

Geology and mineralization of the Borba 2 copper-gold property, Alentejo, Portugal

A National Instrument 43-101 Technical Report for:

Location

N (4,286,568), E (639,090) WGS84 UTM Zone29N

EUROPACIFIC METALS INC

By

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6th March 2023

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1. SUMMARY

The Borba 2 concession lies in the Alentejo region of southern Portugal, 180 km east by road to Lisbon and approximately 70 km east to Évora, the Alentejo regional capital. It is 328.51 km² in area and lies within the Estremoz, Borba, Vila Viçosa and Alandroal municipalities, in the Évora district. It is elongated in a NW-SE direction with approximate dimensions of 35 km x 10 km. Access to most parts of the concession is excellent via paved roads.

Since the 28th of October, 2021, the current holder of the mineral rights in the concession is EVX Portugal Lda., under a contract between EVX and the Environment and Climate Action Ministry through the Energy and Geology General Directorate (DGEG). The agreement (MN/PP/003/21) gives EVX the rights to explore for gold, copper, zinc, lead, silver, tin, tungsten and associated metals. EuroPacific Metals acquired from EVX an initial 70% equity interest in the company.

Rio Tinto explored the area for epithermal gold deposits during the early 1980's. They were followed by Carnon Holdings Ltd in the early 1990's and by Auvista Minerals from 1996 to 1998, mainly targeting copper and gold. Rio Narcea Gold Mines from 2004 to 2007, and later in 2007-2009 in a joint venture (JV) with Kernow Resources, conducted intense studies in the area. Between 2007 and 2008 Maepa completed some work while Colt Resources was the last company to do exploration, but in 2017 they dropped the concession due to financial problems.

The geology of the area comprises Precambrian, Cambrian, Ordovician and Silurian meta-sedimentary units with some metavolcanics that lie in the Ossa Morena litho-stratigraphic province of the Sousel-Barrancos metallogenic copper belt (Mateus et al, 2012). The Estremoz Anticline and the Messejana fault represent the main tectonic structures. The 42 km x 8 km anticline trends NW-SE and extends from Sousel to Alandroal. The NE-SW striking Messejana fault extends for at least 500 km between Odemira and Ávila; it is a late Variscan structure with a left lateral movement. As well as its copper, iron and gold-bearing deposits, the area is known for its high-quality ornamental marble.

Areas of interest on the Borba 2 property include several historic base and precious metal workings, some of which produced copper, gold and silver. Mineralization is generally hosted in shear-related quartz ± carbonate veins which extend for many hundreds of meters on strike and to depth. The veins are mostly steeply dipping and trend NNW-SSE. They contain pyrite and chalcopyrite with sporadic sphalerite, galena, and tetrahedrite-tennantite, commonly with arsenopyrite. Near-surface weathering has resulted in supergene enrichment with secondary copper minerals such as malachite, azurite, cuprite, pseudo-malachite and libethenite.

Many of the epigenetic copper deposits were exploited during the 19th and early 20th century; these included Miguel Vacas, Bugalho, Mostardeira and Mociços which are all located in the license area. It should be noted that despite its long history of mining, no proven metal reserves or resources exist on the Borba 2 concession.

The old Miguel Vacas Cu mine area represents the most favourable target in the Borba 2 concession. Records show that between the 1920's and 1990, 346 068 tonnes of oxide copper mineralization were reportedly mined but due to poor recovery only 895 tonnes of Cu metal were produced. Copper grades ranged from 0.6 to 0.7 % in the early years of the operation but later reached up to 1.4%. However, the reader is strongly cautioned that this tonnage and metal grade data is not NI 43-101 compliant and should be treated with extreme caution.

In 1972 after drilling 20 holes, the Mining Exploration International group estimated that Miguel Vacas had a “resource” of 5.54 million tonnes containing 68,186 tonnes of Cu metal, averaging 1.24% Cu. However, the reader is warned that these historic “resource” and metal grades are not NI 43-101 compliant and must be treated with scepticism.

The Bugalho copper deposit was mined intermittently between 1866 and 1900 and there are records of 9 mine levels to a depth of 200 m. The deposit is associated with a 1 km long fault zone, trending N-S to NE-SW. The main vein is 1.2 m thick and was mined over 800 m along strike.

