**Technical Report** 

on the

Eastchester-Fabie-Trudeau Property

NTS Sheets 32F11 and 32F06 48.46° N. Lat., 79.26 ° W. Long.

for

**Beyond Minerals Inc.** 

Ву

Mark Fekete, P.Geo.

Effective Date, August 31, 2021 (Revised January 10, 2022)



# **Table of Contents**

Tabl	e of C	ontentsii
List o	of Figu	iresiii
List o	of Tab	<i>les</i> iv
Ехес	utive	Summary v
Cert	ificate	of Author, Date and Signature Pageix
1.	Intro	duction1
	1.1.	Issuer1
	1.2.	Qualifications and Extent of Involvement of Qualified Persons1
	1.3.	Terms of Reference and Purpose of Report1
	1.4.	Sources of Information1
	1.5.	Effective Date
	1.6.	Definitions and Units2
2.	Relia	nce on Other Experts
3.	Prop	erty Location and Description3
	3.1.	Location
	3.2.	Property Description
	3.3.	Nature of Title
	3.4.	Environmental Liabilities
	3.5.	Permits and Authorizations7
	3.6.	First Nation Communications
	3.7.	Other Significant factors and Risks
4.	Acce	ssibility, Local Resources, Infrastructure, Climate and Physiography
	4.1.	Accessibility
	4.2.	Local Resources and Infrastructure
	4.3.	Climate
	4.4.	Physiography9
5.	Histo	ry9
	5.1.	Eastchester Previous Work
	5.2.	Fabie Previous Work
	5.3.	Trudeau Previous Work
6.	Geol	ogical Setting and Mineralization
	6.1.	Regional Geology



	6.2.	Local Geology	. 14
	6.3.	Eastchester Property Geology and Mineralization	. 15
	6.4.	Fabie Geology and Mineralization	. 17
	6.5.	Trudeau Geology and Mineralization	. 20
7.	Depo	osit Types	.21
	7.1.	Orogenic Gold-type	.21
	7.2.	Volcanic Massive Sulphide-type Base and Precious Metals	. 22
8.	Explo	pration	. 23
9.	Drilli	ng	. 24
10.	Sam	ole Preparation, Analyses and Security	. 24
11.	Data	Verification	.24
	11.1	Data Review	.24
	11.2	Site Visit	. 25
14.	Requ	irements for Advanced Properties	. 30
14. 15.	Requ Adja	irements for Advanced Properties	. 30 . 30
14. 15.	Requ Adja 15.1	irements for Advanced Properties cent Properties Relevant Information	. 30 . 30 . 30
14. 15.	Requ Adja 15.1 15.2	irements for Advanced Properties cent Properties Relevant Information Duparquet, Duquesne, and Pitt Projects	.30 .30 .30 .30
14. 15.	Requ Adja 15.1 15.2 15.3	irements for Advanced Properties cent Properties Relevant Information Duparquet, Duquesne, and Pitt Projects Fabie Bay and Magusi River	.30 .30 .30 .30 .30
14. 15. 16.	Requ Adja 15.1 15.2 15.3 Othe	irements for Advanced Properties cent Properties Relevant Information Duparquet, Duquesne, and Pitt Projects Fabie Bay and Magusi River r Relevant Data and Information	.30 .30 .30 .30 .31 .31
<ol> <li>14.</li> <li>15.</li> <li>16.</li> <li>17.</li> </ol>	Requ Adja 15.1 15.2 15.3 Othe	irements for Advanced Properties cent Properties Relevant Information Duparquet, Duquesne, and Pitt Projects Fabie Bay and Magusi River r Relevant Data and Information pretation and Conclusions	.30 .30 .30 .30 .31 .31 .31
14. 15. 16. 17.	Requ Adja 15.1 15.2 15.3 Othe Inter 17.1	irements for Advanced Properties cent Properties Relevant Information Duparquet, Duquesne, and Pitt Projects Fabie Bay and Magusi River r Relevant Data and Information pretation and Conclusions	.30 .30 .30 .31 .31 .31 .31
14. 15. 16. 17.	Requ Adja 15.1 15.2 15.3 Othe Inter 17.1 17.2	irements for Advanced Properties cent Properties Relevant Information Duparquet, Duquesne, and Pitt Projects Fabie Bay and Magusi River r Relevant Data and Information pretation and Conclusions Overall	.30 .30 .30 .31 .31 .31 .31 .31
14. 15. 16. 17.	Requ Adja 15.1 15.2 15.3 Othe Inter 17.1 17.2 17.3	irements for Advanced Properties	.30 .30 .30 .31 .31 .31 .31 .31 .31
14. 15. 16. 17.	Requ Adja 15.1 15.2 15.3 Othe Inter 17.1 17.2 17.3 17.4	irements for Advanced Properties	.30 .30 .30 .31 .31 .31 .31 .31 .32 .32
<ul><li>14.</li><li>15.</li><li>16.</li><li>17.</li><li>18.</li></ul>	Requ Adja 15.1 15.2 15.3 Othe Inter 17.1 17.2 17.3 17.4 Reco	irements for Advanced Properties	.30 .30 .30 .31 .31 .31 .31 .31 .32 .32 .33

# **List of Figures**

Figure 1: Property location	3
Figure 2: Eastchester block	5
Figure 3: Fabie block	5
Figure 4: Trudeau block	6
Figure 5: Duparquet, Québec monthly climate graph (Natural Resources Canada, 2020)	9
Figure 6: Regional geology	13
Figure 7: Local geology (after SIGÉOM, n.db)	14
Figure 8: Blake River Group - Misema Mega-caldera (after Pearson & Daigneault, 2009)	15
Figure 9: Eastchester property geology (after SIGÉOM, n.db)	17



Figure 10: Fabie property geology (after SIGÉOM, n.db)	18
Figure 11: Fabie 2017 IP-RES survey (after Simard, 2017)	19
Figure 12: Trudeau property geology (after SIGÉOM, n.db)	20
Figure 13: Greenstone-hosted quartz-carbonate vein-type (after Dubé & Gosselin, 2007)	22
Figure 14: Schematic of classic VMS deposit cross-section (after Galley et al. (2007)	23
Figure 15: Eastchester sample locations 2021	27
Figure 16: Fabie sample locations 2021	27
Figure 17: Eastchester photos of samples and features	28
Figure 18: Fabie photos of samples and features	29

## **List of Tables**

Table 1: Abbreviations	2
Table 2: Mineral titles	4
Table 3: Summary of exploration history on or adjacent to Property	
Table 4: Previous drill holes on or adjacent to Property	
Table 5: Sample results 2021 site inspection	
Table 6: Cost estimate two-phase exploration program	



### **Executive Summary**

### General

This technical report (the "Report") on the Eastchester-Fabie-Trudeau Property (the "Property") was prepared for Beyond Minerals Inc. ("Beyond" or the "Issuer") by Mark Fekete, P.Geo. ("Mr. Fekete" or the "Author"). The Report was written according to the criteria of the Canadian Securities Administrators' National Instrument 43-101 *Standards of Disclosure for Mineral Projects* policy ("NI43-101"). The Author is an independent "Qualified Person" under the terms and definitions of NI43-101. It is understood that this Report may be filed by the Issuer with the Author's consent on the System for Electronic Document Analysis and Retrieval (SEDAR) as part of its public disclosure of material technical information about the Property to support corporate financial initiatives.

The purpose of this Report is to provide the Issuer with an independent technical review of historical and current exploration work on the Property, an evaluation of the exploration potential and recommendations for further exploration.

The Author completed a comprehensive review and analysis of the reports and data provided by the Issuer as well as publicly available assessment reports by previous workers on or in the vicinity of the current Property, an evaluation of the geology underlying the Property, a comparison of the Property to adjacent properties and a two-day site inspection. The Author prepared and is responsible for all sections of the Report. The Author has not relied on another expert who is not a Qualified Person.

As of the "Effective Date" of August 31, 2021 (revised January 10, 2022), the Author is not aware of any other additional information or explanation necessary to make this Report more understandable and not misleading.

### **Location and Property Description**

The Property is centered approximately at 48.46° North Latitude and 79.26° West Longitude on NTS sheets 32D/06 and 32D/11 in the municipalities of Rouyn-Noranda and Duparquet in the Abitibi Region of Western Québec (Figure 1). It includes the 8-claim (192.15ha) Eastchester block (Figure 2), the 20-claim 833.09ha Fabie block (Figure 3) and the 9-claim (359.63ha) Trudeau block (Figure 4). The 37 mineral claims (Table 2) that constitute the Property are held 100% by the Issuer subject only to a 1.0% NSR production royalty held by Reyna Silver Corp. Except for routine work permits and authorizations, the Property is not subject to any environmental liabilities or any other significant factors and risks that may affect access, title, or the right or ability to perform work on the Property.

### Accessibility, Local Resources, Infrastructure, Climate and Physiography

The Property is located 30km north of the City of Rouyn-Noranda where multiple geological consultants, geophysical contractors, drilling companies, and assay laboratories have offices. The Abitibi Region is a world class mining district with excellent infrastructure including a network of paved highways and gravel logging roads, hydro power, water, etc. The Eastchester and Fabie blocks are easily accessible via four-season gravel logging roads that are connected to the paved highway network. Access to the Trudeau block is more difficult but a logging road passes within 750m of the northeast corner of the block. Weather conditions in the region are generally pleasant (Figure 5) and do not prevent work on the Property at any time during the year except during the brief Spring break-up and Fall freeze-up periods. The landscape is generally flat with infrequent, rounded bedrock hills with less than 50 to 60 metres of relief. It is covered by a typical boreal forest with numerous wet, swampy areas in low-lying places. Much of the forest cover is second growth after clear-cut logging.



### History

The Duparquet area has a rich history of exploration and mining going back to the early 20th century. Traditionally, most exploration focused on gold mineralization along the Destor Porcupine Deformation Zone (DPDZ) with lesser efforts for base metals south of the DPDZ. The Beattie, Donchester and Duquesne gold deposits along the DPDZ were mined from the mid-1930s to the mid-1950s. South of the DPDZ, the Fabie Bay copper mine was mined briefly from 1976 to 1977, and a base metal resource was estimated for the Magusi River copper deposit in 2012.

Exploration has been done intermittently on the Property for the last 75 years (Table 3). The Eastchester block saw drilling in the mid-1940s and again in the mid-1980s. Surface work on Fabie commenced in the late 1970s with limited drilling done in late-1980s. The Trudeau block saw continuous drilling from the early 1970s to the mid-1980s with little work reported since then. A total of 30 holes are documented on the Property (Table 4) with most drilled on the Trudeau block.

### **Geology Setting and Mineralization**

The Property lies within the Archean Abitibi Greenstone Belt adjacent to the DPDZ (Figure 6). This regional scale structure defines the major collisional contact between the older volcanic arc of the Northern Volcanic Zone (NVZ) and the younger arc segments of the Southern Volcanic Zone (SVZ). The Eastchester block lies north of the DPDZ within the NVZ and is underlain by basalt flows and related gabbro sills belonging to the Deguisier Formation of the Kinojévis Group (Figure 9). These rocks are crosscut by several northeast trending shear zones that may be splays off the DPDZ. The layered rocks are east-trending, dip steeply north and are overturned with tops facing south.

Both the Fabie (Figure 10) and Trudeau (Figure 12) blocks lie south of the DPDZ within the SVZ. They are underlain by several sub-units of the Duprat-Montbray Formation (DMF) including massive to weaklybanded, pale green rhyolite flows with thin fragmental and flow-top breccias overlain by a monotonous sequence of massive, pale green andesite flows alternating with dark green, vesicular, often pillowed, more mafic flows. On the Fabie property the DMF rocks have been intruded by the synvolcanic, quartz-feldspar porphyry Fabie Pluton. The DMF units are generally east-trending and dip steeply south with tops up and belong to the lower part of the Black River Group on the outer margins of the Misema Mega-Caldera (Figure 7). This giant feature is marked by semi-continuous, concentric diorite intrusions that were injected into ring fractures following collapse of the Misema (Figure 8). At the property scale they occur as semi-conformable sills subparallel to DMF layers, and crosscutting dykes and small plugs that cut both the DMF rocks and the Fabie Pluton. Structurally the Fabie block is crosscut by the regional scale Fabie Bay Shear Zone and by numerous NNE-trending brittle faults. Trudeau lies south of the regional scale Alembert Shear Zone. Underlying the block itself are numerous ENE-trending, steeply-dipping, shear-type faults generally localized along the margins of diorite sills. There is also a set of NNW-trending brittle faults that imbricate the DMF layers.

Mineralization observed on Eastchester consists of fine disseminated sulphides localized on pillow selvages and shear zones. Analysis of four grab samples of this mineralization type collected by the Author yielded no significant results (Table 5, Figure 15). Several holes drilled in mid-1940s at the "Eastchester" showing intersected an east-trending, north-dipping, brecciated zone with narrow quartz veins and disseminated pyrite and arsenopyrite. The best reported intercept was 1.33gpt Au over 12.2m from 179.8m. This zone has never been located on surface and has not been verified by recent drilling.



Mineralization on the Fabie block includes narrow, gold-bearing quartz-carbonate veinlets in weakly sheared, Fabie Pluton quartz-feldspar porphyry. The "Lac Fabie Nord" showing was discovered by prospecting in 1986 with initial results of 1.03 to 2.09gpt Au. In 1987, this new showing was mechanically stripped and systematically channel sampled with best values reported of 1.2gpt over 0.9m and 1.4gpt over 1.0m. Two drill holes in 1988 intersected 0.50gpt Au over 0.4m from 25.6m and 3.00gpt Au over 0.3m from 87.0m. In 2017 these historical results were confirmed by nine significant assays ranging from 0.14 to 2.82gpt Au returned from a total of 57 grab samples collected from the Lac Fabie Nord showing by Trudeau Gold Ltd., a predecessor to the Issuer. The Author again confirmed historical results with three of four grab samples with values greater than 0.50gpt Au up to a maximum of 3.19gpt Au (Table 5, Figure 16). Trudeau Gold also found the "Fabie NW" showing where five grab samples returned values from 0.13 to 2.40gpt Au. The Author obtained 0.69gpt Au at this site from a single grab sample (Table 5, Figure 16). An induced polarization-resistivity survey in 2017 detected chargeability anomalies at both these sites as well as several anomalies further south related to disseminated sulphide mineralization along contacts within the DMF (Figure 11).

