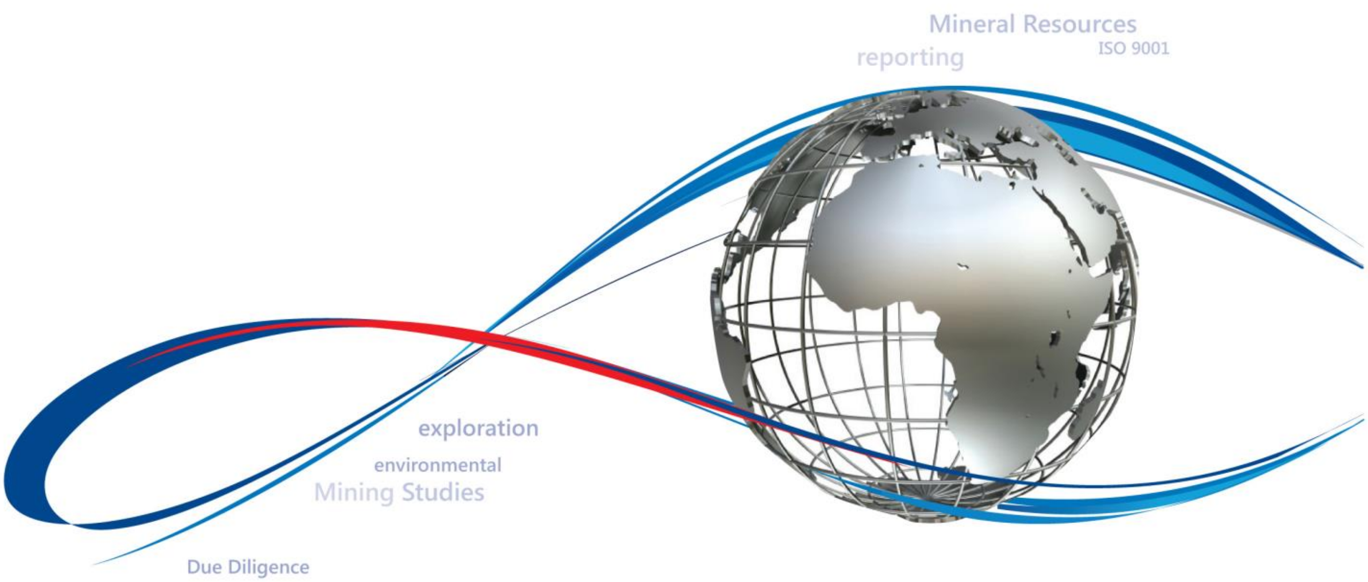
THE MSA GROUP

Specialist Consultants to the Mining Industry

Excellon Resources Inc and Saxony Silver Corp.
Silver City Project, Saxony, Germany
NI 43-101 Technical Report



Prepared by The MSA Group (Pty) Ltd for:
Excellon Resources Inc. and Saxony Silver Corp.

EXCELLON RESOURCES

The MSA Group (Pty) Ltd | Registration No: 2000/002800/07
Tel: +27 (0)11 880 4209 | Fax: +27 (0)11 880 2184 | email: info@msagroupservices.com
Henley House, Greenacres Office Park. Cnr Victory and Rustenburg Roads, Victory Park, 2195
PO Box 81356, Parkhurst, 2120, South Africa
Directors: KD Scott, NNP Makhoba, IG Haddon

www.msagroupservices.com

Silver City Project, Saxony, Germany

NI 43-101 Technical Report

Excellon Resources Inc. and Saxony Silver Corp.

10 King Street East, Suite 200

Toronto, Ontario, Canada M5C 1C3

E-mail: info@excellon resources.com

Website : www.excellonresources.com

Tel: +1 416 364 1130

Fax: +1 416 364 6745

The MSA Group (Pty) Ltd

Henley House, Greenacres Office Park

Cnr Victory & Rustenburg Roads

Victory Park 2195

South Africa

MSA Project Number: J4621

Effective Date:	**March 31, 2022**
Signature Date:	**June 28, 2022**

Authored by:

["Original signed"]

Michael J. Robertson, Pr.Sci.Nat. (400005/92) ; MAusIMM (316078)

Principal Consultant

Peer Reviewed by:

["Original signed"]

David Dodd, Pr.Sci.Nat. (400011/04)

Principal Consultant

IMPORTANT NOTICE

This report was prepared as a National Instrument NI 43-101 Technical Report for Excellon Resources Inc. ("Excellon") and Saxony Silver Corp. ("SSC") by The MSA Group (Pty) Ltd ("MSA"), South Africa. The quality of information, conclusions and estimates contained herein is consistent with the level of effort involved in MSA's services, based on: i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions, and qualifications set forth in this report. This report is intended for use by Excellon and SSC subject to the terms and conditions of its contract with MSA. Except for the purposes legislated under Canadian provincial securities law, any other uses of this report by any third party is at that party's sole risk.

SUMMARY

Property Description and Ownership

The Silver City exploration project (the "Project") is located in the historic Freiberg silver mining district in the Free State of Saxony, Germany. The district has produced an estimated 183 million ounces of silver over a period of approximately 750 years. The nearest city is Freiberg, located centrally within the Project area. The Project comprises four exploration licences covering 34,075 hectares and includes numerous historical silver mining camps exploited over a period of 750 years.

Excellon Resources Inc. ("Excellon") entered into an agreement with Globex Mining Enterprises Inc. ("Globex") in 2019 for the option to acquire a 100% interest in the Bräunsdorf licence (the "Option"). Excellon holds the Option through its wholly-owned subsidiary, Saxony Silver Corp ("SSC"). The Bräunsdorf licence was issued by the Mining Authority of Saxony in Freiberg ("Sächsisches Oberbergamt") and is registered under register no. 12-4741.1/685 and the field number 1685 at the Mining Authority of Saxony. The licence is valid until September 30th, 2022.

The three remaining licences are held directly by SSC, are valid until March 15th, 2024, and also cover historical silver mining camps. The Frauenstein licence is registered under register no. 4741.1/703 and the field number 1703 at the Mining Authority of Saxony. The Mohorn licence is registered under register no. 4741.1/704 and the field number 1704 at the Mining Authority of Saxony. The Oederan licence is registered under register no. 4741.1/705 and the field number 1705 at the Mining Authority of Saxony.

A site visit to the Project was carried out by the Qualified Person, Michael Robertson, Principal Consultant at The MSA Group (Pty) Ltd. ("QP") from 14 to 17 September 2021 with a subsequent visit from May 4 to 6, 2022.

Geology and Mineralization

The Freiberg mining district is in the north-eastern part of the Erzgebirge ("German Ore Mountains") metallogenic province, extends from the eastern part of Saxony and northern Bavaria to the western Czech Republic. The Erzgebirge forms the northern tip of the Bohemian Massif, part of the Variscan Orogeny in central Europe.

The Freiberg silver-lead-zinc district is an example of an epithermal system centred on a domal structure comprising a Neoproterozoic gneiss unit flanked by younger schists and phyllites to the northwest. The eastern part of the gneiss dome was intruded by a late collisional granite and is covered by a volcanic complex. The dome is approximately 25 kilometres in diameter and consists of a core of medium- to coarse-grained orthogneisses ("lower grey-gneiss unit") surrounded by fine- to medium-grained paragneisses ("upper grey-gneiss unit"). The dome itself is enclosed by various schists, phyllites, and gneisses which are considered to be a part of the Variscan nappe stack.

With the exception of the Frauenstein licence, which is located 20 kilometres southeast of Freiberg town, the Project licence areas are contiguous and are located on the western, north-western, and northern periphery of the Freiberg mining district and cover the transition from the gneissic units of the Freiberg dome to the surrounding rocks of lower metamorphic grade. Within the contiguous licences, the south-eastern part is underlain by biotite-muscovite-plagioclase paragneisses of the upper grey-gneiss unit with a foliation that dips to the northwest. A mica schist sequence to the northwest of this is separated from the gneisses by a transition zone comprising steeply northwest and north dipping alternating domains of mica schist and gneiss with intercalated meta-sediments (locally graphitic), meta-tuffs, hornfelses, quartzites, amphibolites, and marbles.

A significant proportion of the Project area is covered by alluvium and overburden, generally comprising gravel, sand, loess material as well as clay-rich soils and talus of Cretaceous to Quaternary age.

The Bräunsdorf exploration licence covers a 1-5 kilometre wide low- to intermediate sulfidation silver (±lead-zinc-copper-gold) epithermal vein system extending over at least 36 kilometres in a northeast-southwest orientation, representing the main trend of the northwestern periphery of the Freiberg district. At least 28 million ounces of silver have been produced historically from the area underlain by the current Bräunsdorf licence (Jurgeit, 2018a). The continuation towards the southwest and several parallel structures of the main trend in the south is enclosed by the Oederan property. Similarly, the Mohorn licence includes several parallel structures of the main trend near Reinsberg, however, it also covers the northern continuation of the central Freiberg vein corridor between Halsbrücke and Mohorn. Epithermal vein type mineralization of the Frauenstein licence shares the same general characteristics as the other areas mentioned above.

The most favourable sites for extensional veins (including stockwork zones and replacement) and associated epithermal mineralization are the gneissic units, graphitic mica schist and mafic volcanics and the respective lithological contacts, particularly the contacts between the transition zone and the mica schist unit. During the 2020 drill campaign, significant mineralization was encountered in mafic volcanics along the mafic volcanics and mica schist contact, representing a new setting with further discovery potential.

Status of Exploration

Prior to exploration activities conducted by Excellon in 2019, historical mining, drilling, sampling, and more recently soil and grab sampling, a land and drone magnetic survey, and induced polarization ("IP") surveys were conducted at the Project.

Since becoming the operator in 2019, Excellon has conducted petrographic and Mineral Liberation Analysis ("MLA") studies, seismic and IP surveys and two drill programs (43 holes totalling 13,628.8 metres) on a number of target areas accompanied by detailed core logging, sampling and laboratory analyses of 7,544 samples. In accordance with an agreement between Helmholtz Institute ("HIF") and

Excellon, HIF staff have been performing drill core mapping using hyperspectral analysis ("HA") to improve the understanding of the local mineralization and alteration.

Globex exploration data have been incorporated into a GIS database along with maps and plans of historical workings, which have been digitized, georeferenced, and modelled in 3D using Leapfrog Geo. The Leapfrog Geo models of the various targets and old workings are particularly useful for drillhole planning and thereby confirming continuity of mineralized structures mined historically.

All Excellon exploration activities are conducted in accordance with project-specific standard operating procedures.

Conclusions

It is the QP's opinion that the drilling, logging, sampling, laboratory analysis, and QAQC procedures adopted by Excellon are consistent with generally recognized industry best practices, and the sample database is of sufficient quality to ensure safe, robust, and efficient Project data management.

The results of the two drilling programs carried out by Excellon have confirmed further continuity of the epithermal vein system known from historical mining records. In addition, the new discovery in the 2020 drilling program of epithermal veins associated with the mafic volcanic - schist contact at the Grauer Wolf and Reichenbach targets has added to the exploration potential of the district.

The geological setting, historical mining, and the exploration results to date present substantial evidence of polymetallic epithermal mineralization. High-grade intersections and the discovery of new mineralized structures by Excellon confirm the exploration potential of individual targets and the district as a whole and justify additional technical studies and exploration expenditures.

Significant potential exists for the identification of strike extensions to known vein systems exploited historically and for the discovery of new mineralized veins that are hidden or blind below surface. With an improved structural understanding, there exists potential for the discovery of new ore shoots and extensions to known shoots. In addition, for targets such as Grauer Wolf where multiple veins with different orientations are known, there is potential for delineating larger mineralized stockwork zones.

Recommendations

Additional drilling is recommended around the Bräunsdorf, Reichenbach, Grauer Wolf, Siegfried, and Großvoigtsberg targets. In order to improve the geological confidence and expand the known mineralization, further investigation should focus along strike as well as to depth below the historical mine workings.

Mineral exploration work consisting of drilling and soil sampling completed to date covered a relatively small portion of the Project area. The presence of significant structural elements and multiple undrilled vein occurrences that were identified through soil/float sampling and geophysics suggest high exploration potential of the remaining part of the property. In particular, exploration drilling at the untested Obergruna target and examination of an area near Langhennersdorf with highly anomalous soil samples are options for further exploration work, albeit of lower priority.

Magnetic and gravimetric surveys proved to be very useful for delineating geological contacts and regional tectonic elements associated with the emplacement of polymetallic veins. As a consequence of the limited spatial coverage, inconsistent resolution and data quality of the airborne and ground magnetic surveys carried out by Globex in 2019, further magnetic surveys are recommended in selected areas of the property.

The proposed work program includes:

- Step-out diamond drilling at Bräunsdorf to assess the extent and nature of mineralization below workings of the historical Neue Hoffnung Gottes Mine.
- Step-out diamond drilling at Grauer Wolf and Reichenbach to confirm the continuity of the known mineralization along the strike and towards depth.
- Step-out diamond drilling at Großvoigtsberg to confirm continuity of the known mineralization along the strike and towards depth, particularly in the areas where rich ore shoots were documented during historical mining.
- Drill testing of magnetic lineaments and inferred geological contacts near Grauer Wolf and Reichenbach.
- Drill testing of magnetic lineaments and inferred geological contacts at Obergruna where historical mapping indicates the presence of mineralized veins.
- Fence drilling at Langhennersdorf to test soil anomalies.
- Test continuation of high-grade ore shoot below Erzengel Michael Mine at Mohorn Licence
- Drill test extensions of the vein below Friedrich August mine at Frauenstein
- Drill test mineralization below and along strike of Bergmännische Hoffnung mine at Oederan
- An airborne magnetic survey in selected areas to complement the dataset that was obtained during the earlier surveys.
- High resolution resistivity and chargeability surveys on selected targets including orientation study in the area of known mineralization.
- Rock magnetic susceptibility study on available drill core for all target areas and all encountered lithologies to support the interpretation of available and future magnetic survey data.
- Pending the results from the 2021/2022 soil sampling, extend the soil geochemical sampling program within the Project area.
- Soil geochemical sampling on three lines on the Frauenstein licence.
- Further structural analysis to improve understanding of the controls on mineralization and the implications for exploration targeting.

- Archive work, digitizing and georeferencing historical mine plans.
- Regional exploration work on the rest of the Silver City Project.

Table

The total estimated cost of the recommended exploration program is 15.6 million CAD

Description	Quantity	Total Costs (CAD)
Drilling (Year 1) - extending and defining known mineralization	8,250 metres	2,970,000
Drilling (Year 1) - well supported regional targets	2,500 metres	900,000
Drilling (Year 2) - other regional targets	12,000 metres	4,320,000
Drilling (Year 3) – other regional targets	13,000 metres	4,680,000
Subtotal drilling		**12,870,000**
High resolution resistivity and chargeability surveys (Year 1 & 2)		275,000
Assays Core Samples (Year 1-3)	12,000 samples	720,000
Soil Geochemistry (Year 1 & 2)	3,000 samples	180,000
Geological and mineralogical studies (Year 2 & 3)		25,000
Core storage facility and office rent (Year 1-3)		150,000
3D modelling, preparation of updated technical report (Year 3)		275,000
Subtotal		**1,345,000**
Contingency (~10%]		1,422,000
Total		**15,637,000**

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

1 INTRODUCTION

The Silver City exploration project (the "Project") is in the historic Freiberg silver mining district in the Free State of Saxony, Germany. The Project comprises four exploration licences covering 34,075 hectares. The Bräunsdorf exploration licence includes six major and six minor historical silver mining camps within a silver (±lead-zinc-copper-gold) epithermal vein system with a strike extent of 36 kilometres and a width of between 1 kilometre and 5 kilometres. Excellon Resources Inc. ("Excellon") entered into an agreement with Globex Mining Enterprises Inc. ("Globex") in 2019 for the option to acquire a 100% interest in the Bräunsdorf licence (the "Option"). Excellon holds the Option through its wholly-owned subsidiary, Saxony Silver Corp. ("SSC"). The three remaining licences are held directly by SSC and also cover historical silver mining camps.

Excellon is advancing a precious metals growth pipeline that includes the Platosa mine and Evolución project in Mexico, the Kilgore and Oakley projects in the United States of America, and the Option on the Silver City Project. Work on this Project was initially conducted by Fugro Germany Land GmbH ("Fugro") and Erzgebirgische Zinn-Wolfram GmbH ("EZW") under Excellon's management and is now conducted by Saxony Silver Exploration – SSE GmbH ("SSE"), the wholly-owned German subsidiary of SSC.

1.1 Terms of Reference

The MSA Group (Pty) Ltd. ("MSA") was commissioned by Excellon to provide an Independent Technical Report (the "Report") on the Project. This Report represents the second National Instrument 43-101 Technical Report for the Project and has been prepared to comply with disclosure and reporting requirements set forth in the Canadian Securities Administrators' National Instrument 43-101, Companion Policy 43-101CP, Form 43-101F1, the 'Standards of Disclosure for Mineral Projects' of June 2011.

This Report documents the historical exploration and the first modern exploration in the Project area completed by Excellon in the 2020 and 2021 exploration programs.

All monetary figures expressed in this report are in Canadian dollars ("C$") unless otherwise stated.

1.2 Principal Sources of Information

The Report has been prepared based on information provided by Fugro and EZW during their work on the 2020 exploration program, information and data provided by Excellon on the 2020 and 2021 exploration programs, and the review of this information and data by the QP, Michael Robertson, Principal Consultant at MSA.

The Report is based on the following sources of information:

- Globex's exploration reports (applies to information in Items 5, 6 and 9);

- Data from Excellon's 2020 and 2021 exploration programs; and
- Additional information from public domain sources.

Fugro provided input on the historical exploration work, local and regional geology, adjacent properties and the 2020 drilling program. Specific input was provided by Thomas Woolrych and Dr Bartosz Karykowski (Senior Consultants) and Dr Jörg Neßler (Manager Resource Consulting) from Fugro. EZW provided input on the descriptions of the property, permits and authorizations, and the applicable German mining law. Excellon provided additional information from the 2020 and 2021 exploration programs during the compilation of the report.

A listing of the principal sources of information is included at the end of this Report. The QP has endeavoured, by making all reasonable enquiries, to confirm the authenticity and completeness of the technical data upon which the Report is based. A final draft of the Report was provided to Excellon, along with a written request to identify any material errors or omissions prior to lodgement.

The Project is considered to represent an "Exploration Project" which is inherently speculative in nature. However, the QP considers that the Project has been acquired based on sound technical merit. The Project is also considered to be sufficiently prospective, subject to varying degrees of exploration risk, to warrant further exploration and assessment of its economic potential, consistent with the proposed work program.

Excellon has prepared a staged exploration and evaluation program, specific to the potential of the project, which is consistent with the budget allocation. The Project has evolved based on considerable historical information as well as exploration activities since 2018 and the QP considers that the Project has sufficient technical merit to justify the proposed exploration program and associated expenditure.

The Report has been prepared on information available up to and including March 31, 2022.

1.3 Personal Inspection

A personal inspection by the QP was made from September 14 to 17, 2021 and from May 4 to 6, 2022 to the Project in Saxony, Germany to observe the geology and mineralization, verify the work done, and obtain familiarity with conditions on the property.

1.4 Qualifications, Experience and Independence

MSA is a leading provider of exploration, geology, mineral resource and reserve estimation, mining and environmental consulting services, and has been providing services and advice to the international mineral industry and financial institutions since 1983. This report has been prepared by the QP, Michael Robertson, who is a professional geologist with 30 years' experience, the majority of which has involved the exploration and evaluation of precious and base metal projects globally. He is a Principal Consultant with MSA, a Professional Natural Scientist (Pr.Sci.Nat.) registered with the South African Council for

Natural Scientific Professions, a Member of the Australasian Institute of Mining and Metallurgy (MAusIMM) and a Fellow of the Geological Society of South Africa (FGSSA). Mr Robertson has the appropriate relevant qualifications, experience, competence and independence to act as a "Qualified Person" as that term is defined in National Instrument 43-101 (Standards of Disclosure for Mineral Projects).

Peer review has been undertaken by David Dodd, who is a professional geologist with over 20 years' experience in exploration and mining of mineral properties, within Africa and elsewhere internationally. Mr Dodd is a Professional Natural Scientist (Pr.Sci.Nat.) registered with the South African Council for Natural Scientific Professions and a Fellow of the Geological Society of South Africa (FGSSA). Mr Dodd is the Head of Department, Geology, at MSA and is based in the MSA Johannesburg office.

Neither MSA, nor the QP, has or has had previously, any material interest in Excellon or the mineral properties in which Excellon has an interest. Our relationship with Excellon is solely one of professional association between client and independent consultant. This Report is prepared in return for professional fees based upon agreed commercial rates and the payment of these fees is in no way contingent on the results of this Report.

2 RELIANCE ON OTHER EXPERTS

MSA has not independently verified, nor is it qualified to verify, the legal status of the four exploration licences comprising the Project. The present status of the licences is based on information and copies of documents provided by Excellon, and the report has been prepared on the assumption that the licences will prove lawfully accessible for evaluation. Reliance applies to information in Item 3.2.

Neither MSA nor the QP are qualified to provide extensive legal comment on Excellon's option agreement with Globex. Comment on this agreement is for introduction only and should not be relied on by the reader. Reliance applies to information in Item 3.2.

Similarly, neither MSA nor the QP are qualified to provide environmental comment on the Project. The QP has relied on EZW for information regarding environmental studies, permits, and social or community impact. Reliance applies to information in Items 3.2.4 and 19.

No warranty or guarantee, be it express or implied, is made by MSA with respect to the completeness or accuracy of the legal or environmental aspects of this document. MSA does not undertake or accept any responsibility or liability in any way whatsoever to any person or entity in respect of these parts of this document, or any errors in or omissions from it, whether arising from negligence or any other basis in law whatsoever.

3 PROPERTY DESCRIPTION AND LOCATION

3.1 Location

The Project is located in the eastern part of Germany within the Free State of Saxony in the county of Mittelsachsen and partly in the counties of Meissen and Sächsische Schweiz-Osterzgebirge. The nearest city is Freiberg (population 40,000) located less than 5 kilometres south of the three contiguous concessions (Bräunsdorf, Mohorn, and Oederan) (Figure 3-1 and Figure 3-2).

3.2 Mineral Tenure, Permitting, Rights and Agreements

3.2.1 Mineral Tenure

Excellon operates the Project under four exploration licences (Table 3-1) issued by the Mining Authority of Saxony in Freiberg ("Sächsisches Oberbergamt"). The Bräunsdorf licence is registered under register no. 12-4741.1/685 and the field number 1685 at the Mining Authority of Saxony, and is valid until September 30th, 2022. The Frauenstein licence is registered under register no. 4741.1/703 and the field number 1703 at the Mining Authority of Saxony. The Mohorn licence is registered under register no. 4741.1/704 and the field number 1704 at the Mining Authority of Saxony. The Oederan licence is registered under register no. 4741.1/705 and the field number 1705 at the Mining Authority of Saxony.

Table 3-1
Mineral Tenure Status

Licence	Licence Name	Field Number	Area (Ha)	Effective Date	Expiry Date
Globex Mining Enterprises Inc.	Bräunsdorf	1685	16 450	22-Aug-17	30-Sep-22
Saxony Silver Corporation	Frauenstein	1703	5 711	03-Feb-21	15-Mar-24
Saxony Silver Corporation	Mohorn	1704	5 705	09-Feb-21	15-Mar-24
Saxony Silver Corporation	Oederan	1705	6 208	11-Feb-21	15-Mar-24
		Total	**34 075**		

Excellon optioned the Bräunsdorf licence from Globex in 2019 with the opportunity to acquire a 100% interest. Excellon holds the Option through its wholly-owned subsidiary, Saxony Silver Corp.

As of the Effective Date of this Report, all exploration licences for the Project are listed "in full compliant standing" at the legal website of the Saxon State Ministry for Economy, Labour and Traffic, concerning "Bergbau in Sachsen" ("Mining in Saxony").

Figure 3-1
Location of the Silver City Project in Saxony, Germany

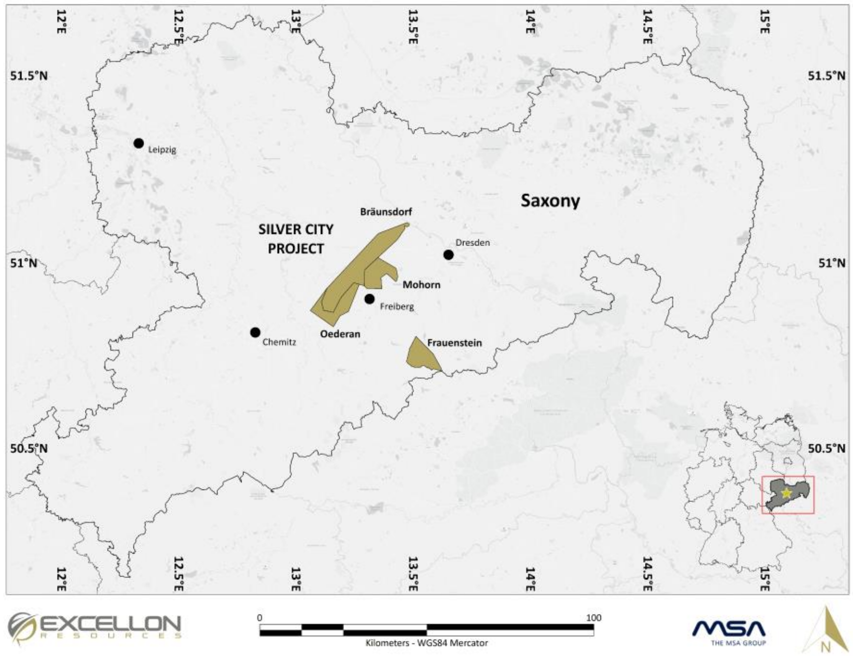
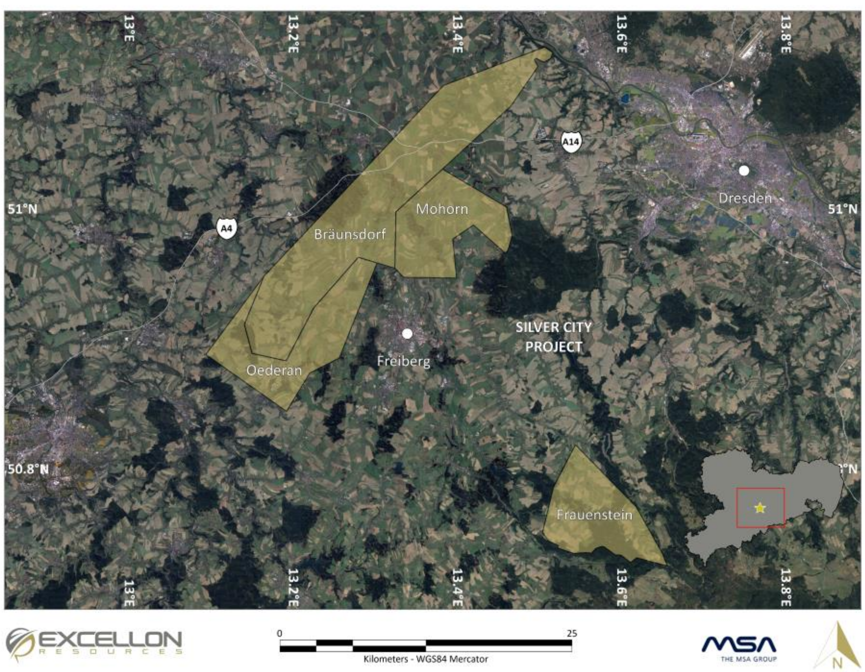


Figure 3-2
Location of the Silver City Project area proximal to Freiberg



3.2.2 Rights and Agreements

Excellon entered into an agreement with Globex in 2019 for the Option. Under the terms of such agreement, to exercise the Option and earn a 100% interest in the Bräunsdorf licence Excellon must:

i. Pay C$100,000 and issue 226,837 common shares of Excellon ("Common Shares") valued at C$225,000 to Globex (completed on September 23, 2019);

ii. Pay C$100,000 and issue 65,657 Common Shares to Globex equivalent to C$325,000 based on the 5-day volume weighted average price ("VWAP") on or before September 23, 2020 (completed on September 21, 2020);

iii. Pay C$100,000 and issue 232,240 Common Shares to Globex equivalent to C$425,000 based on the 5-day VWAP on or before September 23, 2021 (completed on September 22, 2021);

iv. Pay C$200,000 and issue Common Shares to Globex equivalent to C$625,000 based on the 5-day VWAP on or before September 23, 2022; and

v. Upon completion of the payments and issuances set out above, grant Globex a gross metals royalty on the exploration or production licence on the Bräunsdorf licence of 3.0% for precious metals and 2.5% for other metals, which may be reduced to 2% and 1.5%, respectively, upon a payment of US$1,500,000.

The total value of cash and shares over the three-year term is C$500,000 and C$1.6 million, respectively. Excellon may accelerate any of the payments, issuances, or the royalty grant at any time during the term of the Option. Additionally, Excellon may terminate the Option at any time.

In addition, Excellon has agreed to make:

- a one-time payment of C$300,000 following the announcement of a maiden resource on the Bräunsdorf licence, and
- a one-time payment of C$700,000 upon achievement of commercial production from the Bräunsdorf licence.

3.2.3 Permits and Authorizations

Most surface rights within the Project area are privately owned. Public landowners include the following:

- The Federal Republic of Germany, represented by its real estate administration ("Bodenverwertungs- und Verwaltungs GmbH" – "BVVG");
- The Federal Republic of Germany, represented by the Autobahn GmbH;
- The Free State of Saxony, represented by different real estate administrations (e.g. "Staatsbetrieb Sächsisches Immobilien- und Baumanagement" ("SIB"), "Staatsbetrieb Sachsenforst", "Landestalsperrenverwaltung" ("LTV")); and
- Local communities.

The surface rights underlying the Project are owned by a combination of private and public owners. Excellon has negotiated agreements with individual landowners to access their property for exploration purposes.

3.2.4 Environmental and Social Considerations

The exploration licences for the Project have gone through the public granting process, which includes statements and recommendations from the local communities and authorities. Consultation and contracts with local stakeholders, public and private landowners, and land users are required for permitting all exploration activities, e.g.:

- Individual land access and drilling contracts and permissions;
- Temporary Forest Change Permission; and
- Temporary driving permission for streets and ways in the forest.

Excellon has been continuously in communications with the representatives of the local public and local authorities in order to address any questions and concerns, and to consult with and inform the public of the upcoming exploration activities. According to Excellon's community agreements with local landowners and land users, drill sites shall be reclaimed upon completion of drilling activities on these properties.

The Mining Authority of Saxony prescribes a specific set of requirements that have to be followed when carrying out exploration activities in order to limit the likelihood and the extent of possible environmental contamination. Excellon has been closely following these requirements when carrying out exploration activities.

3.2.5 Mining Rights in Saxony, Germany

Mineral concessions in Germany are governed by the Federal Mining Act (Bundesberggesetz – BBergG). Concession applications are completed by map staking. The Federal Mining Act defines three different stages for raw material concessions in Germany: Exploration Licence, Extraction Licence, and Mining Proprietorship. An Exploration Licence shall be required for exploring freely mineable resources, and an Extraction Licence or Mining Proprietorship shall be required for extracting freely mineable resources. The Mining Authority of Saxony in Freiberg ("Sächsisches Oberbergamt") is the official executive authority for the Federal Mining Act. It grants mining permits for mineral resource exploration and mining and supervises projects at mining and reclamation stages.

According to the Federal Mining Act, initial exploration licences are generally limited to a maximum duration of five years. They may be renewed for an additional three years at a time if the exploration licence area could not be sufficiently explored despite scheduled exploration efforts that were coordinated with the appropriate authority.

Extraction licences or mining proprietorships shall be granted for periods appropriate for extraction in the respective individual case. This period may exceed fifty years only if necessary for the investments ordinarily required for extraction. This period may be extended up to the date on which deposits could be expected to be depleted using practical and systematic extraction methods.

Currently, and in contrast to the general rules of the Federal Mining Act, there are no annual fees associated with exploration licences in Saxony. There are no minimum expenditure commitments for exploration licences in Germany. There is little to no liability associated with holding licences, and the holder is only required to show adequate progress in the investigation of these properties.

The holder of the exploration licence is required to submit to the Mining Authority of Saxony an annual report detailing the technical activities, progress of the exploration activities, and a financial budget along with the planned technical activities and budget for the following year.

3.2.6 Federal Royalties Concerning Mining Exploration and Extraction

Royalties on mineral exploration and extraction are regulated by national law pursuant to Sections 30, 31 and 32 of the Federal Mining Act and by edict transposed into the federal law of the Federal State of Saxony. Currently, the Federal State of Saxony does not impose a royalty on exploration activities.

4 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

4.1 Accessibility

The Project is located in the eastern part of Germany within the central part of the Federal State of Saxony in the counties of Mittelsachsen, Meissen, and Sächsische Schweiz-Ostererzgebirge. The nearest city is Freiberg (population 40,000) which is located less than 5 kilometres south of three contiguous concessions (Bräunsdorf, Mohorn, and Oederan) and 20 kilometres northwest of Frauenstein licence. The closest international airport is in Dresden, Saxony, approximately 50 kilometres by road to the northeast of the Project. The Project can be reached via Highway A4 with a total travel time of approximately 45 minutes. A wide system of paved public roads covers the Project, allowing all year round access to any part of the Project (Figure 4-1).

4.2 Climate

The climate in the Project area is moderate, with few extremes in temperature and precipitations. The average annual temperature is 10°C. The warmest month is July, with a mean temperature of 18.9°C. The coldest month is January with an average temperature of 1.1°C.

The highest temperature of 39.4°C was recorded in July, and the lowest temperature of -21.7°C was recorded in January. The average annual precipitation is 886.5 millimetres with July having the highest precipitation average of 104.1 millimetres and February having the lowest precipitation average of 43.2 millimetres. Much of the precipitation occurs in the form of rain with minor amounts of snow between December and February. There is an average of 86.4 days of rain annually.

4.3 Physiography

The surface of the Project area is relatively flat, with small hills and meandering river valleys (Figure 4-1). The average elevation is 360 metres NHN ("Normalhöhennull"), with elevation ranging from 330 metres to 810 metres in river valleys and hills, respectively.

Most of the Project area is covered by agricultural fields and several small villages. The north-western part of the Bräunsdorf property, including the Grauer Wolf target, as well as the majority of the Frauenstein property, is covered by forest.

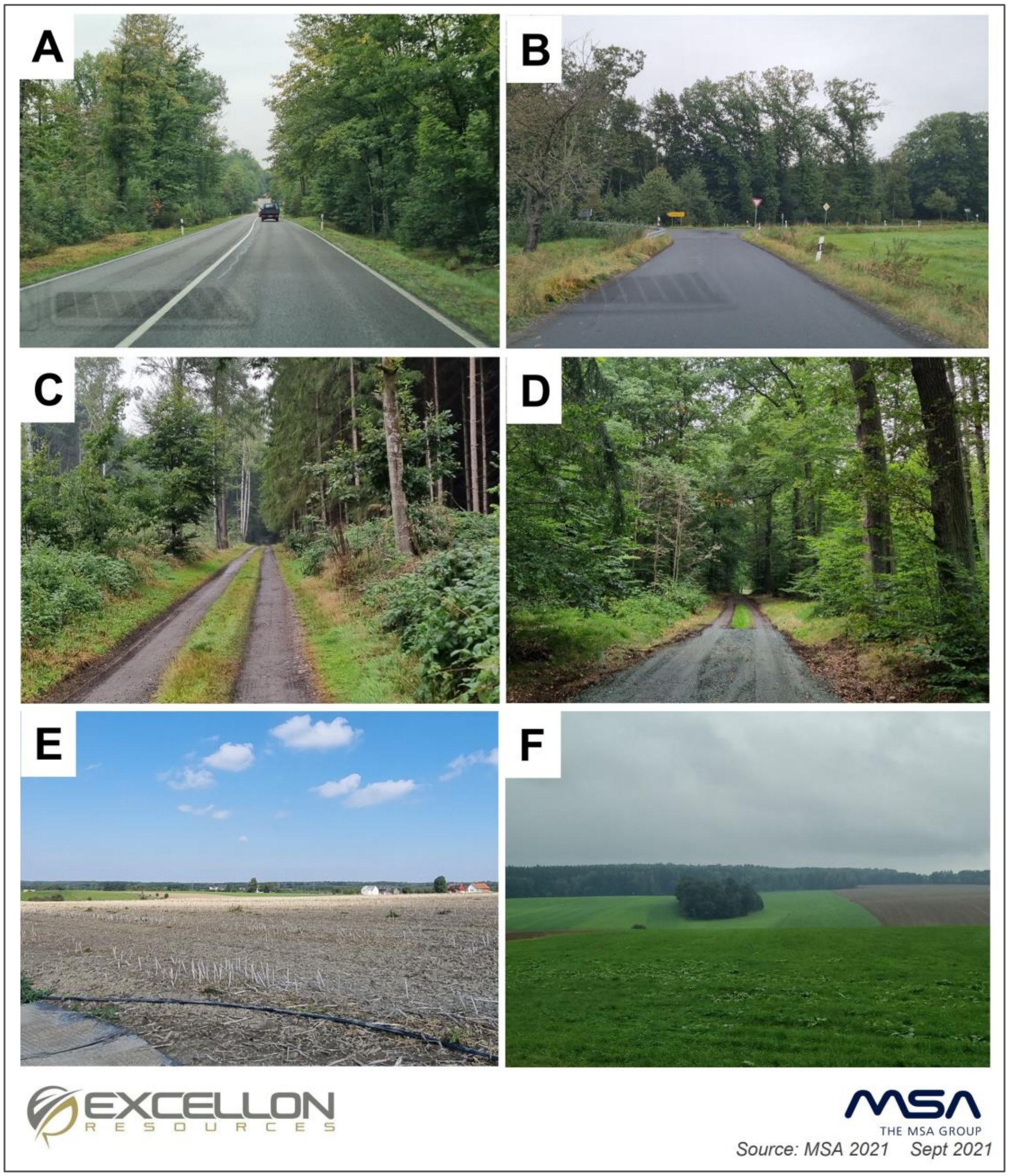
4.4 Local Resources and Infrastructure

The Project exploration facility is located in the city of Freiberg. The city is easily accessible via Highways 4, 13, 14, 17, 72, and multiple paved public roads. All necessary services to support exploration are available in Freiberg or nearby easily accessible cities and towns.

