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# **Wavy Lake Silica Property May 21, 2019 Property Visit**

**Eden Township, Sudbury Mining Division**



Prepared by:  
M. Gaudreau,  
June 3, 2019

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# WAVY LAKE SILICA PROPERTY

## INTRODUCTION

On May 21<sup>st</sup>, 2019, Westly Fudge traveled from North Bay to Sudbury, picked up Marc Gaudreau and drove to the Eden Lake Silica Property. The intent of work performed in this report was to determine if gold occurs on the Wavy Lake Property (Property). The focus of the field travers was to expand on the prospecting program completed on May 3<sup>rd</sup>, 2019 by including the outlier of the existing silica deposit. Several quartz veins were discovered and sampled including samples taken from the structural and transitional south contact of the gneissic arkose and coarse grained quartz-plagioclase, metasomatized metasediments. A new discovery of a narrow metamorphosed hornfels mineralized unite was discovered along this contact, possibly magmatic-hydrothermal evolution and formation of hornfels-hosted, intrusion-related gold.

## LOCATION & ACCESS

The Property is located in the central east portion of Eden township in the District of Sudbury. It is located at a latitude of 46° 19' and longitude of 81° 05'.

Access to the area can be obtained by driving 27 kilometers south of Sudbury on Long Lake Road, Tilton Lake Road and Wavy Trail. One kilometer down the Wavy Trail after the turnoff from the Tilton Lake Road a trail 2.3 km. long leads eastward to the area. For this study a partially overgrown bulk sample access road located north of the Wavy Lake North Shore Road was used.

## PROPERTY TENURE

SUDBURY Mining Division – Don Fudge, 2019 Property claims

Township	Cell Claim Number	Recording Date	Due Date	Bdy. Cell	Percent	Work Required
EDEN, TILTON	313434	10/04/2018	08/06/2019	N	100%	\$400
EDEN, TILTON	288936	10/04/2018	08/06/2019	N	100%	\$400
EDEN	296196	10/04/2018	24/06/2019	N	100%	\$400
EDEN	143338	10/04/2018	24/06/2019	N	100%	\$400
EDEN	138190	10/04/2018	24/06/2019	N	100%	\$400
EDEN	150809	10/04/2018	24/06/2019	N	100%	\$400
EDEN	254126	10/04/2018	21/09/2019	Y	100%	\$200
EDEN	127691	10/04/2018	21/09/2019	Y	100%	\$200
EDEN	180063	10/04/2018	21/09/2019	Y	100%	\$200
EDEN	277394	10/04/2018	24/06/2019	Y	100%	\$200