Previous drilling along the southern boundary of the Trudeau block was focused on the "Anaconda Tuff". Although copper and zinc mineralization has frequently been intersected, no sizable deposit has ever been found within this unit. Gold up to 8.2gpt Au has also been reported at the Trudeau showing in the northwest corner of the block. The Author did not visit this block during his site inspection.

### **Deposit-types**

The Property has potential for both orogenic gold-type and volcanogenic massive sulphide-type (VMS) base metal and/or gold-rich base metal deposits. It is located only 35km north of the world class Noranda VMS mining camp. The project area is traversed by the regional scale DPDZ structure that is spatially and genetically related to hundreds of lode gold occurrences including the giant Timmins-Porcupine gold camp 100 kilometres west and locally the former Beattie, Donchester and Duquesne goldmines.

## **Exploration and Drilling**

Trudeau Gold Inc. started work on the current Property in early 2017 with a compilation of historical data and a geological reconnaissance prospecting program on all three blocks involving the collection of 148 grab samples, followed by line-cutting and IP-RES surveys over the eastern part of the Fabie block. The total cost of this work was \$171,668.02. In 2018, Trudeau Gold changed its name to Century Metals Inc. and engaged SRK Consulting (Canada) Inc. to complete an independent technical report on the Property. In 2020, Century changed its name to Reyna Silver Corp. and in 2021 Reyna transferred the Property to the Issuer. No drilling has been completed since the initial mineral titles were acquired in 2016.

### Sample Preparation, Analyses and Security, and Data Verification

It is the Author's opinion that the sample preparation, security, and analytical procedures followed by the Issuer are adequate for the level of exploration conducted on the Property, and that the Issuer's data is adequate for the purposes used in this Report.

Samples the current Property were collected using sample preparation, analyses, security and verification procedures that follow generally accepted industry standards. The analytical results are considered reliable for the level of exploration. These procedures included the use of independent, certified testing laboratories and routine insertions of blank, certified standard and duplicate control samples at regular intervals into sample batches. No extreme variances were detected in the control samples and no discrepancies were found upon inspection of copies of the assay certificates.



The Author completed a comprehensive technical review and did a two-day site inspection of the Eastchester and Fabie blocks. Due to access issues the Trudeau block was not inspected. Nine grab samples and two QAQC samples were collected as part of the site visit (Table 5).

#### **Adjacent Properties**

Relevant material concerning any adjacent properties included in this Report is limited to information publicly disclosed by the owner or operator for the adjacent property. The Author has not independently verified such information. Past production, mineral reserves, resources or occurrences on adjacent properties are not necessarily indicative of the mineralization on the Property.

The Duparquet, Duquesne and Pitt projects, held by First Mining Gold Corp., are all orogenic-type gold properties related to the DPDZ like the Eastchester block. The Duparquet project includes the former Beattie and Donchester gold mines that together produced 1,364,271 ounces gold and 336,815 ounces of silver from 1932 to 1956. The former Duquesne gold mine produced 37,600 ounces gold from 1949 to 1952. All three projects have seen extensive recent drilling and have NI43-101 resource estimates filed on SEDAR: in 2018 for Duparquet, in 2011 for Duquesne and in 2017 for Pitt.

Fabie Bay and Magusi River, two classic VMS deposits held by Globex Mining Enterprises Inc., are about one kilometre apart, and are located approximately three kilometres north of the Fabie block and nine kilometres west of Trudeau. Fabie Bay saw limited copper production in the mid-1970's and a NI43-101 resource was estimated for Magusi River in 2012.

#### **Interpretation and Conclusions**

The Property is at an early stage of exploration and is not considered to be an advanced project. The Property lies in the renowned Abitibi mining district adjacent to numerous base metal and gold deposits, many of which have been or are currently being mined. Potential exists for orogenic-type gold and VMS base metal and/or gold-rich base metal deposits. The claims blocks are relatively easy to access. The Author is not aware of any significant risks or uncertainties to prevent further exploration of the Property.

The Eastchester block has potential for orogenic gold-type mineralization based on its location just north of the DPDZ. Trudeau is a VMS target based on its similar stratigraphic position to the Fabie Bay and Magusi River copper deposits located nine kilometres west. Fabie lies only three kilometres south of these deposits and is crosscut by the Fabie Bay Shear zone upon which these deposits are localized. It therefore has good potential for VMS mineralization. Work to date, however, suggests that Fabie has more potential for gold mineralization related to quartz-carbonate veins in the Fabie Pluton.

#### Recommendations

The Eastchester-Fabie-Trudeau property merits further exploration. A two-phase exploration program is recommended to identify, prioritize and test exploration targets on each of the three claim blocks with an emphasis of the Fabie block. Phase I of the proposed program consists of data compilation and digitization, airborne MAG and TDEM geophysical surveys, prospecting and sampling on all three blocks, and a soil geochemical survey over the existing grid and trenching and structural mapping at the Lac Fabie Nord and Fabie NW showings on the Fabie block. Phase II consists of drilling on Fabie. The proposed expenditures, including 10% for contingencies, are estimated as \$155,320 for the first phase of exploration and \$247,500 for the second. Phase II is contingent upon positive results obtained in Phase I. Assuming both phases are fully completed, the total estimated cost is \$402,820.



## Certificate of Author, Date and Signature Page

I, Mark Fekete P.Geo. do hereby certify that:

- a) I am an independent Professional Geologist operating as Breakaway Exploration Management Inc. at business address 4281, rue St-Hubert, Montréal, Québec;
- b) I prepared and I am responsible for the contents of all sections of this technical report (the "Report") entitled "Technical Report on the Eastchester-Fabie-Trudeau Property, NTS Sheets 32D/06 and 32D/11, 48.46° N. Lat., 79.26 ° W. Long., for Beyond Minerals Inc." with an effective date of August 31, 2021;
- c) I obtained a Bachelor of Science Degree in Geology from the University of British Columbia in 1986, I have been engaged as a Geologist continuously since 1986 and I am a Member in good standing of the Order of Geologists of Québec (OGQ #553) and the Engineers and Geoscientists British Columbia (EGBC #31440), and I am a "Qualified Person" as that term is defined in Section 1.1 in and for the purposes of National Instrument 43-101, *Standards of Disclosure for Mineral Projects* ("NI 43-01");
- d) I inspected the Eastchester-Fabie-Trudeau Property (the "Property") most recently over two days on July 20 and July 25, 2021;
- e) I am "independent" of Beyond Minerals Inc. (the "Issuer") as that term is defined in Section 1.5 in and for the purposes of NI 43-01; pursuant to Companion Policy 43-101CP "Guidance on Independence - Section 1.5", I hold no direct or indirect interest, nor do I expect to receive any direct or indirect interest in the Property or any adjacent properties; I hold no direct or indirect interest, nor do I expect to receive any direct or indirect interest in the capital of the Issuer or any company with property adjacent to the Property; and I am not an employee, insider, or director of the Issuer or any company with property adjacent to the Property;
- f) I have no prior involvement with the Property;
- g) I have read NI43-101 and this Report has been prepared in compliance with NI43-101 and according to Form 43-101F1; and
- h) at the effective date of this Report and to the best of my knowledge, information, and belief, this Report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Signed at Montréal, Québec this 31<sup>st</sup> day of August 2021 (revised January 10, 2022),

Mark Fekete, P.Geo.

MARK



## 1. Introduction

## 1.1. Issuer

This Report on the Eastchester-Fabie-Trudeau project was prepared for Beyond Minerals Inc. (the "Issuer" or "Beyond"). Beyond is incorporated under the *Canada Business Corporations Act*, has a registered office address at 30<sup>th</sup> Floor, 360 Main Street Winnipeg, Manitoba R3C 4G1, and is classified as a non-reporting, junior natural resource and mining issuer on SEDAR (n.d.). The Issuer is in the business of the identification, acquisition and exploration of metallic mineral assets.

## 1.2. Qualifications and Extent of Involvement of Qualified Persons

This Report was written by Mark Fekete, P.Geo., of Breakaway Exploration Management Inc. with a business address of 4281, rue St-Hubert, Montréal, Québec (the "Author") who holds a Bachelor of Science degree in Geology and is a registered with the *Ordre des géologues du Québec* ("OGQ") and the Engineers and Geoscientists British Columbia ("EGBC"). The Author has some 35 years of experience in mineral exploration and project management in Canada; specifically in British Columbia, Manitoba, New Brunswick, Nova Scotia, Ontario, Québec and Yukon. The Author is familiar with the mineral deposit types described in this Report. The Author is an "Independent Qualified Person" ("QP") under the terms and definitions of NI43-101.

The Author has reviewed and verified where possible historical and land tenure data, potential access to the Property, regional and local geology, mineralization, information available on adjacent deposits, and the results of work completed by the Issuer on the Property to date. The Author completed a two-day site inspection of the Property on July 20 and July 25, 2021. The Author prepared and is responsible for all sections of this Report. The Report was peer reviewed by John Langton, P.Geo. No substantial changes were made to the Author's interpretations or conclusions because of this review.

## 1.3. Terms of Reference and Purpose of Report

The Author prepared this Report according to the criteria of the Canadian Securities Administrators' National Instrument 43-101 *Standards of Disclosure for Mineral Projects* policy. It is understood that this Report may be filed by the Issuer with the Author's consent on the System for Electronic Document Analysis and Retrieval (SEDAR) as part of its public disclosure of material technical information about the Property to support corporate financial initiatives.

The purpose of this Report is to provide the Issuer with:

- a) an independent technical review of historical and current exploration work on the Property,
- b) an evaluation of the exploration potential of the Property, and
- c) recommendations for further exploration on the Property.

## **1.4. Sources of Information**

The Author has reviewed reports and analyzed data provided by the Issuer as well as publicly available assessment reports by previous workers on or in the vicinity of the current Property. The primary sources of information are the Issuer's reports on the current Property (Gan et al., 2017, Chartier, 2018 and Simard, 2017) and the *Ministère de ressources naturelles* ("MERN") *Système d'information géominière* database (SIGÉOM, n.d.-a). Specific sources of information are cited where applicable throughout the Report. SIGÉOM contains uniquely numbered assessment reports or *Gestimes Minieres* ("GM"). These reports may be cited in the Report by their GM number rather than by or by the Author, Date. The Author has taken reasonable steps to verify the information where possible.



Some of the figures and tables for this Report may be reproduced or derived from historical reports written on the Property by various individuals, government agencies, and/or supplied to the Author by the Issuer. In the cases where figures were supplied by others, they are referenced in the figure caption as to the source.

### 1.5. Effective Date

The "Effective Date" of this report is August 31, 2021 based on information known to the Author as at that date. The statements and opinions expressed in this Report are given in good faith, are not false or misleading as at the Effective Date. The Report was revised on January 11, 2022 according to comments in a letter received by the Issuer from the Manitoba Securities Commission dated on December 10, 2021.

### 1.6. Definitions and Units

This Report uses the International ("SI") system of measure but may refer to British Imperial ("Imperial") units. Most geologic publications and more recent work assessment files now use SI units but older publications and work assessment files used Imperial units of measure. When Imperial units are cited in this Report, the SI conversion is also provided in paratheses. Metal and mineral acronyms in this Report conform to mineral industry accepted usage (Whitney & Evans, 2010).

All costs contained in this report are in Canadian dollars unless otherwise stated. All coordinates are reported in the WGS84, Zone 17N datum. The terms "grab" "chip" and "channel" refer to *in situ* samples of bedrock taken for analysis. The term "float" refers to a rock that has been transported from its original bedrock source. Table 1 lists abbreviations used in this Report.

Ag, Au, Aueq	silver, gold, gold equivalent	Ga	Billion years ago
As	arsenic	Ma	Million years ago
Cu, Ni	copper, nickel	NSR	Net Smelter Returns
Cg	graphite	GPS	Geographic Positioning System
PGE	platinum group element	NAD	North American Datum
Zn	zinc	NTS	National Topographic System
E, N, S, W	East, North, South, West	UTM	Universal Transverse Mercator
%	Weight per cent	WGS84	Word Geodetic System 1984
°C	Celsius degrees	CP, EV	Compilation, Evaluation
cm	centimetre	GL, GC, GP	Geology, Geochemistry, Geophysics
ft	feet	A (prefix)	Airborne (e.g. AMAG = Airborne Magnetic)
g	gram	DHEM	Down Hole Electromagnetic
ha	hectare (10,000 m2)	EM	Electromagnetic
in	inch	GRAV	Gravity
kg	kilogram	HLEM	Horizontal Loop Electromagnetic
km	kilometre	IP-RES	Induced Polarization and Resistivity
lb	pound	MAG	Magnetic
m	metre	MT	Magnetic Telluric
t	Metric tonne	RAD	Radiometric
gpt	grams per tonne	TDEM	Time Domain Electromagnetic
opt	ounces per short ton	VLF-EM	Very Low Frequency Electromagnetic
ppb	parts per billion	VTEM™	Versatile Time Domain Electromagnetic
ppm	parts per million	DDH	Diamond Drill Hole
NI43-101	National Instrument 43-101 (Canada)	RC	Reverse Circulation
P.Geo.	Professional Geoscientist	TR	Trenching
QAQC	Quality Assurance/Quality Control	CS	Channel sampling

#### **Table 1: Abbreviations**



## 2. Reliance on Other Experts

The Author has not relied on any report, opinion or statement of another expert who is not a Qualified Person. The Author does not offer any opinion concerning the mineral titles, surface rights or any other legal, environmental, political or other non-technical issues that may be relevant to the Report.

### 3. Property Location and Description

### 3.1. Location

The mineral titles that constitute the Property are located approximately 30km northwest of the city of Rouyn-Noranda, Québec (Figure 1). The Property includes three distinct claim blocks referred to as "Eastchester" located on NTS Map sheet 32D/11 in the municipality of Rapide-Danseur, and "Fabie" and "Trudeau" located on NTS Map Sheet 32D/06 in the municipalities of Rouyn-Noranda and Duparquet respectively. The claim blocks are generally proximal to Duparquet Lake which is the most apparent geographical feature in the area. The Town of Duparquet is the nearest settlement. The geographic centre of the three claim groups is approximately at 48.46 degrees North Latitude and 79.26 degrees West Longitude.