Agriculture is the major industry in the vicinity of the Project area. Freiberg is home to the Freiberg University of Mining and Technology. Within recent decades the city became a high technology hub, specializing in semiconductor manufacturing and is part of Silicon Saxony (an industry association of nearly 300 companies specializing in microelectronics and related fields).

Figure 4-1

Road access and physiography within the Bräunsdorf licence area: (A) the 101 road heading northwest out of Freiberg; (B) road heading to the Zellwald forest; (C, D) tracks within the Grauer Wolf forest; (E, F) agricultural fields within the Bräunsdorf licence area.

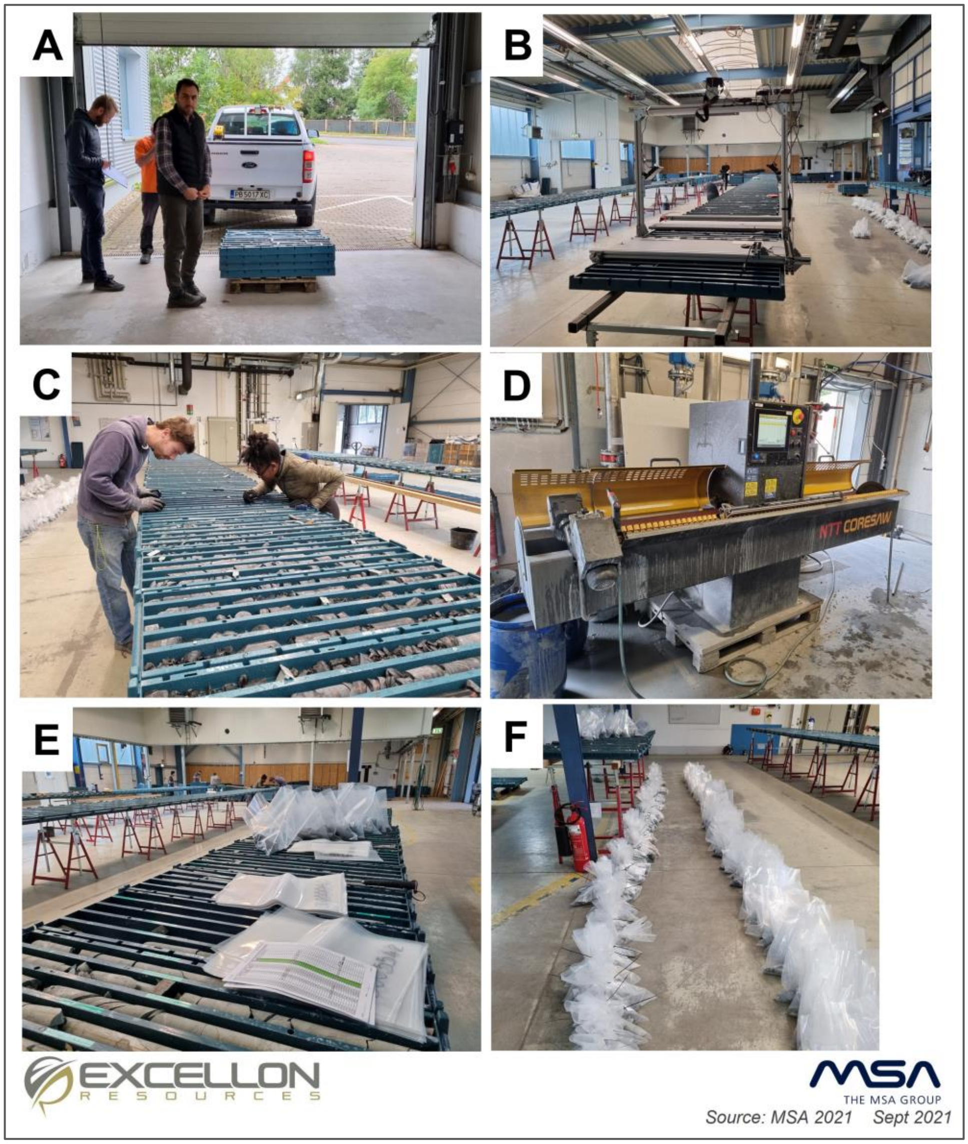


The closest major city is Dresden, Saxony (population of 1.34 million in 2020). The other major cities include Leipzig (population of 600,000 in 2020), Chemnitz (population of 247,000 in 2020) and Berlin (population of 3.67 million in 2020). The Project area has a long-standing history of mining and smelting, with active silver mining carried out between the 12th and the end of the 19th century.

Excellon's logging and storage facility was located at Helmholtz Institute Freiberg for Resource Technology and was moved in 2021 into a larger and more suitable facility formerly occupied by the SolarWorld company (Figure 4-2). Considerations relating to surface rights are discussed in Item 3.2.3.

Figure 4-2

Excellon's core logging and storage facility in Freiberg: (A) core receiving area; (B) core photography set-up; (C) core logging; (D) core cutting facility; (E, F) core sampling.



5 HISTORY

The Freiberg mining district covers approximately 1,400 square kilometres and hosts over 1,000 silver- and base metal-bearing hydrothermal veins (Müller, 1901; Baumann et al., 2000). The thriving mining activity in the region resulted in the founding of the city of Freiberg and several other nearby towns. The area has been mined and explored by various operators since around 1162-1170 (Table 5-1).

Table 5-1
Ownership History of the Bräunsdorf Licence

Period	Ownership
1162 to 1969	Private and/or governmental/ Various operators
Since 2017	Globex Mining Enterprises Inc.

In 2021, Saxony Silver Corp., a wholly-owned subsidiary of Excellon Resources Inc., acquired the three licence areas of Frauenstein, Mohorn and Oederan in addition to the Bräunsdorf licence.

5.1 General History of the Freiberg Mining District

Silver mining in the Freiberg district initiated between the years of 1162-1170 and ceased in 1913, with base metal mining continuing until 1969. An example of early mining history at the Alte Elisabeth mine, Freiberg, is shown in Figure 5-1. During the approximate 750 years of relatively continuous mining, the total historical output of the Freiberg district has been estimated at 5,700 tonnes of silver (183 million ounces) (Wagenbreth and Wächtler, 2015), with major by-products being lead, zinc, copper, barite, fluorite, and minor amounts of cobalt, nickel, and uranium (Table 5-2).

During the initial "silver rush," mining was limited to a depth of only 15 metres. In the following centuries, advances in technology and new legislation enabled profitable underground mining at deeper levels (Wagenbreth and Wächtler, 2015). Moreover, capital investments stimulated the mining activities and raised ore production, which was systematically recorded from 1524 onwards. During the Thirty Years' (1618-1648) and the Seven Years' (1756-1763) wars, large parts of the mining infrastructure were destroyed. In order to facilitate the recovery of silver mining around Freiberg, the Bergakademie Freiberg (Freiberg Mining Academy) was founded in 1765, which developed several technological improvements in the following centuries (Wagenbreth and Wächtler, 2015).

In the early 1870s, Germany introduced the gold standard, replacing the prior silver-based currencies. This decision, along with the technical challenges of deep underground mining (>500 metres below surface), generally decreasing silver prices, and high imports of silver from overseas caused a decline in the silver mining industry in the region. In 1886, the Saxon state bought several mines to modernize them (Hirsch 1927); nevertheless, the investments could not prevent the economic decline of the Freiberg mining industry, and many mines had to close by 1913.

The final period of mining in Freiberg began in 1935 for the armament of Germany in the build-up to World War II. During this period, the mining-focused on base metals, barite, and to a lesser degree silver. After the establishment of the German Democratic Republic (the "GDR") in 1950, the VEB Bergbau- und Hüttenkombinat "Albert Funk" continued exploration and mining of base metals until the mines' final closure in 1969 due to economic and political reasons (Wagenbreth and Wächtler 1988).

Figure 5-1
Examples of historical infrastructure and workings at the Alte Elizabeth mine, Freiberg

EXCELLON RESOURCES

MSA THE MSA GROUP

Source: MSA 2021 Sept 2021

Table 5-2
Mining History within the Silver City Project Area

Mine camp	Principal mines	Production period[1]	Historical silver production		Grade	
			(t)	(Moz)	(kg/t Ag)	Mineralization Type
Bräunsdorf	Neue Hoffnung Gottes	16th century to 1863	> 112.5	> 3.6	0.93–2.5	Low sulfidation epithermal
Reichenbach	Seitenberg, Grauer Wolf	1725 to 1878 (Seitenberg), 17th century (Grauer Wolf)	Unknown - small scale workings and prospects		1.3–1.8 (Seitenberg)	Low sulfidation epithermal
Großvoigtsberg	Christbescherung	1714 to 1909[2]	31.5	1	1.1–3.5	Low-intermediate sulfidation epithermal
Hohentanne	Gottvertrauter Daniel	1750 to 1892	10	0.3	2	Low sulfidation epithermal
Reinsberg	Emanuel	1882 to 1884	Unknown		Unknown	Low sulfidation epithermal
Kleinvoigtsberg	Alte Hoffnung Gottes	1742 to 1928	192.8	6.1	1.9–3.3	Low-intermediate sulfidation epithermal
Obergruna	Gesegnete Bergmanns Hoffnung	1752 to 1898	159	5.1	1.4–2.1	Low-intermediate sulfidation epithermal
Siebenlehn	Romanus, Vereinigt Feld	12th century to 1869	0.77 (1750 to 1869)	0.02 (1750 to 1869)	2.2–3.7	Epithermal
Zellwald	Felix, Zelle	Unknown	Unknown - small scale workings and prospects		Unknown	Low sulfidation epithermal
Munzig	Hilfe Gottes, Freundlicher Bergmann, Johanna	1492 to 1802[2]	0.92 (1556 to 1802)	0.03 (1556 to 1802)	0.2–1	Intermediate sulfidation epithermal
Scharfenberg	Güte Gottes, König David	1225 to 1898[2]	55 (1546 to 1898)	1.8 (1546 to 1898)	1.0–2.4	Intermediate sulfidation epithermal
Erzengel	Erzengel Michael	1780 to 1883	1.53	0.17	3.4	Low-intermediate sulfidation epithermal
Halsbrücke	Kurprinz Friedrich August, Beihilfe (adjacent to licence "Bräunsdorf" area), included in "Mohorn" licence area	1602 to 1945[2]	319.6	10.3	0.6–0.9	fluorite-barite, five-element mineralization
Reichenau	Friedrich August, Friedrich Christoph	??? to 1884	14.38	0.46	2.2-2.5	Low-intermediate sulfidation epithermal

Data according to the compilation of historical literature, maps, reports and older exploration activities, done by Excellon's project team and EurGeol Matthias Jurgeit on behalf of Globex in 2018.

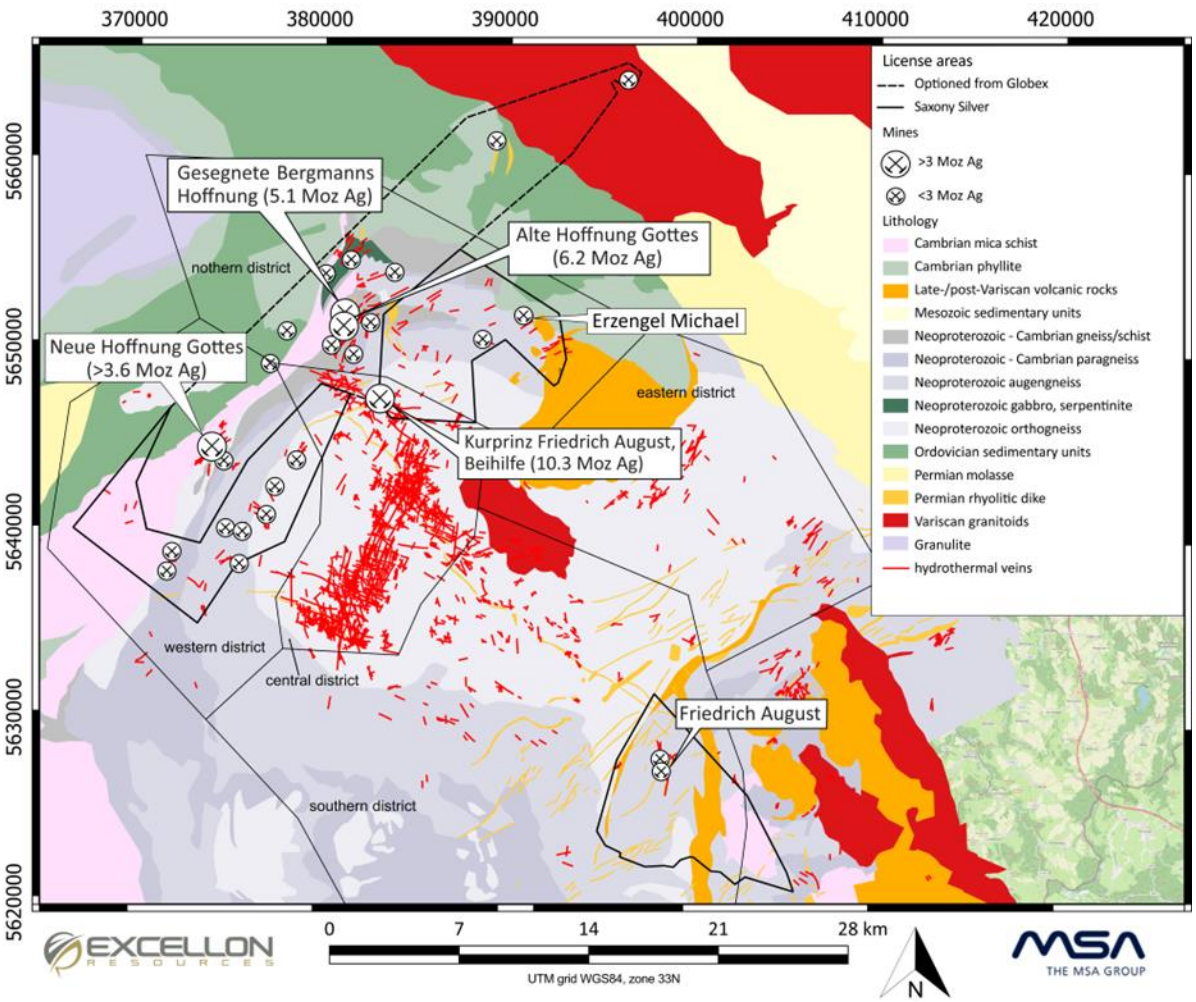
[1] Direct shipping and "wash ore"

[2] Periodically mined

5.2 Historical Mining in the Project Area

The Freiberg mining district has been subdivided into five sectors (central, north, south, west and east) based on geography, and distinct mineralogical and geochemical variations that affected the mining activity (Figure 5-2) (Baumann et al., 2000).

Figure 5-2
Overview of the major historical silver mines and the respective silver output in the Silver City Project area according to Table 5-2. Simplified geological map of the Freiberg district based on Hoth et al., 1980. Mining sectors according to Baumann et al., 2000.



Excellon's four Silver City exploration licences are located within or adjacent to the northern, western, and southern mining sectors. Information on historical mining activities for each concession separately is discussed below.

The Bräunsdorf exploration licence area covers large parts of the northern and western mining sectors. At least 28 million ounces of silver have been produced historically from the area underlain by the current Bräunsdorf licence (Jurgeit, 2018a). In this area, the mineralized trend features a regional scale pinch-and-swell pattern hosting several isolated mineral deposits and occurrences. The trend strikes northeast-southwest over a width of 0.5 kilometres to 2 kilometres and is comprised of epithermal quartz veins with thicknesses ranging from 0.1 metre to 1 metre, and reaching up to 4.2 metres (Müller, 1901; Baumann et al., 2000). Compared to the Central District, the veins have a shorter extension and lower thickness; however, the reported silver grades were significantly higher, to the point that the mines in the licence area had one of the highest productivities in the district (Menzel, 1890; Baumann, 1965).

The area hosts several historical mining camps close to the towns of Bräunsdorf, Reichenbach, Kleinvoigtsberg, Obergruna, Großvoigtsberg, Siebenlehn, and Reinsberg. Moreover, the regional trend was exploited by mine camps outside of the Freiberg district, e.g. Taubenheim, Munzig and Scharfenberg (Baumann et al., 2000). The mine camps include numerous mines and prospects, the most important of which are summarized in Table 5-2 and Figure 5-2. Based on the silver output and life of mine, the most important mining camps were Kleinvoigtsberg and the nearby Großvoigtsberg and Obergruna. Other important mine camps include Bräunsdorf as well as Scharfenberg (Menzel, 1890; Baumann, 1965).

The Neue Hoffnung Gottes mine at Bräunsdorf was active from the 16th century and had a boom during the 18th century (Baumann, 1965). The Neue Segen Gottes Sth[1] is the principal vein with widths ranging between 0.1 metres and 2.5 metres, locally reaching 4.2 metres. The vein extends over 750 metres of strike length and horsetails into several vein branches towards the northeast and southwest (Müller, 1901). According to historical mine plans, two major ore shoots were exploited along the principal vein and its hanging- or footwall veins. The northern ore shoot, centred on the Neue Hoffnung Gottes shaft, extends over a strike length of 500 metres from the surface to 320 metres in depth; the southern ore shoot, centred on the Siegfried shaft, strikes over a distance of 330 metres down to 240 metres in depth.

At Scharfenberg, historical mining started in the year 1225 (Baumann et al., 2000). No production data are available for the earliest period of mining. Mineralization with economic grades was restricted to 300-550 metres along strike, and mining was carried out down to 290 metres in depth (Zinkeisen, 1890).

The three principal veins exploited at the Alte Hoffnung Gottes mine at Kleinvoigtsberg are the Peter Sth., Christliche Hilfe Sth. and Heinrich Sth., which form a 700 metre wide vein zone (Müller, 1850). Apart from the Christliche Hilfe Sth. vein, most veins are generally 0.5 to 1 metre wide and carry very high silver grades, making it one of the most productive mines within the entire Freiberg mining district. The veins are hosted by gneisses of the transition zone and the mica schist located in the hanging wall of the gneiss. Individual veins were mined over 800 metres of strike and to a maximum depth of 560 metres (Lorenz, 1956). The veins of the Alte Hoffnung Gottes mine are connected to the

[1] The predominant strike of veins is included in historic vein names suffixes. Stehender: (Sth.) strike 0-45°, Morgengang: (Mg.) 45-90°, Spatgang: (Sp.) 90-135°, Flachergang: (Fl.) 135-180°.

Christbescherung mine (Großvoigstberg) and Gesegnete Bergmanns Hoffnung mine (Obergruna) to the south and north, forming a large vein system with a strike length of over 3 kilometres. The historical production at the vein system is estimated at 383 tonnes (12.3 million ounces) of silver.

Aside from historical silver mining and exploration, the Bräunsdorf property was explored for nickel and tin by the GDR government geological survey and state-owned corporations. Nickel exploration was conducted between 1951 and 1953, focusing on the mafic to ultramafic rocks of the Zellwald area (Bolduan, 1960). Tin exploration was carried out from 1952 to 1979, targeting tin-polymetallic mineralization hosted by a specific lithological unit within the metamorphic sequence, the so-called "Felsit Zone", which extends from Bräunsdorf to Obergruna. An overview of historical drilling is provided in chapter 9.1 of the report.

The Frauenstein licence is located in the southern part of the Freiberg mining district according to Baumann 2000. Two mines of local significance, namely Friedrich Christoph and Friedrich August near Reichenau, have been subject to intensive mining efforts in the Frauenstein area. Initial mining started in the 13th century and reported vein thickness range from 0.05 meters to 1.80 meters (Baumann, 1965). Several veins were exploited up to a strike length of 3,000 meters and reached a depth of 223 meters at the Friedrich August and 63 meters at the Friedrich Christoph mine. The first reports with stated silver production started in the year 1520 from the Friedrich Christoph mine until 1615. From 1711 till 1884, the Friedrich August mine exploited 11.6 tonnes of fine silver at an average grade of 2,500 g/t. For Friedrich Christoph mine, average grades of 2,200 g/t are reported totalling 2.79 tonnes of produced silver (Fischer, 1885a). During the last six years of production, the Friedrich August mine delivered 340 grams of Au, with an average grade of 1.11 g/t gold in the delivered ores (Kamprath). Other small mines in the northeast of the district mined mainly copper ores but did not reach any significance.

The Mohorn licence, situated in the North of the Freiberg districts, comprises the Erzengel Michael mine near the town of Mohorn. Mining started in 1779 and continued until 1883. Within the underground workings, four prominent principal veins were exploited: Neuglück Morgengang, Saturnus Morgengang, Gott mit uns Morgengang and the later found Wolfgang Morgengang. They were subject to intensive mining over a strike length of 400 metres and down to 280 metres depth. The vein thickness ranged between 0.05 metres and 1.25 metres. The ore shoots are developed within gneiss units and confined to the hanging wall contact of the gneiss with overlying phyllites. From 1780 to 1883 the average silver grades of more than 3,400 g/t were reported to be among the highest in the Freiberg district. (Fischer, 1885b). Between 1779-1883 about 5.4 tonnes of fine silver were produced from Erzengel Michael mine (Fischer, 1885b). Difficulties with the dewatering management, declining silver grades, and the devaluation of silver resulted in the closure of the mine. Towards the east of the Mohorn licence, several small mines were developed near Grund, most notably the Reicher Mathias mine and the Drei Lilien mine, all of which had minor production and lower reported silver grades.

Between Halsbrücke and Krummhennersdorf several small mines exploited epithermal veins, most noteworthy the Isaak Mine in Halsbrücke (Müller, 1901). However, detailed information has not been found to date.

As part of the western Freiberg district, the Oederan licence area comprises several smaller mines and prospects. The most productive mines were located near the towns of Oederan and Oberschöna. Near Oederan, the Hilfe Gottes mine (Memmendorf), the Ranis Fundgrube mine, and the Johannes mine reached local significance. The Hilfe Gottes mine was exploited along 400 metres strike and down to 120 metres depth and was actively mined between 1757 and 1817 (Müller, 1901; Baumann, 1965). The Ranis Fundgrube mine was active since 1582 and produced discontinuously until 1834. The mine workings extend approximately 320 metres along strike and 160 metres in depth. The Johannes Fundgrube mine reached 40 meters in depth and 280 m of strike length and was reportedly active from the 16th century to 1853. Total production figures are not available for these mines, however, reported vein thicknesses ranged from 0.05 to 1.0 metre (Baumann, 1965).

Near Oberschöna, the most notable historical operation was the Zenith mine, a consolidation of several small mines, namely Dorothea, Unverhofft Segen Gottes, Friedrich August, and others (Heinicke and Mezger, 1878). The first mining operations in the area were reported in 1728 and continued until 1898 after reaching depths of 200 meters. Vein thicknesses are reported to range from 0.05 to 0.8 metres and were mined along a strike of 700 metres at Dorothea mine camp. Historical reports indicate decreasing silver grade within an unfavorable host rock down dip, however, lack of investment, poor maintenance, and outdated or distant processing facilities were listed as factors that attributed to the decline of mining (Heinicke and Mezger, 1878). During archive research, no records of total silver production were found.

The Bergmännische Hoffnung prospect is located East of the Bräunsdorf trend near Langhennersdorf, and was mined with three different shafts from 1845 to 1887. The majority of shafts are reported to have ceased advancement below 10 metres depth due to dewatering issues and/or low ore grades (Böttcher, 1936). The greatest depth of mining operations was 47 meters in the Bruno shaft near Langhennersdorf. The strike length of structures hosting mineralization can be traced along 1 kilometre at surface; inferred from historical dumps and shallow workings. Mining was principally focused on veins ranging from 0.6 to 0.7 metres in thickness. Veins were reported with average grades (likely hand-cobbed) of 700 to 900 g/t silver, 47-60% lead, and at least 15% zinc (Böttcher, 1936). Records of mined tonnage and extracted metals do not exist.

5.3 Research History of the Freiberg Mining District

Notwithstanding prolific silver mining in the Freiberg area, significant improvements in the genetic understanding of the mineral system have only been realized in the past 15 years, consequently raising the prospectivity of the area.

The earliest modern geological research in the area occurred during a period of active mining in the mid-19th century, focusing on petrographic analysis (Freiesleben, 1847; Müller, 1850; Cotta, 1855; Cotta, 1870; Müller, 1901). During the 20th century, earlier findings were revised by Baumann (1958, 1965) and categorized into generic classification schemes.

Over the past five years, research has demonstrated that silver-lead-zinc mineralization is generally related to a magmatic-hydrothermal, intermediate, epithermal system (Bauer et al., 2019; Burisch et al., 2019) of Permian age (Ostendorf et al., 2019). Additionally, the process-oriented model developed by Swinkels *et al*. (2021a) has shown that an intermediate sulfidation epithermal system is responsible for the formation of: (1) Centralized base-metal dominated mineralization which (2) gradually transitions to high grade silver peripheral zones. The model explains the characteristic district-scale mineral zonation pattern and proves the systematic nature of high-grade silver mineralization in the Silver City Project area.

6 GEOLOGICAL SETTING AND MINERALIZATION

6.1 Regional Geology

Collisional processes of Laurussia, Gondwana, and several minor blocks through Devonian to Permian time, referred to as the Variscan orogeny (Franke, 2000; Franke, 2006), strongly affected geological evolution of southwest and central Europe, including the Iberian massif, the French Massif Central, the southwest of England, the Czech Barrandian Zone, the German Rheinische Schiefergebirge, Schwarzwald and Harz mountains as well as the Saxo-Thuringian Zone. The internal structure of the Saxo-Thuringian Zone comprises three major, juxtaposed zones which make up rocks of contrasting Variscan overprint: a low deformation zone (Autochthonous Domain), a high deformation zone (Allochthonous Domain), and a Wrench and Thrust Zone separating the two other domains (Kroner et al., 2007; Kroner et al., 2010).

The Erzgebirge ("German Ore Mountains", situated in the northwestern part of the Bohemian massif) anticline is one of the most prominent allochthonous units within the Saxo-Thuringian Zone of the Central European Variscides (Pälchen and Walter, 2008). The location of the Erzgebirge in Saxony is shown in Figure 6-1. With an extension of approximately 150 kilometres by 40 kilometres, the Erzgebirge extends from the eastern part of Saxony and northern Bavaria to the western Czech Republic, where it is called Krušné Hory. It represents an erosional window exposing the crystalline basement of the Saxo-Thuringian Zone. Metamorphic rocks of Proterozoic and Paleozoic age, and intercalated magmatic and volcanic units form the basic geological setting of the Erzgebirge.

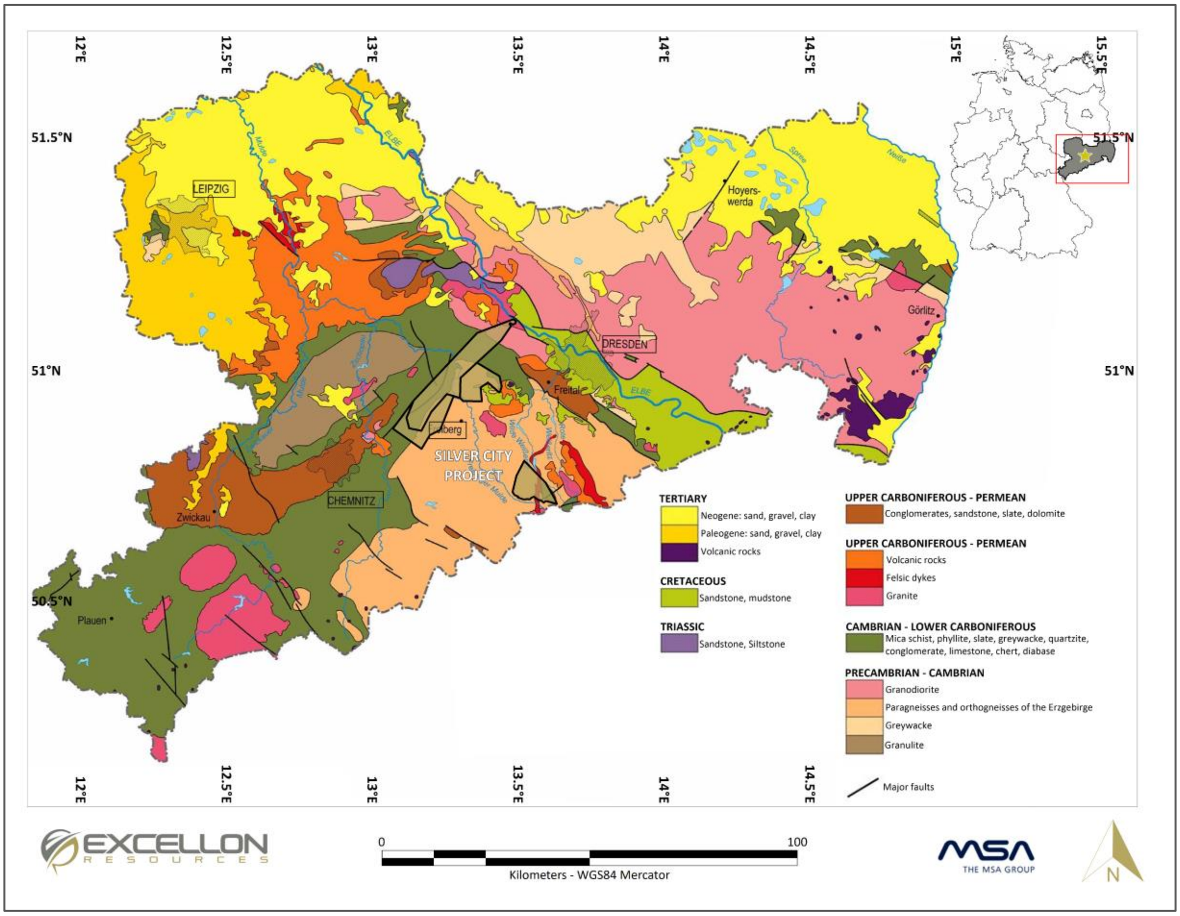
The Erzgebirge is surrounded by deep-reaching fault zones and is defined by the Central Saxonian Lineament to the north, the Elbe fault zone to the northeast and the Eger rift to the southeast with continuation to the Thuringian-Franconian-Vogtland Mountains in the southwest.

In general, the geological structure of the Erzgebirge is determined by a northeast-southwest striking anticline, which plunges to the southwest. According to this architecture, the degree of metamorphic overprinting generally increases successively from the outer to the inner units, progressing from greenschist facies phyllites to mica schists to anatectic gneisses (Lorenz and Hoth, 1990). In the eastern and central Erzgebirge, gneisses and biotite gneisses predominate, whereas mica schists and phyllites are more abundant in the western Erzgebirge.

The metamorphic units of the Erzgebirge were intruded by various, predominantly felsic magmatic rocks and their volcanic equivalents during the late and post-collisional stage of the Variscan orogeny (Förster et al., 1999). Older diorites and monzonites of the Meißen Massif are related to the Elbe fault zone and the emplacement of the Variscan nappes at about 340 Ma (Romer et al., 2012). Major late-orogenic granitoids formed in result of the rapid exhumation of the Erzgebirge along NW-SE trending lineaments between 327 and 318 Ma (Förster and Romer, 2010; Tichomirowa et al., 2019 and references therein). Due to the variation of intrusion levels, felsic stocks and composite plutons are dominant in the western part of the Erzgebirge, whereas rhyolitic (sub-)volcanic rocks and small granitic stocks of the eastern Erzgebirge were emplaced at shallower levels and are related to the formation of caldera systems (e.g. Altenberg-Teplice Volcanic Complex).

Figure 6-1

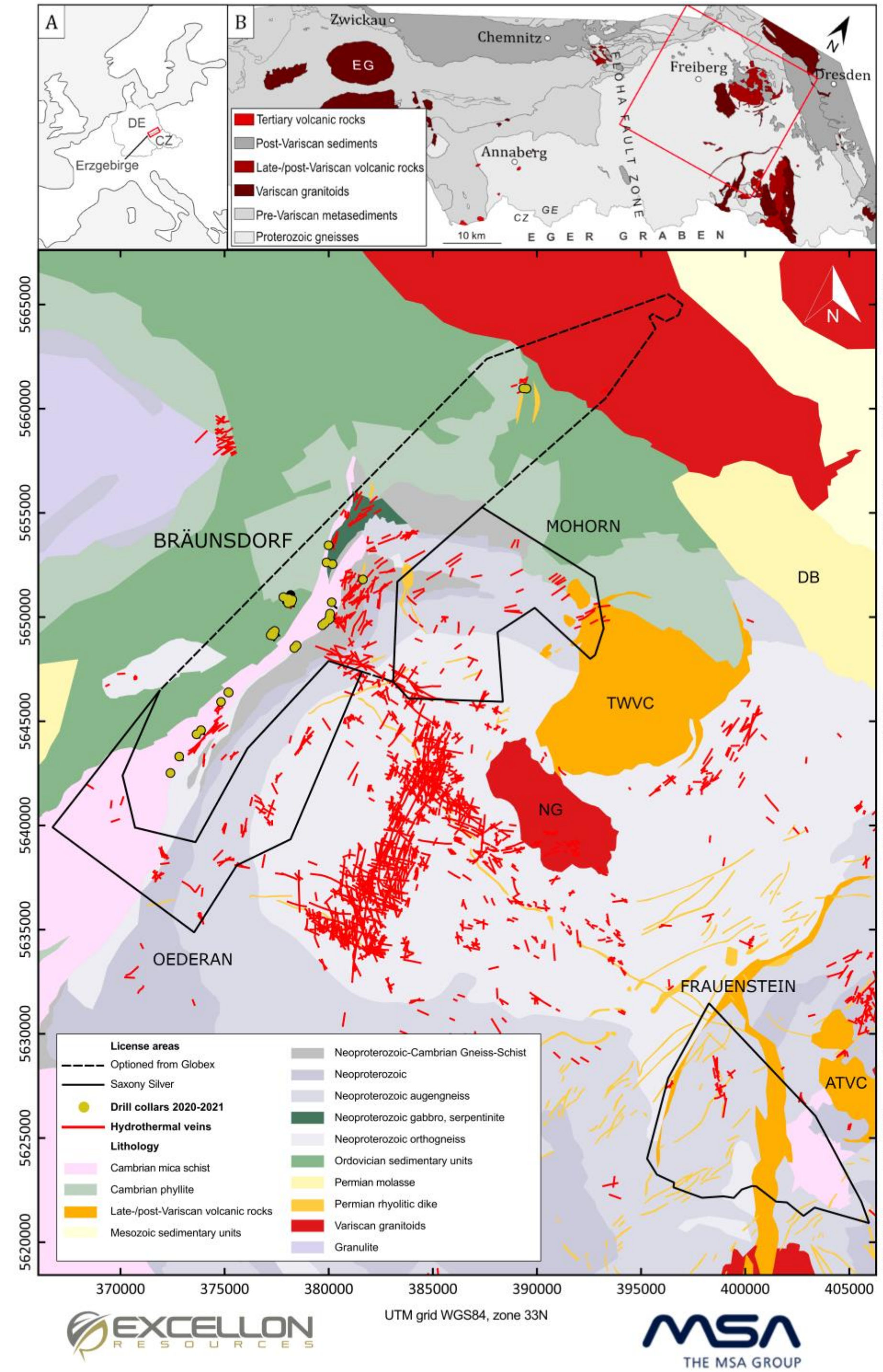
Regional Geology of Saxony, Germany, showing the location of the Project licences



6.2 Local and Property Geology

The geology of the project area (i.e. Freiberg mining district) is characterized by a major gneiss body with surrounding schists and phyllites (Figure 6-1 and Figure 6-2). A dome-like geometry is inferred from the quaquaversal dipping foliation (ca. 30°) of the ellipsoid-shaped gneiss structure (Figure 6-2). The dome is approximately 25 kilometres in diameter and consists of a core of medium- to coarse-grained biotite-plagioclase-orthoclase bearing orthogneisses (locally referred to as “lower grey-gneiss units”) surrounded by fine- to medium-grained biotite-muscovite-plagioclase paragneisses locally referred to as “upper grey-gneiss units” (Müller, 1901; Tichomirowa et al., 2012). The gneiss dome itself is enclosed by various schists, phyllites, and gneisses (Müller, 1901) which are considered to be a part of the Variscan nappe stack. While lithological contacts between the upper and lower grey-gneisses are gradual (Pietzsch, 1962), the gneisses and the respective nappe units are separated by shear zones (Tichomirowa, 2003; Sebastian, 2013).

