



SILVER CITY

RE-DISCOVERING A WORLD-CLASS EPITHERMAL SILVER BELT IN SAXONY

November 2021

TSX:EXN | NYSE:EXN | FRA:E4X2
www.excellonresources.com

EXCELLON RESOURCES

Company overview

Kilgore & Oakley

Idaho | RANKED #5 U.S. AND #7 GLOBAL*

GOLD



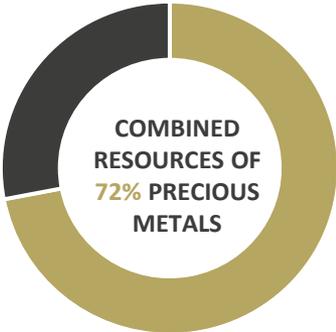
Silver City

Saxony
SILVER

MEXICO

Platosa & Evolución

Durango & Zacatecas
SILVER-LEAD-ZINC
In production



- Precious metals
- Base metals

*Fraser Institute Annual Survey 2019

THE SILVER CITY PROJECT

World class scale and opportunity

- Located in the Erzgebirge (*Ore Mountains* of Saxony), near Freiberg, 40 km west of Dresden
- Accessible year-round by road
- Extensive epithermal Ag-Au, Pb-Zn-Cu system striking over 36 km
- Four exploration licenses totaling 342 km² in area
- World-class historical mining district with no modern exploration for precious metals pre-dating Excellon's activities
- 2020 drilling program discovered high-grade silver on four targets including 1.3 m @ 1,043 g/t AgEq at Grauer Wolf



SILVER CITY

SAXONY
SILVER

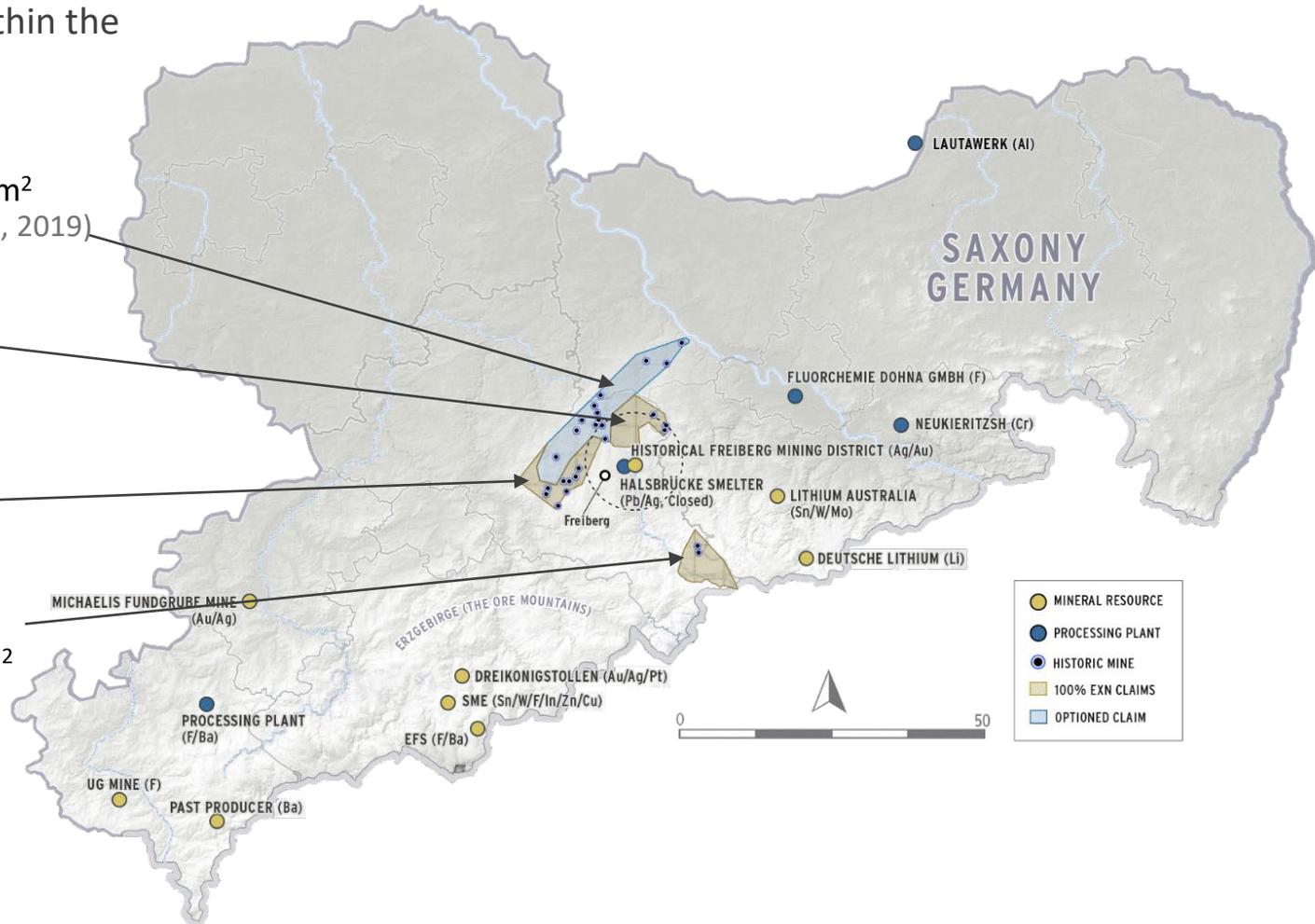


SILVER CITY LICENSES IN SAXONY

Located in strategic locations

Four licenses located in strategic locations within the Freiberg district:

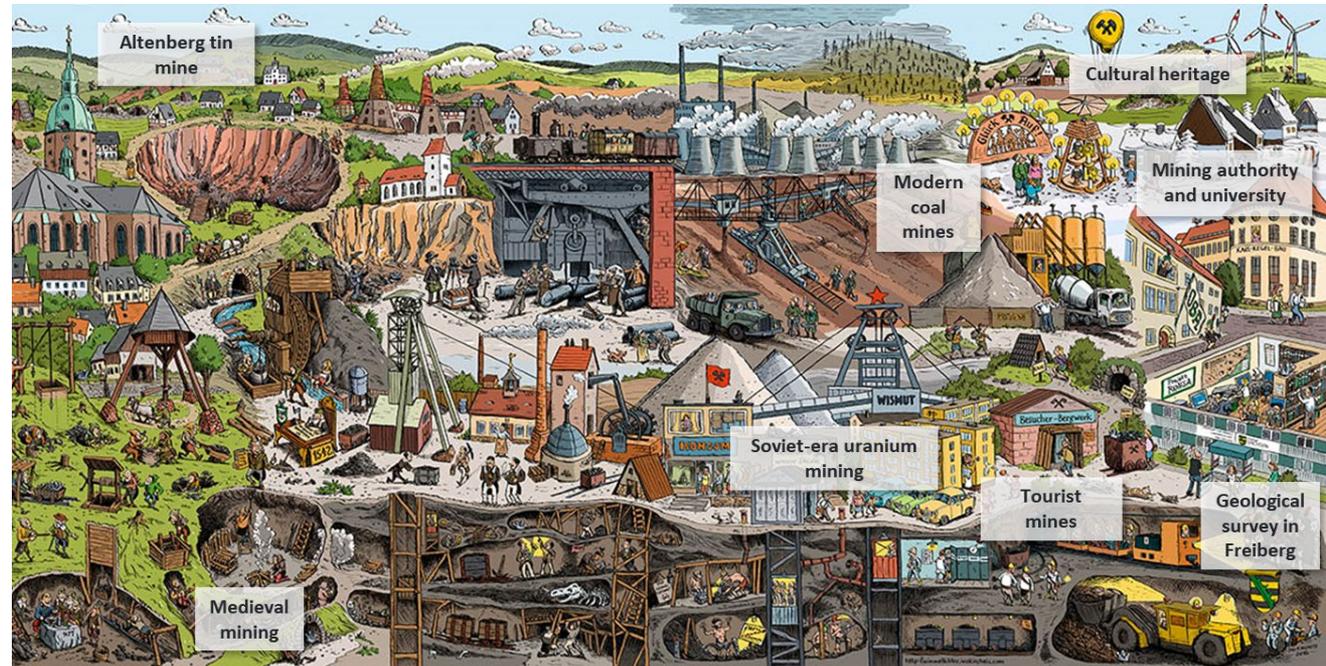
- **BRÄUNSDORF:** 165 km²
(Optioned from Globex, 2019)
- **MOHORN:** 57 km²
(100% Excellon, 2021)
- **OEDERAN:** 63 km²
(100% Excellon, 2021)
- **FRAUENSTEIN:** 57 km²
(100% Excellon, 2021)



SAXONY

An exploration and mining centre with a long history

- Over 800 years of mining history
- Strong business culture
- Mining has a cultural heritage
- Mining authority located in Freiberg
- Saxon raw material strategy promoting mining
- High-quality research partners