**Figure 1: Property location** 



### **3.2. Property Description**

The Property consists of 37 mineral titles in three separate blocks. Eastchester includes eight mineral titles covering 192.15 ha (Figure 2). Fabie includes 20 mineral titles covering 833.09 ha (Figure 3). Trudeau includes nine mineral titles covering 359.63 ha (Figure 4). All mineral titles were acquired by map designation under the *Mining Act* (Québec) (the "Mining Act") and are recorded 100% to Beyond Minerals Inc., Client No. 100479 (Gestim, n.d.). The Issuer obtained the Property through a transfer agreement with Reyna Silver Corp. (2021) whereby 100% of the Property was acquired in exchange for 1,000,000 shares of the Issuer and a 1.0% NSR production royalty. To the extent known, there are no other beneficial interests in or underlying royalties against the mineral titles. A detailed list of the mineral titles is set out in Table 2.

NTS	Туре	Block	No	Expiry	Area	Excess	Work	Fees	Municipality
					(Ha)	Credit	Required	Required	
32D11	CDC	Eastchester	2457314	14-Aug-23	43.02	\$3,040.47	\$1,200.00	\$67.00	Rapide-Danseur
32D11	CDC	Eastchester	2457315	14-Aug-23	6.54	\$4,195.47	\$500.00	\$34.25	Rapide-Danseur
32D11	CDC	Eastchester	2457316	14-Aug-23	29.42	\$4,195.47	\$1,200.00	\$67.00	Rapide-Danseur
32D11	CDC	Eastchester	2457317	14-Aug-23	27.33	\$4,195.47	\$1,200.00	\$67.00	Rapide-Danseur
32D11	CDC	Eastchester	2457318	14-Aug-23	36.31	\$3,040.47	\$1,200.00	\$67.00	Rapide-Danseur
32D11	CDC	Eastchester	2457319	14-Aug-23	6.68	\$4,195.47	\$500.00	\$34.25	Rapide-Danseur
32D11	CDC	Eastchester	2457320	14-Aug-23	22.45	\$4,195.45	\$500.00	\$34.25	Rapide-Danseur
32D11	CDC	Eastchester	2457321	14-Aug-23	20.4	\$4,195.44	\$500.00	\$34.25	Rapide-Danseur
					192.15	\$31,253.71	\$6,800.00	\$405.00	
32D06	CDC	Fabie	2457306	14-Aug-23	57.14	\$4,971.91	\$1,200.00	\$67.00	Rouyn-Noranda
32D06	CDC	Fabie	2457307	14-Aug-23	57.14	\$4,516.91	\$1,200.00	\$67.00	Rouyn-Noranda
32D06	CDC	Fabie	2457308	14-Aug-23	57.14	\$14,450.75	\$1,200.00	\$67.00	Rouyn-Noranda
32D06	CDC	Fabie	2457309	14-Aug-23	57.14	\$19,250.75	\$1,200.00	\$67.00	Rouyn-Noranda
32D06	CDC	Fabie	2457310	14-Aug-23	43.99	\$4,971.91	\$1,200.00	\$67.00	Rouyn-Noranda
32D06	CDC	Fabie	2457311	14-Aug-23	15.93	\$5,671.92	\$500.00	\$34.25	Rouyn-Noranda
32D06	CDC	Fabie	2457312	14-Aug-23	15.87	\$13,743.57	\$500.00	\$34.25	Rouyn-Noranda
32D06	CDC	Fabie	2457313	14-Aug-23	15.89	\$13,743.57	\$500.00	\$34.25	Rouyn-Noranda
32D06	CDC	Fabie	2507578	06-Dec-22	57.14	\$0.00	\$1,200.00	\$67.00	Rouyn-Noranda
32D06	CDC	Fabie	2507579	06-Dec-22	57.14	\$0.00	\$1,200.00	\$67.00	Rouyn-Noranda
32D06	CDC	Fabie	2507580	06-Dec-22	57.14	\$0.00	\$1,200.00	\$67.00	Rouyn-Noranda
32D06	CDC	Fabie	2507581	06-Dec-22	57.13	\$0.00	\$1,200.00	\$67.00	Rouyn-Noranda
32D06	CDC	Fabie	2507582	06-Dec-22	57.13	\$0.00	\$1,200.00	\$67.00	Rouyn-Noranda
32D06	CDC	Fabie	2507583	06-Dec-22	57.13	\$0.00	\$1,200.00	\$67.00	Rouyn-Noranda
32D06	CDC	Fabie	2507584	06-Dec-22	15.88	\$0.00	\$500.00	\$34.25	Rouyn-Noranda
32D06	CDC	Fabie	2507585	06-Dec-22	15.9	\$0.00	\$500.00	\$34.25	Rouyn-Noranda
32D06	CDC	Fabie	2507586	06-Dec-22	37.64	\$0.00	\$1,200.00	\$67.00	Rouyn-Noranda
32D06	CDC	Fabie	2507587	06-Dec-22	37.59	\$0.00	\$1,200.00	\$67.00	Rouyn-Noranda
32D06	CDC	Fabie	2507588	06-Dec-22	37.54	\$0.00	\$1,200.00	\$67.00	Rouyn-Noranda
32D06	CDC	Fabie	2507589	06-Dec-22	25.49	\$0.00	\$1,200.00	\$67.00	Rouyn-Noranda
					833.09	\$81,321.29	\$20,500.00	\$1,176.25	
32D06	CDC	Trudeau	2454283	20-Jul-23	25.01	\$1,963.62	\$1,200.00	\$67.00	Duparquet
32D06	CDC	Trudeau	2454284	20-Jul-23	20.74	\$3,118.60	\$500.00	\$34.25	Duparquet
32D06	CDC	Trudeau	2454285	20-Jul-23	20.88	\$3,118.60	\$500.00	\$34.25	Duparquet
32D06	CDC	Trudeau	2454286	20-Jul-23	21.04	\$4,318.60	\$500.00	\$34.25	Duparquet
32D06	CDC	Trudeau	2454287	20-Jul-23	43.48	\$1,963.60	\$1,200.00	\$67.00	Duparquet
32D06	CDC	Trudeau	2505040	19-Nov-22	57.12	\$0.00	\$1,200.00	\$67.00	Duparquet
32D06	CDC	Trudeau	2505041	19-Nov-22	57.12	\$0.00	\$1,200.00	\$67.00	Duparquet
32D06	CDC	Trudeau	2505042	19-Nov-22	57.12	\$0.00	\$1,200.00	\$67.00	Duparquet
32D06	CDC	Trudeau	2505043	19-Nov-22	57.12	\$0.00	\$1,200.00	\$67.00	Duparquet
					359.63	\$14,483.02	\$8,700.00	\$504.75	· · ·

#### Table 2: Mineral titles





Figure 2: Eastchester block



Figure 3: Fabie block





Figure 4: Trudeau block

## 3.3. Nature of Title

Under the Mining Act, mineral titles give the titleholder exclusive rights to explore for minerals in the subsurface. Mineral titles may be renewed for two-year terms by filing a statutory renewal request on or before the expiry date of the mineral title if the required assessment work has been completed and required taxes paid. Excess work assessment credits may be banked and applied to adjacent mineral titles subject to certain conditions. Mineral titles renewed less than 60 days before the expiry date are subject to penalties whereby taxes are doubled. Amounts for required assessment work and taxes vary according to the size of the mineral title and its location in Québec. These amounts are subject to regulatory change at the discretion of the MERN. Currently the Property is subject to aggregate assessment work of \$36,000.00 and \$2,086.00 (Table 2). At present there is enough assessment work credits to renew all mineral titles for another two-year term.

Mineral titles do not include surface rights. Surface rights are held publicly by the Crown except in cases where private surface rights exist. Under the Mining Act, the mineral titleholder must notify the municipality and any private landholders where the mineral titles are located within 60 days of the recording date of the mineral titles. This may be done by personal notice by mail, courier or by hand delivery, or by public notice by publishing a notice in a newspaper distributed in the region where the mineral titles are located.

Under the Mining Act, the mineral titleholder must notify the municipality and any private landholders where the mineral titles are located 30 days before any work commences. This may be done by personal notice by mail, courier or by hand delivery. In the case where access is required or work is to be done on land where private surface rights exist, the mineral titleholder must obtain written authorization from the private landholder before accessing and/or working on that private land.



There are no apparent surface rights overlying the Property according to the MRC Abitibi-Ouest (n.d.) and Ville de Rouyn-Noranda (n.d.) websites. To the extent known, the Property is not subject to any surface rights.

## **3.4.** Environmental Liabilities

To the extent known, the Property is not subject to any environmental liabilities or any other significant factors and risks that may affect access, title, or the right or ability to perform work on the Property.

## 3.5. Permits and Authorizations

There are no work permits required under the Mining Act to conduct the exploration work recommended by this Report. However, certain activities on public lands require a permit from the *Ministère des forêts, de la faune et des parcs* ("MFFP") and an authorization from the *Société de protection des forêts contre le feu* ("SOPFEU").

No permits or authorizations are required for line cutting, aerial and surface surveys on public lands. A *Permis d'Intervention* is required from the MFFP for any work that involves surface impacts such as trenching, rock stripping or drilling. This permit is normally prepared by a registered forestry engineer who estimates the stumpage fees based on the volume and species of timber to be cut during the exploration work. The application form and assessed stumpage fees are submitted to MFFP and the permit is issued valid to the next March 31 following the issue date of the permit. After March 31 a closing report must be filed with a final stumpage calculation. If this calculation exceeds the original estimate, additional stumpage fees must be paid. No refunds are available if the final calculation is less than the original estimate.

Authorizations from the MFFP are also required 30 days before any work involving drilling or the circulation of heavy equipment commences in any designated wildlife habitats. Authorizations from the *Ministère de l'Environnement et de la Lutte contre les changements climatiques* ("MELCC") are also required 30 days before any work involving drilling or the circulation of heavy equipment commences in any designated wetlands.

To the extent known, none of the required permits or authorizations have been obtained.

## **3.6. First Nation Communications**

The Property is in territory covered by a consultation and accommodation agreement between the Council of the Abitibiwinni First Nation and the Province of Québec. Under this agreement the mineral titleholder is invited to contact and to keep informed the Natural Resources Secretariat of the Abitibiwinni First Nation located in Pikogan, Québec of the exploration activities it intends to carry out, and to discuss, answer questions and consider, if applicable, the concerns of the Abitibiwinni First Nation with respect to these activities. The mineral titleholder is also invited to keep the MERN informed of the content of these exchanges with the Secretariat.

## 3.7. Other Significant Factors and Risks

To the extent known, there are no other significant factors and risks that may affect access, title, or the right or ability to perform work on the Property.



## 4. Accessibility, Local Resources, Infrastructure, Climate and Physiography

## 4.1. Accessibility

Accessibility to the Property is generally very good via numerous gravel logging roads that cross or pass very close to all three blocks. These roads are passable all year long and are connected to the paved Québec provincial highway network.

The Eastchester block is easily accessible by driving approximately 35.9km north of Rouyn-Noranda via Provincial Highway 101, then approximately 6.2km west along Highway 393 and then approximately 4.1km along a gravel logging road that travels north and then east directly onto the Eastchester block (Figure 2). The departure point of this road from Highway 393 is at 636390 mE, 5373888 mN.

The Fabie block is also easily accessible by driving approximately 1.7km north from Duparquet along Highway 393, then 18.7km west along Highway 388 and then approximately 13.0km southeast on a gravel logging road locally known as the *Chemin de la Mine*. The departure point of this road from Highway 388 is 613026 mE, 5375401 mN. Just past a bridge over the Magusi River there is an intersection at 617111 mE, 5365306 mN (Figure 3) where one must turn due south to reach the Fabie block.

There is no direct road access to the Trudeau block. The Author was able to drive along a series of gravel logging roads to the northern edge of a clear-cut that is approximately 750m from the northeast corner of the block (Figure 4). The main logging road leaves Highway 393 at 635490 mE, 5373673mN roughly 9.9km west of the Highway 101 junction. From this point it is about a 10km drive south to an intersection at 638534 mE, 5367086, then about 7.5km west to a second intersection at 632227 mE, 5368562 mN and then about 2km southwest to the edge of the clear-cut at 631455 mE, 5367224 mN. The last two legs of the drive although passable are quite rough, partially flooded by shallow beaver ponds and will require light maintenance in the near term. Access to the Trudeau block by boat or snow machine from Duparquet is also an alternative for surface work but not for drilling.

## 4.2. Local Resources and Infrastructure

The Property is close enough to major service centres such that no camp needs to be built on the Property to conduct exploration programs. Duparquet, the closest community and a former mining town, is now a retirement and vacation village that offers basic services such as fuel stations, restaurants and seasonal accommodations. All parts of the Property are within a one-hour drive of Rouyn-Noranda. Exploration work based out of Duparquet or Rouyn-Noranda can be done at any time of the year. The Abitibi region is a world class mining district with full exploration services available in the main centres of Rouyn-Noranda, Val-d'Or and Amos including multiple geological consultants, geophysical contractors, drilling companies, and assay laboratories. Infrastructure in the Abitibi region is excellent with hydro power, water, etc. readily available and a widespread network of paved highways and gravel logging roads. To the extent relevant to the early stage of exploration and development of the Property, local resources and infrastructure are sufficient to complete the level of exploration work contemplated by this Report. If the Property moves into an advanced stage of mining development, there is sufficient surface area within the Property to host potential tailings storage areas, waste disposal areas, heap leach pads, and processing plant sites.

## 4.3. Climate

The climate of the project area is typical of the Northeastern Forest climatic region (Natural Resources Canada, 2020) with average low to high temperature ranges from -18°C to -11°C in January and 12°C to 24°C in July (Figure 5). The wettest month is October with average monthly precipitation of 166.1mm and



the driest month is February with 79.8mm. Average snow depth in winter is 1.0 to 1.5 metres. Weather conditions are generally pleasant and do not prevent work on the Property at any time during the year except during brief periods in the Spring during break up and in the Fall during freeze up.



Figure 5: Duparquet, Québec monthly climate graph (World Weather Online, n.d.)

## 4.4. Physiography

The project area lies within the Abitibi Uplands of the James Region of the Canadian Shield (Bostock, 2014) which extends from Chibougamau in Western Québec to Thunder Bay in Northern Ontario. The landscape of the Uplands is the result of continental glaciation and so it is generally flat with many lakes, ponds, swamps and meandering creeks in low places. Deposits of glacial till (i.e., mixed gravel, sand and clay) and lacustrine clays from ancient glacial lakes flatten the relief to a base elevation interrupted occasionally by low, rounded bedrock hills and ridges rarely more than 50 to 60 metres above the base elevation. Eskers commonly form low, sinuous, north-trending ridges often hundreds of kilometres long.