Figure 6-2
Local Geology of the Freiberg Mining District, showing the location of the Project licences and the 2020-2021 Excellon drillholes



Note : ATVC = Altenberg-Teplice Volcanic Complex, DB = Dohlen basin, EG = Eibenstock granite, NG = Niederbobritzscher granite, TWVC = Tharandter Wald Volcanic Complex. Known hydrothermal veins are indicated as red lines.

Several types of igneous rocks are present in the property areas, confined to northwest-southeast trending zones. From south to north, these are the Altenberg–Teplice Volcanic Complex (Breiter et al., 2001; Hoffmann et al., 2013) the Berggießhübel–Sayda Dyke Swarm (Wetzel, 1984; Winter et al., 2008) and the Tharandter Wald Volcanic Complex–Niederbobritzsch granite (ca. 325 to 320 Ma, (Tichomirowa, 1997; Sebastian, 2013) and references therein). Moreover, the metamorphic rocks were intruded by lamprophyric dikes oriented northeast-southwest (Seifert, 2008).

With the exception of the Frauenstein concession, the Silver City licence areas are located on the western, north-western, and northern periphery of the Freiberg mining district (i.e. western and northern sector, Baumann 2000) and cover the transition from the gneissic units of the Freiberg dome to the surrounding rocks of lower metamorphic grade (Figure 6-2). Biotite-muscovite-plagioclase paragneisses of the upper grey-gneiss unit are represented in the south-eastern part of the Project area. The foliation trends southwest-northeast (turning east further north) and dips to the northwest. Lenses of red muscovite gneiss are locally intercalated within the metamorphic sequence, particularly within the upper grey-gneiss unit or at the contact with mica schists.

The hanging wall rocks (towards the northwest) are represented by a 1-2-kilometre-wide zone which is dominated by a 50-75° northwest dipping mica-schists (both two-mica schist and muscovite schist). The mica schists are generally characterized by abundant quartz segregations and may contain garnets.

The transition zone between upper-grey gneisses and mica schist units is characterized by steeply northwest and north dipping alternating domains of mica schist and gneiss with intercalated meta-sediments (locally graphitic), meta-tuffs, hornfelses, quartzites, amphibolites, and marbles.

Further northwest and north of the mica schist unit, Cambrian phyllites, Devonian felsic volcanics (e.g. Zellwald area), tuffs, gabbros, and Carboniferous sedimentary rocks (greywacke, sandstone, shale) are present. Locally but predominantly to the north, all the above-mentioned rock types are overlain by early Permian felsic volcanics. Similarly, localized dikes and small bodies of rhyolite/dacite/latite (mostly of early Permian age), lamprophyres and granitic rocks (Carboniferous to Early Permian) are typical for that area. The northernmost portion of the licence area is dominated by a large granite-syenite intrusion (Scharfenberg) with a contact-metamorphic aureole extending to 2-4 kilometres (mainly hornfels).

The metamorphic rocks of the Frauenstein concession, located on the opposite/southeast side of the gneiss dome, are generally similar to those of the other concession areas. The major difference is, however, a larger proportion of (sub) volcanic rocks of the Altenberg-Teplice Volcanic Complex (ATVC) and the northeast-southwest trending Berggießhübel–Sayda dike swarm (Figure 6-2). The ATVC represents a caldera system covering an area of over 500 km^2 (18x35 km) on the territory of Germany and the Czech Republic, with only the northern part exposed at the surface (Štemprok, 2003). It was formed during the Upper Carboniferous as the result of the large-volume extrusions of dacitic to rhyolitic lavas and ignimbrites and was accompanied by granitic and microgranitic intrusions both before and after the caldera development (Breiter et al., 2001; Štemprok, 2003). The rhyolite dike swarm of Sayda–Berggießhübel is considered to represent a complex feeding system for the extrusion of the rhyolitic magma. The emplacement of more than 360 individual dikes is linked to the final stages of eruption in the ATVC (Winter et al., 2008).

A significant proportion of the Silver City licence areas is covered by alluvium and overburden (Figure 6-3). These are generally characterized by gravel, sand, loess material as well as clay-rich soils and talus of Cretaceous to Quaternary age. While most of the area is covered by residual or in-situ weathered soils above metamorphic and igneous bedrock of only few centimetres to <2 metres thickness, transported cover of eolian origin (loess) of up to 8 metres thickness can be found in all Silver City concessions. Detailed maps of soil origin and composition are available from the Geological Survey of Saxony. They indicate the predominance of transported soils, particularly in the Mohorn licence, whereas eolian deposits were mapped in the central and northeastern portion of the Bräunsdorf and Oederan licence, respectively (Figure 6-3). Consequently, most veins are not exposed on surface and the locations of veins on maps (e.g. Figure 6-2) are based on historical mine plans of underground workings. The cover of transported soils is very limited at the Frauenstein concession.

The dominant lithologies intersected in the Excellon 2020 drilling programme are shown in Figure 6-4.

Figure 6-3
Geological map showing younger cover within the Silver City licences modified after Swinkels et al. (2020a) and data from Geological Survey of Saxony

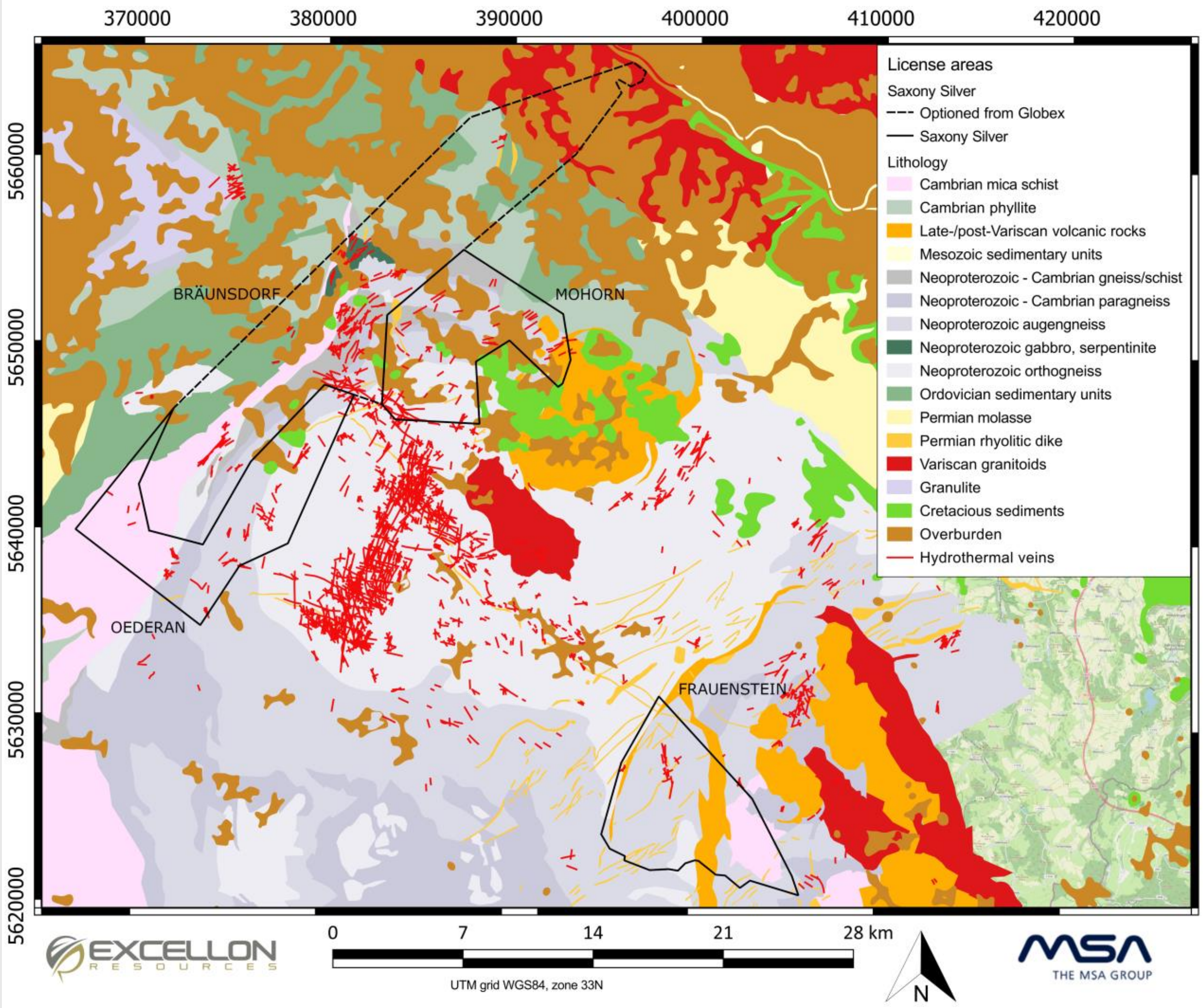
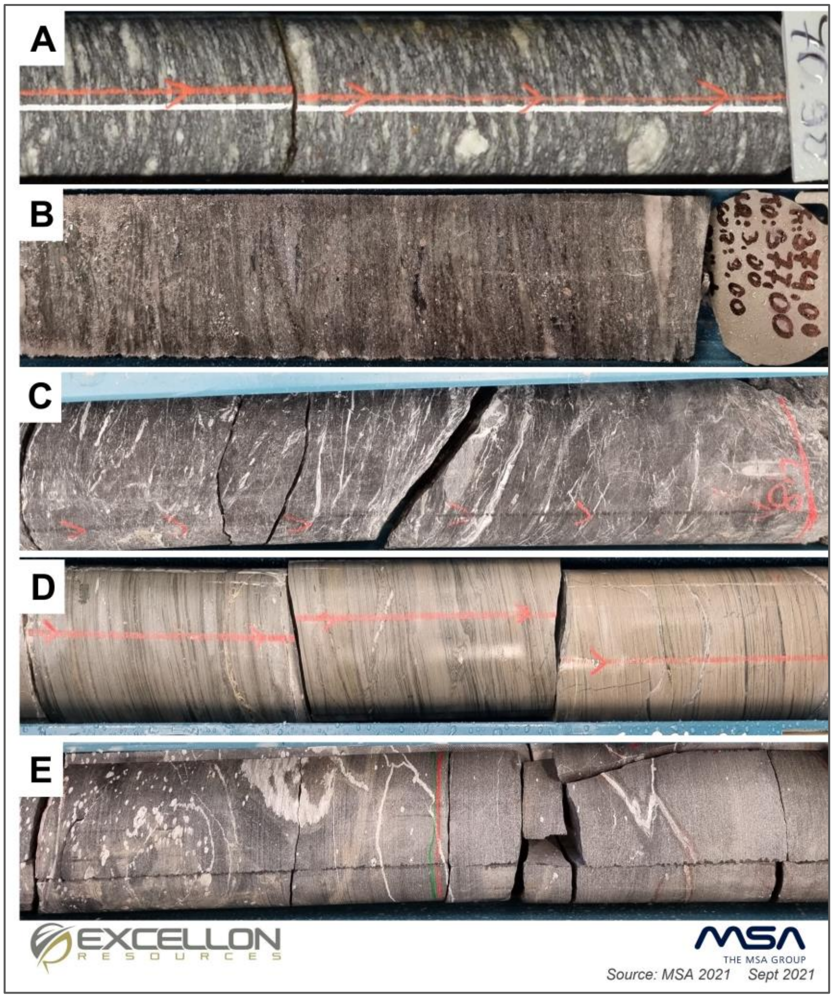


Figure 6-4
Dominant lithologies within the Bräunsdorf licence area: (A) grey gneiss, (B) mica schist, (C) graphitic shist, (D) felsic tuff and (E) mafic volcanics (NQ-size core)



6.3 Mineralization

The **Bräunsdorf** exploration licence covers a 1-5 kilometre wide hydrothermal (epithermal) vein system extending over at least 36 kilometres in a northeast-southwest orientation, representing the main trend of the northwestern periphery of the Freiberg district. The continuation towards southwest and several parallel structures of the main trend in the south is enclosed by the **Oederan** property. Similarly, the **Mohorn** licence includes several parallel structures of the main trend near Reinsberg, however, it also covers the northern continuation of the central Freiberg vein corridor between Halsbrücke and Mohorn (total up to 10 kilometre wide). Although geographically isolated and offside the northwestern periphery of the Freiberg district, epithermal vein type mineralization of the **Frauenstein** concession shares the same general characteristics as the other areas mentioned above.

The Project area is distinguished by numerous historic mining camps near Oederan in the southwest, Scharfenberg in the northeast and Reichenau in the southeast (Figure 5-2) which exploited the epithermal vein system over the past 750 years, with silver being the dominant commodity. The veins tend to dip to the northwest at 45-75° and strike northeast-southwest, although the orientation may vary locally. Generally, the lateral extent of the vein or vein swarm correlates positively with its continuation towards depth (Baumann, 1965).

Epithermal mineralization emplacement (low- and intermediate sulfidation or adularia-sericite type) took place in multiple pulses over a significant span of time, likely during the Early Permian (Rotliegend episode), however the younger barite-fluorite dominated stage formed in the Cretaceous (Ostendorf et al., 2019). Veins formed (mainly under northeast to east-northeast extension, according to Baumann, 1958) along major northeast-southwest and east-southeast – west-northwest trending strike-slip faults with associated north-south and northwest-southeast fissures (pull-apart veins). The second stage of barite-fluorite dominated veins developed mainly in east-southeast – west-northwest trending faults.

In historic (Müller, 1901) and more recent literature (Baumann, 1965) the following principal epithermal mineral/metal assemblages have been described for the Freiberg mining district:

Permian epithermal assemblages:

- Pyrite dominated ("kb type") metals: Zn-Pb-Cu, Ag, As, ±Bi, ±In, ±Sn, ±W, ±Au. Gangue minerals: quartz (medium – coarse crystalline), chlorite, ± carbonates (Ca, Mg, Fe, Mn).
- Silver dominated ("eq type") metals: Ag, As, Sb (as late stage), minor Pb, Zn, Cu, ±Au. Gangue minerals: quartz (dense, cherty to fine crystalline and chalcedony), ±carbonates (Ca, Mg, Fe, Mn)
- Silver-lead-carbonate dominated ("eb type") metals: Ag-Pb, Zn-(Cu), ±Au. Gangue minerals: quartz-carbonate (dolomite, rhodochrosite, siderite, ankerite)- ±celestite.

Cretaceous hydrothermal assemblage:

- Barite-fluorite dominated ("fba-type"): can be subdivided into at least 3 sub-assemblages:

  1. Metals: Pb-Ag-Cu; Gangue minerals: quartz (cherty chalcedony), barite, fluorite ("fba1")

  2. Metals: Pb-Cu-Zn, ±Ag; Gangue minerals: barite, fluorite, quartz ("fba2")

  3. Metals: Ag-Ni-Co-As-Bi ("5-Element mineralization"), ±Cu; Gangue minerals: quartz (chalcedony), minor barite, fluorite ("fba3").

The main ore minerals of the above-mentioned assemblages are (Müller, 1901; Baumann, 1965):

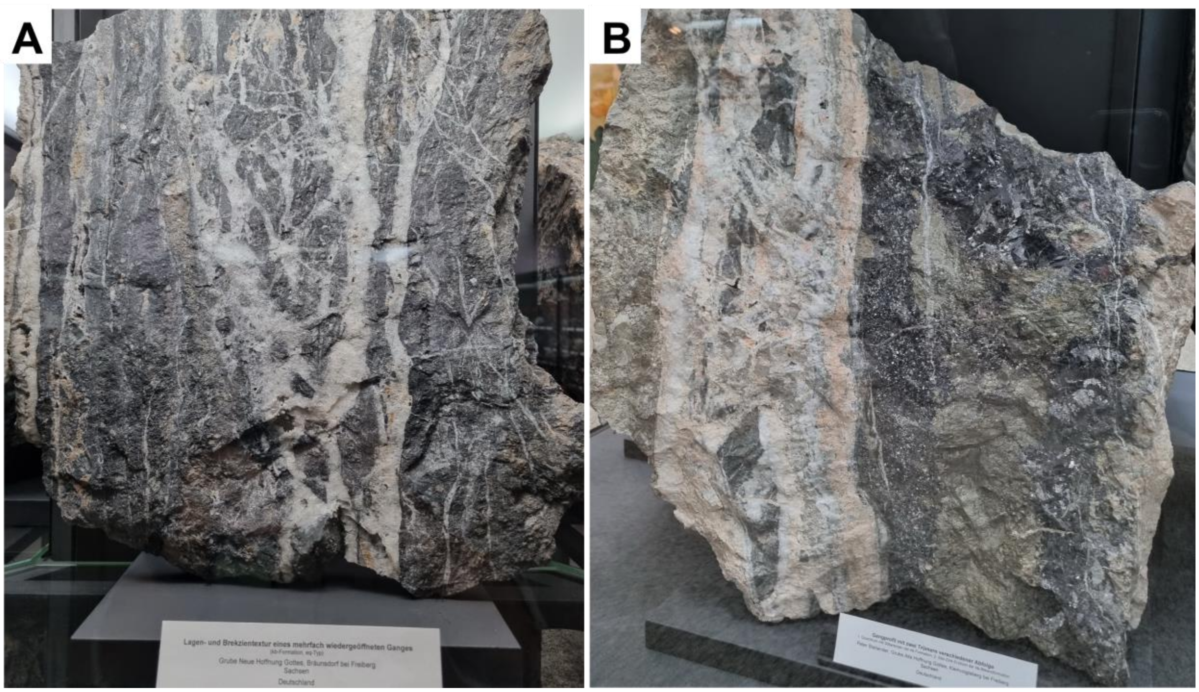
Early Permian epithermal assemblages (examples shown inFigure 6-5):

- "kb type": sphalerite, galena, arsenopyrite, pyrite, pyrrhotite, and chalcopyrite
- "eq type": silver sulfosalts, acanthite, arsenopyrite, pyrite, galena, sphalerite, and Sb sulfides
- "eb type": sphalerite, galena, fahlore, and silver sulfosalts

Cretaceous hydrothermal assemblages:

- “fba1” and “fba2” type: galena, sphalerite, pyrite, chalcopyrite, sulfosalts (Pb, Sb, Ag)
- “fba3” type: Co-Ni-Fe arsenides (mainly safflorite, skutterudite, loellingite, rammelsbergite and niccolite) with or without native silver, arsenic, antimony, and bismuth, locally uraninite

Figure 6-5
Examples of mineralized veins: (A) layered and breccia textures in a multiply-reopened quartz vein (kb-Formation, eq-Type; Neue Hoffnung Gottes mine, Bräunsdorf, (B) Peter Vein, Alte Hoffnung Gottes mine, Kleinvoigtsberg, composite vein with multi-stage quartz-carbonate-silver sulfosalts vein on the left (eb-Type) and pyrite-sphalerite-galena vein on the right (kb-Type)



Source: Geowissenschaftliche Sammlungen, TU Bergakademie, Freiberg

The only vein samples of the Freiberg district that contained visible gold were collected from a mine dump of the Friedrich August mine of Frauenstein (Kreibich, 2013)

The early mineral assemblages deposited from several hydrothermal pulses sometimes occur within the same vein zone, and transitions or telescoping may occur (Figure 6-5 B). It can be interpreted that the kb-type formed under relatively high temperatures, whereas the eb and eq types deposited from cooler hydrothermal solutions. The silver-lead-dominated carbonate veins (eb type) are generally younger than the pyrite-dominated (kb) type (Baumann, 1965; Baumann et al., 2000). Newer paragenetic studies suggest that the eq style could have formed coevally to the kb style, but at lower temperatures and at higher levels, and grades into the kb style (with coarser-grained quartz and black sphalerite) at greater depth (Burisch et al., 2019; Swinkels et al., 2021a).

Most favourable for extensional veins (including stockwork zones and replacement) and associated epithermal mineralization are the gneissic units, graphitic mica schist and mafic volcanics and their respective lithological contacts, particularly the contacts between the transition zone and the mica schist unit, and between mafic volcanics and mica schist units (Müller, 1901). Numerous instances of individual ore shoots are described from historical information, where the depth extent of some orebodies is significantly greater than the strike extent. The controls on ore shoots include the intersection of crosscutting veins with the principal veins, flexures or jogs in the vein geometries, as well as competency contrasts of various host lithologies and/or the presence of organic carbon in the surrounding rocks (Müller, 1901; Baumann, 1965).

Historical production and the majority of exploration in the area have traditionally targeted mineralization hosted by gneissic units, graphitic mica schist, and particularly the contacts between the transition zone and the mica-schist unit. During the 2020 and 2021 drill campaigns, significant mineralization was encountered within mafic volcanics and/or along the mafic volcanics and mica schist contact in the Reichenbach and Grauer Wolf target areas. This newly discovered mineralization opens up previously unexplored and untested areas along the mafic volcanics-mica schist contact for exploration.

Examples of mineralized veins intersected in Excellon’s drillholes from the 2020 and 2021 programs are shown in Figure 6-6 and Figure 6-7 respectively.

Figure 6-6

Examples of mineralized veins from the 2020 drill program: (A) quartz-carbonate vein with pyrite-sphalerite-galena in altered felsic volcanics [drillhole SC20MUN015, 201m], (B) Quartz vein with sphalerite-galena-pyrite in brecciated volcaniclastics [drillhole SC20GWO012, 96.5 – 97.8, 954 g/t Ag], (C) quartz-carbonate-iron carbonate veining with pyrite and unidentified sulfides in mica schist [SC21BRD022, 371m], (NQ-size core)

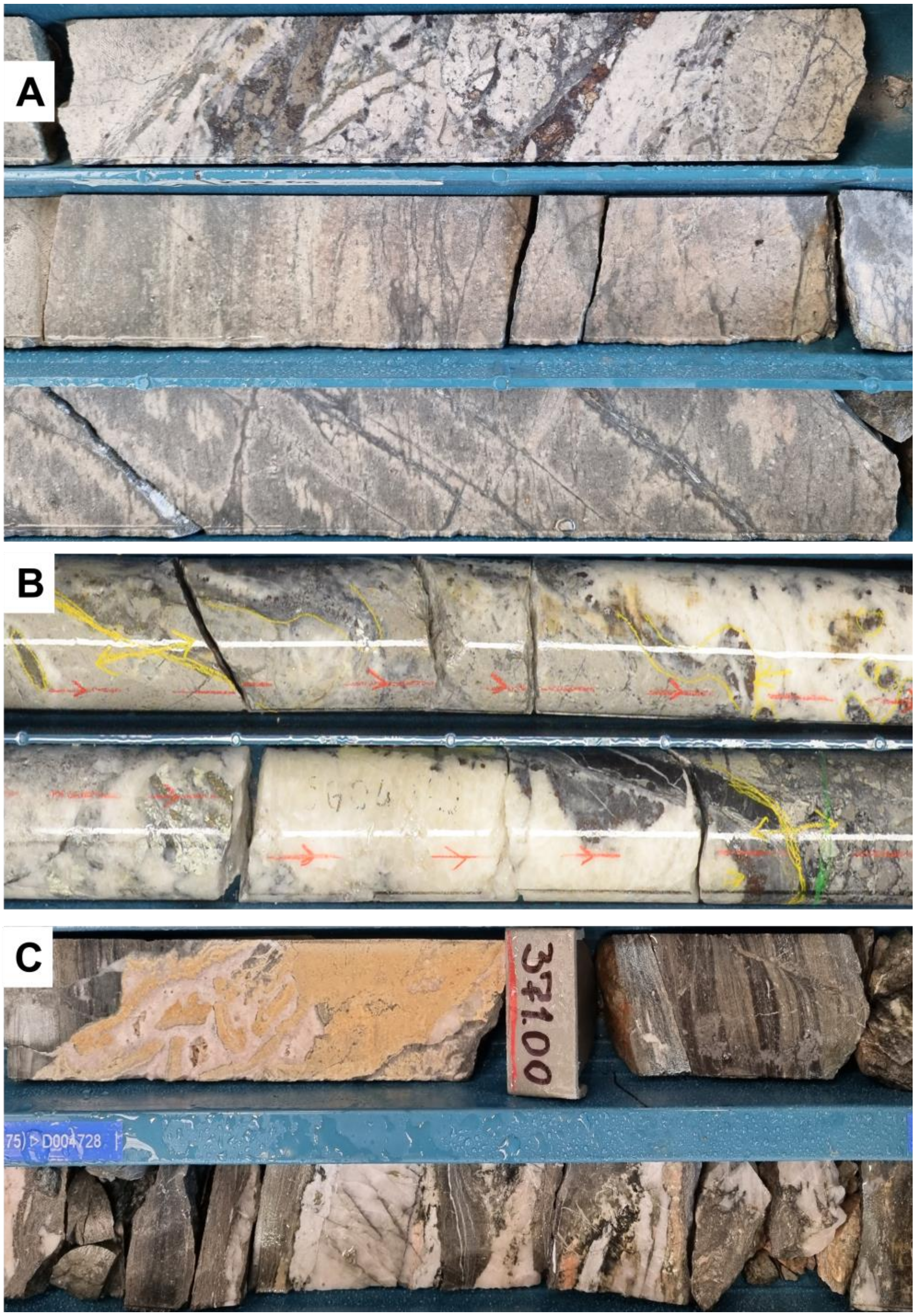
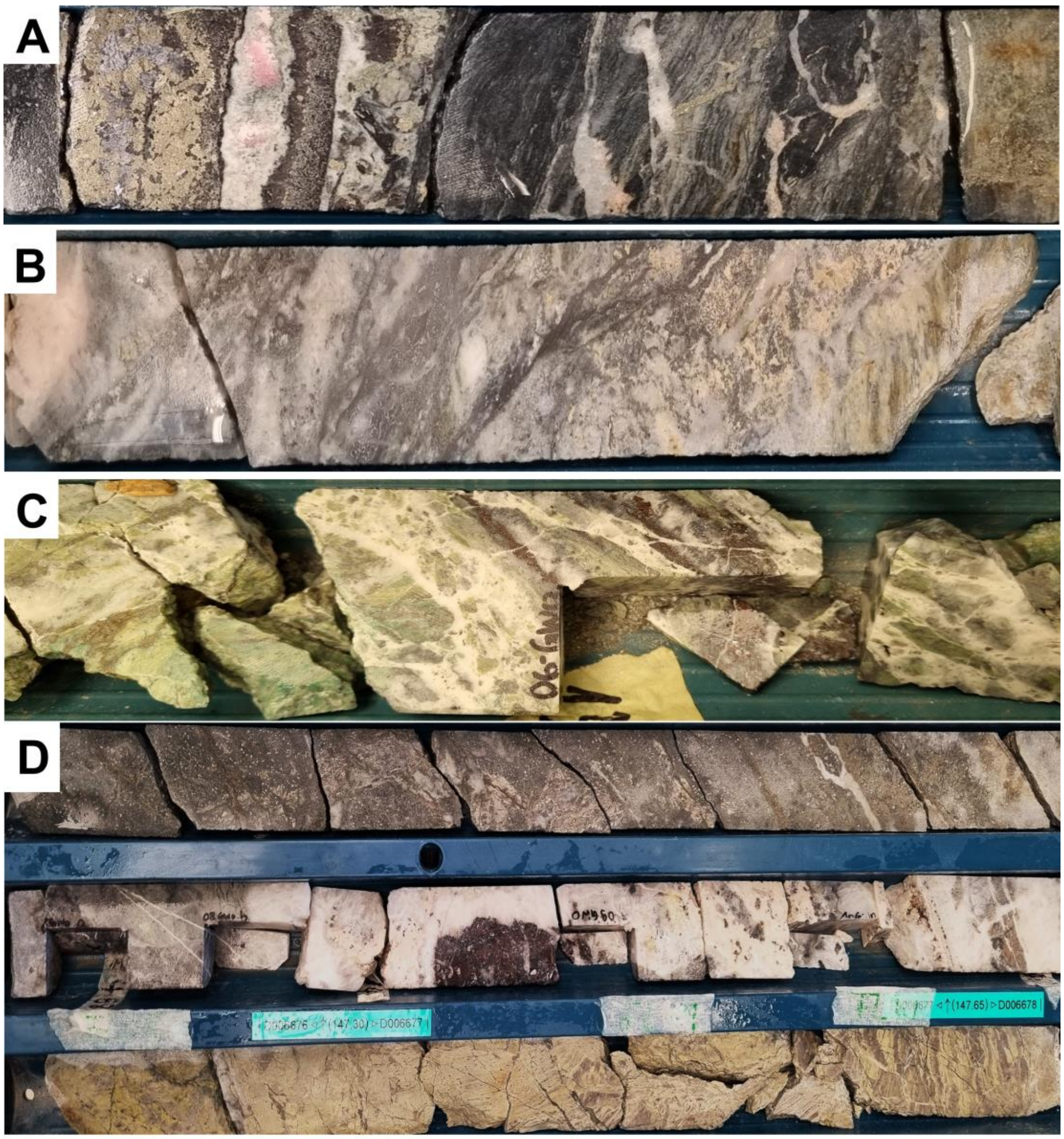


Figure 6-7

Examples of mineralized veins from the 2021 drill program: (A) brecciated multi-phase quartz-carbonate vein (Peter Vein) with pyrite-arsenopyrite-sphalerite-galena in sericite-altered quartz-biotite-graphite schist [drillhole SC21GVB020, 334.56m, 1,470 g/t Ag], (B) Quartz-carbonate vein with arsenopyrite-pyrite-sphalerite in chlorite schist [drillhole SC21BRD022, 443m], (C) quartz-carbonate vein (Albert Vein) with arsenopyrite-pyrite-galena-sphalerite in amphibolite [SC21GWO030, 271.25m, 440 g/t Ag], (D) Quartz carbonate vein (Erwachte Hoffnung Vein) with sphalerite-arsenopyrite-galena-pyrite-silver sulfosalts on dolerite-tuff contact [SC21GWO033, 147m, sample D006676 1260ppm Ag]



Source: MSA 2022

6.4 Petrographic and MLA Studies

Excellon has conducted petrographic studies (holes AGBR0120, AGBR0520, AGBR05A20, AGBR1020, and SC21GWO012) and Mineral Liberation Analysis ("MLA") (holes AGBR0120, -0520, -05A20, -1020 and SC21GWO012) to improve the understanding of lithologies and petrographic attributes encountered in the core, and to identify silver species carrying Ag mineralization. The petrographic study (microscopic analysis and X-ray diffraction) provided insights into the protolith, metamorphic and hydrothermal alteration of the host rock and mineralized zones. The MLA study has revealed information regarding the identification, abundance and associations of the silver species present at the Project. The findings of the MLA report are summarized in Table 6-1. The results indicate that the most abundant silver species encountered at the Project are: pyrargyrite/pyrostilpnite, freieslebenite, argentopyrite, and the fahlores freibergite-tetrahedrite. The MLA study has also looked at the spatial association of the silver species, indicating the percentage of the grains in contact with other minerals (Table 6-2). The silver species minerals of the analyzed samples are closely associated with pyrite/marcasite, and to a lesser degree, with sphalerite, chalcopyrite, and quartz.

Table 6-1
Silver mineral species determined by Mineral Liberation Analysis

Mineral	ABGR01-354_70	ABGR05-218_75	ABGR05A-207_85	ABGR05A-208_10	GWO012-96_65	GWO012-96_75
	Grain Count					
Native Silver	0	0	0	8	0	0
Miargyrite	1	0	17	0	124	721
Pyrargyrite/Pyrostilpnite	0	17	22,716	220	556	721
Freieslebenite	4	13	2,632	54	5,024	3,233
AgFeS (Argentopyrite?)	0	15	31,326	217	38	86
Freibergite-Tetrahedrite series 1	3	1	261	96	204	769
Freibergite-Tetrahedrite series 2	13	12	3,099	409	2,220	5,720
Total	**21**	**58**	**60,051**	**1,004**	**8,166**	**11,288**

Table 6-2

Spatial association of silver mineral species, indicating percentage of grains in contact with other minerals

Sample	Mineral	Freieslebenite %	Freibergite-Tetrahedrite series %	Stibnite %	Benavidesite %	Galena %	Sphalerite %	Pyrite/ Marcasite %	Chalcopyrite %	Arsenopyrite %	Quartz %	Other %
ABGR01-354_70	Miargyrite							100				
ABGR01-354_70	Freieslebenite			13	7			72		8		
ABGR01-354_70	Freibergite-Tetrahedrite series 1						48	42		10		
ABGR01-354_70	Freibergite-Tetrahedrite series 2				6		46	30			18	
ABGR05-218_75	Pyrargyrite/Pyrostilpnite							92		5	3	
ABGR05-218_75	Freieslebenite		3			5		91				2
ABGR05-218_75	AgFeS (Argentopyrite?)							99				1
ABGR05-218_75	Freibergite-Tetrahedrite series 1								40		60	
ABGR05-218_75	Freibergite-Tetrahedrite series 2	2						81	2	15		

7 DEPOSIT TYPES

The Project is located in the world-class Freiberg mining district. Between the 12th and 19th centuries, the district had produced over 185 million ounces of silver from numerous major and minor historical silver mine camps centred on epithermal silver-(lead-zinc-copper±gold) vein systems. Historically reported veins ranged from 0.1 metres to 10 metres in width, with grades of over 3,500 g/t Ag and no assaying for gold or zinc available at the time. The deposits in the licence area consist of epithermal low to intermediate sulfidation steeply dipping quartz-carbonate veins. The veins are laterally extensive however they have only been tested to a maximum of 300 metres depth due to the lack of modern-day silver exploration, with several historical mines exceeding that depth, reaching up to 580 metres.

Epithermal deposits include a wide range of hydrothermal deposits associated with volcanic and magmatic systems and formed at shallow crustal levels via the circulation of magmatic-related hydrothermal fluids into fractured, faulted, and porous rocks. These deposits are typically related to a variety of regional structures developed in extensional tectonic settings. Epithermal gold-silver deposits range in size from small to large (thousands to greater than 100 Mt, low to high grade 0.1 to >30 g/t gold, <1 to >1,000 g/t silver). Typically mineralization occurs within veins, is disseminated in host rocks, and deposited in breccias and is most commonly hosted in broadly contemporaneous volcanic and volcaniclastic rocks (John et al., 2018).

Epithermal deposits are important sources of silver and gold that form at <1.5 kilometres in depth and <300°C in high-temperature hydrothermal systems. These deposits have been classified on the basis of alteration and gangue mineral assemblages, metal contents, sulfide contents, and sulfide mineral assemblages (Simmons et al., 2005). Two end-member styles occur, namely high sulfidation and low sulfidation. High sulfidation deposits are hosted by leached silicic rock and are associated with predominantly magmatic, acidic fluids, with a quartz-alunite-barite-kaolinite-pyrophyllite gangue association. Low sulfidation deposits are formed by circulation of reduced, near neutral, dilute, fluids developed by mixing of hot magmatic fluids with deep circulating meteoric water accompanied by a quartz-chalcedony-calcite-adularia-illite-carbonate gangue association.

Formation temperature increases with depth typically resulting in metal zoning from the paleosurface to depth as follows: *Hg > Sb-(Au) > Ag-(Au) > Ag-(Pb-Zn-Au) > Pb-Ag-(Zn-Cu-Au) > Pb-Zn-Cu-(Ag) > Zn-Cu-(Pb-Ag-Au) > Cu-Zn-(Au)* (Jurgeit, 2018a).

