429.482E/5649719.645N (Table 5);

Seven samples from clastic sedimentary rocks, variably silicified and pyrite-pyrrhotite mineralized, returned no gold.

Overall, results are encouraging as gold values appear to align with interpreted structures or occur in close proximity to them (Figure 8). 2021 program samples 30825 (0.011 ppm Au) and 30827 (0.016 ppm Au) in iron formation, 30808 (0.012 ppm Au), 116033 (0.011 ppm Au), 116239 (0.01 ppm Au), and 116242 (0.012 ppm Au) along with the highest F064047 (0.688 ppm Au) in mafic volcanic, as well as F064097 (0.069 ppm Au) in felsic dyke they all are within 100m from interpreted axial trace.

Field mapping suggests fold structure and assay data show that folded contacts of rocks with different competency should be further investigated.

Closer to the east boundary of the Property claim 529773 and south-east of the Sobel Lake there is a little lake where few samples on the shore returned elevated gold values. That area coincides with mag high and assays are 0.012 ppm Au for sample F064165 and 0.021 ppm Au for sample F064167. New Dickenson Mines drilled 2 holes in that area in 1959 and MNM records indicate that overburden is 1.5m, but no assays have been reported.

Areas of known gold occurrences on the east portion of the Property warrant further study.

Hole RLX-09-05 drilled by Tri Origin in 2009 sampled quartz veins within the granite intrusion and from banded iron formation and assays returned 0.034 ppm Au for sample A174445 (quartz vein in granite), 0.021 ppm Au for A174436 and 0.01 ppm Au for A174438 in BIF. Recent sample F064182 with 0.024 ppm Au and 170m to the east from the collar confirmed presence of the gold near D2 axial trace.

8. Conclusions and Discussion

Based on the author's observations and evaluation of the data available and presented in this report following conclusions are made:

Mapping discovered many previously unrecorded outcrops, including ultramafic rocks at 470101E/ 5649801N with no gold. Other new outcrops returned 0.036 ppm Au in sample F064141, 0.028 ppm Au in sample F064137, 0.06 ppm Au in sample F064188.

Mapping has identified fold axes in 3 locations and various lithology units (mafic volcanic, sediments and iron formation) with presence of quartz veining reported provide additional information on folding system within the Property.

The first measurement of M-fold axis taken at the contact between mafic volcanic and sediments in the south (at 469325E/ 5648184N) was supported by sampling of the mafic volcanic. Samples F064070, F064071, F064072 returned values below detection level. Assay results did not confirm anomalous gold values of 0.014 ppm Au in samples 30801 and 30802 taken from sediments at this location in 2021 mapping (Smythe and Irwin, 2022).

The second fold axis measurement of z-folds was taken from sedimentary outcrop in the south at 469507E/ 5648228N but was not supported by sampling. Though sample 30804 from 2021 mapping returned 0.006 ppm Au. Tri Origin Exploration in 2009 drill tested thin and steeply dipping to the north EM conductor associated with highly magnetic rocks in this area. Drill hole RLX-09-04 intersected sediments intruded by granitic dykes and assays returned values 0.194 ppm Au for A174451 and 0.197 ppm Au for A174458 (Fell, 2009).

The third z-fold axis measurement was taken at 470240.136E/ 5649715.839N in iron formation. Samples F064064 - F06466 returned values below detection limit. This parasitic fold is near interpreted E-W trending D2 axial trace. Adjacent to this axial trace are anomalous gold values 0.489 ppm Au in sample F064067, 0.015 ppm Au in sample F064056, 0.015 ppm Au in sample F064121, and 0.021 ppm Au in sample 116177 from 2021 program (Figure 8). In 20m south-east of that fold drillhole RLX-09-02 intersected heavily strained mafic volcanic/metasediments with trace pyrite-chalcocopyrite and at depth of 43.9m hole went into relatively undeformed pillowed mafic volcanic with semi-massive to stringer pyrrhotite and chalcocopyrite to depth 129.5m. No gold (Fell, 2009).

Regardless insignificant assay results near these particular measurements of fold axes and taking into account that not all measurement sites were sampled further mapping is required in a view of general trend of gold values distribution.

Overall, anomalous gold values (over 0.01 ppm Au) tend to occur in close proximity to D2 axial traces identified from geophysics and mapped folded contacts of rocks with different competency, highlighting the role these features might have in gold mineralization control.

Thus, sample 064067 with 0.489ppm Au in quartz vein from folded iron formation is a good drill target as it coincides with inferred D2 axial trace. Sample F064182 with 0.024 ppm Au and sample 116177 with 0.021 ppm Au are also adjacent to this axial trace (Figure 8).

Area with clusters of anomalous gold near inferred axial trace and mineralized trend (Figure 8) should be drill tested. Folded stratigraphy was mapped in 2021 in this area and highest gold value 0.688 ppm Au in sample F064047 is adjacent to this axial trace.

Area to the east of the sample F064047 (0.688 ppm Au) and 500m away saw 2009 humus soil sampling with 128 results in a range 0.006-0.011 ppm Au showing NW-SE trend, but grid did not extend further south (Fell, 2009). Further to the east sample F064167 with 0.021 ppm Au coincides with mag high pattern that suggests possible folding in that area. Therefore, additional soil and rock sampling to the east and south would help to clarify situation as area reportedly has no outcrops.

South-eastern corner of the Property remains underexplored, further prospecting/mapping should be focused on high mag anomalies in that part.

9. Recommendations

It is recommended that follow-up diamond drilling be undertaken near interpreted D2 axial traces and mineralized trend. An additional exploration program including ground geophysics and geochemical survey is recommended for the eastern part of the Property.

Further prospecting/mapping on the south-eastern corner of the Property with focus on high mag anomalies in that part is recommended

Detailed mapping in the area of the contacts between mafic volcanic, sediments and felsic intrusive around RLX-09-04 is recommended.

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11. Statement of qualification

I, A.Adamova, P.Geo, residing in Vancouver, BC do hereby certify that:

- 1) I personally prepared and reviewed sections of this report.
- 2) I am a geologist with Kinross Gold Corporation.
- 3) I graduated from Polytechnic Institute, Kyrgyz Republic with B.Sc in Geology (1991).
- 4) I am a member of the Engineers & Geoscientists of British Columbia (EGBC).
- 5) I have worked intermittently as a geologist for a total of 28 years since my graduation from institute, including 13 years in Canada.
- 6) My knowledge of the property as described herein was obtained by review of published works.
- 7) I am not aware of any material fact or material change with respect to the subject matter of the assessment report which is not reflected in the assessment report, the omission to disclose which makes the assessment report misleading.

Signature of Author:



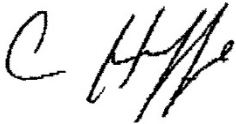
Albina Adamova, P.Geo

Dated this 13th day of February, 2022

I, Crystal McCullough, do hereby certify that:

1. I reside at 25 Cochenour Crescent, Cochenour, Ontario, P0V-1L0
2. I am employed by Great Bear Resources Ltd. Headquartered in Toronto, Ontario
3. I am a graduate from Memorial University of Newfoundland with a B.Sc Earth Science degree (2003) and I have practised professionally since that time.
4. I am a member in good standing with the Association of Professional Geoscientists of Ontario, member number 2097 with a professional geologist status.
5. I have practiced my profession as a geologist for 19 years and have worked in the mineral exploration industry since 2002. I have done extensive geological work in Canada, as an employee of various exploration companies and as an independent consultant. I have worked on properties at all stages of exploration, from green fields grass roots, to advanced stage exploration.
6. I am currently the Vice President for Rimini Exploration and Consulting Ltd.
7. I have reviewed the available data pertinent to the property and I believe the property to be of merit to justify additional work.
8. I have no direct or indirect interest in the property.

Signed at Cochenour, Ontario, this 10th day of December 2022.



Crystal McCullough, P.Ge

12. Daily Work Log

Daily Log Summer 2022

Date	Personnel	Activity	Project	Notes	Samples
06/14/2022	JB, SB		Sobel	5 boulders	16
06/15/2022	JB, SB		Sobel	5 boulders	12
06/16/2022	JB, SB		Sobel		1
06/17/2022	JB, SB		Sobel		1
06/18/2022	JB, SB		Sobel		11
06/19/2022	JB, SB		Sobel		8
06/20/2022	JB, SB		Sobel	2 boulders	5
06/20/2022	CM, SM	Travel Day, Report review	Sobel		
06/21/2022	JB, SB		Sobel	1 boulder	8
06/21/2022	CB, SM		Sobel	2 boulders	10
06/22/2022	JB, SB		Sobel		2
06/23/2022	JB, SB		Sobel	2 boulders	5
06/23/2022	CB, SM		Sobel		8
06/24/2022	JB, SB		Sobel		7
06/24/2022	SM, CB		Sobel		13
06/25/2022	SM, CB		Sobel	4 boulders	11
06/25/2022	JB, SB		Sobel	6 boulders	8
06/26/2022	SM, CB		Sobel		1
06/27/2022	CB, SM		Sobel	1 boulder	7
06/27/2022	CB, SM		Sobel		7
06/28/2022	CB, SM		Sobel		15
06/29/2022	CB, SM		Sobel	1 boulder	9
06/30/2022	SM, CB		Sobel	2 boulders	12
07/01/2022	CB, SM		Sobel	2 floats	13
07/02/2022	CB, SM		Sobel		6

13. Expenditures

Analytical

Date	Vendor	Description	Invoice Number	Amount Paid	HST	Expense Amount
2022-07-27	ALS Global	Rock Samples-Prospecting	TB22185248	19858.38	945.64	18912.74
2022-07-27	ALS Global	Rock Samples-Prospecting	TB22185261	587.64	27.98	559.66
2022-06-13	ALS Global	Sample Tags and Bags	TB22157292	232.67	26.77	205.90
Total				20678.69	1000.39	19678.30

Equipment Rental

Date	Vendor	Description	Invoice Number	Amount Paid	HST	Expense Amount
2022-06-20		Truck rental	INV-0013	560.00	73.00	487.00
2022-06-14		Truck daily rental	INV-0013	560.00	73.00	487.00
2022-06-13		UTV rental	INV-0013	3570.00	464.00	3106.00
2022-06-20		ATV rental	INV-0013	630.00	82.00	548.00
2022-06-13		Small boat rental	INV-0013	630.00	82.00	548.00
2022-06-13		Boat motor rental	INV-0013	630.00	82.00	548.00
2022-06-13		Chainsaw rental	INV-0013	840.00	109.00	731.00
2022-06-13		Starlink Internet rental and fees	INV-0013	200.00	26.00	174.00
Total				7620.00	990.60	6629.40

Accommodations

Date	Vendor	Description	Invoice Number	Amount Paid	HST	Expense Amount
2022-06-13		Accommodations	INV-0013	2123.89	276.11	1847.78
2022-06-13		Accommodations	INV-0013	222.56	28.93	193.63
Total				2346.45	305.04	2041.41

Travel

Date	Vendor	Description	Invoice Number	Amount Paid	HST	Expense Amount
2022-06-13		Mileage	INV-0013	816	106.08	709.92
2022-06-13		Mileage	INV-0013	617.6	80.29	537.31
2022-06-13		Mileage	INV-0013	1,892.00	245.96	1646.04
2022-06-13		Travel	INV-0013	354.12	46.04	308.08
2022-06-13		Travel	INV-0013	80	10.40	69.60
2022-06-13		Travel	INV-0013	638.25	82.97	555.28
2022-06-13		Travel	INV-0013	82.68	10.75	71.93
2022-06-19		Taxi ride	INV-0013	21.48		21.48
2022-06-20		Taxi ride	INV-0013	20.92		20.92
Total				4523.05	582.48	3940.57

Food

Date	Vendor	Description	Invoice Number	Amount Paid	HST	Expense Amount
2022-06-13		Meal	INV-0013	21.74	2.83	18.91
2022-06-13		Groceries	INV-0013	205.69	26.74	178.95
2022-06-13		Groceries	INV-0013	343.95	Tax Exempt	343.95
2022-06-13		Groceries	INV-0013	9.99	Tax Exempt	9.99
2022-06-15		Meal	INV-0013	43.65	5.67	37.98
2022-06-17		Meal	INV-0013	52.95	6.88	46.07
2022-06-18		Meal Leslie's Kitchen	INV-0013	44.00	5.72	38.28
2022-06-20		Meal PJ's Roadhouse	INV-0013	80.79	10.50	70.29
2022-06-20		Groceries	INV-0013	58.52	Tax Exempt	58.52
2022-06-20		Groceries	INV-0013	2.00	0.26	1.74
2022-06-20		Groceries	INV-0013	168.39	Tax Exempt	168.39
2022-06-20		Groceries	INV-0013	41.25	5.36	35.89
2022-06-20		Meal McDonalds	INV-0013	10.47	1.36	9.11
2022-06-13		Meal	INV-0013	104.80	13.62	91.18
2022-06-13		Meal	INV-0013	7.63	0.99	6.64
2022-06-13		Meal	INV-0013	123.20	16.02	107.18
2022-06-24		Groceries	INV-0013	73.41	Tax Exempt	73.41
2022-06-24		Groceries	INV-0013	38.46	5.00	33.46
2022-06-13		Tips and gratuities expense, Dominos 2.46 + Trillium 9.70 + Leslies Kitchen 11.97 + Leslies Kitchen 9.94 + PJ's Roadhouse 10.50 + Trillium 23.18 + PJ's Roadhouse 27.84 + Trillium 21.87 + Leslies Kitchen 4.23 Leslies Kitchen 18.59	INV-0013	140.28	Tax Exempt	140.28
2022-06-24		Meal Trillium	INV-0013	99.30	12.91	86.39
2022-06-24		Meal Leslie's Kitchen	INV-0013	18.70	2.43	16.27
2022-06-25		Meal Leslie's Kitchen	INV-0013	82.25	10.69	71.56
2022-06-26		Meal Tim Hortons	INV-0013	28.06	3.65	24.41
2022-06-27		Meal PJ's Roadhouse	INV-0013	56.88	7.39	49.49
2022-06-27		Tips and gratuities expense, PJ's Roadhouse	INV-0013	12.85	Tax Exempt	12.85
2022-06-28		Groceries	INV-0013	50.34	Tax Exempt	50.34
2022-06-28		Groceries	INV-0013	15.57	2.02	13.55
2022-06-28		Meal Nomad	INV-0013	13.10	1.70	11.40

Date	Vendor	Description	Invoice Number	Amount Paid	HST	Expense Amount
2022-06-28		Meal Caplansky's Deli	INV-0013	20.25	2.63	17.62
2022-06-28		Meal Trillium	INV-0013	40.40	5.25	35.15
2022-06-28		Meal Trillium	INV-0013	5.25	0.68	4.57
2022-06-28		Tips and gratuities Trillim Motel and restaurant,	INV-0013	7.64	Tax Exempt	7.64
2022-06-29		Meal PJ's Roadhouse	INV-0013	44.24	5.75	38.49
2022-06-29		Tips and gratuities, PJ's Roadhouse	INV-0013	10.00	Tax Exempt	10.00
2022-06-13		Meals, Leslie's Pizza Kitchen,	INV-0013	223.10	29.00	194.10
2022-06-13		Tips and gratuities Leslie's Pizza Kitchen, June 22, 26, 30 July 02	INV-0013	52.72	Tax Exempt	52.72
Total				2351.82	185.08	2166.74

Wages

Date	Vendor	Description	Invoice Number	Amount Paid	HST	Expense Amount
2022-06-13		Mob-Demob	INV-0013	7700.00	1001.00	6699.00
2022-06-13		Mob-Demob	INV-0013	5950.00	773.50	5176.50
2022-06-20		Mob	INV-0013	8250.00	1072.50	7177.50
2022-06-19		Mob	INV-0013	6162.50	801.13	5361.38
Total				28062.50	3648.13	24414.38

Supplies

Date	Vendor	Description	Invoice Number	Amount Paid	HST	Expense Amount
2022-06-13		GIS set up	INV-0013	1600.00	208.00	1392.00
2022-06-13		GIS fee	INV-0013	110.00	14.30	95.70
2022-06-13		Field expenses	INV-0013	24.99	3.25	21.74
2022-06-13		Field expenses	INV-0013	45.00	5.85	39.15
2022-06-13		Field expenses	INV-0013	33.20	4.32	28.88
2022-06-13		Field expenses	INV-0013	12.99	1.69	11.30
2022-06-13		Project expense management fee	INV-0013	666.71	86.67	580.04
Total				2492.89	324.08	2168.81
					Grand Total	61039.61

Work/Cost Type	Unit of Work	Cost/Unit	Actual Cost
Assay	210 Samples	93.71	19,678
Wages	22 days (four people)	1,109.74	24,414
Supplies			2,169
Lodging	22 days (four people)	92.79	2,041
Food	22 days (four people)	98.49	2,167
Personal Transport to site	2 trips (four people)	1,970.29	3,941
Rentals (ATV, truck, boat, chainsaw,)	22 days (four people)	301.34	6,629
		Total	61,040
		Sum without Assays	41,361

Appendix A

List of Samples, UTM Coordinates and Assay Values

Sample	Easting	Northing	Lithology	Description	Au_ppm
F064001	470101.866	5649800.198	Hornblendite	0.5 cm discontinuous Qv	0.002
F064002	470289.069	5649768.678	Banded Iron Formation	Iron formation, very rusty and weathered	0.002
F064003	470289.95	5649760.158	Banded Iron Formation	Sydney found outcrop with min	0.002
F064004	470290.371	5649760.194	Banded Iron Formation	Sydney found outcroc with min	0.002
F064005	470261.949	5649784.711	Iron Formation		0.008
F064006	470262.377	5649784.987	Mafic Volcanic Massive	Grey and rusty with minor sugary quartz	0.006
F064007	470436.408	5649807.58	Mafic Volcanic Massive	Locally rusty, discontinuous sugary quartz veins with sulfides	0.002
F064008	470431.657	5649814.069	Mafic Volcanic Massive	Locally rusty, discontinuous sugary quartz veins with sulfides	0.002
F064009	470436.1	5649830.446	Mafic Volcanic Massive	3-4 cm reddish Qv in grey fg mafic	0.002
F064010	470389.624	5649770.954	Iron Formation	Rusty ou in north end of old trench	0.002
F064011	470389.487	5649769.82	Gabbro	Muckpile large angular piece	0.005
F064012	470388.263	5649769.96	Gabbro	Muckpile large angular piece	0.006
F064013	470388.724	5649770.727	Iron Formation	Sugary Qv 2-3 cm	0.002
F064014	470388.679	5649771.302	Iron Formation		0.005
F064015	470387.546	5649769.932	Gabbro	Muckpile large angular piece	0.005
F064016	470390.107	5649765.835	Iron Formation	Sugary quartz with greenish and grey mafic	0.007
F064017	469718.780	5649018.300	Mafic Intrusive	Gabbro, mg, black, mass Po	0.002
F064018	469717.780	5649018.250	Late vein, alt, miner.	Shear zone, fg, rusty, Po, rotted	0.005
F064019	469716.750	5649018.180	Iron Formation	Grey, 1mm band magnetite, sil,Po	0.002
F064021	469715.710	5649018.130	Iron Formation	Grey, fg, equigranular, Po, magn.	0.002
F064022	469713.749	5649022.091	Mafic Volcanic Massive	Massive po from east end of trench, muckpile	0.017
F064023	469715.009	5649017.347	Iron Formation	Rusty iron formation in muckpile	0.002
F064024	469725.197	5649022.73	Sulphide Vein	Sacchroidal Qv white and grey in iron formation	0.002
F064025	469713.312	5649044.393	Iron Formation	Rusty iron formation in muckpile	0.002
F064026	469713.404	5649045.081	Iron Formation	Finer grained grey mafic volcanic with	0.002
F064027	469834.914	5648779.518	Iron Formation		0.015
F064028	469835.431	5648779.649	Iron Formation	Greyish white sacchroidal Qv loose ang in trench	0.002
F064029	469838.594	5648780.152	Iron Formation	Mg crystals of mgt	0.002
F064030	469839.189	5648779.266	Iron Formation	Sulfides banded	0.005
F064031	469841.102	5648780.236	Iron Formation	Rusty, trench oc	0.011
F064032	469841.688	5648780.272	Iron Formation	Band with cpy, portion is qtz flooded sacchroidal	0.002
F064033	469842.073	5648780.255	Iron Formation	Same as previous sample but highest mineralization	0.002
F064034	462953.351	5648879.948	Sandstone	2-7 mm granitic vein	0.002

Sample	Easting	Northing	Lithology	Description	Au_ppm
F064035	471215.769	5651013.925	Mafic Volcanic Massive	Some biotite	0.002
F064036	469782.848	5648691.624	Mafic Volcanic Massive	Mostly fg, sample mg portion w spec hem/sph/aspy?	0.002
F064037	469826.932	5648769.911	Mafic Volcanic Massive	Weakly rusty due to biotite, possible minor sulf	0.002
F064038	469864.262	5648688.856	Mafic Volcanic Massive	Very fine sulf in felsic portions	0.002
F064039	469847.280	5648798.762	Sandstone	10-25% garnet loc reddish semi-trans	0.002
F064041	469848.129	5648799.705	Sandstone	10% garnet/reddish semi trans min	0.002
F064042	469845.811	5648798.846	Sandstone	5% garnet/reddish semi trans min	0.002
F064043	469846.280	5648840.757	Mafic Volcanic Massive	Fine cpy in felsic flooded part NOT granitic vein	0.002
F064044	469840.569	5648864.001	Mafic Volcanic Massive	Green grey f-mg, cm hem Qv, rusty rotted	0.005
F064045	469840.228	5648863.633	Mafic Volcanic Massive	Green grey f-mg, modly silicified	0.023
F064046	469838.003	5648875.293	Mafic Volcanic Massive	Rusty more felsic layer with sulf	0.002
F064047	469889.844	5649001.545	Mafic Volcanic Massive	Rusty weathered loc w min 1-2 cm sacchroidal qv	0.688
F064048	468848.815	5649602.285	Mafic Volcanic Massive	0.5 cm hem sacch Qv, sulf in host, composite	0.002
F064049	468815.055	5649572.125	Intermediate Volcanic Lapilli Tuff	Local silicified felsic portion with sulf	0.006
F064050	468725.792	5649565.621	Mafic Volcanic Massive	Bio alt mfvf, 3-4 cm epi flooding, cm hem qvs	0.009
F064051	468746.304	5649582.674	Mafic Volcanic Massive	Cm grey Qv in epi flooded layer w fine sulf	0.002
F064052	468749.818	5649588.448	Mafic Volcanic Massive	Cm grey Qv in epi flooded layer w fine sulf	0.002
F064053	468698.006	5649708.774	Mafic Volcanic Massive		0.006
F064054	468902.605	5649888.969	Mafic Volcanic Massive	0.5 cm hem sacch Qv w fine cpy	0.002
F064055	469026.910	5649961.631	Mafic Volcanic Massive	Locally weakly rusty, tr py	0.002
F064056	470063.719	5649658.34	Mafic Volcanic Massive	Cm Qv resample of 116177	0.015
F064057	470110.780	5649752.305	Mafic Volcanic Massive		0.002
F064058	470252.211	5649767.717	Iron Formation	From trench muckpile	0.007
F064059	470251.674	5649767.779	Gabbro	Trench muckpile	0.002
F064061	470256.673	5649766.588	Iron Formation	Smells very strong, worse than normal mass sulf	0.002
F064062	470394.509	5649772.71	Iron Formation	0.5-1 cm sacchroidal qv	0.002
F064063	470401.556	5649753.072	Mafic Volcanic Massive	Composite from two places 1.5 m apart	0.002
F064064	470241.062	5649715.839	Banded Iron Formation	1-2 cm hem sacch Qv minor py	0.002
F064065	470239.696	5649713.677	Iron Formation	Folded	0.005
F064066	470243.247	5649712.823	Iron Formation	F and mg, garnet? mg, fine yellow on one fracture	0.005
F064067	470429.482	5649719.645	Iron Formation	South end of trench	0.489
F064068	470428.876	5649720.662	Iron Formation	With yellow green limonite, fine sulf	0.005

Sample	Easting	Northing	Lithology	Description	Au_ppm
F064069	470427.676	5649721.791	Iron Formation		0.002
F064070	469309.182	5648185.79	Mafic Volcanic Massive	Quartz vein 5 cm, 5% fine chl w py	0.002
F064071	469312.146	5648194.689	Mafic Volcanic Massive	Wallrock to Quartz vein 5 cm, 5% fine chl w py	0.002
F064072	469542.726	5648114.786	Gabbro	Alt to bio, mafic dark grey, fg + mg, silicified	0.005
F064073	469833.02	5648720.854	Mafic Volcanic Massive	Rusty, mafic alt to bio, sph?	0.002
F064074	469833.767	5648722.155	Mafic Volcanic Massive	Silicified, Qv w mafic	0.002
F064075	469834.869	5648722.848	Mafic Volcanic Massive	Silicified, Qv w mafic	0.002
F064076	469834.313	5648722.606	Mafic Volcanic Massive	Silicified, Qv w mafic	0.002
F064077	469700.212	5649140.061	Mafic Volcanic Massive	Weakly rusty esp locally	0.008
F064078	469764.717	5649080.813	Banded Iron Formation	12 cm sacch Qv weakly rusty hem alt	0.002
F064079	469764.466	5649079.708	Banded Iron Formation	Silicified, layers of mafic	0.002
F064081	469762.964	5649080.498	Banded Iron Formation	Silicified, hem alt, more felsic layer	0.002
F064082	469774.76	5649068.257	Banded Iron Formation	Rusty locally layers, hem sacch qvs, loc str mag	0.002
F064083	469764.013	5649063.126	Sandstone	Whitish grey fresh, rusty weathered in trench	0.002
F064084	469765.065	5649062.04	Sandstone	Whitish grey fresh, rusty weathered in trench	0.002
F064085	469806.376	5649067.175	Mafic Volcanic Massive	In trench, rusty weathered, silicified	0.002
F064086	469806.372	5649068.129	Mafic Volcanic Massive	In trench muckpile, rusty weathered, silicified	0.002
F064087	469803.398	5649067.292	Mafic Volcanic Massive	In trench muckpile, rusty weathered	0.002
F064088	469803.747	5649066.884	Mafic Volcanic Massive	In trench muckpile, rusty weathered, silicified	0.002
F064089	469801.693	5649203.228	Mafic Volcanic Pillowed Flow	Black with felsic layers, messed up	0.013
F064090	469741.905	5649197.97	Felsic Volcanic Tuff	Locally weakly magnetic	0.009
F064091	469741.726	5649197.743	Felsic Volcanic Tuff	Locally weakly magnetic, fairly certain outcrop	0.013
F064092	469741.531	5649198.197	Felsic Volcanic Tuff	Altered and rotted, yellow sulphur along fracture	0.002
F064093	470048.624	5649370.404	Banded Iron Formation		0.002
F064094	470048.188	5649371.699	Banded Iron Formation	BIF w pyrrhotite and garnet	0.002
F064095	470048.094	5649373.194	Banded Iron Formation	mag strong on pyrrhotite, moderate on host rock	0.005
F064096	470047.36	5649375.873	Banded Iron Formation	BIF w pyrrhotite	0.002
F064097	469685.961	5649184.756	Felsic Dike	50-100cm felsic dike striking approx north south	0.069
F064098	469685.587	5649184.068	Banded Iron Formation	probably part of the BIF but maybe Mafic Volcanic	0.005
F064099	469684.975	5649177.676	Felsic Dike	50-100cm felsic dike striking approx north south	0.006

Sample	Easting	Northing	Lithology	Description	Au_ppm
F064101	470375.977	5649842.235	Mafic Volcanic	rusty Mafic Volcanic with 3mm quartz veins, pyrrhotite in vein and host rock	0.002
F064102	470338.422	5649917.207	Mafic Volcanic	1-3 cm quartz vein with carbonate alteration and garnet	0.002
F064103	470323.179	5649951.26	<Null>		0.002
F064104	470116.9	5650478.484	Banded Iron Formation	mm quartz veins, carbonate alteration, PO, chlorite alteration	0.002
F064105	470117.221	5650478.517	Banded Iron Formation	sample across rest of BIF approx 10cm	0.002
F064106	469984.682	5650386.077	<Null>	plagioclase porphyroblasts in strong foliated matrix	0.002
F064107	470044.838	5650415.098	Quartz Vein	mineralized 1-2cm quartz vein	0.002
F064108	470043.952	5650418.608	Iron Formation	Foliated, iron formation?	0.002
F064109	470186.363	5649918.68	Quartz Vein	mm-2cm quartz stock work in mafic matrix	0.006
F064110	470180.6	5649926.278	Gabbro	gabbro with trace pyrite	0.003
F064111	470144.653	5649835.552	Gabbro	weakly foliated rusty	0.003
F064112	470147.868	5649838.114	Gabbro		0.007
F064113	470147.504	5649837.628	Alteration Zone	chlorite band with sphalerite	0.002
F064114	470137.761	5649842.066	Gabbro	gabbro with mm-2cm quartz plag veins	0.005
F064115	470222.734	5649877.815	Mafic Volcanic	dark grey green	0.001
F064116	470314.311	5649903.217	Iron Formation	2cm quartz vein, in IF	0.002
F064117	470449.784	5649956.175	Mafic Volcanic	MV matrix w veins 2cm veins of chl and carb	0.0009
F064118	470638.691	5649923.8	Felsic Dike	50cm wide felsic dike	0.002
F064119	469396.748	5649824.951	Quartz Vein	moderately rusty Mafic Volcanic with mm-2cm quartz veins	0.008
F064121	469397.573	5649833.799	Quartz Vein	3-4cm quartz plage vein with Po, Cpy and moly	0.015
F064122	469397.809	5649833.937	Quartz Vein	small as previous but more chalcopyrite and molybdenite	0.018
F064123	469397.241	5649833.51	Mafic Volcanic	strings of Po and diss Cpy	0.005
F064124	469397.678	5649832.547	Mafic Volcanic	stringers of Cpy and Po	0.002
F064125	469398.205	5649832.213	Quartz Vein	foliated Mafic Volcanic with 2cm quartz veins	0.002
F064126	469399.393	5649831.834	Quartz Vein	1-3cm vuggy quartz veins with pyrite, diss Po and Cpy in host	0.002
F064127	469399.195	5649830.318	<Null>	band of silica alt MV 5cm	0.003
F064128	468872.456	5649814.355	Mafic Volcanic	foliated MV w mm-2cm veins of quartz and chlorite	0.003
F064129	468863.313	5649809.422	Mafic Volcanic	foliated MV w mm-2cm veins of quartz and chlorite	0.003
F064130	468684.143	5649712.898	Quartz Vein	hornblend porphyroblasts	0.002
F064131	468656.005	5649400.666	Gossan	silicified MV with bands of quartz, pyrrhotite in bands	0.002
F064132	468673.032	5649397.715	Gossan	silicified MV with bands of quartz, pyrrhotite in bands	0.002
F064133	468689.209	5649386.583	Quartz Vein	5cm quartz vein in gossanous large local boulder	0.002
F064134	468689.512	5649387.721	Gossan	stringers of sulphide in chlorite altered Mafic Volcanic	0.004

Sample	Easting	Northing	Lithology	Description	Au_ppm
F064135	468689.975	5649385.434	Gossan	rusty MV with stringers of sulphide	0.003
F064136	468689.398	5649383.169	Gossan	rusty MV with stringers of sulphide	0.002
F064137	468658.461	5649430.04	Vein	rusty vein 4cm with pyrite, diss moly and garnet	0.028
F064138	468659.146	5649430.127	Mafic Volcanic	wall rock of vein	0.007
F064139	468675.438	5649398.54	Quartz Vein	sheared mv on quartz vein boundary	0.002
F064141	468677.439	5649397.268	Felsic Dike	5-10cm dike	0.036
F064142	468672.525	5649404.472	Mafic Volcanic	lots of Po and quartz veins	0.002
F064143	468669.955	5649404.275	Mafic Volcanic		0.002
F064144	468669.873	5649403.72	<Null>		0.003
F064145	465199.066	5652259.907	Quartz Vein	grey quartz vein with some magnetite kspar almost pegmatitic	0.001
F064146	470140.12	5649796.775	Gabbro	moderately rusty gabbro with 1cm quartz vein	0.004
F064147	470146.074	5649790.449	Gabbro	moderately rusty gabbro with 1cm quartz vein	0.002
F064148	470167.071	5649781.94	Mafic Volcanic	moderately rusty gabbro with 1cm quartz vein	0.002
F064149	470149.312	5649832.211	Gabbro	mag on sulphides not host	0.002
F064150	470047.462	5649369.387	Banded Iron Formation	BIF with pyrrhotite and possibly chalcopryrite	0.002
F064151	469684.766	5649176.163	Mafic Volcanic	wall rock of felsic dike	0.002
F064152	469683.886	5649173.127	Banded Iron Formation	probably part of the BIF but maybe MV	0.002
F064153	470500.354	5649864.271	Mafic Volcanic	grey green MV w veins of chlorine	0.002
F064154	471062.041	5649976.667	Mafic Volcanic	basalt with small quartz veins rust in foliations	0.002
F064155	471112.303	5649955.182	Quartz Vein	moderately rusty quartz vein with pyrite and chalcopryrite	0.008
F064156	471188.259	5649848.378	Quartz Vein	2cm qv in basalt, carb alt and pyrite	0.002
F064157	471189.302	5649844.999	Quartz Vein	quartz knots with pyrite and magnetite, rusty	0.002
F064158	471188.932	5649842.332	Felsic Dike		0.002
F064159	471266.204	5649703.214	Gabbro	gabbro w 1-2cm quartz veins, mineralization in vein and host	0.002
F064161	471303.634	5649718.501	Mafic Volcanic	blebs of Po squished in foliations	0.002
F064162	471307.036	5649714.128	Quartz Vein	granular quartz vein 3cm	0.002
F064163	471328.106	5649597.461	Quartz Vein	moderately sugary quartz vein trending with foliations	0.006
F064164	471208.532	5649184.591	Mafic Volcanic	silicified MV with quartz carb knots	0.002
F064165	471208.164	5649185.302	Mafic Volcanic		0.012
F064166	471208.786	5649166.436	Alteration Zone	bands of magnetite and chlorite	0.002
F064167	471207.384	5649167.322	Mafic Volcanic		0.021
F064168	471135.066	5649509.53	Mafic Volcanic	MV with mm quartz vein	0.002
F064169	465112.052	5651284.922	Granite	fairly flat outcrop, chips taken across it	0.002
F064170	465182.143	5651236.846	Gossan	angular rusty float, similar pieces dug from hole	0.002
F064171	467633.235	5651595.896	Mafic Volcanic	bands of the mafic plus epidote	0.002
F064172	467590.649	5651696.21	Felsic Dike	10-15cm felsic dike offshoot	0.002