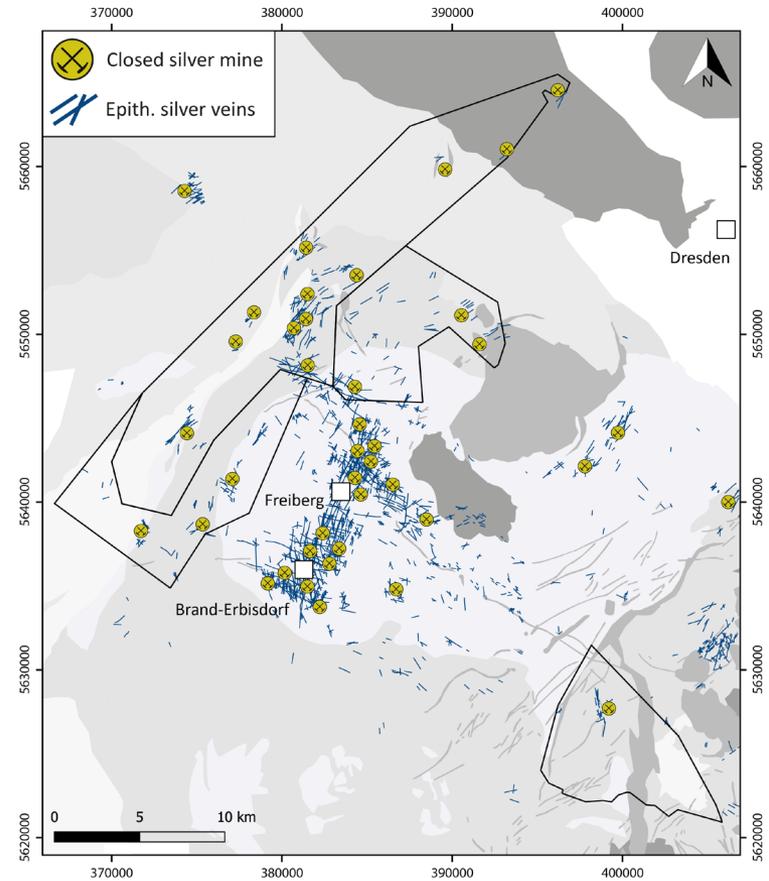
Picture puzzle highlighting the different faces of mining in Saxony © 2018 Ivo Kircheis

FREIBERG MINING HERITAGE

Deep, proud roots in mining and innovation



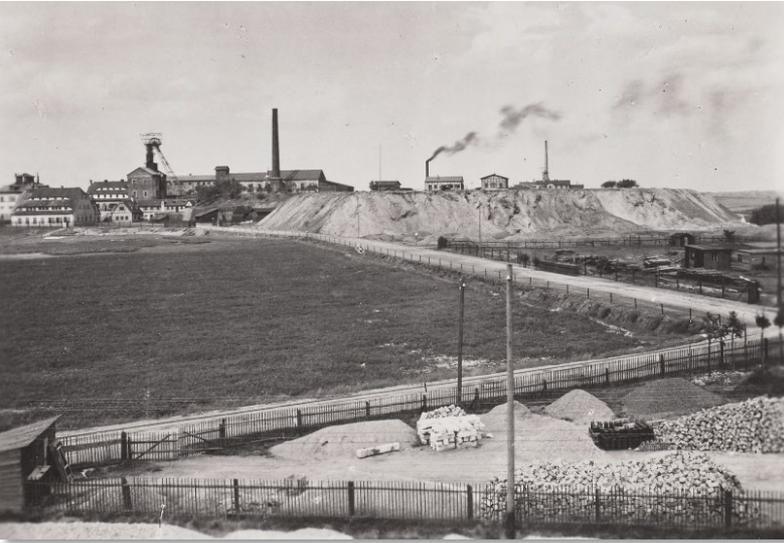
Mines south of Freiberg in 1745



- First documentation of mining dates back to 1185, after silver ore was discovered in a road cut near Freiberg
- Mining for silver continued uninterrupted in the region for 800 years all around Freiberg

FREIBERG MINING HERITAGE

Deep, proud roots in mining and innovation



- In the late 19th century, the decreasing value of silver and technical challenges triggered the economic fall of the silver mining industry
- Last base metal mine closed in central Freiberg in 1969
- Documented production since the mid 1500's accounts for 180 M oz of silver excluding gold and base metal production
- Mining left a strong mark on the local culture, industry and education, e.g. by the establishment of the TU Bergakademie Freiberg in 1765, the world's oldest mining technology institute
- Famous alumni of the Bergakademie are Carl Friedrich, Christian **Mohs**, Abraham Gottlob **Werner**, Friedrich August **Breithaupt** and Alexander von **Humboldt**

SILVER CITY

Project history

- 2017 – 2019**
 - Globex Mining Enterprises is granted the Bräunsdorf license area (165 km²)
 - Initial target generation

- 2019**
 - Excellon options the Silver City Project from Globex
 - Research collaboration with Helmholtz Institute Freiberg and TU Bergakademie

- 2020**
 - Completion of the first drill campaign (3,700 m)
 - Definition of four high-grade Ag targets over 12km strike

- 2021**
 - Excellon is granted three additional licenses
 - Start of the second drill campaign (currently ca. 7,500 m)