The Freiberg district comprises well preserved, low to intermediate sulfidation, epithermal systems that share many characteristics with well-studied Ag-Zn-Pb mineral systems elsewhere (Figure 7-1) (Swinkels et al., 2021a; Swinkels et al., 2021b). Metal deposition in these systems typically occurs during fluid ascent along open deep-seated structures through a combination of processes including fluid mixing, cooling, degassing, and transient boiling. The hydrothermal deposits exhibit strong vertical zoning around the transient boiling zone, with precious metals generally enriched above the boiling zone (typically between 100 and 400 metres depth interval) and base metals abundances increasing with depth (Figure 7-2). The boiling zone often migrates throughout the deposition history (telescoping) resulting in a greater vertical extent of mineralization. Multiple hydrothermal pulses, often within the same vein zone, may result in higher and lower mineral assemblages appearing together. Mineralization tends to be dominated by open-space veins, with stockwork mineralization common and disseminated and replacement mineralization a minor component.

Figure 7-1

Schematic model for epithermal mineral deposits

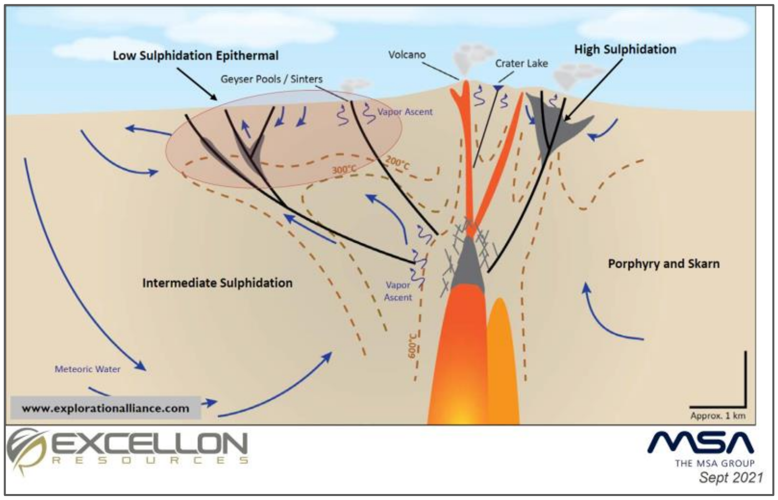
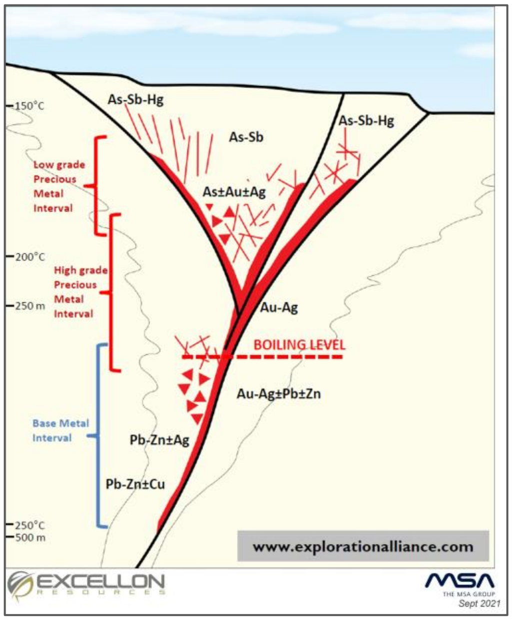


Figure 7-2

Schematic model of metal zoning in low-intermediate epithermal deposits in a single stage system. Real systems are more complex due to multiple hydrothermal pulses and resultant telescoping of mineral assemblages.



8 EXPLORATION

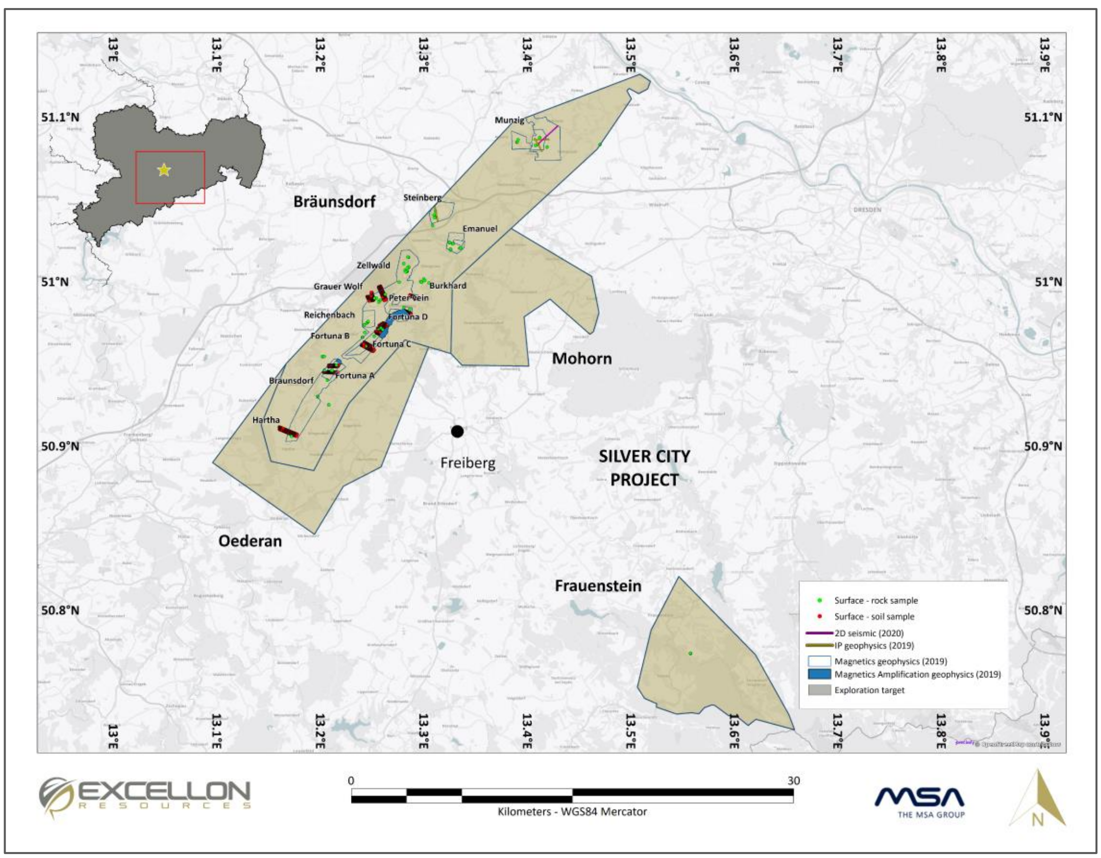
Historical exploration work in the area of the Project is discussed in Section 5.

Prior to exploration activities conducted by Excellon in 2019, historical mining, drilling, sampling, and more recently soil and grab sampling, ground and drone magnetic surveys, and induced polarization ("IP") surveys were conducted at the Project. Excellon has continued and intensified exploration after becoming the operator in 2019.

8.1 Exploration by Excellon

Since becoming the operator in 2019, Excellon has conducted diamond drilling documented by detailed core logging, soil sampling, petrographic and MLA studies, and seismic surveys. In accordance with a research collaboration between the HIF and Excellon, HIF staff have been performing drill core mapping using hyperspectral analysis ("HA") to improve the understanding of the local mineralization and alteration distribution. The compilation of exploration activities conducted by Excellon is shown in Figure 8-1.

Figure 8-1
Exploration activities conducted by Excellon



Globex soil and grab sampling, and IP and magnetic geophysical survey data have been incorporated into Excellon's GIS database. Moreover, extensive research of historical mining reports and plans was carried out at the mining archive in Freiberg. When possible, the maps and plans of historical workings had been digitized, georeferenced, and incorporated into Excellon's database.

8.1.1 Petrographic Studies

Petrographic studies of 63 samples from holes AGBR0120, AGBR0520, AGBR05A20, AGBR1020, and SC21GWO012 were performed by HIF. The purpose of the study was to characterize and identify the lithologies and ore minerals, and to reconcile the petrographic attributes with the results of the hyperspectral drill core mapping.

8.1.2 Mineral Liberation Analysis

Erzlabor Advanced Solutions GmbH ("Erzlabor", associated with HIF) performed MLA analysis on fourteen samples from five diamond drill holes (AGBR0120, AGBR0520, AGBR05A20, AGBR1020 and SC21GWO012). The purpose of the study was to identify the silver species present at the Project and to establish their abundance and association.

8.1.3 Seismic Survey

A trial 2-d Ambient Noise Surface Wave Tomography ("ANSWT") survey was completed by Sisprobe while performing diamond drilling at Munzig area. The survey uses ambient noise and requires no artificial active noise sources. The survey was oriented WSW with the objective of locating the position and the orientation of the contact between mica schist formation and felsic volcanics.

8.1.4 Hyperspectral Analysis

The hyperspectral analysis (HA) was performed on 5,265 metres of core. The objective of the HA is to improve the consistency in the identification of lithology, alteration, and mineralization. The analysis was supplemented by a petrographic study to improve the calibration of HA. Data collection and analysis using HA will continue in future drilling campaigns.

8.1.5 Soil Sampling

A total of 472 soil samples were collected along thirteen individual lines located within the Bräunsdorf licence area. Sample spacing varied between 15 and 30 metres, for a total of 9,002 line metres. Samples were collected for traditional aqua regia digestion/ICP-MS analysis as well as mobile metal ion determination, the sampling procedure was adjusted accordingly. To the effective date of this report, assay results were received for 93 out of 472 samples.

9 DRILLING

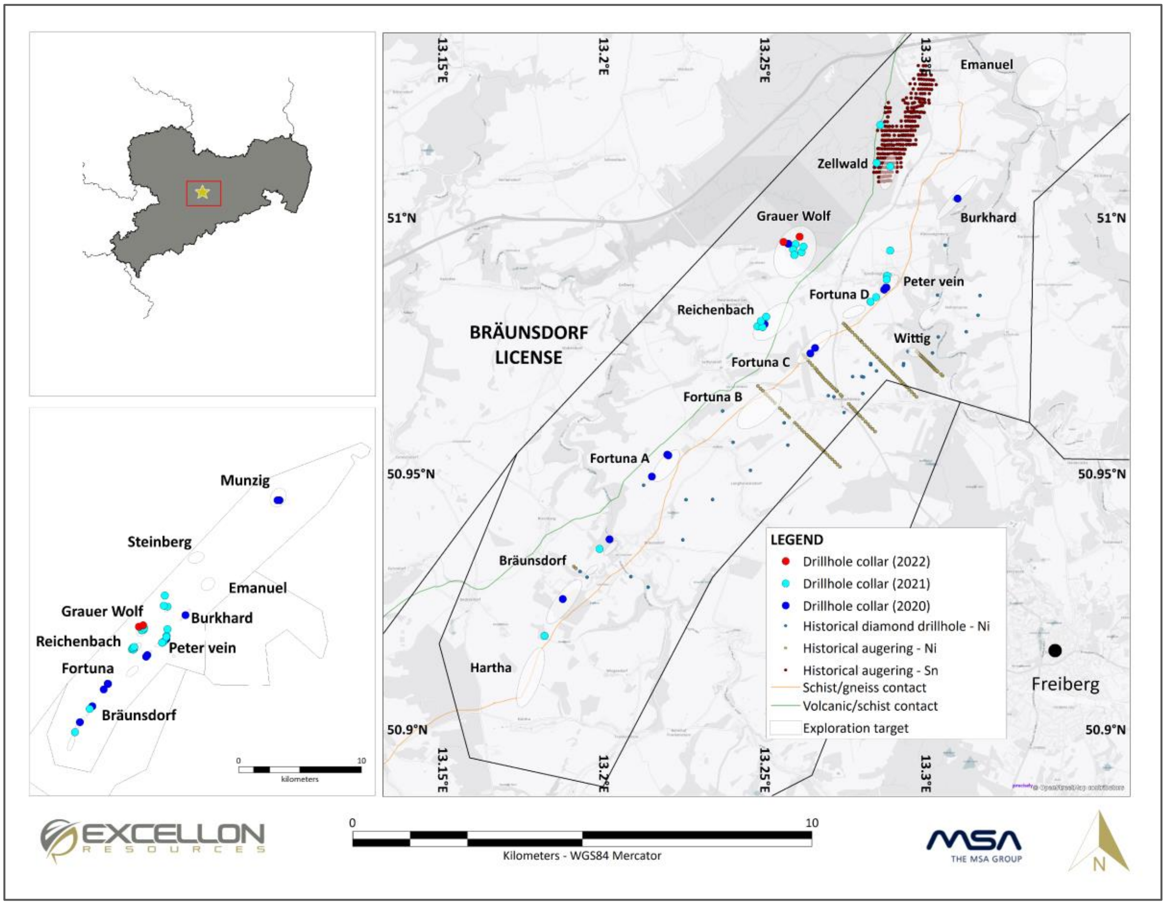
9.1 Historical Drilling

Between 1951 and 2022, a total of 226 core drillholes (32,144 metres) were completed throughout the current Project area. Before 2019, however, drilling was mainly focused on exploring mineralization types other than epithermal veins (described below). A summary of the historical and recent drilling work completed over time is given in Table 9-1 and displayed in Figure 9-1.

Table 9-1
Summary of Drilling completed on the Silver City Project between 1951 and 2022

Drilling completed by	Area	Commodity	Period	No. Holes	Meters
GDR Geological Survey	Hermsdorf	Marble	1951-1958	55	26,482
GDR Geological Survey	Zellwald Forest	Nickel	1953	6	476
Unspecified	Oberschöna	Quarzite	1957	9	746
SDAG Wismut	Hermsdorf	Uranium	1968	15	3,238
SDAG Wismut	Mohorn	Uranium	1969	5	509
SDAG Wismut	Reichenau	Uranium	1969	3	528
SDAG Wismut	Scharfenberg	Uranium	1971	1	300
SDAG Wismut	Memmendorf	Uranium	1973	3	451
VEB Bergbau- und Hüttenkombinat „Albert Funk" Freiberg	Various (South of Obergruna)	Tin	1962-1965	31	12,128
VEB Bergbau- und Hüttenkombinat „Albert Funk" Freiberg	Various (South of Obergruna)	Tin	1976-1977	146	6,669
Excellon	Various (Braunsdorf Licence)	Silver, Zinc, Lead, Gold	2020-2022	43	13,269

Figure 9-1
Drilling completed on the Silver City project between 1953 and 2021



During 1951-1977 historical drilling within the current Project area was carried out by the geological survey of the former GDR, state-owned exploration companies, and the Soviet-German SDAG Wismut in several drilling campaigns. None of them targeted the polymetallic epithermal mineralization, preferring to focus exploration efforts on nickel and/or stratiform tin mineralization. However, logging descriptions and archived core samples provided valuable evidence of the presence of epithermal mineralization in the investigated areas.

In the course of a nickel exploration campaign, 329 auger drillholes (1,940 metres) up to 16 metres in depth and six vertical diamond core drillholes (476 metres) up to 161.8 metres in depth were completed between 1951 and 1953 in the area of the Zellwald forest.

Between 1962 and 1977 a total of 176 inclined and vertical holes (over 18,099 metres) were drilled from surface and underground as part of several exploration campaigns on tin mineralization. They cover an area from Obergruna in the northeast to Riechberg in the southwest. While 144 drillholes were less than 50 metres in depth, 27 were drilled to depths exceeding 300 metres (maximum 1,200 metres).

Near Scharfenberg in the northernmost part of the property, one drillhole (Wis 09; 300 metres) was completed by the SDGA Wismut in 1971, most likely as part of an exploration program for uranium. Other targets of the uranium exploration campaign include Memmendorf on the Oederan licence, targets Northeast and West of Mohorn and on the Frauenstein licence near East of Reichenau and around Hermsdorf. In total drilled the SDAG Wismut 5,026 metres on the Silver City licences from 1968-1971. In Oberschöna (Oederan licence) and Hermsdorf (Frauenstein licence) several exploration drillings on quartzite and marble were carried out from 1951-1958. In total, 26,452 metres were drilled near Hermsdorf and 746 metres beside Oberschöna.

Overall, the drilling, surveying, and logging procedures used during the different campaigns are not well known. Selected drill core intervals were logged and partially re-sampled by Globex in 2017.

9.2 Drilling by Excellon (2020)

9.2.1 Type and Extent

After optioning the Project from Globex in 2019, Excellon drilled a total of 16 diamond drillholes (3,687 metres) over 24 kilometres of strike in 2020 on the Bräunsdorf licence. All the holes were drilled inclined with final depths ranging between 92 metres and 445 metres, as summarized in Table 9-2. A total of nine targets were tested, as shown in Figure 9-1.

Table 9-2
Summary of the 2020 drilling campaign on the Bräunsdorf Licence

Drillhole ID	Easting	Northing	Elevation	Length (m)	Azimuth	Inclination
AGBR0120	373 869	5 644 575	325	445.4	135	-57
AGBR0220	375 200	5 646 380	353	170.7	130	-47
AGBR02A20	375 180	5 646 395	351	188.6	130	-60
AGBR0320	378 458	5 648 638	370	122.8	110	-65
AGBR0520	380 035	5 649 915	355	282.0	150	-60
AGBR05A20	380 045	5 649 915	355	258.6	138	-60
AGBR05B20	379 995	5 649 870	356	269.8	142	-64
AGBR0720	374 830	5 645 935	387	152.4	140	-45
AGBR0820	378 350	5 648 520	370	92.5	130	-50
AGBR1020	377 370	5 649 180	360	237.0	125	-45
AGBR1220	381 640	5 651 810	312	205.7	130	-55
SC20GWO012	377 931	5 650 921	340	292.0	133	-45
SC20GWO013	377 931	5 650 921	340	255.0	143	-55
SC20MUN015	389 350	5 660 980	248	233.9	170	-48
SC20MUN016	389 505	5 660 970	251	153.9	270	-60
SC20SIF014	372 820	5 643 310	424	326.5	135	-45
			Total	**3,686.8**		

9.2.2 Procedures

All aspects of core management, logging, sampling, assay and QAQC are documented in standard operating procedures which were reviewed by the QP.

Due to suboptimal near-surface ground conditions, all drillholes commenced with HQ size (63.5 millimetre core diameter) until reaching more intact rock units (on average 28 metres) thereafter switching to NQ size, which produces 47.6 millimetre diameter core.

Drilling was carried out by GEOPS Bohrgesellschaft mbH ("GEOPS"), a subsidiary of GEOPS Bolkan Drilling Services Ltd. The program was completed using an Atlas Copco CS14 drilling rig. Photographs of drill sites from the 2021 drilling campaign are shown in Figure 9-2.

For all retrieved core, the Devico BBT system (dual tool survey) was used by the drilling contractor for marking the bottom of the hole at the end of each core run. Upon recovery from the inner tube, the core was washed and placed into plastic core trays, appropriately labelled and secured by the drilling contractor. Every 24-48 hours, the core was transported in the core boxes to the core storage/logging facility, where the core boxes were checked for completeness. Delivery and receipt of the core were documented and signed by the drilling contractor and Excellon's project staff, respectively.

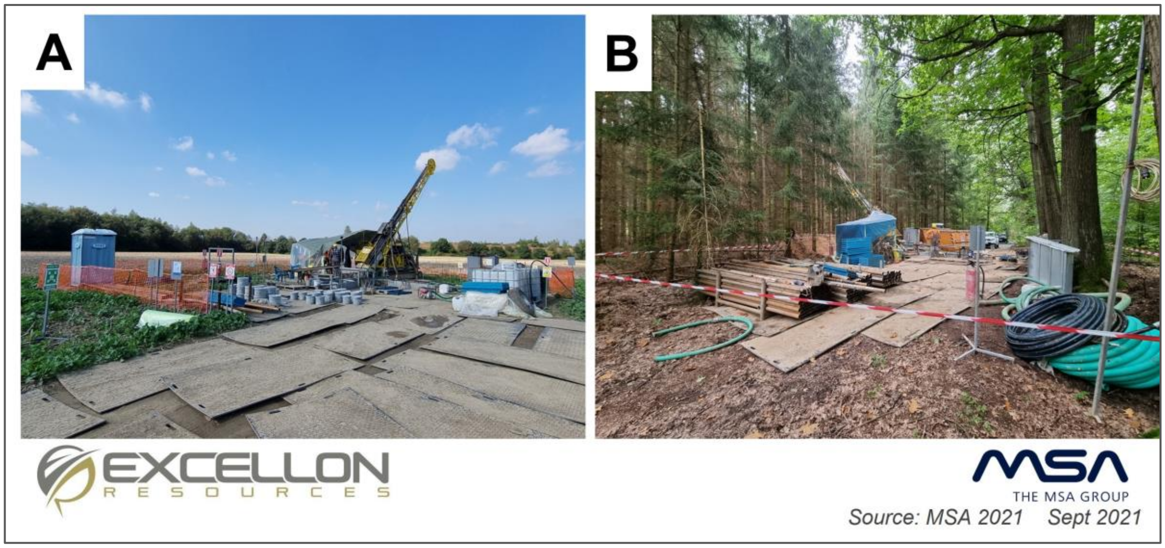
Following the receipt of the core at the logging facility, the core was geotechnically logged, which consisted of measuring core recovery, RQD and qualitative information on jointing, and labelling of full metre marks. Based on the bottom of the core-run marks, the core was oriented using a V-rail, an orientation line and arrows pointing down the hole were drawn.

Information acquired during detailed core logging was recorded on paper log sheets, which were digitally captured following completion of each hole. Data was entered into the Fugro-owned GeODin data management software, which allowed a thorough validation of inserted data based on pre-defined dictionaries and logical checking routines. The following were entered into the database: collar information, core recovery, lithology, alteration, mineralization, sampling intervals, specific gravity analyses, Reflex IQ Logger orientation data of structural elements (e.g. veins, joints, faults), and geotechnical information. An average of 96.65% core recovery was obtained for the 2020 drill program.

After the completion of core logging, samples were taken for specific gravity analysis. Samples for specific gravity measurements or geochemical analysis were selected, respecting lithological, structural and mineralization boundaries.

The drillhole data are stored on Fugro's company server at its Berlin head office and were periodically transferred to Excellon through cloud-based web services during the 2020 and 2021 drill programs.

Figure 9-2
Examples of GEOPS drill sites, 2021 drilling campaign: (A) SC21REI027, Reichenbach (B) SC21GW030, Grauer Wolf



9.2.3 Surveying

No information on the surveying of historical holes is available.

During 2020, all drillhole collar locations were surveyed by a certified surveyor (Uwe Klöden) using a TRIMBLE S6 Robotic (2" DR300+) Total Station and a Trimble R8s GNSS receiver.

Downhole deviation surveys were carried out by the drilling contractor using a SPT MagCruiser MM022, with the measurements taken every 10 metres. The frequency was later reduced to every 15 metres for the first 45 metres and every 30 metres below thereafter. Following the completion of a hole, all drillholes with the exception of drillhole AGBR01-20, were surveyed up-hole with the same SPT MagCruiser MM022 tool and measurements were collected every 6 metres. In AGBR01-20, an up-hole survey was completed using a multi-sensor wireline tool with continuous gyroscopic deviation measurements taken every 1 centimetre.

9.2.4 Interpretation and Relevant Results

The 2020 drilling program was designed to test multiple targets based on the strike and dip extensions of historical workings, soil geochemical and geophysical anomalies and surface samples.

The program tested nine targets, with mineralization and/or significant alteration intersected in seven targets (Figure 9-3 and Table 9-3). Drilling at the Munzig target in late 2020 encountered two zones of mineralization within 75 metres of surface (including 2.43 metres grading 116 g/t AgEq from 70 metres and 1.60 metres grading 143 g/t AgEq from 77 metres in SC20MUN015) separated by a non-mineralized dike (Table 9-4).

Of significance, mineralization intersected in epithermal veins associated with a mafic volcanic-schist contact at the Grauer Wolf and Reichenbach targets effectively represents new discoveries, as this geological contact saw little historical mining.

Table 9-3
Summary of targets and associated mineralization, 2020 drilling campaign

Target	Target Type	Holes Drilled	Mineralization and Alteration Descriptions
Bräunsdorf	Dip extension of historical workings	AGBR0120	Wide shear zone with chloritic, and sericitic alteration hosting multiple quartz-carbonate veins and local zones of hydrothermal breccia. Silver is carried by silver sulfosalts, freibergite-tetrahedrite and is closely associated with sphalerite.
Reichenbach	Surface sampling and geophysics	AGBR1020	A discovery, with three zones of mineralization intersected, comprising brittle sericite-altered basalt with quartz-carbonate filled brittle fractures and local zones of matrix- and clast-supported hydrothermal breccias. Silver and gold are hosted in quartz-carbonate veins with grades up to 2.0 g/t Au and 350 g/t Ag.
Peter Vein	Strike extension of historical workings	AGBR0520 AGBR05A20 AGBR05B20	All holes intersected a wide shear zone with strong sericitic, graphitic, and chloritic alteration. The zone contains multiple local sheared quartz-carbonate veins with grades up to 911 g/t Ag, 0.4 g/t Au, 2.8% Pb and 0.9% Zn. Multiple grains of native silver, pyrargyrite, freibergite and other silver species were identified.
Grauer Wolf	Surface sampling and geophysics	SC20GWO013 SC20GWO012	Both holes intersected a wide shear zone hosted by volcaniclastic and mafic volcanic units with strong sericitic alteration, multiple sheared carbonate veinlets and an over 1-metre-wide quartz-carbonate vein containing multiple blebs of sphalerite, with grades up to 987 g/t Ag, 0.5% Pb, and 0.7% Zn.
Munzig	Surface sampling, geophysics, follow-up of historical workings	SC20MUN015 SC20MUN016	A wide shear zone within mica schist with intense sericitic and local hematitic alteration, multiple sheared smokey quartz-carbonate veins hosting mineralization with grades up to 306 g/t Ag, 0.12 g/t Au, 9.48% Pb, and 2.13% Zn.
Fortuna A	Soil geochemistry - conceptual	AGBR0220 AGBR02A20 AGBR0720	All holes intersected a strongly sheared zone with ubiquitous sericite and local intermittent zones of biotite alteration, with minor local quartz and carbonate veining. All zones demonstrated anomalous base metal and precious metal values with grades up to 0.68 g/t Au and 47 g/t Ag.
Siegfried	Geophysics, strike extent of historical workings	SC20SIF014	5 m wide shear zone with chloritic, and sericitic alteration hosting multiple quartz-carbonate veins and local zones of hydrothermal breccia.

Source: Excellon (2021a)

Table 9-4
Significant results from the 2020 drilling campaign

Target	Hole ID	Dip	Azimuth	Interval		Interval[1]	Ag	Pb	Zn	Au	AgEq[2]
		°	°	From (m)	To (m)	(m)	g/t	%	%	g/t	g/t
Bräunsdorf	AGBR0120	-57	135	353.45	355.50	2.05	87	0.0	0.1	0.2	101
	Including			353.45	353.80	0.35	300	0.0	0.2	0.2	319
Reichenbach	AGBR1020	-45	125	107.50	109.40	1.90	134	0.0	0.0	0.8	191
	Including			108.13	108.84	0.71	356	0.0	0.0	2.0	505
Peter Vein	AGBR05A20	-60	138	207.75	210.05	2.30	183	0.5	0.2	0.4	231
	Including			207.75	208.20	0.45	911	2.8	0.9	0.4	1 042
Grauer Wolf	SC20GWO012	-45	133	76.80	78.00	1.20	325	0.0	0.0	0.1	331
	and			95.70	103.70	8.10	173	0.1	0.3	0.1	194
	including			96.50	97.80	1.30	954	0.7	2.0	0.1	1 043

[1] All intersections reported as core length.
[2] AgEq calculated using $1,800 Au/oz, $24.00 Ag/oz, $0.90 Pb/lb and $1.20 Zn/lb with 100% metallurgical recovery.
Source: Excellon (2020, 2021b)

9.3 Drilling by Excellon (2021)

9.3.1 Type and Extent

Following the initial drill program completed in 2020, Excellon drilled a total of 27 diamond drillholes (9,582.0 metres) over 13.5 kilometres of strike in 2021-2022 on the Bräunsdorf licence. Most of the drilling focused on Grauer Wolf and Reichenbach target areas, which demonstrated the highest potential during the previous year's drill program. All the holes were drilled inclined with final depths ranging between 159 metres and 591 metres, as summarized in Table 9-2. A total of nine targets were tested as shown in Figure 9-1.

Table 9-5
Summary of the 2021 drilling campaign on the Bräunsdorf Licence

Drillhole ID	Easting	Northing	Elevation	Length (m)	Azimuth	Inclination
SC21GVB017	380 145	5 650 715	345	591.0	150	-50
SC21GVB018	380 053	5 650 088	349	440.1	135	-54
SC21GVB019	379 690	5 649 615	367	260.3	140	-45
SC21GVB019A	379 690	5 649 615	357	250.6	140	-70
SC21GVB020	380 067	5 650 170	346	353.4	120	-45
SC21GVB021	379 815	5 649 711	363	243	130	-45
SC21BRD022	373 652	5 644 378	374	550.5	115	-66
SC21SIF023	372 405	5 642 518	419	159.4	115	-45

Drillhole ID	Easting	Northing	Elevation	Length (m)	Azimuth	Inclination
SC21REI024	377 407	5 649 339	360	432.4	135	-45
SC21REI025	377 290	5 649 250	357	412.9	135	-45
SC21REI026	377 322	5 649 116	361	366.5	140	-65
SC21REI027	377 211	5 649 135	359	303.1	160	-45
SC21REI028	377 322	5 649 116	361	334.8	165	-45
SC21GWO029	378 255	5 650 843	355	230.1	340	-45
SC21GWO030	378 053	5 650 670	343	372.6	330	-45
SC21GWO031	378 210	5 650 728	350	380.5	330	-45
SC21GWO030A	378 053	5 650 670	343	398.6	340	-55
SC21GWO032	378 210	5 65 0727	350	343.5	150	-45
SC21GWO033	378 030	5 650 789	358	296.8	10	-50
SC21GWO034	378 087	5 650 902	349	186.8	160	-45
SC21GWO030B	378 053	5 650 670	343	428.5	330	-60
SC21TRI035	379 895	5 652 626	330	438.3	100	-45
SC21TRI036	379 993	5 653 447	313	305.0	90	-45
SC21TRI037	380 185	5 652 546	333	280.6	100	-45
SC21GWO038	377 822	5 650 962	348	401.5	170	-45
SC21GWO039	377 824	5 650 956	355	409.0	160	-45
SC21GWO040	378 177	5 651 061	339	412.2	150	-45
			Total	**9,582.0**		

9.3.2 Procedures

For details on the drilling procedures see section 9.2.2.

The 2021 program was completed using two Atlas Copco CS14 drilling rigs. An average of 92.23% core recovery was obtained for the 2021 drill program.

Information acquired during detailed core logging was recorded digitally through an in-house developed data entry logging system. The use of predefined dictionaries and logical queries significantly reduced the potential for errors during data entry and ensured the consistency of the information captured. The data were periodically transferred to Excellon's central database, hosted on a cloud-based web service. In addition to the logging parameters described in section 9.2.2, detailed core logging was aided by obtaining magnetic susceptibility readings using a GF Instruments Magnetic Susceptibility Meter (SM20). Readings were taken on full core samples, generally at 2 metres spacing.

9.3.3 Surveying

For details on the surveying procedures see section 9.2.3.

Downhole deviation surveys were carried out by the drilling contractor using a DEVICO Devishot (serial No. 1918), with the measurements taken generally every 15 metres for the first 90 metres and every 30 metres below thereafter.

9.3.4 Interpretation and Relevant Results

Drilling in 2021 mainly focused on the targets along the highly prospective mafic contact (Grauer Wolf, Reichenbach, and Trinity target areas) where high-grade mineralization was identified during the 2020 drill program. Some drilling was completed along the historically mined gneiss/mica schist contact to follow up on the targets along the strike of the historical mines where high-grade mineralization was intersected during Excellon's last year's drill program. 2021 Exploration program target areas are summarized in Table 9-6. 26 of the 27 drilled holes intersected the target structures, with significant high-grade intervals intersected at Grauer Wolf and Peter Vein target areas. Assays are pending for the three holes drilled in early 2022 (SC21GWO038, SC21GWO039, and SC21GWO040).

Table 9-6
Summary of targets and associated mineralization, 2021 drilling campaign

Target	Target Type	Holes Drilled	Mineralization and Alteration Descriptions
Bräunsdorf	Dip extension of historical workings, 2020 drill program follow up	SC21BRD022	Wide shear zone with chloritic and sericitic alteration hosting multiple Ag - bearing quartz-carbonate veins. ~290m along strike from mineralization in AGBR0120. Silver is carried by silver sulfosalts, freibergite-tetrahedrite and is closely associated with sphalerite.
Reichenbach	Surface sampling, 2020 drill program follow-up, and geophysics	SC21REI024 SC21REI025 SC21REI026 SC21REI027 SC21REI028	Following up on the discovery hole (AGBR1020), 5 holes intersected narrow vein mineralization ~235m along strike (southwest) and 110m (northeast) from mineralization in AGBR1020 with grades up to 124 g/t Ag and 5.01 g/t Au. Several zones of brittle sericite-altered basalt/pyroclastics with quartz-carbonate filled brittle fractures and local zones of matrix- and clast-supported hydrothermal breccias. Mineralogical and textural features of vein mineralization indicate distal formation conditions.
Peter Vein	Strike and dip extension of historical workings. and 2020 drill program follow up	SC21GVB017 SC21GVB018 SC21GVB019 SC21GVB019A SC21GVB020 SC21GVB021 SC21GVB022	Following up on the encouraging results from AGBR05A20, 7 holes intersected vein mineralization targeted along strike or down dip of historically reported ore shoots. Principal vein and parallel structures hosted in mica schist and graphitic schist contain sphalerite, galena and unidentified silver species as ore minerals and revealed grades up to 1,470 g/t Ag and 0.75 g/t Au. Sericite alteration is confined to a several metre-wide alteration halo surrounding the vein. Breccia texture indicates a late-stage hydrothermal overprint precipitating quartz and rhodochrosite

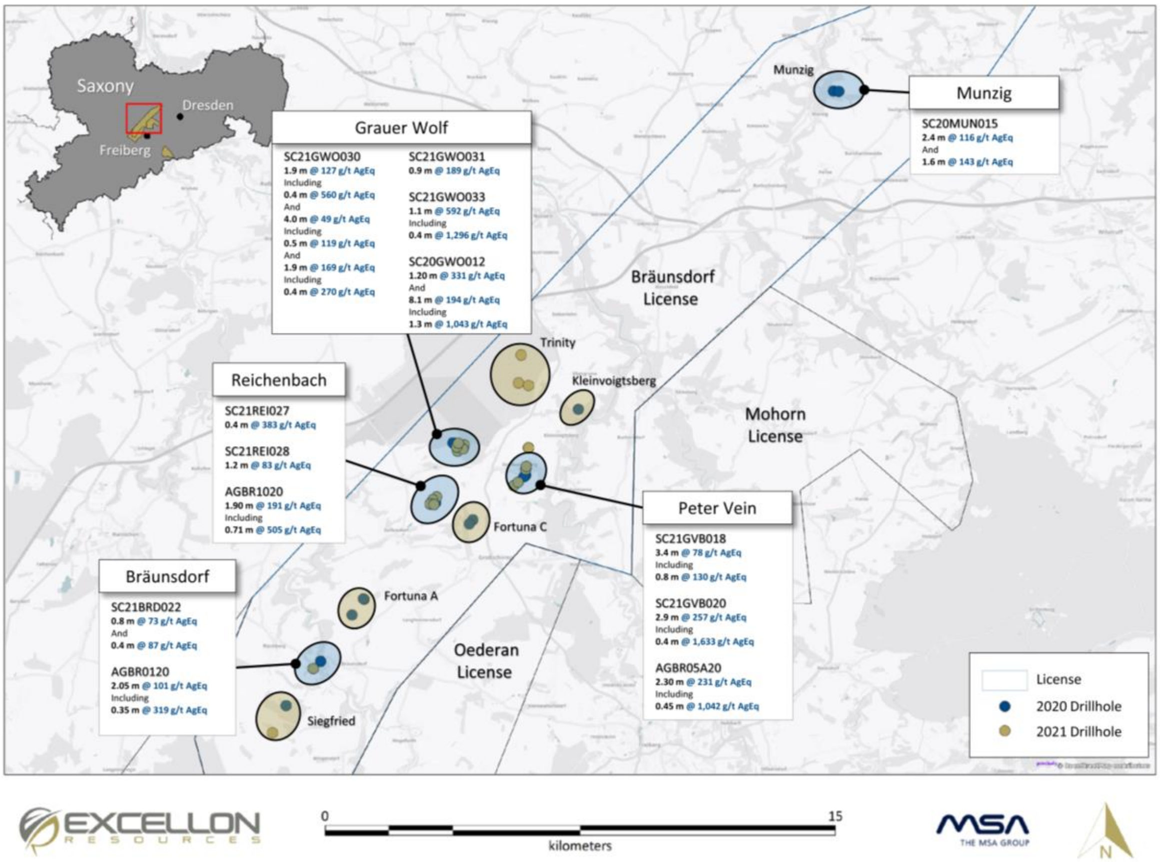
Target	Target Type	Holes Drilled	Mineralization and Alteration Descriptions
Grauer Wolf	Strike and dip extension of shallow historical workings, surface sampling and geophysics	SC21GWO029 SC21GWO030 SC21GWO030A SC21GWO031 SC21GWO032 SC21GWO033 SC21GWO034 SC21GWO038 SC21GWO039 SC21GWO040	10 holes drilled at Grauer Wolf confirmed the continuity and geometry of multiple Ag - bearing quartz-carbonate veins in a sequence of clastic, pyroclastic, intrusive, and metamorphic rock. Vein mineralization is dominated by sphalerite, Ag-rich galena, pyrargyrite and silver-bearing fahlore with grades up to 1,260 g/t Ag and 0.5 g/t Au. Depending on the host lithology, up to 32 m wide sericitic alteration haloes are developed around the veins.
Trinity	Geophysics, strike extension of Grauer Wolf target area, surface sampling	SC21TRI035 SC21TRI036 SC21TRI037	3 drilled holes hit several narrow mineralized structures dominated by quartz-hematite and carbonate veins. Related sericitic alteration was generally very limited, whereas regional alteration dominated in serpentinite rocks
Siegfried	Geophysics, strike extension of historical workings from Bräunsdorf area	SC21SIF023	Millimetre to centimetre seized veinlets of pyrite and locally arsenopyrite were intersected. Sericitic alteration was very subtle.

