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Claim No 745860; Report of Assessment Work 2022
Lost Hope Mine Kirkland West Gold Project
Eby Township, Larder Lake Mining Division, Ontario, Canada

LOST HOPE MINE



INCORPORATED
1985

Prepared by: M.A. Raitanen, Prospector, on behalf of Lost Hope Mine Ltd.

02/19/23

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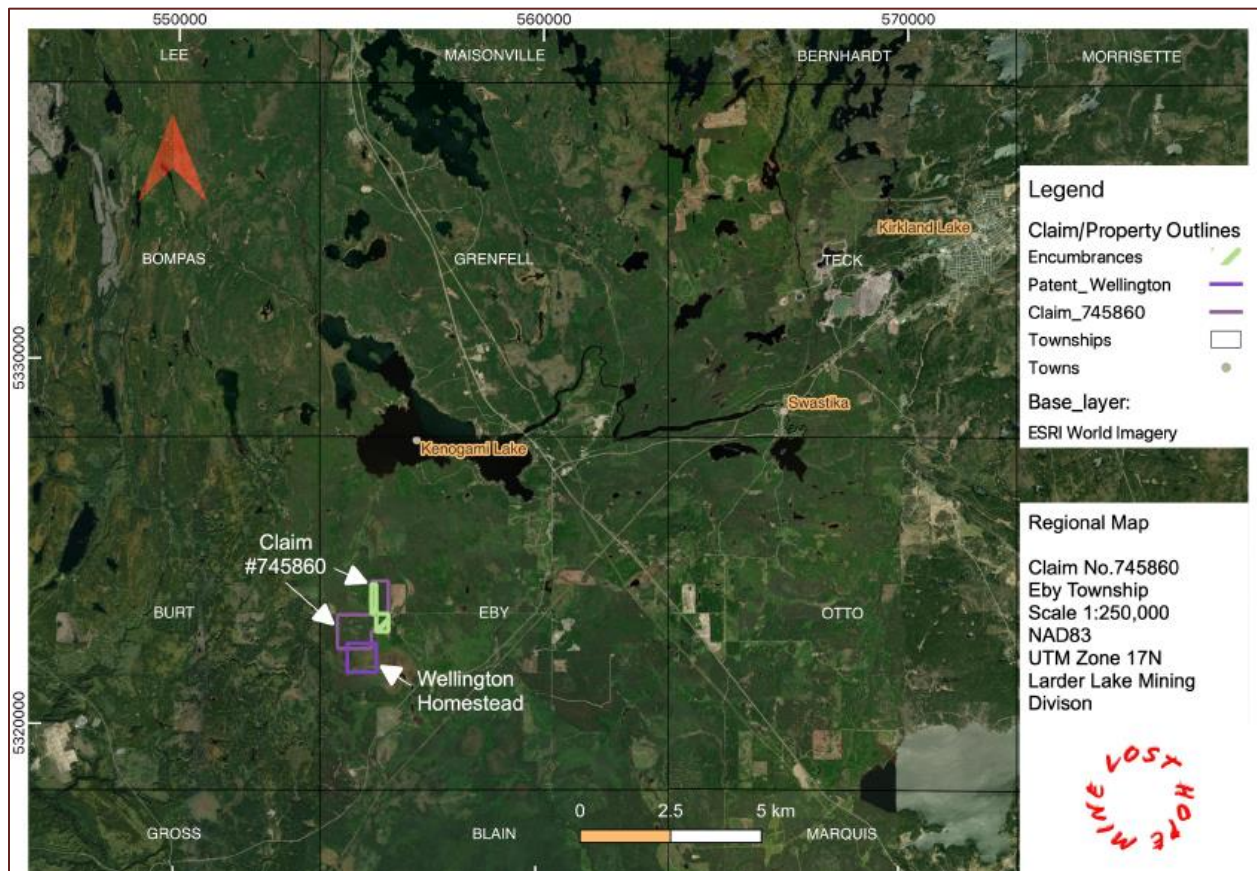
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Summary

The purpose of this report is to detail & summarize the work performed on claim 745860, Lost Hope Mine's 'Kirkland West Gold Project', for assessment reporting during the (spring to fall) exploration season of 2022. During that period; surface sampling was conducted at 'Old Timer's Ridge', 'Yellow Top's Lookout', and 'Kulta Maki', which are three showings named and explored thus far by the author. A trail was cut from Old Timer's Ridge to Yellow Top's Lookout and a new trailhead was established for future access to Kulta Maki. Samples were submitted for assay at Swastika Laboratories. Controls are referenced to UTM grid coordinates, Zone 17N, North American Datum 1983 (NAD 83) projected coordinate system.

Location & Description

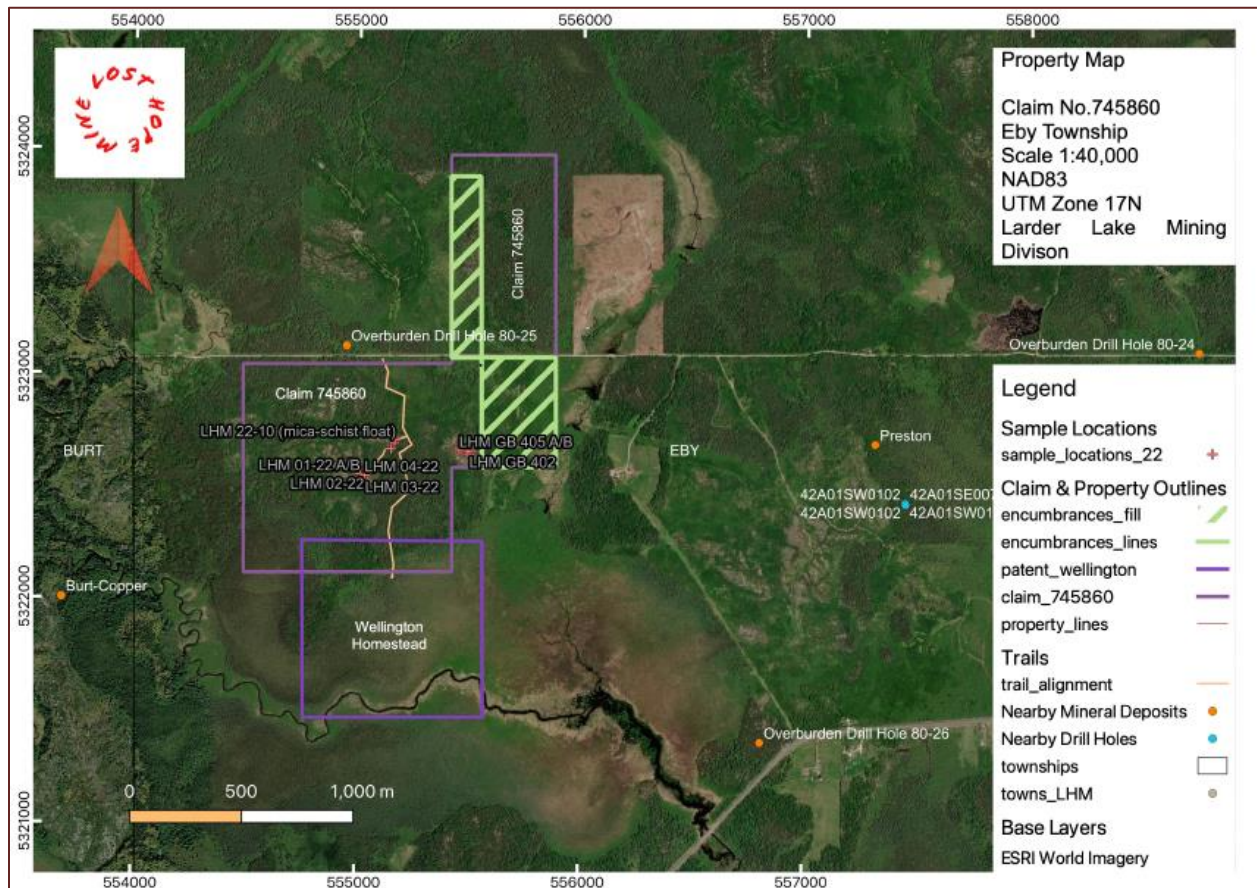
The seven cell claim group is located in the Larder Lake mining division approximately 15 km south-west of the Town of Kirkland Lake & 30 km north-east of Matachewan. It is roughly 600 km north of Ottawa or Toronto via Highway 11. 4 km west of Highway 11, the group of claims lies to the west of Highway 66, on West Road, which is across from Eby Pothole Road. The project is in the Kirkland Lake Resident Geologist's District, Larder Lake Mining Division.