Figure 1: Wway Lake Silica Property - Ontario Key Location Map

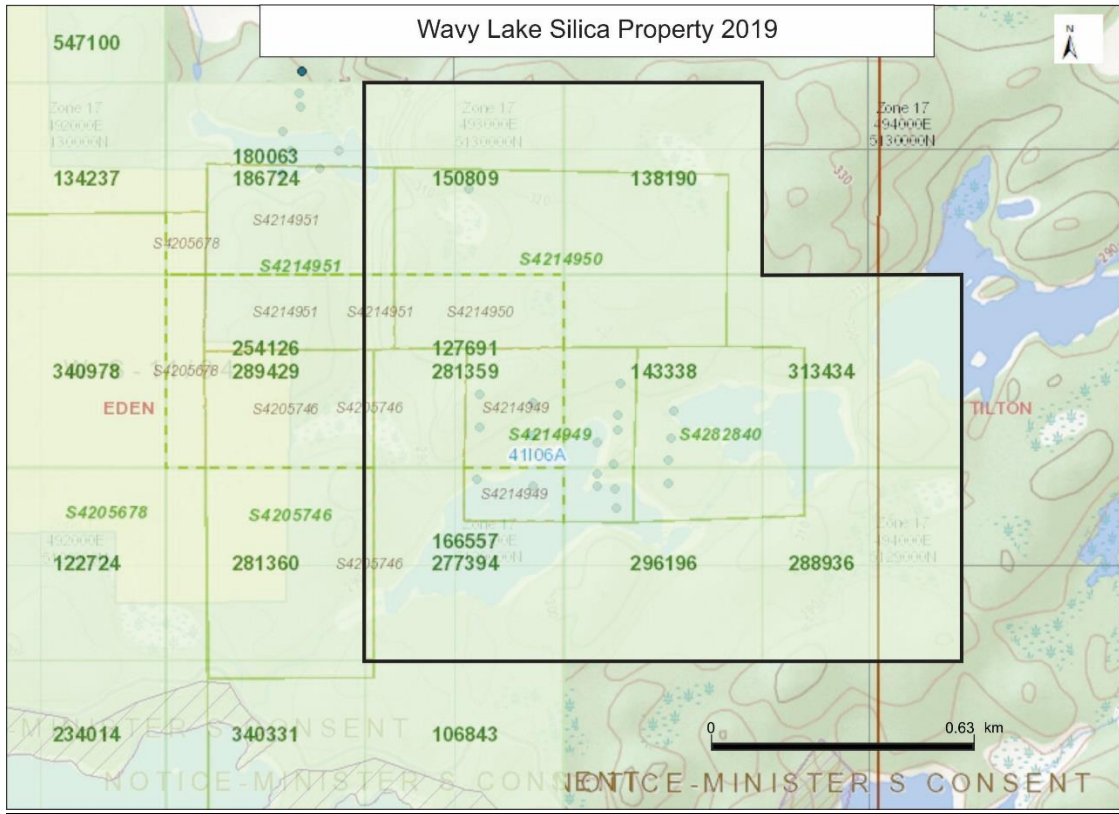


Figure 2: Property Location Map 2019

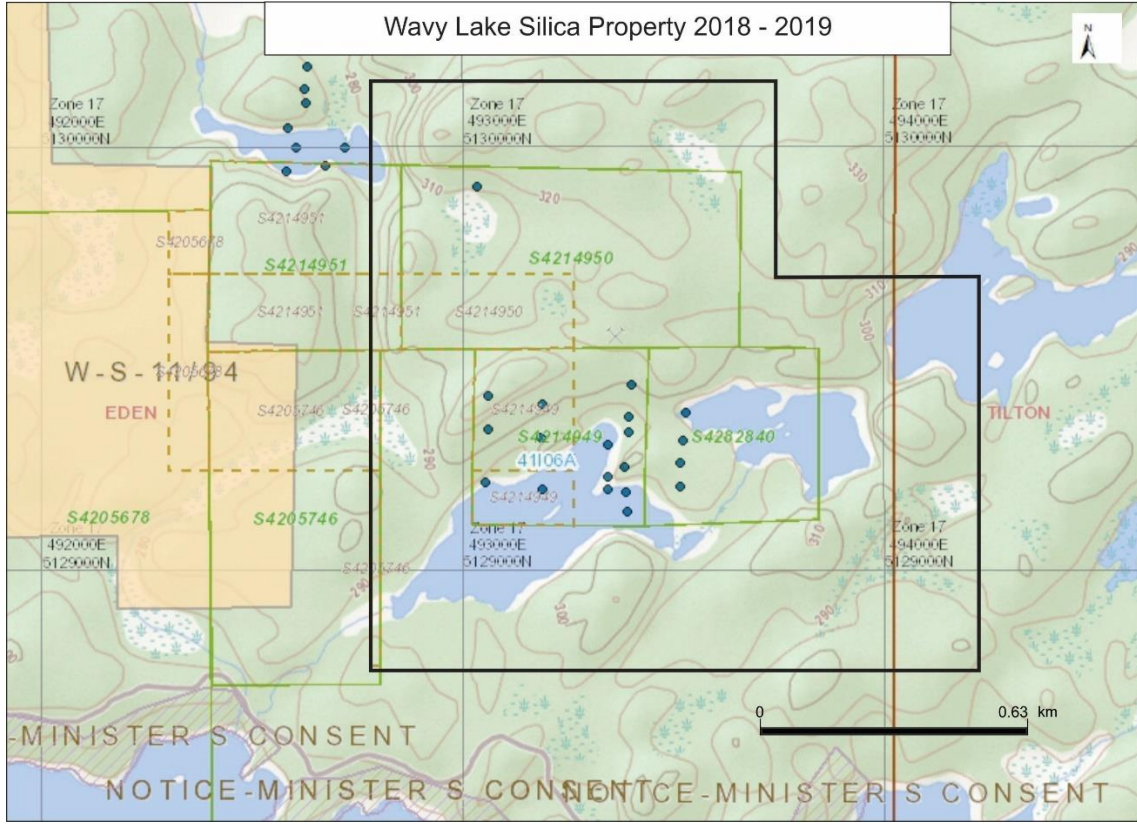


Figure 3: Property Claim Map 2018 -2019

## PREVIOUS WORK DONE BY OTHERS

Work outside of these claims has been done on the nearby past producing Long Lake Gold Mine and various exploration work to examine a nearby extension of the Copper Cliff Offset, but aside from that, in the immediate area of this work, the following has been done;

1966: Geologic thesis mapping (see Spaven, HR in references section)

1975: Mapping by the OGS in (see Card, KD in references section)

Previous past claim staking in the area was also noted.

## REVIOUS WORK DONE BY ROBERT KOMARECHKA

1991: Geologic mapping, B. Komarechka.

1992: Geologic mapping, B. Komarechka.

1992: Percussion Drill Evaluation, B. Komarechka.

1993: Trail construction, stripping, analysis of drill cutting, bulk sampling.

2000: Beep Mat Study, B. Komarechka.

2010: Recutting of claim lines, B. Komarechka.

2011: Silica assays of bulk sampled material on site, B. Komarechka.

2019: Wavy Lake Silica Property, May 3, 2019 Property Visit, D. Fudge

## GEOLOGY

### Regional Geology

The area of study represents a portion of the western contact of the Eden Lake Granite with the Proterozoic Huronian rocks of the Lorrain formation.

Generally the Lorrain formation in the area, adjacent to the earlier Gowganda formation to the west, grades from a pink arkosic quartzite into a tan massive aluminous quartzite, then into a massive to banded green alumina rich orthoquartzite, then into orthoquartzite with red bands of hematitic quartzite, then into areas of orthoquartzite and cherty orthoquartzite, containing occasional reddish hematitic swirls. The highest values of silica appear to occur in the last two rock types.

