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NTS 31 M/4

Assessment Work Report

Magnetometer Survey

**Alfreda Creek Property** 

**Strathy Township** 

March 17, 2023

Author: David Laronde

# **TABLE OF CONTENTS**

1.0	Summary					
2.0	Property Descr	ription				
3.0	Regional and Lo	Regional and Local Geological Settings				
4.0	Location and A	Location and Access				
5.0	Magnetometer S	Magnetometer Survey				
	5.1	Instrumentation				
	5.2	Survey Results and Interpretation				
6.0	Conclusions an	nd Recommendations				

## **LIST OF FIGURES**

Figure 1	Alfreda Creek Property Location	1:40,000
Figure 2	Claim and Grid Map	1:2000

## **LIST OF MAPS**

Map No.1 Magnetometer Survey - Contours of Total Field 1:2500

#### 1.0 SUMMARY:

On March 14 and 15, 2023, grid establishment and a magnetometer survey was carried out on the Alfreda Creek Property on behalf of claimholders Bruce and Bradley Dye, P.O. Box 482-73 Lakeshore Drive, Temagami, Ontario P0H 2HO.

David Laronde, P.O. Box 482-73 Lakeshore Drive, Temagami, Ontario P0H 2HO performed the grid establishment, magnetometer survey and authored the report. A total of 2.75 km of grid line was established and surveyed. The grid lines were located with a modern Global Positioning System GPS unit Garmin Map 76 CSx capable of 3 meter accuracy. Stations were picketed in at 25 meter intervals by the author David Laronde. Universal Transverse Mercator UTM coordinates were used as they relate to NAD 83 Zone 17T.

The MLAS claim cell where the work was done is 150740.

The Legacy claim involved at the work location is 4275762.

### 2.0 PROPERTY DESCRIPTION:

Historically, the property was staked in 1935 by Strathy Basin Mines and explored for gold within Archean greenstone. They reported sulphide ore minerals such as pyrrhotite and chalcopyrite that carried gold values in shear zones. Results were not published.

Later in 1965 Mildred MacVeigh carried out geological mapping and electromagnetic surveys with no encouraging anomalies to report. The area was underlain by intermediate flows with intermediate to felsic pyroclastic rocks intruded by northwest trending diabase dikes.

There were other claim holders but have no reported work and were only speculators.

Today the 35 Hectare property claim description is summarized below:

Legacy Claim Id	Tenure ID	Anniversary Date	<b>Tenure Type</b> Boundary Cell Mining	Cells	/Hectares	Tenure Status	Work Required
4275762	134787	21-Mar-2023	Claim	1.0	4	Active	200.0
4275762	150741	21-Sep-2023	Single Cell Mining Claim	1.0	12	Active	200.0
4275762	150740	21-Mar-2023	Single Cell Mining Claim Boundary Cell Mining	1.0	14	Active	200.0
4275762	198981	21-Mar-2023	Claim	1.0	5	Active	200.0

### 3.0 REGIONAL AND LOCAL GEOLOGICAL SETTINGS:

Regionally the property occurs in the Temagami Greenstone Belt. It represents a relatively small feature of the Superior Craton containing the southernmost remnants of Archean intrusive and supra-crustal rocks in eastern Ontario, as well as some of the most ancient felsic magmatic events in this section of the Superior craton.

Locally the property is found in the younger Archean metavolcanic rocks of Strathy Twp. intruded by intermediate to ultramafic intrusives and then crosscut by southeast trending Precambrian diabase.

The geological setting is characterised by north-northeast trending fault structure known to host numerous gold occurrences and small deposits such as the Cominco shaft 3 km to the south. The Cominco shaft is 378 feet deep with 6500 feet of drifting and crosscutting.

Local fracturing, alteration and shearing is pervasive in the presence of some north trending structures.

The Alfreda Creek Property, being on the same north trending structure as the Cominco shaft, is highly prospective for gold.

- 3.1 Mineral Deposit/Model Type: Hydrothermal, Vein type gold
- 3.2 Reason for Exploration Work: The objective of the work was to map prospective magnetic trends and magnetic characteristics of the underlying geology to help identify prospecting targets for structurally controlled gold mineralization.

#### 4.0 LOCATION AND ACCESS:

The property is within the Sudbury Mining Division with topographic reference NTS:31 M/4. The topography on this section of property is rolling terrain with Net and Kanichee Lakes on the claims.

As the crow flies the property is located 6 km northwest of the town of Temagami and is easily accessed by truck and snowmobile. First take Hwy 11 northward from the hamlet of Temagami for a distance of 5 km to the Kanichee Mine Road. Take a left and go one km to the end of a narrow plowed, cottage access road. From here go one more km along the road by snowmobile to the property.