Lost Hope Mine Ltd. (MLAS client number 10006315) is the registered claim holder. Marcus Raitanen staked the claims electronically through the Ontario Mining Lands Administration System in 2020 & 2021.

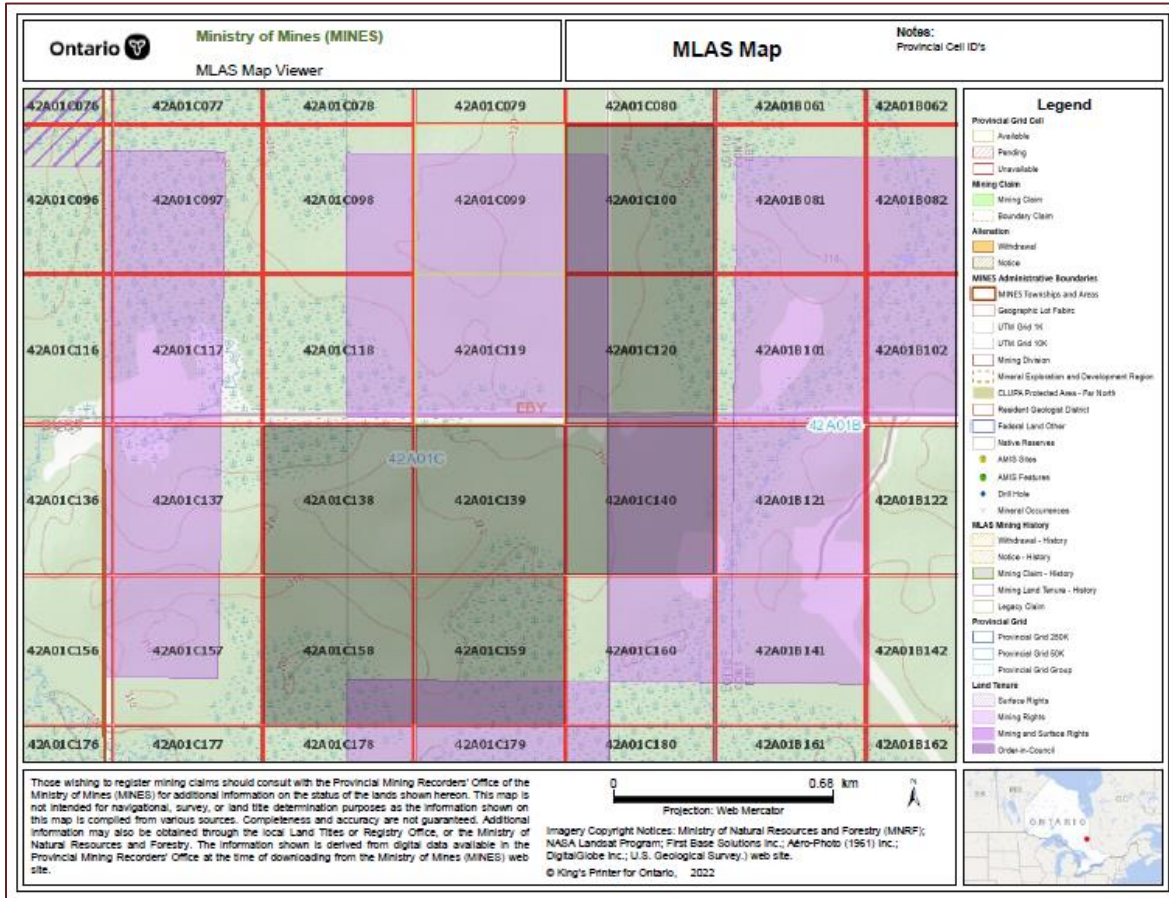
A four cell claim (653127) was amalgamated with a three cell claim (735940) in September 2022 to become claim 745860, which is the subject of this assessment work report. Claim 745860 has a gross area of approximately 350 acres (or 140 hectares).

Cell ID's 42A 01 C138, C139, C158, & C159 (formerly claim 653127) fall on Crown Lands but-for an encumbrance at the southern extent of C158 & C159 where there is an overlapping patented property with mineral rights (the South Half of Lot 11, Concession 3). This patented property is owned by the author and is shown on the maps herein as the 'Wellington Homestead', Richard Wellington being the original title holder. No exploration work was conducted on these privately held lands.



Underlying the aforementioned cell claims, legacy claims were staked in the early days of the gold rush. This is evidenced by historical Plan M-345 which is available through the OGS Historical Mining Claim Map webpage. The legacy claims belie the north half of Lot 11, Concession 3, which is Crown land & part of claim 735940. Assessment reports were not found for any previous work on these legacy claims. The cell claims comprising the subject property, are larger than the legacy claims at roughly 20 ha per cell vs 16 ha respectively under the old system. The cells are georeferenced to the [provincial grid](#), which shifts them just west of the original surveyed lot lines.

Cell ID's 42A 01 C100, C120, & C140 (formerly claim 735940) also fall on Crown Lands and are encumbered on the east portion of C140 and the west portion of C120 and C100. C100 and C120 are on the north side of West Road and have been held by others in recent years as part of larger claim holdings but do not appear to have been individually explored. C140 shares the same history as C139's underlying history as a legacy claim, without any documented work reports available.