From the results of previous mapping and assay results it is apparent that the occurrence of the last two members of the upper Lorrain appear along a parallel trend that matches the Gowganda Lorrain contact as indicated in OGS map 2299. Unfortunately, this contact is not continuous due to intrusions of Nippising Diabase and later Eden Lake Intrusives. In addition, alteration due to local thermal effects from these intrusions, their metasomatic alterations and small scale structural movements and folding add complexity to the geological picture.

Past field observations suggest that the Eden Lake Granite frequently intruded along pre-existing (Nippising) diabase intrusions within the Huronian metasediments. This resulted in partial assimilation and occasional brecciation of the surrounding diabase and quartzites. A result of this assimilation is the production of a hybrid rock noted as grey granite on the map. This rock is frequently encountered along the contact of the Huronian metasediments and the Eden Lake Granites and is gradationally with the latter.

The intrusion of the Eden Lake Granite and the tectonic effects of the nearby Grenville Front resulted in numerous local faults and minor local displacements. Generally, the more siliceous quartzites reacted to this by brittle fracturing while the more argillaceous metasediments responded by plastic deformation as evidenced by their highly variable dip and strike.

*\*Circa - B. Komarechka*

## Geology of the Sampled Area

The sampled area is located in the easternmost extension of an east west band of primarily white cherty orthoquartzite believed to represent the upper Lorrain Formation. This area has been labeled as Zone 3 in previous assessment reports by B. Komarechka and others.

