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PROSPECTING REPORT

On the

McVEIGH CREEK PROPERTY

Claim 4279213

Agounie Township, Ontario

For

**First Minerals Exploration Ltd** 

**Submitted By:** 

Bruce Edgar (HBSc, P. Geo)

November 28, 2017

#### **SUMMARY**

In September, 2017, the author was given the mandate by Mr. Robert Young, President- First Minerals Exploration Ltd. (FMEL), to carry out prospecting on the "McVeigh Creek Property", claim 4279213, Aguonie Township, Ontario. The property is located within the Goudreau Lake Deformation Zone of the Wawa Greenstone Belt and is located approximately 45 kilometers north-east of Wawa, Ontario. The property consists of three units and is held 100% by FMEL.

From October 19 through 21, 2017 the author and Mr. Brian Edgar (HBSc) travelled to and from the property and prospected the main showing areas. Most of the historical trench areas were covered with slumped overburden and years of dead-fall and deeper trenched areas were water-filled. The overburden had to be dug out in places to expose the bed rock.

A total of ten samples were taken along the historical trench system, the samples described and GPS locations taken (Garmin Etrex Legend, NAD 83, Zone 16). All samples were assayed for gold at Swastika laboratories, of Swastika, Ontario, an accredited laboratory (CALA) meeting the requirements of ISO/IEC 17025:2005.

Although abundant quartz veining was found within the shearing of the McVeigh creek showing, the amount of sulphide content was minimal. The best assay value returned from the grab sampling was 1310 ppb Au from one of the samples in the furthest east portion of the showing.

The McVeigh creek showing appears to exhibit strong continuity of structure and quartz veining along strike. Unfortunately, the gold content within the quartz veining/ lean iron formation appears to be minimal on surface.

The author is familiar with a number of gold showings in the Goudreau Lake Deformation Zone which exhibited minimal values on surface, but returned higher grade gold assays at depth. For that reason the author would recommend a limited diamond drill program to test the showing on a number of sections. The author envisions four sections on 15 meter centers with two holes per section designed to intersect the zone at depths of 15 and 30 meters below surface, for a total of 300 meters diamond drilling. The approximate cost of the program would be \$45,000.

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#### INTRODUCTION

In September, 2017, the author was given the mandate by Mr. Robert Young, President- First Minerals Exploration Ltd. (FMEL), to carry out prospecting on the "McVeigh Creek Property", claim 4279213, Aguonie Township, Ontario.

The property is located within the Goudreau Lake Deformation Zone of the Wawa Greenstone Belt and is located approximately 35 kilometers north-east of Wawa, Ontario. The property consists of three units and is held 100% by FMEL.

From October 19 through 21 the author and Mr. Brian Edgar (HBSc) travelled to and from the property and completed prospecting on the historic McVeigh Creek showing. This report summarizes the results of that work.

#### SAULT STE. MARIE Mining Division - 407931 - FIRST MINERALS EXPLORATION LIMITED

Township / Area	Claim Number	Recording Date	Claim Due Date	Status	Percent Option	Work Required	Total Applied	Total Reserve	Claim
AGUONIE	4279213	2016-Apr-12	2018-Apr-12	Α	100 %	\$1,200	\$0	\$0	\$0

#### **LOCATION and ACCESS**

The "McVeigh Creek" property, claim 4279213, is located in Aguonie Township, within the Goudreau Gold District of the Sault Ste. Marie Mining Division.

The property is located 8 kilometers south of Dubreuilville, Ontario, as the crow flies, and approximately 20 kilometers by road. It is easily accessed, firstly by gravel roads and then by bush roads. One route to the property is via the Goudreau road southeast from Dubreuilville, then west heading towards Goudreau, passing the Magino mine site (Prodigy Gold). A bush road on the north side of the road approximately 1 kilometer east of Goudreau provides access to the claim.

The area was extensively lumbered in the past and a number of overgrown bush roads may be found on the property.