Eby Township is an unorganized township; its northeast corner touches Teck Township's southwest corner. The Town of Kirkland Lake is located in Teck Township where seven gold mines were discovered along Kirkland Lake's 'Mile of Gold' following the 'gold rush' of 1912. Eby Township hosted its own gold mine west of the Mile of Gold, the Baldwin Mine, which is now the subject of renewed interest & contained within a claim group which is contiguous to Lost Hope Mine's Kirkland West Gold project (the Baldwin Mine is part of Mistango Resource's Kirkland West Gold project). Roughly 2 km north-west of claim 745860, an exploratory shaft was dug to approximately 40' by a prospector (Graff-Kaplan-Hahn: Red Shirt Larder Mines Ltd.), who later went missing (1946-1947). It is alleged that a sample from the shaft bottom (alternately referred to as 'Deadman's Mine') assayed at 5.31 ppm (5310 ppb). There is an MDI <2 km east of Kulta Maki where Preston Mines advanced a diamond drill hole in the 1950's which revealed a gold occurrence (MDI 42A01SW0102).

Eby Township is sparsely populated today, but apparently, there were 80 families of Finnish settlers who lived in the township at one time. An old stove lid dated 1921 was discovered on the property during the 2021 work program. Old claim posts were discovered and flagged just east of the midpoint of the block of cell claims at the northern extent of the property (at West Road) and the southern extent of the property (at the patented lot which encumbers the mining claim's property line).

Access & Geography

Three of the cell claims (C138, C139, & C140) front West Road. West Road is a maintained gravel road, it is in excellent condition and accessible by car from Kirkland Lake, Toronto, or Ottawa. After parking, access to the property is by foot. There is a trail bisecting the property, beginning roughly midway between cells C138 and C139, which is essentially a line-cut without a prepared surface therefore it is only traversable by foot, it is not suitable for vehicles or any sort of wheeled traffic. Another trailhead was constructed this season in cell C140 to provide foot access to the eastern side of the property where an unexplored outcropping (Kulta Maki) was sampled during the 2022 season. There are plans to extend this trailhead into the property next spring. Off-trail, the vegetation is extremely thick and by most definitions impassible. Dense transitions of tag alder and poplar appear to have been created by past small scale logging operations, likely wood lots used by the early settlers. Towards the south end of the property, the forest consists principally of balsam, black spruce, & tamarack and appears to be undisturbed by human activity. Just past the property, to the south, there is a peat bog and low lying area that the author surmises to be a remnant of glacial Lake Barlow-Ojibway.

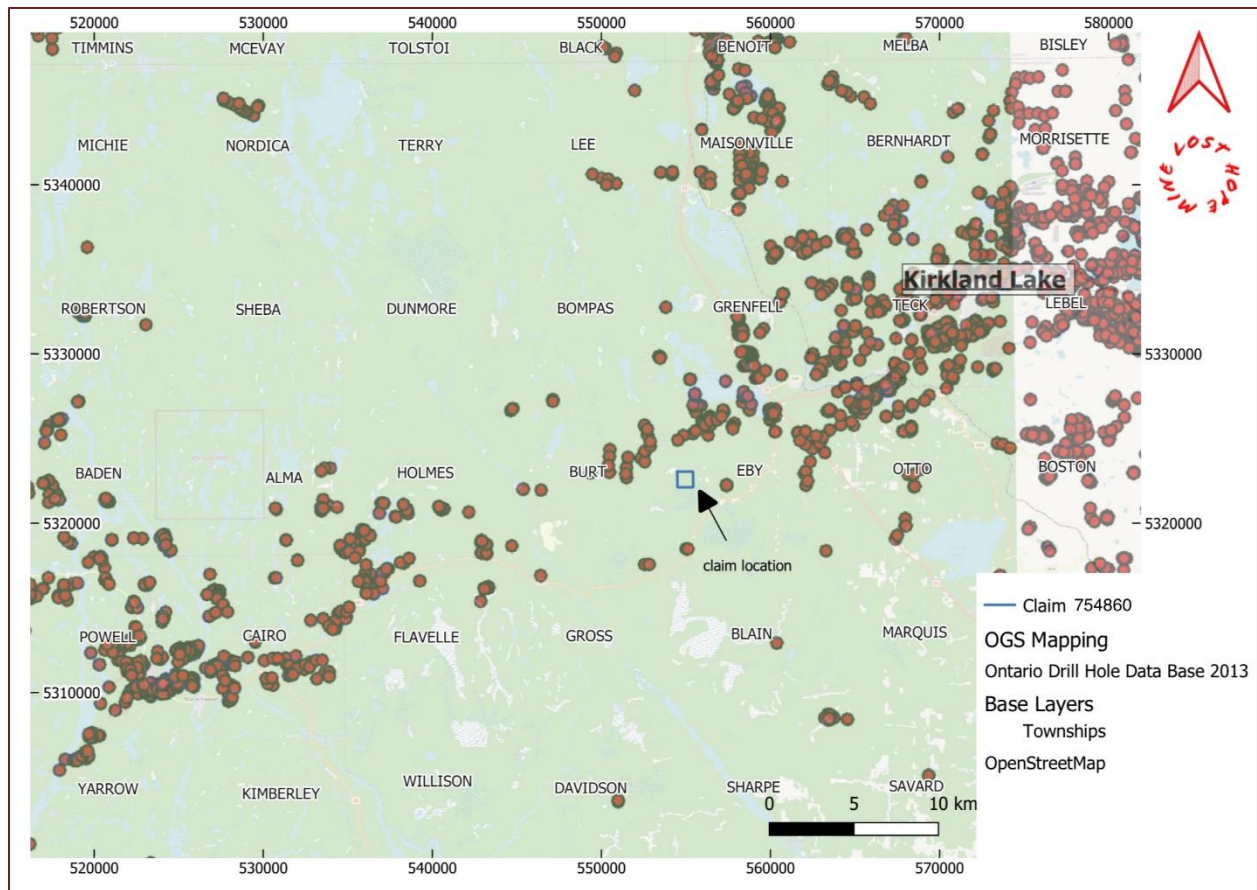


Map of Glacial Lake Agassiz and Lake Ojibway ca 7900 YBP. Designed from Teller and Leverington, 2004 (U.S. Geological Survey) Creative Commons License, Source: Wikipedia

General Geology

The subject area is within the south-west limit of the Abitibi greenstone belt (Goodwin 1966) which consists of Archean era volcanic, meta-sedimentary, and intrusive rocks (Lovell 1972). The greenstone belt extends roughly from Wawa in Ontario to Val D'Or, Quebec. Kirkland Lake falls in the Abitibi greenstone belt and was the site of a gold rush, the Kirkland Lake Gold Rush (1912) which followed the Cobalt Silver Rush (1903), Larder Lake Gold Rush (1906), and the Porcupine Gold Rush (1909). Gold was also discovered in Swastika, west of Kirkland Lake.