Sample	Easting	Northing	Lithology	Description	Au_ppm
F064173	467589.374	5651693.808	Felsic Dike	10-15cm felsic dike offshoot	0.002
F064174	467581.485	5651694.346	Felsic Dike	10-15cm felsic dike offshoot	0.002
F064175	467581.973	5651694.207	Mafic Volcanic	foliated mv near dike, Po and moly	0.002
F064176	467593.596	5651712.63	Mafic Volcanic	MV with crosscutting carb veinlets	0.008
F064177	467909.388	5650896.252	Felsic Dike	piece of felsic dike sheared off into mafics	0.002
F064178	468045.06	5649001.787	Mafic Volcanic	silicified Mafic Volcanic with diss Po	0.005
F064179	468234.259	5649562.37	Quartz Vein	4cm qv in foliated MV	0.006
F064181	468233.149	5649559.746	Quartz Vein	4cm quartz vein with pyrite	0.002
F064182	468233.32	5649613.26	Alteration Zone	alteration zone of 1 square meter	0.024
F064183	468229.966	5649632.638	Quartz Vein	7cm qv in MV w carb alt and Cpy	0.002
F064184	468234.062	5649650.458	Mafic Volcanic	rusty mv on boarder of felsic dike	0.002
F064185	468234.299	5649651.02	Felsic Dike	5cm felsic dike w moly and pyrite	0.002
F064186	468235.89	5649659.486	Quartz Vein	5cm quartz vein in 2m wide felsic dike	0.002
F064187	468293.035	5649695.405	Mafic Volcanic	near mafic felsic contact. 2cm vein of the felsic	0.002
F064188	468753.559	5649427.115	Vein	3-4cm vein, biotite+ chlorite in center quartz on edges	0.06
F064189	468752.71	5649428.045	Mafic Volcanic		0.002
F064190	468751.904	5649427.853	Mafic Volcanic		0.002
F064191	468751.328	5649428.583	Quartz Vein	rusty quartz vein chipped from a few places on outcrop	0.001
F064192	469890.618	5650498.075	Vein	3cm vein of quartz and plagioclase	0.003
F064193	469880.696	5650495.036	Quartz Vein	2-4cm qv w trace sulphides	0.003
F064194	469966.036	5650445.373	Felsic Dike	light pink 5cm dike with trace pyrite, chalcopryite and garnet	0.003
F064195	470252.504	5650118.574	Mafic Volcanic	Mafic Volcanic with band of chlorite and epidote?	0.002
F064196	469817.586	5650414.954	Mafic Volcanic	bands of gray and green 1-3cm	0.002
F064197	469819.021	5650418.014	Mafic Volcanic	grey green basalt with quartz-plag vein 2cm	0.002
F064198	469827.163	5650450.693	Quartz Vein	3cm quartz vein in mafic volcanic on border of felsic dike	0.002
F064199	469743.394	5650509.475	Alteration Zone	angular float	0.013
F064201	469530.697	5650292.988	Felsic Dike	10cm dike	0.002
F064202	469529.644	5650291.968	Felsic Dike	20cm dike	0.175
F064203	469529.539	5650292.225	Felsic Dike	20cm dike	0.002
F064204	469518.961	5650297.053	Felsic Dike	3cm dike	0.006
F064205	468536.549	5650123.786	Alteration Zone	fine grained Mafic Volcanic with hornblende porphyroblasts	0.002
F064206	468529.791	5650125.431	Alteration Zone		0.002
F064207	468524.301	5650116.826	Felsic Dike	boarder of felsic dike and silica altered Basalt	0.002
F064208	468524.017	5650115.511	Alteration Zone	wall rock outside the silica alteration halo from dike	0.002
F064209	468536.811	5650115.505	Quartz Vein	1cm quartz vein	0.002
F064210	468536.903	5650114.912	Alteration Zone	wall rock of vein	0.002

Appendix B

Outcrop Description

ID	Sample	Northing	Easting	Mapper	Date	Code	Lithology	Rocktype	Grain Size	Texture	Colour
1	F064001	5649801	470096.7	Bjorkman	2022-06-14	Mafic Intrusive	Hornblendite	Hbl-pyroxenite? Amphibole	medium grained, 1-5mm	poikilitic	black
2	<Null>	5649806	470068.2	Bjorkman	2022-06-14	Mafic volcanic	Mafic Volcanic Massive	Hbl-pyroxenite?	medium grained, 1-5mm	equigranular	black
3	F064002 F064003 F064004	5649761	470289.0	Bjorkman	2022-06-14	Chemical Sedimentary	Banded Iron Formation		medium grained, 1-5mm	foliated	rusty
4	<Null>	5649788	470288.1	Bjorkman	2022-06-14	Mafic volcanic	Mafic Volcanic	<Null>	medium grained, 1-5mm	equigranular	grey
5	<Null>	5649019	469719.9	Bjorkman	2022-06-15	Mafic Intrusive	Gabbro	Melagabbro	medium grained, 1-5mm	equigranular	black
6	<Null>	5649019	469718.6	Bjorkman	2022-06-15	Late vn, alt or minz	Shear Zone	Contact between basalt and IF	<Null>	<Null>	rusty
7	<Null>	5649019	469716.1	Bjorkman	2022-06-15	Chemical Sedimentary	Iron Formation	<Null>	fine grained, <1mm	sugary	rusty
8	<Null>	5649046	469708.2	Bjorkman	2022-06-15	Mafic volcanic	Mafic Volcanic Massive	<Null>	medium grained, 1-5mm	equigranular	black
9	<Null>	5649045	469712.9	Bjorkman	2022-06-15	Chemical Sedimentary	Iron Formation	<Null>	fine grained, <1mm	sugary	rusty
10	<Null>	5649022	469726.8	Bjorkman	2022-06-15	Chemical Sedimentary	Iron Formation	<Null>	fine grained, <1mm	sugary	rusty
11	<Null>	5648780	469834.9	Bjorkman	2022-06-15	Mafic volcanic	Mafic Volcanic Massive	Basalt	medium grained, 1-5mm	equigranular	black
12	<Null>	5648780	469839.2	Bjorkman	2022-06-15	Mafic volcanic	Mafic Volcanic Massive	Not sure if IF as is fairly mafic	fine grained, <1mm	<Null>	grey
13	<Null>	5648781	469842.1	Bjorkman	2022-06-15	Late vn, alt or minz	Mafic Volcanic Massive	Silicified in places	fine grained, <1mm	<Null>	grey
14	<Null>	5649764	470389.6	Bjorkman	2022-06-21	Chemical Sedimentary	Banded Iron Formation	<Null>	fine grained, <1mm	banded	rusty
15	<Null>	5649772	470390.5	Bjorkman	2022-06-21	Chemical Sedimentary	Iron Formation	<Null>	fine grained, <1mm	banded	rusty
16	<Null>	5649767	470389.9	Bjorkman	2022-06-21	Mafic volcanic	Mafic Volcanic Massive	Basalt	medium grained, 1-5mm	equigranular	black
17	<Null>	5649704	470315.6	Bjorkman	2022-06-21	Mafic volcanic	Mafic Volcanic Massive	Basalt varitextured	medium grained, 1-5mm	<Null>	black

ID	Sample	Northing	Easting	Mapper	Date	Code	Lithology	Rocktype	Grain Size	Texture	Colour
18	<Null>	5649727	470424.1	Bjorkman	2022-06-21	Chemical Sedimentary	Iron Formation	<Null>	fine grained, <1mm	foliated	rusty
19	<Null>	5649731	470422.8	Bjorkman	2022-06-21	Mafic volcanic	Mafic Volcanic Massive	<Null>	medium grained, 1-5mm	<Null>	rusty
20	<Null>	5649815	470155.5	MacLean	2022-06-23	Mafic volcanic	<Null>	<Null>	<Null>	foliated	green
21	<Null>	5648721	469833.1	Bjorkman	2022-06-23	Mafic volcanic	Mafic Volcanic Massive	Basalt or gabbro	fine grained, <1mm	<Null>	rusty
22	<Null>	5648722	469834.5	Bjorkman	2022-06-23	Mafic volcanic	Mafic Volcanic Massive	Basalt or gabbro?? Silicified	fine grained, <1mm	<Null>	rusty
23	<Null>	5649081	469765.8	Bjorkman	2022-06-24	Chemical Sedimentary	Banded Iron Formation	<Null>	fine grained, <1mm	sugary	tan
24	<Null>	5649067	469773.4	Bjorkman	2022-06-24	Chemical Sedimentary	Banded Iron Formation	<Null>	fine grained, <1mm	sugary	tan
25	<Null>	5649066	469805.7	Bjorkman	2022-06-25	Chemical Sedimentary	Iron Formation	<Null>	fine grained, <1mm	foliated	grey
26	<Null>	5649068	469805	Bjorkman	2022-06-25	Mafic volcanic	Mafic Volcanic Massive	Basalt or gabbro? Prob basalt	fine grained, <1mm	sheared	black
27	<Null>	5649429	468659	MacLean	2022-06-25	Mafic volcanic	<Null>	<Null>	<Null>	<Null>	<Null>
28	<Null>	5649402	468673.6	MacLean	2022-06-25	Mafic volcanic	<Null>	<Null>	<Null>	<Null>	<Null>
29	<Null>	5649373	470047.2	MacLean	2022-06-27	Chemical Sedimentary	Iron Formation	<Null>	<Null>	<Null>	<Null>
30	<Null>	5651693	467584.4	MacLean	2022-06-29	Mafic volcanic	Mafic Volcanic	<Null>	<Null>	<Null>	<Null>
31	<Null>	5649429	468752.2	MacLean	2022-06-30	Mafic volcanic	<Null>	<Null>	<Null>	<Null>	<Null>
32	<Null>	5650120	468532.1	MacLean	2022-07-02	Mafic volcanic	Alteration Zone	<Null>	<Null>	<Null>	<Null>



ID	RockDesc1	RockDesc2	Po	Py	Cpy	Sph	M1_%	M2_%	Texture	Alt1	Alt2	Intensity	Dip	Dip Dir	MagInt
1															
2	Hbl altering to biotite														
3		Photo1													Mod
4															
5	Some reddish pink alt but doesn't seem to	Be kspar or Hem, poss garnet	Po				50		Massive						Str
6	Very rotted, few blobs with mass po, sacch qtz														
7	Grey														Wk
8															
9	Grey														Wk



ID	RockDesc1	RockDesc2	Po	Py	Cpy	Sph	M1_%	M2_%	Texture	Alt1	Alt2	Intensity	Dip	Dip Dir	MagInt
10	Grey, with saccharoidal quartz														Wk
11															
12	Dark grey fine-grained portions look graphitic	Magnetite crystals in graphitic portion	Po		Chp		5	0.01							Mod
13	Rusty with net textured po py and Cpy, loc Sph		Po	Py	Chp	Sph	5	3	Banded				70	315	Mod
14															
15															
16			Po	Py	Chp		5		Massive						Mod
17	Fine to medium grained, varitextured														
18															
19	F-mg rusty basalt at contact with IF														
20	mostly magic volcanic with coarser grained knots	2cm acute qvs													
21															
22	Silicified zone	Poss Sph?	Po	Py											
23	Locally alteration of Hem and Sil		Po							Hmt	Sil	Wk			Wk
24	Locally alteration of Hem and Sil		Po							Hmt	Sil	Wk			Wk
25	Rusty														
26	Rusty locally magnetic with po		Po		Chp		0.25	0.01	Fin Diss		Sil	Mod			Wk
27															
28															
29															
30															
31															
32															



Appendix C



Daily Logs, Photos



Date	Mapper	Notes	Rock	Samples	Photo
2022-06-13	JB	Loaded up the UTV, the canoe, all our sampling gear, safety gear, etc. Downloaded the maps we need for the project and copied files from Katarina. Sydney drove from Thunder Bay and left her car at Whiskeyjack Lake. We drove from Sapawe to Dryden, got supplies and groceries, then drove to Ear Falls. The main highway going to Red Lake is closed so we took the side route around through Quibel as advised by my brother-in-law Jason. Christina at Timberlane Lodge showed us the cabin on the river and we got settled in. I checked some of the assessment reports			
2022-06-14	JB	We took the canoe off and left it at the cabin and put the windshield on the UTV. We headed north on the main highway towards Red Lake. The road into the property says it is closed due to a washout; however, it seemed fine. We checked out some trenches I had seen on an assessment report from the late 2000's. There is an ultramafic on the road on the way in at 470101 5649801, Sample F064001.	Ultramafic	F064001	

Date	Mapper	Notes	Rock	Samples	Photo
2022-06-14	JB	We did locate two trenches in iron formation approximately where they are shown in the assessment report. One is in the middle of the road at 470289 5649761 (Figure 1), Samples F064002-4. We took one sample of the iron formation with 7% mostly fine pyrrhotite, and two samples at the north end of the trench where there's a sacchroidal quartz vein with strong hematite locally and 3% fine pyrrhotite	BIF	F064002 F064003 F064004	 <p data-bbox="1094 784 1423 807">Figure 1. Banded Iron Formation</p>
2022-06-14	JB	Just north of the iron formation, there's an outcrop of basalt(?) with 2-3 cm quartz (Figure 2).	Mafic Volcanic		 <p data-bbox="1094 1336 1877 1359">Figure 1 Basalt (?) with displacement of 2 cm veins, Sharpie is pointing North</p>



Date	Mapper	Notes	Rock	Samples	Photo
2022-06-14	JB	<p>We went looking for the second trench and ended up taking samples of locally rusty mineralized mafic volcanic where sacchroidal discontinuous 2 cm quartz veins contain up to 5% pyrrhotite and pyrite. Finally, while walking out at the end of the day and looking one more time along strike from the first banded iron formation outcrop, we found another historical trench to the east of the first trench (Figure 4). It contains a muckpile with angular pieces of semi-massive to massive pyrrhotite (Figure 3), as well as iron formation with 5% fine pyrrhotite.</p>	Ultramafic	F064012	 <p>Figure 2 Sample F064012, massive pyrrhotite in ultramafic</p>  <p>Figure 3 Historical trench muckpile with semi-massive pyrrhotite in ultramafic and iron formation</p>


Date	Mapper	Notes	Rock	Samples	Photo
2022-06-15	JB	<p>We started at the area where the previous sampling showed several anomalous gold values along the iron formation and trenches were noted in the sample notes. To the west of the iron formation, there's a basalt with granitic veins/dikes(?) 8 cm wide and unmineralized (Figure 5). We located where previous crews had sampled a trench. It looked like they had taken good samples. Just in case something had been missed, we took four one-metre chip samples F064017-19, 21, as well as two grab samples F064022-23 (Figure 6). At the East end of the trench there is massive to semi-massive pyrrhotite, west of this is a rotted iron formation, west of this is two metres of iron formation containing trace to 5% pyrrhotite. East of this trench, there's a smaller trench containing a sacchroidal quartz vein exposed for 0.5 metres that is mostly unmineralized; however, we sampled some local pyrite mineralization F064024; I was unable to get a structure reading of the quartz vein. North of the trench there is a small trench containing iron formation with some pyrrhotite, which we also sampled F064025.</p>	Basalt	F064017 F064018 F064019 F064020 F064021 F064022 F064023 F064024 F064025 F064026 F064027 F064028 F064029 F064030 F064031 F064032 F064033	 <p data-bbox="1092 673 1543 706">Figure 4 Basalt with granitic veins intruding</p>  <p data-bbox="1092 1372 1711 1404">Figure 5 Historical trench, four chip samples F064017-19, 21</p>


Date	Mapper	Notes	Rock	Samples	Photo
		<p>We set off to find a sample to the southeast that assayed 30 ppb Au. We did not locate the sample, but while looking for it, we found another trench that had not been sampled in several years (Figure 8). There was no sample flagging. A forestry flagged line went beside the trench. This trench had the best-looking rock so far, with net-textured pyrrhotite and pyrite, as well as chalcopyrite tarnished peacock blue (Figure 7). We took several grab samples of this F064026-33. It is possibly a mafic volcanic?, fine-grained, dark grey. Locally there is sacchroidal quartz. In the middle of the trench, the rock almost looks like graphite, although not as soft, and contains medium grained magnetite. It was hard to take a reading of the rock due to the magnetism, but it seems to be dipping approximately 70 degrees and dip direction northwest (strike southwest).</p>			 <p data-bbox="1094 862 1915 885">Figure 6 Net textured pyrrhotite and pyrite, also unknown copper sulfide F064033</p> 



Date	Mapper	Notes	Rock	Samples	Photo
					<p>Figure 7 Historical trench</p>
2022-06-15	JB	<p>On our way out, we saw a cool outcrop of banded iron formation previously stripped by a former field crew (Figure 9).</p>	BIF		 <p>Figure 8 Banded iron formation</p>
2022-06-16	JB	<p>As it was raining in the morning, we drove some roads with the truck, then took the UTV into the far southwest corner to see if it would be worth it to bring the canoe in. The road stopped 1.2 km from the small lake because of a medium-sized creek and no bridge at 463274 5649328 (Figure 10). We began our hike from this point. We did a large loop beginning by traversing south across the granite contact; however, it was only swamp and even when the elevation rose, it was only till, mostly clay dirt. There were some very thick small spruce saplings, then blowdown, then more swamp. We did not find any outcrop south of the old road. The area north of the old road has ample outcrop. There is a salt and</p>	Granite	F064034	 <p>Figure 9 End of road, bridge removed</p>



Date	Mapper	Notes	Rock	Samples	Photo
		<p>pepper coloured sandstone Figure 12, a quartz-feldspar porphyry – I am not sure if this is volcanic crystal tuff(?) Figure 13– and also ample granite Figure 11, including pegmatite, as well as a grey sandstone. These units are intermixed with granite being the predominant outcrop. We took one sample of a sandstone with a 2-5 mm granitic vein and containing minor fine pyrite, F064034. The volcanic and sed were well foliated approx. 65-80 dip/355 dip direction.</p>			<div data-bbox="1094 220 1402 630" data-label="Image"> </div> <p data-bbox="1409 613 1587 638">Figure 10 Granite</p> <div data-bbox="1094 662 1430 1105" data-label="Image"> </div> <p data-bbox="1436 1089 1650 1114">Figure 11 Sandstone</p>



Date	Mapper	Notes	Rock	Samples	Photo
					 <p data-bbox="1094 695 1690 717">Figure 12 Quartz-feldspar porphyry – volcanic crystal tuff?</p>
2022-06-17	JB	<p data-bbox="470 743 774 1399">We drove in the road south of Sobel Lake with the UTV and cut out some trees on the way in. We began at the far east end and did a loop hike. First, we headed north to Sobel Lake: it is spruce swamp with sphagnum moss. We continued south of the road, but it is mostly jackpine forest with dirt soil and to the west it has more boulders. There was no outcrop for this entire hike, except a few outcrops in the middle that had been previously sampled. These look like a mafic volcanic, parts were possibly pillows, with local strong calcite carbonate, and dipping approximately 70, dip direction approximately 160-170 (Figure 14). There was no mineralization, except trace very fine pyrite, which we sampled, F064035</p>	Mafic Volcanic	F064035	 <p data-bbox="1094 1279 1344 1302">Figure 13 Mafic volcanic</p>



Date	Mapper	Notes	Rock	Samples	Photo
2022-06-18	JB	<p>We prospected the area around the historical trench we had sampled three days before. The mafic volcanic and sedimentary contact are intermixed (Figure 15) and become weakly crenulated to the south (Figure 16). Our first sample was approx. on trend with the historical trench volcanic 64/130 at 469782 5648692, F064036. Just north of the trench, there is another outcrop that had a layer of up to 25% garnet locally at 469845 5648799. I initially thought it might be vanadinite; however, there were several crystal faces that were diamond shaped, and it was somewhat hard, so is probably garnet (Figure 17). As well, a crystal fell out and when examined seems to resemble the rhombic dodecahedron shape. The rock looks to be a sed/sandstone and smells of sulphur, although it is hard to find sulfides. We took three samples of this, F064039, 41, and 42.</p>	<p>Contact between Mafic volcanic and sediments</p>	<p>F064036 F064039 F064041 F064042</p>	 <p data-bbox="1094 678 1703 706">Figure 14 Mafic volcanic intermixes with sandstone (?) seds</p>



Date	Mapper	Notes	Rock	Samples	Photo
					
					<p>Figure 15 Mafic Volcanic intermixed with seds, weakly crenulated, hammer points west.</p>


Date	Mapper	Notes	Rock	Samples	Photo
2022-06-18	JB	<p>We continued north from the trench and took several samples in the mafic volcanic where it was locally rusty and mineralized with fine pyrrhotite and pyrite, in one case fine chalcopyrite, in association with sacchroidal quartz/felsic veins F064043-47.</p> <p>At the end of the day, we found a fresher basalt at 470076 5649061, where I could get a good foliation measurement 82/304 and shear measurement 82/163 (Figure 17, 18). We tried to follow up on the historical trench structure that trends approx. northeast, as well as a geophysical anomaly we could see cross-cutting the seds northwest and southeast, but mostly had little outcrop along the trench trend and nothing to explain the geophysical anomaly.</p>	Mafic Volcanic	F064043 F064044 F064045 F064046 F064047	 <p>Figure 16 Sample F064039 with 10-25% garnet</p>  <p>Figure 17 Fresher basalt, possible pillow selvages</p>


Date	Mapper	Notes	Rock	Samples	Photo
2022-06-19	JB	<p>Knowing it was supposed to be very hot, we started earlier and finished earlier. We did a hike from the main road. At first, we headed east for a short loop, then for the remainder of the day we were west of the road. Much of the terrain was covered in clay dirt or boulder overburden with no outcrop. There was a portion where we saw plenty of outcrop to the west of the main road and closer to the granite contact. Most of the outcrop was a fairly massive fine-grained mafic volcanic with biotite – as per usual in this area. One outcrop looked like it might be a mafic volcanic lapilli tuff at 468814 5649573 with 0.5-4.0 cm rounded felsic clasts in a mafic matrix (Figure 19), F064049; after showing Katarina the photo, she suggested it could be mafic volcanic with feldspar ocelli. The mafic volcanic is intermixed with younger granite intruding (Figure 22). In a few places there is a higher epidote content in local flooded areas, 468743 5649583 had the strongest epidote alteration, F064051-52. One outcrop was strongly magnetic at 468725 5649566, had centimetre hematized quartz veins 79/170 and 75/182, cross-cutting the foliation of 56/200, with 2.5% finely disseminated pyrite and pyrrhotite near the quartz veins (Figure 21). The general trend is 50-70 dip/170-190 dip direction in this area.</p>	Mafic Volcanic	<p>F064048 F064049 F064050 F064051 F064052 F064053 F064054 F064055</p>	 <p>Figure 18 Mafic volcanic lapilli tuff? Or mafic volcanic with ocelli, hammer points north</p>  <p>Figure 19 Mafic volcanic with epidote altered felsic flooding and cross-cutting cm quartz veins, hammer points north</p>

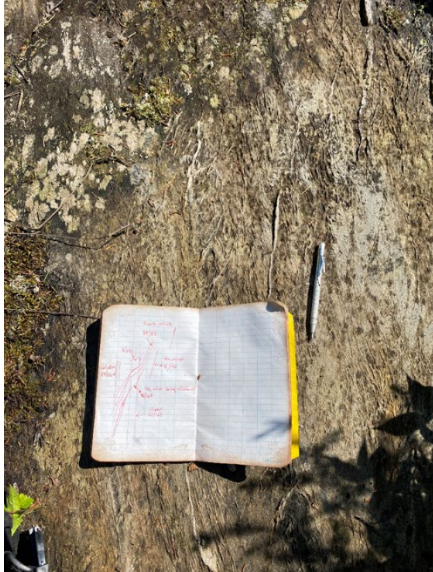
Date	Mapper	Notes	Rock	Samples	Photo
					 <p data-bbox="1094 683 1524 708">Figure 20 Granite intruding mafic volcanic</p>
2022-06-20	JB	<p data-bbox="470 732 774 1440">Due to the heat, we worked half a day in the field starting an hour earlier. We did a hike from the main road that ended at the iron formation and trenches we had found the first day. Most of the area was covered in clay and/or boulders overburden and till. We sampled a quartz vein near a forestry road running approx. east-west that had been mapped in by the previous year but not sampled. We found another trench just west of the new forestry road right where it turns south and close to the trenches from the first day at 470251 5649768, F064058-61 (Figure 22). It was in similar rock: rusty iron formation and mafic intrusive with 7% pyrrhotite. One part of this outcrop has grey black sulfide (?) that smells much stronger/worse than normal sulphur.</p>	Iron Formation	<p data-bbox="953 732 1083 878">F064056 F064057 F064058 F064059 F064061</p>	 <p data-bbox="1094 1308 1843 1333">Figure 21 Sample F064058 from trench muckpile close to new logging trail</p>


Date	Mapper	Notes	Rock	Samples	Photo
2022-06-21	JB	<p>We went out an hour early again to stay on the same schedule, as it is supposed to get hot again in a few days. We started at the trenches we had found the first day so Stu and Cam could see the mineralization. We noticed some of the samples we had taken had oxidized a bluish iridescent hue (Figure 23).</p> <p>We split up for the day: they went north, and we went south. We looked in detail for more trenches and I tried to take ample outcrop points to gain understanding of where the iron formation is and what is going on. We found two new outcrops of banded iron formation and iron formation with mineralization. The first was to the southwest of the trenches in the swamp and the second was to the southeast of the trenches in the clearcut. We took three samples of each. The outcrop to the southwest was folding and I attempted to take several structure measurements of it (Figure 24, Figure 25). The iron formation seems to be a much thinner unit than portrayed on the geology map.</p>	Iron Formation	F064062 F064063 F064064 F064065 F064066 F064067 F064068 F064069	 <p>Figure 22 Oxidized iridescent blue from one week previous</p>  <p>Figure 23 Banded iron formation southwest of trenches bending</p>


Date	Mapper	Notes	Rock	Samples	Photo
					 <p data-bbox="1094 691 1606 716">Figure 24 Possible Z fold in banded iron formation</p>  <p data-bbox="1094 1263 1871 1287">Figure 25 Iron formation southeast of trenches with small muckpile beside it</p>


Date	Mapper	Notes	Rock	Samples	Photo
2022-06-21	JB	I also think there is a gabbro-melagabbro-ultramafic body that has been previously mapped as mafic volcanic, in one case it has poikilitic texture (Figure 27). It may be running east-west and intersecting the iron formation where it is shown to bend and where the trenches are	Gabbro	F064072	 <p data-bbox="1094 911 1493 935">Figure 26 Gabbro with poikilitic texture</p>
2022-06-22	JB	We went out an hour early. Both teams used a road with the UTV and ATV to access the southwest part of the property. We did three loop traverses. Sydney and I did the middle loop and Stu and Cam did the far southwest loop and a shorter joiner loop between two roads in the middle. Sydney and I saw no outcrop on our traverse, except where previous year's teams had marked outcrop. It was a pink granite-granodiorite? and unmineralized unfortunately. After driving the ATV and	Contact between iron formation/sedimentary and mafic volcanic.	F064070 F064071	


Date	Mapper	Notes	Rock	Samples	Photo
		<p>UTV around to the main road, we did a very short traverse at the end of the day at the southern end of the property where there is a contact between iron formation/sedimentary and mafic volcanic. Previous prospectors had sampled an iron formation outcrop, but just to the north of this we found a non-distinct sacchroidal quartz vein approximately 5 cm wide dipping approx. 76/357, with 5% pyrite along with 5% biotite and chlorite in a fine-grained basalt weakly foliated at 75/335, 469308 5648186. We took a sample of the quartz vein and wallrock, F064070-71. We found a nicely folded mafic volcanic, where I was able to take a plunge structure from an M fold (I think) 34/225, 469325 5648184 (Figure 28). We plan to return to this area to continue prospecting</p>			 <p data-bbox="1094 1112 1915 1161">Figure 27 Possible M fold? or S fold? where plunge reading taken 34/225 in mafic volcanic?</p>


Date	Mapper	Notes	Rock	Samples	Photo
2022-06-23		<p>We were excited to return to the same area we had ended at yesterday, seeing as we found mineralization in the mafic volcanics. We found outcrop near the drill road; it was mafic volcanic foliated at 70/335. We spent time hiking back and forth in the area but found almost no new outcrop from previous crews. We did visit one of the sedimentary outcrops and took several structural readings of the quartz veinlets 76/142, 86/167, 84/158; foliation of 84/312; and one plunge of 36/246 at 469507 5648228 (Figure 29). We looped back around in the south and found mafic volcanic and granite outcrop at 469558 5648110 and a rusty mineralized mafic volcanic/gabbro float at 469542 5648115 that we sampled, F064072. We looped back to the ATV through some thick brush and circled around to the clear cut to the north. We did a short hike south of the trenches we had found to fill in some gaps. We found another small trench (Figure 30) with rusty weathered mafic and strongly silicified with 3% coarse pyrrhotite and 1% pyrite at 469834 5648723 where we took four samples F064073-76.</p>		<p>F064072 F064073 F064074 F064075 F064076</p>	 <p data-bbox="1094 820 1948 844">Figure 28 Sedimentary outcrop with quartz veinlets in crenulation axes, foliation, etc</p>



Date	Mapper	Notes	Rock	Samples	Photo
					 <p data-bbox="1094 902 1959 951">Figure 29 Small historical trench with silicified mafic containing pyrrhotite, pyrite and chalcopyrite mineralization</p>

Date	Mapper	Notes	Rock	Samples	Photo
					
					<p>Figure 30 Composite sample from trench outcrop that is silicified with po, py, and cpy mineralization</p>


Date	Mapper	Notes	Rock	Samples	Photo
2022-06-24	JB	<p>We helped the boys move cabins and moved some of our stuff into their cabin as well. We took the UTV in one of the logging cut trails and worked in the area north of the southern trenches. We marked in a few basalt outcrops with structures. We stripped off a banded iron formation outcrop at 469762 5649081 (Figure 32), took photos, and structural readings, as well as samples F064078, 79, 81. The general trend of the bands and main 12 cm quartz vein that were weakly crenulated were 51/223, there was approx. 30 cm of dextral displacement of the 12 cm quartz vein/layer along a fault dipping roughly 84/132 (hard to say dip), some cross-cutting quartz stringers: one set of 3mm veinlets dipping 85/262 and a second set of 1mm veinlets dipping 83/129 (again hard to say dip of these) (Figure 33). A second outcrop less than 10 metres away, had a small historical blast pit 1 by 1 metre, in similar rock but dipping slightly differently. The banding was generally dipping 68/315 and a fault with approx. 1m of dextral displacement (?) (Figure 35) was dipping roughly 73/155 and intersects both the small blast pit at the northeast end of the outcrop and another trench approximately 12 metres to the southwest (Figure 34).</p>	BIF	<p>F064077 F064078 F064079 F064081 F064082 F064083 F064084</p>	 <p data-bbox="1094 1170 1969 1222">Figure 31 Banded Iron Formation weakly crenulated Samples F064078, 79, 81, hammer handle points north</p>

Date	Mapper	Notes	Rock	Samples	Photo
					 <p data-bbox="1094 1089 1913 1146">Figure 32 Fault with 15 cm of dextral displacement of quartz vein, cross-cutting quartz stringers, Sharpie points north</p>



Date	Mapper	Notes	Rock	Samples	Photo
					 <p data-bbox="1094 901 1974 982">Figure 33 Second outcrop with blast pit in left corner (hard to see), fault with approx. 1 metre? of dextral displacement transects pit and ends to right of backpack, looking approx. southeast</p>


Date	Mapper	Notes	Rock	Samples	Photo
					 <p data-bbox="1094 805 1822 829">Figure 34 Dextral displacement along fault with Sharpie pointing north</p>
2022-06-24	JB	<p data-bbox="480 862 762 1149">The second trench to the southwest has a high concentration of pyrite in the fractures and mafic portions of a sugary sandstone? (Figure 36). We traversed the area between these trenches and the trenches previously discovered 75 meters to the southwest along trend but did not find any more trenches.</p>	Sedimentary Rock		 <p data-bbox="1094 1360 1881 1409">Figure 35 A small trench 12 m southwest of the second outcrop with pyrite in sacchroidal sedimentary rock</p>



Date	Mapper	Notes	Rock	Samples	Photo
2022-06-25	JB	We continued in the area from yesterday. We found another trench, with iron formation on the east side and a medium grained melagabbro mineralized with ~10% pyrrhotite on the west side. We sampled bedrock and muckpile: F064085-88 at 469803 5649067. The trend of the contact and general foliation seemed to be 86 towards 179.	Iron Formation	F064085 F064086 F064087 F064088	
2022-06-25	JB	We did a loop looking for more trenches and/or mineralization heading east then north and back south. We found what I think is a felsic volcanic at the end of the day. There were several angular pieces of rusty felsenmeer. It is likely outcrop in place. One of the pieces was silicified with 3% pyrite, F064090-92. We loaded the ATV on the truck, then the canoe on top of the ATV at the lodge with Stu's help and innovation	Felsic Volcanic	F064090 F064091 F064092	


Date	Mapper	Notes	Rock	Samples	Photo
2022-06-21	SM	<p>Cam and I followed Jess and Sydney to the Sobel property. Took the side road that head southeast halfway through the property off the main road. Jess showed us some of the rock and trenches her and Sydney had seen. Jess had noticed that a lot of the trenches seemed to be on the boundary of the Iron formation, so Jess and Sydney went south along its eastern edge while Cam and I tackled the north. It was hard to tell if there were trenches in the cut, I think the ones that survived were preserved because they were either on the road or in a natural divot. Anyhow we didn't see any where we looked. Most of the rock in the cut was either the iron formation or mafic volcanics, nothing to get you breathing heavy (from digging). At the north end of the cut the topography dropped down into some swap, stayed thataway for a good while. We more or less went straight north till we crossed the iron formation. Saw some felsics up there, although it did seem like an esker so it might have been a really large boulder buried good and deep. We cut southwest along the top of the formation. Grabbed samples F064104-5 (Figure 1, left) where there was a 10-15cm band of the iron formation. 104 was a 2-3cm quartz vein that had pyrrhotite, chalcopyrite and was carb altered, 105 was just a chip along the rest.</p>	Iron Formation	F064104 F064105 F064116 F064178	 <p>Figure 36. Left: F064104-105, 10-15cm band of iron formation.</p> <p>Riht: stripping and further sampling of 116,178</p>



Date	Mapper	Notes	Rock	Samples	Photo
		<p>After that we continued southwest, till we located the 30-ppb sample taken last year? (Figure 1 right). We stripped the moss back further and found a small 2cm quartz vein, which we bagged F064107. There was also another small, mineralized quartz vein further to the southwest. We meandered south along the IF till we encountered some gabbro and a stockwork of small chalcopyrite bearing quartz veins not far from the road in (470182 5649924).</p>			
2022-06-22	SM	<p>Cam and I walked along the southern boundary at the far west part of the property, did a loop to Willans Lake and back, it was a mix of eskers (which all seemed to trend WNW – ESE Approx), sandy/clay lowlands and various flavours of bog. Didn't even have the chance to whack a rock, there might be something there but there sure wasn't anything where we walked.</p> <p>After that we headed north on Willans Lake road through the southern property boundary then cut through where the road does that half circle. Didn't see any outcrop. Walked out back to the Chukuni River Road with one more unsuccessful loop to the south. At the end of the day, we looked around for a mag high not far from where the trucks were parked, didn't see any outcrop in this area either.</p>	No outcrops		



Date	Mapper	Notes	Rock	Samples	Photo
2022-06-23	SM	<p>Cam and I started our traverse right about where we ended the first day, by those small quartz veins with chalcopyrite and the gabbro (470192 5649927). We headed mostly south and a little west till we came up on an outcrop that looked interesting. There was a fairly rusty zone in the gabbro. The first place we cracked into it it had approximately two percent pyrrhotite and maybe half a percent of chalcopyrite, F064111 (Figure 2). Approximately ten meters northwest it seemed to be more silica altered and there was a rusty vein of what I thought was chlorite. Looked like there might have been Sphalerite in with it as well (Figure 3).</p>	Gabbro	F064111 F064112 F064113	 <p data-bbox="1094 781 1808 805">Figure 37. foliated gabbro with disseminated pyrrhotite and chalcopyrite</p>  <p data-bbox="1094 1279 1961 1328">Figure 38. Left: Outcrop of F064112-113, chlorite band on left and silicified gabbro on right. Right: pieces of the chlorite band</p>


Date	Mapper	Notes	Rock	Samples	Photo
2022-06-23	SM	We headed east across the iron formation, which we sampled it again in an area exposed by the cut, then continued east over the ridge at the east side of the cut to look for some noted molybdenum that Jess had found in one of the reports. We didn't find it unfortunately, but we did come across felsic dike which contained a moderate amount of chalcopyrite, maybe 0.5 percent F064118 (Figure 4).	Felsic dike	F064118	 <p data-bbox="1094 862 1919 911">Figure 39. Felsic dike with chalcopyrite, approximate width was 50cm and trending roughly east-west.</p>