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MINISTRY OF NORTHERN DEVELOPMENT AND MINES

First Minerals Exploration Ltd | New April 12

McVeigh Creek Property

@Busents-Friederfor Driento, 2016

#### **HISTORY**

Gold was discovered in the Goudreau-Lochalsh area as early as 1896 in Emily Bay of Dog Lake. Other discoveries followed as claims were staked searching for iron ore bodies after the turn of the 20<sup>th</sup> century. Within a few years of the end of the First World War, gold was discovered on numerous properties in the area, most notably the Cline (1918) and Edwards (1924) mines in the eastern portion of the Goudreau lake Deformation Zone (GLDZ), the Magino (1918) mine east of the current McVeigh Creek property, and the Murphy (1921) mine west of the current property.

Historical information on the McVeigh Creek property is limited.

In 1979 Noranda flew a combined Magnetic and Electromagnetic survey over Aguonie Township, noting numerous anomalies which were believed to have characteristics of buried metallic sulphide deposits.

Noranda continued in 1981 with ground VLF-EM and Magnetometer surveys run over a large property holding which included the current McVeigh Creek property. The VLF survey outlined four long conductors, a part of one being located on the current property. A sulphide- bearing, apparently stratabound mineralized zone was discovered upon surface inspection. A chip sample across "sheared rock with quartz veining" returned 0.13 opt Au over 4.5 feet.

Trenching in 1982 uncovered an 8.0 foot quartz vein zone in sheared mafic volcanics (also called lean iron formation). Mineralization included pyrrhotite, pyrite, chalcopyrite, arsenopyrite and sphalerite and an assay value of 0.121 opt Au over 14.0 feet was reported. Small bulk samples less than 30 kg were reported to grade 0.02 to 0.057 opt Au.

In 1982 Noranda tested under the discovery area with one Xray drill hole which returned only trace values for gold.

In 1987 James E Tilsley and Associates completed a comprehensive exploration program for Faldo Mines and Energy Corporation over the McVeigh Creek property which included line cutting, VLF-EM and Magnetometer surveys, a geochemical (humus) survey, geological mapping, stripping and chip sampling of the main showings. The best mineralized section contained 2.432 gpt Au over a width of approximately 2 meters and a length of 15 meters.

No further work appears to be registered in the assessment files.

In October, 2017, the author and Mr. Brian Edgar (HBSc) completed prospecting over the historic trenches of the McVeigh Creek property, which is the subject of this report.

#### **GEOLOGICAL SETTING**

#### **REGIONAL GEOLOGY**

The Regional geology is described by K. B. Heather and Z. G. Arias (1992) as follows:

Archean supracrustal rocks in the immediate Goudreau-Lochalsh area consist of felsic to intermediate, pyroclastic metavolcanics which are capped by pyrite-bearing iron formation. Immediately to the north are pillowed, massive and schistose mafic to intermediate metavolcanic rocks which are interpreted to be younger in age than the iron formation and felsic metavolcanic rocks. Several medium- to coarse-grained quartz dioritic to dioritic sills and/or dikes intrude all of the metavolcanic rocks. Several felsic intrusions ranging in composition from nepheline syenite to tonalite/trondhjemite occur within the study area. The metamorphic grade of the supracrustal rocks is greenschist, except for a narrow band of amphibolite grade rocks adjacent to the external tonalite-granodiorite granitoid rocks to the north. All of the rocks described above are cross-cut by northwest- and northeast-striking diabase dikes.

Two regionally extensive, subparallel zones of deformation, referred to as the Goudreau Lake Deformation Zone (GLDZ) and the Cradle Lakes Deformation Zone (CLDZ), have been defined using the deformation intensity (i.e., strain intensity) of the supracrustal rocks, the deformation style, and the distribution and density of discrete high-strain zones. The majority of the known gold deposits and occurrences are located within the GLDZ, a 4.5 km wide by over 30 km long, east-northeast- to east-striking arcuate zone which is subparallel to the major lithological and foliation trends. The CLDZ is located south of the GLDZ and is at least 5 to 10 km in length and approximately l to 2 km in width.