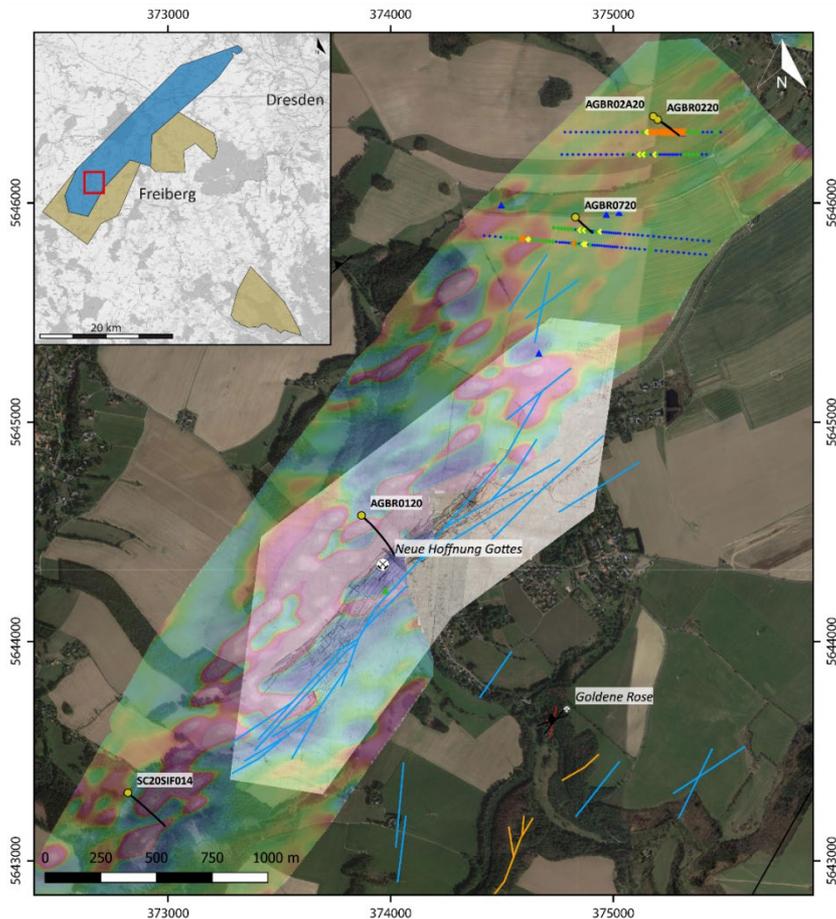


SILVER CITY PROJECT OVERVIEW

Drill road in wheat field with Bräunsdorf water tower

R&D OF THESIS AND POTENTIAL

Combining data old and new from all sources

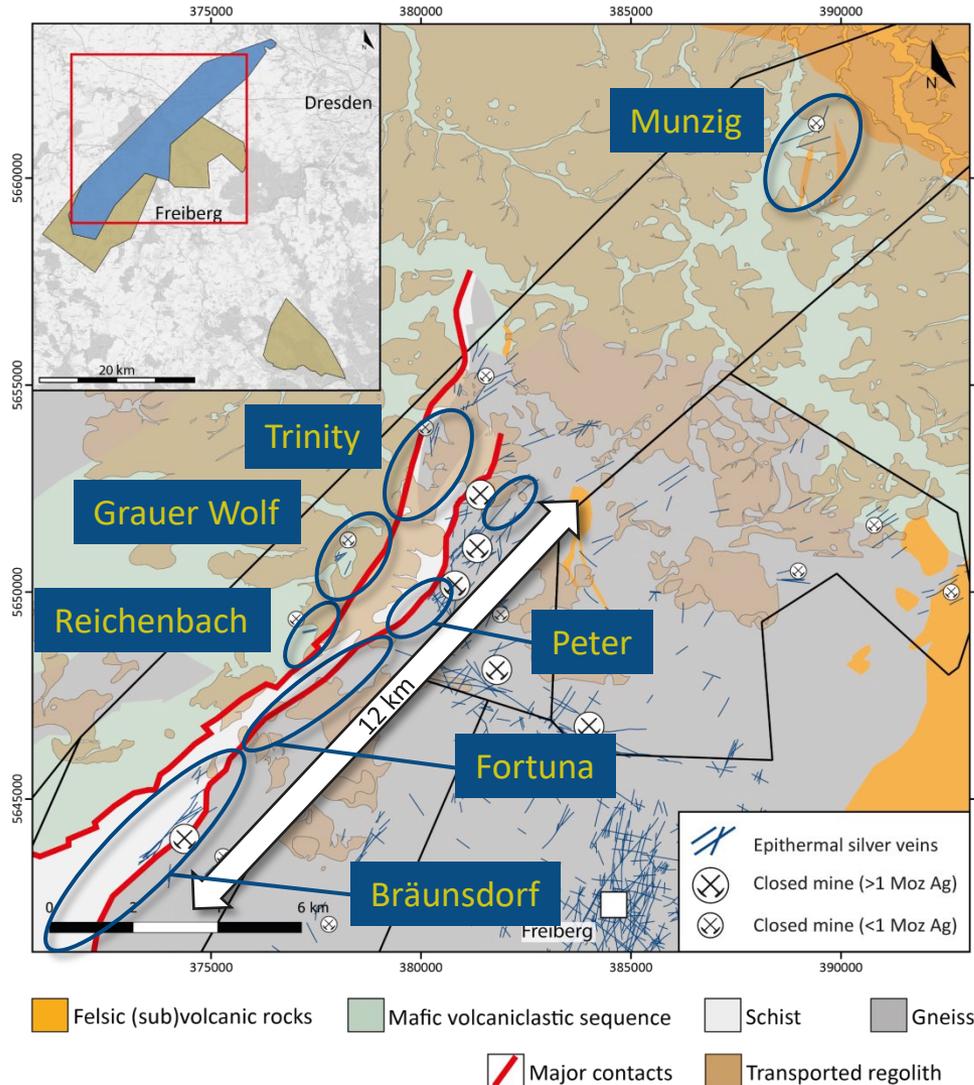


- Compilation from historical archive data & 3D modelling of old workings
- Sampling of historical waste dumps and surface exposures
- Soil geochemistry along prospective target trends
- Mag and IP surveys, reprocessing of historical airborne mag data
- Diamond drilling
- Mineralogical and fluid inclusion studies as well as hyperspectral analysis of core (HIF & TUBAF)



SILVER CITY

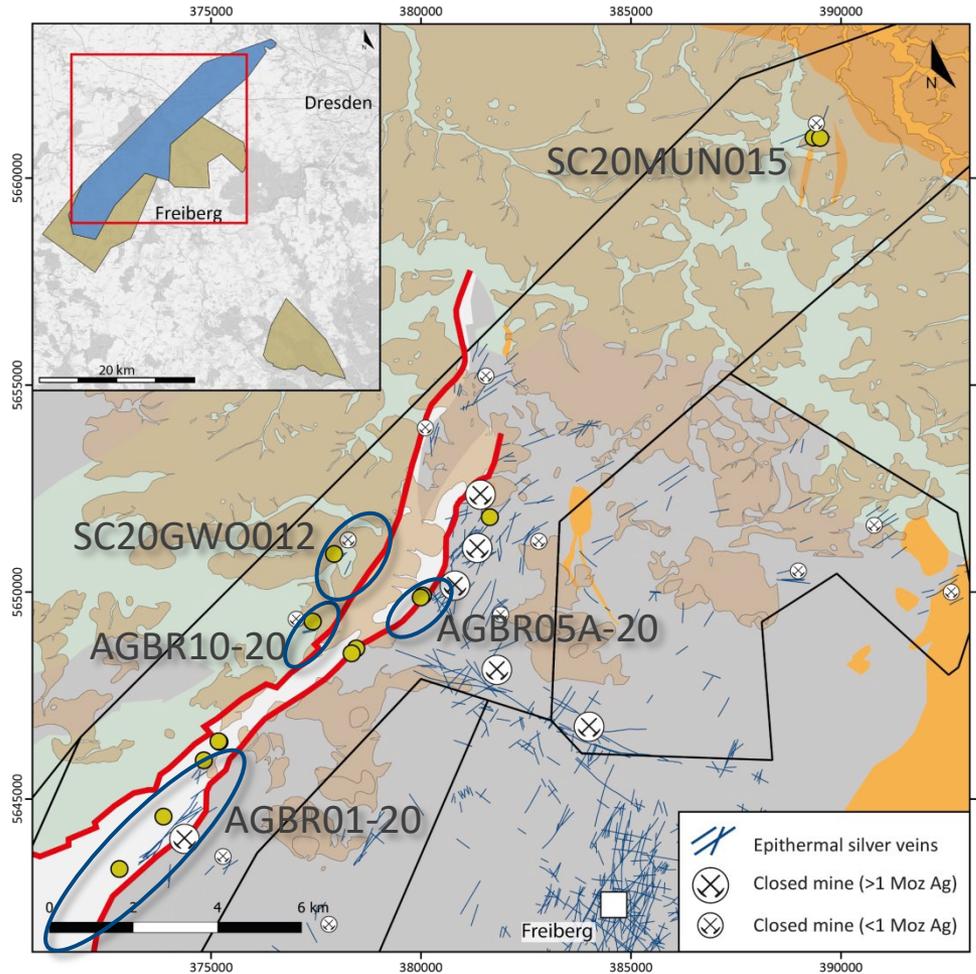
Confirming high-grade, district-scale epithermal silver system



- Exploration along two major geological trends: (1) gneiss to schist contact, and (2) schist to mafic volcanic rock contact
- About 40% of the structure is under cover making these prospective areas for modern exploration
- Several targets along a 12 km long structural corridor
- Testing strike / dip extensions of historical mines and untouched areas by new exploration models

SILVER CITY

Confirming high-grade, district-scale epithermal silver system



- **14 of 16** holes (3,700 m) intersected mineralized structures in 2020 drilling

Hole ID	From	To	Ag ppm	Length	Ag*m
SC20GWO012	96.45	97.75	954	1.30	1,240.4
AGBR05A20	207.75	208.2	911	0.45	409.95
SC20GWO012	76.75	77.95	325	1.20	389.9
AGBR1020	108.13	108.84	356	0.71	252.76
SC20MUN015	77.51	77.86	306	0.35	107.1
AGBR0120	353.45	353.8	300	0.35	105



MINERALIZATION & TEXTURES

Analogous to other world-class districts



REICHENBACH - **AGBR10-20**

Altered mafic tuff hosting a hydrothermal quartz breccia with disseminated silver sulfosalts



GRAUER WOLF - **SC20GWO12**

Polymetallic-quartz composite veins with selvages composed of sphalerite, galena and Freibergite



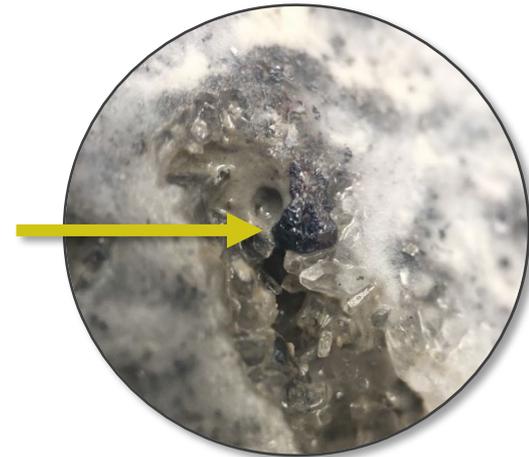
BRÄUNSDORF - **AGBR01-20**

Quartz-carbonate stockwork with visible silver sulfosalts



PETER VEIN - **AGBR05A-20**

Quartz-carbonate vein hosting a disseminated polymetallic sulfide mineralization comprising Ag-rich galena and sphalerite silver sulfosalts and native silver



COMMUNITY ENGAGEMENT

Transparency and communication

Engage early, be transparent and bring people and stakeholders into and along with the project

- Engaging local municipal council
- Engaging local mining associations
- Building relationships with all stakeholders from local and community levels through to municipal and state regulators



Proactive communication and messaging

- Articles in local newspapers (16 in 2021)
- Attending community events (2 in 2020 due to COVID restrictions)
- Land access agreement contracts (12 in 2020, 34 in 2021)
- Information provided on site and **over 100 personal conversations** with locals
- Self-monitoring (noise, ecology)



MINERAL CONCESSIONS IN SAXONY

Application Process, Royalties

LEGAL PERMISSION BASE

Federal Mining Act (“Bundesberggesetz – BBergG”)

- Generally governed by the Federal Mining Act
- 3 stages for raw material concessions (§§7 – 9 BBergG)

Exploration licence (§7 BBergG) – max 5 years, renewable for 3 years

Mining license (§8 BBergG) – individual (up to 50 years)

Mining proprietorship (§ 9 BBergG) – individual

- Transfer of ownership (§§22-23 BBergG) with authorization of the competent mining authority
- Formal Process, including hearing of touched authorities and local communities, executed and supervised by the Saxon Mining Authority (“Oberbergamt”) in Freiberg

BUNDESBERGGESETZ - Federal Mining Act of 13 August 1980 (Federal Law Gazette I p. 1310), last amended by Article 2 (4) of the Act of 20 July 2017 (Federal Law Gazette I, p. 2808)

ROYALTIES

- No Field Royalties in Saxony (at least till Dec. 31, 2025)
- Owners of a Mining License and a Mining Proprietorship generally have to pay a Mining Royalty – but only if listed in a legal ordinance and legal instruction accordingly. Excluded from this obligation are mineral resources which were only mined for technical reasons without profit
- Lignite, geothermal energy, salt brine, barite and by-products of fluorspar- and barite-mining in Saxony are free of Mining Royalty (current status, valid till December 31, 2025)