Kirkland Lake lies north-east of the subject area and the locale, informally known as the Kirkland Lake gold camp, is one of the world's largest gold producing regions. There remains still many areas which are underexplored west of Kirkland Lake as illustrated by the distribution of recorded drill holes (shown as red dots) from Kirkland Lake to Matachewan in the following figure.



Gold mines are in production in Teck Township (Kirkland Lake) and Powell Township (Matachewan) presently & the subject property is located between them, roughly 15 km from Kirkland Lake & 30 km from Matachewan.

The setting of gold occurrences in Kirkland Lake have been studied in great detail over the last 100 years and numerous resources are available for further research. (Isplarov, et al., 2008)

Site Geology

There are a number of outcroppings (described by Lovell as diabase dikes) throughout the property. The author has now sampled and visited three of those outcrops (Old Timer's Ridge, Yellow Top's Lookout, and Kulta Maki). The outcroppings have numerous intrusions, contact zones, deformations, and quartz veins. One of those outcroppings (Old Timer's Ridge) has an old pit which has a mineralized quartz-feldspar vein running through it. Several of the typical rock types are shown in the following pictures:



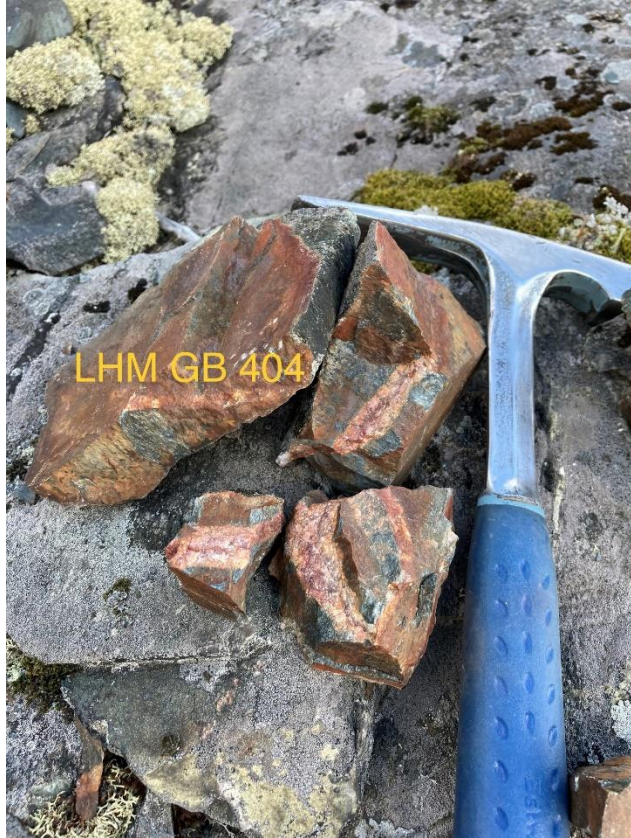
Quartz-Feldspar-Porphyry (QFP) at Old Timer's Ridge (specimen not archived, QFP is one of the typical rock types at this showing)



*Mica-Schist specimen - Old Timer's Ridge
(archived as LHM GB 22-101)*



*Quartz-feldspar specimen with massive sulfides visible
along left edge of sample (archived as 112 LHM 302)*



Samples collected at Kulta Maki showing quartz with hematite (below, to left, and at bottom)



Field Work & Methodology

The exploration program conducted throughout 2022 consisted of four visits to the project with the following work undertaken:

Visit 1 May 19, 2022 – May 22, 2022

A new trail head was constructed to provide access to cell C140 on the east side of the property at West Road. This trail head is also where the season's work program was staged from. During this visit, samples were collected at Old Timer's Ridge.

Visit 2 July 21, 2022 – July 25, 2022

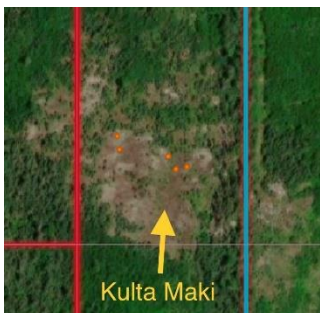
A trail was marked and cut from Old Timer's Ridge to the next outcropping to its south-west in cell C159, named Yellow Top's Lookout by the author. Samples were collected and sent for assay at Swastika Labs.

Visit 3 August 13, 2022 – August 20, 2022

A traverse was made from the new trail head to sample the rock outcropping at the south end of cell C140. Samples were collected and sent for assay at Swastika Labs. This outcropping was named Kulta Maki by the author, Kulta Maki being the Finnish translation of "Gold Hill".

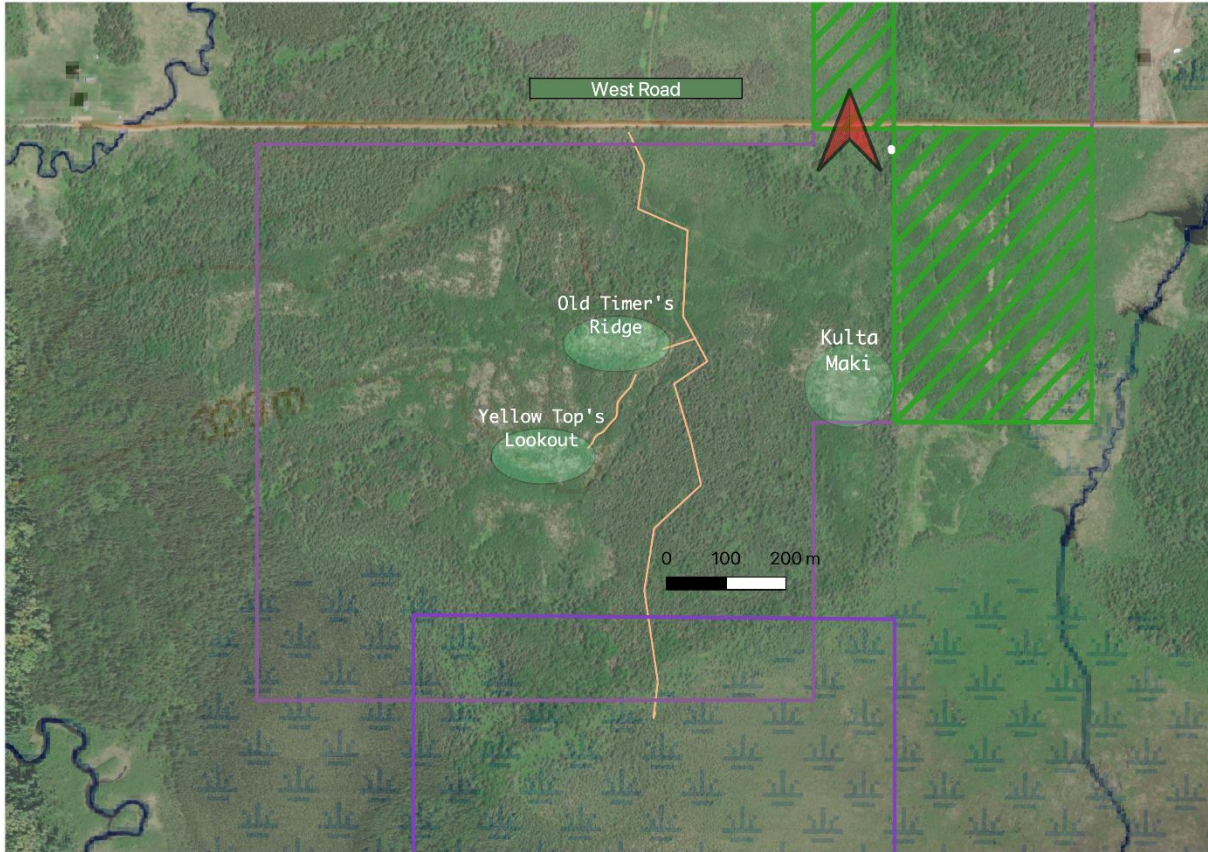
Visit 4 September 22, 2022 – September 25, 2022