The GLDZ can be subdivided into four structural domains (northern, southern, western and eastern) based on style of deformation, lineation patterns, and the orientation and the sense of apparent shear displacement on sets of high-strain zones. Correspondingly, the style and geometry of the gold mineralized zones is different within each of the structural domains.

Gold mineralization occurs in all rock types (excluding diabase dikes) in the area associated with high-strain zone hosted quartz veins. There is a spatial association of gold mineralization with felsic porphyry dikes and stocks, the contacts of dikes being particularly favourable sites for shearing and gold deposition. The alteration associated with the gold mineralization is of limited areal extent, being confined to the discrete high-strain zones. Mafic rnetavolcanic and metaintrusive rocks are typically intensely altered to an assemblage of "biotite, Fe-carbonate, pyrite, pyrrhotite, quartz and minor potassium feldspar and, in other places, less intensely altered to an assemblage of chlorite, calcite, and minor pyrrhotite and/or pyrite. Felsic rnetavolcanic and metaintrusive rocks are typically intensely altered to an assemblage of quartz, sericite, pyrite, Fe-carbonate, albite, hematite, pyrite and/or pyrrhotite and, in other places, less altered to a similar assemblage except that chlorite replaces sericite as the dominant mineral.

The property lies within the Goudreau-Lochalsh area of the Wawa Greenstone Belt, which is comprised of a major succession of supracrustal rocks of Archean age, represented by several cycles of volcanic activity and a series of sedimentary rocks. The claims are located within the Goudreau Lake Deformation Zone (GLDZ) as defined by the Ontario Geological Survey. The majority of known gold deposits in the area are located within this 30 kilometer long, 4 kilometer wide, east-northeast trending, arcuate zone. Structural controls appear to be the most important factor in the localization of gold-

bearing quartz veins in this area, and the GLDZ is comprised of numerous, systematically oriented shear zones.

The geology of the region is known from the works of E. L. Bruce (1940), in Ontario Dept. of Mines, Vol. 49, pt 3, and from various Ontario Geological Survey reports by R. P. Sage, K. B. Heather and Z. G. Arias (1987 through 1993).

#### **PROPERTY GEOLOGY**

The geological map produced by James E Tilsley and Associates in 1987 shows mainly massive mafic volcanic flows to the north and predominantly mafic tuffs to the south. Poorly preserved pillows can be found in the mafic volcanic flows and coarser fragments and bombs can be found in the tuffaceous units. The volcanic sequence has a general east- west trend, and the shearing in the main zone area trends from 075° to 100°, and appears to dip from 50° to 70° to the north.

In the area of the western exposure, the poorly mineralized shear zone exists close to the contact between the mafic flows and tuffs, and in the area of the eastern exposure, the shearing exists predominantly north of the lava/tuff boundary.

Quartz veining within the shear is white and crystalline and appears to be random and discontinuous, can vary in width from a few millimeters to a few meters, pinches and swells, bifurcates and is boudinaged. Some stretches within the shearing contains no quartz veining. Most samples taken by the author show sparse mineralization, with minor pyrite and lesser pyrrhotite and trace chalcopyrite.