MINERAL CONCESSIONS IN SAXONY

Surface rights

PUBLIC LAND OWNER / LAND USER

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

PRIVATE LAND OWNER / LAND USER

- **Agricultural Companies**
- Forestry Operation Companies
- **Private Persons**
- **Private Communities of Heirs**
- Non-Profit Organizations and Associations

KEY FACTORS

Information – Transparency – Local Knowledge – Local Presence - Reliability

MINERAL CONCESSIONS IN SAXONY

Mining permission framework

Authorization

Mining Authorization

Exploration License

Mining Permit

Mining Proprietorship

Project Approval

Framework Operation Plan

Optional Approval

Licensed Mandatory

Operation Plan Approval

Main Operation Plans

Special Operation Plans

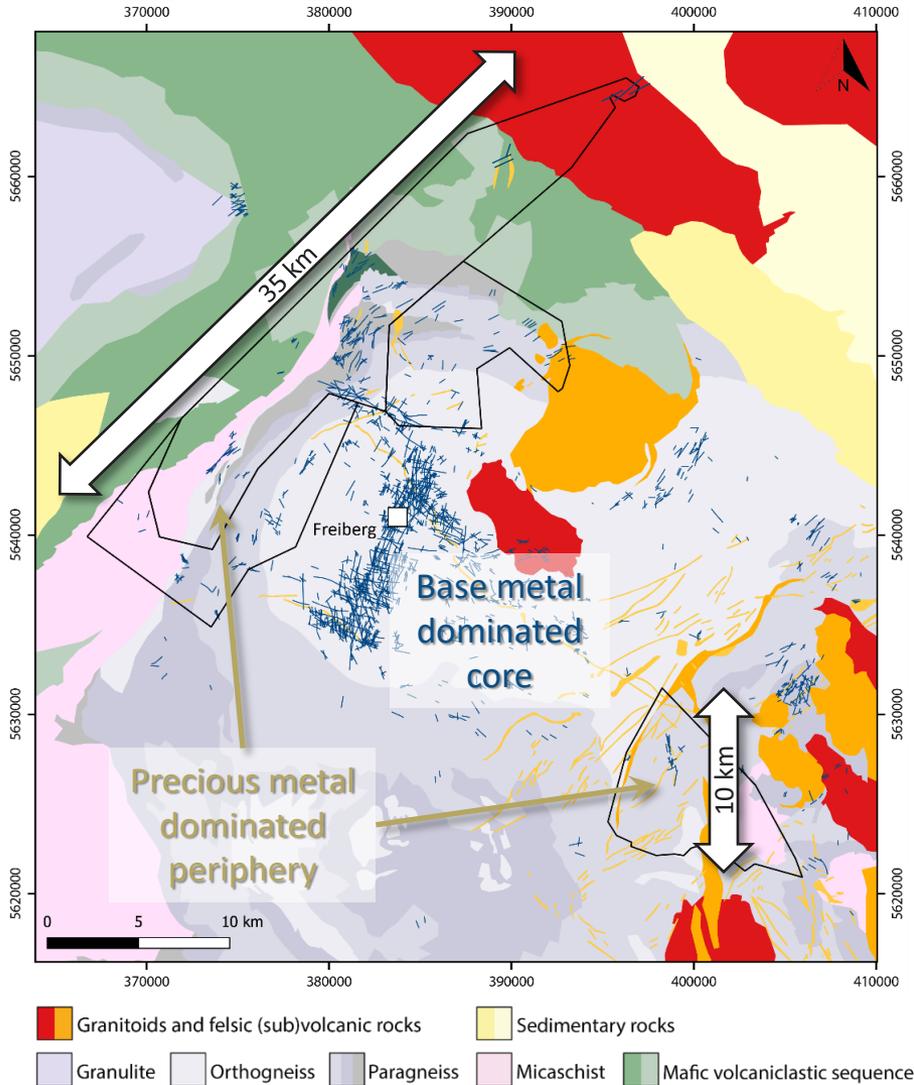
Closing Operation Plan

Permitted
Mining Operations



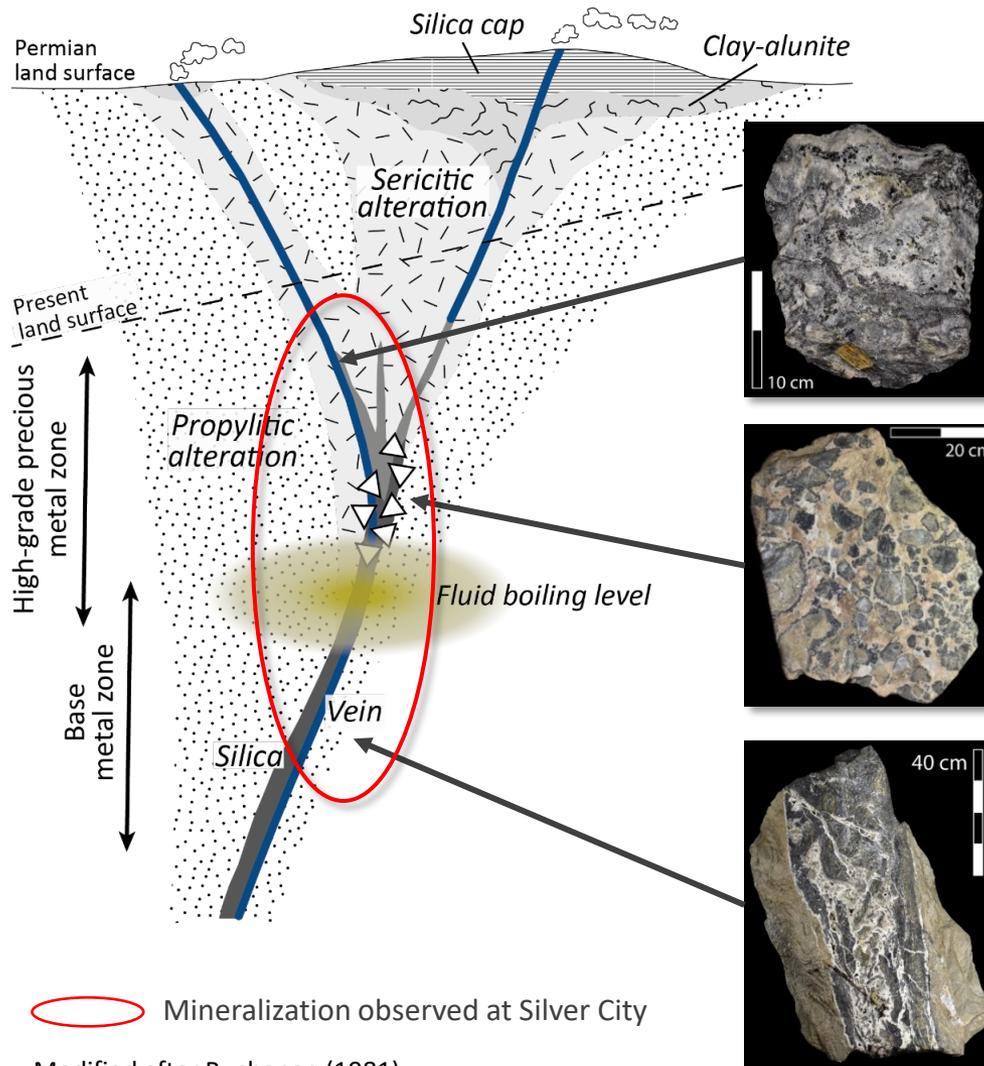
GEOLOGY OF THE FREIBERG SILVER DISTRICT

REGIONAL GEOLOGY



- Variscan gneiss dome surrounded by schists
- Paleozoic mafic volcanic rocks and clastic sediments
- Carboniferous to permian igneous rocks
- District with over 1000 NE-SW striking silver - base metal quartz-carbonate veins
- **Peripheral** zones are **silver** dominated (EXN license areas)
- E-W striking cretaceous barite-fluorite veins

FREIBERG EPITHERMAL Ag-Pb-Zn MINERALIZATION

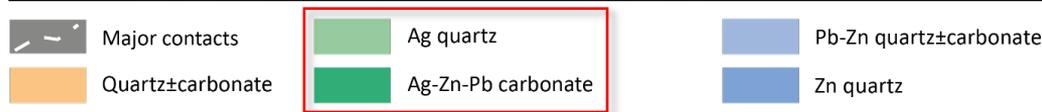
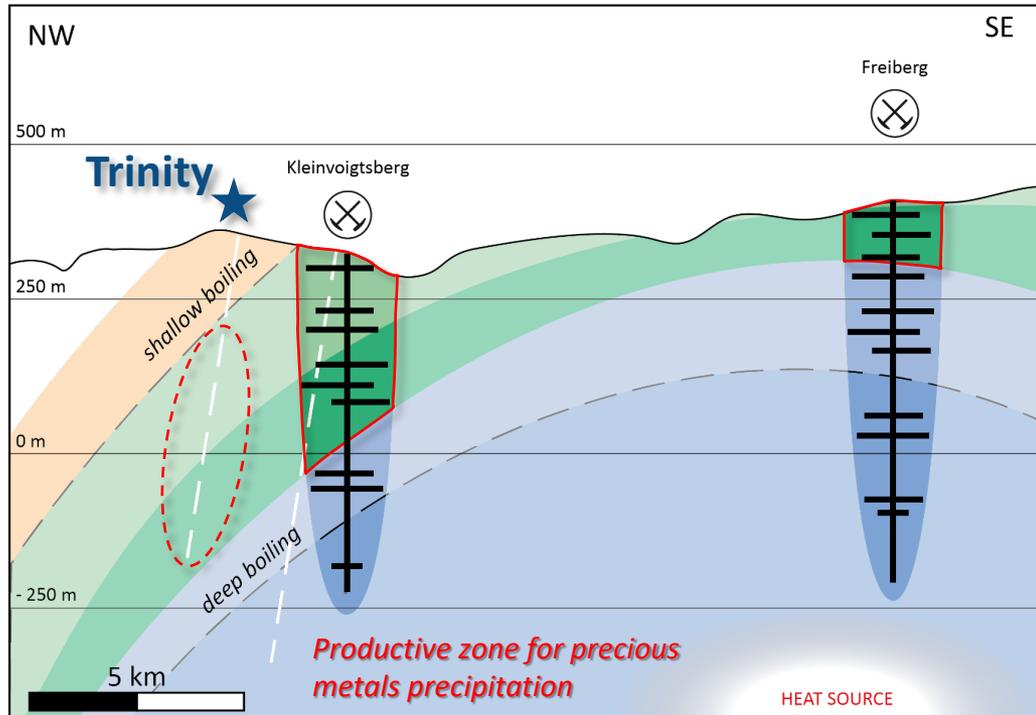


