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# Technical Report for MNDM Assessment Purposes, Fall 2021 Reconnaissance Mapping

# **Lizar Property**

Lizar Township, Sault Ste. Marie Mining Division Ontario, Canada

**Prepared For:** 

### **Michael Thompson**

Alexander Hughes, HB.Sc. Fladgate Exploration Consulting Corporation



Date: February 28, 2022



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### 1 Introduction and Summary

The Lizar Property consists of 111 mining claims within the Lizar Township in the Sault Ste. Marie Mining Division. The property is fully owned by Michael Thompson and located approximately 60 km Northwest of White River, Ontario along Highway 631.

Michael Thompson contracted Fladgate Exploration Consulting Corporation ("Fladgate") to conduct a reconnaissance mapping program on the Lizar property from November 7, 2021 to November 8, 2021. Fladgate provided all the required geological, geotechnical, and sub-contractor services on the program described herein. The program consisted of a property-wide reconnaissance geological mapping and sample collection over the Lizar Property. A total of 13 samples were collected for later whole-rock geochemical and petrographic analysis.

### 2 Terms of Reference

This report was prepared at the request of Michael Thompson for the use of filing assessment as required under the Ontario Mining Act. Unless otherwise noted, Universal Transverse Mercator ("UTM") coordinates are provided in the datum of NAD83 Zone 16 North.

### 3 Disclaimer

The author disclaims responsibility for portions of the current report that rely on information from historic assessment files and government maps and reports which may not have been prepared in compliance with current standards.

### 4 Property Description and Location

The Lizar property is located in the Lizar Township within the Sault Ste. Marie Mining Division in Northwestern Ontario, approximately 60 km Northwest of White River (**Figure 4-1**). The property is centered on UTM coordinates 682,330 mE, 5,414,370 mN (NAD83 Zone 16N) and is accessed from White River by traveling 60 kilometers Northwest along HWY 631 followed by 25 kilometers of driving down all-weather accessible major and minor logging roads. Total travel time from White River to the Lizar property is approximately 1.5 hours. The property consists of 111 unpatented mining claims (**Figure 4-2**). A list of all claims can be found in **Table 4-1**.

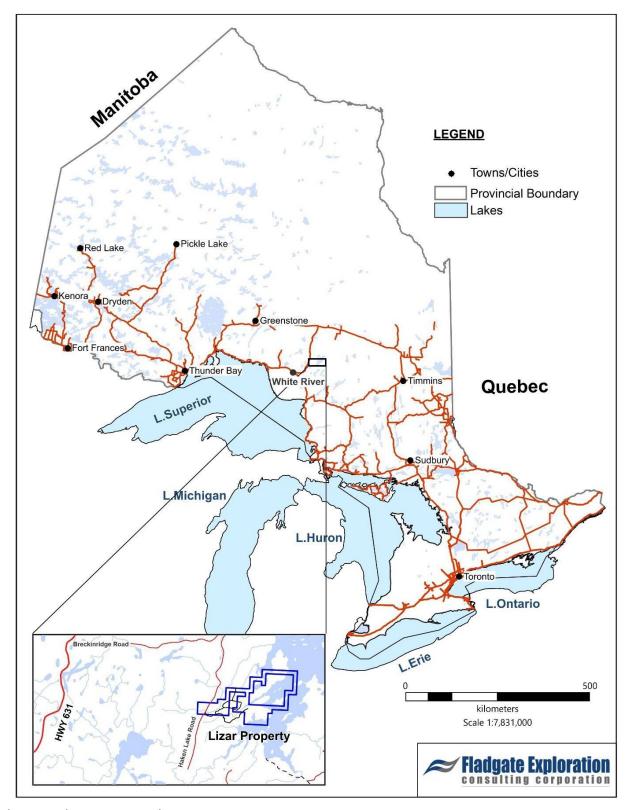


Figure 4-1 - Lizar Property Location



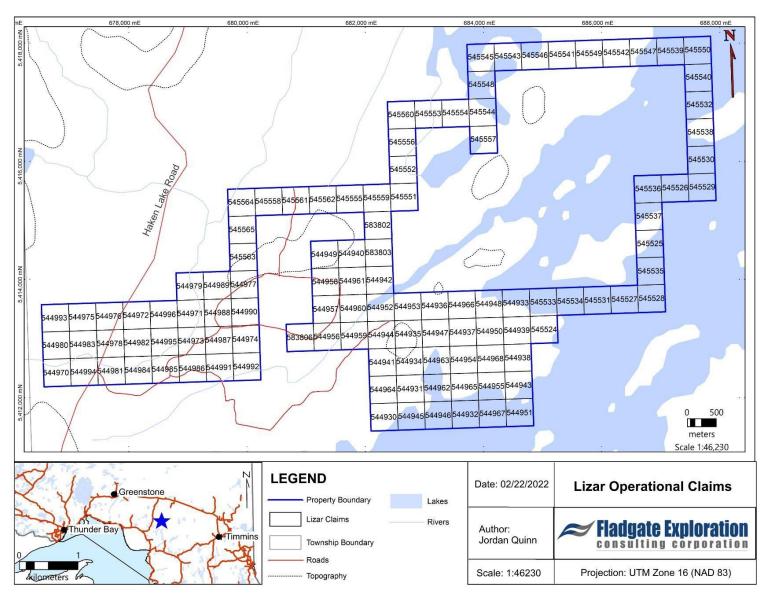


Figure 4-2 - Lizar Claim Map

Table 4-1 – Lizar Claims

| Claim  |          |       |    |                |          |                  |
|--------|----------|-------|----|----------------|----------|------------------|
| Number | Township | Units | На | Claim Due Date | % Option | Ownership        |
| 544930 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544931 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544932 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544933 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544934 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544935 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544936 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544937 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544938 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544939 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544940 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544941 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544942 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544943 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544944 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544945 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544946 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544947 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544948 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544949 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544950 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544951 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544952 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544953 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544954 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544955 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544956 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544957 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544958 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544959 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544960 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544961 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544962 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544963 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544964 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544965 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544966 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544967 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544968 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544970 | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |

| Claim<br>Number | Township | Units | На | Claim Due Date | % Option | Ownership        |
|-----------------|----------|-------|----|----------------|----------|------------------|
| 544971          | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544972          | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544973          | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544974          | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544975          | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544976          | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544977          | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544978          | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544979          | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544980          | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544981          | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544982          | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544983          | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544984          | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544985          | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544986          | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544987          | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544988          | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544989          | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544990          | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544991          | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544992          | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544993          | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544994          | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544995          | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 544996          | LIZAR    | 1     | 16 | 2022-03-06     | 100      | Michael Thompson |
| 545524          | LIZAR    | 1     | 16 | 2022-03-10     | 100      | Michael Thompson |
| 545525          | LIZAR    | 1     | 16 | 2022-03-10     | 100      | Michael Thompson |
| 545526          | LIZAR    | 1     | 16 | 2022-03-10     | 100      | Michael Thompson |
| 545527          | LIZAR    | 1     | 16 | 2022-03-10     | 100      | Michael Thompson |
| 545528          | LIZAR    | 1     | 16 | 2022-03-10     | 100      | Michael Thompson |
| 545529          | LIZAR    | 1     | 16 | 2022-03-10     | 100      | Michael Thompson |
| 545530          | LIZAR    | 1     | 16 | 2022-03-10     | 100      | Michael Thompson |
| 545531          | LIZAR    | 1     | 16 | 2022-03-10     | 100      | Michael Thompson |
| 545532          | LIZAR    | 1     | 16 | 2022-03-10     | 100      | Michael Thompson |
| 545533          | LIZAR    | 1     | 16 | 2022-03-10     | 100      | Michael Thompson |
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| 545535          | LIZAR    | 1     | 16 | 2022-03-10     | 100      | Michael Thompson |
| 545536          | LIZAR    | 1     | 16 | 2022-03-10     | 100      | Michael Thompson |
| 545537          | LIZAR    | 1     | 16 | 2022-03-10     | 100      | Michael Thompson |
| 545538          | LIZAR    | 1     | 16 | 2022-03-10     | 100      | Michael Thompson |