The northern contact of this zone appears to change gradationally to an interbedded unit of narrow orthoquartzite, feldspar rich quartzite and arkosic bands. This area generally weathers recessively compared to the orthoquartzite and is bounded to the north by a combination of primarily diabase, followed by grey granite and gneissic metapelite. These last three rock type form a prominent ridge paralleling zone #3 to the north. Eden Lake Granite is also found in some areas but generally not in the immediate sampled area.

The northern contact of the orthoquartzites as shown on the Geology map is poorly defined as most of this area is covered by overburden. In addition, the contact, in some areas, appears to be nonlinear due to some local folding and displacement. Despite the above, the contact was drawn to show the maximum southern extension of orthoquartzite having +90% silica content. Locally some variations from this contact line may be expected.

The southern contact of this zone appears to change abruptly along the base of a high east-west ridge of primarily grey granite. This somewhat undulating contact appears to be pushed northward along lobe shaped areas of granite intrusions. To the east of this contact the enclosing rocks change from a grey granite to a gneissic metapelite. These rocks show a highly variable strike and dip orientation along the contact. This may represent an area of plastic deformation. A small area of Eden Lake pink granite occurs along the contact in the southwest corner of the map area, but generally this rock is more common in the center of granitic bodies.



The southern contact seems to be well defined along the base of the above mentioned ridge but due to the lack of outcrop between the contact and the high quality silica orthoquartzite bedrock exposed to the north (between lines 3+71W and 1+20W) and due to the possibility of the westward extension of a large waste band, drill proven reserves were calculated for only part of this area.

Several variations in quality are found along the strike length of Zone #3. The purest area of this zone is generally white, cherty with occasional reddish hematitic swirls. The silica content of this area from a percussion chip analysis average 94.53%. In the southwestern part of this zone there is a slight reduction of the silica (estimated 91 - 92% silica) content due to the presence of a series of parallel thin 1/16" - 1/2" micaceous seams, some minor granitic bands and some boudinaged granite and diabase trains.

*\*Circa - B. Komarechka*

The 2019 sample program is intended to confirm if gold is associated with selected rusty seams where the bulk sample was taken and geological rock contacts where previous sampling was not assayed for gold.

## DESCRIPTION OF FIELD ACTIVITIES

### Sample Collection

A field visit to collect samples for assaying was undertaken by Westly Fudge and Marc Gaudreau on May 21<sup>st</sup>, 2019. A total of six (6) samples were collected, the numbering sequence continuous from the May 3<sup>rd</sup>, 2019 site visit. Three (3) samples were taken from selected outcrops with quartz veins along the travers route and three (3) samples taken from mineralized (mafic) on or near the south contact of the gneissic arkose and course grained quartz-plagioclase, metasomatized metasediments. This new discovery of a narrow mineralized unite, appears to be possibly hornfelds, sampled for possibly hosting gold.

Of the 6 samples collected only the mineralized samples Eden-2019-007, Eden-2019-008 and Eden-2019-009 were delivered to AGAT laboratories in Sudbury for a 30 gram gold fire assay analysis. See attached assay certificate.

Map Point	Easting NAD 83 UTM Zone 17	Northing NAD 83 UTM Zone 17	Sample #	Rock Type
1	492983	5129221	Eden-2019-005	Quartz/Granite
2	492970	5129330	Eden-2019-006	Quartz/Granite
3	492975	5129336	Eden-2019-006B	Quartz
4	493238	5129348	Eden-2019-007	Hornfelds
5	493127	5129294	Eden-2019-008	Hornfelds
6	493120	5129257	Eden-2019-009	Hornfelds

May 23<sup>rd</sup>, 2019 Google Earth Image of track log from start to end of travers.



## Sample Descriptions

Eden-2019-005: Milky white quartz vein, barren of visible sulfides within a feldspathic-quartz-hornblende granite. Not assayed.