Modified after Buchanan (1981)

- Intermediate to low sulfidation epithermal deposit Ag-(Au), Pb-Zn-(Cu) analogous to Mexican deposits
- District and depth zoning in mineralization
- Silver concentration increases successively toward shallower depths and in distal parts of the district
- Average Ag-grade 4.9 kg/t Ag
(Swinkels et. al 2021 on mineral collection samples)

GENETIC MODEL FOR FREIBERG MINERALIZATION

Two productive contacts, twice the potential



DISTAL low sulfidation epithermal ← silver enrichment → PROXIMAL intermediate sulfidation epithermal

Modified after Swinkels et al. (2019, 2020)

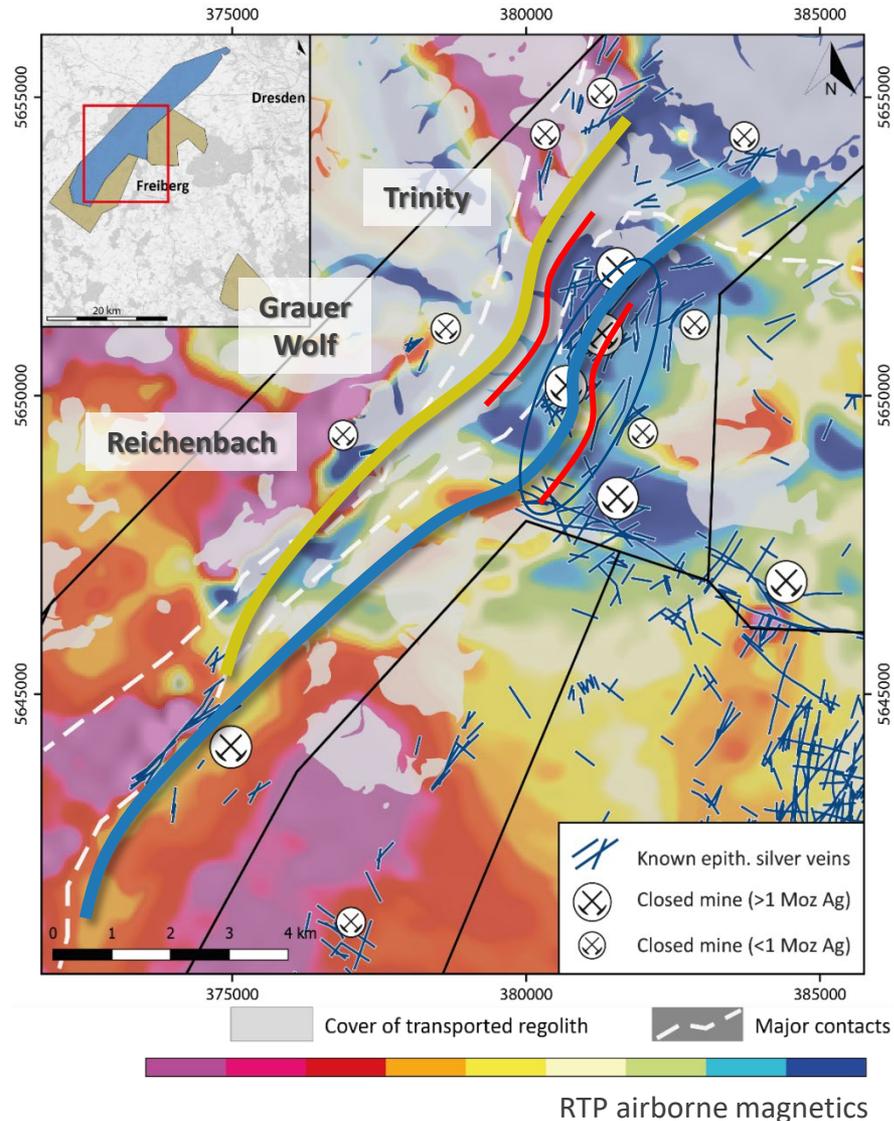


Quartz hematite vein
@ 0.5 ppm Au, 4 ppm
Ag, 155 ppm As

- Vein float at Trinity represent quartz-hematite material considered to be a distal “silver barren cap” above the high-grade sulphide ore (Swinkels et al. 2020).

SILVER CITY CENTRAL TREND

Deformation and dilation



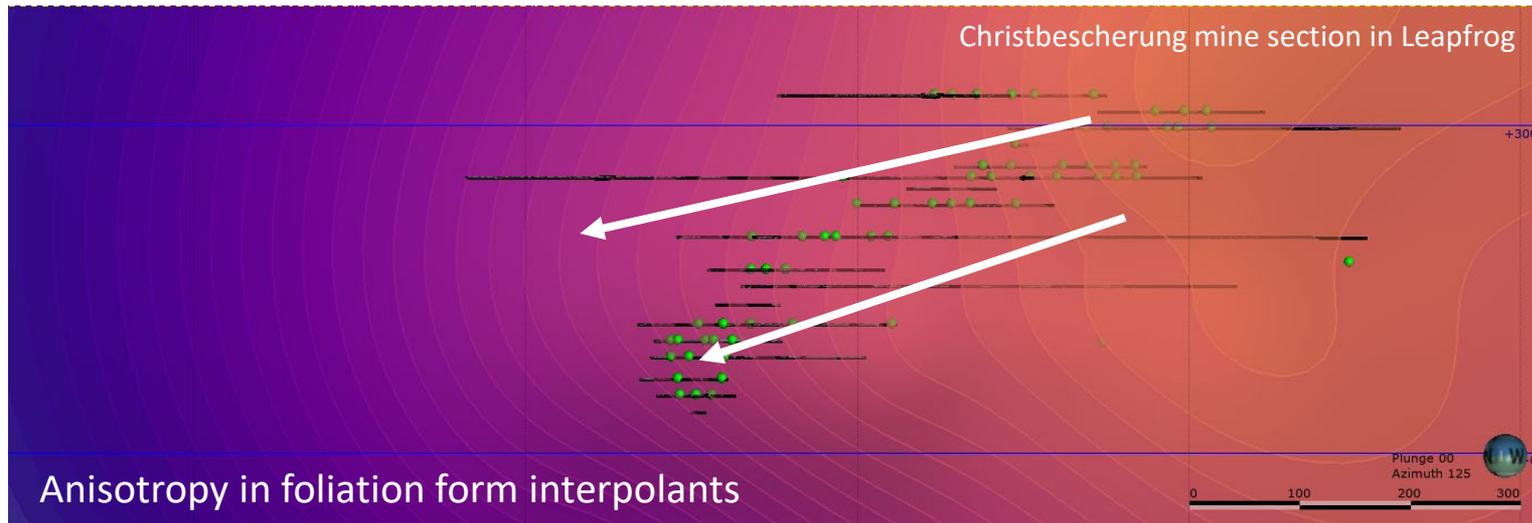
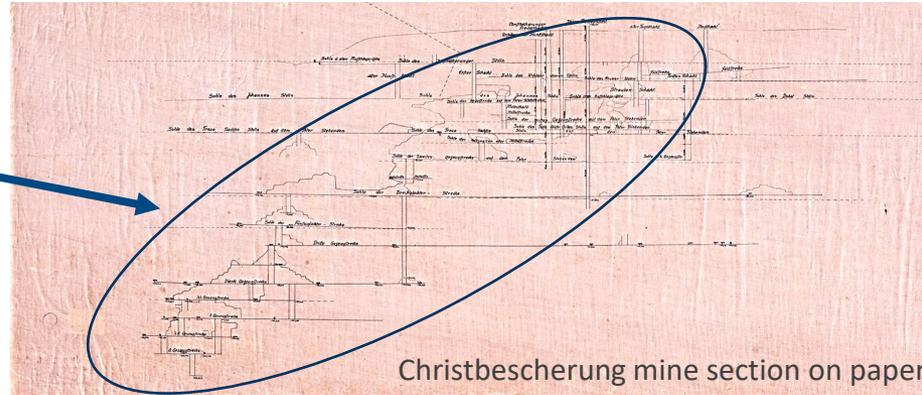
- Most of the historical production was exploited from the major kink along the gneiss - mica schist contact
- **Fluid flow concentrated in dilation zones opened along curvilinear N-S striking contacts**
- The northern schist-mafic contact, which is predominantly under cover, has the same regional structural features and negligible historical mining
- Excellon's drilling in 2020 **confirmed high-grade silver mineralization** along this contact
- The Trinity target occurs at the contact between the mafic and schist units on a large flexure and at the intersection of two generations of mineralized structures