| Claim<br>Number | Township | Units | На | Claim Due Date | % Option | Ownership        |
|-----------------|----------|-------|----|----------------|----------|------------------|
| 545539          | LIZAR    | 1     | 16 | 2022-03-10     | 100      | Michael Thompson |
| 545540          | LIZAR    | 1     | 16 | 2022-03-10     | 100      | Michael Thompson |
| 545541          | LIZAR    | 1     | 16 | 2022-03-10     | 100      | Michael Thompson |
| 545542          | LIZAR    | 1     | 16 | 2022-03-10     | 100      | Michael Thompson |
| 545543          | LIZAR    | 1     | 16 | 2022-03-10     | 100      | Michael Thompson |
| 545544          | LIZAR    | 1     | 16 | 2022-03-10     | 100      | Michael Thompson |
| 545545          | LIZAR    | 1     | 16 | 2022-03-10     | 100      | Michael Thompson |
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| 545550          | LIZAR    | 1     | 16 | 2022-03-10     | 100      | Michael Thompson |
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| 545559          | LIZAR    | 1     | 16 | 2022-03-10     | 100      | Michael Thompson |
| 545560          | LIZAR    | 1     | 16 | 2022-03-10     | 100      | Michael Thompson |
| 545561          | LIZAR    | 1     | 16 | 2022-03-10     | 100      | Michael Thompson |
| 545562          | LIZAR    | 1     | 16 | 2022-03-10     | 100      | Michael Thompson |
| 545563          | LIZAR    | 1     | 16 | 2022-03-10     | 100      | Michael Thompson |
| 545564          | LIZAR    | 1     | 16 | 2022-03-10     | 100      | Michael Thompson |
| 545565          | LIZAR    | 1     | 16 | 2022-03-10     | 100      | Michael Thompson |
| 583802          | LIZAR    | 1     | 16 | 2022-04-13     | 100      | Michael Thompson |
| 583803          | LIZAR    | 1     | 16 | 2022-04-13     | 100      | Michael Thompson |
| 583806          | LIZAR    | 1     | 16 | 2022-04-13     | 100      | Michael Thompson |
|                 |          |       |    |                |          |                  |

# 5 Access, Local Resources, and Infrastructure

The property is accessible year-round, as it is located 25 km east of HWY 631, which is a major north-south route connecting White River to Hornepayne (**Figure 4-1**). After driving 60 km Northwest of White River on Hwy 631, access to the property is gained by driving ~16km east along Breckinridge Road followed by 9km south along

Haken Lake Road. Both roads are well maintained gravel roads that provide year-round access to the property (**Figure 4-2**).

White River is ~60 km to the southwest and is the nearest population centre, with services and amenities for industrial, educational, and leisure activities. Local experienced labour is available.

Watson's Windy Point Lodge is located on the most eastern edge of the property. This permanent structure provides lodging and fishing tours during the spring, summer and falls months.

### 6 Climate and Physiography

The Lizar Property is located within the Canadian Shield, which is a major physiographic division of Canada. The property is situated in an area of swamps, rivers, and small lakes.

Climate in the area is typical of Northern Ontario, with cold winters and warm summers. Average January temperatures range from -11°C to -23°C, and average July temperatures are between 11°C and 24°C. Work can be done (subject to snow and freezing) for most of the year.

There is relatively moderate relief topography for a majority of the property which makes outcrop easy to find. This topography is caused by the abundance of faulting and the presence of dikes on the property.

### 7 Geological Setting

#### 7.1 Regional Geology

As illustrated in **Figure 7-1** the Lizar Property is located in the southwestern end of the western portion of the Abitibi Supbrovince within the Archean age Superior Province.

### 7.1.1 The Superior Province

The Superior Province is a major geological province comprised of Archean age rocks that forms the core of the North American continent. In Ontario, the Superior is surrounded by younger Grenville and Southern Provinces to the south and southeast. The Superior Province consists of alternating granite-greenstone and metasedimentary belts in the central portion, and has been subdivided into smaller subprovinces based on rock type: granite-greenstone plutonic and metavolcanic rocks (Uchi, Wawa, and Abitibi subprovinces), metasedimentary rocks (English River and Quetico subprovinces), plutonic granitic rocks (Winnipeg River subprovince), and high-grade greenstone rocks to the north (Kapuskasing Zone). Subprovinces are commonly fault-bounded and display contrasting lithological assemblages, metamorphic and structural styles, geophysical characteristics, and ages.

### 7.1.2 The Abitibi Subprovince

The Abitibi Subprovince consists of a series of relatively small greenstone belts including the Manitouwadge, Shrieber-Hemlo, Mishibishu and Michipicoten as well as the Dayohessarah-Kabinakagami greenstone belt. The Lizar Property is located within the Kabinakagami portion of the Dayohessarah-Kabinakagami greenstone belt.

Stratigraphically, the Abitibi Subprovince comprises a continuous succession of Neo- to Mesoarchean metavolcanic and metasedimentary rocks interpreted to have developed in an ensimatic basin (Ayer, 2001). These supracrustal rocks are intruded by multiple generations of felsic to ultramafic igneous rocks. This intrusive activity extended from the Neoarchean into the late Proterozoic.

The rocks of the Abitibi Subprovince have experienced variable degrees of deformation and metamorphism. Of particular significance in the Timmins region, due to its relationship with gold mineralization (Berger, 2001), is the Porcupine-Destor Fault Zone (PDFZ). The fault zone is a major structural feature that strikes east-northeast and has been traced along strike for over 450 km across the Abitibi Subprovince (Berger, 2001). The PDFZ is offset by numerous north-northwest-striking faults that partition the Abitibi greenstone belt into distinct blocks that display different styles of alteration associated with gold mineralization, deformation and metamorphism (Berger, 2001). Early Proterozoic Matachewan dikes are also offset by the north-northwest-striking faults (Brisbin, 1997).



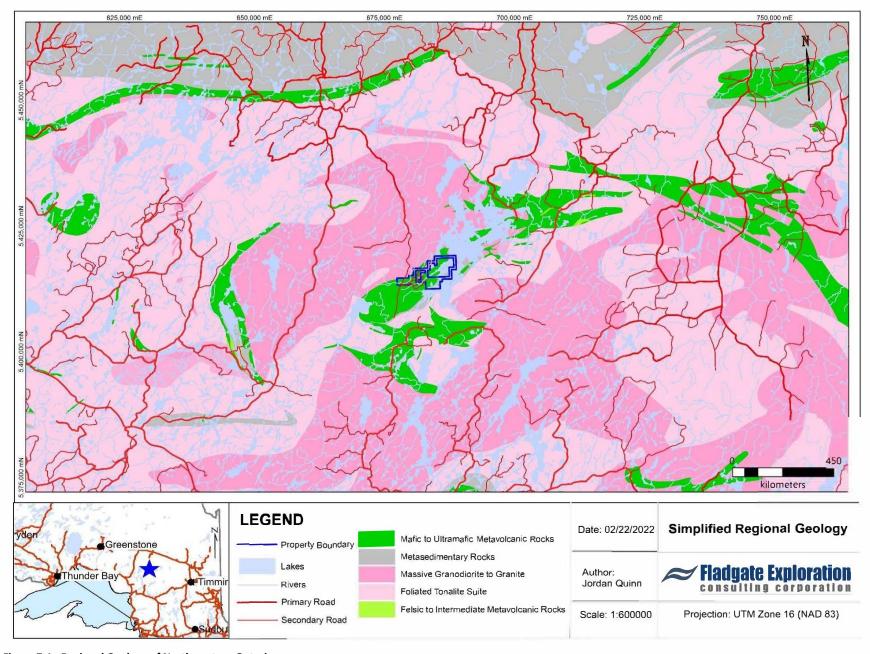


Figure 7-1 - Regional Geology of Northwestern Ontario

### 7.2 Local Geology - Lizar Property

From Lashbrook (2005), the Lizar township is underlain by the Woman River Metasedimentary package – Algoma Type iron formation-magnetite, jasper, hematite, chert and sulphide – which is conformably overlain by the pillowed to massive Fe-Mg tholeites of the October Lake Formation. Felsic and mafic dykes cut through all units and are presumed to be extensive on the property.

On a property scale the Lizar Property is underlain by a northeast-trending and vertical to sub-vertical dipping suite of mafic metavolcanic flows. The folded metavolcanics have been strongly sheared along the northeast trend and a feldspar porphyry dyke in turn has intruded the shear zone. Lamprophyre dykes are also present within this structural corridor.

Mineralization varies from sericitization of the granite and pyritization to extensive silicification with numerous parallel stringers of quartz, 0.5 to 6.0 inches in width. Numerous showings of free gold have been found in the quartz stringers, but altered granite in the shear appears to be barren. Likewise, all the gold appears to be free, with little or none in the sulphides. In addition to pyrite, chalcopyrite, galena and molybdenite are associated with the gold mineralization.

A detailed property geology map can be found in **Figure 7-2**.