#### 5.0 MAGNETOMETER SURVEY:

<u>5.1 Instrumentation</u>: Gem Systems GSM-19 overhauser magnetometers serial no. 58479 and 7052358 were used as field unit and base station for the survey. These units have an accuracy of +/- 1/100th of a gamma. 2.75 km was surveyed taking 119 readings at 25 meter intervals. The base station set up near the property cycled at 15 second intervals then the data was used to correct for diurnal drift during the survey.

<u>5.2 Survey Results and Interpretation:</u> The results are presented in contour format on plans at 1:2500 scale.

The magnetic survey has outlined a prominent magnetic linear feature trending in a southeast or northwest direction across the south section of the grid. It is open in both east and west directions. Intensity along its length ranges up to 700 nT above a background of 54,500 nT. The true width is in the order of 40-50 meters.

On L 5218350 N, 589050 E a few very intense magnetic readings range up to 2500 nT above background but this seems to be a localised response.

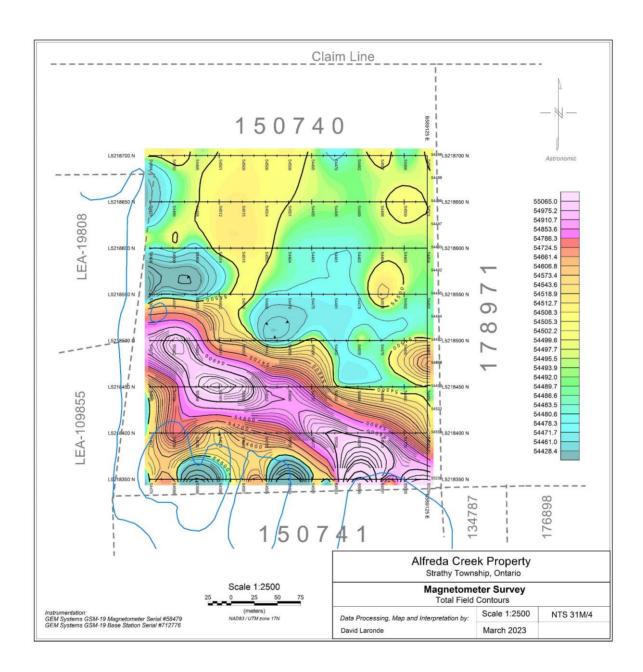
The rest of the grid is quiet magnetically speaking.

#### 6.0 CONCLUSIONS AND RECOMMENDATIONS:

The magnetic linear response encountered is a signature trait of an already mapped (Map 2323) diabase dike. Noteworthy also is an OGS mapped vertical shear at the precise location of the magnetic spike encountered on L 5218350 N. This warrants follow-up geological mapping and sampling. The location is right at the northern tip of a point of land on Kanichee Lake.

Since disseminated sulphides are targeted induced polarization is recommended. An induced polarization survey can benefit an exploration program in two ways. It will map the resistivity of any structure and scan for disseminated sulphide mineralization. The latter is known for its association with gold. The close proximity to the historic Cominco shaft 3 km to the south along a structural trend warrants it. The Alfreda Creek property is along trend.

A second recommended option for an electrical survey is a low cost VLF-EM survey that will help to map important structure related to gold mineralization. In addition, the magnetic coverage should be extended to the south along structural trend.



Map No. 1 - magnetometer survey - Total Field Contours

## **References**

1978 Geologic Report G.Bennett

1975 Geological Map #2361 OGS Geological Compilation Series 1in to 4 milesSudbury-Cobalt Sheet 1:250,000

1971 Geological Map #2323 OGS Chambers and Strathy Townships 1in to ½ mile

2023 Wikipedia free Encyclopedia https://en.wikipedia.org/wiki/Temagami\_Greenstone\_Belt

### **CERTIFICATE OF AUTHOR**

- I, David Laronde of the town of Temagami, Ontario hereby certify:
  - That I am a geology technologist and have been working in mineral exploration for the past 42 years.
  - That I am a graduate of Cambrian College in Sudbury with a diploma in Geology Engineering Technology 1979.
  - 3. That my knowledge of the property described herein was acquired by field work and documentation.

Dated at Temagami this 17th day of March 2023.