-  Historically mined trend at gneiss - mica schist contact
-  Mafic trend - evolving potential for new significant discoveries

SILVER CITY CENTRAL TREND

Deformation and dilation

Stopes following the plunging ore shoot on Peter vein at the Christbescherung mine (Großvoigtsberg)

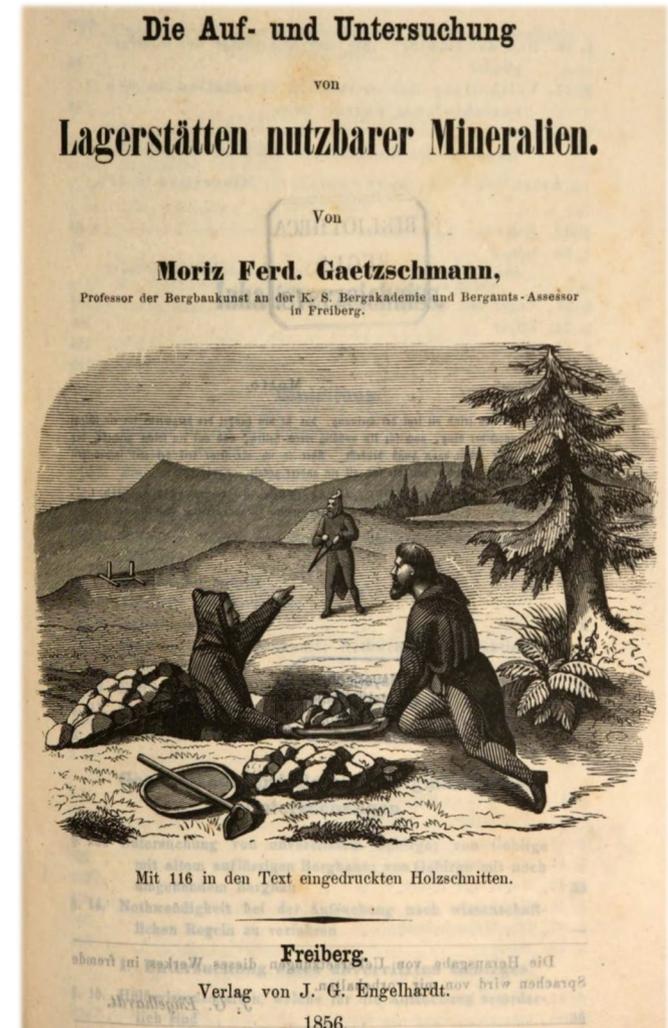


- Identification of dilation zones and potential ore shoots by structural modelling

THE PAST IS THE KEY TO THE PRESENT

Historical approach to find new deposits

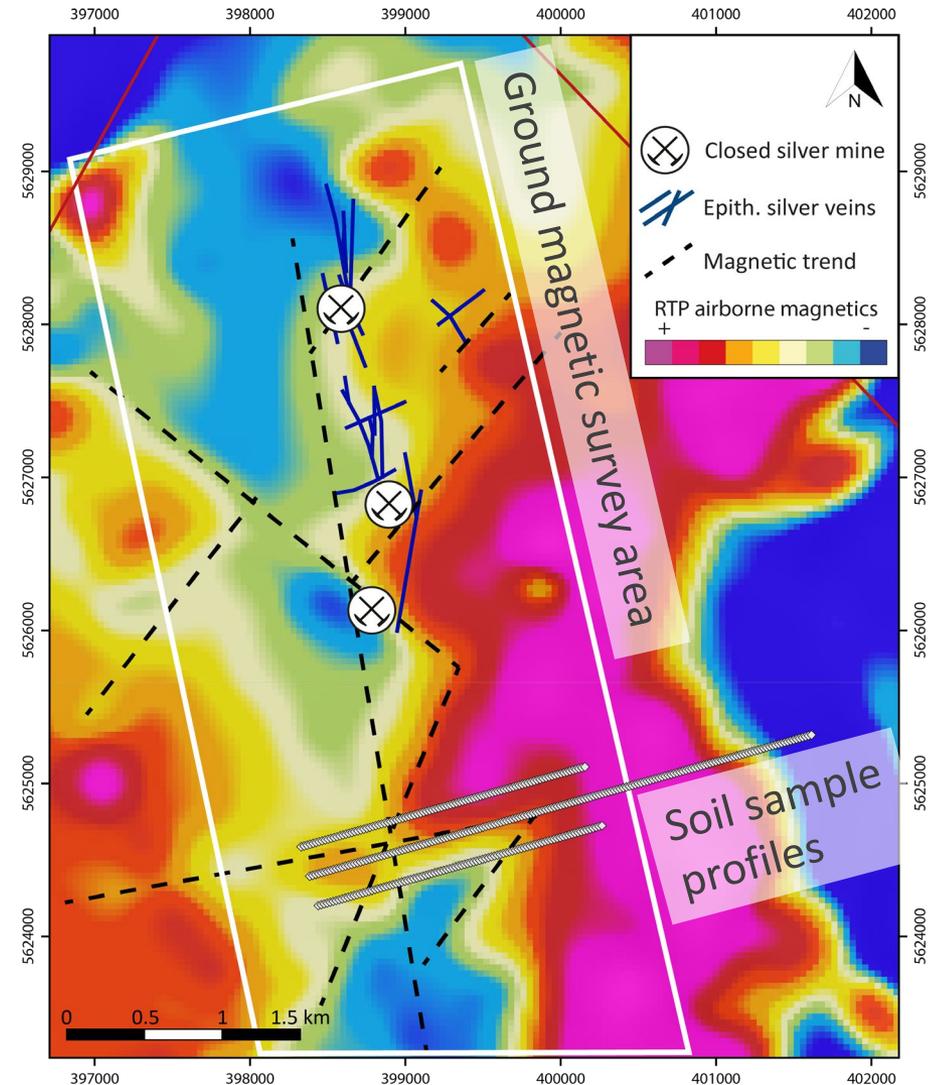
- Understand the limits of historical mining and exploration techniques
- Why did the mines close?
 - Water and/or geotechnical reasons
 - Political and/or economical reasons
 - Ore grade
- Which areas were difficult to explore with historical techniques?
 - Thick soil cover
 - Missing outcrops



SILVER CITY 2022

Future work plan

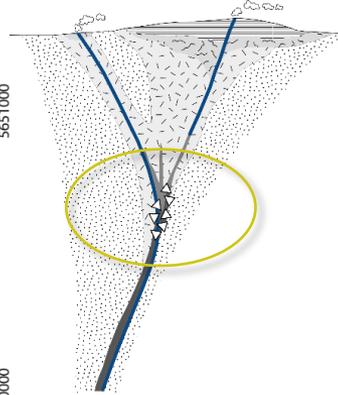
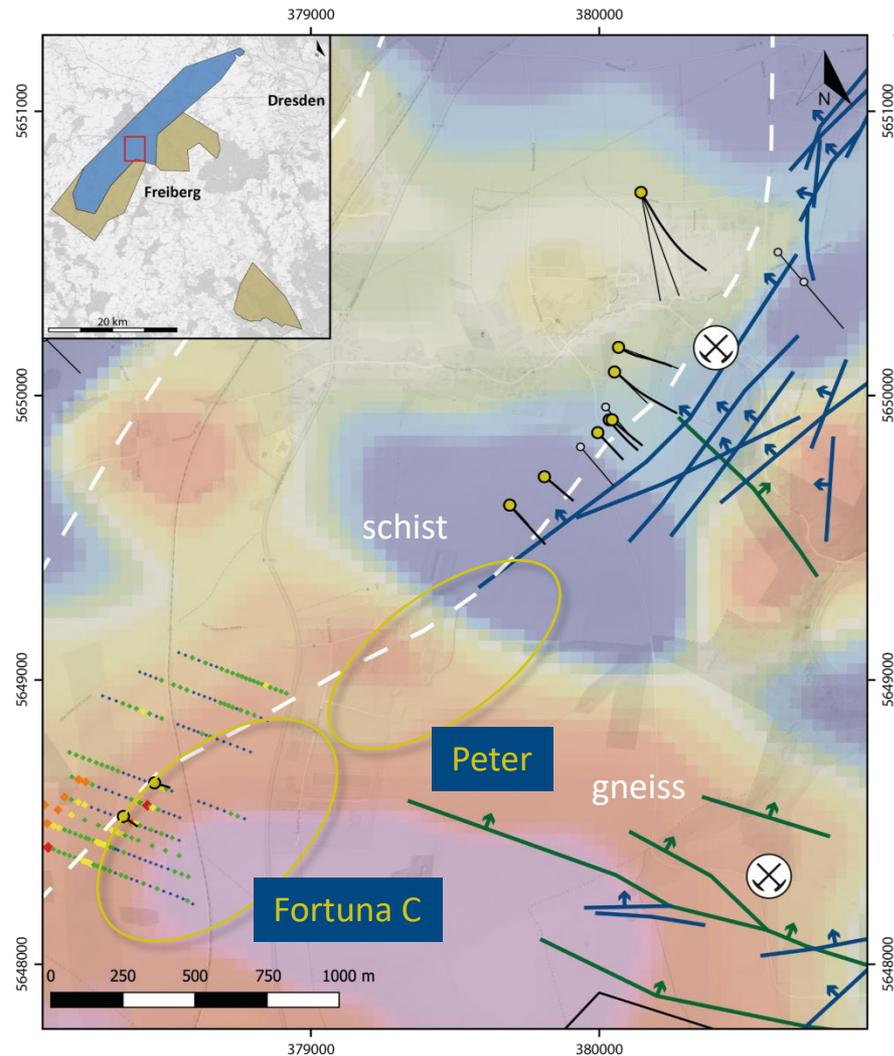
- Ground magnetic survey and inversion
- Soil geochemistry orientation study and sampling
- Archive data research
- Drill testing of lateral and vertical continuation of known mines
- Refinement of target areas by 3D modelling