Table 9-7
Significant results from the 2021 drilling campaign

Target	Hole ID	Dip	Azimuth	Interval		Interval[1]	Ag	Pb	Zn	Au	AgEq[2]
		°	°	From (m)	To (m)	(m)	g/t	%	%	g/t	g/t
Bräunsdorf	SC21BRD022	-66	115	429.33	430.14	0.81	63	0.0	0.0	0.1	73
	and			443.78	444.16	0.38	42	0.2	0.2	0.5	87
Reichenbach	SC21REI27	-45	160	162.62	163.00	0.38	7	0.0	0.0	5.0	383
	SC21REI28	-45	165	60.00	61.20	1.20	66	0.0	0.0	0.2	83
Peter Vein	SC21GVB018	-54	135	298.62	302.00	3.38	55	0.1	0.2	0.2	78
	including			299.82	300.60	0.78	89	0.2	0.2	0.4	130
	SC21GVB020	-45	120	333.20	336.10	2.90	232	0.4	0.3	0.0	257
	including			334.56	334.91	0.35	1,470	2.9	2.1	0.2	1,633
Grauer Wolf	SC21GWO030	-45	330	269.75	271.60	1.85	100	0.2	0.4	0.1	127
	including			271.25	271.60	0.35	440	1.1	1.7	0.4	560
	and			284.00	288.00	4.0	44	0.0	0.1	0.0	49
	including			287.52	288.00	0.48	110	0.1	0.2	0.0	119
	and			293.10	295.03	1.93	137	0.3	0.6	0.0	169
	including			293.10	293.75	0.65	228	0.7	0.5	0.1	266
	SC21GWO031	-45	330	255.42	256.31	0.89	128	0.2	1.5	0.1	189
	SC21GWO033	-50	10	146.95	148.00	1.05	508	1.4	1.2	0.2	592
	including			146.95	147.39	0.35	1,260	0.6	0.3	0.2	1,296

[1] All intersections reported as core length.
[2] AgEq calculated using $1,800 Au/oz, $24.00 Ag/oz, $0.90 Pb/lb and $1.20 Zn/lb with 100% metallurgical recovery.

Figure 9-3
Summary drilling results on targets tested in the 2020 and 2021 drilling campaigns



9.4 Authors Comments

The QP of this report is of the opinion that the drilling and sampling procedures adopted by Excellon meet or exceed generally recognized industry best practices. Core sampling was undertaken by competent personnel respecting the lithological, structural and mineralization boundaries and using procedures that meet or exceed generally accepted industry best practices. The QP concludes that the samples are representative of the source materials, and there is no evidence that the sampling process introduced a bias.

The results of the 2020 and 2021 drilling programs on the Bräunsdorf licence, in combination with other work undertaken by Excellon, has confirmed the presence of a major epithermal system developed over 24 kilometres of strike. The discovery of epithermal veins associated with the mafic volcanic-schist contact at the Grauer Wolf and Reichenbach targets represents a new mineralization control and has confirmed the wider exploration potential of the district. At Grauer Wolf, five vein structures have been modelled, dipping both to the northwest and southeast, with potential for identifying ore shoots. In this respect, an understanding of the structural controls on mineralization is critical.

10 SAMPLE PREPARATION, ANALYSES AND SECURITY

Information on data acquired by Globex between 2017 and 2019 is reproduced from Globex Mining Reports (Jurgeit, 2018a; Jurgeit, 2018b; Jurgeit, 2019).

Samples collected by Globex between 2017 and 2019 and by Excellon in 2020 were sent to Bureau Veritas Polska Sp. z o.o.'s ("BV") sample preparation facilities in Kracow, Poland. Pulps were sent to the BV Laboratory in Vancouver, Canada, which is accredited to ISO/IEC 17025:2017, RG-MINERAL. BV has a comprehensive QA/QC program, supervised by an independent Qualified Person.

Samples collected during 2021-2022 drill program were prepared and analyzed by ALS's lab at Loughrea, Ireland. The quality program for the lab includes interlaboratory test programs and regularly scheduled internal audits and meets all requirements of ISO/IEC 17025:2017 and ISO 9001:2015.

As part of the quality assurance and quality control ("QAQC") program implemented by Excellon, 40 pulp duplicates from the 2020 drill program were sent to SGS de México, S.A. DE C.V. ("SGS") in Durango, Mexico. SGS, ALS and BV are autonomous, commercial geochemical laboratories that operate independently of Excellon.

10.1 Sampling Method and Approach

10.1.1 Grab, float, rock chip, drill core and soil sampling (Globex 2017 – 2019)

Between October 2017 and April 2019, Globex collected 33 rock grab samples, 52 float and rock chip samples, 23 drill core samples as well as 574 soil samples along 17 lines on the Bräunsdorf licence.

Rock grab samples were selectively collected from subcrop and historic mine dumps, mostly adjacent to arable land. Rock chip samples were taken from outcrop using hammer and chisel as semi-continuous chip-channel samples and are not intended to be representative.

Float samples were selectively taken in areas with limited outcrop or in areas with shallow overburden, mostly on arable land. It is believed that the float represents *in situ* weathered material that has not been transported very far.

Drill core samples were taken from historical diamond drill cores (Rieg 1/76, Oba 1/77 and OT 7/65) that had been re-logged by Globex Mining prior to sampling at the Geological Survey of Saxony's core sheds in Halsbrücke-Rothenfurth and Obergruna, respectively. Globex Mining collected either quarter cores or half cores, if available, and the sample length ranged from 0.05 metres to 1.40 metres.

Soil samples were taken with the technical help of EZW from the subsoil (B horizon) on arable land or pastures, usually between 0.30 metres and 0.50 metres in depth using an Edelmann hand auger (Figure 10-1). The sample length ranged from 0.05 metres to 0.30 metres.

All samples were placed in labelled zipper bags and transported to BV in Krakow, Poland for sample preparation.

Figure 10-1
Soil sampling showing the sampled interval representing the subsoil (B horizon)

Source: Jurgeit (2019) Sept 2021

10.1.2 Drill core sampling (Excellon 2020-2022)

Core logging and sampling was completed by qualified and experienced technical personnel.

After core logging, the drill core was marked up for sampling at regular 1 metre intervals corresponding to drilled depths. The 1 metre intervals were adjusted at key geological contacts or in sample intervals with visible mineralization. The minimum sample interval was 0.35 metres, whereas the maximum sample interval was 1.20 metres or up to 1.60 metres where core loss was observed. In some instances, visually barren intervals away from mineralization were marked up at regular 2 metres intervals. All drill core was then photographed dry and wet using a digital camera. Core was split along the cut line using an automated diamond saw (NTT). Half the core was placed in a thick wall plastic bag together with a pre-fabricated, uniquely numbered sample ticket. The bag was secured with a cable tie. Core samples were weighed on a portable scale. The average sample weight was 1.1 kilogram. The remaining split core was placed in the core box and retained at Excellon's core processing facilities in Freiberg.

Core "field duplicates" were prepared by cutting quarter-core samples from half-core using a diamond saw. Field duplicates were inserted at a frequency of 1 in 50 samples. Blanks were submitted into the sample stream at a frequency of 1 in 25 samples. In 2020, umpire samples were submitted to SGS in Durango, Mexico at a rate of about 1 in 65 samples.

Specific gravity ("SG") measurements were done on selected uncut core samples by hydrostatic immersion. Solid pieces of core considered to represent different rock types and mineralization styles were selected at a frequency of approximately one SG sample per 5 m of core. In 2021, the frequency was reduced to cover sampled intervals and lithologies that were not previously analyzed. A total of 1,918 measurements were taken for the drill program (846 in 2020, 1,072 in 2021-22). These are typically solid pieces of core ranging from 0.10 metres to 0.30 metres in length with no cavities. If the material is porous, the core was tightly wrapped in parafilm tape before the measurement. Dry core samples were weighed in air followed by suspension in water, correcting for temperature and recording the weight. In 2020, results were recorded on paper log sheets and entered into a database management system that calculates each sample's specific gravity. In 2021-2022, a digital interface was used for data input, specific gravity calculation and export to the central project database.

10.1.3 Grab, float, and soil sampling (Excellon 2020-2022)

A soil sampling campaign was carried out by the Excellon's geologists with the support of geology students in areas of forests, arable land, and pastures. Soil profiles were planned in GIS and individual sampling locations and respective field sample IDs were predefined.

For areas of in-situ weathered (non-transported) soil profiles, samples were collected with an Edelmann hand auger. A soil profile was recovered from surface to the top of the B-Horizon, documented (i.e. colour, clast description), and photographed via an in-house developed web-based interface. Sampling locations were surveyed using a handheld GPS (Garmin GPSMAP 65). Samples of 300 to 500 grams were collected from the top of B-horizon, typically ranging between 0.20 and 0.80 metres depth. Larger clasts or roots were manually removed. The sampled material was then placed in a pre-labelled zipper bags. After each sampling point, all tools were properly cleaned with a brush. Once received at Excellon's core shed, the samples were air-dried, weighed, labelled with prefabricated, uniquely numbered sample tickets and shipped to the laboratory for further preparation and analysis.

For soil profiles located in areas of transported soils (mainly aeolian origin), the sampling procedure was adopted for mobile metal ion analysis. Samples were collected from consistent depth intervals of 0.1 to 0.2 metres, irrespective of the soil composition or colour, using a plastic shovel. Samples of 150 to 300 grams were photographed, placed in pre-labelled zipper bags and closed airtight. The sampling locations were surveyed using a handheld GPS (Garmin GPSMAP 65). The filled sample bags were put together with prefabricated, uniquely numbered sample tickets in a second zipper bag, weighed, and shipped to the laboratory for further analysis.

10.2 Sample Preparation

10.2.1 Grab, float, rock chip, drill core and soil sampling (Globex 2017 – 2019)

Sample preparation was carried out at BV's sample preparation facilities in Kracow, Poland.

Rock grab, float, rock chip and drill core samples were prepared using the following protocol (BV method code: PRP70-250):

1. Crush entire sample to greater than 70 percent passing 2 millimetre (10 mesh)
2. Riffle-split 250 grams
3. Pulverize 250 grams to greater than 85% passing 75 μm (200 mesh).

The prepared pulps were sent to Bureau Veritas Commodities Canada Ltd. in Vancouver, Canada for Inductively Coupled Plasma Emission Spectrometry ("ICP-ES") and Inductively Coupled Plasma Mass Spectrometry ("ICP-MS") analysis of 53 elements as well as fire assay with gravimetric finish for overlimit gold and silver analyses (BV method codes: AQ250-EXT, AQ374, FA530).

Soil samples were prepared using the following protocol (BV method code: SS80):

1. Dry at 60 °C
2. Sieve 100 gram sample to -180 μm (80 mesh).

The prepared soil samples were also sent to Bureau Veritas Commodities Canada Ltd. in Vancouver, Canada for ICP-MS analysis of 37 elements (BV method code: AQ250).

10.2.2 Drill core samples (Excellon 2020)

Sample preparation was carried out at BV's sample preparation facilities in Kracow, Poland.

All drill core samples were prepared using the following protocol (BV method code: PRP80-250):

1. Crush entire sample to greater than 80 percent passing 2 millimetres
2. Riffle-split 250 grams
3. Pulverize 250 grams to greater than 85% passing 75 μm (200 mesh).

The prepared pulps were sent to Bureau Veritas Commodities Canada Ltd. in Vancouver, Canada for multi-acid ICP-ES analysis of 35 elements as well as fire assay with ICP-ES finish for gold and gravimetric finish for silver analyses, respectively (BV method codes: MA300/MA370, FA530-Ag, FA330-Au).

10.2.3 Drill core samples (Excellon 2021)

During 2021 drill program the sample preparation and analysis were carried out at ALS' lab at Loughrea, Ireland. The drill core was prepared using the following protocol (ALS method codes: CRU-31, SPL-21, and PUL-32).

1. Crush entire sample to 70 percent passing 2mm
2. Riffle-split 1000 grams
3. Pulverize 1000 grams to greater than 85% passing 75 μm (200 mesh).

10.2.4 Soil samples (Excellon 2021)

Sample preparation and analysis of 2021 soil samples was conducted by ALS' lab at Loughrea, Ireland. The soil samples were prepared using the following protocol (ALS method codes: PREP-41).

1. Dry entire sample <60°C / 140°F
2. Sieve sample to -180 µm (80 mesh) and retain both fractions

10.3 Sample Analysis

10.3.1 Grab, float, rock chip, drill core and soil samples (Globex Mining 2017 – 2019)

At Bureau Veritas Commodities Canada Ltd. in Vancouver, a sample split of 0.5 grams was digested in modified aqua regia (1:1:1 HNO_3 : HCl:H_2O) prior to ICP-MS analysis. High-grade samples with Pb, Zn or Cu greater than 1% were re-analyzed using modified aqua regia digestion of a 2 g sample with ICP-ES finish. Samples with overlimit gold and silver analyses (>100 ppm) were re-analyzed using lead collection fire assay fusion of a 30-gram sample with gravimetric finish. Table 10-1 summarizes the analytical methods used by Globex for the more important elements.

Table 10-1
Summary of analytical methods used by Globex (2017-2019) for grab, float, rock chips, drill core, and soil samples analyzed at BV Vancouver

Analyte	Method Code	Detection Limit	Description
Ag	AQ250(-EXT)	0.002 - 100 ppm	Aqua Regia digestion with ICP-ES/MS finish
Ag	AQ374	2-1000 ppm	Aqua Regia digestion with ICP-ES finish
Ag	FA530	> 20 ppm	30 g fire assay with a gravimetric finish
Au	AQ250(-EXT)	0.0002 - 100 ppm	Aqua Regia digestion with ICP-ES/MS finish
Au	FA530	> 0.9 ppm	30 g fire assay with a gravimetric finish
Zn	AQ250(-EXT)	0.1 - 10000 ppm	Aqua Regia digestion with ICP-ES/MS finish
Zn	AQ374	0.01 - 20 %	Aqua Regia digestion with ICP-ES finish
Pb	AQ250(-EXT)	0.01 - 10000 ppm	Aqua Regia digestion with ICP-ES/MS finish
Pb	AQ374	0.01 - 4 %	Aqua Regia digestion with ICP-ES finish

10.3.2 Drill core samples (Excellon 2020)

At Bureau Veritas Commodities Canada Ltd. in Vancouver, a sample split of 0.25 grams was heated in HNO_3, $HClO_4$ and HF to fuming and taken to dryness. The residue was dissolved in HCl followed by a multi-element ICP-ES analysis of 35 elements (MA300). High-grade samples with Pb or Zn greater than 1% were re-analyzed using the same digestion and method of analysis, but with a high-grade instrument calibration (MA370). Samples with overlimit silver concentrations (>200 ppm) were re-analyzed using lead collection fire assay fusion of a 30 gram sample with gravimetric finish (FA530-Ag). Gold was also assayed using lead collection fire assay fusion of a 30 g sample, but with ICP-ES finish (FA330-Au).

For umpire analysis, sample splits were sent to SGS in Durango, Mexico. For multi-element analysis, a 0.20 gram sample was subjected to a multi-acid digestion and subsequently analyzed by ICP-ES for 32 elements, including Ag, Pb and Zn (ICP40B). Samples with greater than 1% Pb or Zn were analyzed by sodium peroxide fusion with ICP-ES finish (ICP90Q). For this analytical procedure, a 0.20 gram sample was prepared and added to a sodium peroxide flux prior to being fused in a furnace. The resulting melt was dissolved in 100 millilitres of an acid matrix solution, which was then analyzed by ICP-ES. For Ag analyses greater than 100 ppm, lead collection fire assay fusion of a 30 gram sample with gravimetric finish was used (FAG313). Gold analyses were also carried out using lead collection fire assay fusion of a 30 gram sample but followed by atomic absorption spectroscopy ("AAS") (FAA313). Table 10-2 summarizes the laboratories and analytical methods used for relevant elements.

Table 10-2
Laboratories and analytical methods used by Excellon Resources for diamond drilling core analysis 2020 program

Analyte	Method Code	Detection Limit	Descriptions
BV Kracow/Vancouver Lab:			
Ag	MA300	0.5 - 200 ppm	4-acid digestion with ICP-ES finish
Ag	MA370	2 - 1500 ppm	4-acid digestion with ICP-ES finish
Ag	FA530	> 20 ppm	30 g fire assay with a gravimetric finish
Au	FA330	0.002 - 10 ppm	30 g fire assay with ICP-ES finish
Au	FA550	> 0.9 ppm	50 g fire assay with a gravimetric finish
Zn	MA300	2 - 1000 ppm	4-acid digestion with ICP-ES finish
Zn	MA370	0.01 - 40 %	4-acid digestion with ICP-ES finish
Pb	MA300	5 - 10000 ppm	4-acid digestion with ICP-ES finish
Pb	MA370	0.02 - 10 %	4-acid digestion with ICP-ES finish
SGS Durango:			
Ag	ICP40B	2 - 100 ppm	4-acid digestion with ICP-ES finish
Ag	FAG313	10 - 3000 ppm	30 g fire assay with a gravimetric finish
Au	FAA313	0.005 - 10 ppm	30 g fire assay with AAS finish
Zn	ICP40B	5 - 10000 ppm	4-acid digestion with ICP-ES finish
Zn	ICP90Q	0.01 - 30 %	Fusion with ICP-ES finish
Pb	ICP40B	2 - 10000 ppm	4-acid digestion with ICP-ES finish
Pb	ICP90Q	0.01 - 30 %	Fusion with ICP-ES finish

10.3.3 Drill core samples (Excellon 2021)

At ALS in Loughrea, Ireland, a sample split of 0.25 grams was heated in HNO_3, $HClO_4$ and HF to fuming and taken to dryness. The residue was dissolved in HCl followed by a multi-element ICP-MS analysis of 48 elements (ME-MS61). High-grade samples with Pb and/or Zn greater than 1% were re-analyzed using the same digestion and ICP-AES finish with a high-grade instrument calibration (OG62). Samples with overlimit silver concentrations (>100 ppm) were re-analyzed using lead collection fire assay fusion of a 30 gram sample with gravimetric finish (AG-GRA21). Gold was also assayed using lead collection fire assay fusion of a 30 g sample, but with ICP-AES finish (AU-ICP21). Table 10-3 summarizes the analytical methods used for relevant elements.

Table 10-3
Laboratories and analytical methods used by Excellon Resources for diamond drilling core analysis 2021 program

Analyte	Method Code	Detection Limit	Descriptions
Ag	ME-MS61	0.01 - 100 ppm	4-acid digestion with ICP-MS finish
Ag	ME-OG62	1 - 1500 ppm	4-acid digestion with ICP-AES finish
Ag	Ag-GRA21	5 - 10,000 ppm	30 g fire assay with a gravimetric finish
Au	Au-ICP21	0.001 - 10 ppm	30 g fire assay with ICP-AES finish
Au	Au-GRA21	0.05 – 10,000 ppm	30 g fire assay with a gravimetric finish
Zn	ME-MS61	2 – 10,000 ppm	4-acid digestion with ICP-MS finish
Zn	ME-OG62	0.001 - 30 %	4-acid digestion with ICP-AES finish
Pb	ME-MS61	0.5 – 10,000 ppm	4-acid digestion with ICP-MS finish
Pb	ME-OG62	0.001 - 20 %	4-acid digestion with ICP-AES finish

10.3.4 Soil samples (Excellon 2021)

At ALS in Loughrea, Ireland, a sample split of 0.5 grams was dissolved in Aqua Regia, a partial digestion using nitric and hydrochloric acid at a 1:3 ratio. The chemical composition was determined by a multi-element ICP-MS analysis of 53 elements (ME-MS41L).

Soil samples taken from transported cover were analyzed by mobile metal ion determination ("Ionic Leach"; ME-MS23). This method takes advantage of mobile ionic element species that were released at depth and transported to the surface where these loosely bound ions can be measured. A suit of 61 elements is determined by this method with additional analysis of pH. Table 10-4 summarizes the analytical methods used for relevant elements.

Table 10-4
Laboratories and analytical methods used by Excellon Resources for soil sample analysis 2021 program

Analyte	Method Code	Detection Limit	Descriptions
Ag	ME-MS41L	0.001 – 100 ppm	Aqua regia digestion with ICP-MS finish
Au	ME-MS41L	0.0002 – 25 ppm	Aqua regia digestion with ICP-MS finish
Pb	ME-MS41L	0.005. – 10,000 ppm	Aqua regia digestion with ICP-MS finish
Zn	ME-MS41L	0.1 – 10,000 ppm	Aqua regia digestion with ICP-MS finish
Cu	ME-MS41L	0.01 – 10,000 ppm	Aqua regia digestion with ICP-MS finish
As	ME-MS41L	0.01 – 10,000 ppm	Aqua regia digestion with ICP-MS finish
Sb	ME-MS41L	0.005 – 10,000 ppm	Aqua regia digestion with ICP-MS finish
Bi	ME-MS41L	0.0005 – 10,000 ppm	Aqua regia digestion with ICP-MS finish
Ag	ME-MS23	>0.0001 ppm	Ionic Leach
Au	ME-MS23	>0.00002 ppm	Ionic Leach
Pb	ME-MS23	>0.0001 ppm	Ionic Leach
Zn	ME-MS23	>0.01 ppm	Ionic Leach
Cu	ME-MS23	>0.0001 ppm	Ionic Leach
As	ME-MS23	>0.0005 ppm	Ionic Leach
Sb	ME-MS23	>0.0005 ppm	Ionic Leach
Bi	ME-MS23	>0.0003 ppm	Ionic Leach

10.4 Sample Security

10.4.1 Globex (2017 – 2019)

All samples collected by Globex were submitted within a month of collection. Storage, packing and shipping of the Globex soil samples by a carrier from EZW facility Altenberg to BV in Kracow, Poland was organized and carried out by EZW weekly on behalf of Globex, using the standard procedure of checking and duly signing the shipment documents, including instructions for preparation and analytical methods. Each soil sample profile was shipped as an individual batch. Further details with regards storage and transport by Globex of other sample types are not available. However, there are no reasons to believe that the security of the grab and rock chip samples was compromised.

10.4.2 Excellon (2020)

Excellon organized sample pick-up from the core processing facilities in Freiberg, Germany to BV in Kracow, Poland. Each sample batch contained 200 samples and was handed to a carrier after checking and duly signing all shipment documents as well as the chain of custody form. The shipment documents also included sample submission forms with instructions for preparation and analytical methods. A detailed sample list was also provided to BV via e-mail. Upon receipt of the samples, a staff member of BV crosschecked the number of samples received and countersigned the chain of custody form before sending it back to Excellon to be archived.

10.4.3 Excellon (2021)

Excellon organized sample pick-up from the core processing facilities in Freiberg, Germany to ALS Loughrea, Ireland. Generally, each sample batch contained 200 samples and was handed to a carrier after checking and duly signing all shipment documents as well as the chain of custody form. The shipment documents also included sample submission forms with instructions for preparation and analytical methods. A detailed sample list was also provided to ALS via e-mail. Upon receipt of the samples, a staff member of ALS cross-checked the number of samples received and countersigned the chain of custody form before sending it back to Excellon to be archived.

10.5 Quality Assurance and Quality Control Program Review

The QAQC procedures have been summarized from two Globex Reports (Jurgeit, 2018b; Jurgeit, 2019). However, MSA has undertaken its own assessment and review of the procedures.

10.5.1 Globex (2017 – 2019)

Between October 2017 and April 2019, Globex inserted a total of four blanks with the hard-rock sample stream to test for contamination (33 rock grab samples, 52 float and rock chip samples, 23 historical drill core samples). The blanks comprised andesite and basalt which were not geochemically characterized and were therefore not suitable for monitoring potential contamination. Certified reference materials ("CRMs") were not inserted into the sample stream. No duplicate samples were collected by Globex and assay precision cannot therefore be meaningfully assessed.

10.5.2 Excellon (2020)

Excellon's QAQC protocols are consistent with generally accepted industry best practices. CRMs, geochemically barren material (blanks) and field duplicates were inserted into the sample stream at regular intervals. Each batch of 200 samples contained 8 blanks, 8 CRMs and 4 duplicates for a total of 20 quality assurance ("QA") samples per batch.

QAQC charts for the CRMs, blanks, field duplicates, laboratory duplicates, and umpire checks are included in Appendix 2: QAQC.

10.5.2.1 Assay cross-contamination

Coarse blanks are used to monitor potential contamination. They undergo the same sample preparation and analytical procedures as all drill core samples. The blank material was sourced from a local quarry from unmineralized medium-grained, equigranular red granite crushed to 5 centimetres in size. Prior to the use of the blanks, the quarry material was thoroughly geochemically characterized. Ten 2 kilogram samples were submitted to BV for assaying and returned consistent and insignificant concentrations in the elements of interest (Ag, Au, Zn, Pb). As at the Effective Date, 145 blanks had been inserted in the sample stream.

No issues were observed with the results of the blank analysis for Ag, Au, Zn and Pb. Two blank analysis showed elevated Zn concentrations of 66 and 67 ppm. Due to the correlation with slightly elevated Ag and Pb concentrations in this blank, it appears reasonable to assume that these elevated metal concentrations represent a minor variation in the blank material rather than a contamination issue. It is concluded that there are no indications of cross-contamination in the dataset.

10.5.2.2 Assay accuracy

Three different CRMs were used to monitor the assay accuracy over a range of element concentrations. The CRMs were sourced from Ore Research & Exploration Pty Ltd ("OREAS"). A summary of the accuracy assessment is shown in Table 10-5 together with biases and failures.

Table 10-5
2020 CRM assay data, expected values, bias, and failure rates

CRM ID	Expected values		CRM Assay Analysis					
	Mean	1 SD	Samples (count)	Mean	CV	Mean Bias	No. of Failures	Failure
	Ag (ppm)			**Ag (ppm)**				
OREAS-134b	209	9	96	216	0.02	3%	0	0%
OREAS-621	69.2	2.65	24	68	0.02	-1%	0	0%
OREAS-623	20.4	1.06	24	21	0.03	3%	0	0%
	Au (ppm)			**Au (ppm)**				
OREAS-134b	-	-	96	-	-	-	-	-
OREAS-621	1.25	0.04	19	1.28	0.04	2%	1	5%
OREAS-623	0.83	0.04	16	0.86	0.06	4%	1	6%
	Zn (pct)			**Zn (pct)**				
OREAS-134b	18.03	0.75	96	18.54	0.03	3%	0	0%
OREAS-621	5.22	0.14	24	5.39	0.02	3%	1	4%
OREAS-623	1.03	0.03	24	1.06	0.02	3%	2	8%
	Pb (pct)			**Pb (pct)**				
OREAS-134b	13.36	0.74	96	>10	-	-	-	-
OREAS-621	1.36	0.04	24	1.38	0.03	1%	0	0%
OREAS-623	0.25	0.01	24	0.261	0.05	4%	3	13%

[1] *Zn-Pb mineralized material from Black Start and George Fisher orebodies, Mt Isa, Australia*

[2, 3] *Volcanic hosted massive sulfide Zn-Pb-Cu-Ag-Au ore, Gossan Hill, Australia*

Any CRM that has an assayed value outside of three standard deviations (defined by the CRM manufacturer) of the expected value is considered a failure. Moreover, any CRM with a grade outside 5% of the expected value is also flagged.

The QP reviewed the accuracy data for all elements of interest (Ag, Au, Zn, Pb). The CRM performance is generally acceptable with consistently low coefficients of variance ("CV"). Minor CRM failures are evident for the lower grade CRMs, especially for lead. These minor issues, however, do not compromise the overall CRM performance of Excellon's 2020 drill campaign.

10.5.2.3 Assay precision

Precision errors can be estimated by assessing the reproducibility at each stage of the sampling and assaying process. Field duplicates track all sources of error, including sampling error, sample reduction error and analytical error. In contrast, laboratory duplicates monitor the latter two, whereas laboratory replicates track the analytical error only.

The precision was assessed using scatterplot graphs identifying samples outside of +/- 10% window. The precision errors were only assessed for duplicate pairs with mean values >10 times the analytical detection limit.

The QP reviewed the precision data for all elements of interest (Ag, Au, Zn, Pb) using scatter plots. The overall precision is within best practice limits for all elements of interest and for all types of duplicates. However, the number of pairs with a metal concentration exceeding 10 times the analytical detection limit is rather small, especially for silver and to a lesser degree for gold and lead. This prevents a statistically significant assessment of the assay precision other than for zinc. Nonetheless, the limited available data for silver, gold and lead indicate no issues with precision.

Laboratory duplicates and replicates show no bias, whereas field duplicates show a minor bias. The biases are within acceptable limits considering the style of mineralization and the small number of statistically significant number of pairs.

10.5.3 Excellon (2021)

With the exception of the CRMs used, Excellon used the same QAQC procedure for its 2021 drill program. OREAS 621 standard was replaced with OREAS 622.

QAQC charts for the CRMs, blanks, and field duplicates for the 2021 drill program are included in Appendix 2: QAQC

10.5.3.1 Assay cross-contamination

Coarse blanks are used to monitor potential contamination. They undergo the same sample preparation and analytical procedures as all drill core samples. The blank material was sourced from a local quarry from unmineralized medium-grained, equigranular red granite crushed to 5 centimetres in size. Prior to the use of the blanks, the quarry material was thoroughly geochemically characterized. In 2020, ten 2 kilogram samples were submitted to BV for assaying and returned consistent and insignificant concentrations in the elements of interest (Ag, Au, Zn, Pb). As of the Effective Date, 158 blanks had been inserted in the sample stream during the 2021 drill program.

No issues were observed with the results of the blank analysis for Au, Ag, Zn and Pb. Of 158 blanks, 63 were analyzed for Au. It is concluded that there are no indications of cross-contamination in the dataset.

10.5.3.2 Assay accuracy

Three different CRMs were used to monitor the assay accuracy over a range of element concentrations. The CRMs were sourced from Ore Research & Exploration Pty Ltd ("OREAS"). A summary of the accuracy assessment is shown in Table 10-6 together with biases and failures.

Table 10-6
2021 CRM assay data, expected values, bias, and failure rates

CRM ID	Expected values		CRM Assay Analysis					
	Mean	1 SD	Samples (count)	Mean	CV	Mean Bias	No. of Failures	Failure
	Ag (ppm)			**Ag (ppm)**				
OREAS-134b[1]	209	9	14	189	0.18	10.4%	2	14.3%
OREAS-622[2]	102	3.3	46	98	0.04	7%	3	7%
OREAS-623[3]	20.4	1.06	72	20.3	0.05	0%	2	3%
	Au (ppm)			**Au (ppm)**				
OREAS-134b	-	-	-	-	-	-	-	-
OREAS-622	1.85	0.066	46	1.81	0.03	2%	0	0%
OREAS-623	0.83	0.04	32	0.82	0.20	1%	2	6%
	Zn (pct)			**Zn (pct)**				
OREAS-134b	18.03	0.75	16	18.04	0.03	0.1%	0	0%
OREAS-622	10.24	0.182	50	10.16	0.02	1%	1	2%
OREAS-623	1.03	0.03	72	1.01	0.03	2%	0	0%
	Pb (pct)			**Pb (pct)**				
OREAS-134b	13.36	0.74	16	13.51	0.03	1.1%	0	0%
OREAS-622	2.21	0.067	50	2.21	0.02	0%	0	0%
OREAS-623	0.25	0.01	72	0.25	0.03	0%	0	0%

[1] Zn-Pb mineralized material from Black Start and George Fisher orebodies, Mt Isa, Australia

[2, 3] Volcanic hosted massive sulfide Zn-Pb-Cu-Ag-Au ore, Gossan Hill, Australia

Any CRM with an assayed value outside of three standard deviations (defined by the CRM manufacturer) of the expected value is considered a failure. Moreover, any CRM with a grade outside 5% of the expected value is also flagged.

The QP reviewed the accuracy data for all elements of interest (Ag, Au, Zn, Pb). The CRM performance is generally acceptable with consistently low coefficients of variance ("CV"). Minor CRM failures are evident for the Ag analysis and lower grade Au CRM's. These minor issues, however, do not compromise the overall CRM performance of Excellon's 2021 drill campaign.

10.5.3.3 Assay precision

Precision of the assay data is evaluated using field duplicates which track all sources of error, including sampling error, sample reduction error and analytical error. Scatter plots were used to identify duplicates outside the traditionally used +/- 10% range.

The precision was assessed using scatterplot graphs identifying samples outside of +/- 10% window. The majority of field duplicate pairs are <1 ppm silver and show a scatter about the 1:1 line. The same pattern is observed for gold, lead and zinc where the sample pairs are all at low concentrations. The broader scatter towards the lower detection limit is expected. Only five duplicate pairs are >10 ppm silver with a maximum of 44.30 ppm silver. The data are consistent with no bias indicated. Sample pairs outside the ±10% range are considered an expected result of the nuggety style of mineralization and in some cases, the small volume of NQ quarter core.

10.6 QP Opinion

The QP considers that the 2020 and 2021 drill core assay data accurately represent the metal contents underlying samples with a high degree of confidence in terms of accuracy and precision. Infrequent failures or biases do not compromise the overall adequacy of the data. Due to the lack of CRM and duplicate samples in the Globex sample stream, the QP cannot comment on the overall quality of these data.

To further increase the statistical significance of Excellon's assay data, minor modifications to the sampling and analytical program are recommended. The small number of duplicate pairs with a metal concentration exceeding 10 times the analytical detection limit impacts the statistical significance of the assay data. Additionally, no high-grade samples were included in the field duplicates. It is recommended that field duplicates are biased towards mineralized samples and that higher grade samples are in future routinely included as field duplicates in order to statistically quantify the variability in mineralisation.

Umpire checks at SGS compare well with the primary BV results, with a slight positive bias for zinc. It is important that the same analytical methodology is used at the primary and umpire laboratories to ensure comparability of results.

11 DATA VERIFICATION

11.1 Verification by Excellon

Prior to the effective date of this Report, Excellon completed two drill programs at the Project in 2020 and 2021 totalling 13,268.8 metres of diamond drilling in 43 holes. Excellon sampled 6,823.02 metres of drill core in 7,544 samples.

Each drill hole collar was surveyed by an independent, publicly appointed mining surveyor (Markscheider) who issued certificates for each collar. Drill hole data and core logging information, including lithology, mineralization, alteration, sampling, structures, geotechnical parameters, sampling intervals and specific gravity measurements, were collected via GeODin in a MS Access-based database. Moreover, comprehensive hard copy records of the logging and collar survey data are maintained.

Assay results received from the analytical laboratories were imported into the database and merged with their unique sample number to minimize potential errors.

No dedicated verification of the historic pre-2017 data was carried out as these results are solely used to improve the decision-making with regard to drill targeting.

11.2 Verification by Fugro

For the 2020 drill program all drill hole collars in the database were checked against the surveyor's certificates for potential errors. About 20% of the assay data in the database were verified against the original laboratory certificates and the hard copy records of the various logs were also checked against the logging data in the database. No errors were detected.

11.3 Verification by the QP

A site visit to the Project was carried out by the QP, Michael Robertson, between 14 and 17 September 2021 and from May 4 to 6, 2022. The purpose of the site visit was to interview project personnel, review the current work status, review the geology associated with the licence areas and how this relates to the mineral deposit types being targeted, obtain familiarity with conditions on the ground including access and logistics and how these affect the execution of exploration work programmes, and to verify material aspects of exploration work conducted on the licences.