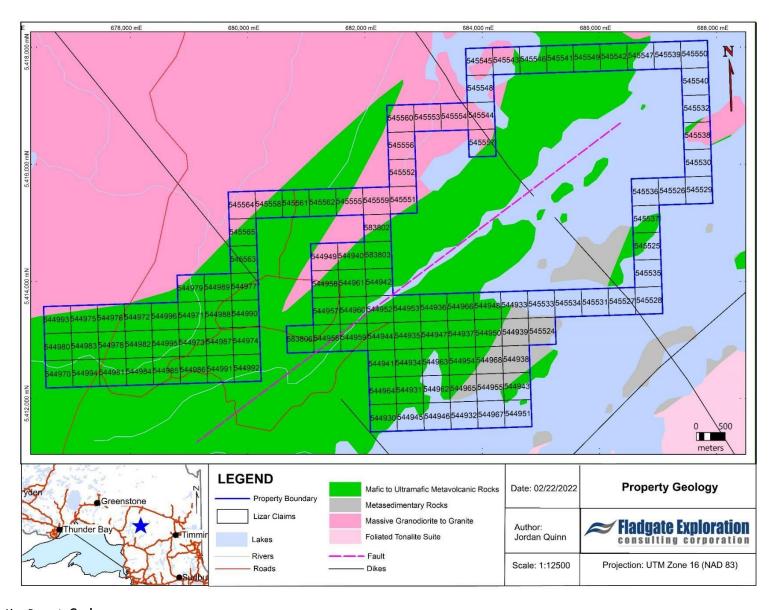


Figure 7-2 - Lizar Property Geology

# 8 History of Exploration on the Property

| 1930's | Hiawatha Gold Mine, located northeast of the current Lizar property was discovered and subsequently produced 1931 tons of ore grading 0.074 opt. gold, J. E. Stenabough discovered several gold-polymetallic occurrences, in addition the Kalibak prospects were found by person(s) unknown, Hollinger Gold Mines worked the Charpentier Showings. |
|--------|--|
| 1950's | Neoscope Explorations Limited completed an airborne magnetic and scintillometer survey over Kabinakagami area and outlined a massive magnetite body hosted by a pyroxenite approximately 4 kms. northeast of the Hiawatha Mine (Perkin Occurrence).  |
| 1960's | Primrock Mining and Exploration dewatered the Hiawatha gold mine and drilled two exploration holes.  |
| 1960's | Rio Tinto and Nickel Rim Mines Ltd. carried out limited exploration programs in and around the Lizar Property.   |
| 1980's | The area around the Lizar Property was worked by numerous companies including, Sveinson Way Minerals Services Inc, Pryme Energy, Tundra Gold Mines, Noranda Exploration and Golden Trio resources amongst others. Very little diamond drilling was carried out by any of these companies.  |
| 1990's | Two local prospector's, Doug Kakeeway and Lloyd Halverston prospected the area and came up with several new gold showings in altered, pyritic felsic rocks.  |
| 2001   | The property is optioned by Freewest Resources Ltd.  Freewest establishes two grids (Nameigos and Patent Grids), to conduct a Max-Min survey and I.P. Resistivity.   |
|        | Freewest carries out soil surveys, prospecting and trenching, successfully discovers eight new gold occurrences.   |
| 2002   | Teck Cominco enters a joint venture agreement with Freewest from 2002 to 2004.   |
|        | Teck Cominco Limited flies a GEOTEM airborne survey over the property and surrounding area outlining several priority EM anomalies.  |
| 2004   | Teck Cominco conducts ground UTEM surveys over selected airborne EM targets and geological maps and prospects property.  |
| 2004   | Teck Cominco extends I.P. Resistivity coverage on the Patent Grid.  Teck Cominco Drills 1514 metres over 8 holes. Two holes LIZ-01 and 02 test priority EM conductors in northern portion of property while he remaining 6 holes (LIZ-03-08) were collared to test I.P. Conductors on the southern extension of the Patent Grid. Highlights        |

included the discovery of a potential new magmatic Ni, Cu, PGM target in hole LIZ-01-01 which intersected a 3.0 metre interval at the base of a peridotite sill that ran 0.54% nickel, 1.26 gpt palladium and 0.23 gpt platinum

2007

Freewest in 2007 drills 15 holes totalling 2160 metres. Twelve holes (LIZ-07-01 to 12) were drilled to test various gold targets on the Patent Grid, while three holes (LIZ-07-12 to 15) were collared to test the volcanogenic massive sulphide target on the Nameigos Grid. All drill holes located on the Patent Grid encountered significant zones of alteration and pyrite mineralization, while anomalous gold values were commonly encountered the best values obtained were 1.31 gpt/1.0 metres in hole LIZ-07-06 and 1.67 gpt/0.8 metres in holes LIZ-07-09. All three holes drilled on the Nameigos Target interested minor amounts of chalcopyrite and sphalerite. Of note was that hole LIZ-07-15 encountering a chloritic stockwork alteration zone that contained 5.8 metres grading 1596 ppm copper and 996 ppm zinc.

2011

Rencore Resources contracts Geotech Ltd. to carry out at a Helicopter borne VTEM and Aeromagnetic Geophysical survey. An interpretation of the data revealed 18 areas of interest.

(Mackie, 2011)

Rencore conducts a reconnaissance prospecting and geological mapping was conducted over select areas of the Lizar property identified from the VTEM survey. It was determined that the strong conductive trend located in the northwestern portion of the property (EM 14 and15) offer the best potential to host volcanogenic massive sulphide style mineralization. Outcrops and hand dug trenches along Anomaly 15 returned consistently anomalous Zn, +/- Cu, and Au values over 900 metre strike length. Best values obtained were 1.03% zinc, 0.26% copper and 1.43 gpt gold

2016

Dan Patrie Exploration Ltd. is contracted to preform a field magnetic survey for Johnathan Camilleri. A total of 121.5 kilometers was surveyed over 5 claims.

2018

Brent Patrie conducted a Gradient IP on the Lizar property with 23 lines of variable lengths being surveyed for a total of 29.1 line-km. Interpretation of the IP results highlighted two trends;

(Winter, 2018)

- (1) the main NE geological trend in the are with the rock units being folded mafic to intermediate to felsic metavolcanics.
- (2) The NNW trend is one of later cross faulting with some of these structures hosting Proterozoic age diabase dykes.

### 9 Current Program

In the fall of 2021, reconnaissance mapping and sample collection program was conducted on the Lizar property near White River, Ontario, Canada. From November 7, 2021 to November 8, 2021 Project Geologists Alex Wytiahlowsky and Jordan Quinn of Fladgate Exploration carried out the mapping and sample collection program. began prospecting and collecting grab samples. Full personnel logs can be found in **Table 9-1**. Data including lithology, structure, veining, and overall rock description were taken for each rock sample where applicable. Location of all grab samples were recorded, and a description of surrounding vegetation were noted. Maps of all traverses can be found in **Figure 11-1**, **Figure 11-2**, and **Figure 11-3**. Sample descriptions can be found in Error! Reference source not found. and **Table 11-1** with photos available in Appendix I.

Table 9-1 - Personnel Log

| Name               | Working Title | Responsibilities               | Start Date        | End Date          |  |
|--------------------|---------------|--------------------------------|-------------------|-------------------|--|
| Alex Wytiahlowsky  | Project       | program mobilization, traverse | November 7, 2021  | November 8, 2021  |  |
| Alex Wytiailiowsky | Geologist     | planning, sample collection    | November 7, 2021  | November 6, 2021  |  |
| Jordan Quinn       | Project       | program mobilization, traverse | November 7, 2021  | November 8, 2021  |  |
| Jordan Quilli      | Geologist     | planning, sample collection    | November 7, 2021  | November 8, 2021  |  |
| Alex Hughes        | Geologist     | map creation, report writing   | February 21, 2022 | February 25, 2022 |  |

A total of twenty-two locations were visited wherein data including lithology, structure, veining, alteration, and mineralization was recorded where applicable. Thirteen of those locations involved sample collection for later whole-rock geochemistry and petrographic analysis. These samples were submitted to Actlabs in Thunder Bay, Ontario on July 15, 2021.

The 2021 fall reconnaissance mapping program was undertaken with the following goals in mind; conduct reconnaissance of anomalies outlined during previous geophysical surveys, follow up on potential mineralized hosted structures, and to start preliminary mapping of the property geology.

### 10 Methods and Approach

Using a rock hammer, grab samples were collected by breaking off a representative portion of the exposed outcrop containing minimal veining, weathering, and alteration. Sample tag numbers were recorded from the booklet and placed onto the sample bag, with the sample tag itself being placed into the bag. The collected sample was then placed into the sample bag, along with the corresponding tag. A picture of the sample and outcrop where the sample was taken with both a reference scale and GPS coordinates. Data such as lithology, structural measurements and rock descriptions was collected at each sample site. Using flagging tape, the location of the sample was marked on the ground and in a tree above.