Date	Mapper	Notes	Rock	Samples	Photo
2022-06-24	SM	<p>Cam and I started off the Chukuni River Road (469503 5649748) and worked our way west to gander at a few mag anomalies. About a hundred meters from the road we found an outcrop with next to no overburden. There was a mineralized zone approximately four meters wide with a number 2-3 centimetre veins trending with the foliations (roughly east west) there was also another quartz/plagioclase vein of 4-5cm that ran perpendicular to the main structure. We took a few samples along the north west vein which had molybdenum and chalcopyrite, plus a few more across strike some veins a some just the foliated mafics. Some of the trending veins had a lot of pyrite. Also at the south end of the zone the rock became quite silicified.</p> <p>We spent a good while there then headed west on very fresh legs to look at more of the mag anomaly. We took a few samples along the way but didn't see anything overly noteworthy. After awhile we looped back south then east and headed back towards the road. On the way back I saw this gossanous boulder that looked angular, we bagged it then looked around for its home. Maybe fifteen meters to the east we found the outcrop. Silicified mafic volcanic with pyrrhotite and chalcopyrite. It was also strongly magnetic, which was to be expected I suppose</p>	Mafic Volcanic	F064124	 <p>Figure 40. Left: stripping of mineralized zone, it was quite muddy and I wasn't prepared to exhaust my water to get a decent picture... apologies. Right: One of the veins that trended with the foliation</p>  <p>Figure 41. Mineralized mafic volcanic, stringers of pyrrhotite and disseminated chalcopyrite getting along with it.</p>



Date	Mapper	Notes	Rock	Samples	Photo
					 <p data-bbox="1094 787 1942 836">Figure 42, Left: Outcrop of F064132. Right: Picture of F064132. Silicified mafic volcanic with pyrrhotite and chalcopyrite, strongly magnetic.</p>

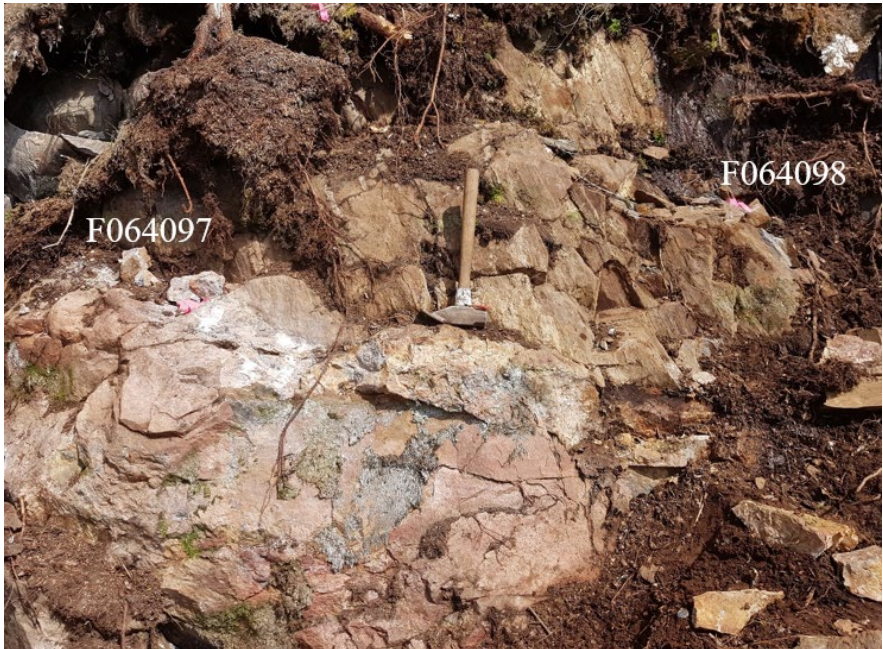
Date	Mapper	Notes	Rock	Samples	Photo
2022-06-25	SM	<p>Rain and thunder in the AM so we decided to delay our get up and go by an hour or so, which ended up being providential as we had to move cabins anyway. Smaller cabin but a much better view of the river, all in all an upgrade I figure. Cam and I went back to where we took our last sample the day previous to sniff around a little more and get an idea of the extent of the zone. Started the day with some large felsenmeers (one of which might have actually been outcrop) which had some smoky grey mineralized quartz veining (Figure 8). The host rock here was also mineralized and chlorite and silica altered.</p> <p>After we'd satisfied our curiosity there Cam went to start uncovering the outcrop we'd seen yesterday and I gandered around a bit to see what else there was. There wasn't a lot of outcrop in the area so just finding a stationary rock at all was bit of a chore. I ended up stumbling upon (what appeared to be) the border of the mineralized zone approximately 40m to the NNW of the outcrop we'd see the day before. At the boarder there was a 3-4cm vein of k-spar and quartz with a lot of pyrite plus some chalcopyrite and molybdenite, the strike of the vein was 18°, F064137. The wall rock to the east (F064138) had some of the molybdenum bleeding into it, plus stringers of pyrrhotite</p>	Mafic Volcanic	<p>F064133 F064134 F064135 F064136 F064137 F064138</p> <p>F064139 F064141 F064142</p> <p>F064143 F064144</p>	 <p>Figure 43. Left: outcrop of F064133-36. Right: sample F064133, quartz vein with stringers of pyrrhotite and chlorite alteration.</p>  <p>Figure 44. Vein with pyrite, molybdenite and chalcopyrite</p>


Date	Mapper	Notes	Rock	Samples	Photo
		<p>and chalcopyrite. From my recollection about a foot or so from the vein the host rock started to become very silicified and continued like that through the zone.</p> <p>Also, the quartz vein was very similar in composition to the vein we found to the northeast the day before. They were also striking the same direction, although there were offset about 700m.</p> <p>We then took several samples along what we could expose of the outcrop. The main structure of the rock seemed to be going north-south, with a felsic dike running through it at about a 45.</p>			 <p>Figure 45, Samples F064132: silicified basalt, F064139: Quartz vein with pyrite and chal copyrite plus heavily mineralized host, F064141: Felsic dike.</p>  <p>Figure 46. Sample F064142</p>


Date	Mapper	Notes	Rock	Samples	Photo
					 <p data-bbox="1094 812 1974 888">Figure 47 F064143: silicified basalt with saccharoidal quartz eyes. F064144: basalt with 10-15% pyrite</p>


Date	Mapper	Notes	Rock	Samples	Photo
2022-06-26	SM	<p>Cam and I did a traverse in the northwest corner of the property. There wasn't much outcrop to see, mostly boulders, sand, lowlands and various flavours of conifer (Figure 13). We started from the cut where the road veers north and followed the creek/river for a while. The river is sitting nearly on top of a mag high and I was hoping we'd see some rock where the river had washed some of the overburden away... no such luck. We turned our toes south after that till we reach another mag high and followed that as it ran back up northeast. What we saw from then on toed the granite/granodiorite line and it seemed that wherever we cracked into it, which was seldom (not for lack of gusto but for lack of it being there), it contained magnetite. I'm guessing that would account for the mag signal. We did see a couple of quartz veins throughout the day, one of which we sampled, F064145. But they weren't all that exciting.</p>	Mafic Intrusive magnetic	F064145	 <p>Figure 48</p>
2022-06-27	SM	<p>Cam and I went prospected on the iron formation, where it runs roughly southwest -> northeast (470398 5649544). The end goal was to try and find something at one of the bends. We crossed over it a few times, but a good chunk of where it was projected to be was swamp, some of the higher ground was eskers as well. There was a sample taken last year in the formation, so we went to take a look at.</p>	Iron Formation	<p>F064150 F064093 F064094 F064095 F064096</p>	


Date	Mapper	Notes	Rock	Samples	Photo
		<p>Turned out to be a trench so we dug it out a little and grabbed a few samples across strike. F064150, F064093-96 (470047 5649372). Unfortunately, there was no drainage in the trench so couldn't get right into it.</p>			 <p>Figure 49</p>
2022-06-27	SM	<p>When we came back across the iron formation there was a large ridge, one side of which hadn't been looked at yet. It was pretty well a prospector's dream, I guess in some of the recent storming a young birch had got tumbled over, exposing a felsic dike and some rusty mafics (469684 5649177). It still had green leaves on it so we figured we were more than likely the first to have a look at what was underneath. The felsic dike was medium-coarse grained and had a decent amount of molybdenite. Some places were dead but in others there would be dime sized chunks of it. It was hard to tell the width as it was right on the face of the outcrop, looked to vary from 4cm to 1m. Dip/Dip Direction was approximately</p>	Felsic Dyke	F064097 F064098 F064099 F064151	 <p>Figure 50, felsic dike with molybdenite. The moly was a intermittent throughout the vein,</p>

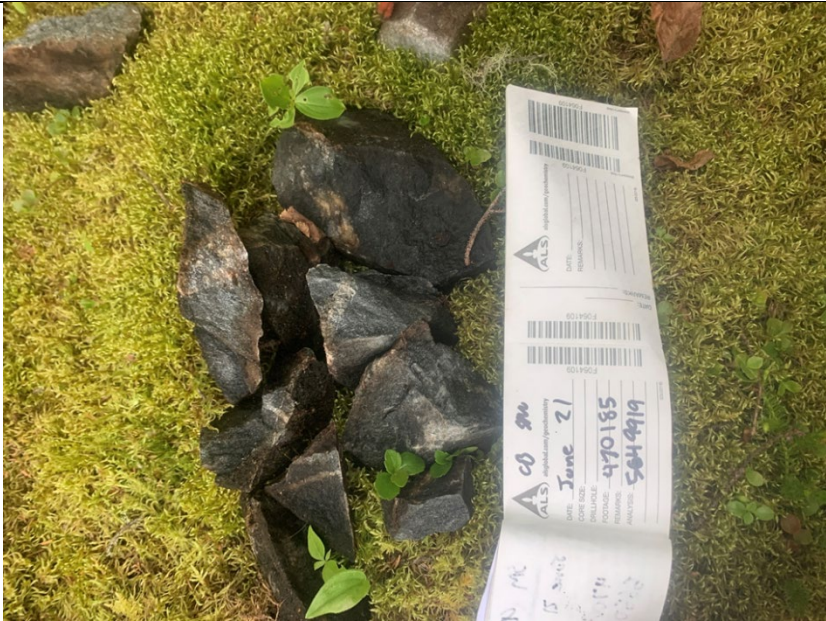
Date	Mapper	Notes	Rock	Samples	Photo
		70/310. In the mafics the best mineralization appeared to be near the contact of the dike.			<p data-bbox="1094 222 1971 269">only the one place that we found had the large chunks. The seemed to be an association between the moly and the quartz veining in the dike.</p>  <p data-bbox="1094 938 1971 966">Figure 51. Outcrop of felsic dike and silicified mafic, possibly the iron formation.</p>

Date	Mapper	Notes	Rock	Samples	Photo
					 <p data-bbox="1094 870 1969 925">Figure 52. Outcrop just south of previous figure.</p>


Date	Mapper	Notes	Rock	Samples	Photo
2022-06-28	SM	<p>Cam and I went to the southeast corner of the property to see look some more mag occurrences. We followed a quad trail east of one of the cuts that runs to a lake in roughly the middle of the eastern boundary. There was a ridge that ran along the western shore of the lake, so we followed that down for a while. It was mostly all basalt here with some smaller quartz veins. One of which had both pyrite and chalcopyrite (most just had pyrite). It wasn't chock full by any means, but it wasn't hard to find it either.</p> <p>Probably the highlight from the shoreline was this felsic dike next to some rusty basalt. The dike had pyrite and magnetite and the basalt had some good chunks of pyrite in some knots of quartz, F064156-58. Unfortunately, I forgot to grab a structure on the dike. We did see some gabbro near the southern end of the lake as well. It had some small quartz veins in it but there wasn't much for mineralization. At least in what we saw.</p> <p>After we ran out of lake shore, we scooted south through some swamp to looked a slight change in terrain we noticed on the satellite image that coincided with the mag high. There was a decent sized ridge there, Cam found this really nice chunk of silicified basalt, (probably) what had a lot of pyrite and pyrrhotite in it, it was also strongly magnetic F064164. Just south of there</p>	Mafic Volcanic	<p>F064155 F064156 F064157 F064158 F064164</p>	 <p>Figure 53. F064155: quartz vein in basalt. The vein hosted pyrite and chalcopyrite, the width was around 4-5cm</p>


Date	Mapper	Notes	Rock	Samples	Photo
		<p>we found outcrop with 0.5-1cm bands of magnetite, trending approximately north south. There wasn't any sulphides in the bands but in the basalt on the edge of it we found 1-2% pyrrhotite in a few places.</p>			 <p>Figure 54, F064164: silicified mafic volcanic with stringers of pyrrhotite, and some quartz. Strongly magnetic.</p>


Date	Mapper	Notes	Rock	Samples	Photo
2022-06-29	SM	<p>Cam and I took the Gullrock East Road to the bottle neck between the north and south part of the Sobel property. The mag high here just had one traverse over it, so we thought we'd give it another shot. When we started our hike, I realized I'd forgot my compass... fortunately it was sunny and had a handle on the time. We did manage to find some outcrop on the north side of the mag. It was massive felsic intrusive with varying amounts of potassium feldspar. It did have magnetite throughout it fairly consistently. When we headed back south I found some gossanous boulders that had about 3-4% pyrrhotite. They were all angular, so I've got a hunch that didn't migrate all that far.</p> <p>We headed back east on the Gullrock till we came to where it crosses into the property again. There was a (float) sample from last year that had a pinch of gold in it, so we wanted to follow up on it. The zone ended up looking halfway okay. The main fabric of the rock was running approximately east west and had a felsic dike about a meter wide, give or take, trending with it. On the north side of the dike there were 10-15cm portions of the dike veering off to the northeast at about a 45. These smaller sections contained chalcopyrite, molybdenite and pyrrhotite in meagre to moderate quantities. The mafic volcanic host had some</p>	Felsic Dyke	F064174	 <p data-bbox="1094 862 1955 889">Figure 55, F064174: felsic dike containing chalcopyrite, pyrrhotite and molybdenite.</p>



Date	Mapper	Notes	Rock	Samples	Photo
		<p>mineralization near the dike, molybdenite and pyrrhotite. Also trace chalcopyrite and millimetre carb veining in the vicinity.</p>			
2022-06-21	CB	<p>Today Stu and I prospected the area north of 470430 5649715 exploring the contacts between the banded iron formation and mafic volcanics. High of 21 on the day with scattered thunderstorms throughout the afternoon.</p>	Iron Formation	F064104	
2022-06-21	CB	<p>The two main lithologies we saw were the banded iron formation and mafic volcanics. We also saw a gabbro near the end of the day with kind of needle like grains of either hornblende or pyroxene producing a noticeably different texture than the other rocks in the area, this was at 470179 5649927 and was sampled as F064110. Most of the mineralization seen today was found as pyrrhotite associated with the banded iron formation, often very fine grained with the rock being weakly magnetic. There was also some chalcopyrite found less commonly than pyrrhotite. One of the better samples exhibiting pyrrhotite+chalcopyrite was sample F064104 located at 470116 5650479 which was banded iron formation, these banded iron outcrops are almost always very rusty of fractured surfaces and within the first few cm of weathering rind. Potentially also some bornite in this sample since some of the weathered</p>	Gabbro	F064109 F064110	 <p>Figure 56: Sample F064109 located at 470185 5649919, gabbro with quartz vein</p>


Date	Mapper	Notes	Rock	Samples	Photo
		<p>surfaces were kind of peacock coloured which is supposed to be characteristic of bornite but it really could have been anything that oxidized colourfully. The most exciting sample on the day was chalcopyrite bearing quartz veins within the gabbro, this is sample F064109 located at 470185 5649919. Sample was exciting because it was a different mineralization style being vein hosted which is potentially more promising than the BIF. Thickest veins were up to 3-4cm but on average closer to 1cm and frequently had fine chalcopyrite grains within the vein itself, none seen in the wall rock.</p>			

Date	Mapper	Notes	Rock	Samples	Photo
2022-06-22	CB	<p>Today Stu and I prospected the area west of 465442 5647456. High of 22 for the day and mostly clear skies. We didn't see a single real outcrop for the entire day.</p> <p>The area is mapped as being some kind of intrusive which is definitely true for the various glacial boulders scattered around the area, all being felsic intrusives. The problem is that none of them were actual outcrop. Seemed like we were on maybe eskers? Little ridges of boulders and mostly sandy overburden for almost the entire day. No samples were taken.</p>	Felsic Intrusive		 <p>Figure 57: Stu walking</p>


Date	Mapper	Notes	Rock	Samples	Photo
2022-06-23	CB	<p>On the way we found a few rusty patches in a cut that were the BIF, as well as a folded quartz vein which looked like Z-folds shown in figure 3.</p>	BIF		 <p>Figure 58: Z-folded quartz vein located at 470375 5649969</p>
2022-06-23	CB	<p>Next we headed east northeast towards a molybdenite showing/molybdenum anomaly not sure exactly what had been found there before. Closer to the molly area there was a coarse grained felsic dike with py-cpy that we took a sample of which was sample F064118 located at 470638 5649924. This sample stands out because for the most part sulphides on the property are fine to very fine grained and but the sulphides in this were coarser and kind of grouped together. Then we ran back to the quad.</p>	Felsic Fyke	F064118	


Date	Mapper	Notes	Rock	Samples	Photo
2022-06-23	CB	<p>Today Stu and I prospected the area surrounding 470155 5649896 trying to follow up on a sample we had taken on the 21st. It was hot with a high of 28 and sunny. Lots of outcrop to look at today much better than yesterday. Our day started trying to follow up the mineralization associated with the veining in gabbro. We found some decent mineralization not necessarily associated with veins a bit to the south of the veins we had seen previously. Mineralization here was associated both with veins as well as found in the wall rock independent of veins. Also some interesting alteration around including a super green chlorite (probably) lens shown in figure 4. Mineralization in this area was comprised of pyrrhotite, chalcopyrite, and a bit of pyrite.</p>	Mafic Volcanic	F064113	 <p>Figure 59: Sample F064113 located at 470147 5649839 showing the deep green of the alteration/weathering</p>


Date	Mapper	Notes	Rock	Samples	Photo
2022-06-24	CB	<p>Today Stu and I prospected west of chukuni river road starting at 469509 5649761. The weather was mostly cloudy with some rain in the morning and a high of 23.</p> <p>Today was a pretty good day. We found a nice mineralization zone pretty much right away no more than 100m off the road and took a bunch of samples F064119-127 (excluding --- 120) which is a standard). The area was initially found as a quartz vein around 4-5cm thick that was mineralized with molly/sphal? Cpy and pyrrhotite. The vein was oriented with a dip direction of 272 and dipping 85 degrees. As we dug around the area, we found the wall rock to be mineralized as well as more veins all of which are mineralized to some extent. The wall rock is mafic volcanic and is foliated approximately perpendicular to the largest vein (mentioned before). Mineralization in the wall rock is mostly pyrrhotite and roughly follows foliation, likely exploiting the foliation planes. After stripping off a good chunk of the area and sampling (figure 6). We continued to the west and saw a bit of ok stuff that we put in bags. The last sample of the day got a bit more exciting again which was sample F064132 located at 468672 5649398 and it was a mafic volcanic with some of the coarsest mineralization I've seen in the volcanics yet, overall good day and lots of</p>	Mafic Volcanic	<p>F064119</p> <p>F064121</p> <p>F064122</p> <p>F064123</p> <p>F064124</p> <p>F064125</p> <p>F064126</p> <p>F064127</p> <p>F064128</p> <p>F064132</p>	 <p>Figure 60: Clearing moss at 469396 5649827 for samples F064119-127, the “main” quartz vein is visible just left of the geotul</p>  <p>Figure 61: parallel veins at sample F064128 located at 468871 5649815</p>

Date	Mapper	Notes	Rock	Samples	Photo
		good rocks found their way into bags.			
2022-06-25	CB	<p>Today Stu and I went to continue exploring the area where our last sample was yesterday (F064132) located at 468672 5649398 and stripped off some of the rocks in the surrounding area. The weather was rainy in the morning clearing up a bit in the afternoon with the temperature in the low twenties.</p> <p>The area we were in today was nice, another mineralized zone like yesterday. The samples taken were from F064133-F064144 (not including 140 which is a blank). The mineralization was largely pyrrhotite with some chalcopyrite and maybe a few specs of moly found in vein which is sampled as F064137, this vein is similar to the one sampled yesterday both in appearance and orientation. The veins are nearly a kilometre apart but it would be really cool if they were somehow related. The area also featured some saccharoidal quartz eyes/lenses found in silicified chlorite with lots of disseminated pyrrhotite, in general the area was very silicified. Originally we had the impression that this was silicified mafic volcanic but started to become suspicious that maybe it was just an unmapped portion of the banded iron formation since the rock varied from 2-15% sulphides (mainly pyrrhotite) averaging maybe 5%. The</p>	Mafic Volcanic	<p>F064133 F064134 F064135 F064136 F064137 F064138 F064139</p> <p>F064141 F064142 F064143</p>	 <p data-bbox="1094 933 1780 958">Figure 62: Outcrop with pyrrhotite mineralization at 468674 5649400</p>

Date	Mapper	Notes	Rock	Samples	Photo
		<p>chlorite makes me think its probably not BIF but the mag anomalies look similar between here and the BIF in other areas, and there is clearly lots of iron in the rocks. Will be interesting to see if this is a new zone of interest and it runs well, or if it just looks deceptively good. The textures, especially the amount of saccharoidal quartz give me hope that it will be good.</p>			
2022-06-26	CB	<p>Today Stu and I prospected in the north west corner of the property taking a look at some of the mag highs in the area. Our traverse began at 465498 5653117 and we headed southwest. Weather for the day some light showers throughout the day.</p> <p>We saw very little outcrop all day. One sample was taken which was F064145 located at 465198 5652260. The sample was of a quartz-kspar vein that was very coarse grained and pretty clean not much sulphide. For most of the day we were on sandy overburden with very little outcrop exposed. I don't think we even saw a rock until the afternoon, most of what we did see was felsic intrusives that often had a bit of magnetite coarse enough to be seen. Bit of a lame day after having back to back days that had lots of mineralization.</p>	QV	F064145	
2022-06-27	CB	<p>Today Stu and I prospected starting at 470397 5649516 heading southwest along the iron formation trying to pick up</p>	Iron Formation	<p>F064093 F064094 F064095 F064096 F064150</p>	


Date	Mapper	Notes	Rock	Samples	Photo
		<p>where jess and Sydney had left off with finding some trenches. The weather for the day was a high of 27 and sunny for most of the day with thunderstorms in the late afternoon.</p> <p>There were two spots of interest for the day, one was a trench and the other was an outcrop with a dike running through it that was mineralized with molybdenite. The trench was located at 470046 5649373 and had samples F064093-096 and F064150 taken at it. The trench is in the iron formation and is mineralized with pyrrhotite, up to around 10% pyrrhotite in the most mineralized areas. the trench is oriented across the strike of foliation roughly NW-SE and is pictured in figure 8.</p>			 <p>Figure 63: Trench located at 470046 5649373</p>


Date	Mapper	Notes	Rock	Samples	Photo
2022-06-27	CB	<p>The second interesting place we saw today was a felsic dike mineralized with big blebs of molybdenite. This dike was outcropping in a small cliff face at 469685 5649178 and is mostly made of kspars and quartz. The host rock surrounding the dike is mafic volcanic fine grained and foliated. Interestingly the foliations from the mafic volcanic seem to be cut by the dike in some places shown in figure 9 it just seemed weird. In one spot the molly was fairly concentrated in large blebs which is sample F064097 shown in figure 10. Good day overall we found some neat stuff.</p>	Felsic Dyke	F064097	 <p>Figure 64: foliations cut by intrusion of felsic dike located at 469685 5649</p>


Date	Mapper	Notes	Rock	Samples	Photo
					 <p data-bbox="1094 1146 1850 1170">Figure 65: sample F064097 bearing molybdenite located at 469685 5649185</p>
2022-06-28	CB	Today Stu and I prospected in the southeast corner of the property beginning at 470598 5649876 and heading east then south before looping back up to the northwest to end the day. The objective was to check out some of the mag anomalies that people hadn't explored yet. Weather	Mafic Volcanic	F064164 F064165 F064166 F064167	

Date	Mapper	Notes	Rock	Samples	Photo
		<p>was a mix of cloud and sun with a high of 19.</p> <p>Outcrop for most of the day was a mix of mafic volcanics and some felsic intrusives/dikes. For the most part mineralization was pyrrhotite and pyrite and seemed to mostly be controlled by structures and veining. The most interesting samples on the day were F064164-F064167 located around 471207 5649168 which were mineralized with up to 5 percent pyrrhotite and were strongly magnetic, presumably also containing magnetite. I'm wondering if these might be ultramafic volcanic in origin. Hard to say for sure and I think silicification has added a bunch of secondary quartz to the rock which doesn't make it easier to tell. Would have been nice to spot textures to help determine if it was ultramafic but didn't notice anything definite so it may just be silicified mafic volcanic.</p>			
2022-06-28	CB	<p>Another interesting sample was F064158 located at 471188 5649843 which was a felsic dike mineralized with pyrite at around 1%. Nothing crazy but its some of the first pyrite seen disseminated in a felsic dike like this on the property so it stood out. Good day lots of samples and hopefully some new stuff in areas that haven't been looked at closely yet.</p>	Felsic Dyke	F064158	


Date	Mapper	Notes	Rock	Samples	Photo
2022-06-29	CB	<p>Today Stu and I prospected along east gullrock road. Our first traverse started at 465328 5650673 heading north to look at one of the mag anomalies along the iron formation. Our second traverse started from 467634 565113 and also went north off the east gullrock road, this time we were going to check out one of the samples that had previously ran a bit of gold, the sample was proximal to the iron formation which as usual is a massive mag anomaly in the north east part of the property.</p> <p>On our first traverse we didn't see much of what we were hoping too. It seems like the iron formation is buried fairly deeply under the overburden. What we did see on that traverse was some felsic intrusives and mafic volcanics to the north of where the iron formation was supposed to be. Samples F064169 and 170 were taken in this area. The first was a magnetic felsic volcanic granitic in composition with a bit of pyrite. The second was a mafic volcanic that was most likely local float with some pyrrhotite mineralization.</p>	Felsic Volcanic magnetic	F064169 F064170	

Date	Mapper	Notes	Rock	Samples	Photo
2022-06-29	CB	<p>The second traverse was a bit better in terms of exposure, we saw a lot more outcrop. In this area it seemed like the felsic intrusives seemed to be more mineralized than the surrounding mafic volcanics. Plenty of different contacts between the two (figure blank) most likely just dikes but possibly a chewed up contact between the two. The best sample from this area was F064174 which contained molybdenite, chalcopyrite, and pyrrhotite mineralization. After we sampled in the area we went back to the UTV and stopped at a few more outcrops along the road on the way out.</p>	Felsic Intrusive	F064174	 <p>Figure 66: Felsic dike and mafic volcanic contact located at 467597 5651691</p>

Date	Mapper	Notes	Rock	Samples	Photo
2022-06-30	CB	<p>Today Stu and I prospected the area west of the Chukuni river road going to take a look at some of the mag anomalies around 468018 5648666. We spent the first 2 or 3 hours of the day hiking around in swamp and low-lying land with little outcrop. In the second part of the day we came across a ridge near 468220 5649649 where we finally started finding more outcrop and took a bunch of samples. The best mineralization we saw today was quartz veins the best of which was sample F064179 located at 468233 5649563. This sample contained pyrite and was kind of a sugary quartz vein with some chlorite and possibly some epidote. Geologically the most interesting thing (in my opinion) was a kspars-quartz pegmatite with a bit of muscovite seen in figure 12. This dike was located at 468220 5649649. I was kind of thinking this dike might have molybdenite in it since many of the moly occurrences we have seen so far have been in kspars-quartz veins/dikes but there wasn't much of anything in it. Interesting texture in the quartz kind of like perthitic texture, maybe intergrowths of something else inside it?</p>	Felsic Intrusive	F064179	 <p>Figure 67: quartz-kspars pegmatite located at 468220 5649649</p>
2022-06-30	CB	<p>On our way out of the bush today we also were in an area we had taken a bunch of samples previously that were mineralized with pyrrhotite and found a new outcrop which we quickly smashed and grabbed 4 samples</p>	Mafic Volcanic	F064188 F064189 F064190 F064191	

Date	Mapper	Notes	Rock	Samples	Photo
		<p>F064188-F064191 this outcrop was located at 468752 5649429, the mineralization was pyrrhotite and molybdenite maybe also with some pyrite. We should have grabbed a rep of this but it was getting late and threatening to rain so we just kind of did it quickly. I also took a picture of a beaver dam today but decided it wasn't necessary to include but trust me it was a nice dam.</p>			
2022-07-01	CB	<p>Canada Day, today stu and I prospected starting at 469768 5650588 and headed to the southeast with the intention of hitting a bit of the iron formation and filling in the gap between the road and the iron formation. Then we headed to the south and did a quick traverse on the west side of the road.</p> <p>The first part of the day featured kind of typical stuff. Some veins with a bit of mineralization here and there as we worked our way southeast towards the iron formation. The best sample from this area was probably F064193 located at 469880 5650496 which was a semi saccharoidal quartz vein with some chalcopyrite and pyrite. One thing I've noticed about the property is that a lot of the mafic volcanics have these chlorite quartz vein like things that I don't think are veins exactly shown in figure 13 (doesn't show it super well). They seem to be chlorite with some quartz and are much lighter in colour than the rest of the mafic rock. I'm wondering if maybe they're</p>	Mafic Volcanic	F064193	 <p>Figure 68: mafic volcanic outcrop located at 469920 5650547</p>

Date	Mapper	Notes	Rock	Samples	Photo
		from periods between flows? That's my best guess right now at least.			
2022-07-01	CB	The last part of the day we went to the west of the road and found some felsic dikes with a bunch of molly again from samples F064201-F064204 located around 469524 5650294. Never seen so much molly on a property and found so consistently, potentially all related to one another and brought in as part of some larger structure? Many of the molybdenite bearing veins/dikes look very similar as a mix of kspar and quartz, as soon as we saw them today we guessed there would be molly and found it pretty quickly. Hopefully molybdenite is good for gold	Felsic Dyke	F064201 F064202 F064203 F064204	
2022-07-02	CB	<p>Today Stu and I prospected south of east gullrock road starting at 468757 5651096 and following the old trail to the south towards a mag high. The weather was around 20 degrees and partly cloudy.</p> <p>We started the day off with hooking up the trailer and loading up the UTV then parking along the gullrock road and walking south. It looked like the mag high was smack in the middle of a swamp so we went followed along the edge of the pond to the west and found a decently large outcrop. The outcrop was a mafic volcanic that was silicified in some areas and had felsic dikes/veins running through it. Mineralization was mostly pyrrhotite in the volcanics and in the felsic parts there</p>	Mafic Volcanic		

Date	Mapper	Notes	Rock	Samples	Photo
2022-07-02	CB	<p>was a bit of molly and pyrite as well.</p> <p>The best sample was F064207 which was from the felsic dike containing molybdenite and was located at 468523 5650117. The main dike we found running through the outcrop wasn't exactly continuous and had a kind of break and then pinched out in one direction while a different branch of the dike intersects it at an angle. After that we wandered around and poked at some more outcrop but didn't really see anything interesting for the rest of the day. On the drive back to the lodge we got stopped twice by the OPP not a great way to end the last day in the field. I got back and bagged up the samples took pictures and then wrote a daily log.</p>	Felsic Dyke	F064207	 <p data-bbox="1094 862 1577 886">Figure 69: felsic dike located at 468527 5650120</p>

Appendix D

Certificates of Analysis



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 Account: GBRKFR

CERTIFICATE TB22185248

Project: Sobel

This report is for 203 samples of Rock submitted to our lab in Thunder Bay, ON, Canada on 7-JUL-2022.