**David Laronde** 



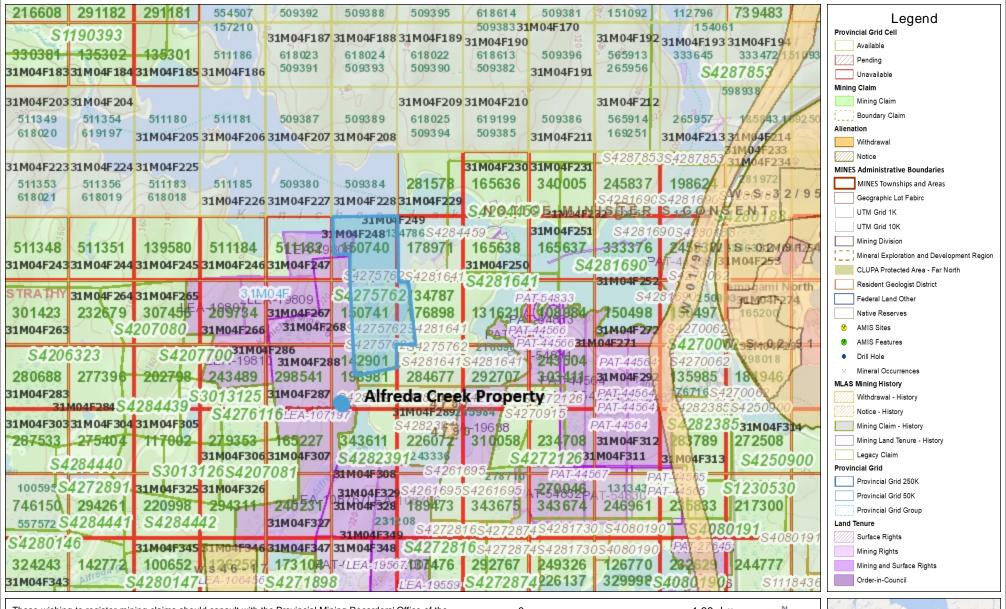
Ministry of Mines (MINES)

MLAS Map Viewer

Alfreda Creek Property Map

Notes:

Strathy Twp- Sudbury Mining District 1:40,000



Those wishing to register mining claims should consult with the Provincial Mining Recorders' Office of the Ministry of Mines (MINES) for additional information on the status of the lands shown hereon. This map is not intended for navigational, survey, or land title determination purposes as the information shown on this map is compiled from various sources. Completeness and accuracy are not guaranteed. Additional information may also be obtained through the local Land Titles or Registry Office, or the Ministry of Natural Resources and Forestry. The information shown is derived from digital data available in the Provincial Mining Recorders' Office at the time of downloading from the Ministry of Mines (MINES) web site

0 1.38 km
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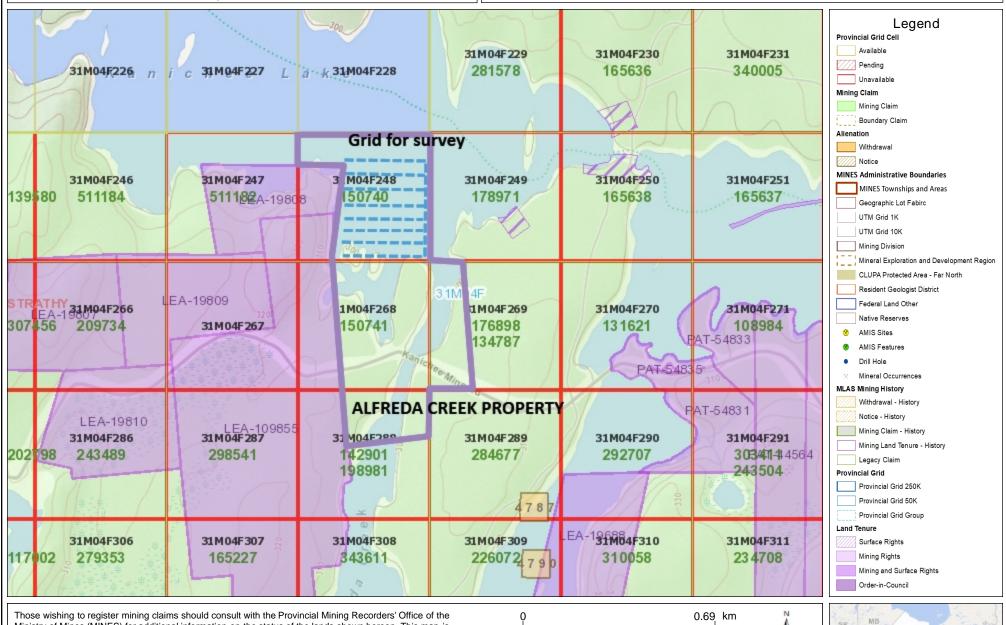
Ministry of Mines (MINES)

MLAS Map Viewer

## CLAIM & GRID Map

Notes:

Alfreda Creek Property 1:20,000



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