Elevations in the project area range from 250 to 350 metres above sea level with maximum relief of no more than 50 metres on each block. Much of the Property is covered by overburden consisting of gravel and sand. Occasional bedrock is exposed on low ridges and mounds. Vegetation on the Property is typical of boreal forests with mixed woods of fir, pine, spruce, aspen, birch and cedar with frequent swamps, marshes, fens and bogs bordered by thick alder and willow brush. Flooding of creeks due to beaver dams is common and often impedes access. Clear-cut logging has been ongoing for decades in the project area, so much of the forest is second or third growth.

## 5. History

Prospecting began in the Duparquet area in the early 20<sup>th</sup> century and led to the discovery of dozens of surface gold showings and eventually mining of the Beattie, Donchester and Duquesne gold deposits along the Destor Porcupine Deformation Zone (DPDZ) through to the mid 1950's. Gold exploration along the DPFZ resumed in the mid-1980's and has continued to the present day. In contrast, very little exploration was recorded in the area south of the DPFZ until 1972 following the release of an airborne electromagnetic survey (Questor Surveys Ltd., 1971) sponsored by the Québec Government that triggered a staking rush in the area. Surface work quickly led to the discovery and definition of the Fabie Bay (New Insco) and Magusi River (ISO) copper deposits. In 1974, Noranda Mines Ltd. consolidated the area through several



purchase and lease agreements, developed a production ramp to the bottom of the Fabie Bay orebody and mined copper ore from a small open pit between 1976 and 1977. Exploration south of the DPFZ area has continued sporadically to the present day with most of the work being done at the Magusi River deposit.

Table 3 summarizes historical exploration work completed on or immediately adjacent to the Eastchester, Fabie and Trudeau blocks based on a review of assessment work files, reports and geoscientific data available on SIGÉOM (n.d.-a). Table 4 lists all known drill holes with collars located on or immediately adjacent to the Property blocks.

## 5.1. Eastchester Previous Work

The first documented work on the Eastchester block dates to 1945 when Eastchester Mines Ltd. discovered the Eastchester gold occurrence by 2,622m of drilling in 14 holes to follow up surface prospecting, mapping and MAG surveys (GM00695). Three of these holes were collared on the current block (Figure 9). This discovery has apparently never been followed up. There is no further record of work on the Eastchester block until 1984 when Ressources Aunore Inc. completed mapping, prospecting and humus geochemical surveys (GM41783, GM41380 and GM44122) over its "Duparquet" property. The southern part of this property covered the area of the current block. This work identified a geochemical anomaly and numerous grab samples with weakly anomalous copper values in the southwest corner of Eastchester. Chartier (2018) refers to this area as the "Southern Sheared/Mineralized Zone". In 1987 Exploration Auronex Inc. (formerly Aunore), compiled all the Aunore data, completed IP-RES and HLEM surveys over the Southern Sheared/Mineralized Zone and tested several geophysical anomalies with four drill holes as part of a seven-hole, 932.6m drill program (GM46302 and GM46639). Three of the four holes were collared on the current Eastchester block (Figure 9). Finally, this area was included in a ground MAG survey in 2010 (GM64945) and a regional airborne MAG and TDEM survey (GM66879) both completed by Tres-Or Resources Ltd. No further work has been reported.

## 5.2. Fabie Previous Work

The first recorded work on the current Fabie block was done by Noranda Mines Ltd. as part of a larger regional exploration program around the Magusi and Fabie Bay copper deposits. In 1979 a grid was cut over the eastern part of the current block and soil Cu-Pb-Zn geochemical (GM34663), IP-RES geophysical (GM37256) and geological (GM36206) surveys were completed. The main result of this work was the detection of a linear, east-trending chargeability response at or near the present "SE Anomaly". Moderate lead and zinc anomalies in soil were also obtained over the chargeability axis. Noranda allowed its mineral claims over Fabie to lapse.

No further work was recorded until 1986 when Exploration Rambo Inc. acquired 10 mineral claims from two local prospectors upon their discovery of gold-bearing quartz veins at what is now known as the "Lac Fabie Nord" showing. In 1986 and 1987 Rambo completed line-cutting and IP-RES surveys (GM 45220), prospecting, mapping, trenching and channel sampling (GM45601), and then drilled three short holes in 1988 (GM47872). Despite encouraging results, the Rambo claims were allowed to lapse.

In 2007, part of the current Fabie block was covered by a regional airborne MAG, TDEM and RAD survey flown for First Metals Inc. (GM64444). No further work has been reported.



Year	Company	SIGEOM Ref.	Work	Citation		
Eastchester						
1945	Eastchester Mines Ltd.	GM00695	GL MAG 14 DDH	(Jenney, 1945)		
1984	Ress. Aunore Inc.	GM41380	CP EV	(G. M. Hogg, 1984)		
1985	Ress. Aunore Inc.	GM41783	GC	(G. M. Hogg, 1985)		
1986	Ress. Aunore Inc.	GM44122	GL	(Migliacci, 1986)		
1987	Expl. Aunorex Inc.	GM46302	6 DDH	(Lochon, 1987)		
1988	Expl. Aunorex Inc.	GM46639	CP EV IP HLEM	(Canova, 1988)		
2010	Tres-Or Res. Ltd.	GM64945	MAG	(Sementiou Inc, 2010)		
2011	Tres-Or Res. Ltd.	GM66879	AB MAG TDEM	(Geophysics GPR Ltd., 2011)		
Fabie						
1979	Noranda Mines Ltd.	GM34663	GC	(Hogg, 1979)		
1980	Noranda Mines Ltd.	GM36206	IP-RES	(Roy, 1980)		
1980	Noranda Mines Ltd.	GM37256	GL	(Trudeau, 1980)		
1986	Expl. Rambo Inc.	GM45220	IP-RES	(SAGAX Géophysique Inc., 1986)		
1987	Expl. Rambo Inc.	GM45601	GL PR TR	(Cadieux, 1987)		
1988	Expl. Rambo Inc.	GM47872	3 DDH	(Lacroix, 1988)		
2007	First Metals Inc.	GM64444	AB MAG TDEM RAD	(Aeroquest Ltd., 2007)		
Trudeau						
1968	Anaconda Amer. Brass Ltd.	GM25345	GL	(Jones, 1968)		
1968	Anaconda Amer. Brass Ltd.	GM23807	GL	(Kwak & Barker, 1968)		
1970	Anaconda Amer. Brass Ltd.	GM26461	19 DDH	(Warren, 1970)		
1971	Anaconda Amer. Brass Ltd.	GM27285	11 DDH	(Warren, 1971)		
1974	Anaconda Amer. Brass Ltd.	GM30287	9 DDH	(Wallis, 1974)		
1975	Cominco Ltd.	GM31191	8 DDH	(Samis, 1975a)		
1975	Cominco Ltd.	GM31639	3 DDH	(Samis, 1975b)		
1982	Noranda Expl. Co. Ltd.	GM39500	GL PR	(Trudeau, 1982)		
1983	Noranda Expl. Co. Ltd.	GM40557	DHEM	(Allard, 1983)		
1983	Noranda Expl. Co. Ltd.	GM40904	HLEM	(Exploration Services Enrg., 1983)		
1984	Noranda Expl. Co. Ltd.	GM41346	1 DDH	(Trudeau, 1984)		
1999	Morissette/O'Connor	GM57167	IP-RES	(Val-d'Or SAGAX Inc., 1999)		

#### Table 3: Summary of exploration history on or adjacent to Property



Hole No.	Year	GM File	UTM mE	UTM mN	Azi.°	Dip°	Depth m	MT m
Eastchester				_			<u> </u>	
4	1945	GM00695	637995	5375448	180	45	302	?
7	1945	GM00695	638620	5375539	180	35	280	2
14	1945	GM00695	638577	5375505	180	50	255	2
015-87-01	1987	GM46302	638033	5375809	315	45	161	4
015-87-02	1987	GM46302	638186	5375603	360	45	137	1
015-87-03	1987	GM46302	638475	5375679	360	45	124	2
015-87-04	1987	GM46302	638756	5376099	360	45	133	10
Fabie								
LF 88-01	1988	GM47872	618371	5363952	171	45	152	1
LF 88-02	1988	GM47872	618203	5363901	207	45	157	2
LF 88-03	1988	GM47872	618028	5363216	207	45	151	3
Trudeau								
1	1970	GM26461	629640	5365852	30	45	31	6
2	1970	GM26461	629877	5365745	210	45	31	10
D-3	1974	GM30287	628371	5365837	360	45	183	4
D-4	1974	GM30287	629410	5365881	20	54	91	6
D-5	1974	GM30287	629391	5365834	20	45	112	8
D-14	1975	GM31191	628735	5365890	360	51	198	5
3	1970	GM26461	630035	5365645	210	45	30	3
4	1970	GM26461	630162	5365595	200	45	31	2
5	1970	GM26461	630312	5365499	195	45	52	7
6	1970	GM26461	630506	5365440	20	45	22	12
7	1970	GM26461	630503	5365420	360	45	60	9
8	1970	GM26461	630689	5365427	360	45	31	2
17	1970	GM26461	629885	5365760	210	45	39	5
18	1970	GM26461	629750	5365787	30	60	36	3
19	1970	GM26461	629899	5365784	210	65	205	4
20	1970	GM26461	630699	5365361	350	60	154	1
31	1971	GM27285	630492	5365373	360	60	177	18
33	1971	GM27285	630679	5365290	360	70	268	4
34	1971	GM27285	630699	5365226	30	70	372	1
AN-84-1	1984	GM41346	630365	5365175	20	60	351	8

#### Table 4: Previous drill holes on or adjacent to Property

### 5.3. Trudeau Previous Work

Most of the previous exploration completed on or near the Trudeau block occurred during the 1960s and 1970s. This work consisted primarily of drilling geophysical targets for VMS copper-zinc mineralization. This work was carried out initially by Anaconda American Brass Ltd. in 1970 and 1971 (GM25345, GM23807, GM26461, GM27285 and GM30287), then under option to Cominco Ltd. 1974 and 1975 (GM31191 and GM31639) and finally under option to Noranda Exploration Co. Ltd. from 1982 to 1984 (GM39500, GM40557, GM40904 and GM41346). A total of 53 drill holes were drilled by these companies to test the "Anaconda Tuff": a hyaloclastite unit found along the rhyolite/andesite contact that closely follows the southern boundary of the block. Of these holes, 20 were drilled on or immediately adjacent to Trudeau (Table 4). Although many disseminated copper-zinc sulphide intervals were intersected, no mineralization of economic interest was discovered by these drilling campaigns. Eventually the Anaconda mineral claims were allowed to lapse.

In 1982, Noranda reported 2.04% Cu and 8.90gpt Au from a grab sample of disseminated sulphide mineralization found on the margin of a block of rhyolite within an andesite flow (GM39500) in the northwest corner of the current Trudeau block (Figure 12). Noranda reported no further work at this site known as the "Trudeau" showing. In 1999, local prospectors Morissette and O'Connor staked the area of the Trudeau showing and completed an IP-RES survey (GM57167). No further work has been reported.



## 6. Geological Setting and Mineralization

## 6.1. Regional Geology

The Property lies within the Abitibi Sub-province (Figure 4) of the Superior Province of the Canadian Shield. The so-called Abitibi Greenstone Belt consists primarily of granitic intrusive rocks (~50%), felsic to ultramafic volcanic rocks (~40%) and sedimentary rocks (~10%) that have been mostly altered to greenschist facies metamorphic grade. Several anorthosite and ultramafic intrusive complexes have also been identified. These intrusions and layered rocks are all Archean and are cut by Proterozoic diabase dykes that were emplaced episodically at various orientations.

A network of Archean, regional scale, ductile to brittle-ductile deformation zones generally oriented, in chronological order, east to west, northwest and northeast divide the Abitibi Greenstone Belt into a mosaic of lozenge-shaped domains or terranes. These faults can be from several kilometres to several hundreds of kilometres long and are for the most part vertical or steep north dipping and are marked by intense schistosity that diminishes rapidly outside the limits of the fault zone. Foliations within the fault zones are often very complex and reflect several periods of movement and deformation.

Numerous geotectonic models have been proposed to explain the magmatic and tectonic evolution of the Abitibi Greenstone Belt. A model analogous to Phanerozoic orogenic processes is now generally accepted involving successive mobile collisions of volcanic island arcs and accretions of sedimentary basins from south to north (Chown et al., 1992).



Figure 6: Regional geology



### 6.2. Local Geology

The project area staddles the Destor Porcupine Deformation Zone (DPDZ). This regional scale structure defines the major collisional contact between the older volcanic arc of the Northern Volcanic Zone (NVZ) and the younger arc segments of the Southern Volcanic Zone (SVZ) based on distinct volcano-sedimentary successions, related plutonic suites, and precise U-Pb age determinations described by Chown et al. (1992). The Eastchester block lies north of the DPDZ within the NVZ, whereas the Fabie and Trudeau blocks lie south of the DPDZ within the SVZ (Figure 7). The DPDZ is very complex with multiple parallel, divergent, convergent and splay structures along its length locally showing recumbent folding, thrusting or dip-slip movement and strike-slip or transcurrent movement (Mueller et al., 1996).



Figure 7: Local geology (after SIGÉOM, n.d.-b)

In the Duparquet area there is a band approximately two kilometres wide just north of the DPDZ that is occupied by a complex mélange of numerous thin turbidite, sedimentary and volcaniclastic formations, various small felsic intrusions and several small ultramafic ophiolites. This is typical of collisional volcanic arc boundaries. Moving southeast this band opens into a wider, less complex sedimentary arc basin. The areas north of this band are underlain by a more stable volcanic succession dominated by mafic to intermediate volcanic flows and related gabbro sills and dykes with lesser volcaniclastic sequences. The general trend of the rock units north of the DPDZ is east to southeast. The area south of the DPDZ is underlain by a bi-modal volcanic complex defined by a concentric sequence of intermediate to mafic volcanic formations tens of kilometres wide alternating with narrower felsic volcanic formations (Figure 7). Within these layered volcanic formations there are a wide range of flows, flow breccias and pyroclastic rocks that define multiple strata domes with peripheral accumulations of subaqueous volcaniclastics. These volcanic rocks are all cut by a radial and concentric pattern of synvolcanic mafic to intermediate dykes.