The QP was granted full access to relevant data and communicated with Excellon personnel to obtain information on the 2020 and 2021 exploration programs and to understand procedures used to collect, record, store and analyse historical and current exploration data.

Random checks were made of results from assay certificates against the assay database and no errors were identified. The drillhole collar positions of the holes being drilled during the initial site visit, and the locations of completed drillholes observed during the second site visit, were checked by handheld GPS and found to agree with the planned collar positions (Table 11-1).

Table 11-1
Drillhole collars verified during the two site visits

Drillhole	Phase	Site Visit	Surveyed Drillholes in Database			Field Check by Handheld GPS		
			Easting	Northing	Elevation	Easting	Northing	Elevation
SC21GWO029	2020	2021	378 254.89	5 650 843.21	354.84	378 256	5 650 848	357
SC21GWO030	2020	2021	378 053.27	5 650 669.68	343.42	378 056	5 650 663	351
SC21TRI035	2021	2022	379 894.80	5 652 625.82	330.10	379 890	5 652 625	330
SC21TRI037	2021	2022	380 184.72	5 652 546.28	333.38	380 188	5 652 545	345
SC21GWO033	2021	2022	378 030.22	5 650 789.01	358.26	378 027	5 650 792	351
SC21GWO038	2021	2022	377 821.98	5 650 961.97	347.55	377 823	5 650 960	353
SC21GWO039	2021	2022	377 824.00	5 650 956.00	354.83	377 823	5 650 960	353
SC21GWO040	2021	2022	378 177.00	5 651 061.00	339.00	378 169	5 651 064	350

As per Excellon's community agreements with local landowners and land users, drill sites shall be reclaimed upon completion of drilling activities at the various sites. Drillhole collar positions are therefore not capped; however, selected reclaimed sites were inspected during the May 2020 site visit.

A total of ten check samples from ten 2020 drillholes were selected and quarter core cut under the supervision of the QP, who bagged the samples and personally shipped and delivered the samples to the ALS laboratory in Johannesburg for preparation and analysis (Table 11-2). The samples were selected following sorting of the 2020 assay database for samples >1ppm silver while covering a variable grade range and geographical spread of holes (Figure 11-1). Visual inspection of the core was carried out by the QP. Logging and sampling carried out by Excellon on these drillholes and incorporated into the drillhole database was verified on the core and no discrepancies were observed.

The check samples were prepared using method code PREP-31 and analysed for 33 elements by 4-acid digest and ICP-AES finish (method code ME-ICP61). Overlimit silver, lead and zinc were analysed by the ore grade method ME-ICP62 and silver also by 30g lead collection fire assay with gravimetric finish (method code Ag-GRA21). Gold was analysed by 30 gram lead collection fire assay with AAS finish (method code Au-AA25).

As part of quality control, the laboratory included a barren wash between each crushed and pulverised sample. A coarse blank (AMIS0439) and CRM (OREAS 623) were included in the sample batch submitted to the laboratory. Both the blank and CRM reported within the certified limits.

The results of the ALS check sample analyses and original Bureau Veritas results are shown in Figure 11-2. These results compare favourably, taking into account the nuggety style of mineralization, particularly with respect to silver and gold and the size of the NQ quarter core samples.

Table 11-2
Check sample results and comparison for silver and gold

Hole ID	From (m)	To (m)	Interval (m)	BV	ALS	BV	ALS
				Ag (ppm)	Ag (ppm)	Au (ppm)	Au (ppm)
AGBR02A20	170.60	171.05	0.45	5.1	3.6	0.122	0.15
AGBR0320	48.00	48.77	0.77	1.1	0.5	0.005	0.01
AGBR05A20	91.10	91.55	0.45	3	2.9	0.154	0.15
AGBR1020	108.13	108.84	0.71	356	467	1.981	2.53
AGBR1220	184.27	184.77	0.50	7	5.6	0.271	0.19
SC20GWO012	207.35	208.27	0.92	32.9	35.6	0.268	0.28
SC20GWO013	94.05	94.40	0.35	17.1	9.5	0.116	0.08
SC20GWO013	189.45	189.81	0.36	4.4	4.5	0.032	0.06
SC20MUN015	69.77	70.12	0.35	12.4	9.8	0.939	0.53
SC20SIF014	261.50	262.15	0.65	1.8	2.4	0.015	0.01

Figure 11-1

2020 Drillholes selected for check samples, underlain by bedrock geology of the Bräunsdorf licence

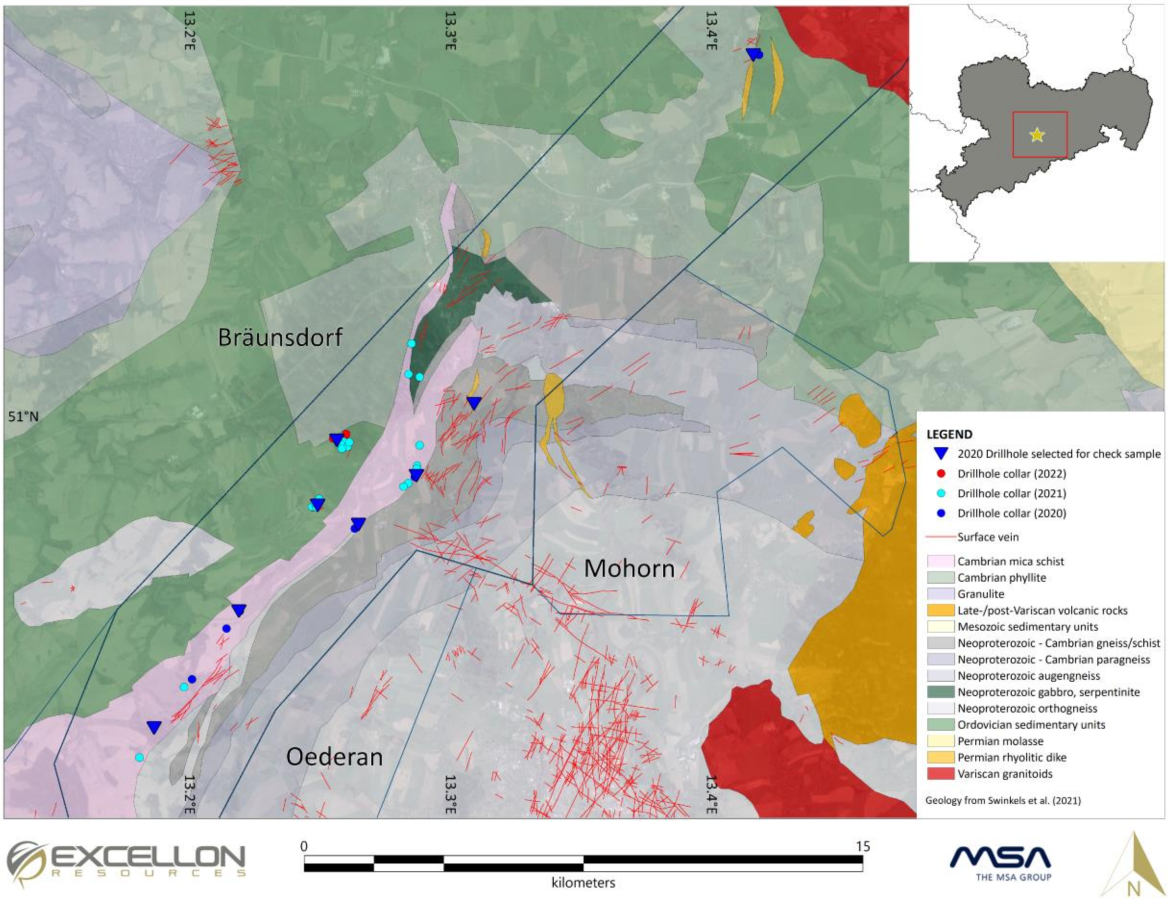
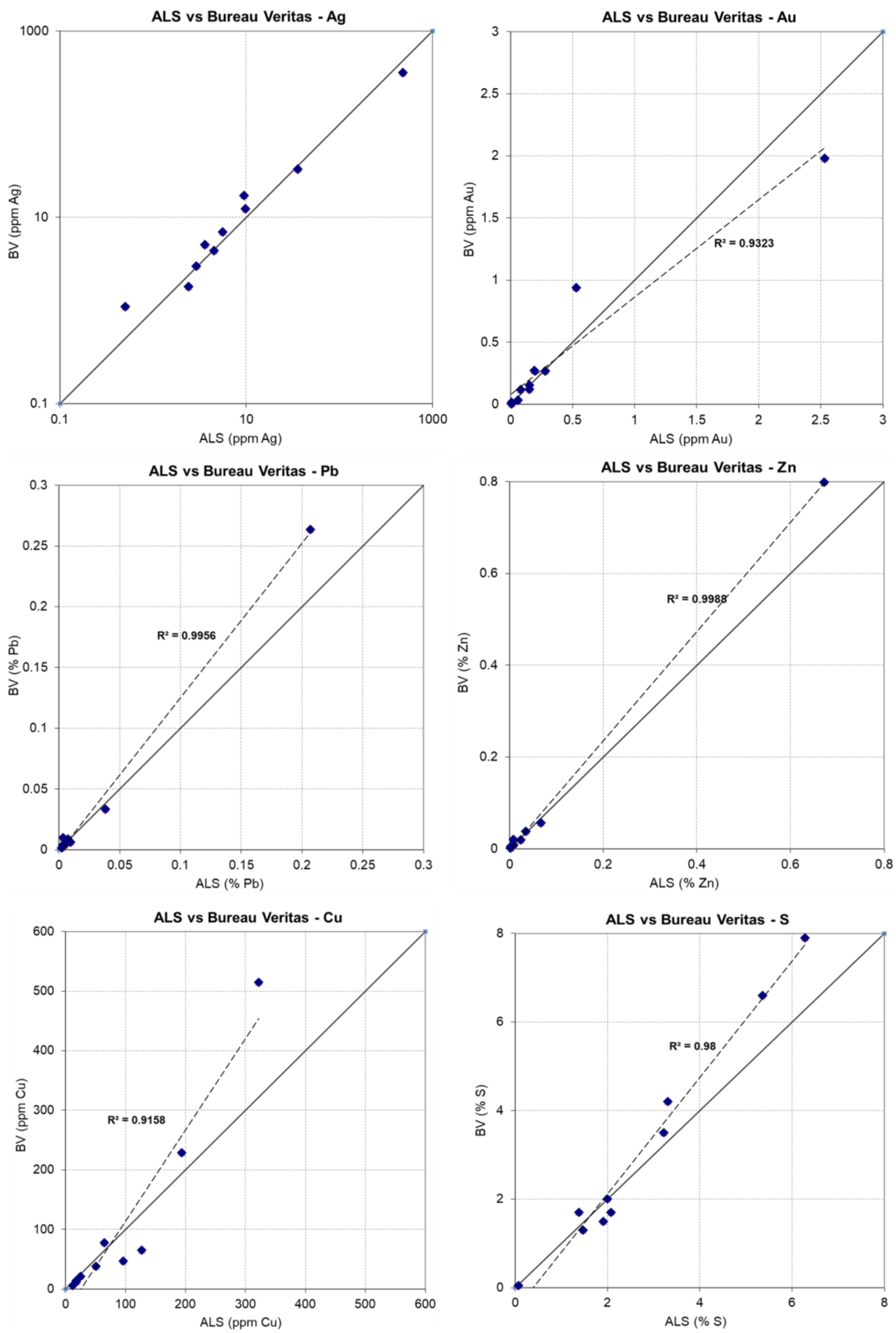


Figure 11-2

Check sample comparison between ALS and Bureau Veritas laboratories



During the May 2022 site visit, the following drillholes were selected from the target areas and the core inspected. Selected logging and sampling intervals were verified against the drillhole database and no discrepancies were observed.

- Bräunsdorf: SC21BRD022;
- Peter Vein: SC21GVB018; SC21GVB019A; SC21GVB020;
- Grauer Wolf: SC21GWO030; SC21GWO030A; SC21GWO033; SC21GWO039;
- Reichenbach: SC21REI028; and
- Siegfried: SC21TRI036.

Random checks have confirmed that the database is robust and reliable. Observations made during the site visits, together with a review of the logging, sampling, assay, QAQC and database management procedures confirm that these follow best practice.

12 MINERAL PROCESSING AND METALLURGICAL TESTING

Not applicable to this technical report.

13 MINERAL RESOURCE ESTIMATES

Not applicable to this technical report.

14 MINERAL RESERVE ESTIMATES

Not applicable to this technical report.

15 MINING METHODS

Not applicable to this technical report.

16 RECOVERY METHODS

Not applicable to this technical report.

17 PROJECT INFRASTRUCTURE

Not applicable to this technical report.

18 MARKET STUDIES AND CONTRACTS

Not applicable to this technical report.

19 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

During the exploration licence granting process, the Project was not deemed to pose a serious environmental risk and, as such, does not require an environmental licence or registration.

19.1 Drilling Operation Plan

In 2020, Excellon, on behalf of Globex, applied for the permission of a Drilling Operation Plan, which included the following Mining Authority's environmental requirements:

- To set up and to keep the drill rig in the best technical standing,
- To keep time windows between April and Mid-August for bird protection at drill sites near the forest,
- To use water of potable quality for the flush,
- To use only drill additives less than or equal to Water Endangering Class 1,
- To be aware of noise level according to the legal limits of TA Lärm.

The permission included the compliance for exception of §21 Repository Site Selection Act (StandAG) of the Federal Office for the Safety of Nuclear Waste Disposal (Bundesamt für die Sicherheit der nuklearen Entsorgung – BASE).

In case of exceeding a stipulated noise level when drilling in proximity to residential areas, a mobile noise protection barrier will be installed to reduce noise levels to the acceptable level.

The drilling operation plan permission includes the exceptional permission for drilling in protected parts of the landscape (Striegis Valleys).

Additionally, land access agreements with landowners and land users were negotiated and completed by Excellon for each drill site and access line crossing the parcels of individual landowners and land users.

Drill site conditions before the commencement of site preparation and after remediation of the site and accesses were documented. Following the completion of the remediation, the landowners and land users signed written confirmation documents.

For continuous drilling work (24/7, including Sunday and holidays) Excellon was granted special permission in accordance with SächsSFV.

19.2 Water Permitting

The Drilling Operation Plan includes a requirement to use only water of potable quality for the flush and use only drill additives less than or equal to Water Endangering Class 1.

The flush water was circulated with no discharge into the environment. The drilling mud was separated and externally disposed of by a specific waste disposal company (Becker Umweltdienste GmbH). All waste disposal was documented, as required by the Mining Authority of Saxony.

Drill position and drill orientation were checked before the start of the drilling by an accredited mining surveyor (Markscheider Uwe Klöden on behalf of EZW) to prove compliance with the Drilling Operation Plan and to prevent flush loss, which might occur due to drilling into old workings.

The compliance with the permit stipulations as well as the full and safe functioning of the drilling equipment and the safety status of the drill sites were checked before the start of every drill hole and supervised daily during the drilling program by Fugro and EZW.

A baseline study of surface and groundwater qualities was completed before the start of the drilling program by EZW (Kühn, 2020).

No special water protection areas were affected by the drilling program therefore, no preliminary water quality assessment was required for the drilling program.

19.3 Health

Excellon and the drilling contractor implemented a sanitation protocol to safeguard health and safety at the drill sites in light of the COVID-19 pandemic. The protocol was observed by the drillers and monitored by the Health, Safety, and Environment ("HSE") inspector and Excellon.

19.4 Community Relations and Social Impact

The Project region has a rich 850-year mining tradition. With this background, most of the municipalities and residents are familiar with historical mining and exploration. Excellon and its contractors have respectful and productive relationships with the local authorities and residents.

The majority of the landowners and land users affected by the drilling cooperated with Excellon in securing land access agreements, with only temporal limitations being given to allow for a window to conduct crop-cutting.

Since the inception of the Project, Excellon has introduced an early stakeholder registration and engagement program.

A community relations program being carried out by Excellon is professionally run and includes:

- At least twice weekly updates about the project progress to the Mining Authority of Saxony via email,
- Information meetings with the mayors of the affected communities,
- Written project information, published in the local newspapers and the community administration offices,

- Meetings with directly affected landowners, land users, and residents of the drill site adjacent communities,
- Meetings with local knowledge carriers and influencers,
- Public project information meetings with local communities, and
- Informal meetings with the representatives of the Monument Conservation Agency and the UNESCO World Heritage office.

Excellon has contributed to the local economy by contracting local transportation, construction, tree cutting, surface restoration, hospitality, accommodation and flush water supply companies as well as consumables and the core storage facility.

20 CAPITAL AND OPERATING COSTS

Not applicable to this technical report.

21 ECONOMIC ANALYSIS

Not applicable to this technical report.

22 ADJACENT PROPERTIES

The polymetallic epithermal system of the Project is part of the Erzgebirge-Krušné hory metallogenic province that includes several magmatic-hydrothermal ore deposits. Most of these are hosted by metasediments and are related to extensive Carboniferous to Permian magmatic activity during the late- and post- orogenic development of the Variscan orogeny (Baumann et al., 2000). The deposits include epithermal systems, greisen and skarn districts as well as five-element and fluorite-barite veins. Furthermore, sediment-hosted, epigenetic uranium deposits are located in the Erzgebirge and adjacent regions.

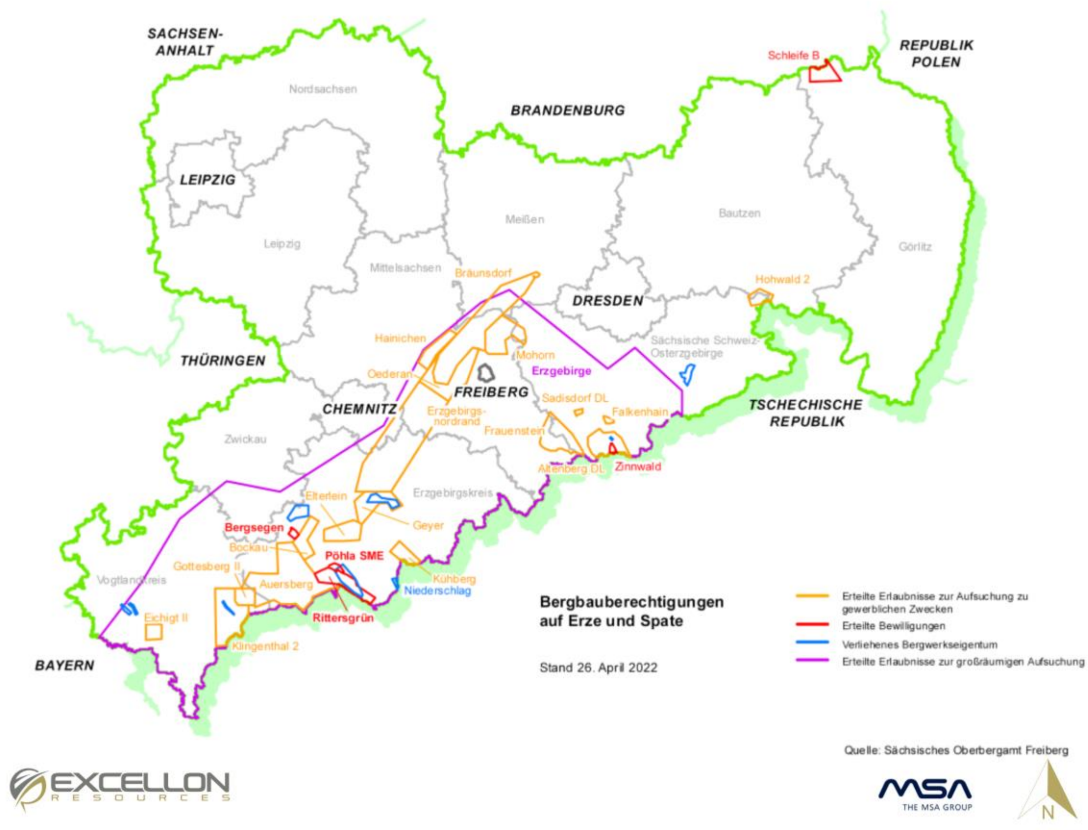
Similar to the Bräunsdorf licence and the adjacent extensively mined central sector of the Freiberg district, the ore deposits of Erzgebirge-Krušné hory metallogenic province have mostly seen historical production. The area experienced an exploration and mining boom during the GDR government in the second half of the 20th century, with the main targets being uranium and tin. Today, the German part of the Erzgebirge-Krušné hory is host to several mining and exploration projects (Figure 22-1 and Table 22-2).

In 2012 the Saxon state government introduced the Saxon Raw Material Strategy, which aims to improve opportunities in the raw materials industry over the long term, and further established the Free State Saxony as a mining-friendly jurisdiction (www.rohstoffstrategie.sachsen.de). The guidelines and objectives of the Saxon Raw Material Strategy are as follows:

- Local primary raw materials – To establish the framework conditions for extracting raw materials in such a way as to enable profitable mining over the long term,
- Secondary raw materials – To establish Saxony as a hub for the reclamation industry in Germany and Europe,
- Hub of the raw material economy – To promote networking between stakeholders in the raw material economy,
- International co-operations – Building contacts to market know-how in raw materials,
- Saxon raw material research – To strengthen, expand and enable closer networking of existing structures in university/non-university fields,

- Experts for the raw material economy – To boost the training of local and foreign specialists and managers,
- Saxon administration – To maintain and adapt existing administrative structures in accordance with the requirements of the raw material economy, and
- Awareness of raw materials – To work towards a knowledge-based, ideology-free awareness of raw materials in the community.

Figure 22-1
Mining permissions on ores, fluorite and barite published by the Sächsisches Oberbergamt on March 31st 2022



22.1 Active mining

The Niederschlag fluorite-barite vein deposit is exploited by an underground mine operated by Erzgebirgische Fluss- und Schwerspatwerke GmbH, most recently a subsidiary of the Fluorchemie group, owned by Thanthos Chemical Industries and Fluorchemie Kronberg GmbH. The mine is located in Oberwiesenthal, 60 kilometres from Freiberg and was established in 2013.

Information on the Niederschlag mine currently is sourced from Erzgebirgische Fluss- und Schwerspatwerke GmbH's company website, https://www.efs-nha.de/.

22.2 Granted mining permissions

In 2021, three mining projects were granted mining licences in accordance with §8 Federal Mining Law (BBergG) for the mining of state-owned raw materials and one Project is currently in operation.

The Zinnwald Li-Sn-W greisen deposit is located at the Czech Republic border 3 kilometres south of Altenberg, approximately 35 kilometres southeast of Freiberg. The recent exploration is executed by Deutsche Lithium GmbH, a full subsidiary of Zinnwald Lithium Plc. In 2017 Deutsche Lithium GmbH was granted a mining licence and they completed a feasibility study according to the NI 43-101 standard in 2019 and updated in 2020, estimating a total mineral reserve of 31.2 Mt ore averaging 3,000 ppm Li. Currently the Optional Framework Operation Plan for the Zinnwald mine is in the permission process.

Information on the Zinnwald project is sourced from Deutsche Lithium GmbH's company website, http://www.deutschelithium.de/en/home/.

The Rittersgrün Project is located near the Czech Republic border south of Schwarzenberg, approximately 60 kilometres southwest of Freiberg. Since August 2021, First Tin Ltd., formerly trading as Anglo Saxony Mining Ltd., holds a 100% interest in the project through its subsidiary Saxore Bergbau GmbH. In 2020 Saxore Bergbau GmbH finalized a Pre-Feasibility Study and was granted a mining licence in the Rittersgrün property. The licence area covers the polymetallic tin-zinc-iron-indium deposits of Hämmerlein-Tellerhäuser and Breitenbrunn, which combine skarn and greisen mineralization.

Information on the Rittersgrün project is sourced from Saxore Bergbau GmbH's company website, https://www.saxorebergbau.com/en/.

The property of the Pöhla SME project borders the Rittersgrün licence area and is owned by the Saxony Minerals & Exploration AG (SME), a privately owned stock company. The Pöhla-Globenstein deposit is a polymetallic skarn containing tungsten, tin, zinc, copper, iron and indium. In 2012 Saxony Minerals & Exploration AG (SME) obtained the mining rights and a permit to extract the mineral resources on its Pöhla (SME) property. Shaft sinking of the future weathering shaft was finished in 2020. Currently the Obligatory Framework Operation Plan for the Pöhla-Globenstein mine is in the permission process.

Information on the Pöhla project is sourced from Saxony Minerals & Exploration AG's company website, https://smeag.de/index.php/en/.

22.3 Granted exploration permissions

Excellon's subsidiary, Saxony Silver, successfully applied for three new exploration licences in early 2021, which were granted by the Mining Authority of Saxony. (Table 22-1):

Table 22-1
Additional exploration licences granted to Saxony Silver in 2021

Property	Expiry Date	Commodity
Frauenstein	15/03/2024	Sb, Pb, Au, Co, Cu, Ag, Zn, barite, fluorite
Mohorn	15/03/2024	Pb, Au, Cu, Ag, Zn, graphite, barite, fluorite
Oederan	15/03/2024	Pb, Au, Cu, Ag, Zn, graphite, barite, fluorite

Several other exploration properties are located adjacent to the Silver City project area (Table 22-2).

Table 22-2
Overview of the existing exploration permissions on ores, fluorite and barite published by the Sächsisches Oberbergamt as of March 31st, 2022

Property	Valid until	Commodity	Permit Holders
Erzgebirge	31/12/2022	Sn, W, Sb, Be, Pb, B, Cd, Fe, Ga, Ge, Au, Hf, In, Cu, Li, Mo, Nb, Rb, Sc, Se, Ag, Ta, Te, V, Bi, Y, Zn, Zr, barite, fluorite	Beak Consultants GmbH, Freiberg
Gottesberg II	06/12/2022	Cs, Ga, Au, In, Cu, Li, Mo, Re, Rb, Sc, Ag, Ta, Te, Bi, Zn, Sn	Saxore Bergbau GmbH, Freiberg
Bräunsdorf	30/09/2022	Pb, Au, Cu, Ag, Zn, graphite, barite, fluorite	Globex Mining Enterprises Inc.
Frauenstein	15/03/2024	Sb, Pb, Au, Co, Cu, Ag, Zn, barite, fluorite	Saxony Silver Corp.
Mohorn	15/03/2024	Pb, Au, Cu, Ag, Zn, graphite, barite, fluorite	Saxony Silver Corp.
Oederan	15/03/2024	Pb, Au, Cu, Ag, Zn, graphite, barite, fluorite	Saxony Silver Corp.
Falkenhain	31/12/2022	Cs, Ga, Ge, Au, In, La, lanthanides, Li, Mo, Nb, Rb, Sc, Ag, Ta, Bi, W, Y, Sn, Zn,	Deutsche Lithium GmbH, Freiberg
Erzgebirgsnordrand	01/12/2021	Sn, Pb, Au, In, Co, Cu, Li, Mo, Ag, Bi, W, Zn, barite, fluorite	Beak Consultants GmbH, Freiberg
Klingenthal 2	31/12/2022	Sn, Be, Pb, Au, Cu, Li, Mo, Ag, Ta, W, Zn, Co, barite, fluorite	TGER PTY. Ltd. (West Perth, Australien)
Geyer	31/01/2022	As, Pb, Ga, In, Cd, Co, Cu, Mo, Ag, Bi, W, Zn, Sn, fluorite	Saxony Minerals & Exploration - SME-AG
Elterlein	01/12/2023	Sn, Pb, Au, In, Cu, Mo, Ag, Ta, W, Zn, barite, fluorite	Saxony Minerals & Exploration - SME-AG

Property	Valid until	Commodity	Permit Holders
Altenberg DL	15/02/2024	Cs, Ga, Ge, Au, In, La, lanthanides, Li, Mo, Nb, Rb, Sc, Ag, Ta, Bi, W, Y, Sn, Zn	Deutsche Lithium GmbH, Freiberg
Hohwald 2	30/09/2023	Ni, Pt, Co, Cu, Au, Ag	Nickelhütte Aue GmbH, Aue
Kühberg	31/08/2023	Sn, Li, W, Mo, In, Ta, Cu, Pb, Zn, Co, Ag, Au, Be, barite, fluorite	Beak Consultants GmbH, Freiberg
Bockau	30/09/2023	Sn, W, Mo, In, Cu, Pb, Zn, Co, Ag, Au, barite, fluorite	Beak Consultants GmbH, Freiberg
Sadisdorf DL	30/06/2026	Cs, Ga, Ge, Au, In, La, Lanthanides Li, Mo, Nb, Rb, Sc, Ag, Ta, Bi, W, Y, Sn Zn	Deutsche Lithium GmbH, Freiberg
Auersberg	30/09/2026	Sn, W, As, Be, Pb, B, Cs, Ga, Ge, Au, In, Co, Cu, Li, Mo, Ni, Ag, Ta, W, Zn, fluorite, baryte	Saxore Bergbau GmbH, Freiberg
Hainichen	31/03/2024	Ag, Sn, W, Li, In, Ge, Ni, Co, Au, Cu, Pb, Zn	European Green Metals Ltd., London
Eichigt II	15/04/2024	Ag, Sn, W, Li, In, Ge, Ni, Co, Au, Cu, Pb, Zn, Mn, Y, REEs	European Green Metals Ltd., London

23 OTHER RELEVANT DATA AND INFORMATION

Not applicable to this technical report.

24 INTERPRETATION AND CONCLUSIONS

24.1 Interpretation

The Bräunsdorf exploration licence extends over a more than 36 kilometres long and 1 kilometre to 5 kilometres wide hydrothermal (low- to intermediate-sulfidation epithermal) vein system. The area is distinguished by numerous historical mining camps, from Bräunsdorf in the southwest to Scharfenberg in the northeast. The veins tend to dip to the northwest at 45-75° and strike southwest, although the orientation may vary locally. The most favourable sites for extensional veins (including stockwork zones and replacement) with epithermal mineralization are gneissic units, graphitic mica schist, and mafic volcanics and the respective lithological contacts, particularly the contacts between the transition zone and the mica schist unit, and mafic volcanics and mica schist units.

Historical production and the majority of exploration in the area have traditionally targeted mineralization hosted by gneissic units, graphitic mica schist, particularly along the contacts between the transition zone and the mica-schist unit. During the 2020 drill campaign, significant mineralization was encountered in mafic volcanics along the mafic volcanics and mica schist contact in the Reichenbach and Grauer Wolf target areas. This newly discovered mineralization opens up previously unexplored and untested areas along the mafic volcanics-mica schist contact to exploration.

The results from the 2021 drill program confirmed the continuity of the vein structures intersected in the 2020 drill program, with a particular focus on the Grauer Wolf and Peter Vein targets.

The results of exploration activities carried out by Globex and Excellon have confirmed further continuity of the epithermal vein system known from historical mining records.

24.2 Conclusions

The QP considers that the drilling, logging, sampling, laboratory analysis, and QAQC procedures adopted by Excellon are consistent with generally recognized industry best practices, and that the Project database is of sufficient quality to form a basis for ongoing exploration and, ultimately, Mineral Resource estimation.

The results of the two drilling programs have confirmed further continuity of the extensive epithermal vein system known from historical mining records, The geological setting, historical mining, and the exploration results to date present substantial evidence of polymetallic epithermal mineralization. High-grade intersections and the discovery of new mineralized structures by Excellon confirm the exploration potential of individual targets and the district as a whole.

Significant potential exists for the identification of strike extensions to known vein systems exploited historically and for the discovery of new mineralized veins that are hidden or blind below surface. With an improved structural understanding, there exists potential for the discovery of new ore shoots and extensions to known shoots. In addition, for targets such as Grauer Wolf where multiple veins with different orientations are known, there is potential for delineating larger mineralized stockwork zones.

25 RECOMMENDATIONS

Geological setting, historical mining, and the exploration results to date present substantial evidence of polymetallic mineralization and justify additional technical studies and exploration expenditures.

The goal of the technical studies and exploration activities is to evaluate the conceptual economic viability of the Project by further constraining the location, geometry, and composition of mineralization.

Additional drilling is recommended around the Bräunsdorf, Reichenbach, Grauer Wolf, Siegfried, and Großvoigtsberg targets. In order to improve the geological confidence and expand the known mineralization, further investigation should focus along strike as well as to depth below the historical mine workings. Due to a tightly constrained land-access period in 2020, drilling at Reichenbach target could not be carried out as planned. More follow-up drilling is required laterally and at depth of the historically known and recently encountered mineralized structures.

Mineral exploration work consisting of drilling and soil sampling completed to date covered a relatively small portion of the Project area. The presence of significant structural elements and multiple undrilled vein occurrences that were identified through soil/float sampling and geophysics suggest high exploration potential of the remaining part of the property. In particular, exploration drilling at the untested Oberguna target and examination of an area near Langhennersdorf with highly anomalous soil samples are options for further exploration work, albeit of lower priority.

Magnetic and gravimetric surveys proved to be very useful for delineating geological contacts and regional tectonic elements associated with the emplacement of polymetallic veins. As a consequence of the limited spatial coverage, inconsistent resolution and data quality of the airborne and ground magnetic surveys carried out by Globex in 2019, further magnetic surveys are recommended in selected areas of the property.

The QP supports Excellon's proposed work program as summarised in Table 25-1 and outlined below:

- Step-out diamond drilling at Bräunsdorf to assess the extent and nature of mineralization below workings of the historical Neue Hoffnung Gottes Mine.
- Step-out diamond drilling at Grauer Wolf and Reichenbach to confirm the continuity of the known mineralization along the strike and towards depth.
- Step-out diamond drilling at Großvoigtsberg to confirm continuity of the known mineralization along the strike and towards depth, particularly in the areas where rich ore shoots were documented during historical mining.
- Drill testing of magnetic lineaments and inferred geological contacts near Grauer Wolf and Reichenbach.
- Drill testing of magnetic lineaments and inferred geological contacts at Obergruna where historical mapping indicates the presence of mineralized veins.

- Fence drilling at Langhennersdorf to test soil anomalies.
- Test continuation of high-grade ore shoot below Erzengel Michael Mine at Mohorn Licence.
- Drill test extensions of the vein below Friedrich August mine at Frauenstein.
- Drill test mineralization below and along strike of Bergmännische Hoffnung mine at Oederan
- An airborne magnetic survey in selected areas to complement the dataset that was obtained during the earlier surveys.
- High resolution resistivity and chargeability surveys on selected targets including orientation study in the area of known mineralization.
- Rock magnetic susceptibility study on available drill core for all target areas and all encountered lithologies to support the interpretation of available and future magnetic survey data.
- Pending the results from the 2021/2022 soil sampling, extend the soil geochemical sampling program within the Project area (i.e. Hartha).
- Soil geochemical sampling on three lines on the Frauenstein licence.
- Further structural analysis to improve understanding of the controls on mineralization and the implications for exploration targeting.
- Archive work, digitizing and georeferencing historical mine plans etc.
- Regional exploration work on the rest of the Project.

The exploration work program will be results-driven and advancing to a subsequent phase will be contingent on positive results in the previous phase.

Table 25-1

The total estimated cost of the recommended exploration program is 15.6 million CAD

Description	Quantity	Total Costs (CAD)
Drilling (Year 1) – extending and defining known mineralization	8,250 metres	2,970,000
Drilling (Year 1) – well supported regional targets	2,500 metres	900,000
Drilling (Year 2) – other regional targets	12,000 metres	4,320,000
Drilling (Year 3) – other regional targets	13,000 metres	4,680,000
Subtotal drilling		**12,870,000**
High resolution resistivity and chargeability surveys		275,000
Assays Core Samples (Year 1-3)	10,900 samples	655,000
Soil Geochemistry (Year 1 & 2)	4,000 samples	240,000
Geological and mineralogical studies (Year 2 & 3)		25,000
Core storage facility and office rent (Year 1-3)	-	150,000
3D modelling, preparation of updated technical report (Year 3)		275,000
Subtotal		**1,345,000**
Contingency (~10%]		1,422,000
Total		**15,637,000**

26 REFERENCES

Bauer, M. E., Burisch, M., Ostendorf, J., Krause, J., Frenzel, M., Seifert, T., and Gutzmer, J., 2019, Trace element geochemistry of sphalerite in contrasting hydrothermal fluid systems of the Freiberg district, Germany: Insights from LA-ICP-MS analysis, near-infrared light microthermometry of sphalerite-hosted fluid inclusions, and sulfur isotope geochemistry: Mineralium Deposita, v. 54, p. 237–262.

Baumann, L., 1965, Die Erzlagerstätten der Freiberger Randgebiete: Freiberger Forschungshefte, v. 188, p. 1–216.

Baumann, L., Kuschka, E., and Seifert, T., 2000, Lagerstätten des Erzgebirges: Enke im Thieme-Verlag.

Bolduan, H., 1960, Bericht über die Erkundungsarbeiten auf Nickel-hydrosilikate im Granulitgebirge in den Jahren 1951-1953 (darin Teillagerstätte Siebenlehn): Geologischer Dienst Freiberg, 528 p.