Sample: Eden-2019-005

Eden-2019-006: Same as Eden-2019-005. Milky white quartz vein, barren of visible sulfides within a feldspathic-quartz-hornblende granite. Not assayed.



Sample: Eden-2019-006

Eden-2019-006B: Same as Eden-2019-005 and Eden-2019-006. Milky white quartz vein, barren of visible sulfides within a feldspathic-quartz-hornblende granite. Not assayed.



Sample: Eden-2019-006B

Sample: Eden-2019-007: Fine grained, grey, metamorphosed, magmatic hornfels, mineralized on shears, thinly laminated in shear strike direction. Assayed for gold.



Sample: Eden-2019-007

Sample: Eden-2019-008: Small area stripped to expose mineralized hornfels zone for sampling.



Small stripped area.

Sample: Eden-2019-008: Fine grained, grey, metamorphosed, magmatic hornfels, mineralized with thin lens of pyrite in contact with potassium and silica rich contact rock which appears to be chaotically brecciated.



Sample: Eden-2019-008



Sample: Eden-2019-009: Fine grained, grey, metamorphosed, magmatic hornfels, mineralized with thin lens of pyrite in contact with potassium and silica rich contact rock which appears to be chaotically brecciated.



Sample: Eden-2019-009

Sample: Eden-2019-009: Photo shows brecciated texture and blebs of pyrite in pink potassic and quartz rich rocks and finely disseminated in hornfelds.



Location: Entrance to bulk sample haul road, travers start point.

## CONCLUSIONS & RECOMMENDATIONS

- The prospecting site visit was a technical success in that it located a new mineralized area for exploration along the contact of migmatized granite gneiss and pink coarse grained quartz-plagioclase, metasomatized metasediments. However, the three (3) samples submitted for gold returned <0.004 gr/ton gold. Considering the gold results, from May 3, 2019 and May 21, 2019 field visits these two areas might be removed from further gold prospecting. The recent gradient array induced polarization survey observed by the field party and the fact that the survey is in contact with the Property to the west, might be testing for additional base and precious metals in the area. Should the results of that survey become public, there might be a trend of potential anomalous areas striking into the Property.

## REFERENCES

1. Card, K. D., Palonen, P. A., and Siemiatkowska, K. M.,  
1975: Geology of the Louise-Eden Area, District of Sudbury; Ontario Div. Mines, GR124, 66p. Accompanied by Map 2299, Scale, 1 inch to 1/2 mile.
2. Komarechka, Robert G.,  
1991: Lorrain Orthoquartzite Study - Silica Potential - Eden Township, OPAP Reg. #OP90-291.
3. Komarechka, Robert G.,  
1992: Lorrain Orthoquartzite Study - Silica Potential - Claims #S1117707, S1117708 and S1094930 - Eden Township, Jan. 1992.
4. Komarechka, Robert G.,  
1992: Percussion Drill Program Evaluation of Silica in Zone #1, Claim S1094928 - Eden Township, Feb. 1992.
5. Komarechka, Robert G.,  
2011: Wavy Lake Silica Property – Silica Assays- Eden Township, Claim S1101771 - Eden Township, Dec. 8, 2011.
6. Spaven, H. R.,  
1966: Granite Tectonics in part of Eden Township, Sudbury District, Ontario; unpublished Msc. thesis, McMaster University, Hamilton, Ontario.

## APPENDIX- ASSAY CERTIFICATES



CLIENT NAME: FUDGE & ASSOCIATES INTERNATIONAL  
160 BRYAN ROAD  
NORTH BAY, ON P1C 1C2  
705-472-3053

ATTENTION TO: Don Fudge

PROJECT: EDEN-2019

AGAT WORK ORDER: 19T470452

SOLID ANALYSIS REVIEWED BY: Sherin Moussa, Senior Technician

DATE REPORTED: May 29, 2019

PAGES (INCLUDING COVER): 6

Should you require any information regarding this analysis please contact your client services representative at (905) 501-9998

**NOTES**

All samples are stored at no charge for 90 days. Please contact the lab if you require additional sample storage time.