The season's final visit consisted of additional trail construction work at the new trail head, clean up of tools and demobilization for the season.



Kulta Maki is depicted above and on left; the outcropping is roughly 100x150m

Outcrop names & general location within claim 745860



Sample descriptions correlated with outcrop from which each was collected:

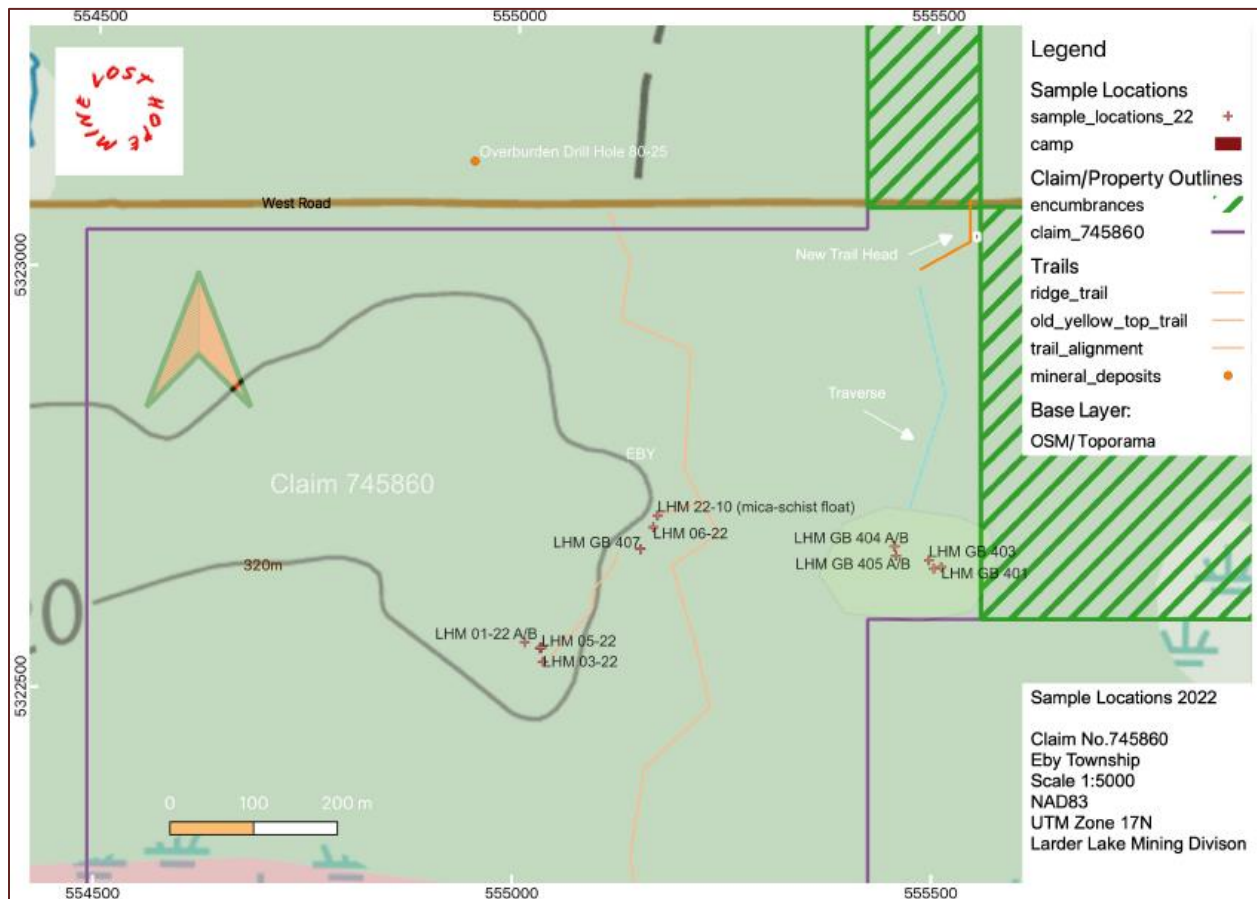
Sample No.	Easting	Northing	Sample Date	Location	Description	Visit No.
LHM GB 22-101	555170	5322710	5/20/2022	Old Timer's Ridge	mica-schist float	1
LHM 01-22 A/B	555013	5322558	7/23/2022	Yellow Top's Lookout	mafic-diabase	2
LHM 02-22	552431	5321051	7/23/2022	Yellow Top's Lookout	diabase with quartz vein	2
LHM 03-22	555035	5322535	7/23/2022	Yellow Top's Lookout	mafic-diabase	2
LHM 04-22	555033	5322552	7/23/2022	Yellow Top's Lookout	mafic-diabase	2
LHM 05-22	555033	5322552	7/23/2022	Yellow Top's Lookout	mafic-diabase	2
LHM 06-22	555165	5322696	7/23/2022	Old Timer's Ridge	porphyry (QFP) with pyrite	2
LHM GB 401	555509	5322652	8/19/2022	Kulta Maki	mafic-diabase	3
LHM GB 402	555500	5322650	8/19/2022	Kulta Maki	mafic-diabase	3
LHM GB 403	555494	5322660	8/19/2022	Kulta Maki	quartz vein-hematite	3
LHM GB 404 A/B	555453	5322676	8/19/2022	Kulta Maki	quartz vein-hematite	3
LHM GB 405 A/B	555455	5322665	8/19/2022	Kulta Maki	quartz vein-hematite	3
LHM GB 406	555150	5322670	8/19/2022	Old Timer's Ridge	quartz feldspar	3
LHM GB 407	555150	5322670	8/19/2022	Old Timer's Ridge	quartz feldspar	3
LHM GB 408	555150	5322670	8/19/2022	Old Timer's Ridge	quartz feldspar	3
LHM GB 409	555150	5322670	8/19/2022	Old Timer's Ridge	quartz feldspar	3

Summary of 2022 Sampling Program Assay Results:

Sample No.	Easting	Northing	Sample Date	Assay Date	Au (ppb)	Ag (ppm)	Cu (ppm)	Zn (ppm)	Co (ppm)	Ni (ppm)	Sample Archived
LHM 22-10	555170	5322710	5/20/2022	na							y
LHM 01-22 A/B	555013	5322558	7/23/2022	na							y
LHM 02-22	552431	5321051	7/23/2022	7/29/2022	< 10	0.3	38	36	11.9	6	n
LHM 03-22	555035	5322535	7/23/2022	na							y
LHM 04-22	555033	5322552	7/23/2022	na							y
LHM 05-22	555033	5322552	7/23/2022	7/29/2022	< 10	< 0.2	77	43	17.0	<1	n
LHM 06-22	555165	5322696	7/23/2022	7/29/2022	< 10	0.4	116	145	26.9	26	n
LHM GB 401	555509	5322652	8/19/2022	na							y
LHM GB 402	555500	5322650	8/19/2022	8/29/2022	30	0.4	147	61	14.3	18	n
LHM GB 403	555494	5322660	8/19/2022	8/29/2022	50	<0.2	101	61	24.9	12	n
LHM GB 404 A/B	555453	5322676	8/19/2022	8/29/2022	40	0.3	42	53	17.7	12	(B sample) y
LHM GB 405 A/B	555455	5322665	8/19/2022	8/29/2022	90	0.3	32	32	17.7	5	(B sample) y
LHM GB 406	555150	5322670	8/19/2022	na							y
LHM GB 407	555150	5322670	8/19/2022	na							y
LHM GB 408	555150	5322670	8/19/2022	na							y
LHM GB 409	555150	5322670	8/19/2022	na							y

All samples are grab samples collected with a rock pick from exposed bedrock surfaces.

In total, 19 samples were collected. Of which, 7 were submitted for assay and 12 samples were retained for future verification or analysis.



Findings

Anomalous gold values were reported in the assay results from Kulta Maki. Further sampling of this location, bedrock stripping & small scale geophysics (with a Beep Mat) are planned following completion of the new access trail. Kulta Maki is just west of the Preston Mine MDI. Accordingly, it makes an excellent drill target to explore at greater depth as there could be a gold producing structure connecting the two locations along this prospective east-west trend.

No gold values were reported in the assay results from Old Timer's Ridge & Yellow Top's Lookout however, those assays did reveal the presence of base metals & critical minerals including silver, nickel, copper, zinc, and cobalt. Additionally, the observation of massive sulphides in quartz veins proves that the area does contain mineralization. Further investigation of both outcrops & throughout the rest of the claim to locate additional exposures and investigative targets would be helpful in fully appraising the likelihood of a gold or critical mineral resource on these claims. The author will plan exploration activities for 2023 accordingly.

References:

Beep Mat Manual BM 8 10_10_2017 EN.pdf - Instrumentation GDD Inc. 860 boul. de la Chaudière, Quebec

Cobalt Silver Rush. (n.d.) In Wikipedia. https://en.wikipedia.org/wiki/Cobalt_silver_rush

Davis, George H. 1984. Structural Geology of Rocks and Regions, Wiley & Sons, ISBN 0-471-09267-3

Easton, R.M. 1995. Lichens and Rocks: A Review, Geoscience Canada; Volume 21, No.2, Revision date January 15

Everend L. Bruce. 1914. The Swastika Gold Area, Mining Journal, Railway & Commercial Gazette, London, Volume 105.

Ispolatov, V., Lafrance, B., Dube, B., Creaser, R., Hamilton, M., 2008. Geologic and Structural Setting of Gold Mineralization in the Kirkland Lake-Larder Lake Gold Belt, Ontario, Society of Economic Geologists, Inc. Economic Geology, v. 103, pp. 1309–1340

Larder Lake, Ontario. (n.d.) In Wikipedia. https://en.wikipedia.org/wiki/Larder_Lake,_Ontario

Lovell, H.L. 1972. Geology of the Eby and Otto Area, District of Timiskaming; Ontario Dept. of Mines and Northern Affairs, GR99, 30p.

Ontario Ministry of Northern Development, Mines, Natural Resources and Forestry Mineral Deposit Inventory; https://www.geologyontario.mndm.gov.on.ca/MDI_Description.html

Porcupine Gold Rush. (n.d.) In Wikipedia. https://en.wikipedia.org/wiki/Porcupine_Gold_Rush



Author's Qualifications

- I am a licensed Prospector in the Province of Ontario & have completed the Mining Act Awareness Program (MAAP, 2021).
- I have worked as a Civil Engineering Technologist since graduating from Loyalist College (1998). My experience consists of both field work and inspection in construction & geotechnical engineering as well as risk management of construction projects through the insurance industry.
- I have a Canadian Risk Management (CRM) designation & have passed professional ethics exams to acquire a Fellow Chartered Insurance Professional (FCIP) designation. I hold registered insurance broker's licenses in both Ontario & British Columbia which require completion of an annual ethics course to maintain.
- I have undertaken a self-directed study of Q GIS, Geographic Information Systems (GIS), and, Geographic Information Science (GIS).
- I was taught to prospect for gold in and around Kirkland Lake by my father, Bill Raitanen, grandfather, Lasse Raitanen, and their partners Fern & Phil Rivard (operating under the trade name Lost Hope Mine) in the 1980's. My first job was working for Lost Hope Mine as a Diamond Drill Helper.
- I have personally written this report & conducted the prospecting work described herein.

This report is not intended to meet NI 43-101 requirements.

MARaitanen

Appendix b

Software used:

Mapping – QGIS version 3.16.11 'Hannover', Windows 10, macOS Ventura 13.2

GPS field data – Tomstrails GPS UTM, Google Maps, iOS

Report writing – MS Word, Office Professional 2013, Windows 10

Data collection – MS Excel, Office Professional 2013, Windows 10

Photography – Camera, iPhone SE 2020, iOS 16.1.2

Appendix c

Assay results:



Swastika Laboratories Ltd
Assaying - Consulting - Representation

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Assay Certificate

Certificate Number: 22-4053

Company: **Marcus Raitanen**
Project: **Eby-Kirkland West**
Attn: **Marcus Raitanen**

Report Date: **28-Jul-22**

We hereby certify the following Assay of 3 rock/grab samples submitted 22-Jul-22 by Marcus Raitanen

Sample Number	Au	Ag	Cu	Pb	Method: Zn	Co	Ni
	FA-AAS g/Mt	AR-AAS ppm	AR-AAS ppm	AR-AAS ppm	AR-AAS ppm	AR-AAS ppm	AR-AAS ppm
Blank Value	< 0.01						
OREAS 234	1.22						
LHM 22 02	< 0.01	0.3	38	< 2	35.696	11.9	6
LHM 22 05	< 0.01	< 0.2	77	< 2	42.910	17.0	< 1
LHM 22 06	< 0.01	0.4	116	< 2	145.418	26.9	26