Böttcher, 1936, Wiederaufnahme des Erzbergbaus in der sog. Struth auf Langhennersdorfer Flur: Staatliche Lagerstättenforschungsstelle.

Breiter, K., Novák, J. K., and Chlupáčová, M., 2001, Chemical evolution of volcanic rocks in the Altenberg-Teplice Caldera (Eastern Krušné hory Mts., Czech Republic, Germany): Geolines, v. 13, p. 17–22.

Burisch, M., Hartmann, A., Bach, W., Krolop, P., Krause, J., and Gutzmer, J., 2019, Genesis of hydrothermal silver-antimony-sulfide veins of the Bräunsdorf sector as part of the classic Freiberg silver mining district, Germany: Mineralium Deposita, v. 54, p. 263–280.

Cotta, B. von, 1855, Die Lehre von den Erzlagerstätten: Freiberg, Verlag von J.G. Engelhardt.

Cotta, B. von, 1870, Treatise on Ore Deposits: New York, D. Van Nostrand.

Fischer, H., 1885a, Montangeologische Beschreibung von Friedrich-August- und Friedrich-Christoph-Erbstolln zu Reichenau bei Frauenstein: Geognostische Gang- und Landesuntersuchungskommission.

Fischer, H., 1885b, Über die geognostischen Verhältnisse der Umgegend von Mohorn, insbesondere über die bei Erzengel Michael Erbst. und bei den vormaligen Gruben im Silbergrunde auftretenden Erzgänge: Geognostische Gang- und Landesuntersuchungskommission.

Förster, H.-J., and Romer, R. L., 2010, Carboniferous magmatism, in Pre-Mesozoic geology of Saxo-Thuringia: from the Cadomian active margin to the Variscan orogen: Schweizerbart, p. 287–308.

Förster, H.-J., Tischendorf, G., Trumbull, R. B., and Gottesmann, B., 1999, Late-collisional granites in the Variscan Erzgebirge, Germany: Journal of Petrology, v. 40, p. 1613–1645.

Franke, W., 2000, The mid-European segment of the Variscides: tectonostratigraphic units, terrane boundaries and plate tectonic evolution: Geological Society, London, Special Publications, v. 179, p. 35–61.

Franke, W., 2006, The Variscan orogen in Central Europe: construction and collapse: Geological Society, London, Memoirs, v. 32, p. 333–343.

Freiesleben, J. C., 1847, Vom Vorkommen der Silbererze in Sachsen: 1. Abt. d. Mag. f. d. Oryktogr. von Sachsen, v. 1.

Heinicke, P., and Mezger, A., 1878, Die Silberzeche Zenith zu Oberschöna bei Freiberg: Freiberg, Gerlach'sche Buchdruckerei, 23 p.

Hoffmann, U., Breitkreuz, C., Breiter, K., Sergeev, S., Stanek, K., and Tichomirowa, M., 2013, Carboniferous–Permian volcanic evolution in Central Europe—U/Pb ages of volcanic rocks in Saxony (Germany) and northern Bohemia (Czech Republic): International Journal of Earth Sciences, v. 102, p. 73–99.

John, D. A., Vikre, P. G., du Bray, E. A., Blakely, R. J., Fey, D. L., Rockwell, B. W., Mauk, J. L., Anderson, E. D., and Graybeal, F. T., 2018, Descriptive Models for Epithermal Gold-Silver Deposits; USGS Scientific Investigation Report 2010-5070-Q:

Jurgeit, M., 2018a, Bräunsdorf Silver Project, Saxony, Germany, Part 1: Description, Geology, Mineralisation, Compilation of Historic Data, Initial Exploration Target Zones: Prepared for and on behalf of Globex Mining Enterprises Inc.

Jurgeit, M., 2018b, Bräunsdorf Silver Project, Saxony, Germany, Part 2: Field Reconnaissance, Description of Historic Drill core, Sampling, Geochemical Assay Results, Defined Exploration Targets & Follow-Up Exploration Programmes: Prepared for and on behalf of Globex Mining Enterprises Inc.

Jurgeit, M., 2019, Bräunsdorf Silver Project, Saxony, Germany, Part 3: Report on soil geochemical survey, ground & drone magnetics and discussion of results & Follow-Up Exploration Programmes: Prepared for and on behalf of Globex Mining Enterprises Inc.

Kamprath, G. Bergbauliche und geologische Beschreibung von Friedrich August und Friedrich Christoph Erbstolln zu Reichenau bei Frauenstein.:

Kreibich, M., 2013, Beitrag zur Bergbaugeschichte von Frauenstein-Reichenau: Zweckverband Sächsisches Industriemuseum Besucherbergwerk Ehrenfriedersdorf, 19 p.

Kroner, U., Hahn, T., Romer, R. L., and Linnemann, U., 2007, The Variscan orogeny in the Saxo-Thuringian zone-heterogenous overprint of Cadomian/Paleozoic Peri-Gondwana crust: Special Papers-Geological Society of America, v. 423, p. 153.

Kroner, U., Romer, R. L., and Linnemann, U., 2010, The Saxo-Thuringian zone of the Variscan orogen as part of Pangea, in Pre-Mesozoic Geology of Saxo-Thuringia: from the Cadomian active margin to the variscan orogen: Schweizerbart'Sche Verlagsbuchhandlung, p. 3–16.

Kühn, K., 2020, Saxony Silver Project, Water Baseline Study: Erzgebirgische Zinn-Wolfram GmbH.

Lorenz, W., 1956, Ergebnisbericht der Voruntersuchungen über die Aussichten von Untersuchungsarbeiten im Hinblick auf Bleigewinnung im Raum Kleinvoigtsberg- Großvoigtsberg-Obergruna nördlich von Freiberg: VEB Bergbau- und Hüttenkombinat „Albert Funk".

Lorenz, W., and Hoth, K., 1990, Lithostratigraphie im Erzgebirge-Konzeption, Entwicklung, Probleme und Perspektiven: Abhandlungen des Staatlichen Museums für Mineralogie und Geologie zu Dresden, v. 37, p. 7–35.

Menzel, C., 1890, Statistische Mitteilungen über das Bergwesen im Jahre 1889. – Jahrbuch für das Berg- und Hüttenwesen im Königreiche Sachsen: Jahrbuch für das Berg- und Hüttenwesen im Königreiche Sachsen.

Müller, H. C., 1850, Die Erzlagerstätten nördlich und nordwestlich von Freiberg. In: von Cotta B (ed) Gangstudien oder Beiträge zur Kenntniss der Erzgänge. Mit zehn Tafeln Abbildungen und einem Holzschnitt: Freiberg, J. G. Engelhardt, 101–304 p.

Müller, H. C., 1901, Die Erzgänge des Freiberger Bergrevieres: Leipzig, Engelmann.

Ostendorf, J., Henjes-Kunst, F., Seifert, T., and Gutzmer, J., 2019, Age and genesis of polymetallic veins in the Freiberg district, Erzgebirge, Germany: constraints from radiogenic isotopes: Mineralium Deposita, v. 54, p. 217–236.

Pälchen, W., and Walter, H., 2008, Geologie von Sachsen:

Pietzsch, K., 1962, Geologie von Sachsen: Berlin, VEB Deutscher Verlag der Wissenschaften.

Romer, R. L., Förster, H.-J., and Hahne, K., 2012, Strontium isotopes—a persistent tracer for the recycling of Gondwana crust in the Variscan Orogen: Gondwana Research, v. 22, p. 262–278.

Sebastian, U., 2013, Die Geologie des Erzgebirges: Springer.

Seifert, T., 2008, Metallogeny and petrogenesis of lamprophyres in the Mid-European Variscides: Post-collisional magmatism and its relationship to late-variscan ore forming processes in the Erzgebirge (Bohemian Massif): IOS press.

Simmons, S. F., White, N. C., and John, D. A., 2005, Geological characteristics of epithermal precious and base metal deposits:

Štemprok, M., 2003, The origin and mineralization of the tin-bearing granites of the Krušné hory (Erzgebirge) province: a 3-dimensional approach with new data on ore deposit zoning around a granite batholith: Glob Tect Metal, v. 8, p. 215–226.

Swinkels, L. J., Burisch, M., Rossberg, C. M., Oelze, M., Gutzmer, J., and Frenzel, M., 2021b, Gold and silver deportment in sulfide ores–A case study of the Freiberg epithermal Ag-Pb-Zn district, Germany: Minerals Engineering, v. 174, p. 107235.

Swinkels, L. J., Schulz-Isenbeck, J., Frenzel, M., Gutzmer, J., and Burisch, M., 2021a, Spatial and temporal evolution of the Freiberg epithermal Ag-Pb-Zn district, Germany: Economic Geology, v. 116, p. 1649–1667.

Tichomirowa, M., 1997, 207Pb/206Pb-Einzelzirkondatierungen zur Bestimmung des Intrusionsalters des Niederbobritzscher Granites: Terra Nostra, v. 8, p. 183–184.

Tichomirowa, M., 2003, Die Gneise des Erzgebirges-hochmetamorphe Äquivalente von neoproterozoisch-frühpaläozoischen Grauwacken und Granitoiden der Cadomiden: Universitätsbibliothek der TU BAF, 170 p.

Tichomirowa, M., Sergeev, S., Berger, H.-J., and Leonhardt, D., 2012, Inferring protoliths of high-grade metamorphic gneisses of the Erzgebirge using zirconology, geochemistry and comparison with lower-grade rocks from Lusatia (Saxothuringia, Germany): Contributions to Mineralogy and Petrology, v. 164, p. 375–396.

Tichomirowa, M., Käßner, A., Lapp, M., Leonhardt, D., Linnemann, U., Ovtcharova, M., Schaltegger, U., Sergeev, S., Quadt, A. von, and Whitehouse, M., 2019, Dating multiple overprinted granites: the effect of protracted magmatism and fluid flow on zircon U-Pb dating (SHRIMP/SIMS, LA-ICP-MS, CA-ID-TIMS)–granites from the Western Erzgebirge (Bohemian Massif, Germany)., in Geophysical Research Abstracts.:

Wagenbreth, O., and Wächtler, E., 2015, Der Freiberger Bergbau: Technische Denkmale und Geschichte: Heidelberg, Springer-Verlag.

Wetzel, H. U., 1984, Late Variscan faulting and subsequent magmatic dykes as expression of cortical development in the eastern Erzgebirge (Altenberg block): Potsdam, Academy of Sciences of the German Democratic Republic, 364 p.

Winter, C., Breitkreuz, C., and Lapp, M., 2008, Textural analysis of a Late Palaeozoic coherent-pyroclastic rhyolitic dyke system near Burkersdorf (Erzgebirge, Saxony, Germany): Geological Society, London, Special Publications, v. 302, p. 199–221.

Zinkeisen, H., 1890, Über die Erzgänge von Güte Gottes zu Scharfenberg: Jahrbuch für das Berg- und Hüttenwesen im Königreiche Sachsen, p. 40–64.

APPENDIX 1: Glossary of Abbreviations and Technical Terms

Abbreviation	**Description**
AAS	*Atomic absorption spectroscopy*
Ag	*Chemical symbol for silver*
ANSWT	*Ambient Noise Surface Wave Tomography*
BV	*Bureau Veritas*
CRM	*Certified Reference Material*
Cu	*Chemical symbol for copper*
CV	*Coefficient of variance*
DD	*Diamond drilling*
EM	*Electromagnetic geophysical survey*
EZW	*Erzgebirgische Zinn-Wolfram GmbH*
GPS	*Global positioning system*
HA	*Hyperspectral analysis*
HIF	*Helmholtz Institute*
HSE	*Health, Safety and Eironment*
ICP	*Inductively coupled plasma*
ICP-ES	*Inductively coupled plasma emission spectroscopy*
ICP-MS	*Inductively coupled plasma mass spectroscopy*
IP	*Induced polarisation geophysical survey*
JORC	*Joint Ore Reserves Committee*
Ma	*Million years.*
Mamsl	*Meters above mean sea level*
Mgg	*Veins with azimuth of 0 to 45° (German "Morgengang")*
MLA	*Mineral Liberation Analysis*
Moz	*Million ounces*
MRE	*Mineral Resource Estimate*
NE	*Northeast*
oz	*Troy ounce*
Pb	*Chemical symbol for lead*
QA	*Quality assurance*
QP	*Qualified Person*
QAQC	*Quality Assurance and Quality Control*
SG	*Specific gravity*
Sn	*Chemical symbol for tin*
Sth	*Veins with azimuth of 0 to 45° (German "Stehender")*
SW	*Southwest*
t	*Metric tonne*
Zn	*Chemical symbol for zinc*

Technical Term	**Description**
Airborne magnetic surveys	Surveys flown by helicopter or fixed wing aircraft to measure the magnetic susceptibility of rocks at or near the earth's surface.
Argentopyrite	A moderately rare sulfide mineral with formula $AgFe_2S_3$
Alteration	Changes in the mineralogical composition of a rock as a result of physical or chemical processes such as weathering or penetration by hydrothermal fluids
Allochthonous	A large block of rock which has been moved from its original site of formation, usually by low angle thrust faulting.
Alluvium	Alluvium is loose clay, silt, sand, or gravel that has been deposited by running water in a stream bed, on a floodplain, in an alluvial fan or beach, or in similar settings.
Amphibolite	A metamorphic rock that contains amphibole, especially hornblende and actinolite, as well as plagioclase feldspar.
Anatexis	Anatexis is the partial melting of rocks.
Ankerite	Ankerite is a calcium, iron, magnesium, manganese carbonate mineral of the group of rhombohedral carbonates with formula: $Ca(CO_3)_2$.
Anomaly (geochemical)	An above-average concentration of a chemical element in a sample of rock, soil, vegetation, stream, or sediment; indicative of nearby mineral deposit.
Anticline	A type of fold that is an arch-like shape and with the oldest beds in the core.
Aureole	An area of rock altered in composition, structure, or texture by contact with an igneous intrusion.
Autochthonous	A large block or mass of rock which is in the place of its original formation relative to its basement or foundation rock.
Barite	Baryte, barite or barytes is a mineral consisting of barium sulfate with the chemical formula $BaSO_4$.
Basin	A large sediment-filled and fault-bounded depression resulting from extension of the crust.
Basement	The rocks below a sedimentary platform or cover, or more generally any rock below sedimentary rocks or sedimentary basins that are metamorphic or igneous in origin.
Biotite	Biotite is a common group of phyllosilicate minerals within the mica group, with the approximate chemical formula $K_3AlSi_3O_{10\ 2}$.
Breccia	A rock composed of broken fragments of minerals or rock cemented together by a fine-grained matrix that can be similar to or different from the composition of the fragments.
CAD	Canadian dollars
Cambrian	The first geological period of the Paleozoic Era which lasted from the end of the preceding Ediacaran Period 541 Ma to the beginning of the Ordovician Period 485 Ma.
Carbonate	A rock, usually of sedimentary origin, composed primarily of calcium, magnesium or iron and CO_3. Essential component of limestones and marbles.
Carboniferous	A geologic period aof the Paleozoic from the end of the Devonian 359 Ma to the beginning of the Permian 298 Ma.
Chalcedony	A cryptocrystalline form of silica composed of very fine intergrowths of quartz and moganite.
Chlorite	A green sheet silicate mineral that forms during the early stages of metamorphism.
Cretaceous	A geological period that lasted from about 145 to 66 Ma.
Dacite	A volcanic rock formed by rapid solidification of lava that is high in silica and low in alkali metal oxides.

Devonian	A geologic period of the Paleozoic from the end of the Silurian, 419 Ma, to the beginning of the Carboniferous, 359 Ma.
Diamond drilling	Method of obtaining cylindrical core of rock by drilling with a diamond set or diamond impregnated bit
Dike	A sheet of rock that is formed in a fracture of a pre-existing rock body.
Dolomite	An anhydrous carbonate mineral composed of calcium magnesium carbonate, ideally $CaMg(CO_3)_2$.
Erzgebirge	"German Ore Mountains"
Epithermal	Epithermal deposits are hydrothermal vein, stockwork, disseminated, and replacement deposits mined primarily for their silver and gold contents, and to a lesser extent, base metals. These deposits form in the uppermost parts of the crust at depths less than about 1,500 m and at temperatures below about 300 °C.
Fault	A fracture or fracture zone, along which displacement of opposing sides has occurred
Felsic	An adjective describing igneous rocks that are relatively rich in elements that form feldspar and quartz.
Fire Assay	Lead collection fire assay using carefully selected fluxes specially formulated for the mineralogy of each sample type. Samples submitted for ppb detection of gold are fused in a dedicated low level furnace, the resultant prill digested and gold content determined typically by AAS.
Fluorite	The mineral form of calcium fluoride, CaF_2, belonging to the halide minerals.
Foliation	Refers to repetitive layering in metamorphic rocks.
Footwall	The block of rock which lies on the underside of an inclined fault or of a vein of mineral.
Freibergite	A complex sulfosalt mineral of silver, copper, iron, antimony and arsenic with chemical formula $(Ag,Cu,Fe)_{12}(Sb,As)_4S_{13}$.
Freieslebenite	A sulfosalt mineral composed of antimony, lead, and silver with chemical formula $AgPbSbS_3$.
Gabbro	A mafic intrusive igneous rock formed from the slow cooling of magnesium-rich and iron-rich magma.
Galena	A lead sulfide mineral with a chemical composition of PbS.
Gangue	The commercially worthless material that surrounds, or is closely mixed with, a wanted mineral in an ore deposit.
Gondwana	An ancient supercontinent that broke up about 180 million years ago.
Gneiss	A foliated metamorphic rock identified by its bands and lenses of varying mineral composition.
Granite	A coarse-grained intrusive igneous rock composed mostly of quartz, alkali feldspar, and plagioclase
Greywacke	A variety of sandstone with poorly sorted angular grains of quartz, feldspar, and small rock fragments or lithic fragments set in a compact, clay-fine matrix.
Hanging Wall	The block of rock which lies on the upper side of an inclined fault or of a vein of mineral.
Hornfels	A metamorphic rock formed by the contact between mudstone, shale or other clay-rich rock.
Hydrothermal	Refers to high-temperature aqueous solutions at high vapor pressures.
Hyperspectral Imaging	Collection and processing of information from across the electromagnetic spectrum
Igneous	Formed through the cooling and solidification of magma or lava.
Induced Polarization	Induced polarization (IP) is a geophysical imaging technique used to identify subsurface materials and mineralization in particular. An electric current is induced into the subsurface through two electrodes, and voltage is monitored through two other electrodes. Time domain IP methods measure the voltage decay or chargeability over a specified time interval after the induced voltage is removed.

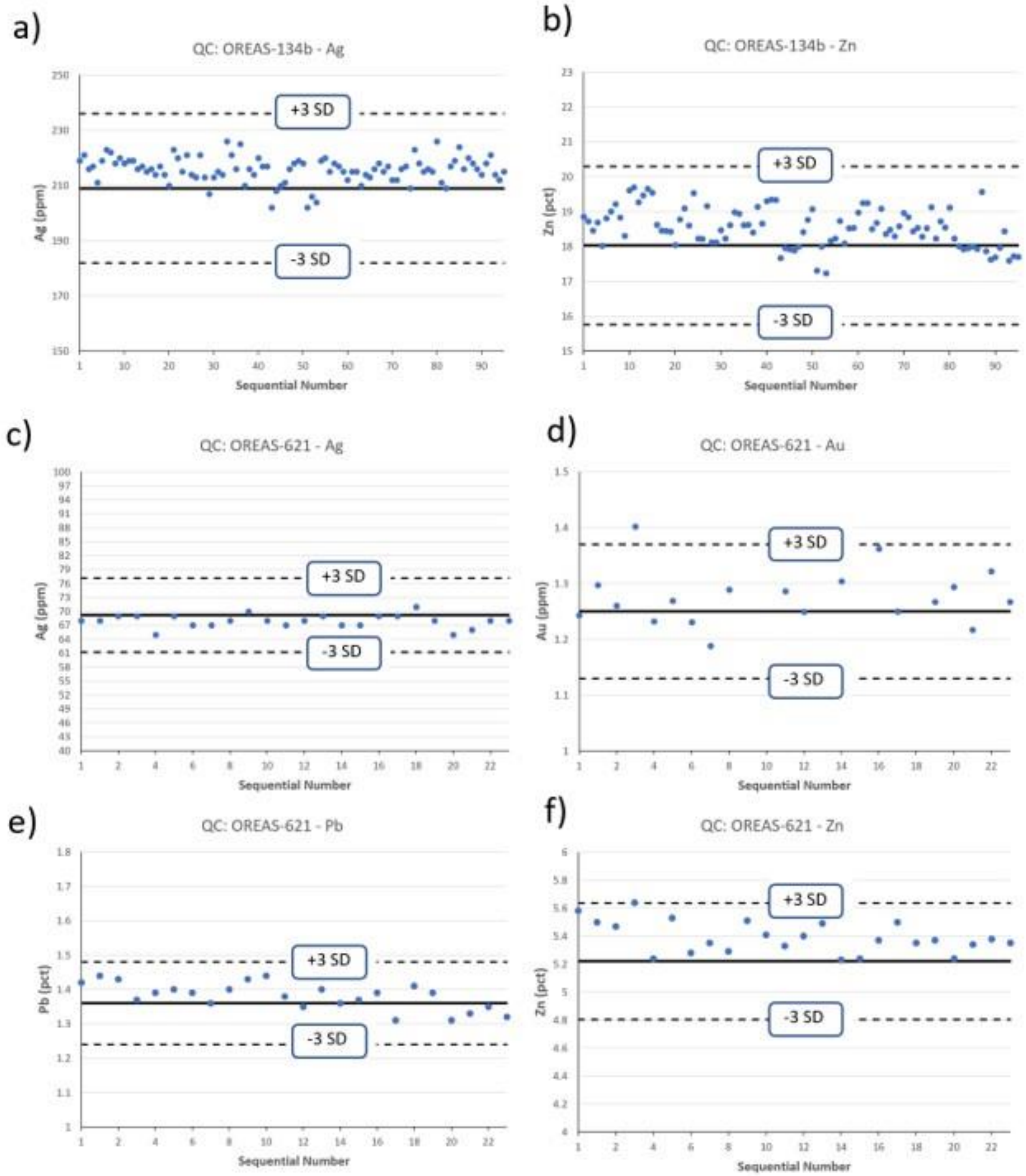
Intrusive	An igneous rock that formed from magma that cooled and solidified within the Earth's crust
Lamprophyre	An ultrapotassic igneous rock.
Latite	A porphyritic effusive rock composed of phenocrysts of plagioclase and K-feldspar.
Laurussia	A minor supercontinent which formed in the Devonian period.
Lineament	A significant linear feature of the earth's crust
Lithology	Rock type
Mafic	A silicate mineral or igneous rock rich in magnesium and iron.
Magmatic	Any process that affects the melting or crystallization of a magma.
Magnetic survey	Geophysical survey measuring the magnetic field intensity of rocks at various stations
Marble	A metamorphic rock composed of recrystallized carbonate minerals.
Marcasite	An iron sulfide mineral with a chemical composition of FeS_2.
Metamorphic	Relating to changes at depth in the mineral and chemical composition and texture of a solid rock caused by heat, pressure, chemical environment and shear stress
Metasediment	A sedimentary rock that shows evidence of having been subjected to metamorphism
Metavolcanic	A volcanic rock that shows evidence of having been subjected to metamorphism
Miargyrite	A sulfide of silver and antimony with the formula $AgSbS_2$.
Mineral Resource	A Mineral Resource is a concentration or occurrence of solid material or economic interest in or on the Earth's crust in such form, grade (or quality), and quantity, that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge,including sampling.Mineral Resources are subdivided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.
Mineralization	The process by which minerals are introduced into a rock resulting in the formation a mineral deposit
Muscovite	A hydrated phyllosilicate mineral of aluminium and potassium.
Nappe	A large sheetlike body of rock that has been moved more than 2 kilometres above a thrust fault from its original position.
Ore Shoot	An area of concentration containing ore.
Orogenic	Relating to the formation of structures such as folds and thrusts during a period of mountain-building
Orthoclase	A feldspar mineral with a chemical composition of $KalSi_3O_8$.
Orthogneiss	A gneiss with mineralogy and texture indicating derivation from a phaneritic igneous rock protolith.
Palaeoproterozoic	Early Proterozoic era of geological time, 2,500 to 1,600 million years ago
Palaeozoic	The span of geological time between the beginning of the Cambrian (542 Ma (million years ago) to the end of the Permian (251 million years ago)
Paragneiss	A gneiss with mineralogy and texture indicating derivation from a sedimentary rock protolith.
Permian	A geologic period from the end of the Carboniferous Period 299 Ma to the beginning of the Triassic 252 Ma.
Phyllite	A type of foliated metamorphic rock created from slate that is further metamorphosed so that very fine grained white mica achieves a preferred orientation.
Plagioclase	A feldspar mineral.

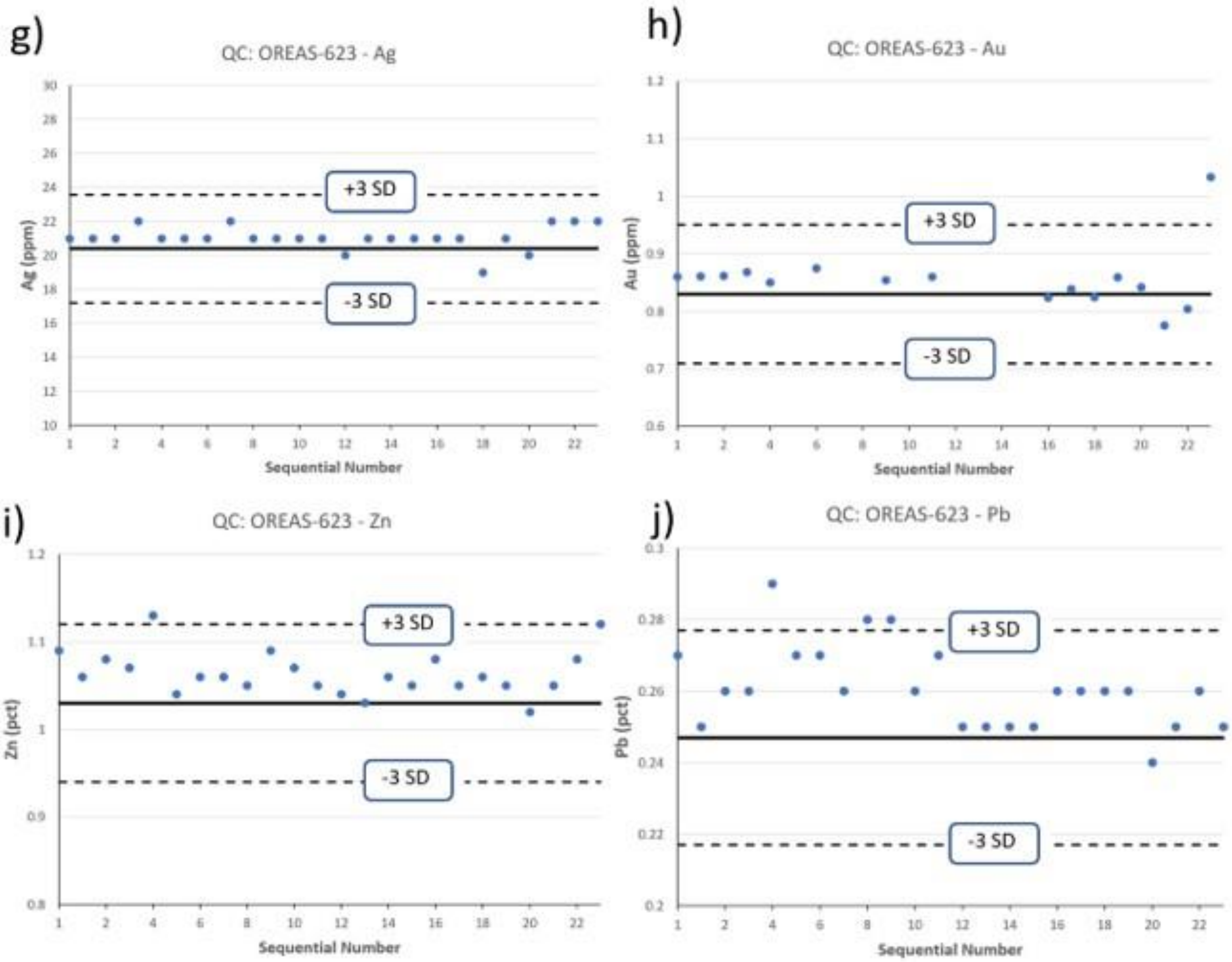
Precambrian	The span of geological time between formation of the Earth around 4500 Ma (million years ago) to the beginning of the Cambrian, around 542 Ma
Protolith	The original, unmetamorphosed rock from which a given metamorphic rock is formed.
Quaternary	The current and most recent of the three periods of the Cenozoic Era in the geologic time scale from 2.588 Ma to the present.
Proterozoic	A period of geological history dating from about 2 500 to 540 million years ago, subdivided into the Palaeo-, Meso- and Neoproterozoic
Pyrargyrite	A sulfosalt mineral consisting of silver sulfantimonite, Ag_3SbS_3.
Pyrostilpnite	A silver antimony sulfide polymorphous with pyrargyrite.
Pyrite	An iron sulfide with the chemical formula FeS_2.
Rhodochrosite	A manganese carbonate mineral with chemical composition $MnCO_3$.
Rhyolite	The most silica-rich of volcanic rocks.
Schist	A medium-grained metamorphic rock showing pronounced schistosity.
Siderite	A mineral composed of iron(II) carbonate ($FeCO_3$).
Sphalerite	A sulfide mineral with the chemical formula (Zn,Fe)S.
Strike	Horizontal direction or trend of a geological structure
Strike-Slip Fault	A fracture in the rocks of Earth's crust in which the rock masses slip past one another parallel to the strike.
Stockwork	A complex system of structurally controlled or randomly oriented veins.
Sulphide	A mineral containing sulphur with a metal or semi-metal, e.g. pyrite
Syenite	A coarse-grained intrusive igneous rock with a general composition similar to that of granite, but deficient in quartz.
Tertiary	A geologic period from 66 to 2.6 Ma.
Tetrahedrite	A common sulfosalt mineral, an antimony sulfide of copper, iron, zinc, and silver $(Cu,Fe,Zn,Ag)_{12}Sb_4S_{13}$
Triassic	A geologic period from the end of the Permian 252 Ma to the beginning of the Jurassic 201 Ma.
Tuff	A type of rock made of volcanic ash ejected from a vent during a volcanic eruption.
Ultramafic	An igneous rocks composed chiefly of mafic minerals.
Variscan Orogeny	A geologic mountain-building event caused by Late Paleozoic continental collision between Euramerica and Gondwana to form the supercontinent of Pangaea.
Vein	A distinct sheetlike body of crystallized minerals within a rock.
Volcaniclastics	A rock or unconsolidated deposit must have more than 10% by volume of volcanic debris.

APPENDIX 2: QAQC CHARTS

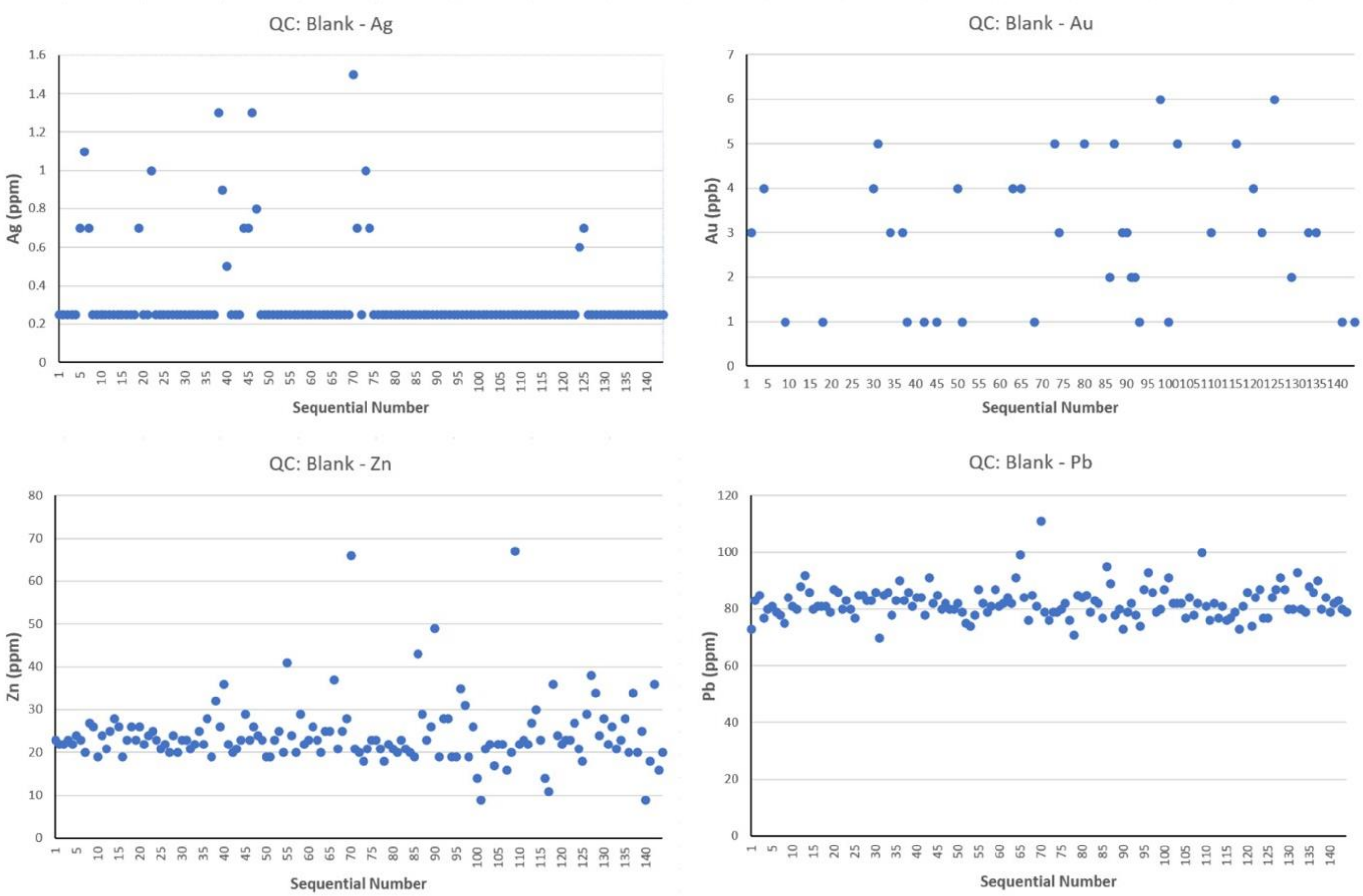
2020 Drill Program QAQC

CRM Control Charts

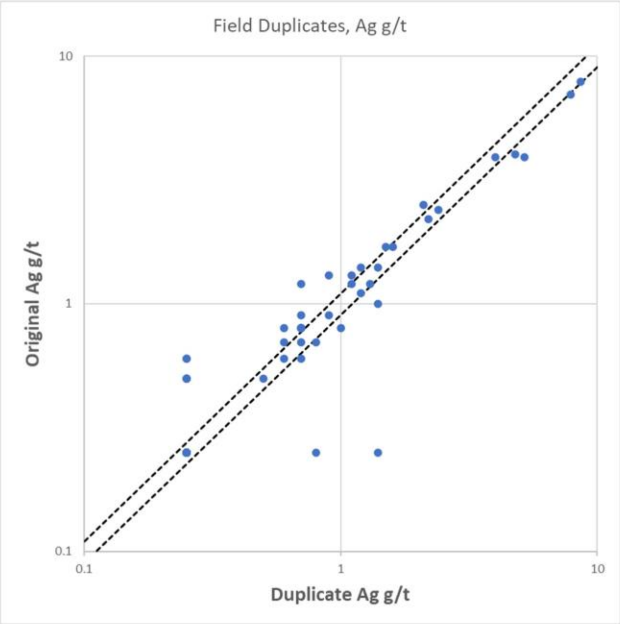


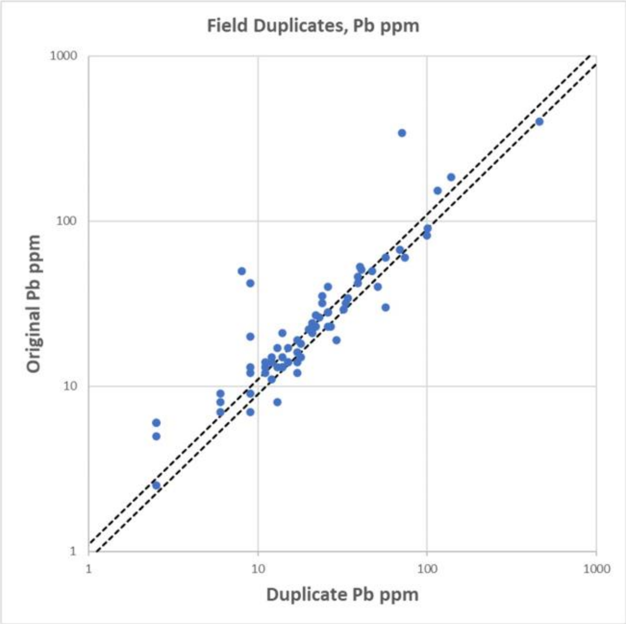

g)
QC: OREAS-623 - Ag
Ag (ppm)
+3 SD
-3 SD
Sequential Number
h)
QC: OREAS-623 - Au
Au (ppm)
+3 SD
-3 SD
Sequential Number
i)
QC: OREAS-623 - Zn
Zn (pct)
+3 SD
-3 SD
Sequential Number
j)
QC: OREAS-623 - Pb
Pb (pct)
+3 SD
-3 SD
Sequential Number