Frauenstein mine trend

PETER & FORTUNA C TARGETS

Schist-gneiss contact targets



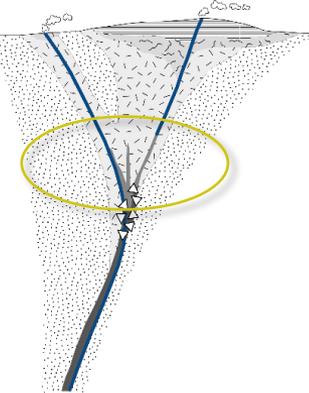
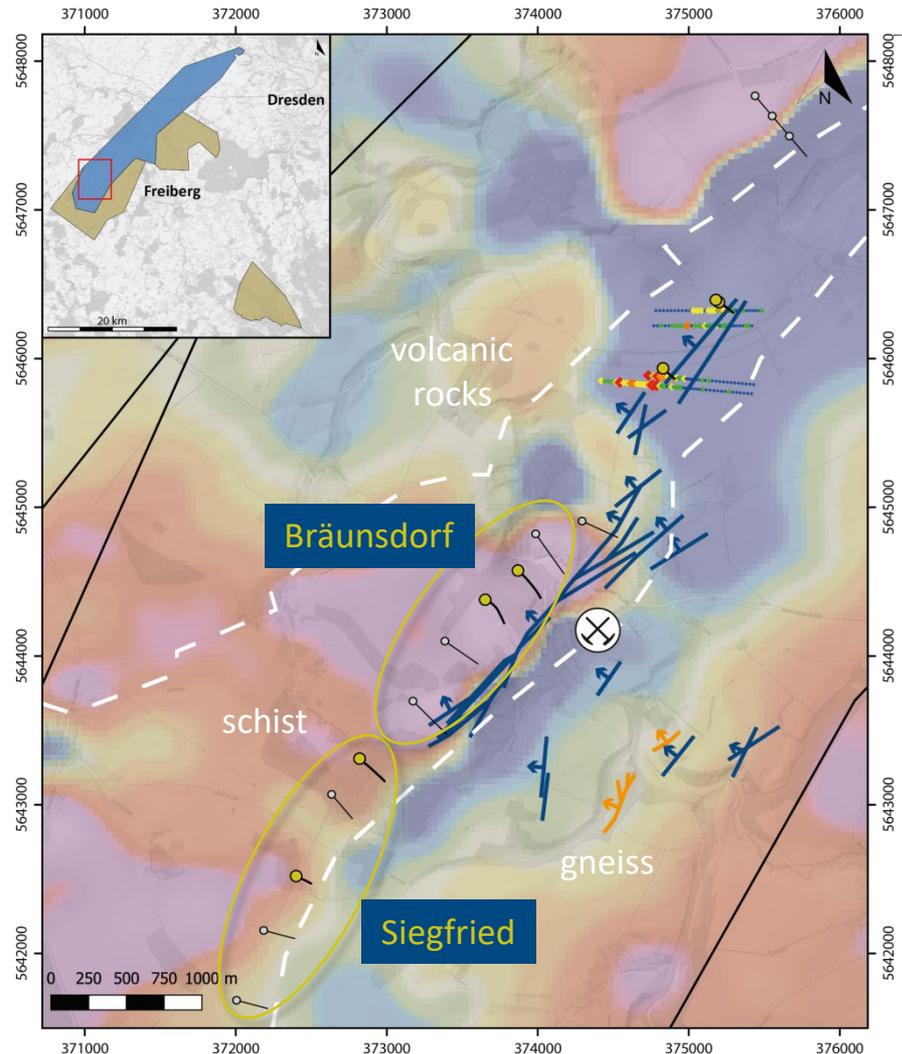
- Southern continuation of the Peter Vein along the mica schist - gneiss contact
- Mineralization encountered in shallow depths 110m below surface
- Precious metal and base metal mineralization
- Historical workings indicate mineralization until > 300m below surface

Epith. silver veins
 Flourite-barite veins
 Major contacts
 Completed hole
 Permitted hole
 Bi soil geochemistry

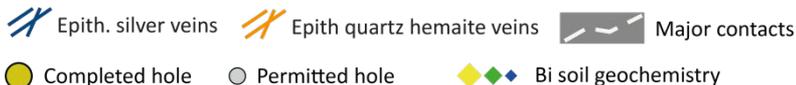
RTP airborne magnetics

BRÄUNSDORF & SIEGFRIED TARGETS

Schist-gneiss contact targets

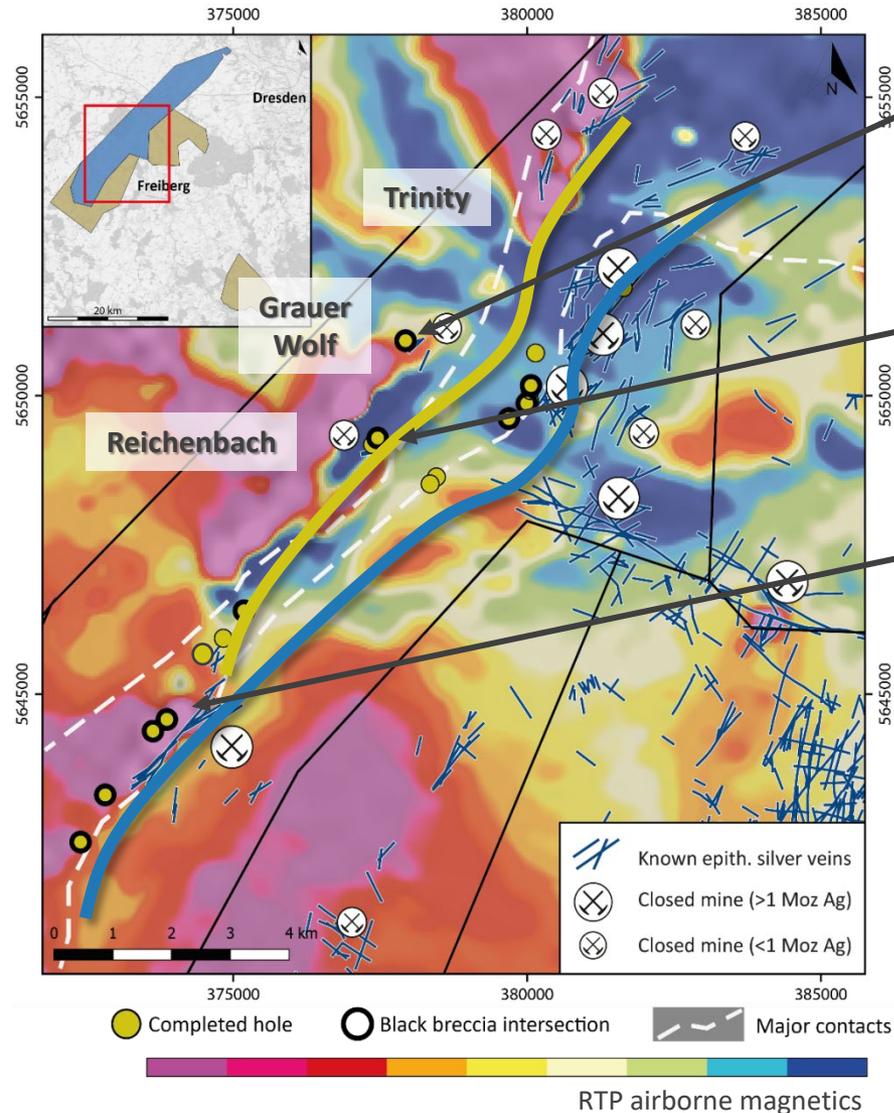


- Major contact between gneiss and mica schist
- Magnetics indicate an extension of the structure SW to the Siegfried target
- Primary precious metal mineralization and subordinate base metals
- Historical workings indicate mineralization to > 300m below surface



NEW DISCOVERIES ON MAFIC TREND

Mafic contact has significant potential for new discoveries



SC20GWO012 **1.2 m @ 331 g/t AgEq** (325 g/t Ag, 0.1 g/t Au)