Samples designated for whole-rock geochemistry and petrographic analysis were stored at the Fladgate owned warehouse located in Thunder Bay, Ontario.

# 11 Results

A total of 22 mapping points were observed from the Lizar Property during the 2021 mapping program. Of the 22 samples, 13 samples were designated for whole-rock geochemistry. Sample coordinates, along with identifying features can be found in Error! Reference source not found. and **Table 11-1.** Maps of all t raverses can be found in **Figure 11-1**, **Figure 11-2**, and **Figure 11-3**.

| Waypoint<br>ID | Easting  | Northing  | Elevation  | Lithology            | Vegetation                    | Description  |
|----------------|----------|-----------|------------|----------------------|-------------------------------|--|
| 57             | 681440.5 | 5413253.6 | 311.545441 | Pegmatite            | Black spruce,<br>Alder,       | Medium grained white-grey to pink pegmatitic quartz feldspar porphyry. Pervasive conjugate fracturing with cmscale wide blue-grey quartz infilling.  Massive coarse-grained white-grey quartz vein along margin of sample with localized oxidation at contact withporphyry.  Phaneritic sheet silicate locally |
| 58             | 681313.8 | 5413138.7 | 309.383362 | Mafic<br>volcanic    | Black spruce,<br>Alder, Larch | Massive, equigranular groundmass   |
| 59             | 681284.2 | 5413105.5 | 305.150116 | Mafic<br>volcanic    | Black<br>spruce,<br>Alder     | Fine-grained groundmass with pervasive porphyroblasticwhite quartz. Minor attenuation noted in quartz prophyroblasts.  |
| 60             | 681280.3 | 5413105.2 | 308.281952 | Granodiorite         | Black spruce,<br>Alder        | Fine-grained, grey, semi-massive groundmass with pervasive medium-grained amphibole phenocrysts.   |
| 61             | 681309.3 | 5413166.1 | 304.18222  | Feldspar<br>porphyry | Black spruce,<br>Alder, Larch | Red-brown colour. Pegmatitic texture. 3-5cm wide white quartz veining cutting through sample.  |
| 62             | 681457.3 | 5413263.2 | 310.820221 | Feldspar<br>porphyry | Black spruce,<br>Alder        | Massive. Pitted surface. Significant weathering of sample.   |
| 63             | 681467   | 5413285   | 313.508575 | Mafic<br>volcanic    | Black spruce,<br>Alder        | Gabbro.  Coarse- to medium-grained. Euhedral plagioclase laths withinterstitial pyroxene throughout. Massive texture.  |
| 64             | 681492.2 | 5413276.9 | 310.76181  | Mafic<br>volcanic    | Black spruce,<br>Alder        | Very fine- to fine-grained groundmass. White quartz veinletsthroughout with folding and attenuation locally. Minor oxidation seen at mafic volcanic-quartz veinlet contacts.   |
| 66             | 681574.8 | 5413339.1 | 309.257263 | Breccia              | Black spruce,<br>Alder        | Brecciated fragments of fine-grained mafic volcanics with poorly defined gneissic banding and weakly hematized fine-fine grained porphyry.   |
| 72             | 680820.6 | 5413063.2 | 322.277191 | Granodiorite         | Black spruce,<br>Alder, Larch | Weak lamination seen in fine grained biotite laths. Groundmass is predominantly white-grey feldspar.   |
| 73             | 680837.4 | 5413072.5 | 319.919495 | Quartz vein          | Black spruce,<br>Alder        | Diabase dyke swarm withing massive to semi-massive quartz flooding. Quartz is white to pink in colour with an equigranular groundmass.   |

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| Waypoint<br>ID | Easting  | Northing  | Elevation  | Lithology | Vegetation    | Description  |
|----------------|----------|-----------|------------|-----------|---------------|--|
| 74             | 679525.6 | 5413540.1 | 313.597168 |           | Black spruce, | Diorite.   |
|                |          |           |            | volcanic  | Alder, Larch  | Massive. Medium- to large-grained                      |
|                |          |           |            |           |               | porphyroblasticamphibole and pyroxene.                 |
| 77             | 681084.4 | 5412848.4 | 318.783783 | Mafic     | Black spruce, | Pillowed. Sheared dilatational quartz veinlets. Quartz |
|                |          |           |            | volcanic  | Alder, Larch  | feldspar porphyry infill seen in dilation fractures.   |

**Table 11-1 – Structure Measurement Locations** 

| Waypoint<br>ID | Easting     | Northing    | Measured<br>Structure | Strike | Dip | Notes  |
|----------------|-------------|-------------|-----------------------|--------|-----|--|
| 58             | 681313.8473 | 5413138.745 | Quartz vein           | 135    |     | Cm scale quartz stringers locally with sporadic gossan staining.   |
| 59             | 681284.1557 | 5413105.511 | Contact               | 90     |     | Contact between feldspar porphyry and mafic volcanic. This contact obliquely cross-cuts NE trending foliation of mafic volcanic. |
| 61             | 681309.2844 | 5413166.071 | Fracture              | 112    |     | Extensional dilation fractures indicating sinistral movement.  |
| 63             | 681466.9784 | 5413285.025 | Jointing              | 45     |     |  |
| 64             | 681492.2134 | 5413276.948 | Quartz vein           | 90     |     | Boudinaged quartz veining. Sinistral movement indicators.  |
| 65             | 681570.0384 | 5413338.338 | Jointing              | 0      | 88  |  |
| 67             | 681153.4648 | 5412962.073 | Quartz vein           | 0      |     | Massive to semi-massive quartz veining   |
| 68             | 681125.5236 | 5412940.472 | Dyke                  | 90     |     | 5cm mafic volcanic dyke cutting perpendicular to foliation in porphyry   |
| 69             | 679291.1114 | 5412994.38  | Quartz vein           | 330    |     | 5-10 cm extensional dilation quartz veining with sinistral movement. Strikes NNW   |
| 70             | 678693.4989 | 5412420.568 | Quartz vein           | 315    |     | Cm scale white quartz veining in feldspar porphyry. Minor faulting wit sinistral offset.   |
| 71             | 680816.6469 | 5413080.549 | Jointing              | 90     |     |  |
| 74             | 679525.5927 | 5413540.106 | Dyke                  | 45     |     | 10 cm felsic dyke hosted in coarse-grained mafic volcanic.   |
| 75             | 679542.3394 | 5413590.045 | Foliation             | 112    |     | Pillowed mafic volcanics. Dominant fabric trends SES   |
| 76             | 681169.8687 | 5413029.027 | Dyke                  | 90     |     | Meter scale felsic dyke hosted in fine-grained mafic volcanic  |
| 77             | 681084.3736 | 5412848.448 | Fracture              | 350    |     | En echelon quartz veining. S-surface strikes E. C-surface strikes N-S  |
| 83             | 680799.1433 | 5415212.748 | Foliation             | 90     |     |  |