Swastika Laboratories Ltd
Assaying - Consulting - Representation

Page 1 of 1

Assay Certificate

Certificate Number: 22-4468

Company: **Lost Hope Mine**
Project: **MAK1 BLOCK**
Attn: **Marcus Raitanen**

Report Date: **29-Aug-22**

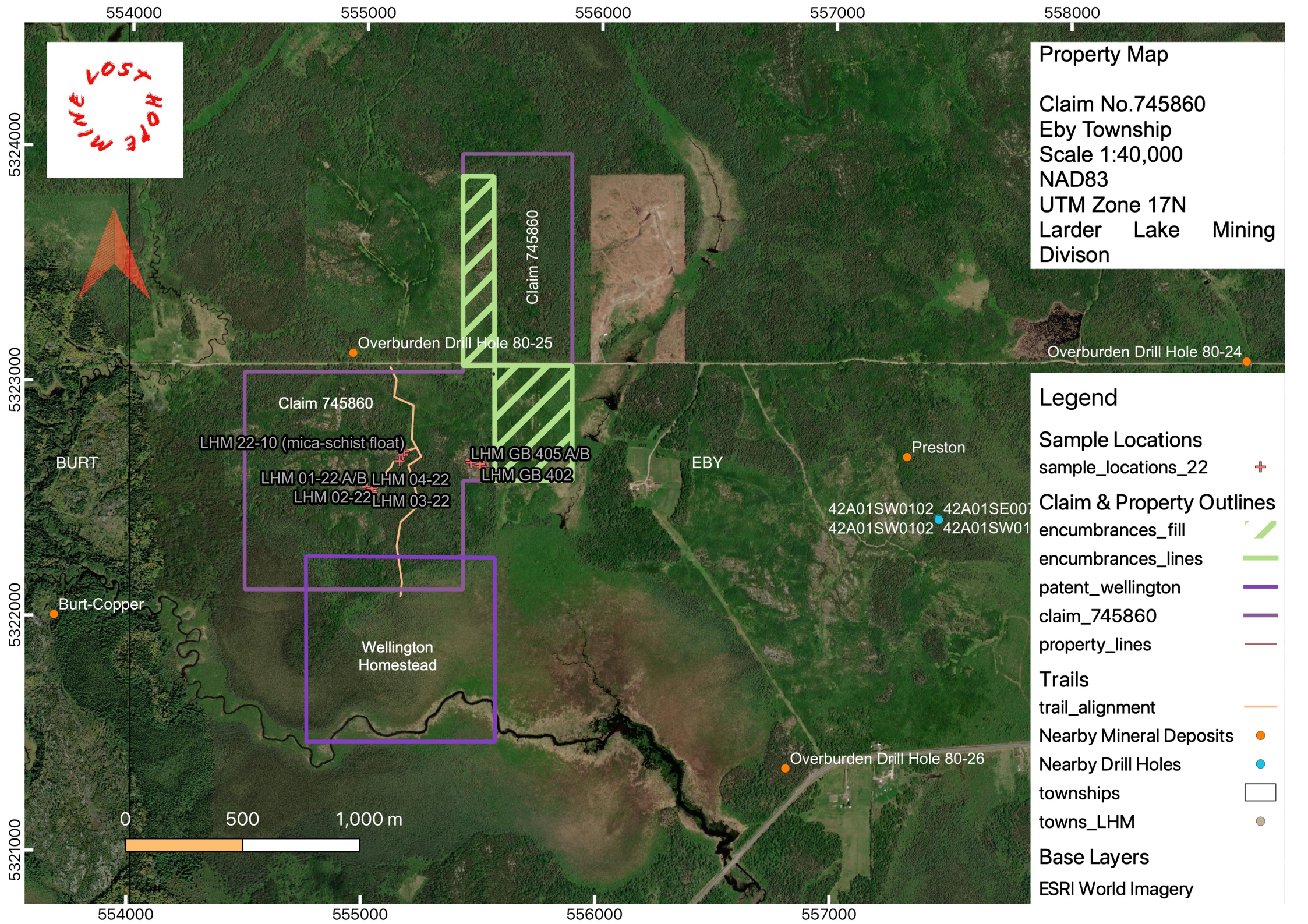
We hereby certify the following Assay of 4 rock/grab samples submitted 19-Aug-22 by Marcus Raitanen

Sample Number	Au	Au Chk	Ag	Cu	Zn	Co	Ni
	FA-MP ppb	FA-MP ppb	AR-AAS ppm	AR-AAS ppm	AR-AAS ppm	AR-AAS ppm	AR-AAS ppm
Blank Value	< 2						
OXC179	1100						
LHM GB402	30		0.4	147	61	14.3	18
LHM GB403	50		< 0.2	101	61	24.9	12
LHM GB404A	40		0.3	42	53	17.7	12
LHM GB405A	90		0.3	32	32	17.7	5

Appendix d

Daily log:

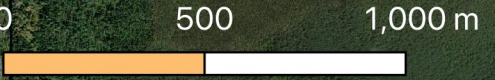
Performed by	Operation	Date	MLAS activity	Notes
MA RAITANEN	Field Work	5/20/2022	GRASSROOTS (1d)	Samples collected at Old Timer's Ridge, glacial float was found near approach
MA RAITANEN	Trail cutting	5/21/2022	ASSOCIATED COST (1d)	A new trail head was constructed to provide access to cell C140 on the east side of the property at West Road
MA RAITANEN	Field Work	22/07/22	GRASSROOTS (1d)	Samples collected at Yellow Top's Lookout, which appears to be a diabase dike (as described by Lovell). Stringers and quartz veining observed as well as visible pyrite mineralization in the diabase
MA RAITANEN	Trail cutting	24/07/22	ASSOCIATED COST (1d)	A trail was marked and cut from Old Timer's Ridge heading south-west towards cell C159, the trail connects Old Timer's Ridge with Yellow Top's Lookout
MA RAITANEN	Field Work	16/08/2022	GRASSROOTS (1d)	A traverse was made from the new trail head to sample the rock outcropping at the south end of cell C140. At this location, the quartz veins are visibly red from hematite staining
MA RAITANEN	Trail cutting	17/08/2022	ASSOCIATED COST (1d)	The trail from the trail head was extended <100m with great effort. The area fronting West Road in cell C140 is densely vegetated with regrowth from past logging/wood cutting
MA RAITANEN	Field Work	19/08/2022	GRASSROOTS (1d)	Another visit was conducted to Old Timers' Ridge where samples were collected at the quartz-feldspar vein south of the old working/blast pit. Massive sulphide mineralization is visible in quantity in this vein but is very weathered/leached from weathering
MA RAITANEN	Trail cutting	23/09/2022	ASSOCIATED COST (1d)	Returned to push further south on the new trail to Kulta Maki. The route is overgrown with tag alders and virtually impassible. There is no evidence of past prospecting at Kulta Maki accordingly. The trail will require more work in the upcoming season to complete for subsequent stages of exploration.
MA RAITANEN	Office	15/10/2022	Preparing GIS Maps (1d)	Computer work from home office (mapping)
MA RAITANEN	Office	15/11/2022	Technical Report (1d)	Computer work from home office (writing)
MA RAITANEN	Travel	5/19/2023	Travel Time (4 trips/8d)	Home office is located in Ottawa, travel back and forth to Kirkland Lake for field work each trip