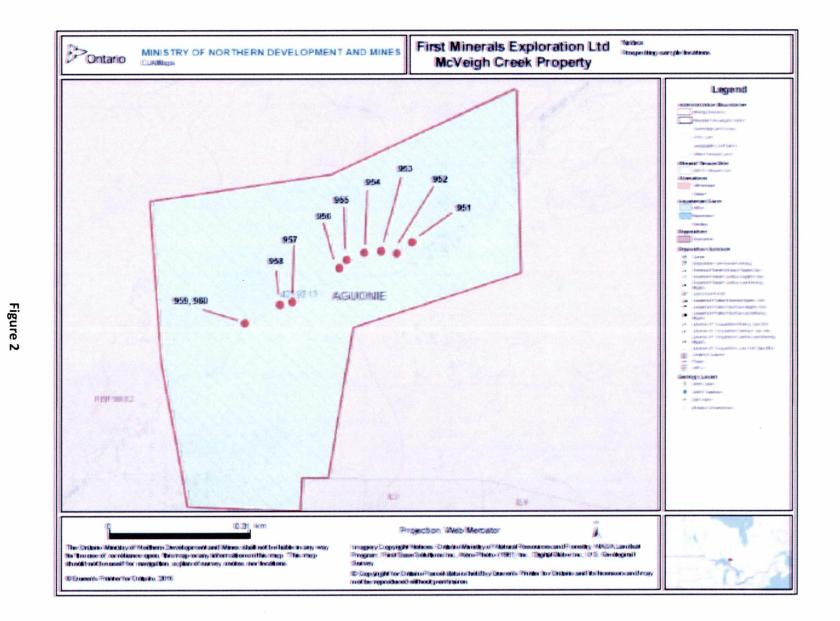
#### WORK COMPLETED

From October 19 through 21, 2017 the author and Mr. Brian Edgar (HBSc) travelled to and from the property and prospected the main showing areas.

The geology in the area north and south of the historical trenching was studied to check correlation with the mapping performed by James E. Tilsley and Associates in 1987. The historical descriptions were found to conform to observations by the author.

Most of the historical trench areas were covered with slumped overburden and years of dead-fall and deeper trenched areas were water-filled. The overburden had to be dug out in places to expose the bed rock.

A total of ten samples were taken along the historical trench system, the samples described and GPS locations taken (Garmin Etrex Legend, NAD 83, Zone 16). All samples were assayed for gold at Swastika laboratories, of Swastika, Ontario, an accredited laboratory (CALA) meeting the requirements of ISO/IEC 17025:2005.



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## **RESULTS**

Sample	Assay ppb	Location		Description
951	361	684174	5349534	Outcrop at the northeast end of the trenching - Lean sulphide iron formation - white crystaline quartz erratic, often boudinaged, veining - very fine local pyrite agglomerations
952	1310	684143	5349512	Lean sulphide, rusty weathered, gossan, iron formation - white crystaline quartz, erratic, often boudinaged, veining - random, finely disseminated pyrite, trace chalcopyrite
953	330	684108	5349513	Lean sulphide, rusty weathered, gossan, iron formation - trace disseminated pyrite in quartz - host mafic tuff is schistose with very fine random disseminated pyrite - white crystalline quartz in veins and stringers
954	510	684075	5349509	set of quartz stringers and veinlets - rusty weathered, schistose host rock - trace pyrite
955	190	684036	5349494	set of quartz banded veining - rusty weathered, schistose host rock - very fine pyrite in pseudo bands - sample is magnetic to strongly magnetic locally, probably pyrrhotite, fine grained magnetite in bands also
956	520	684020	5349474	set of fine erratic stringers and veinlets of quartz - rusty weathered schistose host rock - quartz is sugary and granular - host non magnetic
957	<2	683921	5349397	crystaline quartz, veinlets and stringers - rusty weathered, vuggy host, non-magnetic
958	<2	683897	5349389	white crystaline quartz veining - dark (chloritic?) fracture lining, non-magnetic - rusty weathered, schistose host rock
959	<2	683818	5349347	Two samples along the same zone (east and west) - host is schistose, micaceous, rusty weathered, non-magnetic
960	<2	683818	5349347	- white crystaline quartz veining package with no observable sulphides

#### **DISCUSSION**

The geology of the showing conforms to the description by Tilsley (1987). The shearing/lean iron formation exists either on the contact, or in close proximity to the contact of massive mafic volcanics to the north, and mafic tuffs to the south.

Although abundant quartz veining was found within the shearing of the McVeigh creek showing, the amount of sulphide content was minimal. Tilsley (1987) described the rock as a lean iron formation. The author found the rock to be very lean in sulphide content. Trace to minor pyrite was witnessed in most locations, with trace pyrrhotite and trace chalcopyrite and fine magnetite being noted in one location.

The best assay value returned from the grab sampling was 1310 ppb Au from one of the samples in the furthest east portion of the showing.