The following have access to data associated with this certificate:

KATARINA BJORKMAN	ANDREA DIAKOW	KELSEY PRIVETT
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SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
CRU-31	Fine crushing - 70% <2mm
LOG-21	Sample logging - ClientBarcode
CRU-QC	Crushing QC Test
PUL-QC	Pulverizing QC Test
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize up to 250q 85% <75 um
LOG-23	Pulp LogIn - Rcvd with Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-MS61L	Super Trace Lowest DL 4A by ICP-MS	
PGM-MS23	Pt, Pd, Au 30q FA ICP-MS	ICP-MS
Au-AA25	Ore Grade Au 30q FA AA finish	AAS
Au-AA23	Au 30g FA-AA finish	AAS

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.
 ***** See Appendix Page for comments regarding this certificate *****

Signature: 
 Saa Traxler, Director, North Vancouver Operations



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Page: 2 - A
 Total # Pages: 7 (A - D)
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Project: Sobel

CERTIFICATE OF ANALYSIS TB22185248

Sample Description	Method Analyte Units LOD	WEI-21	Au-AA23	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	
		kg	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm
		0.02	0.005	0.002	0.01	0.02	1	0.02	0.002	0.01	0.005	0.01	0.005	0.01	0.005	0.01	0.02
F064001		1.33	<0.005	0.022	7.91	0.66	16	0.17	0.044	7.48	0.369	5.08	55.6	139.0	1.34	62.4	
F064002		3.97	<0.005	0.161	6.59	0.53	236	0.46	0.272	7.63	0.395	12.40	42.8	150.0	1.50	115.5	
F064003		1.60	<0.005	0.229	4.12	1.80	5	6.60	0.539	11.95	1.460	16.40	18.55	100.5	0.25	85.6	
F064004		1.63	<0.005	0.086	5.05	1.98	21	4.62	0.419	9.29	0.932	5.10	5.56	20.7	1.91	72.4	
F064005		1.37	0.008	0.136	6.27	1.12	67	3.65	1.160	8.07	0.660	21.4	17.30	90.1	4.00	238	
F064006		1.03	0.006	0.276	6.60	1.14	220	3.88	0.628	7.17	0.758	19.70	26.6	116.0	6.90	330	
F064007		1.05	<0.005	0.157	7.56	0.41	26	2.61	6.02	11.80	0.229	8.70	29.1	168.0	0.86	151.0	
F064008		1.37	<0.005	0.262	7.25	0.61	12	8.41	12.00	14.20	0.301	7.41	14.50	134.0	2.45	86.7	
F064009		0.87	<0.005	0.027	2.77	0.43	9	0.18	0.071	2.53	0.052	2.30	8.86	92.2	0.94	18.20	
F064010		1.06	<0.005	0.136	7.34	4.38	500	1.28	0.621	2.35	0.275	42.5	26.6	99.4	19.45	41.0	
F064013		0.73	<0.005	0.209	2.57	3.11	70	0.31	0.210	1.45	0.344	13.55	6.35	36.9	3.96	35.9	
F064014		1.04	0.005	0.222	3.26	1.82	94	0.46	0.308	2.12	0.459	17.75	6.63	45.0	5.81	39.9	
F064016		1.23	0.007	0.067	0.13	95.4	13	0.61	1.035	4.07	0.339	3.27	2.55	9.6	0.27	27.3	
F064019		1.03	<0.005	1.070	8.35	0.87	660	1.47	3.61	2.90	0.471	43.2	17.55	169.5	40.7	104.0	
F064020		0.27	<0.005	0.016	0.05	0.42	4	<0.02	0.009	0.05	0.075	2.54	0.246	2.2	0.06	1.18	
F064021		1.12	<0.005	0.831	7.79	0.60	383	0.70	1.680	6.26	0.762	21.6	33.1	141.5	25.7	131.0	
F064023		1.73	<0.005	1.190	8.00	0.73	156	2.46	4.59	2.13	0.785	37.1	28.1	128.0	46.1	128.0	
F064024		1.26	<0.005	0.490	3.62	2.68	122	3.55	0.818	1.85	1.140	5.30	15.65	55.4	6.31	433	
F064025		1.32	<0.005	1.640	6.32	0.72	26	1.10	2.41	1.52	0.650	39.9	49.0	97.1	32.4	257	
F064026		1.83	<0.005	1.720	7.73	0.89	39	1.55	4.21	1.62	0.591	45.1	40.7	114.0	13.05	173.5	
F064027		1.13	0.015	0.523	8.99	2.33	206	8.21	2.28	2.64	6.86	64.7	54.3	112.0	15.85	152.0	
F064028		1.34	<0.005	0.184	1.15	9.28	19	0.46	0.135	1.12	0.196	6.09	8.93	29.8	1.20	54.6	
F064029		1.46	<0.005	0.548	9.35	419	540	1.84	1.775	0.05	4.85	53.9	151.5	165.0	18.35	94.1	
F064030		1.38	0.005	0.837	5.83	1.09	57	2.08	3.25	0.06	9.18	36.3	119.5	137.0	7.15	162.5	
F064032		1.25	<0.005	0.680	2.09	6.58	32	0.93	1.465	1.13	0.515	40.8	99.8	40.8	14.60	199.0	
F064033		1.17	<0.005	0.673	2.28	60.6	52	0.93	1.620	0.62	0.105	32.3	125.5	39.2	25.3	219	
F064034		1.03	<0.005	0.083	6.06	0.82	255	2.85	0.130	0.81	<0.005	110.5	2.22	7.9	10.90	17.40	
F064035		1.27	<0.005	0.014	7.59	0.54	15	0.18	0.023	9.37	0.124	7.01	46.8	189.0	0.55	31.6	
F064036		1.36	<0.005	0.192	6.66	0.40	58	8.05	1.165	9.15	0.282	9.62	52.7	235	5.55	412	
F064037		1.06	<0.005	0.070	7.67	15.15	135	0.58	0.314	6.83	0.588	10.05	39.3	209	11.55	83.7	
F064038		1.15	<0.005	0.053	9.14	0.73	50	0.51	0.153	6.62	0.171	11.30	50.7	240	2.70	107.0	
F064039		1.40	<0.005	0.061	4.96	5.56	169	0.67	0.104	1.19	0.195	23.6	18.55	81.8	12.20	55.4	
F064040		0.07	1.220	70.5	6.77	50.6	86	1.12	2.49	1.99	17.25	32.9	22.7	132.0	2.31	7310	
F064041		1.35	<0.005	0.068	5.78	2.82	215	0.85	0.099	1.29	0.227	35.1	20.9	95.6	15.50	64.2	
F064042		1.48	<0.005	0.037	1.47	2.71	19	1.59	0.045	1.39	0.105	14.45	10.95	39.1	1.90	43.4	
F064043		1.18	<0.005	0.346	7.29	0.88	32	9.13	1.645	7.25	0.523	9.90	45.9	113.5	48.2	536	
F064044		1.32	0.005	0.173	7.53	0.91	147	0.72	1.310	7.82	0.235	7.72	43.7	162.0	13.80	255	
F064045		1.24	0.023	0.178	7.60	0.42	142	0.52	0.633	9.31	0.264	9.72	65.4	158.0	12.45	286	
F064046		1.15	<0.005	0.330	7.16	0.47	90	1.36	0.977	12.05	0.361	10.30	54.6	129.5	2.83	448	
F064047		1.39	0.688	0.627	7.53	0.36	53	14.50	237	7.68	0.322	8.76	50.0	115.0	1.14	390	

***** See Appendix Page for comments regarding this certificate *****



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 Finalized Date: 27-JUL-2022
 Account: GBRKFPFR

Project: Sobel

CERTIFICATE OF ANALYSIS TB22185248

Sample Description	Method Analyte Units LOD	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	
		Fe %	Ca ppm	Ge ppm	Hf ppm	In ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Nb ppm	Ni ppm	P %
F064001		7.61	13.65	0.12	0.374	0.042	0.11	1.785	72.5	6.11	1275	0.04	1.205	1.260	241	0.036
F064002		9.49	14.60	0.09	1.085	0.103	0.66	4.90	42.2	3.60	1875	0.49	0.474	2.53	104.5	0.033
F064003		10.75	14.10	0.08	0.751	0.685	0.01	7.25	5.7	1.80	4660	13.60	0.052	3.72	43.8	0.052
F064004		7.98	20.8	0.05	0.332	0.426	0.02	2.38	3.2	0.44	7130	1.29	0.042	1.650	9.11	0.017
F064005		7.99	18.10	0.07	1.390	0.192	0.22	9.54	19.1	1.52	1985	1.09	0.586	5.36	28.5	0.032
F064006		10.15	17.90	0.09	2.76	0.280	0.57	9.69	37.4	2.21	1900	2.65	1.155	5.62	35.3	0.041
F064007		10.55	18.75	0.09	0.915	0.087	0.08	3.31	58.9	2.11	2640	0.34	0.853	2.39	64.8	0.029
F064008		11.15	24.9	0.11	1.000	0.121	0.02	2.95	24.8	1.75	3450	0.37	0.068	20.4	37.2	0.042
F064009		3.27	5.49	<0.05	0.212	0.023	0.06	0.714	59.6	1.40	577	0.10	0.665	0.902	18.00	0.009
F064010		10.15	16.50	0.11	3.22	0.046	2.17	19.90	298	1.85	4700	1.05	0.344	7.24	64.1	0.066
F064013		9.95	5.70	0.07	0.975	0.039	0.37	6.49	55.7	1.66	8510	0.44	0.104	2.19	12.65	0.035
F064014		10.40	7.83	0.08	1.345	0.062	0.52	7.69	70.4	2.15	10050	0.51	0.143	3.05	12.40	0.041
F064016		15.95	0.87	0.09	0.039	0.063	0.03	1.505	2.9	1.14	4630	0.69	0.030	0.179	3.18	0.035
F064019		6.64	21.0	0.11	1.910	0.053	2.21	20.8	252	1.48	924	54.5	2.43	2.58	42.5	0.039
F064020		0.280	0.18	<0.05	0.603	<0.005	0.01	1.220	2.2	0.03	37.3	0.28	0.008	0.147	0.91	0.002
F064021		8.34	15.40	0.10	1.235	0.089	1.21	8.50	155.0	3.86	1665	1.21	1.465	2.41	94.9	0.039
F064023		8.16	20.4	0.13	2.26	0.059	1.70	17.65	246	1.10	769	47.9	2.88	2.99	61.0	0.026
F064024		3.89	8.34	0.07	1.215	0.023	0.49	2.19	105.5	0.17	1145	16.95	0.684	2.68	30.9	0.006
F064025		16.80	13.50	0.18	2.39	0.068	1.48	19.05	226	0.80	778	2.62	1.985	1.170	98.2	0.035
F064026		12.60	19.15	0.16	2.01	0.133	1.82	21.7	123.5	0.39	351	3.00	2.43	1.085	82.2	0.018
F064027		8.77	25.9	0.19	4.66	0.554	1.29	27.8	64.7	0.56	1770	11.20	2.95	7.19	94.0	0.016
F064028		5.19	2.92	0.05	0.656	0.056	0.11	2.91	8.5	0.75	1155	0.48	0.100	0.641	19.75	0.017
F064029		4.43	34.5	0.16	2.82	0.712	4.70	24.3	84.2	0.48	495	7.00	0.133	2.98	195.5	0.020
F064030		16.45	22.0	0.25	2.15	1.010	2.65	14.40	46.9	0.42	862	7.83	0.082	2.50	189.0	0.016
F064032		20.0	8.42	0.20	0.895	0.105	0.60	20.1	62.0	2.74	1965	2.19	0.023	1.580	187.0	0.053
F064033		25.6	9.22	0.23	0.993	0.045	1.01	15.15	68.2	2.46	1570	2.36	0.024	1.640	237	0.056
F064034		3.58	23.3	0.21	14.25	0.114	1.34	45.6	67.4	0.47	518	3.78	2.85	37.1	0.94	0.014
F064035		9.87	15.65	0.10	0.521	0.050	0.07	2.51	13.0	3.38	2610	0.17	0.756	1.965	120.5	0.025
F064036		10.75	18.35	0.10	2.30	0.144	0.40	3.18	58.3	3.09	2970	476	1.140	10.65	71.7	0.032
F064037		11.70	16.95	0.10	1.170	0.086	0.75	3.94	52.2	2.74	2940	0.97	0.618	2.53	94.4	0.028
F064038		7.14	22.7	0.10	1.745	0.101	0.28	3.98	68.8	2.63	2490	0.95	2.01	3.56	135.0	0.057
F064039		23.4	11.30	0.46	2.01	0.055	1.26	10.15	102.5	2.12	1835	0.64	0.034	4.70	46.9	0.052
F064040		5.22	16.80	0.12	0.850	0.205	2.33	14.45	13.4	2.02	746	270	1.660	8.40	145.0	0.067
F064041		25.0	12.90	0.49	2.46	0.057	1.70	15.25	146.5	2.44	1985	0.51	0.038	5.81	56.0	0.067
F064042		17.60	4.58	0.13	0.637	0.052	0.13	6.65	14.4	1.89	1005	0.28	0.080	1.210	36.5	0.050
F064043		18.30	21.7	0.21	1.210	0.112	0.70	3.76	244	2.82	9040	0.66	0.672	8.42	82.1	0.032
F064044		12.20	18.05	0.13	1.235	0.061	0.65	3.07	302	2.55	4850	1.51	0.349	2.22	71.7	0.031
F064045		13.90	17.25	0.16	1.345	0.071	0.73	3.80	261	3.59	4920	0.54	0.498	2.70	136.5	0.033
F064046		11.65	17.80	0.10	1.090	0.091	0.35	3.94	104.0	2.51	4020	0.79	0.547	2.87	89.6	0.036
F064047		16.05	28.8	0.22	1.285	0.302	0.49	3.19	101.5	2.51	7450	7.60	1.430	22.2	77.7	0.040

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 Total # Pages: 7 (A - D)
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 Finalized Date: 27-JUL-2022
 Account: GBRKFFPR

Project: Sobel

CERTIFICATE OF ANALYSIS TB22185248

Sample Description	Method Analyte Units LOD	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	
		Pb ppm	Rb ppm	Re ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ta ppm	Te ppm	Th ppm	Ti %	Tl ppm	U ppm
F064001		0.56	2.28	<0.0004	0.01	0.15	21.0	0.100	0.34	94.4	0.08	0.012	0.149	0.303	0.020	0.04
F064002		4.50	25.6	0.0023	1.59	0.07	28.0	1.135	1.06	34.9	0.17	0.217	0.765	0.420	0.402	0.22
F064003		7.73	0.76	0.0057	1.58	0.30	19.35	1.110	5.86	172.0	0.19	0.103	1.165	0.269	0.010	0.35
F064004		4.12	4.17	0.0006	0.06	0.13	2.69	0.817	6.28	139.5	0.05	0.153	0.519	0.064	0.027	0.18
F064005		4.88	13.75	0.0013	0.36	0.08	19.15	2.33	6.62	161.5	0.31	0.231	2.69	0.281	0.100	0.71
F064006		6.34	43.3	0.0029	0.74	0.06	17.45	4.22	9.15	243	0.39	0.325	2.95	0.288	0.445	0.75
F064007		1.78	2.69	0.0004	0.67	0.12	29.8	1.000	5.19	127.5	0.14	0.076	0.259	0.503	0.033	0.15
F064008		3.67	3.45	<0.0004	0.39	0.11	25.5	0.755	22.1	85.4	2.41	0.033	0.352	0.406	0.027	1.14
F064009		0.34	1.23	<0.0004	0.04	0.03	12.70	0.090	0.23	59.3	0.06	0.006	0.093	0.221	0.012	0.03
F064010		15.80	107.0	0.0018	1.18	0.13	11.35	0.545	1.19	37.3	0.51	0.340	5.07	0.341	4.56	2.18
F064013		3.70	18.40	0.0007	1.11	0.10	3.52	0.521	0.65	6.41	0.16	0.208	1.450	0.105	0.882	0.47
F064014		6.87	26.7	0.0011	1.24	0.12	5.04	0.542	0.93	9.71	0.21	0.227	2.02	0.147	1.230	0.68
F064016		3.51	1.59	0.0006	0.30	0.08	0.50	0.732	0.53	17.05	0.01	0.528	0.141	0.004	0.017	0.03
F064019		24.6	189.0	0.0159	3.12	0.06	19.75	2.88	1.69	178.0	0.20	0.205	5.57	0.325	2.25	1.19
F064020		0.71	0.40	<0.0004	0.03	0.03	0.17	0.020	0.03	2.22	0.01	<0.005	0.397	0.006	0.008	0.20
F064021		10.55	126.0	0.0042	3.68	0.08	25.4	1.22	155.5	0.16	0.374	2.01	0.397	1.185	0.59	
F064023		22.3	245	0.0270	4.91	0.04	15.55	5.35	1.55	205	0.29	0.438	6.71	0.235	2.11	1.80
F064024		14.15	41.9	0.0031	2.07	0.20	4.17	1.375	1.08	33.3	0.29	0.525	1.370	0.107	0.424	1.16
F064025		24.7	104.0	0.0266	>10.0	0.04	11.40	6.05	0.77	173.5	0.12	0.635	8.93	0.119	1.485	2.87
F064026		32.0	65.5	0.0167	9.26	0.11	14.85	7.08	1.96	356	0.09	0.758	7.60	0.120	1.005	2.05
F064027		93.9	115.5	0.0126	4.87	0.65	23.0	10.10	2.16	215	0.65	1.865	6.55	0.351	1.710	1.76
F064028		8.34	6.80	0.0014	2.39	0.90	1.40	0.680	0.36	29.8	0.05	0.146	0.658	0.029	0.128	0.24
F064029		71.5	269	0.0240	3.02	1.22	27.9	8.29	13.55	21.0	0.24	1.540	5.78	0.298	4.30	1.98
F064030		50.4	127.0	0.0158	>10.0	2.70	19.60	20.6	8.82	13.55	0.18	4.07	5.01	0.189	2.36	1.50
F064032		7.82	66.1	0.0057	>10.0	0.72	6.20	8.48	1.06	8.61	0.11	2.42	1.630	0.073	2.11	0.73
F064033		8.29	106.5	0.0073	>10.0	0.68	5.78	11.05	0.97	10.00	0.11	2.82	1.490	0.081	3.48	0.63
F064034		10.70	105.5	<0.0004	0.07	0.06	9.87	0.089	5.74	61.4	2.67	0.040	9.29	0.234	0.647	2.76
F064035		0.56	2.59	0.0007	0.04	0.07	37.3	0.095	0.47	86.7	0.12	0.025	0.226	0.457	0.015	0.07
F064036		3.01	18.80	0.0967	0.21	0.07	65.8	1.380	7.30	133.0	1.60	0.089	0.648	0.703	0.227	1.71
F064037		5.07	31.3	0.0012	0.25	0.40	36.0	0.321	1.21	117.5	0.15	0.096	0.535	0.487	0.460	0.14
F064038		2.88	7.59	0.0014	0.06	0.12	48.0	0.270	0.97	142.5	0.22	0.017	0.342	0.806	0.057	0.12
F064039		2.00	49.4	0.0013	0.78	0.25	7.49	1.165	0.70	8.18	0.32	0.397	3.53	0.231	0.905	0.67
F064040		1560	87.9	0.1110	2.45	137.0	8.57	5.57	4.71	352	0.56	0.483	5.86	0.243	1.470	2.14
F064041		2.28	66.0	0.0013	0.89	0.23	8.08	1.195	0.91	9.10	0.40	0.388	4.18	0.280	1.065	0.79
F064042		1.60	4.57	0.0006	0.49	0.31	3.49	0.614	1.02	13.10	0.09	0.238	1.080	0.063	0.082	0.30
F064043		4.56	112.0	0.0011	0.66	0.09	56.7	1.040	10.05	39.9	1.91	0.041	0.674	0.502	1.020	0.57
F064044		1.40	77.5	0.0037	0.34	0.10	43.0	0.984	1.06	110.0	0.14	0.185	0.272	0.536	0.513	0.14
F064045		1.64	91.3	0.0024	0.90	0.08	50.0	0.927	1.13	133.5	0.15	0.100	0.251	0.563	0.524	0.19
F064046		37.3	37.7	0.0015	1.04	0.17	61.1	1.005	3.23	152.0	0.18	0.095	0.294	0.606	0.178	0.18
F064047		1.98	21.3	0.0026	0.72	0.10	44.2	2.48	11.90	70.5	4.40	14.30	0.583	0.444	0.217	0.46

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CERTIFICATE OF ANALYSIS TB22185248

Sample Description	Method Analyte Units LOD	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	PCM-MS23	PCM-MS23	PCM-MS23	Au-AA25
		V ppm	W ppm	Y ppm	Zn ppm	Zr ppm	Au ppm	Pt ppm	Pd ppm	Au ppm
F064001		174.0	0.077	11.95	216	9.4				
F064002		206	0.469	18.30	169.0	39.4				
F064003		125.0	7.30	15.65	846	26.7				
F064004		99.8	0.813	11.20	297	12.8				
F064005		114.0	2.86	25.3	295	56.9				
F064006		134.5	2.88	18.45	459	118.0				
F064007		229	0.581	19.40	90.6	29.8				
F064008		230	0.534	21.6	88.5	31.9				
F064009		108.5	0.049	7.17	34.1	5.7				
F064010		95.6	0.595	17.85	259	143.0				
F064013		30.3	0.301	7.72	206	44.2				
F064014		41.2	0.400	10.60	268	61.0				
F064016		7.0	0.176	7.38	232	2.6				
F064019		146.5	2.15	9.93	109.5	74.0				
F064020		1.2	0.014	1.11	6.4	20.7				
F064021		183.5	1.550	13.65	163.5	48.7				
F064023		110.0	1.270	9.60	141.5	92.9				
F064024		36.3	1.770	3.03	155.0	47.4				
F064025		78.7	0.783	8.44	109.0	96.1				
F064026		98.7	1.335	10.50	88.4	80.9				
F064027		135.5	0.985	25.3	2000	181.0				
F064028		11.6	0.103	7.25	72.9	40.1				
F064029		194.0	4.98	19.50	2200	113.5				
F064030		140.0	2.86	17.80	3370	87.1				
F064032		52.9	0.254	29.2	242	37.5				
F064033		48.4	0.153	21.4	87.0	38.0				
F064034		1.9	0.371	30.2	47.4	>500				
F064035		249	0.186	16.00	103.0	10.8				
F064036		323	1.725	23.8	169.5	83.1				
F064037		253	0.346	16.25	256	43.8				
F064038		383	0.241	26.8	121.0	67.7				
F064039		62.5	0.458	11.25	118.5	87.0				
F064040		106.0	13.25	11.30	3250	27.7				
F064041		66.4	0.587	13.75	142.0	105.5				
F064042		25.8	3.12	7.13	98.2	31.1				
F064043		340	0.800	31.1	219	42.8				
F064044		299	127.5	19.45	205	42.1				
F064045		308	1.085	27.4	159.5	50.9				
F064046		368	1.445	27.7	154.0	30.0				
F064047		242	0.522	25.8	213	36.5				

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25 YORK ST. 17TH FLOOR
TORONTO ON M5J 2V5

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 Finalized Date: 27-JUL-2022
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Project: Sobel

CERTIFICATE OF ANALYSIS TB22185248

Sample Description	Method Analyte Units LOD	WEI-21	Au-AA23	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L
		Recvd Wt.	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu
		kg	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
		0.02	0.005	0.002	0.01	0.02	1	0.02	0.002	0.01	0.005	0.01	0.005	0.3	0.01	0.02
F064048		1.07	<0.005	0.057	7.61	0.31	20	0.40	0.517	4.79	0.103	8.17	48.2	131.5	0.73	136.0
F064049		1.35	0.006	0.170	9.18	1.32	94	0.26	1.335	9.45	0.112	7.25	36.8	158.5	5.11	123.0
F064050		0.98	0.009	0.274	6.88	0.70	61	0.32	0.329	5.73	0.256	13.80	33.6	175.5	0.98	280
F064051		0.98	<0.005	0.075	7.00	1.39	70	0.89	2.59	11.70	0.241	8.90	39.6	160.0	1.12	54.3
F064052		1.30	<0.005	0.164	8.01	1.26	136	0.68	1.355	9.78	0.181	11.25	45.4	181.0	1.32	205
F064053		0.93	0.006	0.034	6.99	0.48	33	0.25	0.231	7.74	0.103	7.71	47.3	118.5	0.78	126.5
F064054		1.21	<0.005	0.031	8.37	0.45	160	0.35	0.227	7.39	0.114	9.73	44.5	167.5	2.30	64.5
F064055		0.75	<0.005	0.184	7.87	0.44	76	0.31	0.327	10.35	0.147	9.76	40.4	170.5	1.88	620
F064056		0.76	0.015	0.448	7.35	14.95	27	1.42	0.433	5.92	0.099	7.11	53.5	176.5	23.0	409
F064057		0.60	<0.005	0.005	0.47	0.45	3	0.02	0.158	0.72	0.016	0.56	2.84	15.4	0.31	6.18
F064058		1.58	0.007	0.270	3.47	6.51	60	0.39	0.249	4.67	0.396	11.70	21.6	63.8	1.50	137.5
F064059		1.25	<0.005	0.167	0.28	2.48	1	0.53	0.074	3.45	0.402	3.41	8.76	17.8	0.03	56.1
F064060		0.28	<0.005	0.013	0.03	0.33	3	<0.02	0.005	0.01	0.052	1.83	0.166	1.7	0.02	0.80
F064061		1.18	<0.005	0.202	1.31	1.59	56	0.34	0.326	2.11	0.593	5.25	11.40	33.2	1.18	97.7
F064062		1.35	<0.005	0.038	1.22	1.73	1820	0.25	0.292	0.54	0.576	6.47	6.38	21.4	2.93	165.5
F064063		1.22	<0.005	0.145	3.82	9.22	354	0.84	0.223	5.28	0.588	14.40	9.37	78.4	3.52	61.0
F064064		1.24	<0.005	0.225	0.99	1.56	15	0.17	0.202	2.59	0.119	6.49	3.29	33.0	0.28	23.8
F064065		1.45	0.005	0.223	7.73	0.81	317	1.24	0.284	1.90	1.225	53.1	24.0	218	11.70	95.1
F064066		1.33	0.005	0.039	6.14	21.6	325	1.46	0.159	1.08	0.247	42.5	29.6	150.5	34.2	10.55
F064067		1.35	0.489	0.309	4.33	1.82	1110	1.25	56.6	2.85	0.434	19.30	15.25	62.7	5.69	91.7
F064068		1.26	0.005	0.044	9.98	5.13	1270	1.32	0.296	1.19	0.348	69.9	16.30	124.5	15.60	15.15
F064069		1.61	<0.005	0.007	1.01	1.32	10	0.16	0.172	1.64	0.158	2.83	9.21	17.6	1.70	11.70
F064070		1.09	<0.005	0.124	5.90	5.21	760	1.34	1.030	3.75	0.141	80.5	8.17	14.0	4.83	88.4
F064071		0.86	<0.005	0.159	5.96	2.83	680	1.79	0.357	2.38	0.047	109.0	4.44	11.6	5.02	89.7
F064072		1.25	0.005	0.232	7.09	3.55	105	5.21	2.41	8.77	0.409	26.7	53.5	320	8.65	138.0
F064073		1.46	<0.005	0.113	0.64	2.41	8	0.44	0.130	6.22	0.590	9.80	6.91	9.0	0.11	43.6
F064074		1.12	<0.005	0.284	0.21	5.01	2	0.27	0.183	2.04	0.536	5.80	7.24	14.4	0.26	120.0
F064075		1.26	<0.005	0.303	3.68	2.39	81	0.54	0.467	1.46	0.508	20.7	14.15	71.4	4.31	93.0
F064076		1.06	<0.005	0.138	0.45	3.43	10	0.18	0.254	1.43	0.211	3.26	2.71	20.9	0.54	63.1
F064077		0.99	0.008	0.172	6.75	0.54	193	5.79	2.81	5.40	0.519	26.6	33.8	108.5	43.5	92.8
F064078		1.23	<0.005	0.410	0.12	2.26	6	0.52	0.181	2.05	0.355	2.67	5.26	9.6	0.22	52.4
F064079		0.71	<0.005	0.102	0.18	4.11	3	1.50	0.051	2.18	0.299	2.58	2.36	8.7	0.26	8.08
F064080		0.07	0.729	3.43	7.70	14.20	1670	1.19	45.5	2.48	0.668	26.9	11.15	26.1	0.81	5680
F064081		1.09	<0.005	0.056	0.14	1.58	10	0.54	0.147	1.63	0.485	1.20	2.32	4.8	0.04	7.40
F064082		1.30	<0.005	0.128	0.24	0.25	12	0.47	0.152	1.57	0.090	2.90	2.96	15.3	1.26	12.05
F064083		1.15	<0.005	0.999	0.47	0.70	22	0.30	0.385	0.49	0.109	2.96	5.10	7.8	8.45	82.8
F064084		1.51	<0.005	0.221	0.44	0.72	23	0.39	0.127	0.75	0.112	2.41	1.630	9.3	7.67	15.90
F064085		1.16	<0.005	0.937	7.25	0.38	64	0.53	2.13	8.67	0.421	10.60	102.0	141.5	3.58	557
F064086		1.18	<0.005	0.063	9.16	0.31	11	1.67	9.19	15.60	0.614	11.95	29.0	150.0	0.95	31.6
F064087		1.35	<0.005	0.666	9.01	0.28	81	0.35	1.275	9.70	0.487	10.20	26.2	161.5	5.33	349

***** See Appendix Page for comments regarding this certificate *****



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To: **GREAT BEAR RESOURCES LTD**
25 YORK ST. 17TH FLOOR
TORONTO ON M5J 2V5

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CERTIFICATE OF ANALYSIS TB22185248

Sample Description	Method Analyte Units LOD	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	
		Fe %	Ga ppm	Ge ppm	Hf ppm	In ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Nb ppm	Ni ppm	P %
		0.002	0.05	0.05	0.004	0.005	0.01	0.005	0.2	0.01	0.2	0.02	0.001	0.005	0.08	0.001
F064048		10.45	17.65	0.11	0.840	0.070	0.09	2.85	46.3	5.21	999	0.27	1.920	3.04	86.2	0.043
F064049		6.92	18.60	0.09	0.519	0.054	0.37	2.97	63.0	1.81	1455	25.3	0.986	2.04	94.9	0.033
F064050		8.22	17.90	0.09	1.010	0.103	0.19	5.59	21.0	1.03	2520	16.90	1.305	3.39	50.1	0.043
F064051		9.08	20.3	0.10	1.160	0.104	0.21	3.23	35.3	2.16	2710	2.23	0.809	5.36	60.3	0.043
F064052		7.72	17.70	0.09	0.969	0.080	0.32	4.18	34.3	1.92	2260	2.74	1.995	3.36	65.6	0.041
F064053		10.10	15.60	0.15	0.525	0.065	0.16	2.72	47.9	4.32	1730	0.18	0.821	2.27	81.4	0.028
F064054		10.05	17.70	0.10	0.802	0.069	0.51	3.53	26.6	3.41	2160	0.63	2.44	2.72	88.7	0.038
F064055		11.00	18.20	0.10	0.892	0.070	0.22	3.87	41.0	2.88	2900	0.73	1.450	2.64	77.9	0.038
F064056		9.60	16.20	0.10	0.761	0.064	0.21	2.92	45.1	4.27	1145	0.56	1.460	4.35	98.0	0.026
F064057		1.140	1.60	<0.05	0.041	<0.005	0.01	0.234	6.2	0.18	140.0	0.15	0.042	0.163	2.50	0.006
F064058		8.27	8.51	0.08	1.545	0.084	0.36	5.62	15.4	1.67	1680	1.25	0.671	2.84	40.1	0.034
F064059		9.05	1.62	0.07	0.090	0.111	0.01	1.500	2.6	1.95	1935	0.42	0.036	0.253	9.35	0.012
F064060		0.229	0.10	<0.05	0.574	<0.005	<0.01	0.942	2.0	<0.01	26.3	0.22	0.005	0.129	0.61	0.001
F064061		8.36	3.77	0.06	0.633	0.082	0.13	2.90	10.6	0.72	1540	1.11	0.112	1.260	19.65	0.028
F064062		32.6	3.32	1.43	0.632	0.037	0.14	3.67	34.4	1.29	12350	0.80	0.030	1.185	12.05	0.018
F064063		16.80	9.29	0.14	1.470	0.080	0.42	7.14	46.8	2.84	10950	0.83	0.246	3.00	38.2	0.018
F064064		10.70	3.16	0.07	0.391	0.024	0.05	3.87	2.7	1.16	4060	0.51	0.033	0.811	7.61	0.030
F064065		7.88	18.20	0.12	2.91	0.071	2.27	26.6	133.5	1.65	5580	2.44	0.861	6.29	164.5	0.038
F064066		7.69	13.30	0.12	2.50	0.051	1.76	20.8	126.0	1.36	4070	2.07	0.480	5.03	153.0	0.045
F064067		13.50	11.15	0.12	1.985	0.057	0.41	9.02	68.7	1.32	6460	3.34	0.396	7.60	39.3	0.042
F064068		7.30	23.6	0.16	5.17	0.109	2.84	35.2	166.5	0.44	1715	1.42	1.625	10.25	32.8	0.055
F064069		33.4	3.74	1.15	0.458	0.031	0.02	2.24	15.4	1.70	12800	0.21	0.041	1.050	36.3	0.016
F064070		3.38	18.95	0.18	12.20	0.115	2.77	32.5	21.4	0.71	506	1.92	0.905	31.4	7.16	0.037
F064071		3.31	19.60	0.22	12.90	0.095	2.54	49.1	41.1	0.47	415	1.20	1.555	33.5	4.45	0.033
F064072		15.60	14.50	0.19	0.860	0.085	0.71	10.05	63.9	1.88	5890	1.78	0.420	4.97	180.0	0.078
F064073		21.0	2.07	0.14	0.358	0.051	0.03	4.58	4.5	3.19	4710	0.37	0.083	1.100	14.95	0.017
F064074		9.34	1.19	0.07	0.116	0.043	0.02	2.50	2.9	1.38	2250	0.41	0.021	0.214	12.90	0.010
F064075		12.00	9.01	0.10	1.825	0.061	0.57	9.34	42.2	1.81	2830	1.03	0.064	3.61	38.4	0.040
F064076		4.76	1.97	0.05	0.353	0.060	0.08	1.540	7.6	1.08	635	0.47	0.020	0.572	5.26	0.018
F064077		9.87	17.20	0.10	2.34	0.134	1.59	12.15	196.5	1.54	2270	2.65	0.330	5.09	73.4	0.042
F064078		13.35	0.51	0.09	0.089	0.029	0.02	1.395	11.0	1.14	3960	1.10	0.021	0.182	10.50	0.014
F064079		13.50	0.95	0.09	0.064	0.011	0.02	1.260	14.0	1.28	4690	0.21	0.033	0.148	11.00	0.018
F064080		3.88	18.80	0.11	0.510	0.160	2.24	12.30	12.8	0.85	697	5.72	2.80	6.47	11.95	0.095
F064081		15.80	0.91	0.11	0.857	0.022	0.01	0.899	14.2	1.50	8010	0.57	0.825	0.199	2.74	0.018
F064082		14.75	0.94	0.10	0.130	0.008	0.04	1.660	18.5	1.21	5300	0.90	0.039	0.356	6.06	0.011
F064083		7.14	2.10	0.05	0.169	0.012	0.15	1.575	34.1	0.70	2850	0.58	0.021	0.615	8.08	0.010
F064084		10.30	1.34	0.08	0.224	0.010	0.11	1.460	17.6	0.69	3040	0.23	0.035	0.580	3.08	0.013
F064085		21.7	17.85	0.23	1.115	0.068	0.36	4.44	124.5	1.69	3870	4.46	0.422	2.82	195.0	0.044
F064086		9.85	35.0	0.21	1.360	0.152	0.01	4.54	13.3	1.25	4770	0.87	0.021	4.43	65.1	0.035
F064087		12.60	21.1	0.15	1.550	0.123	0.56	4.07	132.0	2.63	8030	0.82	0.749	3.22	49.2	0.045

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Sample Description	Method Analyte Units LOD	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L
		Pb ppm	Rb ppm	Re ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ta ppm	Te ppm	Th ppm	Ti %	Tl ppm	U ppm
F064048		1.21	3.62	0.0021	0.06	0.12	45.1	0.449	0.53	138.5	0.19	0.055	0.309	0.681	0.027	0.08
F064049		5.08	12.20	0.0020	0.62	1.29	35.8	0.535	0.57	151.0	0.14	0.282	0.216	0.482	0.121	0.12
F064050		3.76	3.57	0.0027	0.30	1.08	40.8	0.510	1.01	107.5	0.17	0.077	0.280	0.612	0.031	0.18
F064051		4.44	5.45	0.0004	0.08	2.20	42.4	0.134	1.84	133.5	0.18	0.020	0.313	0.622	0.039	0.94
F064052		3.90	7.73	0.0004	0.28	2.56	48.7	0.460	0.86	140.5	0.20	0.040	0.344	0.719	0.074	0.13
F064053		0.79	3.40	0.0012	0.13	0.24	46.8	0.434	0.42	129.5	0.14	0.068	0.206	0.544	0.032	0.06
F064054		3.52	12.00	0.0015	0.01	0.06	44.4	0.154	0.59	280	0.17	0.018	0.290	0.617	0.055	0.07
F064055		0.72	9.11	0.0018	0.27	0.06	42.8	1.710	0.56	82.2	0.16	0.099	0.290	0.609	0.051	0.10
F064056		2.89	64.5	0.0011	0.02	0.54	41.2	0.226	1.36	78.8	0.98	0.210	0.524	0.416	0.396	0.56
F064057		0.17	0.83	0.0004	<0.01	0.08	2.65	0.146	0.04	5.94	0.01	0.007	0.017	0.031	0.006	0.01
F064058		11.40	13.20	0.0027	2.28	0.27	10.65	2.79	0.69	50.7	0.22	0.462	1.505	0.162	0.284	0.44
F064059		4.24	0.15	0.0006	0.94	0.17	1.34	1.625	0.48	29.2	0.02	0.411	0.039	0.007	0.004	0.03
F064060		0.63	0.19	<0.0004	0.01	0.03	0.11	0.023	0.03	1.61	0.01	<0.005	0.310	0.005	0.005	0.20
F064061		4.20	7.93	0.0030	0.88	0.12	3.10	2.66	0.63	30.0	0.10	0.640	0.658	0.050	0.143	0.23
F064062		1.08	13.60	0.0005	0.15	0.06	2.39	0.432	0.31	20.5	0.09	0.097	0.860	0.065	0.249	0.24
F064063		3.30	27.4	0.0012	1.12	0.44	7.18	0.901	1.07	65.9	0.22	0.310	2.29	0.150	0.600	0.66
F064064		0.92	2.31	<0.0004	0.10	0.08	2.02	0.766	0.41	39.3	0.07	0.183	0.761	0.041	0.011	0.13
F064065		16.90	120.0	0.0028	0.47	0.08	16.55	2.17	1.18	75.1	0.49	0.293	5.77	0.333	1.430	1.57
F064066		13.65	132.0	0.0016	0.05	0.11	11.15	0.451	1.34	72.2	0.39	0.076	4.71	0.265	1.360	1.32
F064067		5.02	30.9	0.0014	0.82	0.18	7.78	1.065	0.84	72.3	0.88	2.03	2.76	0.199	0.442	0.74
F064068		25.7	100.0	0.0014	0.23	0.11	16.80	0.590	1.93	102.0	0.79	0.373	8.73	0.448	1.350	2.15
F064069		0.53	1.50	<0.0004	0.02	0.16	1.60	0.235	0.31	5.04	0.07	0.095	0.667	0.052	0.010	0.14
F064070		8.14	67.0	0.0011	0.44	0.60	13.45	0.356	4.97	313	2.08	0.017	9.12	0.321	0.336	3.61
F064071		7.02	55.6	0.0008	0.62	0.51	13.10	0.325	5.19	255	2.09	0.030	9.32	0.320	0.240	2.33
F064072		3.71	34.5	0.0015	2.06	0.23	35.1	0.876	4.75	176.5	0.57	0.159	0.848	0.479	0.303	0.32
F064073		1.70	0.35	0.0007	0.38	0.57	5.47	0.734	0.27	33.9	0.07	0.179	0.323	0.037	0.004	0.05
F064074		2.74	0.82	0.0006	1.72	0.54	1.61	0.844	0.25	6.74	0.01	0.243	0.074	0.006	0.039	0.05
F064075		6.31	21.9	0.0025	1.95	0.38	8.61	1.475	0.49	23.5	0.27	0.439	2.88	0.164	0.397	0.92
F064076		2.00	3.16	0.0004	0.36	0.33	2.37	0.549	0.40	7.78	0.04	0.204	0.241	0.019	0.064	0.13
F064077		8.61	204	0.0040	1.20	0.10	20.4	1.495	7.24	58.9	0.36	0.168	3.87	0.337	1.500	1.10
F064078		4.94	0.64	0.0018	2.00	0.26	1.12	0.505	0.19	9.07	0.01	0.190	0.093	0.006	0.011	0.11
F064079		4.72	0.79	0.0005	0.50	0.24	1.00	0.187	0.43	8.34	0.01	0.029	0.059	0.004	0.006	0.07
F064080		59.4	62.8	0.0092	0.65	3.36	7.27	5.06	1.91	658	0.30	5.38	3.62	0.259	0.471	0.76
F064081		5.01	0.24	<0.0004	0.04	0.32	1.34	0.279	0.23	6.10	0.01	0.130	0.046	0.004	0.003	0.07
F064082		2.28	2.37	0.0005	0.64	0.09	1.54	0.371	0.17	7.56	0.02	0.088	0.130	0.011	0.021	0.12
F064083		13.15	8.99	0.0009	2.02	0.13	0.80	0.914	0.19	2.72	0.03	0.219	0.299	0.017	0.181	0.07
F064084		5.58	13.95	0.0004	0.72	0.13	0.87	0.444	0.21	5.33	0.04	0.077	0.191	0.016	0.099	0.09
F064085		3.12	36.6	0.0079	8.71	0.07	42.7	2.93	1.41	85.2	0.17	0.607	0.337	0.529	0.336	0.26
F064086		9.01	1.74	0.0006	0.09	0.10	39.9	0.230	12.20	91.1	0.18	0.018	0.359	0.553	0.073	0.24
F064087		2.86	35.7	0.0019	1.74	0.08	45.8	1.100	1.38	103.0	0.21	0.203	0.316	0.694	0.291	0.21