This extensive volcanic complex is called the Blake River Group (BRG) and extends for 140km from Québec in the east to Ontario in the west and is 40km at its widest point north to south (Figure 6). The DPDZ forms the sharp north boundary of the BRG, and the Cadillac Larder Lake Deformation Zone (CLLDZ) truncates the BRG to the south. The BRG has been recently classified by Pearson & Daigneault (2009) as a subaqueous mega-caldera consisting of three successive caldera-forming events referred to as the early 3,000 km<sup>2</sup> Misema mega-caldera, the younger 490 km<sup>2</sup> New Senator caldera and the final 300 km<sup>2</sup> Noranda caldera (Figure 8). The Noranda caldera, variously referred to as the Noranda complex, Noranda volcanic complex and the Noranda cauldron, is well known for its world class gold-rich, base metal deposits including the giant Horne Mine. Due to its economic importance, it has been studied and explored extensively and there is a daunting body of research papers dealing with it. Monecke et al. (2008) provides an excellent summary of its geological setting that includes a thorough synopsis of the research that over several decades has contributed to the present understanding of the Noranda caldera.

The Fabie and Trudeau claim blocks lie on the outer margins of the New Senator caldera (Figure 8). Unfortunately, the geological setting of this area has not been studied nearly to the extent that the Noranda caldera has and consequently the area is not well understood. The Eastchester block lies north of the DPDZ and therefore outside of the BRG. There has been some exploration and research done at and around the Mobrun (Bouchard Hebert) deposit (Barrett et al., 1992 and (W. Mueller et al., 2007)). The somewhat similar position of Mobrun deposit and the Fabie and Trudeau blocks on the outer margins of the Misema mega-caldera suggests that Mobrun may be a better analogue for exploration within the project area rather than the Noranda mining camp deposits. Renewed research in the outer Misema mega-caldera (Sutton et al., 2017 and Sutton et al., 2019) may lead to better knowledge of the area.



Figure 8: Blake River Group - Misema Mega-caldera (after Pearson & Daigneault, 2009)

## 6.3. Eastchester Geology and Mineralization

SIGÉOM (n.d.-b) indicates that the Eastchester block (Figure 9) lies immediately north of the DPFZ and is underlain primarily by massive to pillowed, tholeiitic iron and magnesium basalt flows and related gabbro sills belonging to the Deguisier Formation of the Kinojévis Group (Goutier & Lacroix, 1992). The abundance of gabbro sills is a distinctive feature of the Deguisier Formation especially in its upper (southern) sections where Eastchester is located. Thin intervals of chert, rhyolite flows and intermediate to felsic tuffs are lodged between the flows.



The orientation of the Deguisier Formation is generally northeast-trending and steep north-dipping with tops facing south (i.e., overturned). Weak foliation within the flows and gabbro sills is subparallel to the general orientation. Structurally, the block is cut by a series of narrow shear-type faults that transect the bedding orientation at shallow angles. Goutier & Lacroix (1992) indicate a dominant vertical component to the foliation within these shear zones. These faults are oblique to the DPFZ but may be splays off this major regional structure. Also, a regional dextral, brittle fault marked by a creek valley cuts through the Eastchester block vertically at 015° azimuth. The Deguisier rocks are well-jointed with one set of NNW-NNE fractures and a less obvious ENE-ESE set.

The mafic flows and sills all show weak pervasive chlorite alteration. Pervasive strong carbonate alteration is also evidenced by a tan-coloured weathering rind on all outcrops. Pillow selvages show local epidote and carbonate alteration. Moderate to strong silica, chlorite and carbonate alteration occurs locally adjacent to quartz-carbonate veinlets and within interflow sediments.

Not much mineralization was observed during the Author's site inspection on July 25, 2021. Very fine, disseminated pyrite less than 1% is common in bedrock. Pyrite and pyrrhotite in hairline stringers and fine-grained disseminations up to 5% was also noted in and adjacent to quartz-carbonate veinlets. Trace chalcopyrite was also noted.

The Author did not visit the Eastchester occurrence located on the south boundary of the Eastchester block (Figure 9). It was discovered by drilling in 1945 by Eastchester Mines Ltd. in Hole No. 6 of a 14-hole 8,603-foot (2,622m) campaign (GM 00695). This hole, collared south of the current block and drilled north, intersected 0.043opt over 40ft from 600ft (1.33gpt Au over 12.2m from 179.8m) but was determined to be drilled down dip. Subsequent holes, both collared on the current Eastchester block and drilled south, cut 0.030 opt over 9.5ft from 762.5ft (0.94gpt over 2.9m from 232.4m) in Hole No. 7 and 0.005opt Au over 14.0ft from 692.5ft (0.16gpt over 4.3m from 211.0m) in Hole No. 14. This gold bearing structure has apparently never been found on surface. In the drill logs it is described as a brecciated zone of "speckled greenstone" with narrow quartz veins and disseminated pyrite and arsenopyrite. It appears to strike at 260° azimuth dipping 50° to the north.

The Southern Sheared/Mineralized Zone (Chartier, 2018) is located approximately 500 metres northwest of the Eastchester occurrence. This area was first identified by Ressources Aunore Inc. in 1986 by mapping and prospecting over a relatively large geochemical anomaly defined by a 20ppb Au contour in 1984 (GM41783). In 1987, four holes were drilled to test IP-RES and HLEM targets in this area (GM46639). In Hole 015-87-01, discontinuous sampling of a 14.05m wide pyrite-rich contact zone returned three slightly anomalous values ranging from 55 to 178ppb Au. Hole 015-87-02 returned 257ppb Au over 0.90m from 64.75m. Hole 015-87-03 returned three slightly anomalous values ranging of an 8.0m zone with disseminated pyrite starting at 37.7m.

On outcrops in this area, Century noted numerous fracture-type, quartz-carbonate veinlets at various orientations although no remarkable gold values were determined (Chartier, 2018). The Author collected four samples in this area during his site inspection also without significant results (Table 5, Figure 15). Minor pyrite, pyrrhotite and trace chalcopyrite is found in the quartz-carbonate veinlets and vein selvages which show various degrees of mixed silica, chlorite and carbonate alteration. It should be noted that the 2011 airborne survey flown for Tres-Or Resources Ltd. (GM66879) detected a relatively strong, isolated TDEM anomaly in this area that apparently has not been verified on the ground. The surface MAG survey done by Tres-Or in 2010 (GM64945) appears to outline the gabbro sills within the basalt flows.





Figure 9: Eastchester property geology (after SIGÉOM, n.d.-b)

## 6.4. Fabie Geology and Mineralization

SIGÉOM (n.d.-b) indicates that most of the Fabie block is underlain by several sub-units of the Duprat-Montbray Formation (DMF) of the lower Blake River Group (Figure 10). The southeast corner of the block is underlain by unit DMF<sub>3</sub> which consists of massive to weakly-banded, pale green rhyolite flows with thin fragmental and gaseous layers. Gan et al. (2017) discussed the rhyolite in detail and describe turbulent, jumbled flows with elongated fragments, flow breccias and agglomerates with rounded fragments. The fragments generally appear lighter-coloured and more siliceous than the darker matrix. The rhyolite is overlain by unit DMF<sub>2</sub> which is described as a monotonous flow sequence of massive, pale green andesite layers alternating with dark green, vesicular, often pillowed, more mafic layers.

The northeast corner of the Fabie block in underlain by the Fabie quartz-feldspar porphyry pluton. This body shows sharp, irregular contacts with no metamorphic effects in the surrounding DMF rocks suggesting synvolcanic emplacement (Sutton et al., 2017). It is more resistant than the layered DMF rocks and forms numerous sizable, rounded outcrops. It is generally pale grey with an overall grainy matrix containing up to 20% clear quartz eyes and white feldspar phenocrysts. It appears as a regional MAG high relative to the surrounding DMF rocks.

Numerous diorite bodies of various shapes, sizes and orientations, marked by distinct chill margins, occur as semi-conformable sills subparallel to DMG layers, and crosscutting dykes and small plugs in both the DMF and the Fabie Pluton. Regionally they define a semi-continuous, concentric pattern within the Blake River Group (Figure 8) indicative of their injection into ring fractures following the collapse of the initial Misema mega-caldera (Pearson & Daigneault, 2009).





Figure 10: Fabie property geology (after SIGÉOM, n.d.-b)

The DMF rocks are generally oriented east-west and dip steeply south with tops up (Sutton et al., 2017). Cadieux (1987) suggested that there are unmapped local folds based on opposing dip and/or facing directions noted on property scale maps done by Trudeau (1980). This may have important implications for exploration as discussed in Section 17. The Fabie Bay shear zone cuts through the northwest corner of the Fabie block. Numerous NNW-trending, brittle faults cut through the eastern part of the block. These faults are known to truncate chargeability trends (Simard, 2017).

The DMF rocks show pervasive weak chlorite alteration. Different degrees of local silica, carbonate, ankerite, sericite alterations are encountered mostly around fractures and along lithological contacts in both DMF rocks and the Fabie quartz-feldspar porphyry.

Mineralization reported to date on the Fabie block includes gold-bearing quartz-carbonate veinlets in the Fabie pluton and copper-bearing disseminated sulphides in the DMF. The Lac Fabie Nord showing was discovered by prospecting in 1986 with initial results of 1.03 to 2.09gpt Au from grab samples of narrow quartz-carbonate veinlets in weakly sheared, quartz-feldspar porphyry (GM45601). Late in 1987, this new showing was mechanically stripped and systematically channel sampled with best values reported of 1.2gpt over 0.9m and 1.4gpt over 1.0m. Two drill holes in 1988 intersected 0.50gpt Au over 0.4m from 25.6m in Hole LF-88-1 and 3.00gpt Au over 0.3m from 87.0m in Hole LF-88-2 (GM47872). The UTM coordinates given in the SIGÉOM (n.d.-a) file are incorrect plotting the showing outside the north boundary of the Fabie block. The showing is instead at approximately 618300 mE, 5363960 mN on the Issuer's mineral claim CDC 2457312.



Gan et al., (2017) relocated the Lac Fabie Nord showing in 2017 and described mineralization at this site as thin veinlets composed mainly of quartz with lesser carbonate within pale grey, speckled quartz-feldspar porphyry. The veinlets are typically less than 10cm wide but may be up to 25cm. They occur in a variety of orientations from flat to vertical. The vein selvages are typically pink to orange and contain up to 5% disseminated, euhedral pyrite.

Highlights of the 2017 exploration included nine significant assays ranging from 0.14 to 2.82gpt Au returned from a total of 57 grab samples taken from the Lac Fabie Nord showing that confirmed historical gold results. The Author obtained gold values ranging from 24ppb to 3.19gpt Au with three of the four assays greater than 0.50gpt Au (Table 5). A re-assay of one sample by FA-AA returned 518ppb Au compared to the initial results of 708ppb Au by AR-ICPMS. Sample values for silver, copper and zinc were all low except for one value of 6.0gpt Ag. Prospecting by Trudeau Gold also found the new "Fabie NW" showing 200m to the northwest where five grab samples returned values from 0.13 to 2.40gpt Au. The Author obtained 692ppb Au by AR-ICPMS at this site from a single grab sample. A re-assay of this sample by FA-AA returned 584ppb Au. The Lac Fabie Nord and Fabie NW showings correspond to moderate, NE-trending, moderate chargeability anomalies IPF-07 and IPF-08 respectively (Figure 11).

At the "SE Anomaly" 300m SSE of Lac Fabie Nord, Trudeau Gold obtained 113ppb over a 1.0m chip sample in a trench excavated by Exploration Rambo Inc. in 1986. Rambo obtained up to 1.4gpt Au from several grab samples at this site (GM45601). The trench was excavated to test a linear chargeability anomaly (GM45220). In 1980, Noranda Mines Ltd. outlined an anomalous Pb-Zn soil trend (GM34663) over a chargeability anomaly identified at this site in the previous year (GM36206). The 2017 IP-RES survey also detected this chargeability zone (IPF-5) and traced it over a length of 600m (Figure 11). The Author visited this site but found the trenches too overgrown and caved in to justify collecting a sample.



Figure 11: Fabie 2017 IP-RES survey (after Simard, 2017)



Sulphide mineralization in the DMF units is common on the Fabie block consisting of patches of up to 5% disseminated pyrite and pyrrhotite with less frequent chalcopyrite often in pillow selvages and along contacts between the rhyolite and andesite units. Prospecting at the "South Au/Cu" anomaly by Trudeau Gold Inc. found disseminated pyrite with some chalcopyrite in narrow veinlets marked by malachite within thin bands of dark green andesite layered within massive rhyolite (Gan et al., 2017). One grab sample returned 0.25% copper. This site is coincident with the east-trending, moderate chargeability anomaly IPF-4 traced over a 600m distance (Figure 11). Prospecting by Trudeau Gold 200 metres south on the 500m long, parallel IPF-2 chargeability anomaly also found disseminated sulphide mineralization up to 5% but no anomalous metal values were reported. These chargeability anomalies were interpreted to be indicative of disseminated sulphide mineralization remobilized along altered, sheared contacts between DMF rhyolite and andesite (Simard, 2017). Explorations Rambo Inc. also detected a chargeability response at the South Au/Cu site (GM45220) and reported surface grab samples up to 110ppb Au in 1986 (GM45601). The following year, a single hole drill hole intersected 0.13gpt Au over 1.5 metres from 46.0m in strongly altered and fractured andesite with 2% pyrite (GM47872).

### 6.5. Trudeau Geology and Mineralization

SIGÉOM (n.d.-b) indicates that of the Trudeau block is underlain by several sub-units of the Duprat-Montbray Formation of the lower Blake River Group (Figure 12). The far southern part of Trudeau is underlain by unit DMF<sub>3</sub>, consisting mainly of rhyolite flows. To the north, the block is underlain by unit DMF<sub>2</sub> which is a sequence of alternating andesite layers. These layered rocks are intruded by semiconformable sills and cross-cutting dykes and small plugs of diorite. More detailed descriptions of these units are provided in the Fabie Geology and Mineralization section since generally the lithologies underlying Trudeau are quite similar to those underlying Fabie. The major difference is that the Trudeau block is further up-section and closer to the top of the DMF.