SC21REI024 **mineralized breccia over 4.5 m**

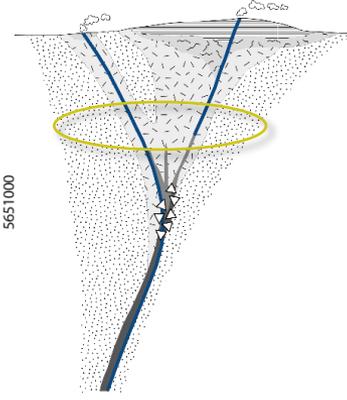
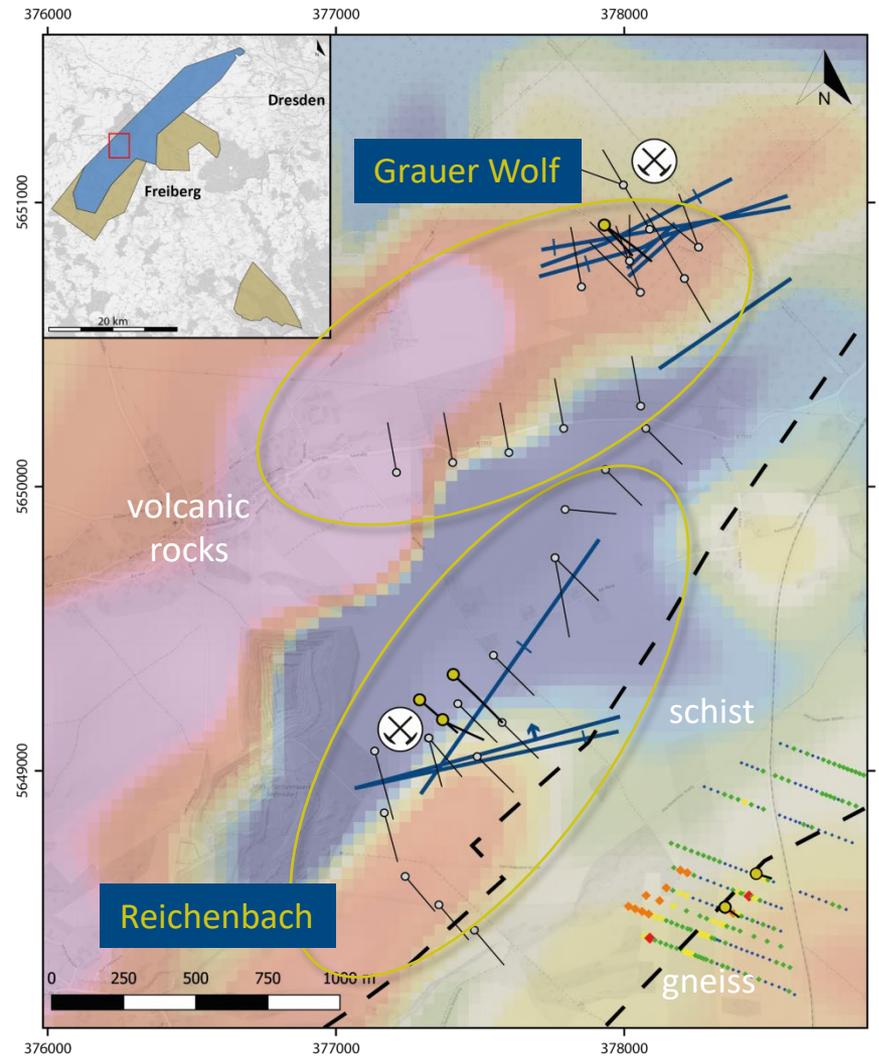


AGBR0120 **0.35 m @ 319 g/t AgEq** (300 g/t Ag, 0.2 g/t Zn, 0.2 g/t Au)

- Mafic trend reveals the same structural repeat with high-grade intersections in drilling as the historically mined areas
- Majority of the mafic trend is unexplored and under cover with productive zone expected to be deeper

GRAUER WOLF & REICHENBACH TARGETS

Mafic-schist contact target



Pyrargyrite veinlets



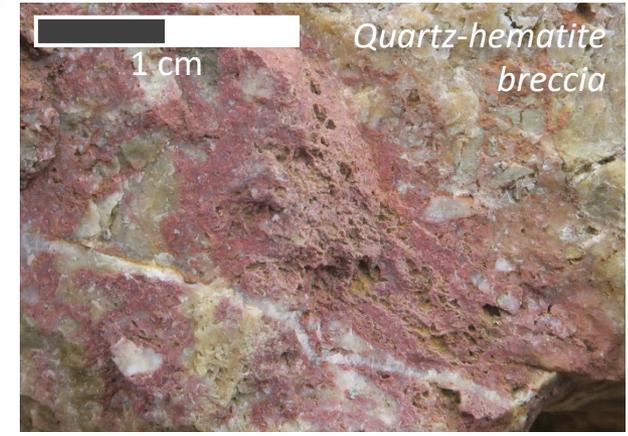
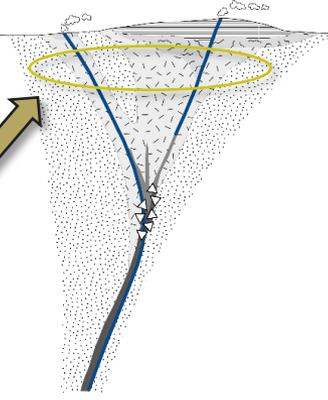
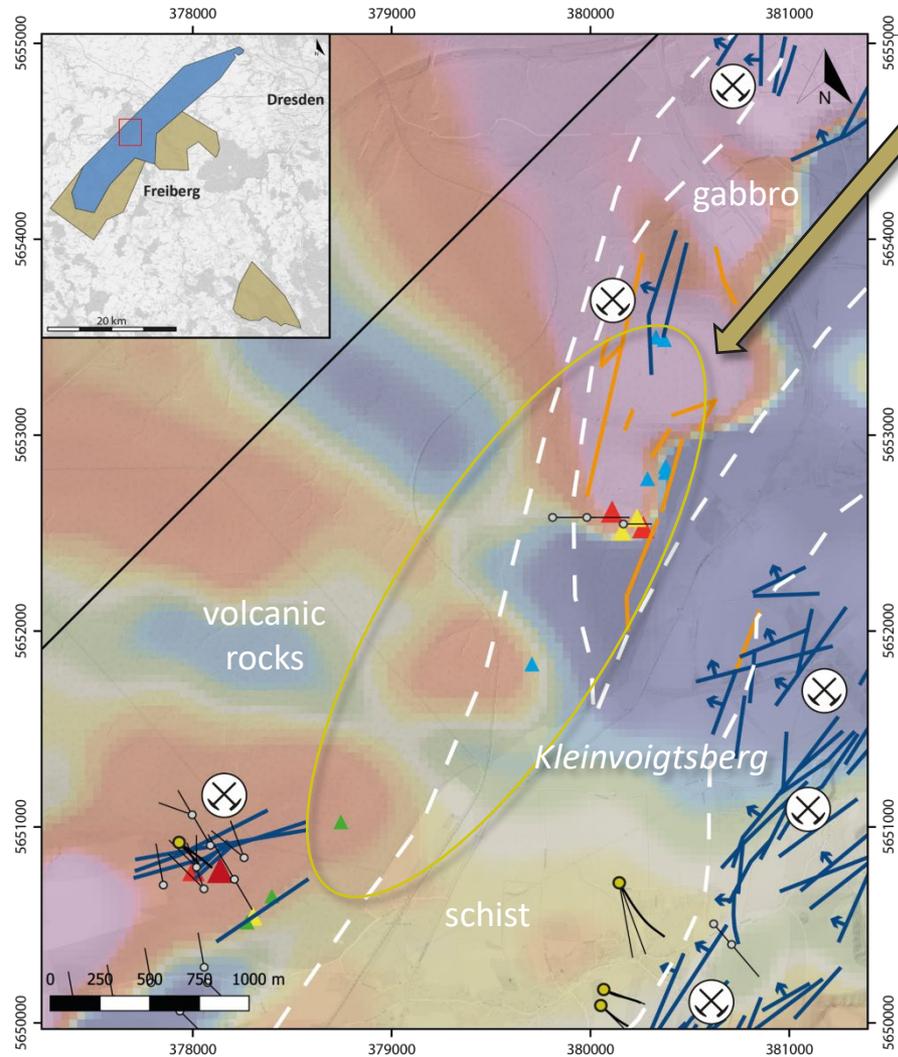
- Mineralization at shallow depth 70 m from surface
- Silver-rich mineralogy and shallow boiling indicates a distal mineralization with down dip continuation
- Historical workings until 35 m from surface

Epith. silver veins
 Fluorite-barite veins
 Major contacts
 Completed hole
 Permitted hole
 Bi soil geochemistry

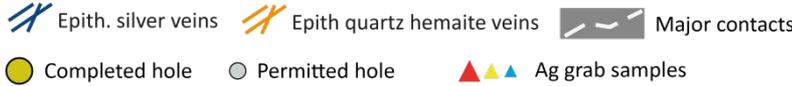
RTP airborne magnetics

TRINITY TARGET

Newly defined 2021 Target



- N-S striking contacts represent a prospective structural setting similar to Kleinvoigtsberg
- Abundant quartz-hematite float with anomalous Ag (up to 12 g/t) and As values. Similar samples contain up to 2 g/t Au
- High level boiling zone with expected target depth at 80-100m below surface





OUR TEAM

VISION

To Create Wealth

MISSION

We realize strategic opportunities through discipline and innovation for the benefit of our employees, communities and shareholders.