HOME MINE
XSON

Property Map
 Claim No.745860
 Eby Township
 Scale 1:40,000
 NAD83
 UTM Zone 17N
 Larder Lake Mining
 Divison

- Legend**
- Sample Locations**
 - sample_locations_22 +
 - Claim & Property Outlines**
 - encumbrances_fill
 - encumbrances_lines
 - patent_wellington
 - claim_745860
 - property_lines
 - Trails**
 - trail_alignment
 - Nearby Mineral Deposits**
 - Nearby Drill Holes
 - townships
 - towns_LHM
 - Base Layers**
 - ESRI World Imagery



Claim 745860
 LHM 22-10 (mica-schist float)
 LHM 01-22 A/B LHM 04-22
 LHM 02-22 LHM 03-22

LHM GB 405 A/B
 LHM GB 402

Wellington
 Homestead

BURT

EBY

Preston

42A01SW0102 42A01SE007
 42A01SW0102 42A01SW01

Burt-Copper

Overburden Drill Hole 80-26

Overburden Drill Hole 80-25

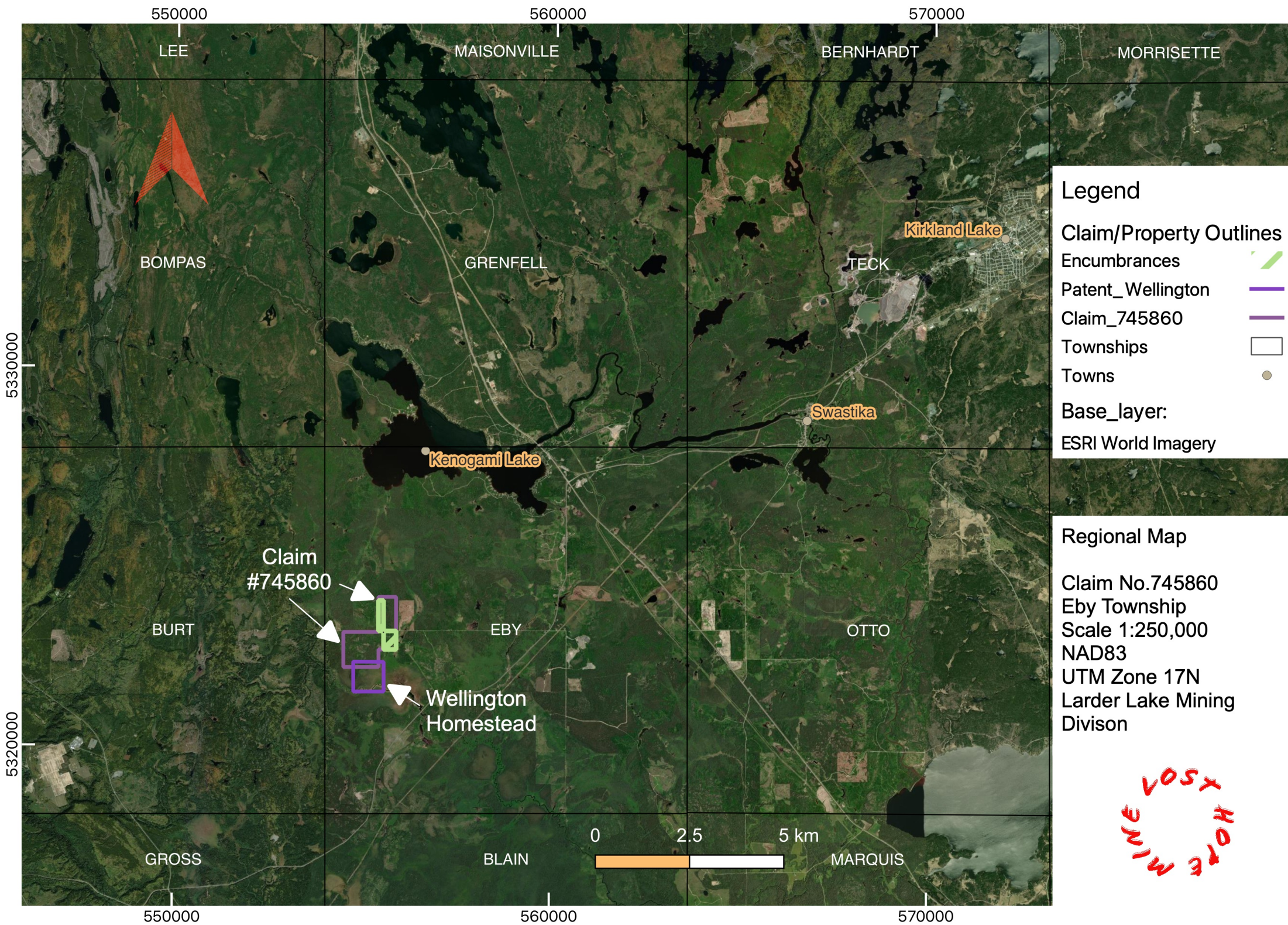
Overburden Drill Hole 80-24

Claim 745860

5324000
5323000
5322000
5321000


554000 555000 556000 557000 558000


554000 555000 556000 557000





Legend


Claim/Property Outlines

Encumbrances 

Patent_Wellington 

Claim_745860 

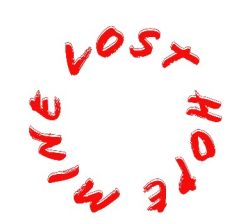
Townships 

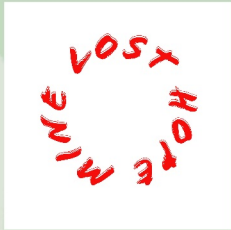
Towns 

Base_layer:
ESRI World Imagery

Regional Map

Claim No.745860
Eby Township
Scale 1:250,000
NAD83
UTM Zone 17N
Larder Lake Mining
Division





Overburden Drill Hole 80-25

West Road

New Trail Head

Traverse

Claim 745860

EBY

LHM 22-10 (mica-schist float)

LHM 06-22

LHM GB 407

LHM GB 404 A/B

LHM GB 403

LHM GB 405 A/B

LHM GB 401

320m

LHM 01-22 A/B

LHM 05-22

LHM 03-22

0 100 200 m

Legend

- Sample Locations
 - sample_locations_22 +
 - camp ■
- Claim/Property Outlines
 - encumbrances
 - claim_745860
- Trails
 - ridge_trail
 - old_yellow_top_trail
 - trail_alignment
 - mineral_deposits ●
- Base Layer:
 - OSM/Toporama

Sample Locations 2022

Claim No.745860
Eby Township
Scale 1:5000
NAD83
UTM Zone 17N
Larder Lake Mining Divison