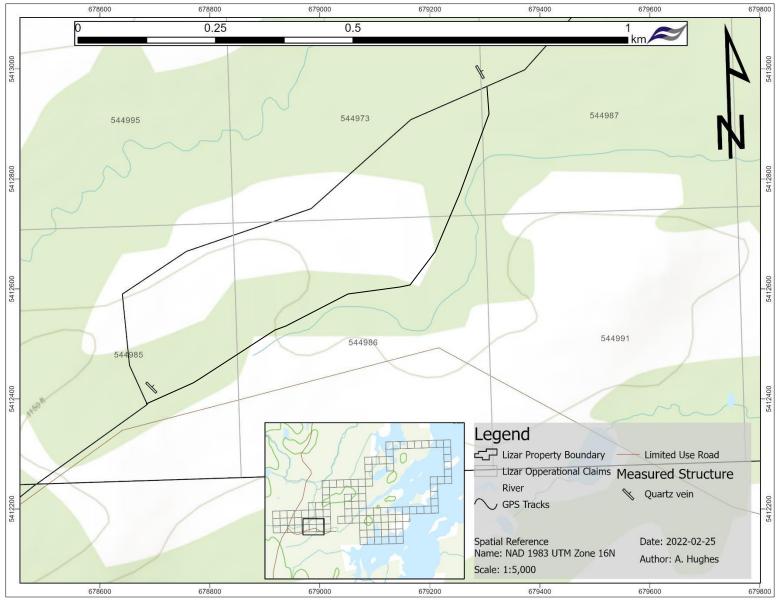


Figure 11-1 – Sample Location and Travers Map



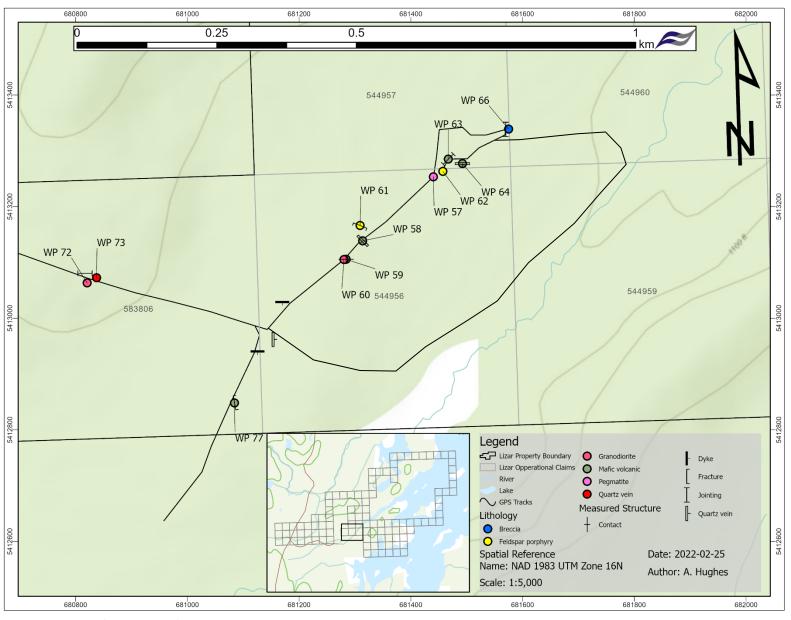


Figure 11-2 – Sample Location and Travers Map



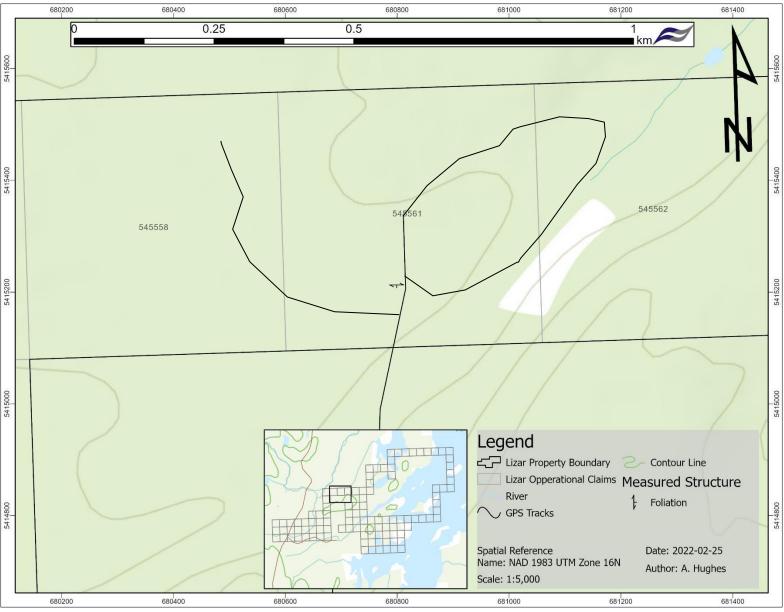


Figure 11-3 – Sample Location and Travers Ma

# 12 Conclusion and Recommendations

This preliminary reconnaissance mapping and sample collection was successful in outlining the initial stages of overall structures and lithological tends highlighted in previous work. With pending geochemical and petrography work it is recommended that a detailed magnetic survey be conducted to highlight specific areas requiring ground truthing.

### 13 References

- Ayer, J.A. and Trowell, N.F (2001) The Abitibi Greenstone Belt: a program update; in Summary of Field Work and Other Activities 2001, Ontario Geological Survey, Open File Report 6070, p.4.1 to 4.9.
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- Lashbrook, R.L. (2005) Line cutting magnetic survey report Heenan and Marion townships.
- Mackie, B. (2011) Assessment Report on the Lizar Claim Group, Kabinkakagami Lake Area, North-Central Ontario for Rencore Resources Ltd. Assessment file number 20009824.
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### 14 Statement of Qualification

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Email: alex.hughes@fladgateexploration.com

#### **CERTIFICATE OF THE AUTHOR**

#### I, Alexander Hughes, do hereby certify that:

- 1. I am an employee of Fladgate Exploration Consulting Corporation, the geological consulting firm tasked with this report.
- 2. I am a member in good standing of the Association of Professional Geoscientists of Ontario (APGO #10625).
- 3. I am a graduate of Lakehead University (Hons. B.Sc., 2017).
- 4. I have practiced geology for 7 years in a variety of settings, mostly in Northwestern Ontario, Canada. I have specific experience in Archean lode gold deposits in Ontario, mostly working as both a production and exploration geologist at various gold mines throughout Ontario.
- 5. I have no previous involvement with the property that forms the subject of this Technical Report.
- 6. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
- 7. I consent to the filing of this Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their website accessible by the public.

Effective Date: February, 2022 Date of signing: February, 2022

Alexander Hughes, HB.Sc., G.I.T. (APGO #10625)

# 15 Appendix I – Reconnaissance Program Expenditures

Table 15-1 – Program Cost Breakdown

|                    | Date From<br>(yyyy-mm-dd) | Date To<br>(yyyy-mm-dd) | Item                 | Rate    | Per Unit | Units    | Subtotal (CAD) |
|--------------------|---------------------------|-------------------------|----------------------|---------|----------|----------|----------------|
| Data<br>Collection | 2021-11-07                | 2021-11-08              | Truck Rental         | \$100   | day      | 2        | \$200          |
|                    |                           |                         | Mileage              | \$0.70  | km       | 520      | \$364          |
|                    |                           |                         | Project<br>Geologist | \$700   | day      | 2        | \$1,400        |
|                    |                           |                         | Assistant            | \$500   | day      | 2        | \$1,000        |
|                    |                           |                         | Room & Board         | \$225   | day      | 4        | \$900          |
|                    |                           |                         | Mob/Demob            | \$1,000 |          | 2        | \$2,000        |
|                    |                           |                         |                      |         |          | subtotal | \$5,864        |
| Report             |                           |                         | report writing       | \$700   | day      | 5        | \$3,500        |
|                    |                           |                         |                      |         |          | subtotal | \$3,500        |
|                    |                           |                         |                      |         |          | TOTAL    | \$9, 364       |

Table 15-2 - Cost Per Claim

| Claim Number | Mapping Locations Per<br>Claim | Travers Kilometers Per<br>Claim | % Worked Per Claim | Cost Per Claim |
|--------------|--------------------------------|---------------------------------|--------------------|----------------|
| 544956       | 7                              | 0.94                            | 0.17               | \$1,627        |
| 544957       | 6                              | 0.3                             | 0.14               | \$1,291        |
| 544959       |                                | 0.4                             | 0.01               | \$82           |
| 544960       |                                | 0.4                             | 0.01               | \$82           |
| 544973       | 1                              | 0.66                            | 0.04               | \$340          |
| 544974       |                                | 15                              | 0.33               | \$3,074        |
| 544977       |                                | 0.5                             | 0.01               | \$102          |
| 544985       | 1                              | 1.09                            | 0.05               | \$428          |
| 544986       |                                | 0.86                            | 0.02               | \$176          |
| 544987       |                                | 0.45                            | 0.01               | \$92           |
| 544988       |                                | 0.52                            | 0.01               | \$107          |
| 544989       |                                | 0.16                            | 0.00               | \$33           |
| 544990       |                                | 0.3                             | 0.01               | \$61           |
| 545558       |                                | 0.24                            | 0.01               | \$49           |
| 545561       | 1                              | 0.83                            | 0.04               | \$375          |
| 545562       |                                | 0.35                            | 0.01               | \$72           |
| 583806       | 6                              | 0.7                             | 0.15               | \$1,373        |
| TOTALS       | 22                             | 23.7                            | 1                  | <i>\$9,364</i> |