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Project: Sobel

CERTIFICATE OF ANALYSIS TB22185248

Sample Description	Method Analyte Units LOD	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	PCM-MS23	PCM-MS23	PCM-MS23	Au-AA25
		V ppm	W ppm	Y ppm	Zn ppm	Zr ppm	Au ppm	Pt ppm	Pd ppm	Au ppm
		0.1	0.008	0.01	0.2	0.1	0.001	0.0005	0.001	0.01
F064048		315	0.313	24.2	106.5	27.4				
F064049		253	1.705	14.75	69.7	10.8				
F064050		339	6.01	22.7	136.0	32.0				
F064051		327	0.906	22.3	121.0	34.6				
F064052		314	1.040	24.8	106.5	23.7				
F064053		291	0.255	19.30	96.3	11.3				
F064054		305	0.234	21.8	109.5	16.8				
F064055		295	0.576	21.4	100.0	20.9				
F064056		238	0.667	16.25	52.4	21.1				
F064057		23.4	0.333	1.72	6.8	1.3				
F064058		66.2	0.446	14.00	237	61.5				
F064059		12.6	0.150	6.69	407	4.9				
F064060		0.5	0.012	0.91	3.6	19.1				
F064061		19.0	0.194	8.63	263	32.3				
F064062		17.4	0.131	2.92	273	27.6				
F064063		50.8	0.612	12.10	247	61.6				
F064064		13.8	1.775	5.04	75.9	14.8				
F064065		112.0	0.423	15.50	437	122.5				
F064066		75.6	0.610	14.95	187.0	105.0				
F064067		51.9	0.584	13.30	194.5	83.6				
F064068		114.5	1.365	18.00	164.5	212				
F064069		15.4	0.880	3.69	179.0	19.5				
F064070		32.7	1.490	125.0	38.3	442				
F064071		13.5	1.935	122.0	31.5	462				
F064072		199.5	1.220	17.95	131.0	27.8				
F064073		21.3	0.872	18.00	97.4	14.5				
F064074		7.4	1.775	7.51	109.0	6.5				
F064075		50.4	1.100	14.95	156.5	76.1				
F064076		13.2	0.753	7.40	75.9	24.5				
F064077		145.0	0.561	15.95	157.0	87.4				
F064078		6.1	0.623	8.13	78.5	5.2				
F064079		5.7	2.65	7.93	60.4	4.2				
F064080		94.1	8.50	9.83	166.0	16.1				
F064081		6.5	0.448	7.55	190.5	3.7				
F064082		10.2	0.742	6.36	45.9	6.3				
F064083		6.8	0.380	3.15	38.2	8.9				
F064084		5.3	0.139	3.86	36.2	8.6				
F064085		271	2.25	23.0	147.0	35.2				
F064086		384	15.95	31.0	115.0	45.5				
F064087		309	0.891	25.8	180.5	49.3				

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Project: Sobel

CERTIFICATE OF ANALYSIS TB22185248

Sample Description	Method Analyte Units LOD	WEI-21	Au-AA23	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L
		Recvd Wt.	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	
		kg	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
		0.02	0.005	0.002	0.01	0.02	1	0.02	0.002	0.01	0.005	0.01	0.005	0.3	0.01	0.02	
F064088		1.28	<0.005	0.588	7.41	0.35	54	0.45	2.64	11.70	0.432	10.60	33.8	149.5	3.58	212	
F064089		1.04	0.013	0.099	8.12	0.79	77	3.35	5.80	8.80	0.192	9.18	38.3	169.0	14.30	203	
F064090		1.49	0.009	0.227	8.66	1.21	147	1.95	4.82	8.27	0.426	10.40	51.2	197.5	9.93	151.5	
F064091		1.09	0.013	0.040	6.33	0.70	274	2.90	16.60	0.53	0.011	3.55	1.145	11.7	31.8	9.57	
F064092		1.37	<0.005	0.167	5.19	1.12	374	2.58	3.43	0.08	0.006	13.75	1.620	119.5	30.5	69.0	
F064093		0.79	<0.005	0.111	6.74	1.04	207	1.40	0.182	0.90	0.350	47.9	21.7	103.0	2.42	149.0	
F064094		0.92	<0.005	0.049	1.94	1.18	55	0.48	0.053	1.84	0.246	8.64	4.13	32.2	1.82	21.1	
F064095		1.27	0.005	1.195	0.48	0.41	1	0.13	0.704	1.82	0.167	5.34	52.4	25.4	0.04	160.0	
F064096		0.59	<0.005	0.159	1.47	1.19	7	0.18	0.150	2.99	0.140	8.28	7.16	38.2	0.50	71.4	
F064097		0.79	0.069	0.243	6.37	0.36	102	4.59	98.6	0.26	<0.005	6.79	0.601	11.3	11.15	5.84	
F064098		0.73	0.005	0.247	7.78	0.56	243	0.61	0.559	3.24	0.453	37.6	96.9	109.0	16.95	124.5	
F064099		0.92	0.006	0.048	6.47	0.30	52	8.91	7.64	0.43	0.149	6.36	1.130	9.7	12.55	11.15	
F064100		0.42	<0.005	0.017	0.03	0.35	3	<0.02	0.174	0.01	0.044	1.82	0.165	2.5	0.02	0.67	
F064101		1.38	<0.005	0.079	8.28	0.16	37	0.33	0.370	8.87	0.134	10.40	52.3	196.0	0.64	99.6	
F064102		0.77	<0.005	0.017	8.62	0.47	33	13.55	1.010	13.30	0.400	5.52	35.3	122.0	6.68	13.20	
F064103		1.06	<0.005	0.167	6.53	0.62	38	6.23	1.820	12.70	0.344	8.45	38.4	171.0	1.31	585	
F064104		1.44	<0.005	0.183	2.57	1.76	9	2.51	0.767	13.50	0.272	4.53	13.80	30.5	0.60	437	
F064105		0.73	<0.005	0.317	6.01	0.53	37	0.74	0.941	6.00	0.308	5.16	18.85	169.5	56.6	786	
F064106		1.25	<0.005	0.065	6.94	0.95	421	0.83	0.151	3.46	0.094	22.9	9.80	17.7	2.36	18.85	
F064107		0.26	<0.005	0.033	3.29	1.17	20	0.20	0.306	6.64	0.093	3.09	17.45	74.6	0.77	52.5	
F064108		0.55	<0.005	0.095	7.77	0.44	44	0.25	0.255	9.52	0.163	8.20	53.8	201	1.08	276	
F064109		1.63		0.061	7.29	0.24	24	0.19	0.030	7.24	0.016	7.40	52.6	182.0	2.09	162.0	
F064110		2.29		0.116	7.34	0.11	20	0.17	0.014	7.19	0.122	6.94	61.5	165.0	0.81	165.5	
F064111		2.09		0.312	7.53	0.20	44	0.24	0.237	1.66	0.135	6.25	75.5	224	73.2	870	
F064112		1.28		0.088	7.47	0.23	10	0.34	0.179	3.38	0.085	5.88	43.8	213	16.75	465	
F064113		0.70		0.087	0.90	0.55	7	0.10	0.106	6.13	0.198	5.61	67.0	9.0	0.07	48.3	
F064114		0.84		0.076	7.51	0.22	21	0.18	0.008	6.94	0.107	6.80	62.2	144.0	0.43	259	
F064115		1.63		0.065	6.61	0.65	31	0.32	0.089	6.11	0.095	13.70	35.2	6.4	0.84	292	
F064116		1.11		0.061	2.80	2.11	14	0.61	0.359	5.96	1.555	10.10	20.7	76.2	0.81	63.4	
F064117		1.03		0.065	7.72	0.30	17	0.77	0.378	9.77	0.161	10.30	51.2	183.0	1.82	140.0	
F064118		1.32		0.137	6.98	0.72	30	7.44	0.175	0.71	0.150	14.10	0.819	11.3	10.90	188.5	
F064119		0.92		0.080	6.82	0.62	26	0.31	0.277	8.35	0.196	13.30	50.4	11.1	1.50	320	
F064120		0.07		66.2	6.40	52.7	98	1.06	1.98	17.20	32.9	22.4	131.5	2.21	7120		
F064121		0.83		0.030	6.27	0.39	8	10.30	6.63	1.00	0.013	16.35	2.12	14.4	6.05	23.1	
F064122		1.16		0.113	4.58	0.66	5	4.24	10.80	0.45	<0.005	17.05	4.05	17.1	1.89	129.5	
F064123		1.58		0.062	7.08	0.25	25	0.47	0.584	5.75	0.165	8.02	49.0	189.5	30.5	100.5	
F064124		0.90		0.164	7.00	0.15	52	0.40	0.761	5.54	0.174	9.36	56.7	21.2	0.69	402	
F064125		1.00		0.183	6.86	0.70	100	2.53	1.855	7.50	0.200	11.10	47.6	27.6	14.40	318	
F064126		2.21		0.271	6.75	0.37	148	0.31	0.846	5.83	0.159	13.10	40.0	16.5	25.4	806	
F064127		1.01		0.139	6.75	0.53	25	0.57	0.481	9.10	0.048	15.90	34.0	7.6	1.66	410	

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CERTIFICATE OF ANALYSIS TB22185248

Sample Description	Method Analyte Units LOD	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	
		Fe %	Ca ppm	Ge ppm	Hf ppm	In ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Nb ppm	Ni ppm	P %
F064088		10.75	17.70	0.11	1.385	0.148	0.31	4.23	114.5	3.41	4040	0.61	0.463	2.61	85.6	0.038
F064089		6.63	18.50	0.06	1.555	0.066	0.32	3.36	120.5	1.08	1935	36.3	1.220	3.44	57.1	0.052
F064090		4.77	21.4	0.08	0.847	0.058	0.32	3.69	59.5	1.03	1995	2.06	1.990	3.90	108.0	0.044
F064091		1.090	21.7	0.08	6.21	<0.005	6.03	1.185	12.3	0.03	276	9.42	1.235	29.1	2.41	0.005
F064092		17.30	15.85	0.14	1.865	0.095	2.21	6.44	313	0.40	387	7.38	0.825	2.86	1.95	0.035
F064093		8.33	14.80	0.11	3.66	0.054	1.63	21.2	191.0	0.62	2140	1.48	0.866	7.49	64.4	0.036
F064094		15.05	4.37	0.08	0.869	0.032	0.13	4.35	29.7	1.82	9360	0.30	0.046	1.885	9.89	0.014
F064095		14.50	2.14	0.08	0.113	0.028	0.01	2.43	11.6	1.00	1095	0.65	0.038	0.281	63.9	0.014
F064096		10.00	3.48	0.05	0.752	0.037	0.04	3.86	36.4	1.35	5160	0.77	0.077	1.510	17.70	0.015
F064097		0.550	23.1	0.06	1.125	<0.005	4.41	2.83	14.8	0.05	117.0	1285	2.42	27.2	1.84	0.003
F064098		8.26	17.55	0.11	2.87	0.099	2.85	17.25	198.5	2.00	951	2.17	0.280	4.90	76.4	0.051
F064099		0.520	26.5	0.05	4.08	0.010	3.45	2.35	13.3	0.03	179.5	142.0	3.44	34.3	2.19	0.003
F064100		0.330	0.14	<0.05	0.618	<0.005	0.01	0.937	1.6	<0.01	32.6	1.21	0.006	0.185	0.66	0.001
F064101		8.24	18.10	0.09	0.660	0.080	0.25	3.72	99.8	2.68	1770	0.96	2.23	2.91	120.0	0.042
F064102		6.92	21.0	0.09	0.669	0.073	0.39	2.11	139.0	2.32	1765	0.59	1.270	3.94	80.5	0.030
F064103		8.74	15.15	0.07	0.659	0.069	0.11	3.04	64.5	2.37	2010	0.57	1.235	2.69	70.0	0.030
F064104		15.50	21.1	0.09	0.135	0.165	0.02	1.445	7.4	0.88	2550	7.16	0.095	13.85	10.55	0.054
F064105		16.00	14.50	0.42	0.579	0.044	0.37	1.730	81.8	4.70	2550	1.03	0.869	1.785	28.0	0.021
F064106		3.36	16.30	0.09	2.23	0.039	1.15	9.38	28.9	1.06	701	0.55	2.61	4.56	5.60	0.056
F064107		4.31	7.38	0.05	0.225	0.028	0.08	1.240	17.0	1.28	2110	0.28	0.254	0.689	26.0	0.014
F064108		9.47	16.60	0.09	0.598	0.066	0.15	3.10	35.1	3.50	2080	0.32	1.540	2.21	113.0	0.029
F064109		9.59	15.70	0.10	0.709	0.062	0.16	2.79	103.0	4.59	990	0.12	1.095	1.730	102.5	0.025
F064110		9.46	14.45	0.12	0.691	0.053	0.08	2.67	85.8	5.48	1500	0.20	1.195	1.565	173.0	0.024
F064111		11.70	20.2	0.18	0.627	0.064	0.29	2.84	354	8.28	423	0.33	1.165	2.00	83.1	0.027
F064112		12.70	16.30	0.17	0.428	0.064	0.05	2.12	149.5	6.94	515	0.29	0.970	1.870	91.4	0.014
F064113		14.15	5.40	0.09	0.081	0.118	0.01	2.34	14.9	6.87	420	0.72	0.105	0.343	6.24	0.081
F064114		9.32	15.85	0.11	0.657	0.054	0.12	2.56	29.1	5.41	1375	0.13	1.210	1.615	211	0.023
F064115		12.20	20.5	0.11	1.200	0.097	0.16	4.85	73.4	2.86	1945	0.38	1.450	4.62	16.75	0.069
F064116		7.50	7.92	0.06	0.596	0.189	0.07	4.45	10.4	0.70	2080	1.17	0.111	1.810	50.4	0.019
F064117		8.26	15.40	0.07	0.647	0.064	0.16	3.81	60.4	3.56	2160	0.32	1.645	2.61	137.0	0.035
F064118		0.740	30.3	0.05	1.110	0.023	0.61	5.50	63.0	0.07	206	0.19	5.21	33.1	1.75	0.003
F064119		13.10	23.0	0.13	0.924	0.100	0.16	4.84	58.6	3.74	2060	0.68	0.675	3.72	32.7	0.051
F064120		5.18	15.70	0.11	0.891	0.235	2.25	14.30	12.9	2.00	730	261	1.605	7.43	141.0	0.064
F064121		0.600	30.1	0.06	2.51	0.008	0.17	7.41	33.0	0.11	281	174.0	4.34	29.1	2.64	0.003
F064122		0.950	19.85	0.06	2.62	0.027	0.10	5.68	15.2	0.10	317	369	3.22	50.1	3.24	0.003
F064123		10.65	15.75	0.14	0.737	0.062	0.51	2.94	72.9	4.70	1535	0.51	2.02	2.51	59.0	0.025
F064124		11.85	16.65	0.09	0.896	0.085	0.17	2.95	38.6	3.50	1985	0.79	1.985	3.28	44.6	0.049
F064125		11.80	20.9	0.09	0.909	0.096	0.47	4.40	76.6	3.52	1735	77.6	0.804	3.86	36.0	0.036
F064126		10.50	17.90	0.10	1.050	0.079	0.67	4.82	99.2	3.79	1505	7.38	0.755	3.45	20.4	0.047
F064127		9.33	21.2	0.08	0.693	0.073	0.14	6.39	26.7	1.87	1220	0.83	0.254	3.20	15.35	0.050

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To: **GREAT BEAR RESOURCES LTD**
25 YORK ST. 17TH FLOOR
TORONTO ON M5J 2V5

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Project: Sobel

CERTIFICATE OF ANALYSIS TB22185248

Sample Description	Method Analyte Units LOD	ME-MSG1L	ME-MSG1L	ME-MSG1L	ME-MSG1L	ME-MSG1L	ME-MSG1L	ME-MSG1L	ME-MSG1L	ME-MSG1L	ME-MSG1L	ME-MSG1L	ME-MSG1L	ME-MSG1L	ME-MSG1L	
		Pb ppm	Rb ppm	Re ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ta ppm	Te ppm	Th ppm	Ti %	Tl ppm	U ppm
		0.01	0.02	0.0004	0.01	0.02	0.01	0.006	0.02	0.02	0.01	0.005	0.004	0.001	0.002	0.01
F064088		3.01	18.90	0.0015	1.63	0.12	32.9	0.542	1.60	101.5	0.17	0.141	0.307	0.578	0.166	0.16
F064089		1.62	54.4	0.0088	0.20	0.08	35.0	0.541	2.74	177.0	0.20	0.205	0.329	0.762	0.360	0.09
F064090		11.35	24.3	0.0020	1.88	0.16	32.7	0.656	2.58	182.0	0.26	0.461	0.602	0.760	0.252	0.77
F064091		52.1	622	0.0011	0.06	0.06	2.80	0.163	0.46	35.3	12.80	0.323	20.4	0.042	3.58	10.30
F064092		6.91	445	0.0035	0.38	0.15	11.90	5.25	4.23	158.5	0.25	0.751	3.88	0.178	2.83	1.65
F064093		13.55	62.8	0.0017	1.57	0.16	10.95	1.090	1.31	104.5	0.56	0.486	5.97	0.321	0.696	1.62
F064094		0.83	7.63	0.0009	0.55	0.08	2.85	0.374	0.41	6.68	0.14	0.137	1.115	0.087	0.123	0.31
F064095		1.64	0.22	0.0012	7.85	0.20	0.97	2.84	0.36	5.46	0.02	0.725	0.172	0.012	0.005	0.20
F064096		0.77	1.14	0.0008	0.88	0.26	2.21	0.452	0.36	6.40	0.11	0.186	1.015	0.070	0.017	0.32
F064097		31.1	509	0.0681	0.10	0.06	2.28	0.205	0.64	34.9	4.94	1.430	7.04	0.018	2.80	5.58
F064098		8.53	114.0	0.0038	0.98	0.08	17.45	0.889	0.93	70.3	0.37	0.195	3.62	0.357	0.709	1.24
F064099		45.5	416	0.0075	0.03	0.05	1.54	0.067	0.44	20.7	5.96	0.102	15.30	0.013	2.21	14.50
F064100		0.64	0.52	<0.0004	0.01	0.04	0.10	<0.006	0.04	1.68	0.01	0.008	0.299	0.005	0.007	0.20
F064101		1.58	7.39	0.0009	0.26	0.09	41.2	0.288	0.65	180.5	0.19	0.017	0.338	0.692	0.099	0.11
F064102		1.35	38.5	<0.0004	<0.01	0.13	27.0	0.011	6.79	164.0	0.13	0.026	0.146	0.440	0.188	0.12
F064103		1.66	4.18	<0.0004	0.30	0.12	36.8	1.075	5.44	145.5	0.16	0.027	0.262	0.587	0.065	0.11
F064104		1.34	1.29	0.0019	0.46	0.13	4.50	3.01	21.7	9.19	0.10	0.253	0.059	0.065	0.014	1.06
F064105		0.85	98.3	0.0011	1.18	0.10	33.3	1.940	1.24	16.30	0.10	0.295	0.153	0.372	0.822	0.14
F064106		15.30	36.1	<0.0004	0.12	0.07	9.84	0.072	0.67	552	0.31	0.020	2.02	0.220	0.234	0.61
F064107		0.70	4.89	<0.0004	0.03	0.09	12.45	0.153	0.21	39.5	0.04	0.016	0.110	0.159	0.023	0.03
F064108		1.20	4.95	0.0010	0.17	0.08	43.8	0.865	0.45	111.5	0.14	0.049	0.235	0.511	0.040	0.07
F064109		0.30	18.50	0.0008	0.02	0.15	38.3	0.085	0.54	80.6	0.11	0.022	0.182	0.423	0.082	0.05
F064110		0.75	2.21	0.0006	<0.01	0.22	36.3	0.113	0.55	97.8	0.10	0.020	0.174	0.400	0.020	0.06
F064111		0.68	62.6	0.0015	0.77	0.06	31.0	11.40	0.46	29.5	0.13	0.366	0.207	0.497	0.328	0.04
F064112		0.66	9.07	0.0013	0.89	0.06	35.0	8.13	1.15	39.7	0.11	0.314	0.206	0.459	0.052	0.06
F064113		0.88	0.20	0.0009	0.06	0.07	2.16	4.55	0.96	2.95	0.02	0.375	0.060	0.028	0.005	0.03
F064114		0.47	1.64	0.0013	0.03	0.18	33.3	0.364	0.29	85.7	0.10	0.022	0.184	0.366	0.017	0.06
F064115		1.47	4.91	0.0024	0.36	0.25	44.4	2.13	0.48	70.7	0.30	0.110	0.530	0.735	0.046	0.11
F064116		3.32	6.16	0.0029	0.58	0.24	10.20	1.380	1.29	64.3	0.12	0.265	1.205	0.128	0.088	0.34
F064117		0.91	4.85	0.0006	0.09	0.06	36.9	0.302	0.65	138.5	0.16	0.012	0.270	0.613	0.051	0.12
F064118		25.7	112.0	<0.0004	0.14	0.06	4.02	0.378	1.39	26.1	6.23	0.007	6.03	0.029	0.710	7.02
F064119		0.54	7.40	0.0035	0.36	0.40	53.5	0.991	0.59	65.6	0.24	0.123	0.415	0.855	0.050	0.11
F064120		1475	89.6	0.1180	2.34	136.0	8.17	5.08	4.58	357	0.48	0.432	5.43	0.235	1.450	2.07
F064121		11.25	23.2	0.0119	0.03	0.06	5.11	0.086	0.34	49.5	9.19	0.178	4.22	0.026	0.151	2.97
F064122		10.65	8.55	0.0249	0.12	0.06	5.93	0.334	0.52	30.7	11.85	0.282	5.03	0.021	0.080	3.72
F064123		2.12	88.1	0.0010	0.05	0.11	42.8	0.146	0.85	89.4	0.19	0.048	0.220	0.549	0.613	0.09
F064124		1.78	3.37	0.0018	0.91	0.09	47.6	1.230	0.50	131.0	0.21	0.141	0.376	0.713	0.047	0.10
F064125		2.84	75.4	0.0146	0.38	0.19	47.5	1.055	4.36	113.5	0.21	0.105	0.310	0.662	0.565	0.13
F064126		1.80	98.9	0.0040	0.51	0.11	49.5	2.80	0.61	126.5	0.22	0.329	0.402	0.768	0.799	0.10
F064127		0.73	13.20	0.0028	0.59	0.32	32.6	1.480	0.71	190.0	0.20	0.167	0.367	0.631	0.063	0.11

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CERTIFICATE OF ANALYSIS TB22185248

Sample Description	Method Analyte Units LOD	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	PGM-MS23	PGM-MS23	PGM-MS23	Au-AA25
		V	W	Y	Zn	Zr	Au	Pt	Pd	Au
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
		0.1	0.008	0.01	0.2	0.1	0.001	0.0005	0.001	0.01
F064088		255	0.857	22.4	150.5	44.5				
F064089		284	2.32	17.75	100.5	40.4				
F064090		298	0.975	20.9	180.0	21.4				
F064091		8.6	0.504	18.65	4.9	97.1				
F064092		84.3	1.200	4.78	41.2	67.0				
F064093		80.3	0.955	13.00	126.0	144.0				
F064094		23.0	0.232	8.58	96.2	35.4				
F064095		6.9	0.612	3.98	37.3	4.6				
F064096		17.5	0.490	5.14	95.7	29.5				
F064097		2.2	0.793	9.15	32.2	15.8				
F064098		122.5	1.275	16.10	220	106.5				
F064099		1.7	0.279	17.25	54.2	72.4				
F064100		0.7	0.011	0.97	3.5	19.3				
F064101		309	0.218	24.8	99.9	12.3				
F064102		207	2.73	15.60	113.5	17.0				
F064103		256	0.622	21.0	79.2	13.1				
F064104		49.4	2.46	9.90	51.4	4.2				
F064105		210	0.119	11.55	89.3	13.6				
F064106		76.5	0.198	11.65	67.5	83.0				
F064107		108.5	1.150	6.83	43.3	6.6				
F064108		256	0.352	18.00	97.5	10.8				
F064109		245	0.069	16.25	57.0	18.3	0.006	0.0163	0.017	
F064110		230	0.059	14.55	83.4	20.3	0.003	0.0154	0.018	
F064111		294	0.078	11.15	83.6	19.1	0.003	0.0184	0.020	
F064112		255	0.123	19.95	48.4	17.1	0.007	0.0175	0.020	
F064113		45.4	0.324	7.50	52.8	2.7	0.002	0.0006	<0.001	
F064114		205	0.041	14.65	95.8	18.7	0.005	0.0133	0.013	
F064115		307	0.310	38.9	112.5	34.1	0.001	<0.0005	<0.001	
F064116		80.7	0.606	9.23	395	25.4	0.002	0.0010	<0.001	
F064117		277	0.347	24.0	96.1	11.1	<0.001	0.0012	<0.001	
F064118		3.6	0.174	15.00	38.5	16.5	0.002	<0.0005	<0.001	
F064119		450	52.7	31.8	146.5	22.3	0.008	<0.0005	<0.001	
F064120		103.5	10.95	11.25	3080	27.2	>1.00	0.0020	0.006	1.21
F064121		7.2	0.311	12.60	7.8	19.3	0.015	0.0006	0.001	
F064122		6.8	0.568	12.70	6.6	21.9	0.018	0.0007	0.002	
F064123		301	0.232	20.4	115.5	20.2	0.005	0.0204	0.021	
F064124		344	0.267	28.0	126.5	24.9	0.002	0.0041	<0.001	
F064125		357	3.37	23.8	142.5	26.6	0.002	0.0039	0.002	
F064126		351	0.541	27.1	103.5	34.5	0.002	<0.0005	<0.001	
F064127		368	1.355	24.9	48.9	15.2	0.003	<0.0005	<0.001	

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CERTIFICATE OF ANALYSIS TB22185248

Sample Description	Method Analyte Units LOD	WEI-21	Au-AA23	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L
		Recvd Wt. kg	Au ppm	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	Cu ppm	
		0.02	0.005	0.002	0.01	0.02	1	0.02	0.002	0.01	0.005	0.01	0.005	0.3	0.01	0.02	
F064128		0.87		0.092	8.06	0.67	209	0.31	0.432	8.32	0.187	8.80	55.6	180.0	8.15	301	
F064129		1.14		0.053	8.68	0.27	222	0.57	0.450	9.95	0.208	10.70	51.9	196.5	3.60	90.4	
F064130		0.71		0.097	8.72	1.38	66	0.21	0.230	7.22	0.142	9.55	48.2	145.0	12.65	215	
F064131		1.20		0.538	0.19	9.53	7	0.50	0.724	2.56	0.512	4.52	20.4	6.5	0.18	98.6	
F064132		1.21		0.200	0.09	3.27	2	0.30	0.389	1.46	0.291	4.00	6.99	11.6	0.09	16.50	
F064133		1.04		0.211	0.22	1.24	6	0.45	0.434	0.91	0.180	1.75	4.56	23.2	0.34	17.40	
F064134		1.16		0.734	0.96	1.52	12	1.22	1.255	2.33	0.644	6.55	11.00	18.4	0.64	38.4	
F064135		0.99		0.565	2.79	1.22	182	1.58	0.959	1.40	0.261	11.00	10.85	22.9	1.54	52.5	
F064136		1.45		0.285	0.42	5.38	6	0.64	0.600	1.04	0.336	4.66	4.73	22.7	0.72	21.8	
F064137		0.65		0.213	4.99	1.62	50	3.16	14.30	1.22	0.796	8.06	50.8	41.4	25.9	245	
F064138		1.14		0.137	5.54	1.30	83	3.60	4.68	2.52	1.065	11.85	35.6	93.8	15.40	201	
F064139		1.03		0.093	0.06	2.29	3	0.11	0.159	0.32	0.084	1.52	2.36	21.1	0.10	6.89	
F064140		0.33		0.015	0.03	0.29	4	<0.02	0.042	0.01	0.066	1.94	0.186	0.9	0.03	0.99	
F064141		1.01		0.100	6.44	1.88	470	2.59	0.406	0.77	0.057	10.35	0.696	7.5	16.50	2.93	
F064142		1.82		0.085	0.10	1.44	5	0.48	0.147	2.69	0.249	6.91	7.36	4.1	0.03	8.56	
F064143		1.04		0.161	0.10	0.78	1	0.66	0.387	2.57	0.366	6.44	10.35	6.0	0.07	21.1	
F064144		1.60		0.764	0.18	2.76	8	0.40	1.290	1.83	0.317	4.55	18.75	9.3	0.22	58.1	
F064145		0.95		0.042	3.70	0.32	449	0.84	0.044	0.52	0.006	6.89	1.000	14.4	2.23	2.99	
F064146		1.09		0.033	6.70	0.34	27	6.85	1.710	7.31	0.098	8.30	51.2	14.9	1.10	86.3	
F064147		0.90		0.024	7.84	0.10	10	0.25	0.027	6.98	0.200	7.54	53.9	195.5	0.20	159.0	
F064148		1.88		0.013	6.00	0.42	106	0.94	0.076	5.06	0.076	12.20	39.5	3.6	1.77	63.9	
F064149		1.35	<0.005	0.042	7.72	0.13	17	0.22	0.019	6.73	0.075	7.72	52.9	177.5	0.72	133.5	
F064150		1.49	<0.005	0.059	2.92	1.14	4	0.42	0.089	2.12	0.377	14.35	12.00	53.6	0.09	52.2	
F064151		1.09	<0.005	0.166	7.76	1.02	384	1.26	14.40	3.28	0.541	24.1	25.1	93.6	18.15	71.7	
F064152		1.76	<0.005	0.214	7.78	0.48	257	1.02	0.568	5.40	0.469	33.7	28.9	82.5	30.5	81.9	
F064153		2.05	<0.005	0.081	7.88	0.29	146	0.40	0.337	7.06	0.096	14.70	55.2	201	14.30	206	
F064154		0.99	<0.005	0.040	7.38	0.97	17	0.71	0.111	7.83	0.109	5.61	47.6	155.0	9.14	102.0	
F064155		1.21	0.008	0.090	4.07	0.33	10	0.09	0.006	2.92	0.199	2.14	33.9	68.4	0.42	288	
F064156		0.94	<0.005	0.049	8.54	0.47	113	2.86	0.075	6.18	0.094	37.5	32.1	124.5	3.29	95.2	
F064157		1.30	<0.005	0.112	7.75	0.26	125	1.63	0.348	7.41	0.133	26.7	45.2	184.5	6.54	215	
F064158		0.72	<0.005	0.154	9.67	0.58	550	5.49	0.383	3.21	0.032	35.2	8.71	22.3	11.40	102.5	
F064159		0.98		0.027	7.80	0.33	31	0.73	0.107	7.30	0.139	11.55	52.3	80.7	1.74	74.3	
F064160		0.07		75.3	6.64	51.6	146	1.14	2.78	2.02	17.75	31.8	24.2	138.5	2.22	7170	
F064161		1.43		0.057	7.08	0.27	10	0.64	0.141	5.93	0.110	18.30	46.9	79.2	1.08	133.0	
F064162		1.05		0.020	3.04	0.73	65	1.08	0.646	20.8	0.247	12.65	29.3	31.7	1.10	40.5	
F064163		0.62		0.016	1.73	0.81	22	0.05	0.125	7.52	0.091	3.54	10.75	24.1	0.98	46.9	
F064164		1.10		0.135	1.99	0.44	127	1.96	1.620	15.50	0.522	22.4	159.5	1015	19.75	350	
F064165		1.30		0.119	1.58	0.56	46	0.69	5.01	12.80	0.331	20.3	129.5	888	14.40	281	
F064166		1.17		0.200	0.99	0.64	21	0.27	1.050	7.50	0.208	15.05	42.7	398	2.88	423	
F064167		1.66		0.148	1.34	0.66	18	0.89	1.485	10.90	0.197	21.6	127.5	796	1.12	373	

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CERTIFICATE OF ANALYSIS TB22185248