Figure 12: Trudeau property geology (after SIGÉOM, n.d.-b)



Because of its similar stratigraphic position relative to the Magusi River and Fabie Bay copper deposits, the structural geology is better understood at Trudeau than Fabie. Trudeau lies just south of the Alembert Shear Zone, which is a major inverse, shear-type structure that separates the DMF from the Reneault-Dufresnoy Formation (RDF). The RDF is more deformed than the DMF with several major SE-trending fold axes defining isoclinally folded units. Folding is evident in the DMF but not to the same degree. Within the DMF, the layered units are often offset by ENE-trending, steeply-dipping, shear-type faults that are generally localized along contacts with diorite sills emplaced within the DMF rocks. There is also a set of NNW-trending brittle faults that imbricate the DMF layers somewhat.

## 7. Deposit Types

### 7.1. Overview

The Property has potential for both orogenic gold-type and volcanogenic massive sulphide-type (VMS) base metal and gold-rich base metal deposits based on the geological setting of the Property blocks and their proximity to known deposits and occurrences of both deposit types.

The DPDZ runs through the project area. This regional scale structure is spatially and genetically related to hundreds of lode gold occurrences including the giant Timmins-Porcupine gold camp that has produced 2,184t of gold from 1910 to 2019 and continues to produce from a further 836t of proven reserves and 356t inferred resources (Digigeodata, n.d.). The project area is approximately 100km east of the Timmins-Porcupine camp.

The Horne deposit, located in the Noranda mining camp approximately 35km southwest of the project area, produced 1.3Mt of copper and 260t of gold from 53.7t of ore at average grades of 2.22% Cu and 6.1gpt Au between 1927 and 1976 (Monecke et al., 2008). The unusual high gold content of the Horne deposit makes it the largest gold-producing VMS deposit in the world. Additional base and precious metal production came from 19 smaller VMS deposits in the camp including Aldermac, Ansil, Corbet, D-68, Delbridge, Galien, Joliet, Millenbach, Norbec, Newbec, Quemont, Vauze and Waite-Amulet mines making Noranda one of the most prolific VMS mining camps in the world (Gibson & Galley, 2007).

## 7.2. Orogenic Gold-type

Gold only deposits derived from bedrock sources are generally referred to as lode gold deposits (Poulsen, 1996). Groves et al. (1998) proposed the genetic term "orogenic gold-type" in reference to the unique temporal and spatial association of this deposit type to orogenic processes. The classification of lode-type gold deposits remains problematic due to the variety of host rock lithologies, tectonic settings and depths of formation. Consequently, there are abundant sub-types in the literature that make classification very confusing. Dubé & Gosselin (2007) proposed the sub-type "Greenstone-hosted quartz-carbonate vein" to describe gold deposits that "... occur as quartz and quartz-carbonate veins with valuable amounts of gold and silver, in faults and shear zones located within deformed terranes of ancient to recent greenstone belts commonly metamorphosed at greenschist facies." This sub-type applies very well and is the basis for gold exploration on the Property.

Greenstone-hosted quartz-carbonate vein deposits are structurally controlled, epigenetic, complex quartz-carbonate systems made up of fault-fill veins, extensional veins, hydrothermal breccias and/or stockworks. They are found in deformed greenstone belts characterized by an abundance of volcanic and clastic sedimentary rocks of low to medium metamorphic grade formed at intermediate crustal depths. They are distributed along crustal-scale fault zones that form major convergent, accretionary or collisional boundaries. The quartz-carbonate occupies brittle faults, ductile shear zones and folds that are often



marked by local iron-carbonate alteration. Gold is found primarily within the quartz-carbonate but may occur in significant grades within iron-rich, sulphidized wall rock.

Greenstone-hosted quartz-carbonate vein deposits account for 15,920 metric tonnes of gold or 13% of historical worldwide gold production (Dubé & Gosselin, 2007). Canadian production is 5,510 metric tonnes or 35% of worldwide production for this deposit sub-type. The Abitibi Greenstone Belt has produced 4,470 metric tonnes or 81% of this sub-type in Canada. Greenstone-hosted quartz-carbonate vein deposits account for 59% of all Canadian gold production and reserves. Examples in the Abitibi include Sigma-Lamaque deposit in Val-d'Or, Québec and Dome deposit in Timmins, Ontario.



Figure 13: Greenstone-hosted quartz-carbonate vein-type (after Dubé & Gosselin, 2007)

## 7.3. Volcanic Massive Sulphide-type Base and Precious Metals

Volcanogenic massive sulphide-type deposits are important sources for copper, lead, and zinc, and silver and gold worldwide. Because of their economic significance they have been extensively studied. Galley et al. (2007) provides a thorough review of this deposit type. VMS deposits have been tremendously important to the Canadian exploration and mining industry with close to 350 known deposits. Historically they account for 27% of copper production, 49% of zinc, 20% of lead, 40% of silver and 3% in Canada.

VMS deposits are genetically related to submarine volcanic processes at or near the seafloor and are formed in extensional tectonic settings including both oceanic seafloor spreading and arc settings. They typically occur as lenses of polymetallic massive to semi-massive sulphides within envelopes of highly altered host rocks. They are classified according to base and/or precious metal content and host-rock lithology. These deposits are still forming today in modern seafloor environments and are known to occur in submarine volcanic terranes formed as old as 3.4 Ga.

Major VMS mining camps are typically, but not always, defined by clusters of multiple deposits of various sizes and metal content. They are known to occur in areas with brittle faults such as rifts or calderas. The faulting pattern will often relate to how deposits cluster within a camp. VMS mining districts are



commonly characterized by extensive semi-conformable zones of hydrothermal alteration that intensifies into zones of discordant alteration in the immediate footwall and hanging wall of individual deposits. This alteration is attributed to single or multiple subvolcanic intrusions that act as heat sources that trigger large-scale subseafloor hydrothermal convection systems that draw large amounts of seawater through the volcanic pile leading to the formation and migration of metal-rich fluids. Metals eventually precipitate as hot, metal-rich hydrothermal fluids that are discharged at or near the seafloor into concordant semi-massive to massive sulphide lenses or in discordant stockwork veins and disseminated sulphide zones underneath sulphide lenses. The subvolcanic intrusions are also thought to contribute metals to the hydrothermal systems through magmatic devolatilization. VMS camps are often marked by thin but widespread bands of iron-rich chert formed by seafloor venting and precipitation of extremely fine metal particles from the water column.



Figure 14: Schematic of classic VMS deposit cross-section (after Galley et al. (2007)

## 8. Exploration

Following the acquisition by map designation of the initial 21 mineral titles in 2016, Trudeau Gold Inc. began exploration work in early 2017 with a compilation of historical data and a geological reconnaissance prospecting program on all three blocks (Gan et al., 2017) followed by line-cutting and IP-RES surveys over part of the Fabie block where the historical Lac Fabie Nord gold showing is located (Simard, 2017). The total cost of this work was \$171,668.02. The program saw a total of 29 rock samples collected and analyzed from Eastchester, 112 from Fabie and 7 from Trudeau. The best assay results were obtained from Fabie as discussed in the Fabie Geology and Mineralization section. Positive results were obtained from the Fabie IP-RES survey also. Finally, a study was done in an effort to vector alteration indictive of VMS mineralization based on the relative depletion or enrichment of calcium, potassium and magnesium in the Fabie rock sample suite.



Based on the positive exploration results in 2017, the geology underlying the Property was interpreted to be favourable for volcanogenic massive sulphide-type and orogenic-type mineralization like the gold-rich polymetallic sulphide and gold deposits found elsewhere in the Rouyn-Noranda mining district. The rocks underlying the Fabie and Trudeau blocks were found to be affected by hydrothermal alteration known to be associated with volcanogenic massive sulphide-type deposits in the district. The quartz feldspar porphyry encountered in the Fabie block was interpreted as a favourable structure for gold mineralization. The proximity of the gold-bearing Destor-Porcupine Fault Zone to the southern part of the Eastchester block was deemed prospective for locating structurally controlled gold mineralization at Eastchester.

In November 2017 the Property was expanded to 37 mineral titles by map designation of 16 new titles. In May 2018, Trudeau changed its name to Century Metals Inc. ("Century") and engaged SRK Consulting (Canada) Inc. ("SRK") to complete an independent technical report on the Property (Chartier, 2018). SRK completed a two-day site visit and performed an in-depth verification of 2017 assay data to assess the accuracy and precision of analytical quality control procedures followed by Century. A \$1,278,200 work program was proposed consisting of an initial Phase I of field work estimated at \$244,200 followed by a contingent Phase II drill campaign at \$1,034,000. In June 2020 Century changed its name to Reyna Silver Corp. in conjunction with a plan of arrangement completed with Reyna Silver Mining Inc. (Reyna Silver Corp., 2020). In March 2021, the Property was transferred to the Issuer (Reyna Silver Corp., 2021).

## 9. Drilling

No drilling has been completed on the current Property by the Issuer or its predecessors since the initial mineral titles were acquired by Trudeau Gold Inc. in 2016.

## 10. Sample Preparation, Analyses and Security

Gan et al. (2017) states "... a total of 148 grab samples ... were recorded, bagged, sealed, and transported by Trudeau Gold geologists. A total of 23 external quality control samples were also inserted into the sample stream prior to analysis. Samples were assayed at SGS Canada Inc. in Lakefield, Ontario (SGS Lakefield). This laboratory is accredited to ISO 17025, by the Standards Council of Canada for certain testing procedures including those used to prepare and assay the samples submitted by Trudeau Gold. SGS Lakefield is independent of Trudeau Gold. The samples were weighed, dried, crushed and ground to -75 microns, then analyzed for a suite of 56 elements using inductively coupled plasma mass spectroscopy (ICP-MS), and tested for gold using fire assay with atomic absorption spectroscopy (FA-AAS). Samples with copper content exceeding the upper detection limits (1% or 10,000ppm copper) were re-assayed with inductively-coupled plasma atomic emission spectroscopy (ICP-AES) to determine the copper content."

It is the Author's opinion that the sample preparation, security, and analytical procedures followed by the Issuer are adequate for the level of exploration conducted on the Property.

## 11. Data Verification

## 11.1. Data Review

The Author completed a comprehensive review of reports and data geoscientific data retrieved from the SIGÉOM (n.d.-a) website with respect to historical data or material supplied by the Issuer in the case of current data. The Author took reasonable steps to verify this information where possible.



Some relevant information on the Property presented in this Report is derived from data presented in historical reports, maps and databases. The Author has made every attempt to accurately evaluate and convey the content of these historical documents. However, the Author was unable to verify this historical data due to the age and absence of original copies of the data, the lack of accurate geographic coordinates for sample sites and the unavailability of drill core and sample rejects/pulps. Due to these inherent limitations the Author has not relied on any historical data mentioned in this Report.

With respect to the current exploration data discussed in this Report, the Author has relied on an in-depth study conducted by Chartier (2018) of the 2017 analytical data in spreadsheet format compared with digital copies of the original assay certificates from SGS Lakefield to assess the sample preparation, analyses and security procedures followed by the Issuer, and the accuracy and precision of analytical results. The performance of the external control samples (seven blanks and nine standards) submitted with the 148-rock sample suite were analyzed on time-series plots and the seven field duplicates were compared in table format. No extreme values or trends were detected to indicate any issues with the overall quality of the data. The study concluded that the performance of external control samples and field duplicates was acceptable for the nature and scale of the 2017 sampling program. The Author found no discrepancies upon review of this study with his own personal review of the assay certificates and digital assay data.

## 11.2. Site Visit

The Author completed a two-day site inspection in July 2021 on the Fabie and Eastchester blocks. The Trudeau block was not inspected due to poor access. Nine grab samples and two QAQC samples were collected by the Author as listed in Table 5 and shown on Figure 15 and Figure 16.

The site visit sample locations were recorded with a Garmin 66i GPS receiver in map datum UTM WGS84 Zone 17N. Rock samples were placed in plastic sample bags with sample numbers written on the bags in indelible ink. Each sample was photographed and a plastic, waterproof tag was left at the sample site. The samples were sealed in a rice bag with a zip tie and delivered by the Author to Activation Laboratories Ltd. ("Actlabs") in Val-d'Or, Québec. External control samples comprising one blank and one standard (OREAS 232) were included with the sample batch. In Val-d'Or, the samples were crushed to 80% passing 2mm and then riffle split to a 250g sub-sample that was pulverized to 95% passing 105µm (Actlabs Code S1). The sample pulps were then sent to Actlabs' Ancaster, Ontario laboratory where they were analyzed for 36 elements by 15-gram Aqua Regia digestion ICP-MS analysis (Actlabs Code UT-1M-15). One sample returned an overlimit result for gold. This sample and two others were re-analyzed for gold by 30g lead bead fire assay with atomic absorption finish (Actlabs Code 1A2). Actlabs is accredited under ISO 9001:2015 registration and is independent of the Author and the Issuer.

No extreme variances were detected in the blank and standard external control samples submitted with the site inspection samples (Table 5: Sample results 2021 site inspectionTable 5). Three samples reanalyzed for gold by FA-AA returned similar results to the original values determined by AR-ICPMS.

No significant mineralization was observed during the Author's site inspection of the Eastchester block on July 25, 2021. Analytical results obtained from the four site inspection samples returned low metal values consistent with those reported by the Issuer (Gan et al., 2017).

The Author visited two of the trenching sites completed by previous workers on the Fabie property. These sites are very overgrown and were difficult to find. The previous cut line grid was also overgrown and hard to follow with many of the station pickets not visible or the picket tags not legible or missing



altogether. However, the five site inspection samples taken at the Lac Fabie Nord showing returned gold values ranging from 24ppb to 3.19gpt Au which is consistent with gold values ranging from 0.14 to 2.82gpt Au reported by Gan et al. (2017) from 57 grab samples collected at the same site. The Author also inspected the SE Anomaly 300m SSE of the Lac Fabie Nord showing but found the trenches too overgrown and caved in to justify collecting a sample.

Based on a personal review of the assay certificates and digital assay data and the consistency of the site inspection sample results with metal values reported by the Issuer, it is the Author's opinion that the Issuer's data is adequate for the purposes used in this Report.