# 16 Appendix II - Site Photos



Figure 16-1 – Waypoint 58 outcrop photo

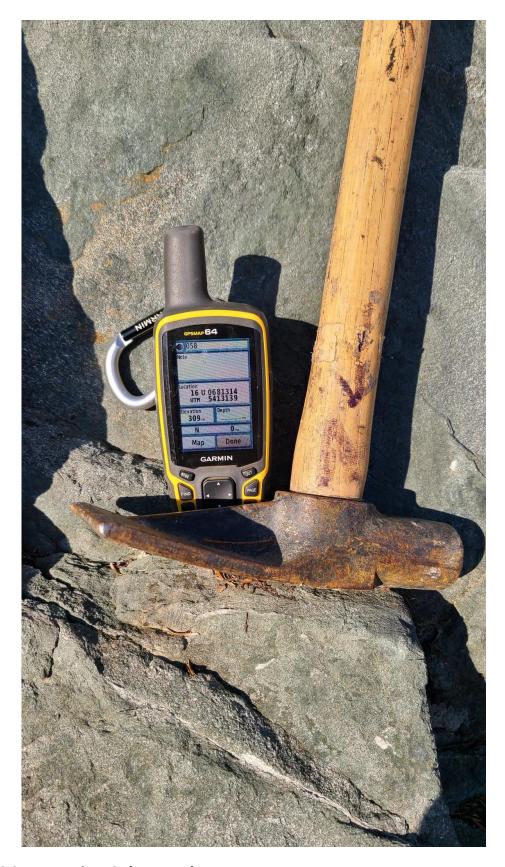


Figure 16-2 – Waypoint 58 close-up photo

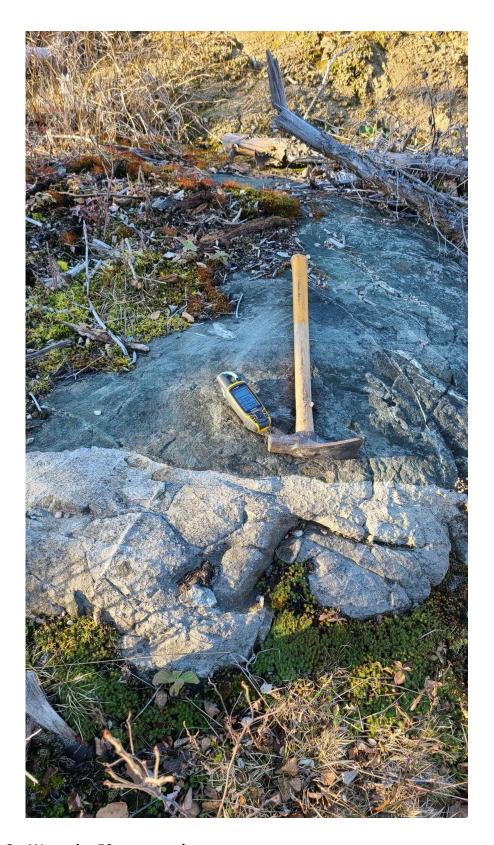


Figure 16-3 – Waypoint 59 outcrop photo

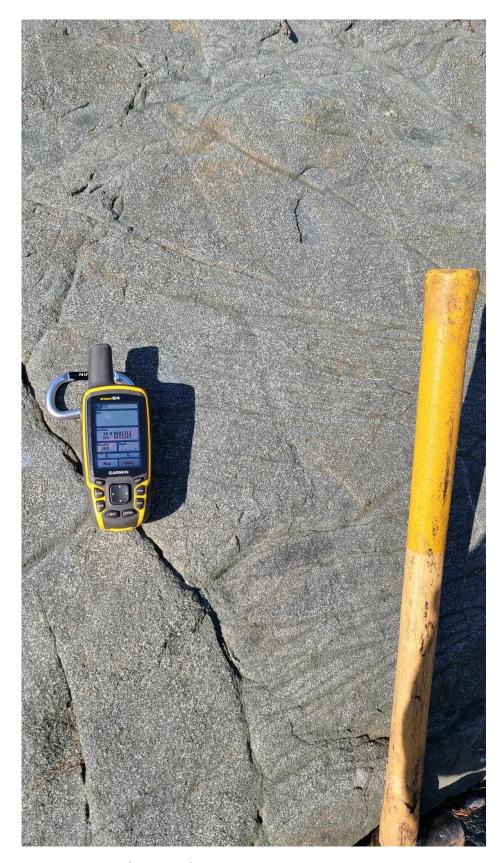


Figure 16-4 – Waypoint 59 close-up photo



Figure 16-5 – Waypoint 61 outcrop photo



Figure 16-6 – Waypoint 62 close-up photo



Figure 16-7 – Waypoint 63 outcrop photo



Figure 16-8 – Waypoint 63 close-up photo



Figure 16-9 – Waypoint 64 outcrop photo

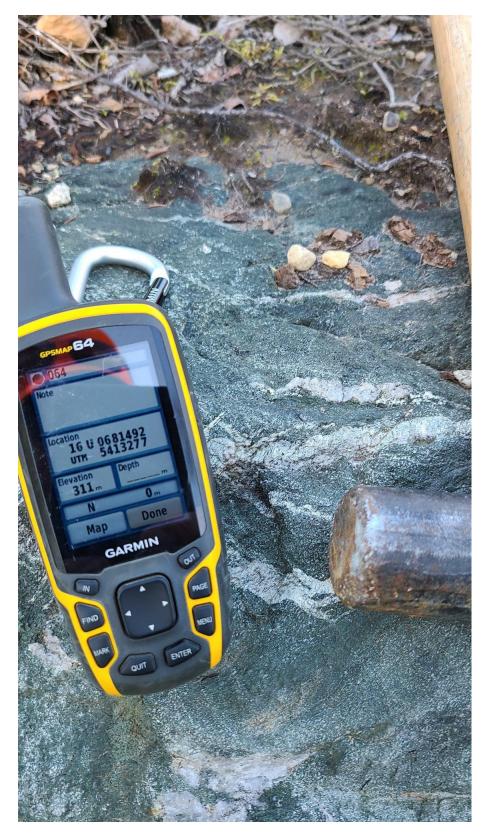


Figure 16-10 – Waypoint 64 close-up photo