Sample Description	Method Analyte Units LOD	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L
		Fe %	Ga ppm	Ge ppm	Hf ppm	In ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Nb ppm	Ni ppm	P %
F064128		11.30	19.55	0.09	1.245	0.080	0.69	3.20	45.7	2.52	3960	0.50	1.515	2.72	116.5	0.031
F064129		8.90	19.05	0.08	0.994	0.086	0.50	3.98	22.3	1.99	3310	0.51	1.050	3.15	117.0	0.040
F064130		11.70	19.10	0.18	0.857	0.080	0.40	3.26	125.0	4.51	2000	0.23	1.720	2.82	67.8	0.037
F064131		26.4	0.86	0.14	0.107	0.027	0.02	2.45	7.1	2.49	13700	7.43	0.042	0.261	42.5	0.021
F064132		19.85	0.57	0.10	0.053	0.019	0.01	2.38	5.9	1.61	10450	0.47	0.020	0.085	18.10	0.010
F064133		9.37	0.96	0.05	0.054	0.020	0.03	0.934	3.8	0.69	6400	0.64	0.035	0.642	9.80	0.005
F064134		28.0	3.89	0.15	0.338	0.073	0.09	3.23	12.8	2.79	21100	0.88	0.135	1.315	22.3	0.008
F064135		20.8	7.58	0.13	1.315	0.023	0.52	5.74	6.4	0.92	9750	7.09	0.841	5.84	22.9	0.027
F064136		17.10	2.39	0.09	0.112	0.023	0.05	2.65	6.2	1.56	13050	0.63	0.052	4.06	6.98	0.008
F064137		9.12	32.9	0.08	12.50	0.146	0.83	4.16	89.9	0.45	4490	980	1.040	87.1	55.9	0.014
F064138		7.40	21.1	0.08	5.03	0.218	0.65	5.86	92.5	0.80	2930	198.5	1.095	26.2	48.2	0.018
F064139		5.50	0.28	<0.05	0.017	<0.005	0.01	0.927	4.7	0.34	2450	0.85	0.011	0.087	5.39	0.010
F064140		0.111	0.10	<0.05	0.558	0.009	<0.01	1.035	1.7	<0.01	13.6	0.83	0.004	0.175	0.48	0.001
F064141		5.92	19.20	0.08	2.47	0.012	3.35	5.37	89.4	0.20	3040	1.64	2.21	20.4	1.15	0.011
F064142		29.3	0.75	0.15	0.058	0.011	0.01	3.79	7.7	2.76	17750	0.19	0.024	0.091	21.0	0.014
F064143		25.5	0.98	0.13	0.066	0.019	0.01	3.45	7.8	2.52	16150	0.47	0.029	0.177	26.0	0.007
F064144		29.7	1.18	0.16	0.092	0.027	0.02	2.50	8.0	1.93	12950	1.04	0.038	0.236	38.3	0.012
F064145		0.650	9.26	0.05	1.095	0.007	2.20	2.83	10.4	0.10	121.0	0.15	1.290	2.43	1.46	0.007
F064146		11.00	21.4	0.10	1.170	0.102	0.21	2.72	78.9	3.72	1785	2.57	1.035	6.62	36.3	0.036
F064147		10.00	17.10	0.11	0.652	0.106	0.10	2.74	84.6	5.35	1110	0.32	1.575	2.05	97.6	0.026
F064148		14.55	22.9	0.12	1.850	0.121	0.25	3.74	42.2	2.05	2110	0.40	1.550	7.05	6.42	0.077
F064149		9.61	17.65	0.13	0.482	0.060	0.07	2.68	53.6	5.11	1175	0.19	1.195	2.20	100.5	0.029
F064150		16.75	7.22	0.10	1.295	0.082	0.03	6.30	20.2	2.37	6960	0.47	0.059	2.76	36.9	0.022
F064151		6.00	20.1	0.10	2.92	0.076	2.85	10.55	182.5	1.50	1190	1.53	0.514	7.54	47.6	0.050
F064152		7.31	19.05	0.11	2.49	0.082	1.66	16.05	111.5	1.73	1870	0.83	0.339	4.69	51.4	0.063
F064153		10.45	18.80	0.11	0.851	0.126	0.68	6.68	61.0	2.69	2210	0.39	2.20	2.62	121.0	0.039
F064154		7.89	14.95	0.10	0.444	0.058	0.08	2.01	126.5	4.40	1290	0.77	0.987	1.840	140.5	0.033
F064155		5.86	6.03	0.06	0.126	0.027	0.04	0.937	26.5	3.21	1070	0.24	1.025	0.469	93.1	0.008
F064156		5.87	19.85	0.12	2.55	0.055	0.41	15.45	89.5	3.51	1015	1.02	2.46	5.55	88.0	0.038
F064157		8.46	17.45	0.11	1.405	0.068	0.56	9.32	66.5	4.49	1265	0.65	1.975	4.61	107.0	0.047
F064158		2.97	24.5	0.12	5.14	0.018	1.55	15.80	72.1	0.66	332	0.23	4.32	9.31	14.00	0.085
F064159		10.05	19.15	0.13	0.842	0.099	0.12	3.59	94.7	4.42	2270	0.14	1.305	4.24	163.0	0.054
F064160		5.20	16.80	0.11	0.889	0.203	2.32	14.50	13.4	2.03	750	0.71	1.660	8.42	145.0	0.066
F064161		11.20	21.8	0.13	1.955	0.131	0.15	5.80	132.0	3.47	1420	0.50	1.915	7.36	52.0	0.091
F064162		7.39	9.72	0.06	0.631	0.077	0.09	5.00	34.3	1.92	2180	0.44	0.687	3.68	24.9	0.057
F064163		2.10	4.73	<0.05	0.060	0.011	0.06	1.370	16.2	0.74	713	0.16	0.262	0.203	17.40	0.008
F064164		14.65	7.15	0.11	1.060	0.053	0.40	7.80	42.0	5.01	3580	0.61	0.364	7.35	1940	0.025
F064165		13.80	5.73	0.10	0.975	0.056	0.30	7.14	47.6	7.47	3310	0.37	0.313	6.75	1545	0.021
F064166		14.65	3.26	0.09	0.440	0.036	0.09	5.69	7.5	10.80	2440	0.71	0.132	3.43	281	0.030
F064167		15.45	5.11	0.11	0.842	0.050	0.05	8.34	20.3	8.64	2220	0.67	0.124	5.66	1625	0.022

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Project: Sobel

CERTIFICATE OF ANALYSIS TB22185248

Sample Description	Method Analyte Units LOD	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L
		Pb ppm	Rb ppm	Re ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ta ppm	Te ppm	Th ppm	Ti %	Tl ppm	U ppm
F064128		1.10	48.4	0.0013	0.24	0.07	48.2	0.873	0.67	58.5	0.17	0.078	0.258	0.626	0.257	0.09
F064129		1.08	24.7	0.0010	0.07	0.06	47.7	0.242	2.66	79.6	0.19	0.028	0.328	0.704	0.125	0.09
F064130		0.81	47.5	0.0020	0.13	0.10	55.4	1.105	0.65	148.5	0.18	0.088	0.298	0.636	0.451	0.13
F064131		2.08	1.16	0.0072	5.57	0.13	21.4	0.885	0.31	22.3	0.01	0.364	0.161	0.009	0.031	5.32
F064132		2.12	0.43	0.0009	2.22	0.15	3.28	0.294	0.33	9.64	0.01	0.185	0.077	0.004	0.004	0.27
F064133		1.66	1.94	0.0009	1.92	0.03	1.05	0.408	0.32	6.03	0.06	0.113	0.118	0.005	0.016	0.19
F064134		3.50	5.97	0.0020	4.75	0.05	3.75	0.917	1.63	14.10	0.09	0.388	0.628	0.033	0.079	0.64
F064135		6.53	22.3	0.0016	3.22	0.08	5.09	0.691	0.75	139.5	1.74	0.252	1.710	0.090	0.163	2.10
F064136		2.38	4.91	0.0010	1.81	0.04	1.14	0.593	0.47	5.50	0.81	0.172	0.280	0.013	0.035	0.24
F064137		8.87	281	0.0442	2.05	0.08	46.2	3.86	3.59	41.4	11.70	1.115	20.9	0.180	1.810	9.84
F064138		4.98	139.5	0.0122	0.72	0.06	34.6	2.68	2.84	89.0	3.19	0.599	6.96	0.251	1.045	2.78
F064139		1.38	0.58	0.0005	0.77	0.06	0.94	0.173	0.11	2.34	0.01	0.089	0.064	0.001	0.004	0.30
F064140		0.63	0.38	<0.0004	0.02	0.03	0.11	0.013	0.02	1.64	0.01	<0.0005	0.357	0.005	0.007	0.19
F064141		84.3	352	<0.0004	0.11	0.11	3.59	0.132	0.92	128.0	1.99	0.075	17.40	0.077	2.43	1.94
F064142		2.13	0.33	0.0008	0.70	0.17	4.44	0.122	0.07	18.05	0.01	0.069	0.091	0.003	0.003	0.36
F064143		2.30	0.31	0.0011	1.49	0.14	5.23	0.236	0.20	10.25	0.01	0.130	0.088	0.004	0.003	0.49
F064144		2.84	1.24	0.0031	7.76	0.16	6.53	1.145	0.26	11.10	0.01	0.509	0.126	0.008	0.019	0.29
F064145		10.15	72.0	<0.0004	0.04	0.04	0.54	0.012	0.21	205	0.43	<0.0005	10.85	0.036	0.372	2.48
F064146		0.73	5.40	0.0017	0.04	0.12	51.6	0.251	3.92	45.7	1.20	0.037	0.357	0.688	0.055	0.14
F064147		0.49	1.02	0.0013	0.08	0.60	48.4	0.740	0.60	105.5	0.13	0.031	0.238	0.496	0.013	0.06
F064148		0.75	7.94	0.0034	0.09	0.30	50.2	1.495	0.53	65.9	1.03	0.025	0.698	1.010	0.062	0.22
F064149		0.39	0.88	0.0011	0.07	0.18	45.8	0.331	0.53	97.4	0.14	0.150	0.248	0.509	0.008	0.06
F064150		0.99	0.47	0.0015	0.75	0.17	5.74	0.671	0.52	5.21	0.21	0.185	2.20	0.131	0.008	0.72
F064151		25.9	161.0	0.0036	0.55	0.07	19.55	0.496	0.95	86.2	0.85	0.099	6.62	0.362	1.135	4.32
F064152		7.08	101.5	0.0023	0.86	0.03	21.1	0.532	1.21	114.0	0.33	0.127	3.11	0.384	0.722	0.90
F064153		2.07	23.4	0.0011	0.14	0.05	42.5	0.592	1.43	124.0	0.16	0.032	0.289	0.636	0.117	0.08
F064154		0.74	21.9	0.0011	0.06	0.11	39.9	0.221	0.61	86.0	0.12	0.025	0.172	0.415	0.136	0.05
F064155		0.66	1.33	0.0015	0.11	0.08	12.25	0.443	0.11	69.5	0.03	0.041	0.061	0.129	0.014	0.02
F064156		2.83	8.03	0.0016	0.08	0.07	21.5	0.130	0.90	554	0.29	0.015	2.01	0.440	0.044	0.54
F064157		2.91	30.8	0.0014	0.42	0.09	32.1	0.472	0.99	254	0.26	0.041	1.225	0.618	0.237	0.38
F064158		12.10	67.8	0.0008	0.63	0.09	2.99	0.437	0.97	1520	0.65	0.087	6.21	0.244	0.422	2.42
F064159		0.74	4.56	0.0008	0.03	0.09	31.4	0.194	0.82	135.5	0.27	0.009	0.417	0.810	0.031	0.10
F064160		1515	92.0	0.1215	2.45	143.5	9.44	5.70	4.88	358	0.53	0.426	5.58	0.254	1.565	2.13
F064161		1.45	4.42	0.0018	0.14	0.12	43.6	0.542	1.21	108.5	0.45	0.030	0.761	1.255	0.051	0.46
F064162		0.66	4.28	<0.0004	0.01	0.19	22.5	0.044	1.27	109.5	0.21	0.015	0.365	0.553	0.027	0.12
F064163		0.57	2.44	<0.0004	0.03	0.14	2.54	0.103	0.10	35.8	0.01	0.009	0.163	0.032	0.011	0.02
F064164		1.88	65.2	0.0004	0.86	0.13	28.4	0.817	2.86	76.5	0.50	0.208	0.864	0.547	0.610	0.23
F064165		2.03	43.2	0.0006	0.52	0.14	25.9	0.476	1.40	41.4	0.46	0.391	0.707	0.487	0.453	0.15
F064166		0.90	6.24	0.0007	0.42	0.10	12.70	0.469	0.49	43.5	0.23	0.114	0.388	0.244	0.122	0.16
F064167		2.36	2.34	0.0010	1.09	0.17	22.0	0.468	1.33	59.2	0.42	0.123	0.641	0.440	0.053	0.19

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CERTIFICATE OF ANALYSIS TB22185248

Sample Description	Method Analyte Units LOD	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	PCM-MS23	PCM-MS23	PCM-MS23	Au-AA25
		V	W	Y	Zn	Zr	Au	Pt	Pd	Au
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
		0.1	0.008	0.01	0.2	0.1	0.001	0.0005	0.001	0.01
F064128		318	0.547	24.8	121.5	40.0	0.003	0.0035	0.003	
F064129		304	1.050	24.6	116.5	26.9	0.003	0.0035	0.003	
F064130		328	0.138	23.6	122.5	21.6	0.002	0.0167	0.021	
F064131		41.1	0.933	19.50	164.5	7.4	0.002	<0.0005	0.001	
F064132		8.4	0.197	12.55	85.6	4.3	0.002	<0.0005	<0.001	
F064133		4.3	0.187	5.27	42.3	2.7	0.002	<0.0005	<0.001	
F064134		18.4	0.211	15.30	153.0	14.6	0.004	<0.0005	0.001	
F064135		30.0	0.277	9.92	48.8	41.7	0.003	<0.0005	<0.001	
F064136		5.9	0.166	8.00	83.2	4.4	0.002	<0.0005	<0.001	
F064137		126.0	0.838	105.0	181.5	160.5	0.028	0.0006	0.002	
F064138		236	0.424	30.9	261	112.5	0.007	0.0008	0.001	
F064139		3.6	0.143	2.75	14.6	1.1	0.002	<0.0005	<0.001	
F064140		0.5	0.009	0.95	5.0	20.0	0.001	<0.0005	<0.001	
F064141		7.0	0.432	3.84	25.8	77.4	0.036	<0.0005	<0.001	
F064142		10.3	0.389	19.00	82.4	4.8	0.002	<0.0005	<0.001	
F064143		12.2	0.298	20.1	128.0	8.9	0.002	<0.0005	<0.001	
F064144		15.0	0.520	18.05	98.0	7.3	0.003	<0.0005	0.001	
F064145		5.9	0.113	3.39	11.4	32.6	0.001	<0.0005	<0.001	
F064146		358	0.499	25.4	110.0	37.7	0.004	0.0006	<0.001	
F064147		283	0.114	18.90	120.5	17.1	0.002	0.0176	0.020	
F064148		291	0.204	40.9	141.5	63.2	0.002	<0.0005	<0.001	
F064149		274	0.052	19.40	60.8	12.3				
F064150		37.9	0.447	10.65	184.5	52.9				
F064151		122.5	0.502	14.05	228	103.0				
F064152		122.5	7.44	16.20	135.5	98.3				
F064153		279	0.271	19.90	121.5	24.5				
F064154		232	1.180	15.85	82.3	9.6				
F064155		89.5	0.036	5.39	72.2	2.6				
F064156		165.5	13.45	19.45	66.4	97.5				
F064157		238	0.363	22.0	86.0	45.7				
F064158		43.7	0.335	10.25	54.9	245				
F064159		286	0.116	27.7	122.5	21.3	0.002	0.0010	0.001	
F064160		107.0	12.65	11.85	3260	30.2	>1.00	0.0014	0.003	NSS
F064161		419	0.234	46.0	120.0	73.1	0.002	0.0007	0.001	
F064162		232	0.718	25.8	95.2	17.8	0.002	<0.0005	<0.001	
F064163		33.5	0.054	2.80	25.5	1.7	0.006	<0.0005	<0.001	
F064164		157.0	0.630	10.20	238	37.8	0.002	0.0031	0.006	
F064165		137.5	0.441	9.59	143.5	36.9	0.012	0.0029	0.005	
F064166		79.2	0.226	5.88	66.8	16.4	0.002	0.0015	0.003	
F064167		122.5	0.419	9.83	104.0	31.6	0.021	0.0026	0.005	

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CERTIFICATE OF ANALYSIS TB22185248

Sample Description	Method Analyte Units LOD	WEI-21	Au-AA23	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L
		Recvd Wt. kg	Au ppm	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	Cu ppm
F064168		0.68	<0.005	0.032	7.23	0.57	15	0.52	0.011	7.28	0.152	17.20	50.1	73.9	0.39	88.0
F064169		0.66	<0.005	0.069	7.88	0.64	1520	1.31	0.330	1.78	0.025	74.8	4.79	13.6	11.20	6.13
F064170		1.33	<0.005	0.178	5.69	0.31	540	0.61	0.318	4.76	0.162	48.3	26.0	157.0	2.37	109.0
F064171		0.86	<0.005	0.048	8.04	0.36	42	0.27	0.052	11.60	0.144	10.40	54.8	175.5	1.38	116.0
F064172		0.97	<0.005	0.066	6.86	0.54	331	1.77	0.072	1.07	0.018	23.0	5.13	16.2	2.13	88.0
F064173		1.13	<0.005	0.019	6.97	0.83	349	2.01	0.044	0.87	0.013	10.20	1.010	12.3	2.09	17.80
F064174		0.87	<0.005	0.047	5.56	0.56	23	2.90	0.098	0.39	0.010	5.92	2.78	12.4	3.08	100.5
F064175		0.99	<0.005	0.062	8.01	0.31	37	0.44	0.397	7.17	0.234	8.52	49.2	184.0	7.79	122.0
F064176		1.20	0.008	0.048	7.85	0.69	142	0.40	0.132	6.54	0.142	9.83	53.5	172.5	4.11	103.5
F064177		0.60	<0.005	0.117	8.95	0.91	950	2.93	0.357	5.65	0.060	53.2	14.95	39.3	3.10	163.0
F064178		0.96	0.005	0.087	7.63	0.13	55	0.45	0.336	6.37	0.146	15.25	42.0	124.0	4.57	87.1
F064179		1.30	0.006	0.173	6.47	0.61	321	0.51	0.337	6.89	0.455	16.05	38.3	31.8	1.86	206
F064180		0.42	<0.005	0.015	0.03	0.30	4	-0.02	0.006	0.02	0.066	2.08	0.149	1.0	0.01	0.89
F064181		1.69	<0.005	0.128	4.83	0.96	127	0.43	0.146	6.42	1.370	7.96	45.8	42.3	1.56	230
F064182		1.81	0.024	0.014	0.05	0.78	5	0.11	0.086	1.16	0.099	0.67	1.275	7.5	0.04	21.2
F064183		1.61	<0.005	0.037	5.45	0.22	327	0.39	0.146	4.12	0.070	26.1	22.8	75.3	3.63	35.7
F064184		1.37	<0.005	0.524	6.85	0.37	165	5.25	0.704	6.90	0.204	36.7	32.3	41.0	1.99	638
F064185		0.77	<0.005	0.020	7.08	0.22	670	6.09	0.064	2.73	0.023	5.83	9.08	26.8	9.00	13.00
F064186		1.33	<0.005	0.436	3.03	0.65	126	1.24	4.78	0.11	0.016	9.12	1.095	18.0	4.28	25.3
F064187		1.43	<0.005	0.186	8.60	0.34	470	1.03	0.201	5.49	0.063	21.9	49.3	81.3	3.66	120.5
F064188		0.99		0.105	6.91	3.70	85	5.10	23.0	2.87	0.102	25.2	24.3	68.5	17.65	26.9
F064189		1.69		0.097	0.08	1.36	2	0.10	0.191	1.91	0.225	4.27	13.95	11.0	0.10	78.9
F064190		0.98		0.128	0.08	1.06	1	0.09	0.143	1.77	0.283	2.71	11.40	7.7	0.06	65.7
F064191		0.78		0.033	0.15	1.84	2	<0.02	0.107	1.90	0.087	0.83	2.07	11.4	0.10	11.45
F064192		0.65		0.034	7.77	0.54	61	3.35	0.486	6.52	0.130	24.2	26.5	105.0	0.91	65.1
F064193		0.84		0.029	3.16	0.69	16	0.08	0.031	4.76	0.068	2.45	15.70	78.1	1.08	43.9
F064194		0.66		0.013	6.61	0.54	29	2.77	0.272	0.81	0.023	9.17	0.822	6.9	9.48	29.2
F064195		0.84		0.066	7.61	0.70	39	3.57	0.682	10.40	0.172	10.35	46.8	192.0	0.68	81.9
F064196		1.37		0.095	8.84	0.36	295	1.11	0.314	8.72	0.091	99.3	24.1	13.6	1.81	244
F064197		0.85	<0.005	0.126	8.00	0.33	37	2.09	0.835	9.24	0.145	8.90	43.6	160.5	6.35	198.0
F064198		1.19	<0.005	0.037	5.96	0.31	25	0.72	0.486	7.02	0.103	6.34	28.3	92.5	3.49	28.1
F064199		0.51	0.013	0.540	1.83	0.34	39	0.53	0.501	3.28	0.047	6.73	11.00	25.7	1.65	190.0
F064200		0.07	1.240	64.5	6.65	49.6	127	1.12	2.40	2.01	16.65	30.4	22.0	126.5	2.09	7240
F064201		0.64	<0.005	0.029	6.25	0.37	34	5.78	4.30	0.64	0.005	13.40	0.217	6.5	3.13	35.3
F064202		1.35	0.175	0.222	7.72	0.50	96	9.31	42.4	2.02	0.020	5.81	0.638	9.8	2.98	125.0
F064203		1.07	<0.005	0.612	8.87	0.82	65	19.30	0.944	2.77	0.026	24.5	0.427	16.0	4.41	9.57
F064204		0.64	0.006	0.053	8.03	0.70	39	11.40	3.47	7.71	0.102	10.60	22.8	64.4	2.32	65.6
F064205		1.21	<0.005	0.044	7.96	0.24	19	0.40	0.502	8.72	0.141	15.95	42.9	116.5	0.77	56.1
F064206		0.90	<0.005	0.081	7.49	0.45	105	0.60	0.757	10.25	0.203	15.60	46.4	114.5	0.72	108.5
F064207		1.58	<0.005	0.184	7.65	0.29	94	3.58	0.389	5.50	0.126	13.30	26.1	74.1	3.14	226

***** See Appendix Page for comments regarding this certificate *****



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 Total # Pages: 7 (A - D)
 Plus Appendix Pages
 Finalized Date: 27-JUL-2022
 Account: GBRRKFPR

Project: Sobel

CERTIFICATE OF ANALYSIS TB22185248

Sample Description	Method Analyte Units LOD	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L
		Fe %	Ga ppm	Ge ppm	Hf ppm	In ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Nb ppm	Ni ppm	P %
		0.002	0.05	0.05	0.004	0.005	0.01	0.005	0.2	0.01	0.2	0.02	0.001	0.005	0.08	0.001
F064168		11.40	19.25	0.10	1.225	0.109	0.08	5.74	28.4	3.46	1785	0.23	1.385	6.18	95.3	0.075
F064169		2.52	20.4	0.16	7.10	0.015	4.00	29.1	33.0	0.61	352	0.52	2.81	13.45	4.89	0.054
F064170		6.09	14.50	0.11	1.785	0.050	0.66	24.1	15.0	1.09	1740	1.83	0.729	5.04	78.0	0.058
F064171		8.54	17.30	0.08	0.846	0.073	0.22	3.90	25.0	2.90	1665	0.57	1.285	2.91	122.5	0.036
F064172		1.160	18.60	0.08	2.83	0.009	2.64	10.10	14.8	0.16	90.3	18.25	3.03	7.49	6.11	0.009
F064173		0.870	19.70	0.08	3.07	0.007	4.03	4.20	9.5	0.13	118.0	30.9	2.66	13.45	2.47	0.010
F064174		0.670	17.90	0.08	3.59	0.008	3.25	2.11	2.5	0.02	48.9	11.05	2.38	29.3	4.50	0.002
F064175		10.00	17.25	0.13	0.741	0.084	0.71	3.16	53.0	5.02	1620	8.88	1.595	3.12	105.0	0.037
F064176		9.07	16.95	0.14	1.110	0.075	0.51	3.82	35.4	4.96	1355	0.54	1.890	2.63	135.5	0.031
F064177		3.66	20.6	0.12	6.42	0.033	1.52	18.60	38.9	0.86	1195	0.72	3.98	11.55	19.30	0.061
F064178		9.78	18.90	0.13	1.310	0.090	0.50	5.19	83.1	4.17	1680	0.53	1.605	4.66	75.6	0.062
F064179		6.00	14.60	0.08	1.350	0.044	1.30	7.50	45.4	2.01	1410	16.20	0.204	3.55	39.2	0.035
F064180		0.144	0.12	<0.05	0.689	<0.005	0.01	1.065	2.0	0.01	15.7	0.23	0.005	0.165	0.56	0.001
F064181		5.57	9.35	0.06	0.432	0.038	0.91	3.27	34.9	2.32	1180	7.41	0.170	1.030	97.4	0.022
F064182		4.63	0.21	<0.05	0.010	0.008	<0.01	0.301	0.3	0.62	1985	1.22	0.006	0.050	1.18	0.006
F064183		4.40	11.70	0.07	1.355	0.031	1.54	12.10	42.9	1.79	673	0.61	0.100	3.09	41.9	0.046
F064184		5.23	19.55	0.09	2.05	0.103	0.39	18.05	13.8	1.21	1555	7.93	1.055	21.2	30.6	0.071
F064185		1.900	20.7	0.08	3.91	0.021	2.03	1.925	38.8	0.50	320	67.9	2.19	9.45	19.35	0.032
F064186		0.620	8.86	0.07	1.630	0.048	1.75	3.38	12.2	0.03	66.8	3.26	1.170	5.10	1.10	0.003
F064187		7.10	21.2	0.12	1.730	0.070	1.47	8.65	42.5	1.27	1540	0.86	2.62	6.54	79.9	0.031
F064188		5.47	29.0	0.12	4.31	0.068	0.78	7.99	77.4	0.24	1335	202	1.820	38.8	36.5	0.027
F064189		15.75	0.51	0.11	0.042	0.019	0.01	2.31	2.0	1.24	4400	0.34	0.014	0.084	21.4	0.042
F064190		16.80	0.45	0.09	0.038	0.019	0.01	1.580	2.0	1.55	5710	0.15	0.013	0.061	14.95	0.031
F064191		3.76	0.57	<0.05	0.019	0.015	0.01	0.377	3.7	0.39	1500	0.37	0.014	0.084	2.41	0.015
F064192		4.64	22.9	0.08	2.47	0.039	0.09	8.25	14.6	1.91	1155	0.18	2.52	34.5	50.0	0.015
F064193		2.97	6.86	0.05	0.150	0.027	0.04	0.994	9.9	1.05	781	0.18	0.340	0.641	33.3	0.010
F064194		0.640	24.2	0.08	5.87	0.015	1.51	3.55	4.3	0.05	471	0.18	4.07	35.8	0.93	0.003
F064195		8.69	17.70	0.10	0.722	0.098	0.21	3.64	97.6	2.91	1780	2.70	2.02	6.39	94.2	0.037
F064196		4.31	20.4	0.18	1.410	0.038	0.54	47.0	14.4	1.74	741	0.24	2.76	2.75	48.1	0.142
F064197		8.56	18.85	0.09	1.115	0.066	0.30	3.23	40.6	3.44	2050	25.7	1.165	12.05	91.6	0.027
F064198		5.22	12.75	0.05	0.481	0.048	0.28	2.93	34.3	2.34	1165	0.25	1.460	3.84	54.6	0.015
F064199		22.7	4.55	0.13	0.777	0.093	0.16	3.37	6.2	1.26	427	1.02	0.195	1.845	19.10	0.043
F064200		5.12	16.95	0.11	0.845	0.202	2.32	14.30	13.3	2.05	728	268	1.650	7.86	141.5	0.066
F064201		0.400	29.5	0.07	6.07	0.014	0.70	4.59	6.7	0.03	239	125.0	4.45	51.0	0.58	0.004
F064202		1.000	26.1	0.06	4.13	0.015	0.30	2.18	11.4	0.05	1185	255	4.60	20.3	1.36	0.003
F064203		0.380	23.3	0.07	1.925	0.007	0.38	9.27	46.2	0.13	119.0	153.0	2.84	18.15	0.77	0.003
F064204		4.66	22.5	0.10	1.645	0.071	0.23	4.28	28.9	1.30	1195	570	2.13	27.2	42.3	0.017
F064205		7.95	21.1	0.12	0.830	0.105	0.17	5.87	29.4	3.28	1880	0.84	1.055	4.54	103.5	0.059
F064206		8.73	20.3	0.10	1.005	0.088	0.23	5.75	22.1	1.77	2780	1.05	1.970	4.24	88.7	0.060
F064207		4.99	24.7	0.08	2.44	0.067	1.57	4.37	15.6	1.03	1635	2.92	2.90	24.3	45.0	0.036

***** See Appendix Page for comments regarding this certificate *****



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Page: 6 - C
 Total # Pages: 7 (A - D)
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 Finalized Date: 27-JUL-2022
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CERTIFICATE OF ANALYSIS TB22185248

Sample Description	Method Analyte Units LOD	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L
		Pb ppm	Rb ppm	Re ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ta ppm	Te ppm	Th ppm	Ti %	Tl ppm	U ppm
F064168		1.14	1.60	0.0009	0.05	0.07	38.9	0.296	1.19	127.0	0.38	0.009	0.600	1.125	0.017	0.15
F064169		16.35	194.0	<0.0004	0.06	0.10	4.44	0.046	1.36	480	1.14	0.031	13.85	0.269	1.055	1.71
F064170		4.82	32.6	0.0011	1.74	0.03	13.30	0.912	1.17	126.0	0.34	0.155	4.49	0.299	0.296	1.46
F064171		2.19	10.25	0.0016	0.15	0.08	46.7	0.402	0.64	191.0	0.19	0.033	0.422	0.620	0.061	0.15
F064172		34.0	95.1	0.0080	0.13	0.03	1.74	0.251	0.29	189.0	0.92	0.058	13.25	0.080	0.434	5.09
F064173		32.2	151.0	0.0122	0.02	0.06	2.03	0.081	0.30	154.5	1.77	0.020	13.25	0.067	0.625	5.56
F064174		43.0	229	0.0026	0.14	0.04	1.84	0.172	0.27	13.60	3.81	0.063	18.10	0.017	0.966	12.15
F064175		4.63	60.1	0.0107	0.05	0.09	46.8	0.450	0.59	122.5	0.21	0.097	0.344	0.639	0.422	0.72
F064176		3.22	17.00	0.0015	0.07	0.06	39.5	0.237	0.55	125.5	0.17	0.096	0.537	0.550	0.212	0.17
F064177		9.85	46.8	<0.0004	0.02	0.05	11.45	0.576	0.78	647	0.73	0.046	7.75	0.312	0.340	2.57
F064178		2.61	28.1	0.0032	0.75	0.08	41.4	0.485	1.10	214	0.29	0.424	0.484	0.884	0.323	0.11
F064179		20.4	67.8	0.0035	0.23	0.13	25.5	0.465	0.50	252	0.24	0.142	1.415	0.344	0.417	0.44
F064180		0.65	0.26	<0.0004	0.01	0.03	0.14	0.010	0.03	2.03	<0.01	<0.005	0.355	0.005	0.005	0.22
F064181		89.0	54.4	0.0009	0.26	0.11	16.35	0.405	0.28	105.0	0.07	0.072	0.375	0.182	0.337	0.13
F064182		0.23	0.27	<0.0004	0.01	0.02	0.13	0.174	0.08	2.60	<0.01	0.058	0.025	0.002	0.002	0.01
F064183		2.44	48.0	<0.0004	0.01	0.06	11.70	0.019	0.36	66.6	0.21	0.010	1.865	0.407	0.226	0.48
F064184		6.11	14.50	0.0004	0.58	0.07	10.15	1.510	3.64	133.5	0.79	0.151	4.12	0.326	0.091	2.86
F064185		15.90	109.0	0.0059	0.01	0.05	5.44	0.032	0.87	124.5	2.13	0.005	9.09	0.186	0.689	4.53
F064186		56.2	137.5	<0.0004	0.02	0.03	0.80	0.041	0.51	34.3	0.49	0.010	15.10	0.021	0.823	2.62
F064187		6.96	54.7	0.0005	0.05	0.03	36.1	0.395	1.03	188.0	0.39	0.078	3.56	0.412	0.444	0.77
F064188		18.85	125.0	0.0122	0.13	0.06	17.10	0.286	2.48	125.0	6.75	0.665	13.85	0.331	0.992	3.05
F064189		0.45	0.33	<0.0004	0.69	0.06	8.61	0.533	0.04	12.40	0.01	0.156	0.061	0.003	0.003	0.07
F064190		0.29	0.22	<0.0004	0.69	0.05	6.21	0.614	0.03	10.95	<0.01	0.158	0.034	0.003	0.002	0.04
F064191		0.35	0.39	<0.0004	0.07	0.04	3.83	0.130	0.07	6.86	0.01	0.068	0.075	0.001	0.003	0.05
F064192		9.65	6.47	<0.0004	0.02	0.18	23.2	0.131	1.18	85.2	5.69	0.018	7.84	0.248	0.055	5.99
F064193		0.45	2.49	0.0004	0.03	0.11	14.45	0.145	0.12	54.8	0.04	0.031	0.091	0.148	0.010	0.03
F064194		45.5	134.5	<0.0004	0.01	0.05	3.85	0.137	0.38	25.3	5.99	0.026	21.5	0.036	0.490	14.95
F064195		1.59	8.64	0.0009	0.08	0.09	42.4	0.286	2.58	155.0	0.20	0.028	0.328	0.672	0.111	0.23
F064196		4.75	19.60	0.0004	0.50	0.13	8.19	0.985	2.74	802	0.15	0.076	5.97	0.428	0.124	1.34
F064197		1.67	35.3	0.0042	0.11	0.07	38.7	0.696	1.15	145.0	2.91	0.069	1.090	0.448	0.204	0.85
F064198		4.74	22.8	<0.0004	<0.01	0.09	19.95	0.039	0.83	90.1	0.51	0.021	2.72	0.237	0.119	1.72
F064199		8.99	5.02	0.0019	1.16	0.06	2.99	1.675	0.65	18.65	0.12	0.833	0.998	0.088	0.370	0.24
F064200		1535	86.7	0.1130	2.45	136.0	8.62	5.58	4.38	369	0.52	0.467	5.44	0.238	1.445	2.07
F064201		22.9	104.0	0.0061	0.01	0.04	4.20	0.188	0.42	23.8	20.7	0.060	12.95	0.022	0.525	7.97
F064202		14.00	18.60	0.0163	0.06	0.05	9.88	1.535	0.55	68.2	7.89	7.15	8.34	0.023	0.107	3.51
F064203		9.52	12.45	0.0144	0.02	0.07	2.26	0.058	0.42	72.0	7.09	0.025	11.05	0.027	0.058	5.11
F064204		5.69	6.28	0.0403	0.05	0.07	22.9	0.283	2.92	146.5	7.11	0.223	3.79	0.283	0.059	5.14
F064205		2.03	3.24	0.0011	0.29	0.06	39.4	0.211	0.93	152.5	0.29	0.148	0.495	0.885	0.035	0.14
F064206		2.99	4.61	0.0007	0.37	0.11	37.8	0.308	0.83	192.0	0.27	0.143	0.470	0.825	0.053	0.14
F064207		17.70	129.5	0.0005	0.58	0.06	22.1	0.510	1.61	98.1	3.47	0.133	8.70	0.457	0.779	9.06

**** See Appendix Page for comments regarding this certificate ****



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To: **GREAT BEAR RESOURCES LTD**
25 YORK ST. 17TH FLOOR
TORONTO ON M5J 2V5

Page: 6 - D
 Total # Pages: 7 (A - D)
 Plus Appendix Pages
 Finalized Date: 27-JUL-2022
 Account: GBRKFPFR