No.	UTM mE	UTM mN	Elev. m	Au ppb AB-ICPMS	Au ppb	Ag ppm AR-ICPMS	Cu ppm AR-ICPMS	Zn ppb AR-ICPMS	Notes
Eastchester									
142753	638449	5375610	329	< 0.5		< 0.1	29.8	49	Quartz veinlets in mafic volcanic
142763	638094	5375860	331	< 0.5		< 0.1	80.7	115	Quartz veinlets in mafic volcanic
142764	638384	5375889	345	< 0.5		< 0.1	59.2	76	Quartz veinlets in mafic volcanic
142766	638315	5375860	336	< 0.5		< 0.1	62.1	103	Quartz veinlets in mafic volcanic
Fabie									
142752	618288	5363943	322	708	518	0.3	4.2	26	Quartz veinlets in QFP, <5% sulphides
142761	618295	5363946	326	79		0.2	3.0	18	Quartz veinlets in QFP, <5% sulphides
142765	618243	5363977	329	692	584	0.2	2.9	12	Quartz veinlets in QFP, <5% sulphides
142767	618299	5363962	329	> 1000	3190	0.9	5.2	13	Quartz veinlets in QFP, <5% sulphides
142769	618298	5363959	326	24		6.0	20.6	13	Quartz veinlets in QFP, <5% sulphides
QAQC									
135381				< 0.5		< 0.1	1.8	4	Blank
142762				845		< 0.1	20.6	81	OREAS 232 Standard (AR-MS) 873ppb Au 0.093ppm Ag 22.6ppm Cu 75ppm Zn

#### Table 5: Sample results 2021 site inspection





Figure 15: Eastchester sample locations 2021



Figure 16: Fabie sample locations 2021





Figure 17: Eastchester photos of samples and features





Figure 18: Fabie photos of samples and features



## 12. Mineral Processing and Metallurgical Engineering

To the extent known, no mineral processing or metallurgical testing analyses have been carried out on the Property.

## **13.** Mineral Resource Estimates

To the extent known, no mineral resource estimates have been carried out on the Property.

## 14. Requirements for Advanced Properties

The Property is at an early stage of exploration and is not considered by the Author to be an advanced project. Therefore, this Report does not discuss the following topics:

- a) Mineral Reserve Estimates
- b) Mining Methods
- c) Recovery Methods
- d) Project Infrastructure
- e) Market Studies and Contracts
- f) Environmental Studies, Permitting and Social or Community Impact
- g) Capital and Operating Costs
- h) Economic Analysis

### **15. Adjacent Properties**

## 15.1. Relevant Information

Relevant material concerning any adjacent properties included in this Report is limited to information publicly disclosed by the owner or operator for the adjacent property. The Author has relied on the Qualified Persons responsible for the release of any such information and has not independently verified such information. NI43-101 resource estimates or economic studies cited in this Report may be found under the related issuer's SEDAR profile at www.sedar.com. Past production, mineral reserves, resources or occurrences on adjacent properties are not necessarily indicative of the mineralization on the Property.

## 15.2. Duparquet, Duquesne, and Pitt Projects

The Duquesne, Duparquet and Pitt projects, held by First Mining Gold Corp., are all orogenic-type gold properties related to the DPDZ like the Eastchester block. All three have seen extensive drilling and have recent resource estimates.

The Duparquet project lies just north and east of the Town of Duparquet approximately seven kilometers west of the Eastchester block. It includes the former Beattie and Donchester mines that together produced 1,364,271 ounces gold and 336,815 ounces of silver from 9,645,000t of ore with an average grade of 4.01gpt Au and 0.99gpt Ag from 1932 to 1956 (Poirier et al., 2014)) The properties remained dormant until 1987. Extensive drilling started in 2008 that led to a NI43-101 resource estimate and prefeasibility report prepared by InnovExplo Inc. for Clifton Star Resources Inc. with 60,881,000t at 1.59gpt Au for 3,113,171oz Au measured and indicated, and 29,684,700t at 1.51gpt Au for 1,442,689oz Au inferred (Poirier et al., 2014). This report also estimated proven and probable mineral reserves of 39,363,000t at 1.50gpt Au for 1,895,530oz Au.



The Duquesne project is in Destor Township approximately eight kilometres southeast of Eastchester. From 1949 to 1952, the former Duquesne mine produced 37,600 ounces gold from 103,883t of ore with an average grade of 10.25gpt (Rioux, 2011). A NI43-101 resource estimate was prepared by Genivar Limited Partnership for Clifton Star Resources Inc. with 1,859,200 at 3.33gpt Au for 199,161oz Au indicated and 1,536,100 at 5.58 gpt Au for 280,643oz inferred (Rioux, 2011).

The Pitt project is in Duparquet township approximately three kilometres south of the Eastchester block. A NI43-101 resource estimate was prepared by MICON International Ltd. for First Mining Finance Corp. with 1,076,000t at 7.42gpt Au for 257,000oz Au inferred (Lewis & San Martin, 2017).

## 15.3. Fabie Bay and Magusi River

Fabie Bay and Magusi River are two classic VMS deposits about one kilometre apart that are located approximately three kilometres north of the Fabie block and nine kilometres west of Trudeau. Globex Mining Enterprises Inc. (n.d.) is the current owner of the two deposits. Fabie Bay was developed and partially mined by Noranda Mines Ltd. in 1976 and 1977. A total of 103,574 tons grading 2.64% copper were extracted from a small open pit before poor copper prices led to the mine shutting down (Salmon & Holger Krutzelmann, 2012). Exploration since then has focused mostly on the Magusi River deposit including drilling and underground development. Mag Copper Ltd. filed a NI43-101 technical report prepared by Roscoe Postle Associates Inc. with a resource estimate for Magusi River of 1.309,000t grading 1.99% Cu, 4.12% Zn, 42.8gpt Ag, 1.27gpt Au indicated, and 355,000t of 3.41% Cu, 0.39% Zn, 24.2gpt Ag, 0.26gpt Au inferred (Salmon & Krutzelmann, 2012).

## 16. Other Relevant Data and Information

As of the Effective Date, the Author are not aware of any other additional information or explanation necessary to make this Report more understandable and not misleading.

# 17. Interpretation and Conclusions

# 17.1. Overall

The Fabie-Eastchester-Trudeau property is an early-stage gold and base metal exploration project with three separate claim blocks in the general region of Duparquet in Western Québec. Potential exists on these blocks variously for gold-rich VMS and orogenic-type gold. This conclusion is based on a comprehensive review and analysis of the reports and data provided by the Issuer as well as publicly available assessment reports by previous workers on or in the vicinity of the current Property, an evaluation of the geology underlying the Property, a comparison of the Property to adjacent properties and the positive results of a recent site inspection of the Property. The Property lies in the renowned Rouyn-Noranda mining district adjacent to numerous base metal and gold deposits many of which have been or are currently being mined. The three claims blocks comprising the Property are relatively easy to access. The Author is not aware of any significant risks or uncertainties to prevent further exploration of the Property.

# **17.2.** Eastchester Block

The Eastchester block has potential for orogenic-type gold mineralization due to its proximity to the DPDZ, which is a major regional structure well known for its spatial and genetic relationship with hundreds of gold showings and dozens of current and past producing deposits. The former Beattie, Donchester and Duquesne gold mines are all in the immediate vicinity of Eastchester. A series of NE-trending shear-type faults crosscut the block along gabbro contacts within mafic volcanic flows. These structures may be



splays off the main DPDZ corridor. The rocks underlying Eastchester show strong pervasive carbonate alteration, which is a characteristic feature of the rocks surrounding the DPDZ. Noteworthy gold values have been reported at the historic Eastchester occurrence in a zone of shearing, brecciation and quartz veining. This zone has never been exposed on surface and there is no reported work since 1945 when the zone was discovered by drilling. This north-dipping zone projects to surface just south of the Eastchester and continues down-dip onto the Property at depth.

Eastchester is a very small block missing a key mineral claim in the middle of the block. This limits its potential and the amount of exploration that can be done. Therefore, Eastchester has secondary priority to the Fabie block.

## 17.3. Fabie Block

Orogenic gold-type mineralization is the primary target on the Fabie block, but it also has VMS potential. The Lac Fabie North showing has consistently returned anomalous gold values since its discovery in 1986 to the present. Mineralization at this site is related to multiple quartz-carbonate veinlets hosted in the Fabie quartz-feldspar porphyry pluton. No shear or brittle fault zones have been identified to explain the gold mineralization, so structural controls on the mineralization remain unknown. However, mineralization appears to be traceable as chargeability anomalies and there is a possibility that deformation structures have developed along fold axes. Cadieux (1987) suggested that there are unmapped local folds, based on opposing dip and/or facings direction noted on property scale maps done by Trudeau (1980). The Fabie block is thickly overgrown by second-growth forest. Even the stripping done in 1987 at the Lac Fabie Nord showing is becoming overgrown. The Fabie Bay shear zone cuts through the northwest corner of the Fabie block. This structure is related to the adjacent Magusi River and Fabie Bay copper deposits, so investigation for VMS mineralization along the section underlying the Fabie block is justified.

Fabie shows the best potential out of the three blocks based on its relative size and the tenor of the gold mineralization found at the Lac Fabie Nord and NW Fabie showings. Initially, most of any exploration budget should be committed to this claim block.

## 17.4. Trudeau

VMS mineralization is the primary target for the Trudeau block based on its similar stratigraphic position relative to the Magusi River and Fabie Bay copper deposits. There has been a substantial amount of drilling for VMS on the Anaconda Tuff along the southern boundary of the Trudeau block. Although copper and zinc exist in this unit, no substantial base metal mineralization has been identified. Except for an IP-RES survey (GM57167), there has been very little follow-up to the strong gold value reported at the Trudeau showing in the northwest corner of the block.

Like the Eastchester, Trudeau is a small block. This limits its potential and the amount of exploration that can be done. Also, unlike the other two blocks, there is no direct road access. For these reasons, Trudeau has secondary priority to the Fabie block.



### **18. Recommendations**

It is the opinion of the Author that the Eastchester-Fabie-Trudeau blocks merit further exploration. A twophase exploration program is recommended to identify, prioritize and test exploration targets on each of the three claim blocks with an emphasis on the Fabie block. Phase I of the proposed program consists of: surface work including data compilation and digitization, airborne MAG and TDEM geophysical surveys, prospecting and sampling on all three blocks and a soil geochemical survey over the existing grid and trenching and structural mapping at the Lac Fabie Nord and Fabie NW showings on the Fabie block. Phase II consists of drilling on the Fabie block. The proposed expenditures, including 10% for contingencies, are estimated to cost in \$155,320 for Phase I and \$247,500 for Phase II, which is contingent upon positive results obtained in Phase I. Assuming both phases are fully completed, the total estimated cost is \$402,820.

The airborne geophysical surveys are recommended to provide a base for surface exploration. Although the blocks have each been covered by other airborne surveys in the past, the Author believes that surveys dedicated to the Property blocks would be beneficial. Prospectair of Gatineau, Québec offers an excellent, cost-effective MAG and TDEM survey flown at low nominal altitude that delivers precise detail for follow-up surface work. The MAG would also be very useful to define the limits of the Fabie pluton on the Fabie block.

The IP-RES survey completed by Trudeau Gold (Simard, 2017) generated numerous chargeability targets including several over the Lac Fabie North and Fabie NW showings. There are many chargeability anomalies in the northeast corner of the existing Fabie grid that should be prospected and sampled. Prospecting should also be done for VMS targets along the Fabie Bay shear zone in the northwest corner of the block.

A soil geochemical survey over the existing Fabie block would be useful to validate chargeability responses and determine if a soil geochemistry survey would be useful over the entire block. Trudeau (1980) produced an excellent geological map that should be digitized to provide a base for prospecting on Fabie. This is true for the mapping done on the Trudeau block as well (Trudeau, 1982).

It is not known what controls the gold mineralization at the Lac Fabie North and Fabie NW showings. Trenching followed by structural mapping and detailed sampling is recommended at these sites to determine the structural nature of the gold-bearing quartz-carbonate veins.

Simard (2017) completed basic modelling on several chargeability anomalies at Fabie and recommended some drill targets. This provides a starting point to plan the Phase II drill program.



Phase	Work	#		Rate	Cost	Totals
Phase I						
Eastchester	Airborne	10	km @	\$85	\$850	
	Compilation & digitization	1	days @	\$500	\$500	
	Prospecting Geologist	1	days @	\$1,250	\$1,250	
	Prospecting Tech (2)	6	days @	\$1,500	\$9,000	
	Prospecting Rocks	30	samples @	\$50	\$1,500	
	Report	2	days @	\$1,000	\$2,000	
						\$15,100
Trudeau	Airborne	10	km @	\$85	\$850	
	Compilation & digitization	1	days @	\$500	\$500	
	Prospecting Geologist	1	days @	\$1,250	\$1,250	
	Prospecting Tech (2)	6	days @	\$1,500	\$9,000	
	Prospecting Rocks	30	samples @	\$50	\$1,500	
	Report	2	days @	\$1,000	\$2,000	
						\$15,100
Fabie	Airborne	210	km @	\$85	\$17,850	
	Compilation & digitization	2	days @	\$500	\$1,000	
	Refresh existing gird	15	km @	\$750	\$11,250	
	Soil geochemistry existing grid	200	samples @	\$60	\$12,000	
	Prospecting Geologist	2	days @	\$1,250	\$2,500	
	Prospecting Tech (2)	14	days @	\$1,500	\$21,000	
	Prospecting Rocks	70	samples @	\$50	\$3,500	
	Excavator	40	hours @	\$200	\$8,000	
	Trenching Geologist	10	days @	\$1,250	\$12,500	
	Trenching Tech (2)	8	days @	\$750	\$6,000	
	Rocks	60	samples @	\$50	\$3,000	
	Permit	1	permit @	\$4,400	\$4,400	
	Report	8	days @	\$1,000	\$8,000	
						\$111,000
					Subtotal	\$141,200
	1	I		I.	Contingency	\$14,120
					Total Phase I	\$155,320
Phase II						
Fabie	Drilling	1500	m @	\$108.00	\$162,000.00	
	Drill Geologist	25	days @	\$1,250.00	\$31,250.00	
	Drill Tech (1)	20	days @	\$750.00	\$15,000.00	
	Core	300	samples @	\$50.00	\$15,000.00	
	Permit	1	permit @	\$1,750.00	\$1,750.00	
					C. hustal	6225.022
					Subtotal	\$225,000
					Contingency	\$22,500
					Total Phase II	\$247,500

### 19. References

- Aeroquest Ltd. (2007). Report on a Helicopter-Borne AeroTEM System Electromagnetic, Radiometric & Magnetic Survey, First Metals Inc. MERN GM64444.
- Allard, M. (1983). *Rapport sur le levé de la propriété Anaconda. MERN GM40557*. https://gq.mines.gouv.qc.ca/documents/EXAMINE/GM40557/
- Barrett, T. J., Cattalani, S., Hoy, L., Riopel, J., & Lafleur, P.-J. (1992). Massive sulfide deposits of the Noranda area, Quebec. IV. The Mobrun mine. *Canadian Journal of Earth Sciences*, 29(7), 1349– 1374. https://doi.org/10.1139/e92-110