Figure 16-11 – Waypoint 65 outcrop photo

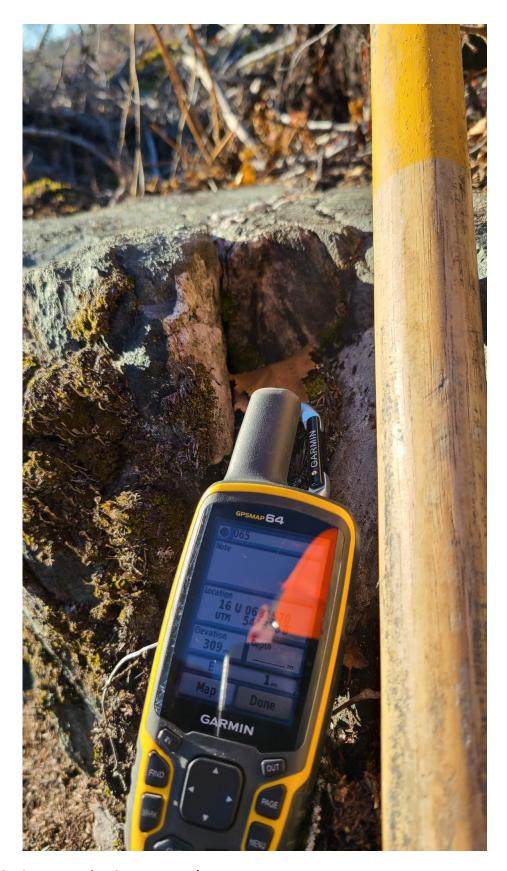


Figure 16-12 – Waypoint 65 outcrop photo

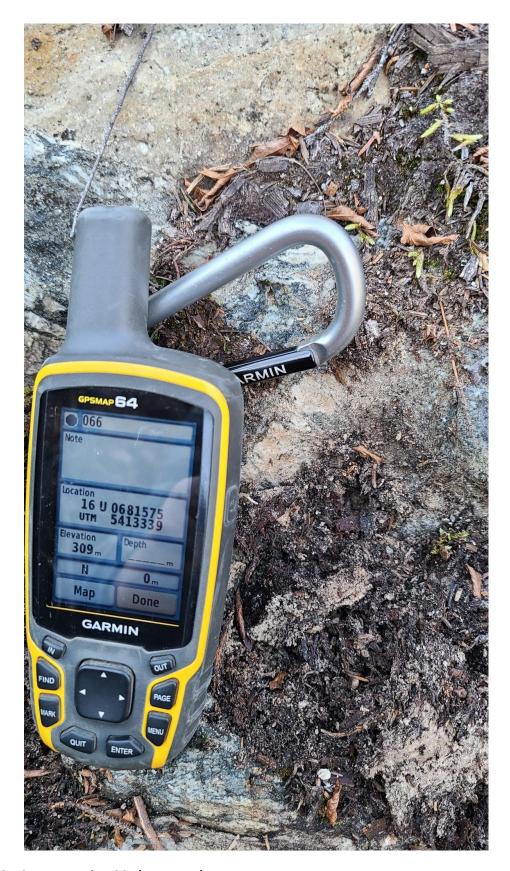


Figure 16-13 – Waypoint 66 close-up photo

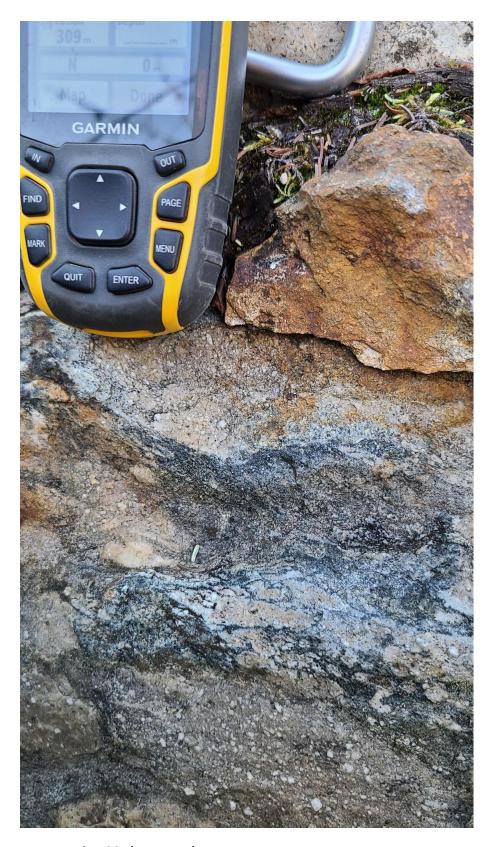


Figure 16-14 – Waypoint 66 close-up photo

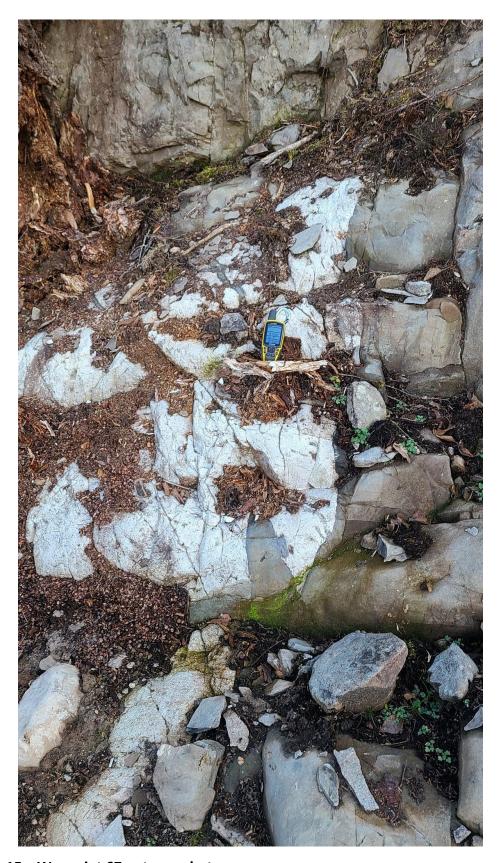


Figure 16-15 – Waypoint 67 outcrop photo



Figure 16-16 – Waypoint 68 outcrop photo

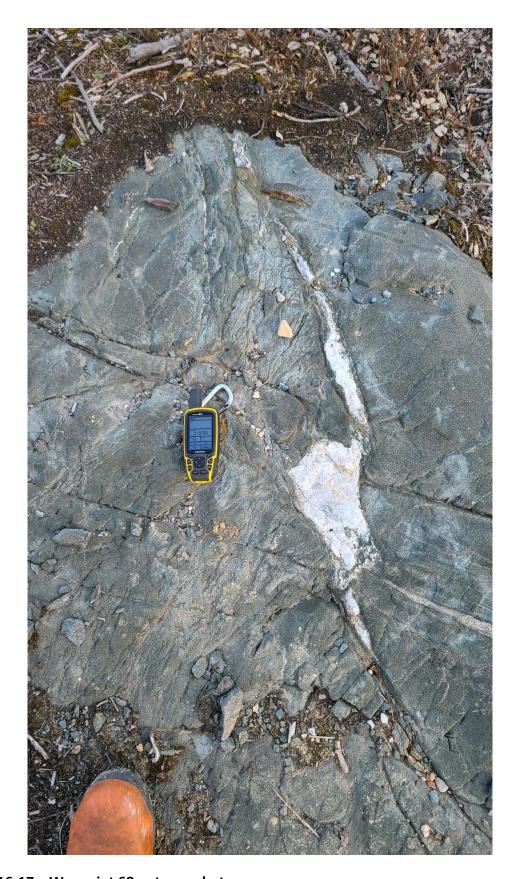


Figure 16-17 – Waypoint 68 outcrop photo

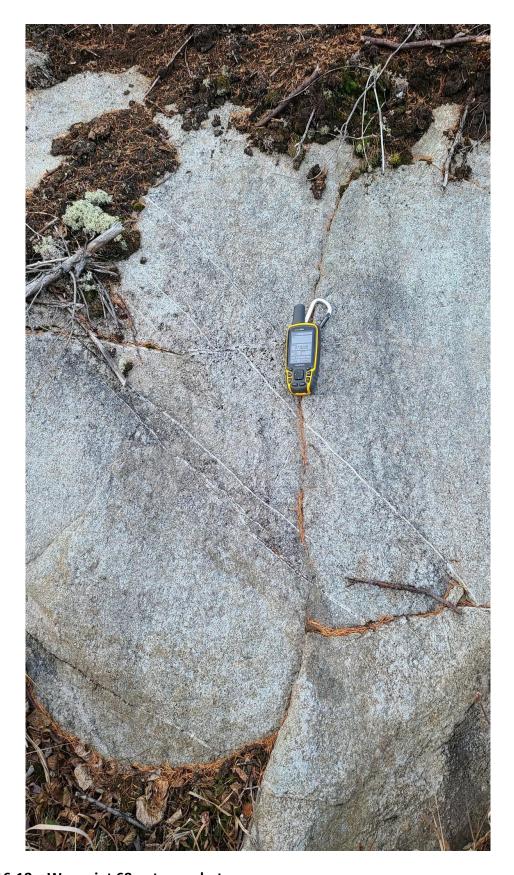


Figure 16-18 – Waypoint 68 outcrop photo



Figure 16-19 – Waypoint 68 outcrop photo



Figure 16-20 – Waypoint 71 close-up photo