Project: Sobel

CERTIFICATE OF ANALYSIS TB22185248

Sample Description	Method Analyte Units LOD	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	PGM-MS23	PGM-MS23	PGM-MS23	Au-AA25
		V ppm	W ppm	Y ppm	Zn ppm	Zr ppm	Au ppm	Pt ppm	Pd ppm	Au ppm
F064168		380	0.092	38.7	137.0	34.5				
F064169		59.0	1.125	22.7	46.3	315				
F064170		90.5	0.467	14.45	89.8	74.9				
F064171		300	0.860	23.9	88.7	21.0				
F064172		9.9	0.505	7.55	17.8	90.3				
F064173		8.7	0.761	9.93	11.8	80.9				
F064174		1.4	0.269	16.70	4.1	77.5				
F064175		319	0.480	22.1	129.0	18.6				
F064176		282	0.237	19.70	92.1	32.6				
F064177		78.2	0.503	16.10	55.8	289				
F064178		342	0.692	31.8	138.5	47.1				
F064179		158.5	0.407	13.45	134.0	53.4				
F064180		0.4	0.010	1.11	5.2	24.4				
F064181		95.7	0.342	8.77	385	16.4				
F064182		1.6	0.252	2.28	15.9	0.6				
F064183		83.9	0.461	8.72	68.2	54.9				
F064184		78.0	0.850	10.55	73.8	86.0				
F064185		39.5	0.310	8.72	38.1	104.5				
F064186		2.7	0.928	3.40	13.0	31.9				
F064187		208	0.531	15.75	82.0	63.0				
F064188		116.0	1.055	39.7	62.0	57.5	0.060	0.0006	0.002	
F064189		24.9	0.771	11.35	110.5	3.1	0.002	<0.0005	<0.001	
F064190		18.7	0.297	9.16	177.0	3.2	0.002	<0.0005	<0.001	
F064191		8.2	0.104	4.79	39.5	0.9	0.001	<0.0005	<0.001	
F064192		131.0	0.431	30.5	58.7	32.6	0.003	0.0068	0.006	
F064193		78.8	0.121	5.14	30.1	2.8	0.003	0.0042	0.005	
F064194		4.0	0.216	26.9	8.6	114.0	0.003	<0.0005	<0.001	
F064195		288	0.440	25.1	114.5	14.7	0.002	0.0012	0.001	
F064196		119.5	0.360	6.63	67.6	55.6	0.002	<0.0005	0.001	
F064197		242	0.479	19.80	101.0	21.9				
F064198		133.0	0.181	12.15	66.0	9.8				
F064199		22.9	0.413	7.69	66.8	32.6				
F064200		101.0	11.55	11.00	3250	26.8				
F064201		1.5	0.193	18.15	4.5	32.4				
F064202		3.6	0.241	25.5	5.5	40.5				
F064203		1.6	0.328	27.0	6.4	34.1				
F064204		151.0	0.857	22.8	57.3	24.9				
F064205		341	1.330	29.6	126.5	20.5				
F064206		318	1.340	30.9	126.0	21.9				
F064207		168.0	0.590	30.3	74.6	34.4				

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25 YORK ST. 17TH FLOOR
TORONTO ON M5J 2V5

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 Plus Appendix Pages
 Finalized Date: **27-JUL-2022**
 Account: **GBRRKFR**

Project: Sobel

CERTIFICATE OF ANALYSIS TB22185248

Sample Description	Method Analyte Units LOD	WEI-21	Au-AA23	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	
		Recvd Wt.	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu
		kg	ppm	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	
		0.02	0.005	0.002	0.01	0.02	1	0.02	0.002	0.01	0.005	0.01	0.005	0.3	0.01	0.02
F064208		0.97	<0.005	0.229	7.65	0.38	37	1.38	1.195	12.50	0.306	17.05	51.5	102.0	1.19	226
F064209		0.80	<0.005	0.114	5.99	0.75	49	0.36	0.441	5.84	0.133	12.00	26.3	106.5	0.15	128.5
F064210		1.82	<0.005	0.117	7.27	0.24	41	0.70	0.705	10.20	0.156	15.70	46.1	112.5	1.15	178.5

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CERTIFICATE OF ANALYSIS TB22185248

Sample Description	Method Analyte Units LOD	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	
		Fe %	Ga ppm	Ge ppm	Hf ppm	In ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Nb ppm	Ni ppm	P %
		0.002	0.05	0.05	0.004	0.005	0.01	0.005	0.2	0.01	0.2	0.02	0.001	0.005	0.08	0.001
F064208		8.38	20.1	0.08	1.300	0.092	0.15	6.14	21.5	1.61	3620	2.07	1.605	5.87	104.0	0.065
F064209		8.19	16.25	0.08	0.719	0.081	0.27	4.47	28.5	2.90	1560	0.95	1.760	3.76	38.7	0.045
F064210		9.11	19.10	0.09	0.865	0.091	0.23	5.96	28.9	2.55	2030	9.69	1.575	4.17	88.7	0.058

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Project: Sobel

CERTIFICATE OF ANALYSIS TB22185248

Sample Description	Method Analyte Units LOD	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	
		Pb ppm 0.01	Rb ppm 0.02	Re ppm 0.0004	S % 0.01	Sb ppm 0.02	Sc ppm 0.01	Se ppm 0.006	Sn ppm 0.02	Sr ppm 0.02	Ta ppm 0.01	Te ppm 0.005	Th ppm 0.004	Ti % 0.001	Tl ppm 0.002	U ppm 0.01
F064208		3.69	5.32	0.0005	0.65	0.09	36.8	0.561	1.53	155.0	0.34	0.118	0.550	0.842	0.053	0.49
F064209		3.78	3.64	0.0028	0.31	0.05	32.9	0.492	0.86	154.0	0.22	0.433	0.382	0.706	0.039	0.10
F064210		2.56	4.75	0.0053	0.71	0.10	37.1	0.609	0.84	214	0.27	0.381	0.473	0.826	0.033	0.14

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 Finalized Date: 27-JUL-2022
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Project: Sobel

CERTIFICATE OF ANALYSIS TB22185248

Sample Description	Method Analyte Units LOD	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	ME-MS61L	PGM-MS23	PGM-MS23	PGM-MS23	Au-AA25
		V	W	Y	Zn	Zr	Au	Pt	Pd	Au
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
		0.1	0.008	0.01	0.2	0.1	0.001	0.0005	0.001	0.01
F064208		325	1.140	36.7	121.0	30.4				
F064209		289	0.948	24.2	109.5	15.6				
F064210		320	1.535	28.5	111.5	15.5				

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 Account: GBRKFPR

CERTIFICATE TB22185261

Project: Sobel

This report is for 7 samples of Rock submitted to our lab in Thunder Bay, ON, Canada on 6-JUL-2022.

The following have access to data associated with this certificate:

KATARINA BJORKMAN	ANDREA DIAKOW	KELSEY PRIVETT
-------------------	---------------	----------------

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-21	Sample logging - ClientBarCode
CRU-QC	Crushing QC Test
PUL-QC	Pulverizing QC Test
OA-HSUL10	Handling of High Sulphide Samples
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize up to 250q 85% <75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-MS61	48 element four acid ICP-MS	
Au-AA23	Au 30q FA-AA finish	AAS

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.
 ***** See Appendix Page for comments regarding this certificate *****

Signature: 
 Saa Traxler, Director, North Vancouver Operations



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 Total # Pages: 2 (A - D)
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 Account: GBRKFR

Project: Sobel

CERTIFICATE OF ANALYSIS TB22185261

Sample Description	Method Analyte Units LOD	WEI-21	Au-AA23	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
		Recvd Wt. kg	Au ppm	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	Cu ppm
		0.02	0.005	0.01	0.01	0.2	10	0.05	0.01	0.01	0.02	0.01	0.1	1	0.05	0.2
F064011		1.45	0.005	1.13	1.31	4.8	60	1.16	1.64	2.99	0.94	10.60	110.0	14	14.65	587
F064012		1.52	0.006	1.36	1.68	7.9	20	1.22	1.41	3.55	3.38	8.24	110.0	15	2.64	657
F064015		2.33	0.005	1.10	1.95	3.0	30	1.78	1.20	4.76	5.76	9.56	89.4	92	4.76	829
F064017		2.04	-0.005	1.17	3.30	0.2	30	27.7	2.20	11.35	3.48	9.62	26.6	58	2.94	194.0
F064018		2.50	0.005	1.37	2.90	0.9	170	4.65	12.20	5.20	0.60	10.75	2.6	55	17.25	233
F064022		2.35	0.017	4.15	4.00	0.3	30	8.10	34.9	4.22	11.90	16.25	75.2	44	1.99	1200
F064031		1.70	0.011	1.00	4.86	1.4	60	2.98	3.78	0.20	6.21	38.3	128.0	101	6.32	331

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CERTIFICATE OF ANALYSIS TB22185261

Sample Description	Method Analyte Units LOD	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	
		Fe %	Ca ppm	Ge ppm	Hf ppm	In ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Nb ppm	Ni ppm	P ppm
F064011		41.1	4.02	0.21	0.6	0.168	0.26	5.5	13.1	2.04	4780	3.65	0.10	1.5	219	100
F064012		40.8	3.94	0.21	0.3	0.183	0.04	4.3	6.9	1.29	17050	4.55	0.02	0.8	213	90
F064015		35.3	5.33	0.21	0.7	0.400	0.14	5.0	12.0	2.86	8020	3.06	0.17	1.8	173.5	120
F064017		18.10	18.50	0.11	0.6	0.608	0.06	4.7	44.8	1.58	15200	6.29	0.45	14.6	65.5	850
F064018		31.2	12.40	0.48	1.0	0.161	0.80	5.5	61.4	1.17	5710	17.30	0.55	3.6	4.4	280
F064022		36.2	13.05	0.17	0.9	0.157	0.03	7.7	42.4	0.80	10400	8.81	0.47	15.6	195.0	190
F064031		24.4	15.30	0.20	1.8	0.660	1.81	18.4	48.9	0.59	1520	6.36	0.15	1.3	220	160

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Project: Sobel

CERTIFICATE OF ANALYSIS TB22185261

Sample Description	Method Analyte Units LOD	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	
		Pb ppm	Rb ppm	Re ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ta ppm	Te ppm	Th ppm	Ti %	Tl ppm	U ppm
		0.5	0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.01	0.005	0.02	0.1
F064011		4.7	37.3	0.009	>10.0	0.10	2.4	7	4.9	9.1	0.11	1.33	0.65	0.062	1.19	0.8
F064012		4.6	7.1	0.008	>10.0	0.10	2.8	8	2.6	4.5	0.07	1.42	0.52	0.039	0.16	0.4
F064015		10.1	15.6	0.006	>10.0	0.12	4.2	5	10.1	21.4	0.14	1.02	1.12	0.086	0.29	1.1
F064017		2.9	16.6	0.002	6.46	0.07	11.2	4	18.9	75.8	3.05	0.14	1.65	0.106	0.11	0.5
F064018		10.1	114.0	<0.002	1.23	0.07	5.3	9	7.3	35.8	0.22	0.72	2.95	0.112	1.00	2.3
F064022		7.2	3.8	0.008	>10.0	0.05	6.7	4	3.7	83.8	0.29	1.03	2.59	0.114	0.04	1.7
F064031		43.0	91.8	0.015	>10.0	2.57	14.4	20	4.9	18.4	0.11	4.31	3.94	0.122	1.64	1.1

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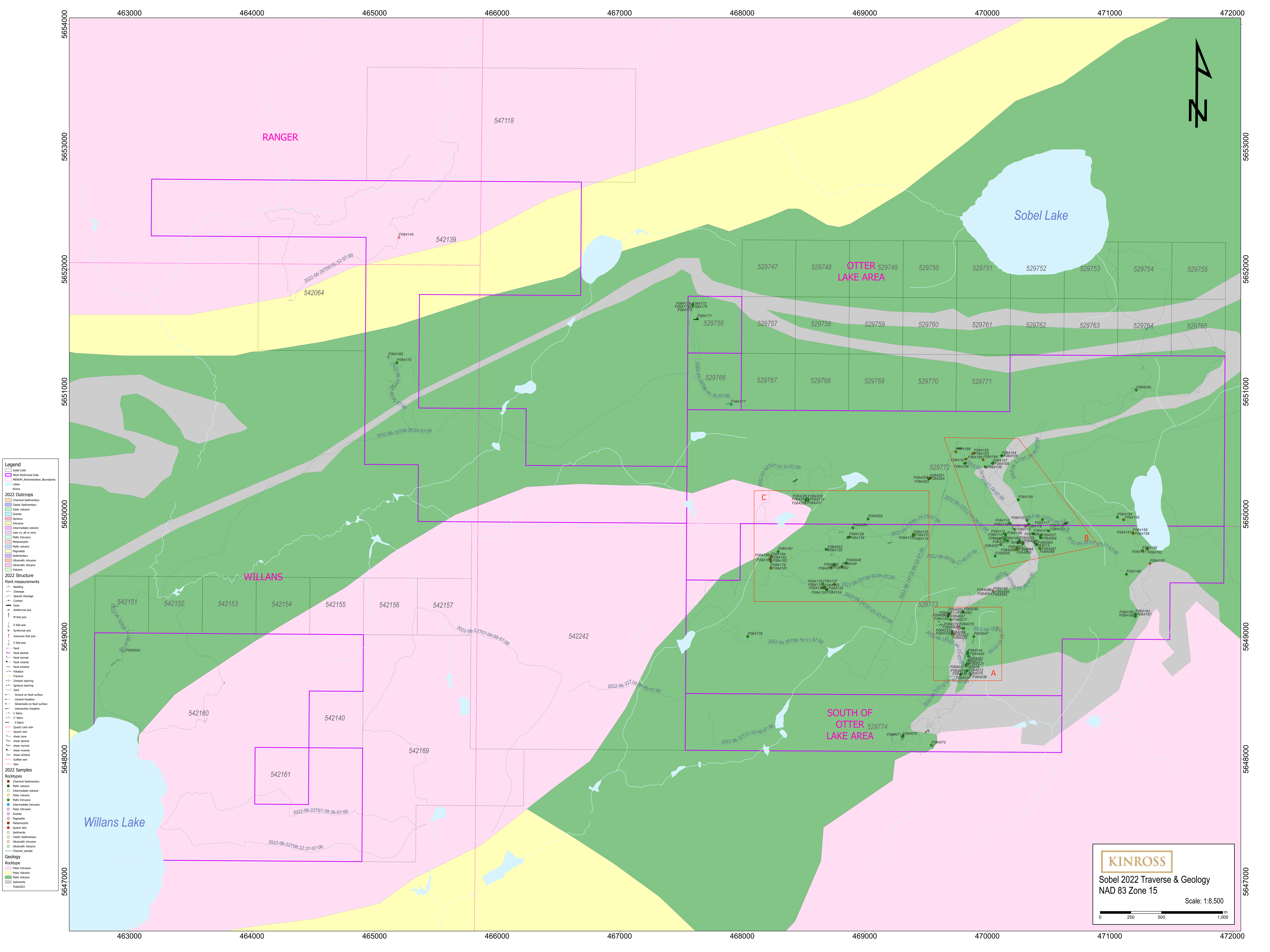
CERTIFICATE OF ANALYSIS TB22185261

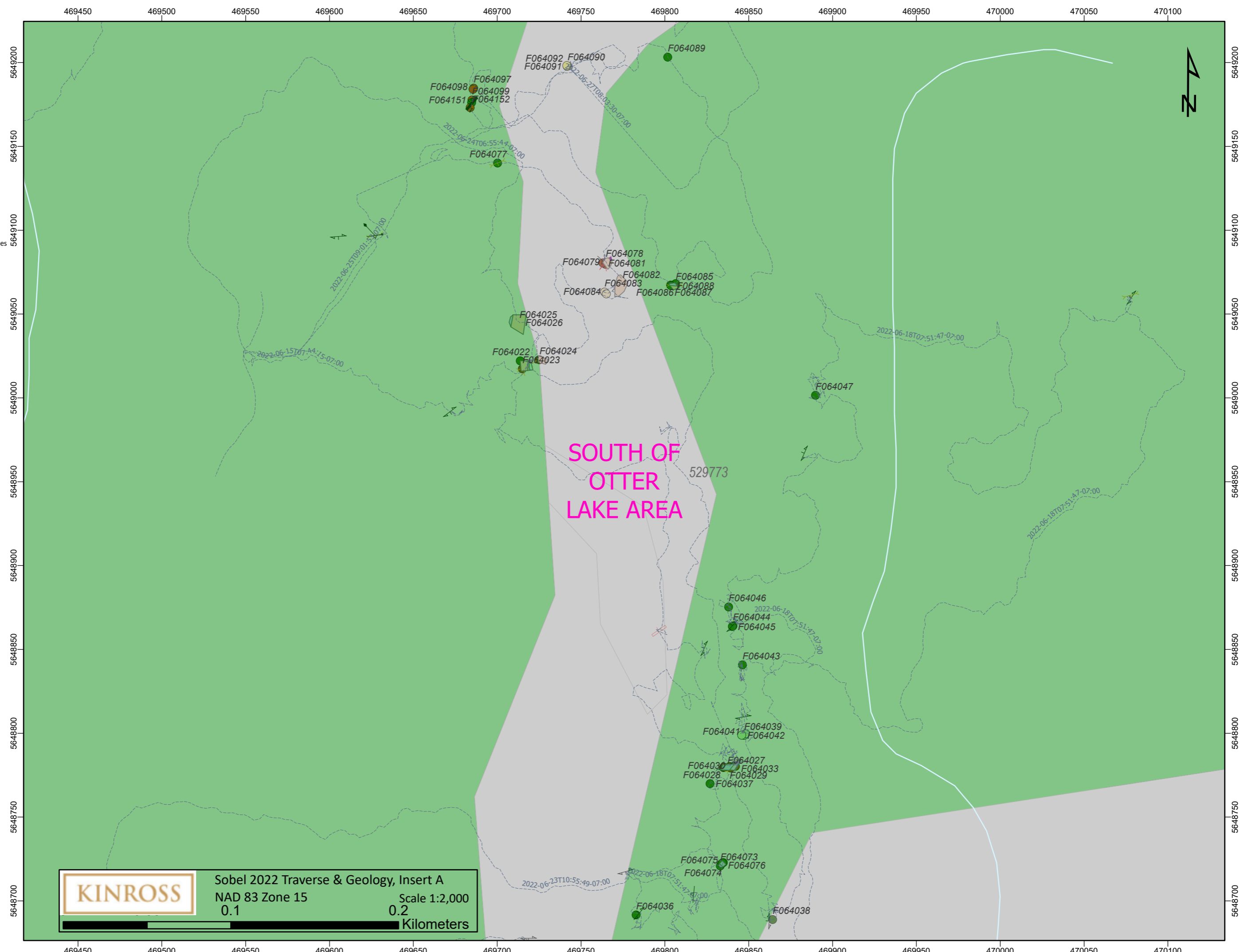
Sample Description	Method Analyte Units LOD	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
		V ppm 1	W ppm 0.1	Y ppm 0.1	Zn ppm 2	Zr ppm 0.5
F064011		19	19.1	15.9	389	21.6
F064012		15	59.0	11.8	958	9.7
F064015		31	15.6	14.7	1865	24.1
F064017		59	1.1	14.2	523	18.4
F064018		66	3.3	8.5	110	39.0
F064022		37	0.5	9.2	678	35.4
F064031		99	1.7	17.2	2180	71.5

***** See Appendix Page for comments regarding this certificate *****

Appendix E

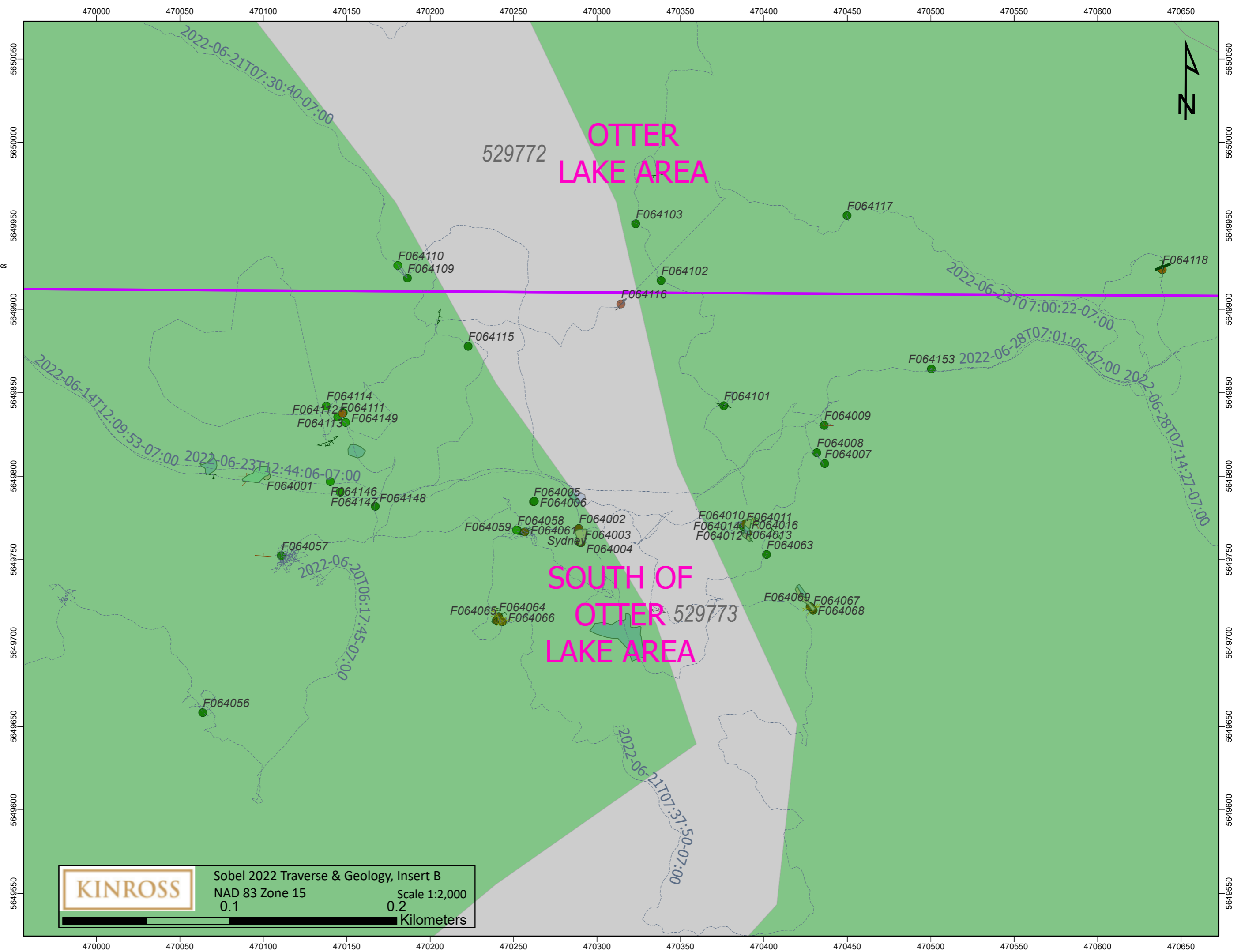
Daily Traverse and Outcrop Map





- Legend**
- Sobel Cells
 - MENDM_Administrative_Boundaries
 - Rivers
 - Trails2022
 - Geology**
 - Rocktype**
 - Mafic Volcanic
 - Sediments
 - 2022 Outcrops**
 - Chemical Sedimentary
 - Late vn, alt or minz
 - Mafic Intrusive
 - Mafic volcanic
 - 2022 Structure**
 - Point measurements**
 - Bedding
 - Dyke
 - Fault dextral
 - Foliation
 - Fracture
 - Igneous layering
 - mineral lineation
 - Quartz vein
 - shear zone
 - Vein
 - 2022 Samples**
 - Rocktypes**
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 - Felsic volcanic
 - Quartz Vein
 - Sediments
 - Clastic Sedimentary
 - Channel_sample

KINROSS Sobel 2022 Traverse & Geology, Insert A
 NAD 83 Zone 15 Scale 1:2,000
 0.1 0.2
 Kilometers



Legend

- Sobel Cells
 - Work Performed Cells
 - Trails2022
 - MENDM_Administrative_Boundaries
- Geology**
- Rocktype**
- Mafic Volcanic
 - Sediments
- 2022 Outcrops**
- Chemical Sedimentary
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 - Mafic volcanic
- 2022 Structure**
- Point measurements**
- Bedding
 - Dyke
 - Z fold axis
 - Foliation
 - Fracture
 - Joint
 - Quartz vein
 - shear zone
- 2022 Samples**
- Rocktypes**
- Chemical Sedimentary
 - Mafic volcanic
 - Mafic Intrusive
 - Quartz Vein
 - Clastic Sedimentary
 - Ultramafic intrusive

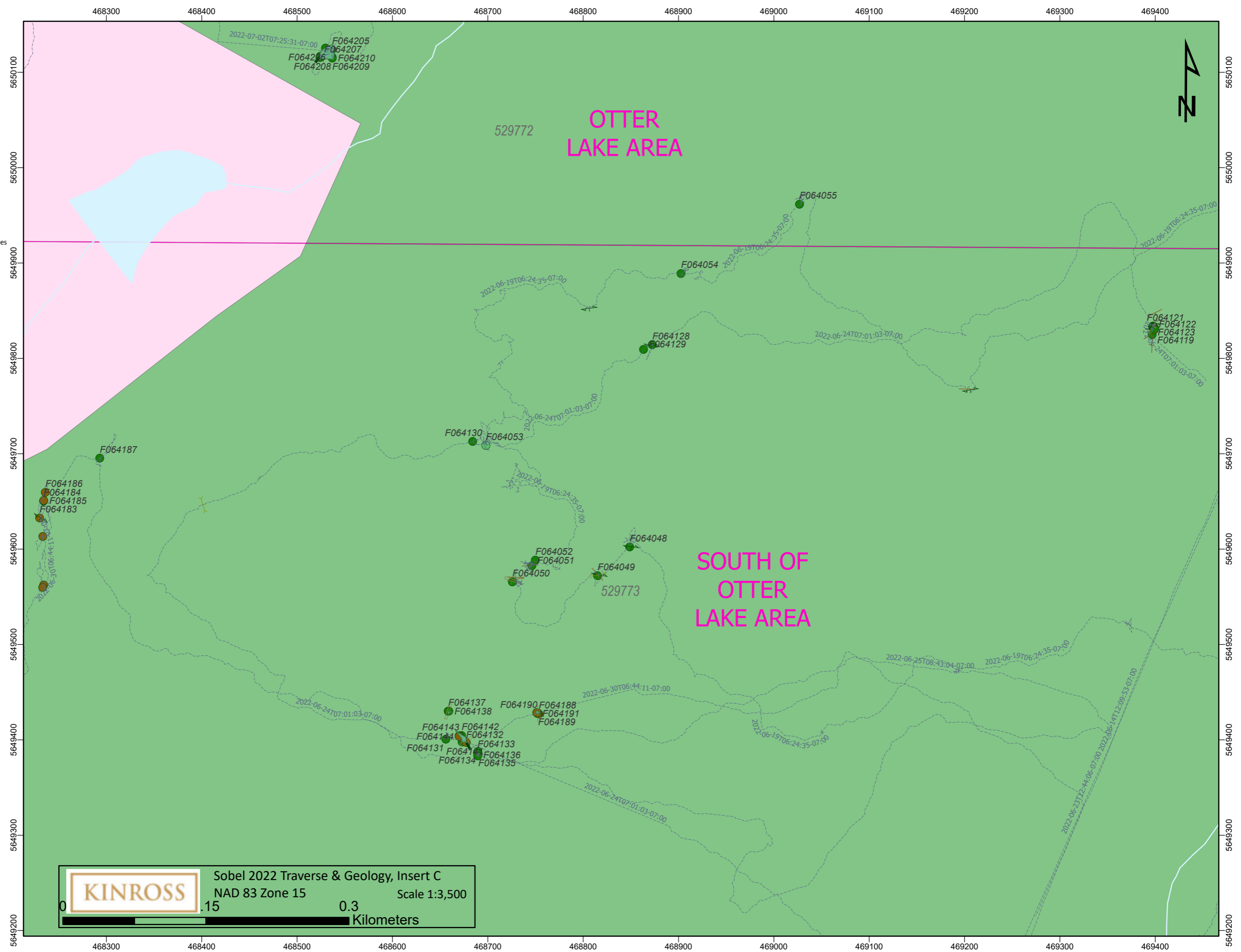


Sobel 2022 Traverse & Geology, Insert B
 NAD 83 Zone 15
 Scale 1:2,000
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529772
**OTTER
 LAKE AREA**

529773
**SOUTH OF
 OTTER
 LAKE AREA**

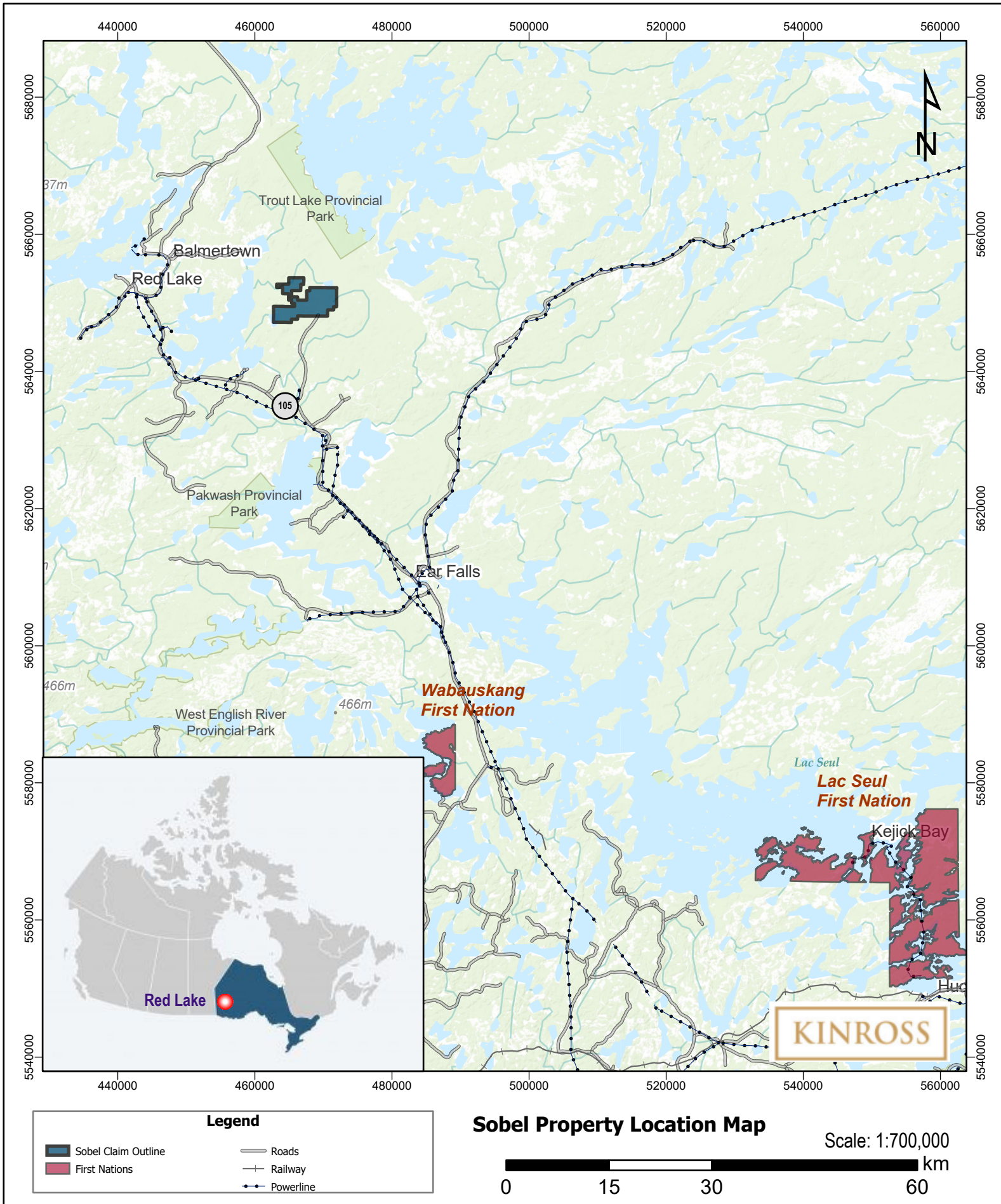


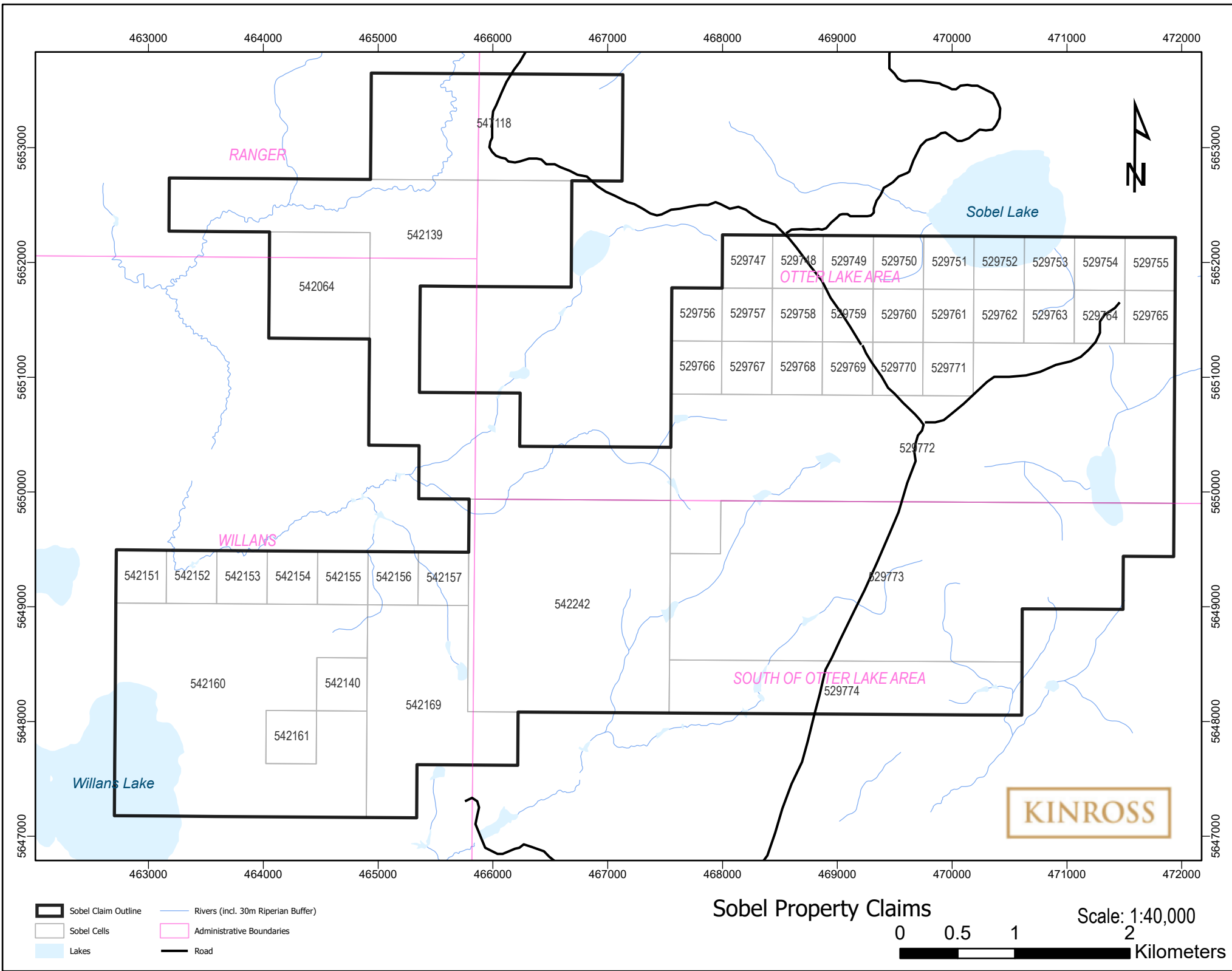


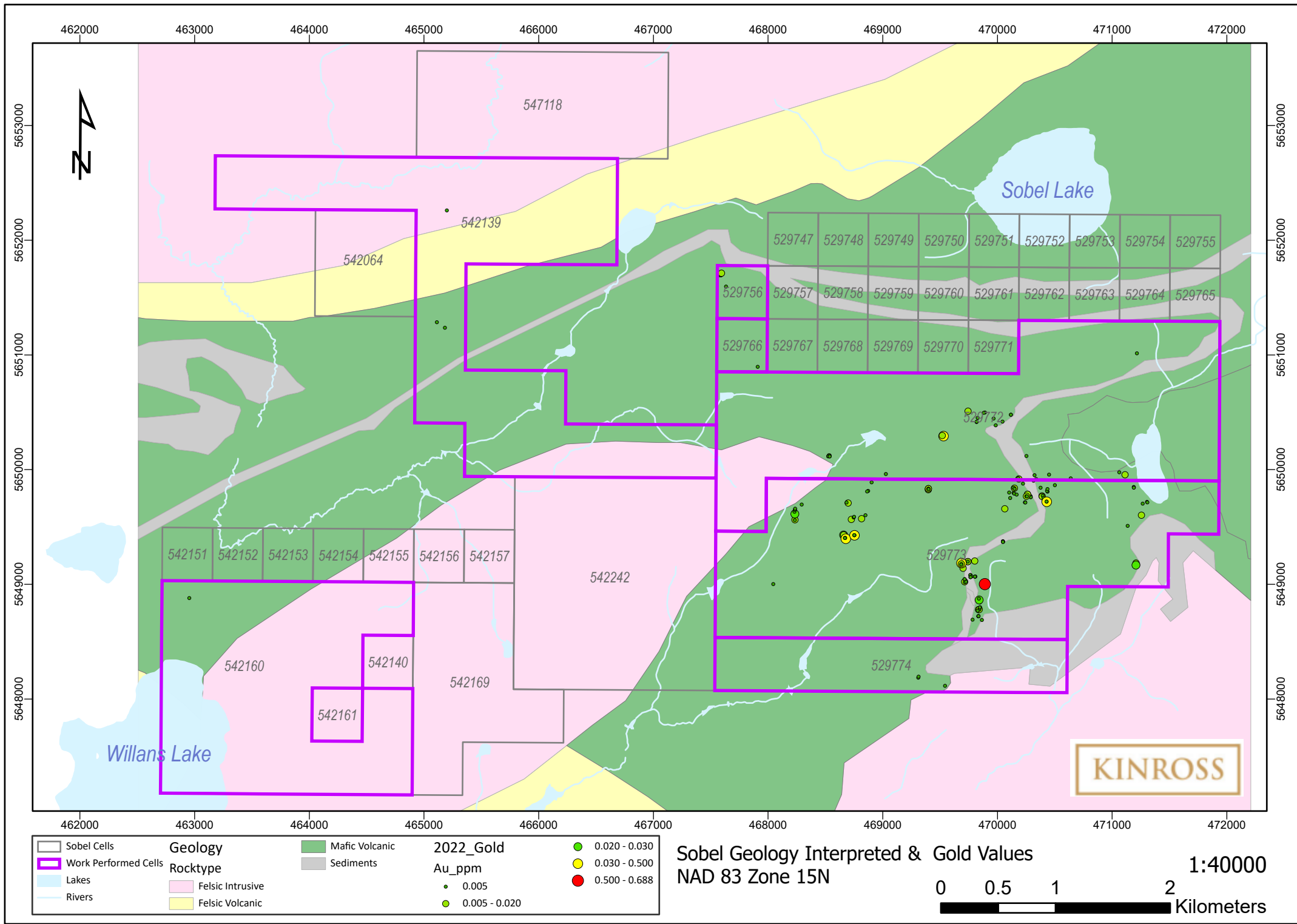
- Legend**
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 - Trails2022
- Geology**
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- Felsic Intrusive
 - Mafic Volcanic
- 2022 Outcrops**
- Mafic volcanic
- 2022 Structure**
- Point measurements**
- Dyke
 - Foliation
 - Fracture
 - Quartz vein
 - Vein
- 2022 Samples**
- Rocktypes**
- Mafic volcanic
 - Quartz Vein
 - Ultramafic Volcanic