Bostock, H. S. (2014). Physiographic regions of Canada. https://doi.org/10.4095/293408

Cadieux, I. (1987). *Rapport d'activités sur la propriété Fabie, Explorations Rambo Inc. MERN GM45601*. https://gq.mines.gouv.qc.ca/documents/EXAMINE/GM45601/



- Canova, E. (1988). *Report of Drilling Program and Compilation, Destor-Duparquet Property, Exploration Aunorex Inc. MERN GM46639*. https://gq.mines.gouv.qc.ca/documents/EXAMINE/GM46639/
- Chartier, D. (2018). SRK Consulting (Canada) Inc., Independent Technical Report for the Fabie-Trudeau-Eastchester Polymetallic Project, Canada, Century Metals Inc. unpub.
- Chown, E. H., Daigneault, R., Mueller, W., & Mortensen, J. K. (1992). Tectonic evolution of the Northern Volcanic Zone, Abitibi belt, Quebec. *Canadian Journal of Earth Sciences*, *29*(10), 2211–2225. https://doi.org/10.1139/e92-175
- Digigeodata. (n.d.). *Timmins Mining Camp Endowment*. Retrieved August 17, 2021, from https://digigeodata.com/timmins-mining-camp-gold-endowment/
- Dubé, B., & Gosselin, P. (2007). Greenstone-hosted quartz-carbonate vein deposits. In *Goodfellow, W.D.,* ed., Mineral Deposits of Canada: A Synthesis of Major Deposit-Types, District Metallogeny, the Evolution of Geological Provinces, and Exploration Methods: Geological Association of Canada, Special Publication No. 5 (pp. 49–73).
- Exploration Services Enrg. (1983). *Levé géophysique (HLEM) de la propriété Anaconda. MERN GM40904.* https://gq.mines.gouv.qc.ca/documents/EXAMINE/GM40904/
- Galley, A., Hannington, M. D., & Jonasson, I. (2007). Volcanogenic massive sulphide deposits, in mineral deposits of Canada: A synthesis of major deposit types. *Earth Sciences Sector*, 141–162.
- Gan, W., Chartier, D., & Simard, J. (2017). Assessment report of prospecting, rock sampling and ground geophysical survey on Fabie-Trudeau-Eastchester project, Trudeau Gold Inc. MERN GM 70755. https://gq.mines.gouv.qc.ca/documents/EXAMINE/GM70755/
- Geophysics GPR Ltd. (2011). *Helicopter-borne MAG and TDEM survey, Duparquet Gold project, Tres-Or Resources Ltd. MERN GM66879*. https://gq.mines.gouv.qc.ca/documents/EXAMINE/GM66879/
- Gestim. (n.d.). Gestion des titres miniers Québec. Retrieved July 29, 2021, from https://gestim.mines.gouv.qc.ca/MRN\_GestimP\_Presentation/ODM02201\_menu\_base.aspx
- Gibson, H., & Galley, A. (2007). Volcanogenic Massive Sulphide Deposits of the Archean, Noranda District, Quebec. *Special Publication 5, Mineral Deposits Division, Geological Association of Canada*, 5, 533–552.
- Globex Mining Enterprises Inc. (n.d.). *Magusi River and Fabie Bay Mines Polymetallic*. Retrieved August 23, 2021, from https://globexmining.com/property.php?id=37
- Goutier, J., & Lacroix, S. (1992). Géologie du secteur de la faille de Porcupine-Destor dans les cantons de Destor et Duparquet, MERN MB92-06.
  - https://gq.mines.gouv.qc.ca/documents/EXAMINE/MB9206/
- Groves, D. ., Goldfarb, R. ., Gebre-Mariam, M., Hagemann, S. ., & Robert, F. (1998). Orogenic gold deposits: A proposed classification in the context of their crustal distribution and relationship to other gold deposit types. *Ore Geology Reviews*, *13*(1–5), 7–27. https://doi.org/10.1016/S0169-1368(97)00012-7
- Hogg, G. M. (1984). A report on the Duparquet Property, Ressources Aunore Inc. MERN GM41380. https://gq.mines.gouv.qc.ca/documents/EXAMINE/GM41380/
- Hogg, G. M. (1985). Addemdum [Humus sampling] to report on the Duparquet Property, Ressources Aunore Inc. [GM41380] MERN GM41783.

https://gq.mines.gouv.qc.ca/documents/EXAMINE/GM41783/

- Hogg, W. A. (1979). *Geochemical soil survey, ISO-Montbray (Fabie), Noranda Mines Ltd. MERN GM34663*. https://gq.mines.gouv.qc.ca/documents/EXAMINE/GM34663/
- Jenney, C. P. (1945). *Final and summary report, Duparquet Township property, Eastchester Mines Ltd. MERN GM00695*. https://gq.mines.gouv.qc.ca/documents/EXAMINE/GM64945/
- Jones, H. (1968). Anaconda American Brass Ltd., Iterim report, "Geological Mapping", Noranda Exploration Project. MERN GM25345.

https://gq.mines.gouv.qc.ca/documents/EXAMINE/GM25345/



- Kwak, T., & Barker, R. W. (1968). Anaconda American Brass Ltd., Eastern Exploration Division, Noranda Exploration Project, "Geological Mapping". MERN GM23807. https://gg.mines.gouv.gc.ca/documents/EXAMINE/GM23807/
- Lacroix, R. (1988). Sondages 1988, Propriété Lac Fabie, Explorations Rambo Inc. MERN GM47872. https://gq.mines.gouv.qc.ca/documents/EXAMINE/GM47872/
- Lewis, W., & San Martin, A. (2017). *MICON International Ltd. NI 43-101 technical report and review of the preliminary mineral resource estimate for the Pitt Gold Project, Duparquet Twonship, Abitibi Region, Quebec, Canada. Effective date December 15, 2016. Filed on SEDAR.*

Lochon, P. (1987). *6 Journals de sondages, Exploration Aunorex Inc. MERN GM46302*. https://gq.mines.gouv.qc.ca/documents/EXAMINE/GM46302/

Migliacci, L. S. (1986). *Rapport géologique, Destor-Duparquet Property, Ressources Aunore Inc. MERN GM44122*. https://gq.mines.gouv.qc.ca/documents/EXAMINE/GM44122/

Monecke, T., Gibson, H., Dubé, B., Laurin, J., Hannington, M. D., & Martin, L. (2008). *Geology and* volcanic setting of the Horne deposit, Rouyn-Noranda, Quebec: initial results of a new research project. https://doi.org/10.4095/225418

MRC Abitibi-Ouest. (n.d.). *Rôle et matrice*. Retrieved August 13, 2021, from https://www.mrcao.qc.ca/fr/role-et-matrice

Mueller, W., Moore, L., & Pilote, C. (2007). Blake River Group evolution: characteristics of the subaqueous Misema and New Senator calderas.

Mueller, W. U., Daigneault, R., Mortensen, J. K., & Chown, E. H. (1996). Archean terrane docking: upper crust collision tectonics, Abitibi greenstone belt, Quebec, Canada. *Tectonophysics*, *265*(1), 127– 150. https://doi.org/https://doi.org/10.1016/S0040-1951(96)00149-7

Natural Resources Canada. (2020). *Climate Trends and Variations Bulletin - Annual 2020*. https://www.canada.ca/en/environment-climate-change/services/climate-change/science-research-data/climate-trends-variability/trends-variations/annual-2020-bulletin.html

Pearson, V., & Daigneault, R. (2009). An Archean megacaldera complex: The Blake River Group, Abitibi greenstone belt. *Precambrian Research*, *168*(1), 66–82.

https://doi.org/https://doi.org/10.1016/j.precamres.2008.03.009

Poirier, S., Brousseau, K., Pelletier, C., Roy, L., Dreisinger, D., Coté, P., & Magnan, M. (2014). InnovExplo Inc. - Technical report and feasibility study for the Duparquet Project (according to National Instrument 43-101 and Form 43-101F1), Duparquet Township, Québec, Canada for Clifton Star Resources Inc., Effective date: March 26, 2014.

Poulsen, K. H. (1996). Lode gold. In *Geology of Canadian Mineral Deposit Types, (ed.) O.R. Eckstrand,* W.D. Sinclair, and R.I. Thorpe; Geol. Surv. of Canada, No. 8 (p. 323-328).

Questor Surveys Ltd. (1971). Levé Électromagnétique Aérien par INPUT MARK V à l'échelle modifiée – Région de Rouyn-Noranda et d'Amos, Abitibi, Québec. MERN DP 762.

Reyna Silver Corp. (2020). *Press Release June 4, 2020 "Completion of Aquistion Transaction."* https://reynasilver.com/news/?ver=news

Reyna Silver Corp. (2021). Press Release April 30, 2021 "Reyna Silver Sells Trudeau Gold Property to Beyond Minerals." https://reynasilver.com/news/?ver=news

Rioux, N. (2011). GENIVAR Limited Partnership - 43-101 technical report resource estimate of the Duquesne gold property for Clifton Star Resources Inc. Effective date July 26, 2011. Filed on SEDAR October 28, 2011.

Roy, R. (1980). *Rapport géophysiques, ISO-Montbray (Fabie), Noranda Mines Ltd. MERN GM36206.* https://gq.mines.gouv.qc.ca/documents/EXAMINE/GM36206/

SAGAX Géophysique Inc. (1986). *Levé de polarisation provoquée, Propriété Montbray, Exploration Kalito Inc. MERN GM45220*. https://gq.mines.gouv.qc.ca/documents/EXAMINE/GM45220/



- Salmon, B., & Holger Krutzelmann. (2012). Roscoe Postle Associates Inc., Technical Report on the Mineral Resource Estimate for the Magusi Project, Abitibi Region, Canada. National Instrument 43-101 report prepared for Mag Copper Ltd., dated March 21, 2012.
- Samis, A. N. (1975a). Logs of 1975, Cominco, Duparquet and Duprat township, Québec, D10-D17. MERN GM31191. https://gq.mines.gouv.qc.ca/documents/EXAMINE/GM31191/

Samis, A. N. (1975b). Logs of 1975, Cominco, Duparquet and Duprat township, Québec, D18-D20. MERN GM31639. https://gq.mines.gouv.qc.ca/documents/EXAMINE/GM31639/

SEDAR. (n.d.). Beyond Minerals Inc. Retrieved July 29, 2021, from

https://www.sedar.com/DisplayProfile.do?lang=EN&issuerType=03&issuerNo=00052702 Sementiou Inc. (2010). Ground MAG survey, Duparquet Gold project, Tres-Or Resources Ltd. MERN

- GM64945. https://gq.mines.gouv.qc.ca/documents/EXAMINE/GM64945/
- SIGÉOM. (n.d.-a). Système d'information géominière.

https://sigeom.mines.gouv.qc.ca/signet/classes/l1102\_indexAccueil?l=f

- SIGÉOM. (n.d.-b). Système d'information géominière Carte interactive. Retrieved August 17, 2021, from https://sigeom.mines.gouv.qc.ca/signet/classes/I1108\_afchCarteIntr
- Simard, J. (2017). *Report on an IP-RES survey, Fabie property, Trudeau Gold Inc. MERN GM70756*. https://gq.mines.gouv.qc.ca/documents/EXAMINE/GM70756/

Sutton, J. C., Gibson, H. L., & Jørgensen, T. R. C. (2017). Volcanic stratigraphy and intrusions in the Renault–Dufresnoy and Duprat–Montbray formations: implications for metal endowment in the lower Blake River group, Rouyn-Noranda, Quebec. *MERN Summary of Field Work 2017*.

Sutton, J. C., Gibson, H. L., Jørgensen, T. R. C., & Smith, B. T. (2019). Preliminary Description of the Volcanic-Intrusive Setting of the Duprat–Montbray Formation, Lower Blake River Group, Rouyn-Noranda, Quebec. *MERN Summary of Field Work 2018*. https://merc.laurentian.ca/news-standard/mern-summary-field-work-2018

Trudeau, Y. (1980). *Rapport géologique, ISO-Montbray (Fabie), Noranda Mines Ltd. MERN GM37256*. https://gq.mines.gouv.qc.ca/documents/EXAMINE/GM37256/

Trudeau, Y. (1982). Levé géologique de la propriété Anaconda, Cantons Duparquet & Duprat, Québec. MERN GM39500. https://gq.mines.gouv.qc.ca/documents/EXAMINE/GM39500/

Trudeau, Y. (1984). Work done in 1984, Anaconda property, Duparquet and Duprat townships. MERN GM41346. https://gq.mines.gouv.qc.ca/documents/EXAMINE/GM41346/

Val-d'Or SAGAX Inc. (1999). *Levé de polarisation provoquée, Propriété Anaconda, Morissette/O'Connor. MERN GM57167*. https://gq.mines.gouv.qc.ca/documents/EXAMINE/GM57167/

Ville de Rouyn-Noranda. (n.d.). *Matrice graphique et évaluation municipale*. Retrieved August 13, 2021, from https://cartes.rouyn-

noranda.ca/Html5Viewer/Index.html?viewer=EvaluationMunicipale&locale=fr-CA

Wallis, C. S. (1974). *Cominco, Duparquet township, Quebec, Logs of D.D.H. D1- D9. MERN GM30287.* https://gq.mines.gouv.qc.ca/documents/EXAMINE/GM30287/

Warren, T. E. (1970). Anaconda American Brass Ltd., Duparquet township, Quebec, Logs D.D.H. 1-12, 16-20, 24 & 25. MERN GM26461. https://gq.mines.gouv.qc.ca/documents/EXAMINE/GM26461/

- Warren, T. E. (1971). Anaconda American Brass Ltd., Duprat, Township, Quebec, Logs D.D.H. 26-36. MERN GM27285. https://gq.mines.gouv.qc.ca/documents/EXAMINE/GM27285/
- Whitney, D., & Evans, B. (2010). Abbreviations for Names of Rock-Forming Minerals. *American Mineralogist*, *95*, 185–187. https://doi.org/10.2138/am.2010.3371
- World Weather Online. (n.d.). *Duparquet Monthly Climate Averages, Quebec, CA*. Retrieved August 12, 2021, from https://www.worldweatheronline.com/duparquet-weather-averages/quebec/ca.aspx