The Almagreira deposit was initially mined for the iron and manganese oxides hosted by a gossan. However, more recent exploration has revealed its gold potential. Drilling in 2005 by Rio Narcea intersected several auriferous sections. These included 5.45 m grading 1.53 ppm Au and another 2.47 m assaying 2.44 ppm Au in hole PMA 01, with 2 m containing 3.65 to 3.90 ppm Au in hole PMA 02. Rocks in this area include mineralized and epithermally altered volcanics and carbonates that were controlled by an E-W structure which extends more than 400 meters along strike.

At Mostardeira, the mineralization occurs in milky quartz veins hosted by carbonates. It includes chalcopyrite, pyrite, arsenopyrite, native copper, tetrahedrite-tenantite and lesser sphalerite (Brandão, J. M., Matos, João, 2000). Surface channel sampling by Rio Narcea Gold Mines in 2006 on a 150 m section of the main vein showed grades of more than 2 ppm Au. Trenching revealed a 18.6 m section grading 0.8 ppm Au, 0.3% Cu and 20 ppm Ag; this included a 4.9 m wide zone assaying 2.1 ppm Au, 0.76 % Cu and 64 ppm Ag. However, the reader is warned that this assay data should be regarded with extreme caution due to it not being NI 43-101 compliant.

At the Mociços deposit, the mineralised fault zone is hosted in Ordovician and Silurian metasediments occupying the Mociços synclinal. The main vein reaches 4.5 m in thickness and over 1000 m in strike length. Near surface, the brecciated quartz contains iron oxides and copper carbonates, but at deeper levels there is chalcopyrite with pyrite.

To date, EuroPacific has done some initial work on the property. This included a thorough re-examination of the historic mining and drilling data, as well as some prospecting and visiting the old mines sites. Six rock grab samples were taken which gave highly encouraging assay values. One from Miguel Vacas (sample B2R-003) assayed 6.5% Cu, 2.18 ppm Ag and 0.07 ppm Au, while the two collected at Mostardeira (samples B2R-005 and 006) contained respectively 4.2 ppm Au with 9.6 ppm Ag, and 1.3 ppm Au with 8.5 ppm Ag (Table 4). It should be noted that there was sample bias because these six grab samples were chosen due to the presence of visible sulfides. Consequently, the values do not necessarily represent typical metal grades on Borba 2.

During the next two seasons, EuroPacific Metals plans to conduct a robust exploration project on the concession. This will include geological mapping and rock-soil sampling, as well as completing a geophysical survey (possibly magnetics, radiometrics, IP and/or EM) over selected areas. Miguel Vacas will be a primary target, with others such as Bugalho, Almagreira and Mostardeira. Once favorable drill targets have been selected, EuroPacific Metals will start a drill program involving 750 m of drilling.

Up to September 2022, EuroPacific Metals has spent 170,416 Euros on the Borba 2 concession. A further 128,500 Euros and 299,500 Euros respectively are budgeted for the 2023 and 2024 seasons (Table 6). Drilling is budgeted for the 2024 plan including 650m in total.

2. INTRODUCTION

The writer was commissioned by EuroPacific Metals to visit and investigate the Borba 2 exploration concession which is located in the Central Alentejo region of Portugal. This was to complete a NI 43-101 report on the project.

The concession lies close to Évora and the Spanish border (Figure 1). The central point of the property is at N4,286,568 E639,090 in WGS84 UTM 29 N coordinates (meters). Access to the area can be made by excellent paved roads from Lisbon and Évora as shown in Figure 1.

The main commodities in the concession are copper, gold and silver. There are five prominent target areas for exploration; from NW to SE these are Mostardeira, Miguel Vacas, Almagreira, Bugalho and Mociços.

This NI 43-101 report is based on the abundant historic mining and exploration data produced by Serviço de Fomento Mineiro (SFM), Instituto Geológico Mineiro (IGM), RioFinEx, Auvista, Prominas, Rio Narcea, Maepa and Colt Resources. It summarizes the past exploration and mining activities completed on the concession and recommends that further exploration should be done on this promising property.