The best historical assays from chip sampling of the far eastern end of the showing returned 2.432 gpt Au over approximately 2.0 meters for a length of 15 meters. At that time the showing had been freshly stripped and washed. Currently, the showing has abundant slumped overburden and dead-fall, limiting the amount of visible bedrock.

#### **CONCLUSIONS and RECOMMENDATIONS**

The McVeigh creek showing appears to exhibit strong continuity of structure and quartz veining along strike. Unfortunately, the gold content within the quartz veining/ lean iron formation appears to be minimal on surface.

Cleaning of the historical stripped areas and trenches would provide much improved areas for sampling, however, it is not likely that any assayed sections would prove to be better than historical results (best historical result- Noranda 1981- 0.13 opt Au over 4.5 feet from a single location) obtained from a far better exposure of the zone.

The author is familiar with a number of gold showings in the Goudreau Lake Deformation Zone which exhibited minimal values on surface, but returned higher grade gold assays at depth. For that reason the author would recommend a limited diamond drill program to test the showing on a number of sections. The author envisions four sections on 15 meter centers with two holes per section designed to intersect the zone at depths of 15 and 30 meters below surface, for a total of 300 meters diamond drilling. The approximate cost of the program would be \$45,000.

#### **REFERENCES**

Bruce E. L. Geology of the Goudreau-Lochalsh Area, Forty-Ninth Annual

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Unknown Diamond Drill Log, Noranda Exploration, 1982

#### CERTIFICATE OF AUTHOR

I, Bruce Alexander Edgar, Honors BSc., P. Geo, do hereby certify that: I am currently employed as a Consulting Geologist residing at: 5782 Highland Avenue, Niagara Falls, Ontario, L2G-4X4

I graduated with an Honors Bachelor of Science Degree in Geological Sciences from Brock University in 1981.

I am a practising member of the Association of Professional Geoscientists of Ontario (Registration Number 2018).

I have worked as a geologist for over 30 years since graduation from Brock University. My experience includes conception, planning/budgeting, implementation and completion of numerous surface geological, geophysical, geochemical programs, and underground programs on many properties for numerous Exploration and Mining companies. The work has included the writing of project reports and technical reports.

This report is <u>not</u> an NI 43-101 technical report. This Report has been completed for First Minerals Exploration Ltd., to provide summary data on the prospecting program on the "McVeigh Creek" property, claim 4279213 in Aguonie Township, Ontario, and to act as a tool to plan future exploration activities.

I have had prior involvement with the Goudreau – Lochalsh- Missinable area having worked as a geologist for a number of companies on claims in the area over the past 30 years.

I have received no compensation for this report other than normal consulting fees.

Dated this 28<sup>th</sup> day of November, 2017.

Bruce Edgar, Honors BSc, P. Geo.

# Appendix 1

Swastika Laboratories Certificate of Assay



# Swastika Laboratories Ltd

Assaying - Consulting - Representation

Page 1 of 1

### Assay Certificate

Certificate Number: 17-3099

Company:

Bruce Edgar

Project:

**ABOTOSSAWAY** 

Report Date:

16-Nov-17

Attn: BRUCE EDGAR

We hereby certify the following Assay of 20 rock/grab samples submitted 30-Oct-17 by BRUCE EDGAR

Sample Number	Au FA-MP PPb	Au Chk FA-MP PPb	
951	360		
952	1310		)
953	330		/
954	510		/
955	190		(
956	520		> Meveigh Creek
957	< 2		J. E. E. K.
958	< 2		
959	≤ 2		
960	< 2	€ 2	
Blank Value	< 2		
0×H122	1200		
961	< 2		
962	< 2		
963	< 2		CLAIM 4279211
964	< 2		7 CERIM HELLIELL
965	€ 2		1
966	€ 2		
967	30	and the first parties of the contract of the	-
968	< 2		
			S CLAIM 4272677
969	10		\$
970	20	20	J

Certified by

Valid Abu Ammar

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0 Telephone (705) 642-3244 Fax (705) 642-3300