Sobel 2022 Traverse & Geology, Insert C
 NAD 83 Zone 15 Scale 1:3,500

 Kilometers







462000 463000 464000 465000 466000 467000 468000 469000 470000 471000 472000

5653000
5652000
5651000
5650000
5649000
5648000

5653000
5652000
5651000
5650000
5649000
5648000



Sobel Lake

Willans Lake

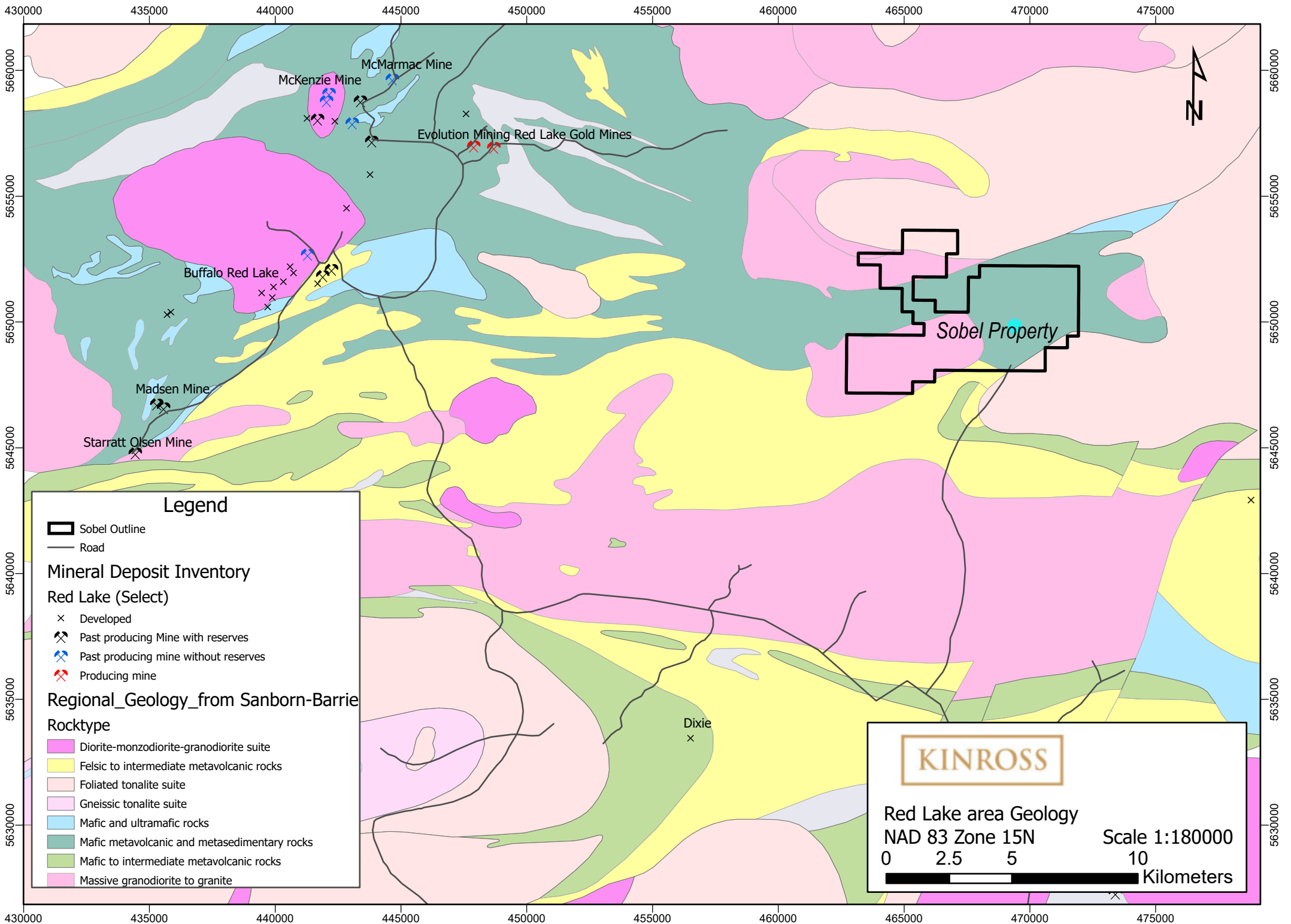


Sobel Cells	Geology	Mafic Volcanic	2022_Gold	0.020 - 0.030
Work Performed Cells	Rocktype	Sediments	Au_ppm	0.030 - 0.500
Lakes	Felsic Intrusive		0.500 - 0.688	
Rivers	Felsic Volcanic		0.005 - 0.020	

Sobel Geology Interpreted & Gold Values
NAD 83 Zone 15N

1:40000



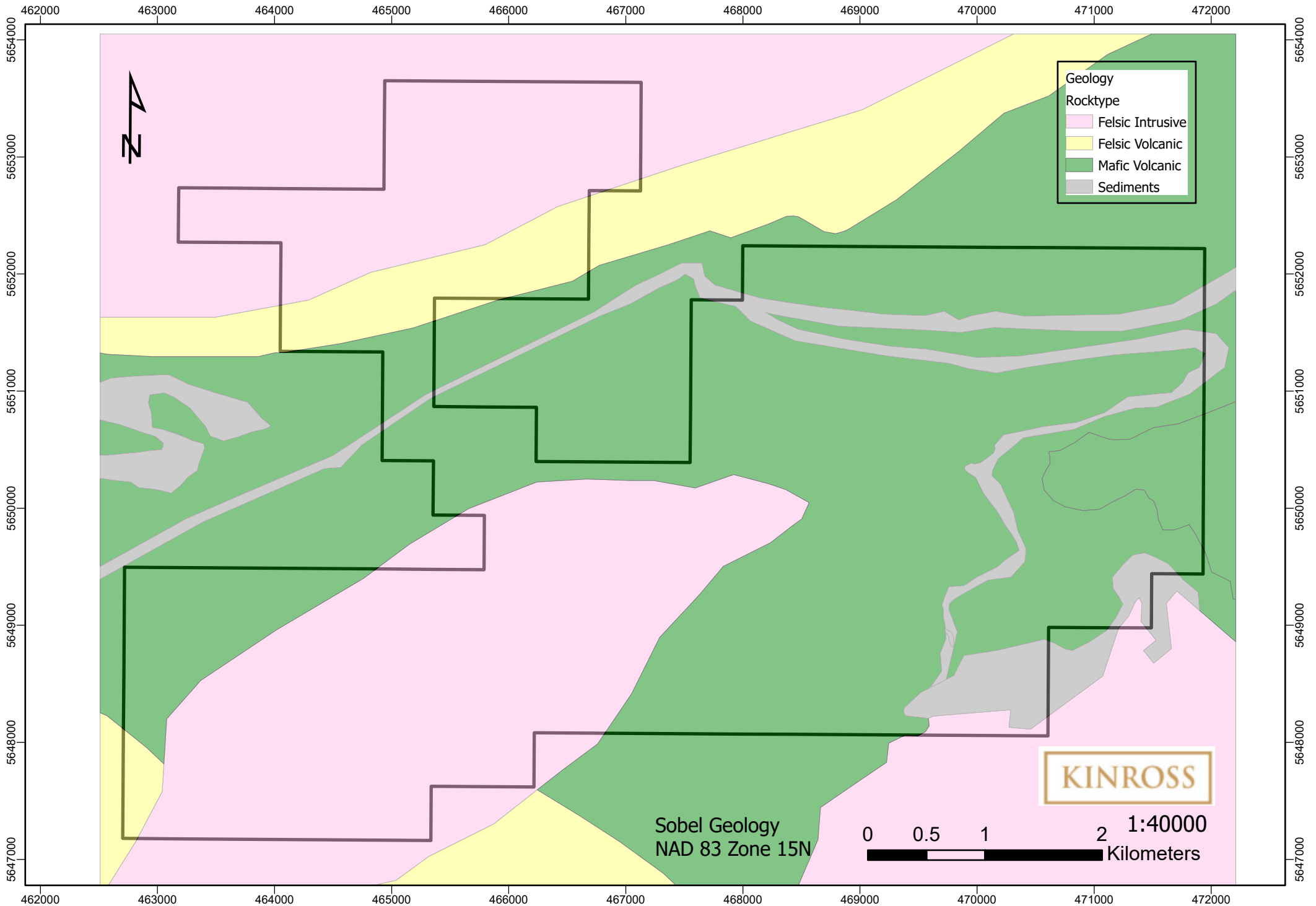


Legend

- Sobel Outline
- Road
- Mineral Deposit Inventory**
- Red Lake (Select)**
- x Developed
- ⚒ Past producing Mine with reserves
- ⚒ Past producing mine without reserves
- ⚒ Producing mine
- Regional_Geology_from Sanborn-Barrie**
- Rocktype**
- Diorite-monzodiorite-granodiorite suite
- Felsic to intermediate metavolcanic rocks
- Foliated tonalite suite
- Gneissic tonalite suite
- Mafic and ultramafic rocks
- Mafic metavolcanic and metasedimentary rocks
- Mafic to intermediate metavolcanic rocks
- Massive granodiorite to granite



Red Lake area Geology
 NAD 83 Zone 15N
 Scale 1:180000
 0 2.5 5 10
 Kilometers



Geology

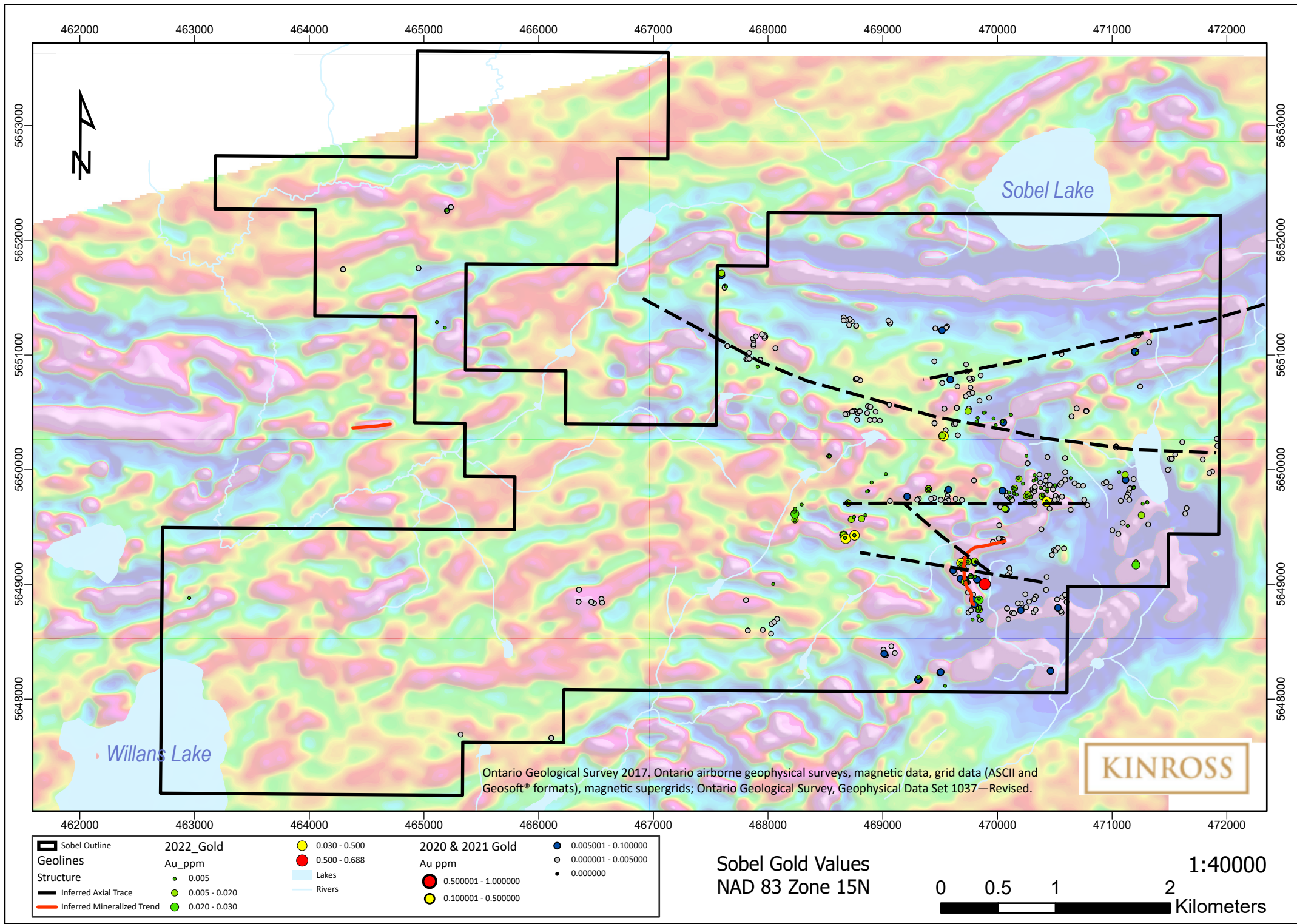
Rocktype

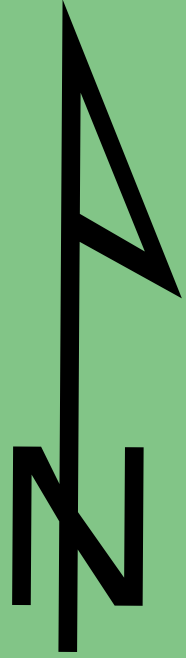
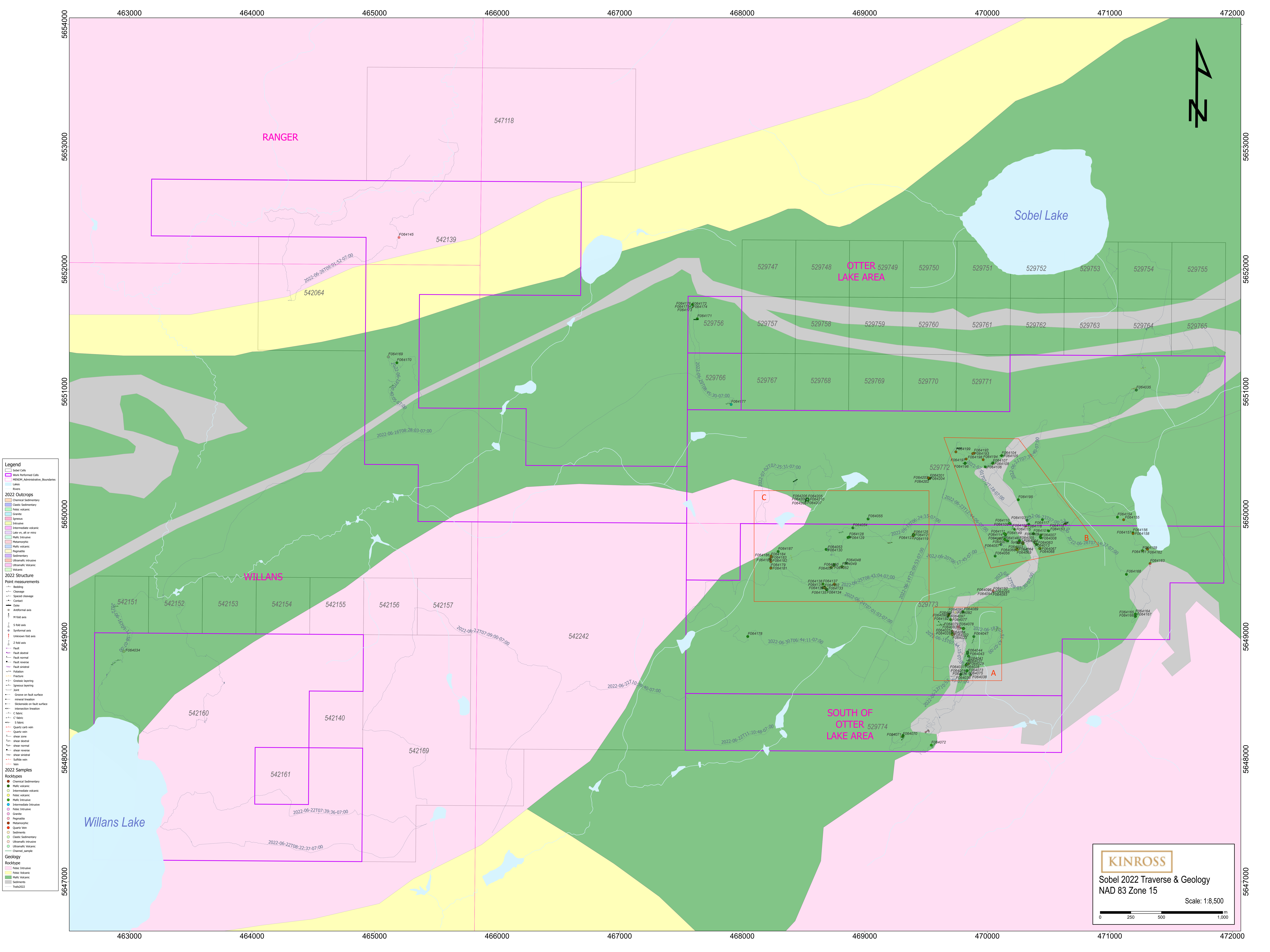
- Felsic Intrusive
- Felsic Volcanic
- Mafic Volcanic
- Sediments

KINROSS

Sobel Geology
NAD 83 Zone 15N

0 0.5 1 2 1:40000
Kilometers



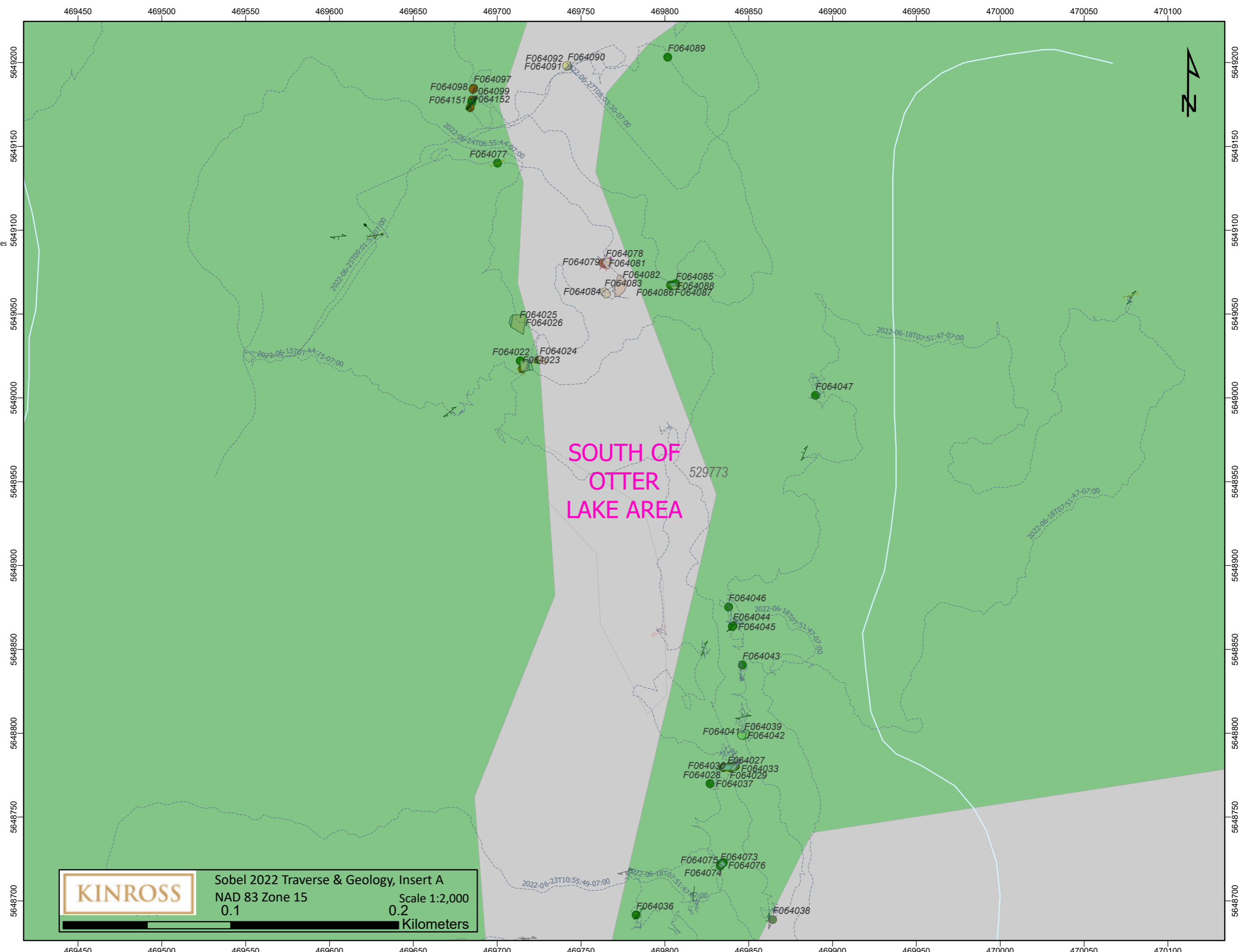


- Legend**
- Subst Cells
 - Block Reformed Cells
 - MENOM Administrative Boundaries
 - Lakes
 - 2022 Outcrops
 - Chemical Sedimentary
 - Quartzite
 - Granite
 - Spines
 - Intrusive
 - Intermediate volcanic
 - Basic volcanic
 - Mafic volcanic
 - Metamorphic
 - Sedimentary
 - Ultramafic volcanic
 - Vegetation
 - 2022 Structure
 - Bedding
 - Chertage
 - Seismic zone
 - Contact
 - Fault
 - Normal
 - Reverse
 - Thrust
 - Fracture
 - Graben
 - Igneous layering
 - Joint
 - Graben on fault surface
 - Mineral location
 - Slickenside on fault surface
 - Intersection location
 - E fabric
 - S fabric
 - Quartz carb vein
 - Quartz vein
 - Shear zone
 - Shear normal
 - Shear reverse
 - Shear sinistral
 - Surface vein
 - Vein
 - 2022 Samples
 - Chemical Sedimentary
 - Basic volcanic
 - Intermediate volcanic
 - Mafic volcanic
 - Mafic Intrusive
 - Intermediate Intrusive
 - Basic Intrusive
 - Granite
 - Spines
 - Quartz Vein
 - Sediments
 - Chemical Sedimentary
 - Ultramafic volcanic
 - Chemical sample
 - Geology
 - Basic Intrusive
 - Basic Volcanic
 - Mafic Volcanic
 - Sediments
 - Vegetation

KINROSS

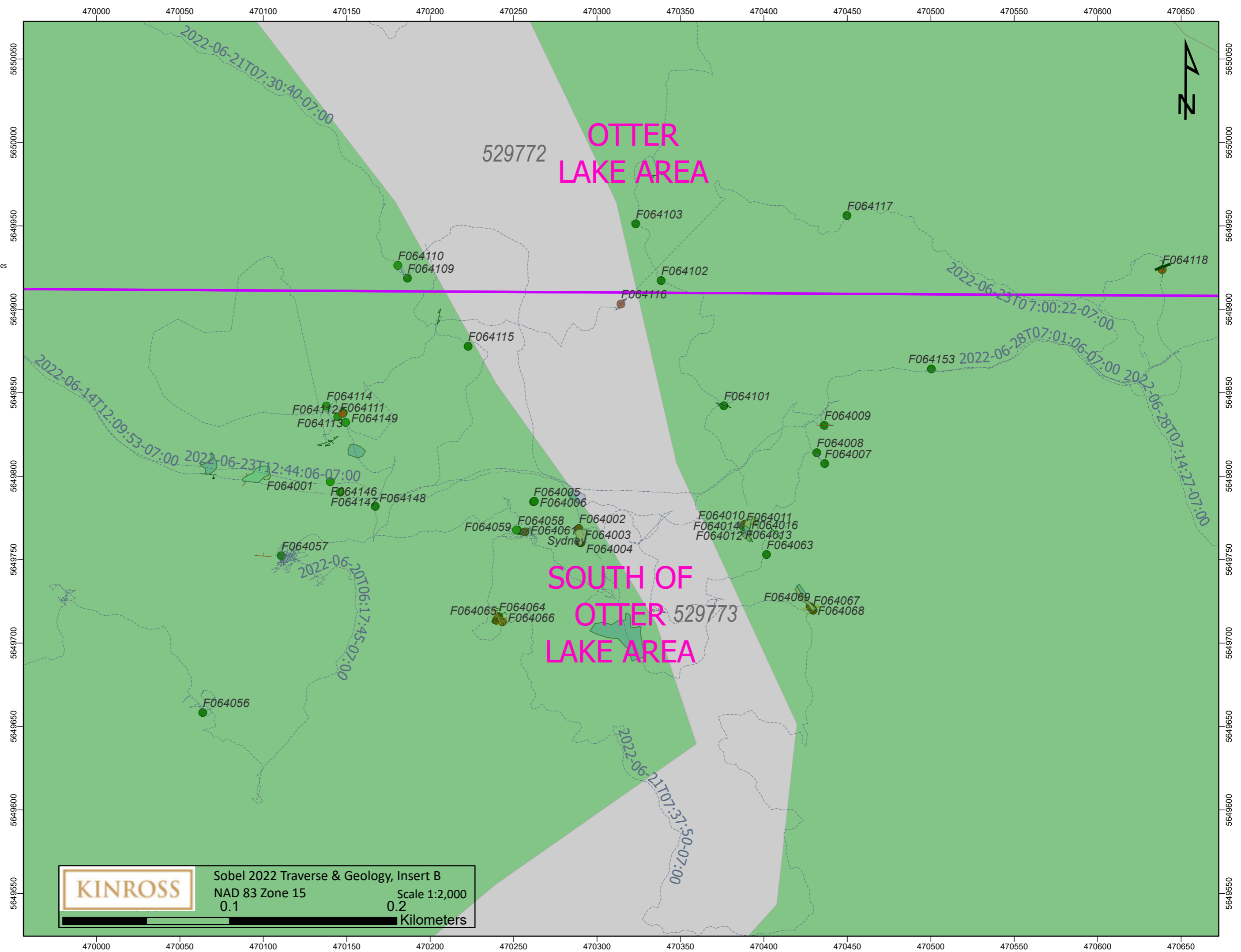
Sobel 2022 Traverse & Geology
NAD 83 Zone 15

Scale: 1:8,500



- Legend**
- Sobel Cells
 - MENDM_Administrative_Boundaries
 - Rivers
 - Trails2022
 - Geology**
 - Rocktype**
 - Mafic Volcanic
 - Sediments
 - 2022 Outcrops**
 - Chemical Sedimentary
 - Late vn, alt or minz
 - Mafic Intrusive
 - Mafic volcanic
 - 2022 Structure**
 - Point measurements**
 - Bedding
 - Dyke
 - Fault dextral
 - Foliation
 - Fracture
 - Igneous layering
 - mineral lineation
 - Quartz vein
 - shear zone
 - Vein
 - 2022 Samples**
 - Rocktypes**
 - Chemical Sedimentary
 - Mafic volcanic
 - Felsic volcanic
 - Quartz Vein
 - Sediments
 - Clastic Sedimentary
 - Channel_sample

KINROSS Sobel 2022 Traverse & Geology, Insert A
 NAD 83 Zone 15 Scale 1:2,000
 0.1 0.2 Kilometers



Legend

- Sobel Cells
- Work Performed Cells
- Trails2022
- MENDM_Administrative_Boundaries
- Geology**
- Rocktype**
- Mafic Volcanic
- Sediments
- 2022 Outcrops**
- Chemical Sedimentary
- Mafic Intrusive
- Mafic volcanic
- 2022 Structure**
- Point measurements**
- Bedding
- Dyke
- Z fold axis
- Foliation
- Fracture
- Joint
- Quartz vein
- shear zone
- 2022 Samples**
- Rocktypes**
- Chemical Sedimentary
- Mafic volcanic
- Mafic Intrusive
- Quartz Vein
- Clastic Sedimentary
- Ultramafic intrusive

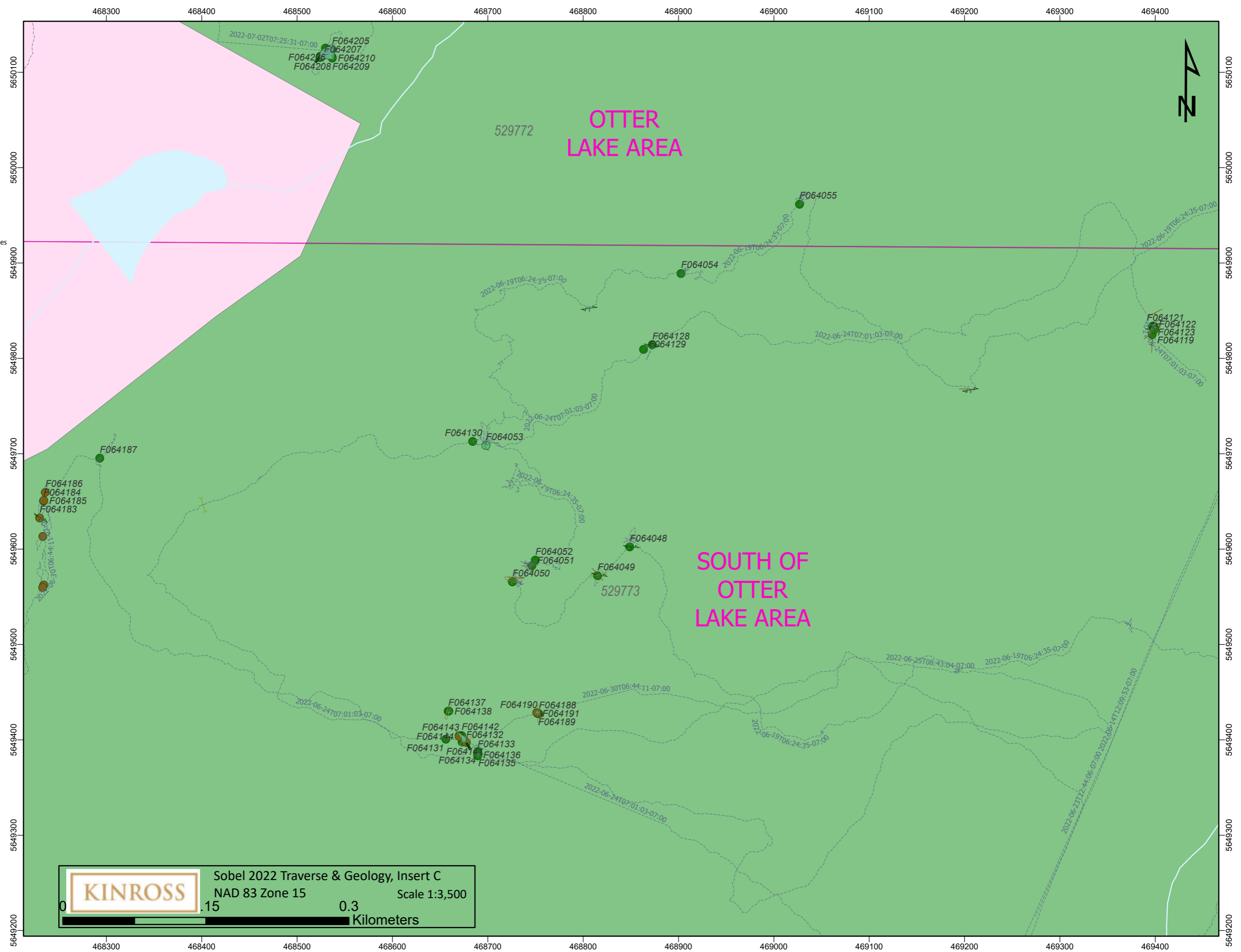
Sobel 2022 Traverse & Geology, Insert B

NAD 83 Zone 15

Scale 1:2,000

0.1 0.2

Kilometers



- Legend**
- Sobel Cells
 - MENDM_Administrative_Boundaries
 - Lakes
 - Rivers
 - Trails2022
- Geology**
- Rocktype**
- Felsic Intrusive
 - Mafic Volcanic
- 2022 Outcrops**
- Mafic volcanic
- 2022 Structure**
- Point measurements**
- Dyke
 - Foliation
 - Fracture
 - Quartz vein
 - Vein
- 2022 Samples**
- Rocktypes**
- Mafic volcanic
 - Quartz Vein
 - Ultramafic Volcanic

KINROSS

Sobel 2022 Traverse & Geology, Insert C

NAD 83 Zone 15

Scale 1:3,500

0 0.15 0.3

Kilometers