The writer wishes to acknowledge the significant contribution that EuroPacific Metals, through its partnership with Indice Crucial has made in the large volume of data that was made available to the writer for his evaluation of the concession. That work was completed in a most professional manner and presented as such with the helpful contribution of Mr. Frederico Martins, Geologist, who has a wide knowledge of the regional geology along with field experience on the project area.

All measurement units are expressed in compliance with the International system, and currency is in Euros (€) unless referred to in other units. Other abbreviations include: Au (gold), Ag (silver), Cu (copper), As (arsenic), Pb (lead), Zn (zinc), Sb antimony, Hg (mercury), Mo (molybdenum), Bi (bismuth), K (potassium), tones (metric tonnes), ppm (parts per million) and ha (hectares).

3. RELIANCE ON OTHER EXPERTS

The information in this Technical Report has been gathered from sources which the writer believes to be reliable. It includes data previously reported by SFM, IGM, Rio Finex, Auvista, Rio Narcea, Maepa and Colt Resources.

The validity of the Borba 2 concession is authenticated by government documentation and by the valid contract between EVX Portugal and the Environment and Climate Action Ministry through the Energy and Geology General Directorate (DGEG). In 2021, EuroPacific Metals acquired the majority of EVX Portugal and is currently the major holder of EVX Portugal with a participation of 70%. The remaining 30% can be acquired. Information from these sources was provided by Qualified Persons, and the writer accepts the data as valid.



Figure 1 – Location map of the Borba 2 concession (arrow) showing the main administrative districts in Portugal.

4. PROPERTY DESCRIPTION AND LOCATION

The Borba 2 concession is situated in southern Portugal (Figure 1) in the central Alentejo region and encompasses an area of 328.51 km². It is elongated in a NW-SE direction, representing a block that is 35 km long and 10 km wide. It lies approximately 180 km east by road from Lisbon and approximately 70 km east from Évora, the Alentejo region capital. It is close (< 10 km) to the small towns of Estremoz, Borba, Vila Viçosa and Alandroal.

Borba 2 is located in the counties of Estremoz, Borba and Vila Viçosa in the Évora district. These include the parishes of Estremoz Union (Santa Maria and Santo André), Arcos, Glória, Rio de Moinhos, Borba

(Matriz), Nossa Senhora da Conceição, São Bartolomeu, Bencatel, Ciladas, Pardais, Alandroal Union (Nossa Senhora da Conceição, São Brás dos Matos e Juromenha, Terena and Capelins).

The area's geometry is irregular and was defined by 15 vertices (Figure 2) which are depicted in Table 1. The Portuguese government employs a different grid system than UTM's, in this case ETRS89 Portugal TM06 (PT-TM06/ETRS89). Both coordinate systems sets are presented below; for all other maps the UTM system (Zone 29) using the WGS84 datum will be used.

Table 1 – Reference points in the Borba 2 exploration concession (in meters)

Point	X (PT-TM06/ETRS89)	Y (PT-TM06/ETRS89)	X (UTM29N)	Y (UTM29N)
1	69250	-119998	644729	4271998
2	65430	-113460	640848	4278498
3	53540	-99565	628830	4292277
4	48150	-99560	623441	4292231
5	43350	-93540	618586	4298204
6	64350	-96050	639604	4295893
7	72750	-105000	648086	4287025
8	70920	-107100	646277	4284908
9	75215	-107750	650577	4284299
10	74875	-114005	650296	4278043
11	75475	-115260	650908	4276793
12	77230	-115215	652662	4276855
13	77425	-115510	652860	4276562
14	76120	-116715	651566	4275345
15	75160	-119998	650637	4272054

PT-TM06/ETRS89 is the global reference system recommended by EUREF (European Reference Frame) and its establishment in Portugal was possible due to several international campaigns (1989, 1995 and 1997) that had the purpose to connect the Portuguese network with Europe. This system replaced the old Datum 73, established in the 70's.

The current holder of the rights and obligations in the concession since the 28th of October 2021 is EVX Portugal Lda., under a contract between EVX and the Environment and Climate Action Ministry through the Energy and Geology General Directorate (DGEG). EuroPacific Metals acquired from EVX an initial 70% equity interest and is the present sole operator of EVX Portugal.