**Certificate of Analysis**  
 AGAT WORK ORDER: 19T470452  
 PROJECT: EDEN-2019

5623 McADAM ROAD  
 MISSISSAUGA, ONTARIO  
 CANADA L4Z 1N9  
 TEL (905)501-9988  
 FAX (905)501-0589  
<http://www.agatlabs.com>

CLIENT NAME: FUDGE & ASSOCIATES INTERNATIONAL

ATTENTION TO: Don Fudge

DATE SAMPLED: May 22, 2019	DATE RECEIVED: May 22, 2019	DATE REPORTED: May 29, 2019	SAMPLE TYPE: Rock												
<b>(200-) Sample Login Weight</b>															
<table border="0"> <tr> <td style="text-align: right;">Analyte:</td> <td>Sample Login Weight</td> <td></td> <td></td> </tr> <tr> <td style="text-align: right;">Unit:</td> <td>kg</td> <td></td> <td></td> </tr> <tr> <td style="text-align: right;">RDL:</td> <td>0.01</td> <td></td> <td></td> </tr> </table>				Analyte:	Sample Login Weight			Unit:	kg			RDL:	0.01		
Analyte:	Sample Login Weight														
Unit:	kg														
RDL:	0.01														
Sample ID (AGAT ID)															
EDEN-2019-007 (2156897)	0.1576														
EDEN-2019-008 (2156898)	0.2302														
EDEN-2019-009 (2156899)	0.1452														

Comments: RDL - Reported Detection Limit

**Certified By:**





**AGAT** Laboratories

# Certificate of Analysis

AGAT WORK ORDER: 19T470452  
PROJECT: EDEN-2019

5623 McADAM ROAD  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1N8  
TEL (905)501-9998  
FAX (905)501-0689  
<http://www.agatlabs.com>

CLIENT NAME: FUDGE & ASSOCIATES INTERNATIONAL

ATTENTION TO: Don Fudge

(202-052) Fire Assay - Trace Au, ICP-OES finish (ppm)

DATE SAMPLED: May 22, 2019	DATE RECEIVED: May 22, 2019	DATE REPORTED: May 29, 2019	SAMPLE TYPE: Rock												
<table border="0"> <tr> <td>Analyte:</td> <td>Au</td> <td></td> <td></td> </tr> <tr> <td>Unit:</td> <td>ppm</td> <td></td> <td></td> </tr> <tr> <td>RDL:</td> <td>0.001</td> <td></td> <td></td> </tr> </table>				Analyte:	Au			Unit:	ppm			RDL:	0.001		
Analyte:	Au														
Unit:	ppm														
RDL:	0.001														
Sample ID (AGAT ID)															
EDEN-2019-007 (215697)															
EDEN-2019-008 (215698)															
EDEN-2019-009 (215699)															

Comments: RDL - Reported Detection Limit

**Certified By:**



**AGAT** Laboratories

Quality Assurance - Replicate  
AGAT WORK ORDER: 19T470452  
PROJECT: EDEN-2019

5623 McADAM ROAD  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1N9  
TEL (905)601-6988  
FAX (905)601-0889  
<http://www.agatlabs.com>

CLIENT NAME: FUDGE & ASSOCIATES INTERNATIONAL

ATTENTION TO: Don Fudge

(202-052) Fire Assay - Trace Au, ICP-OES finish (ppm)

Parameter	Sample ID	REPLICATE #1		RPD	0.0%						
		Original	Replicate								
Au	215699	0.001	0.001								

Results relate only to the items tested. Results apply to samples as received.







## Method Summary

CLIENT NAME: FUDGE & ASSOCIATES INTERNATIONAL

AGAT WORK ORDER: 19T470452

PROJECT: EDEN-2019

ATTENTION TO: Don Fudge

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
<b>Solid Analysis</b>			
Sample Login Weight	MIN-12009		BALANCE
Au	MIN-12006, MIN-12004		ICP/OES