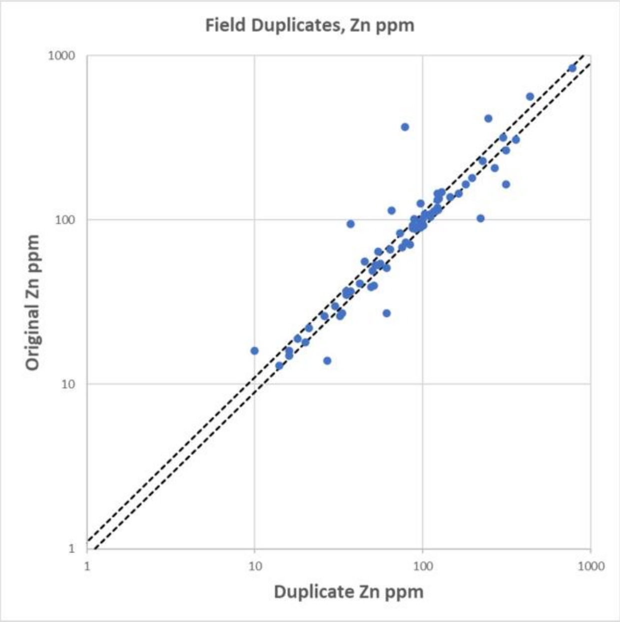
Blank Sample Control Charts



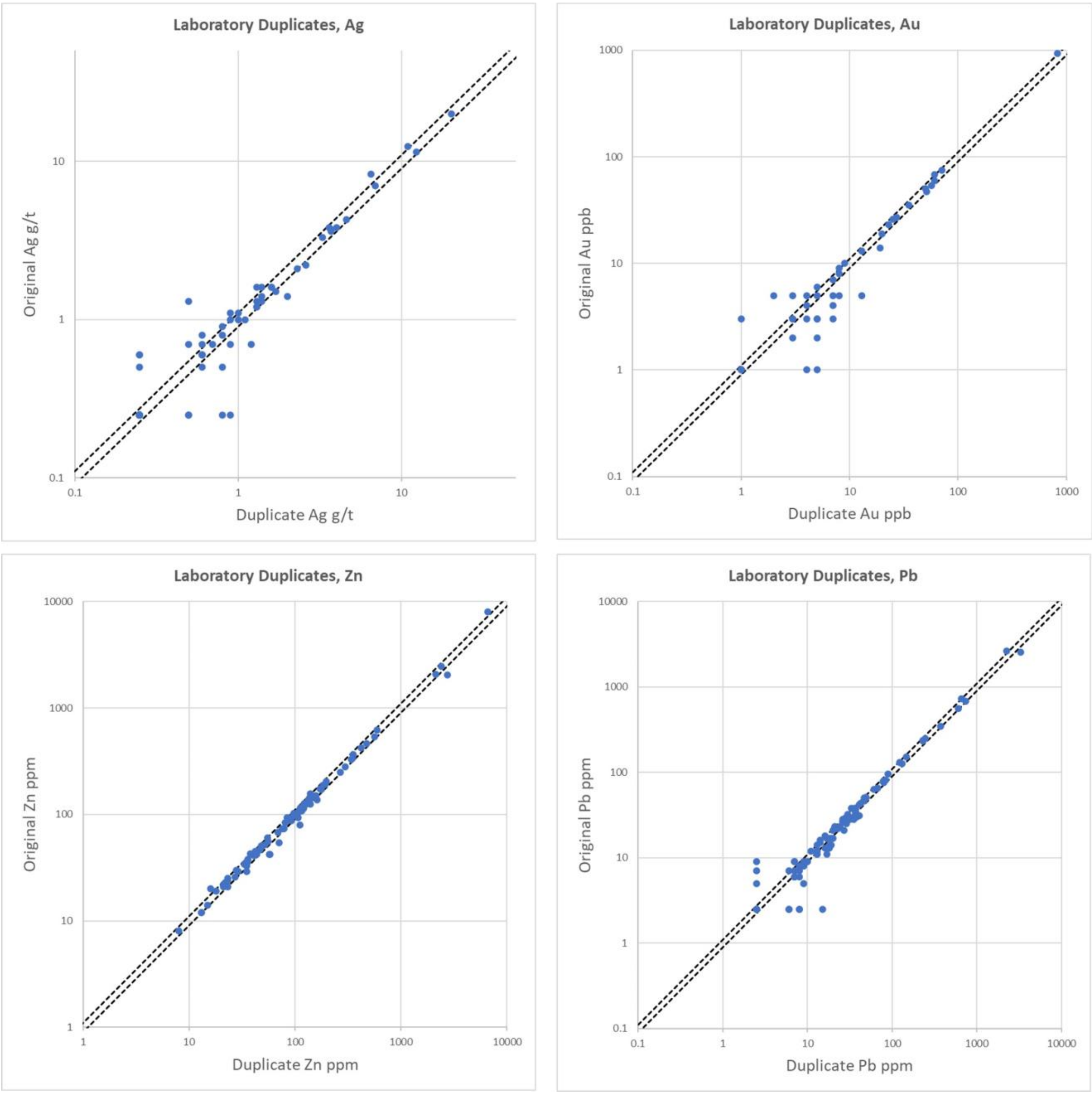
Field Duplicate Scatterplots



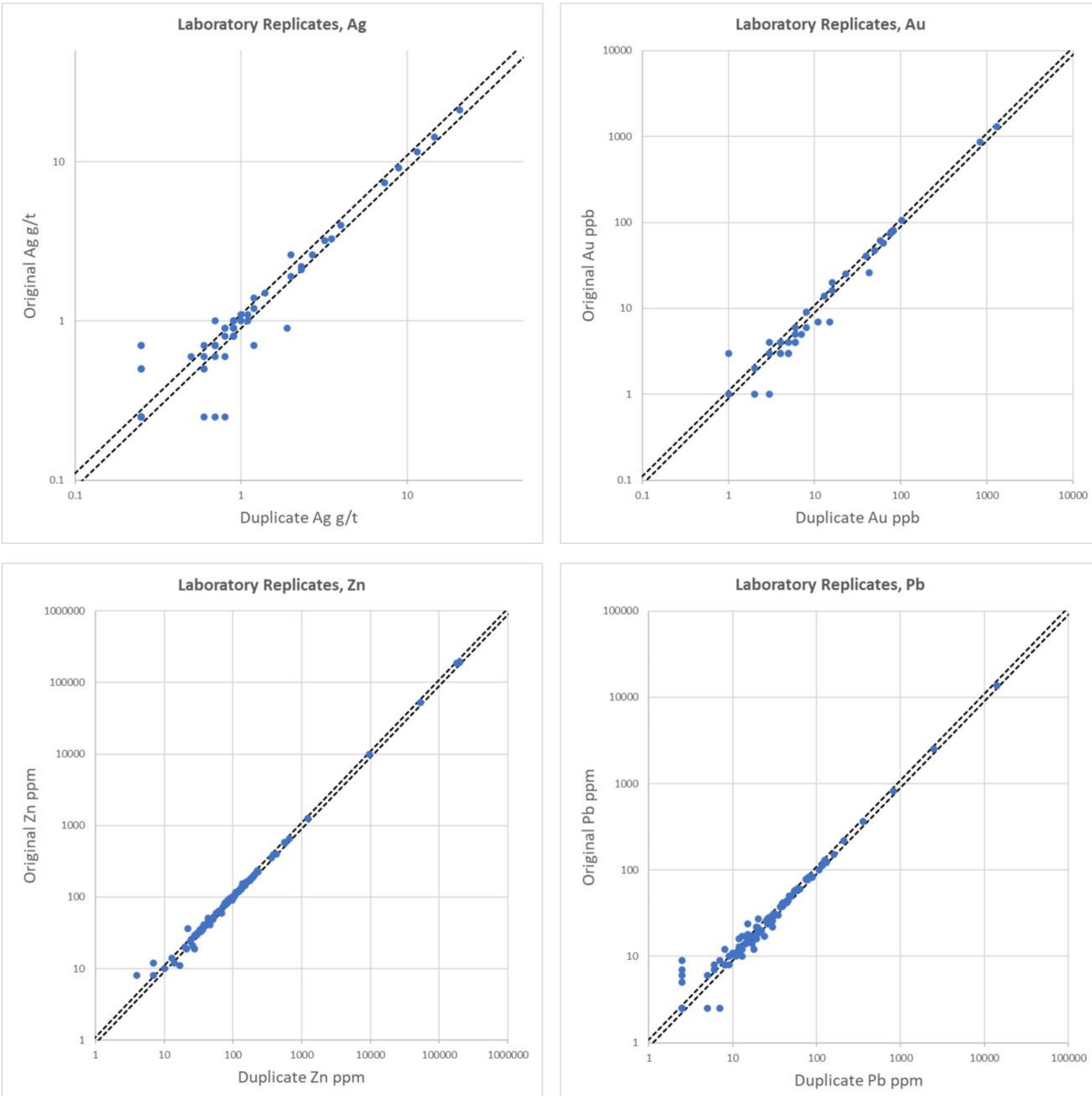




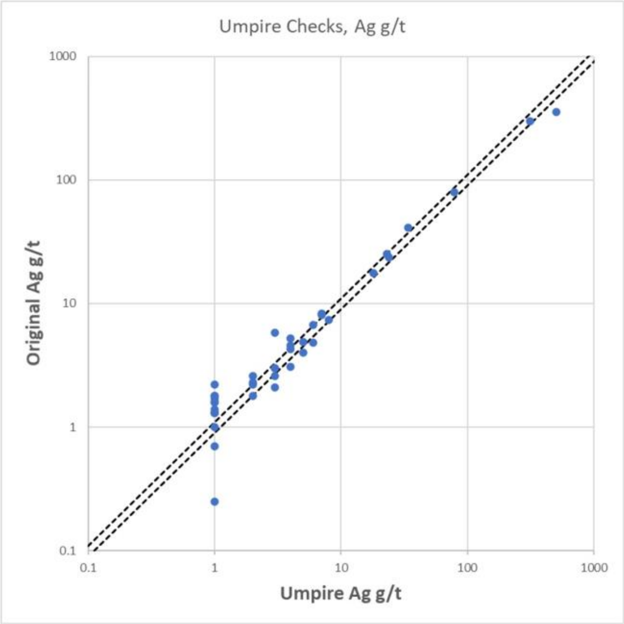
Laboratory Duplicate Scatterplots

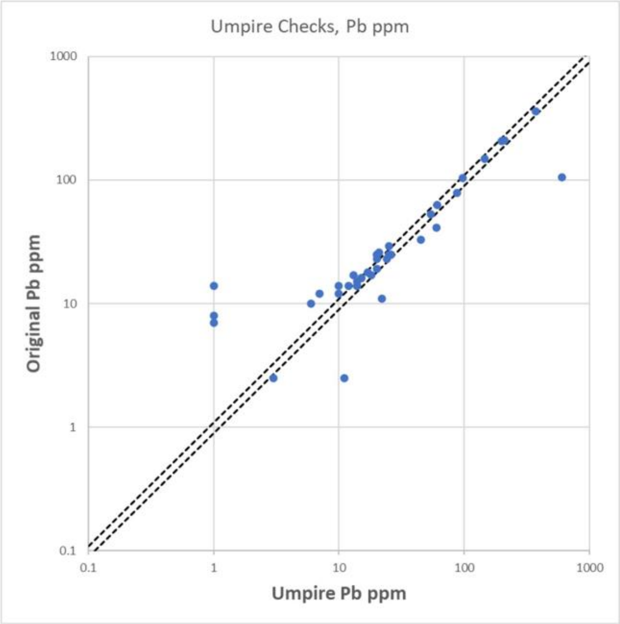


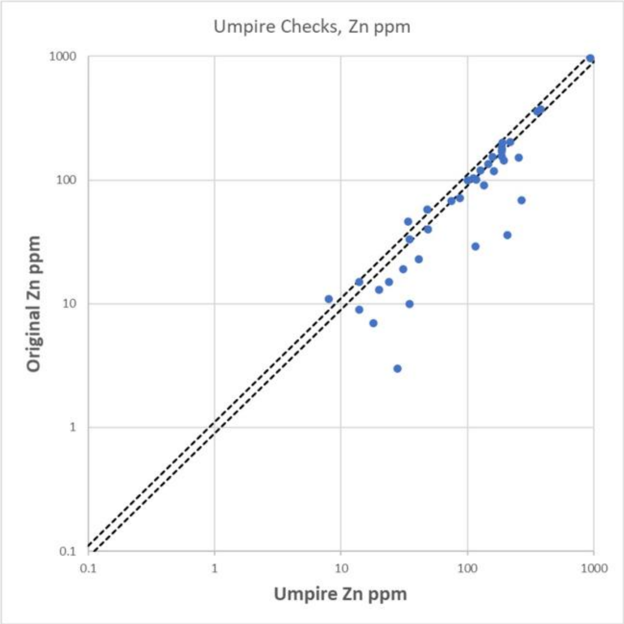
Laboratory Replicate Scatterplots



Umpire Check Sample Scatterplots

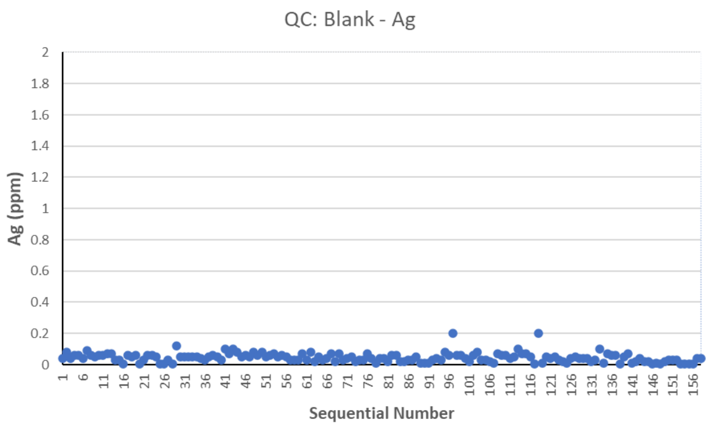


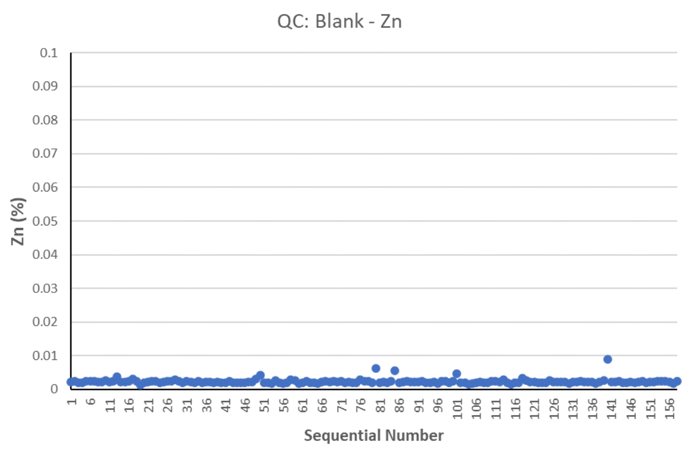


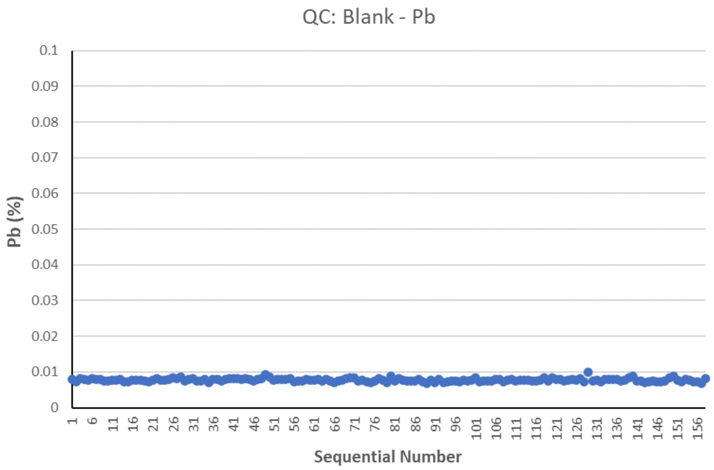


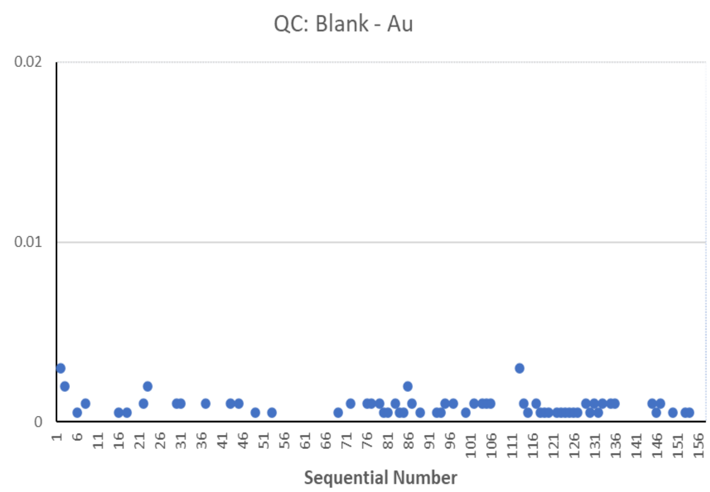
2021 Drill Program QAQC

Blank Sample Control Charts



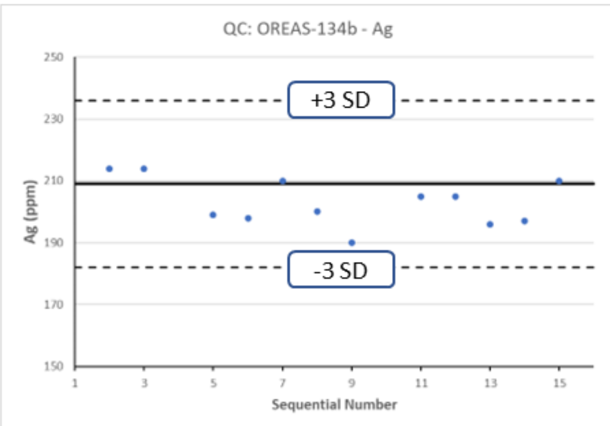




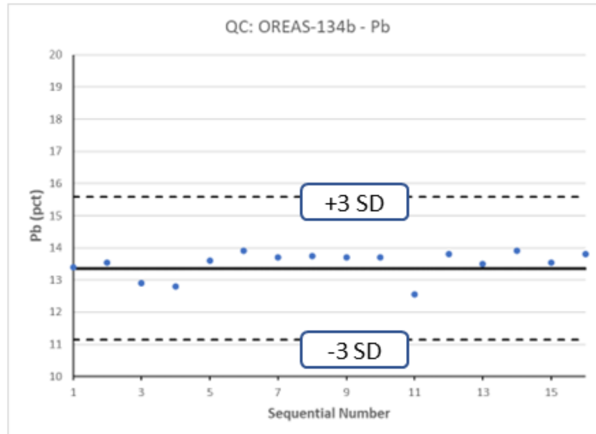


CRM Control Charts

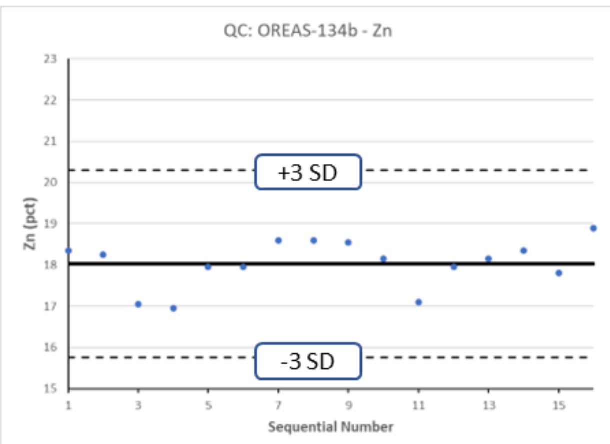
a)



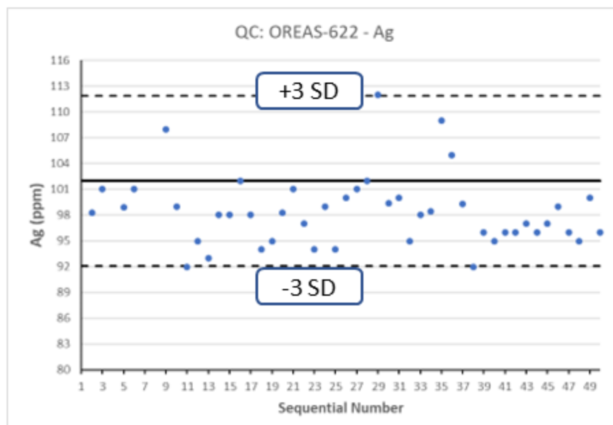
b)



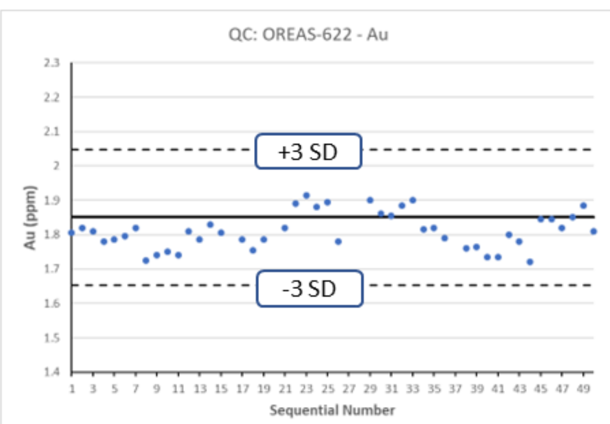
c)



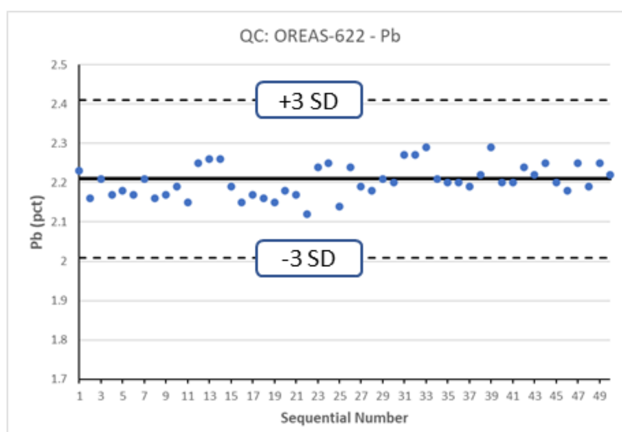
d)



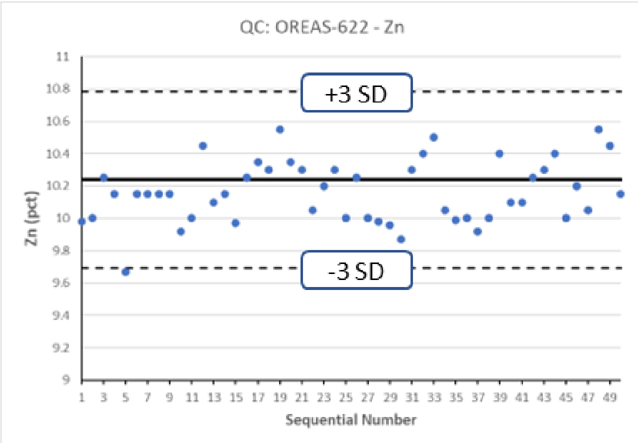
e)



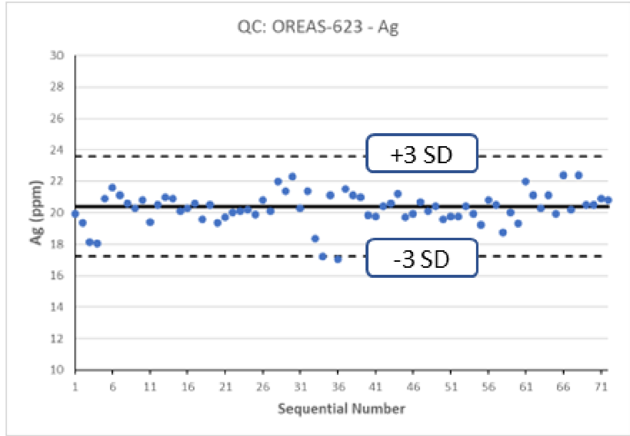
f)



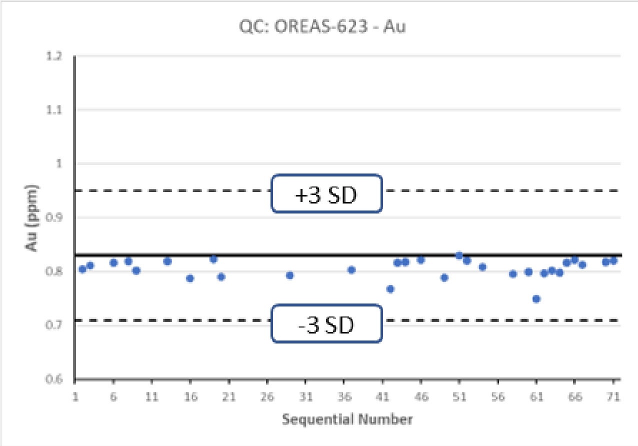
g)


QC: OREAS-622 - Zn
+3 SD
-3 SD
Zn (pct)
Sequential Number

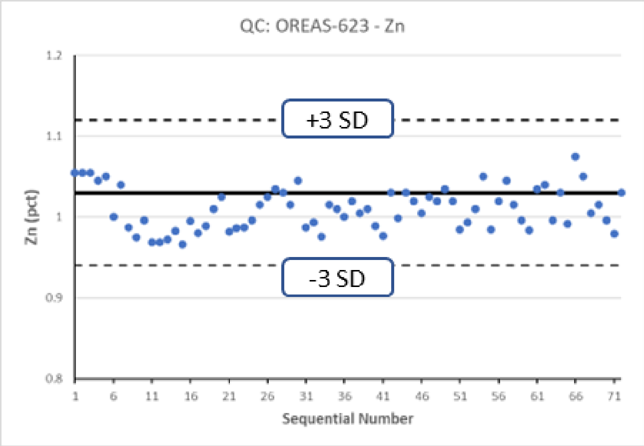
h)


QC: OREAS-623 - Ag
+3 SD
-3 SD
Ag (ppm)
Sequential Number

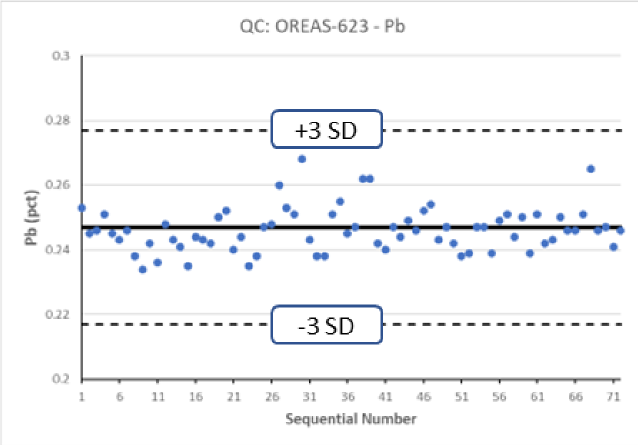
i)


QC: OREAS-623 - Au
+3 SD
-3 SD
Au (ppm)
Sequential Number

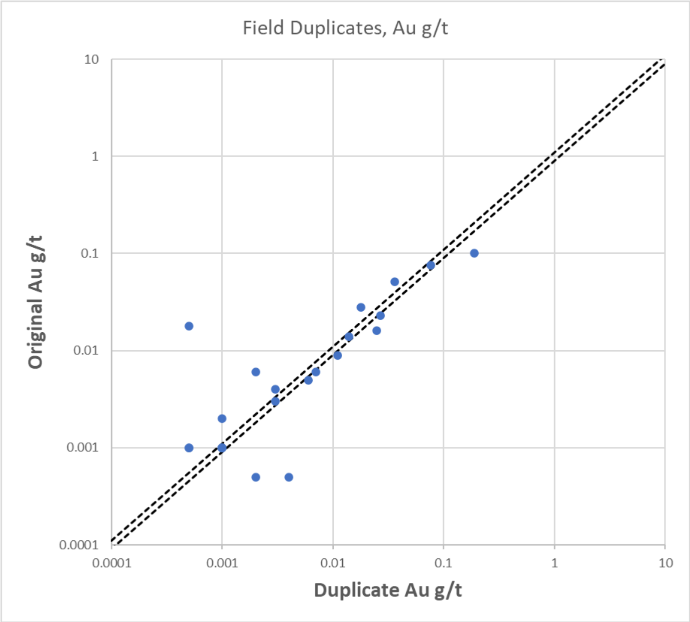
j)

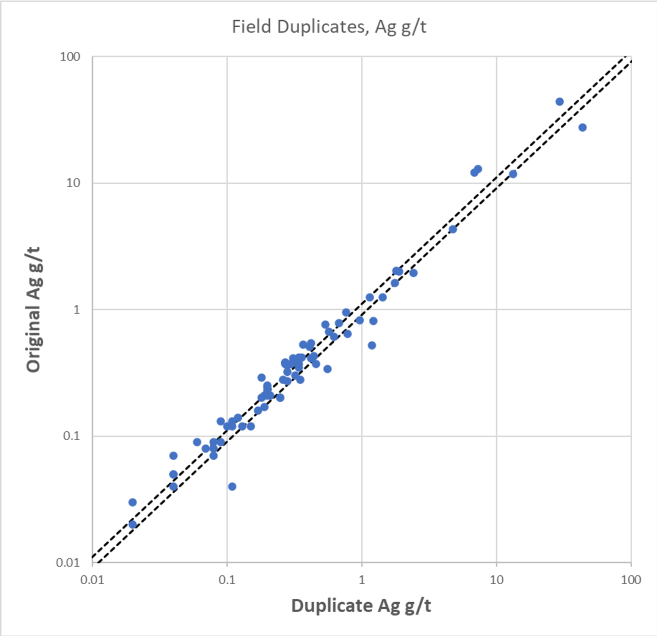

QC: OREAS-623 - Zn
+3 SD
-3 SD
Zn (pct)
Sequential Number

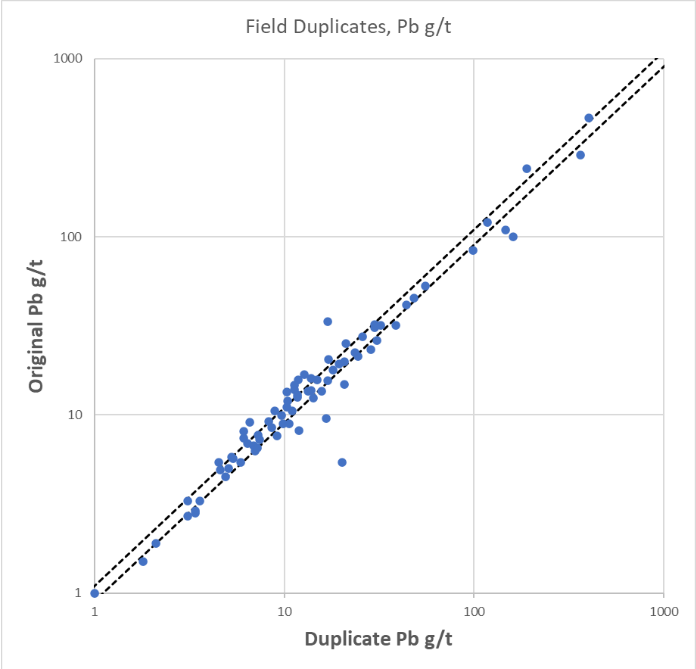
k)

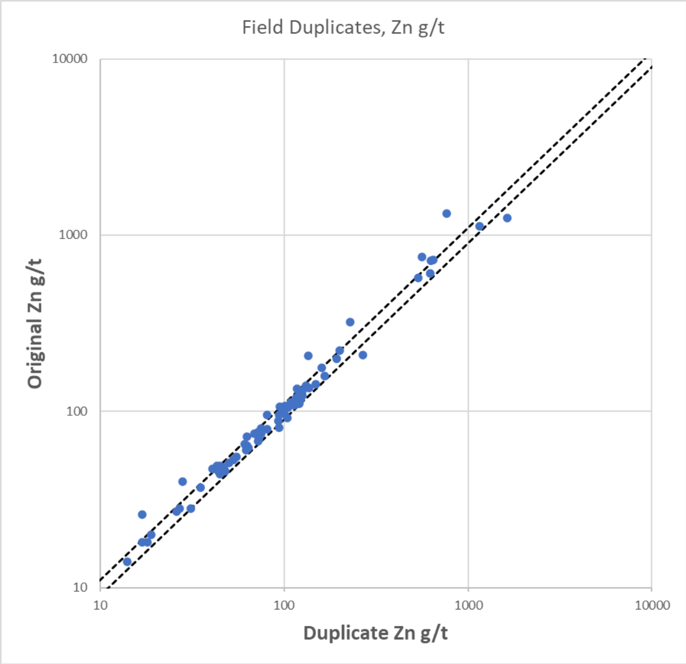

QC: OREAS-623 - Pb
+3 SD
-3 SD
Pb (pct)
Sequential Number

Field Duplicate Scatterplots









CERTIFICATE of QUALIFIED PERSON

This Certificate of Qualified Person has been prepared to meet the requirements of National Instrument 43-101 Standards of Disclosure for Mineral Projects, Part 8.1.

a) Name, Address, Occupation:

Michael J. Robertson

The MSA Group (Pty) Ltd, Henley House, Greenacres Office Park, Cnr Victory & Rustenburg Roads, Victory Park, 2195, Johannesburg, South Africa.

Geologist employed as Principal Consultant.

b) Title and Effective Date of Technical Report:

"**Silver City Project, Saxony, Germany - NI 43-101 Technical Report**", with an effective date of March 31, 2022 (the "Technical Report")

c) Qualifications, Relative Experience, and professional Associations:

I graduated from the University of the Witwatersrand, Johannesburg, South Africa, with a Bachelor of Science in Engineering (Mining Geology) in 1985 and a Master of Science in 1989. I am a Professional Natural Scientist (Pr.Sci.Nat. 400005/92) registered with the South African Council for Natural Scientific Professions, a Member of the Australasian Institute of Mining and Metallurgy (Membership No. 316078) and a Fellow of the Geological Society of South Africa. I have practiced my profession continuously since 1989 and have experience in mineral exploration and geological consulting on projects throughout Africa and in the Middle East, Australia, Canada, Mexico, Russia and Kazakhstan. I have managed exploration projects, conducted mineral property reviews and exploration programme audits, authored independent technical reports for public reporting purposes, and contributed to scoping, prefeasibility and feasibility studies. I have specific and relevant experience in structurally controlled vein-type precious metal deposits. As a result of my qualifications and experience, I am a Qualified Person as defined in National Instrument 43-101.

d) Personal Inspection:

I visited the Silver City Project (the "Project") from 14 to 17 September 2021 and from May 4 to 6, 2022. The site visit included briefings from geology and exploration personnel, review of Project data, inspection of Project drill sites and drill core, and inspection of logging and sampling procedures.

e) Responsibilities:

I am responsible for all sections of this Technical Report.

f) Independence:

I am independent of Excellon Resources Inc. and Saxony Silver Corp. in accordance with the application of Section 1.5 of National Instrument 43-101.

g) Prior Involvement:

Apart from the preparation of the maiden NI 43-101 Technical Report on the Silver City Project, dated December 22, 2021, I have had no prior involvement in the Project.

h) Compliance with NI 43-101:

I have read National Instrument 43-101 and Form 43-101FI and the Technical Report has been prepared in compliance with same.

i) Disclosure:

As of June 28, 2022, to the best of my knowledge, information and belief, the sections of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated: June 28, 2022.

("Original signed")

Michael J. Robertson
Principal Consultant
The MSA Group (Pty) Ltd