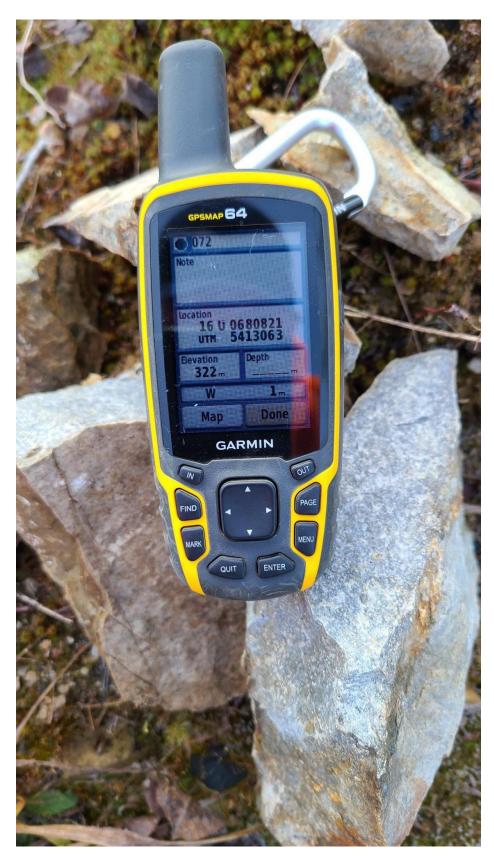


Figure 16-21 – Waypoint 72 photo



Figure 16-22 – Waypoint 73 outcrop photo

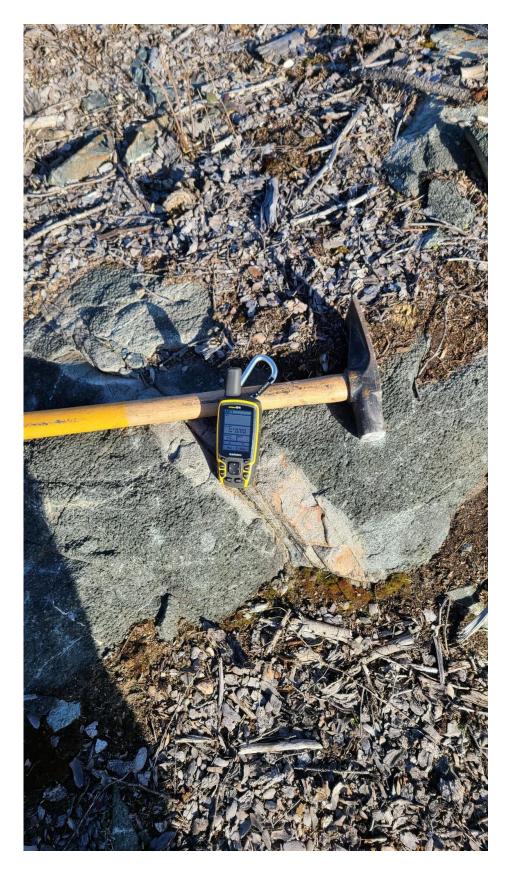


Figure 16-23 – Waypoint 75 outcrop photo

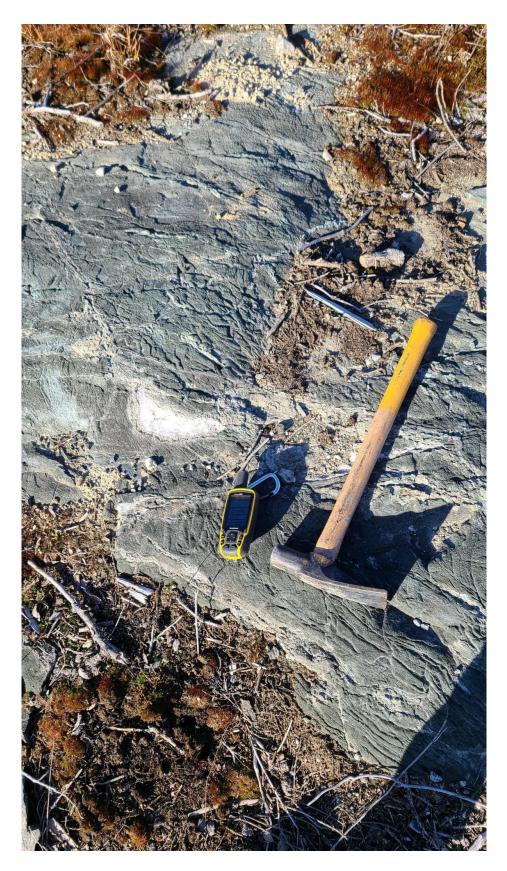


Figure 16-24 – Waypoint 75 outcrop photo

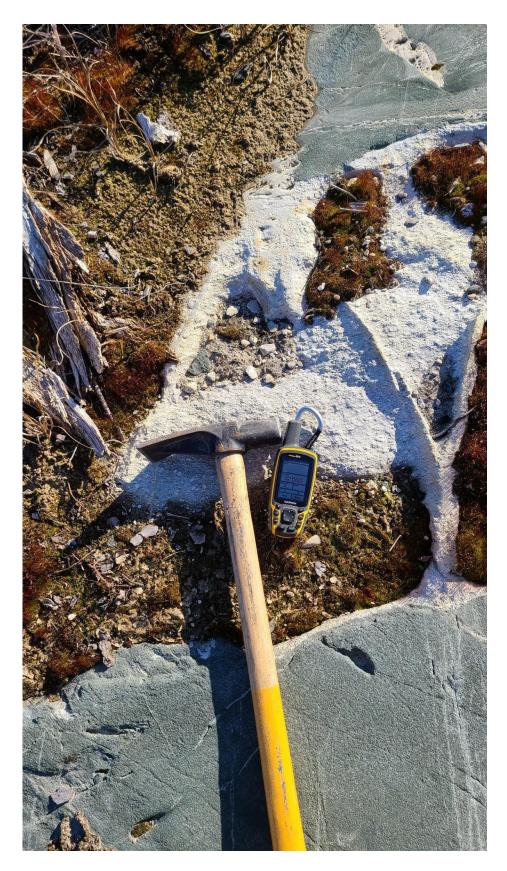


Figure 16-25 – Waypoint 75 outcrop photo

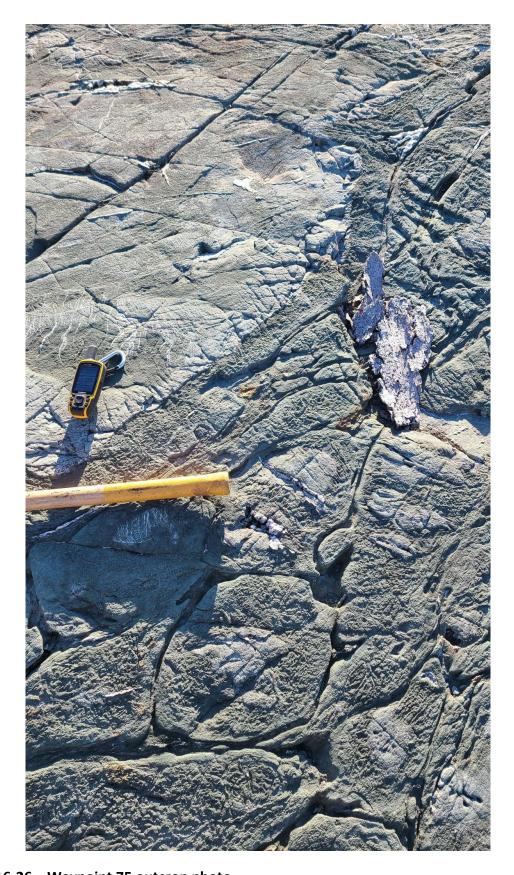


Figure 16-26 – Waypoint 75 outcrop photo

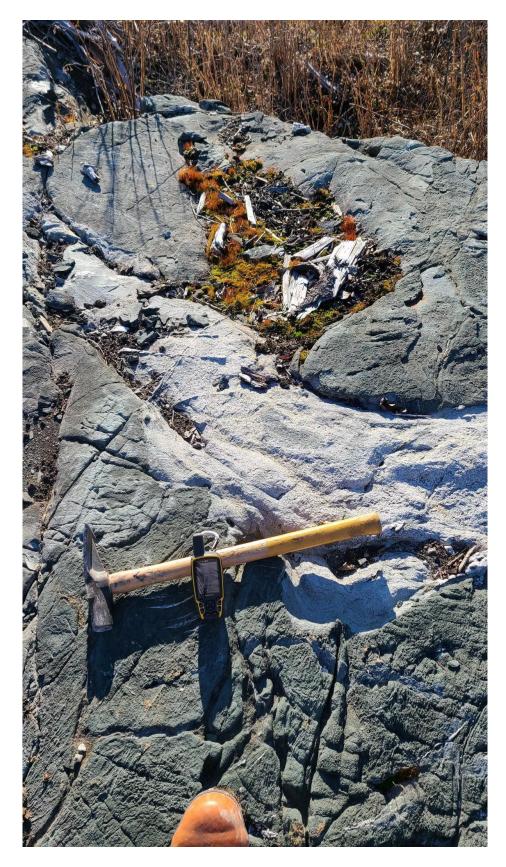


Figure 16-27 – Waypoint 75 outcrop photo

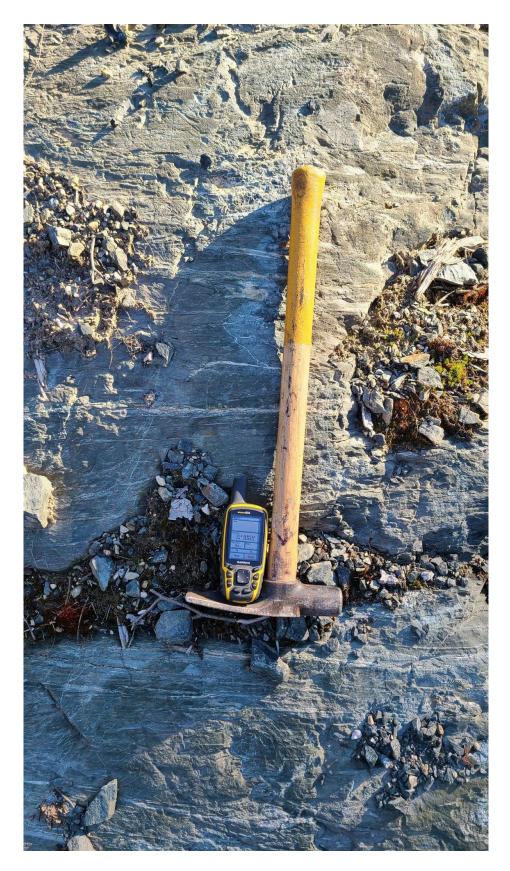


Figure 16-28 – Waypoint 75 outcrop photo