The contract for the Borba 2 area was signed for a 3 year period starting in October 28, 2021, with the possibility of an additional two-year extension. After the 3 years period ends (October 28, 2024), the original concession area must be reduced by 25%. At the end of the 5th year (October 28, 2026) a mining lease may be applied for. The major holder of the concession, EuroPacific Metals, owns the rights to carry out exploration and research activities for gold, copper, zinc, silver, lead, tin, tungsten and associated metals.

The surface rights are held by various private entities and are available for negotiation. There has been a long history of mining in the concession area and the local population should not represent a potential problem. Sub surface rights are held by the concession owners. Close to Borba and Vila Viçosa, and within the Borba 2 concession, there are extensive marble quarries for ornamental stone. This mining is an important economic booster for the region and highly important at a national level. The concession holder

has the right to appeal for temporary occupation and in some cases expropriation of the ground if justified.

Figure 3 shows the location of the main exploration targets in the area for Cu ± Au and the other known mineral occurrences within the concession, as listed in the Portuguese Geological Survey database (SIORMINP by LNEG).

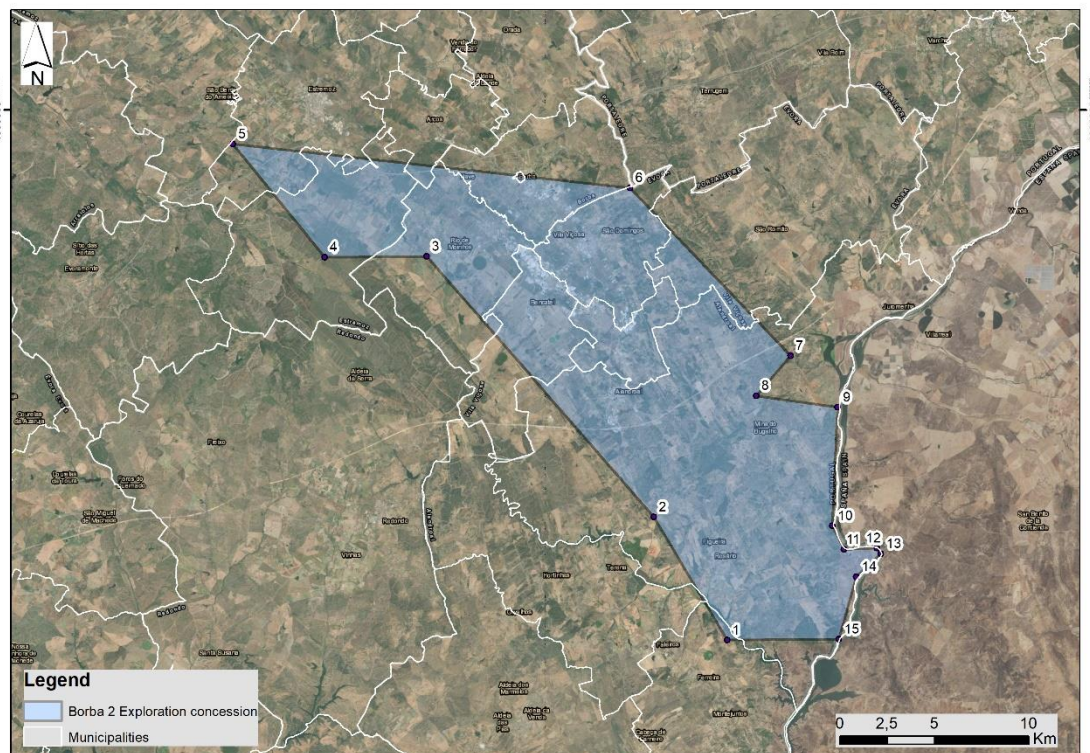


Figure 2 – A satellite image with the Borba 2 concession polygon which is defined by 15 points.

To the best of the author’s knowledge, there are no environmental liabilities associated with the concession due to previous work. There has been no legal actions or lawsuits that may jeopardize the proposed exploration program for the full five years contract period. All taxes have been paid.

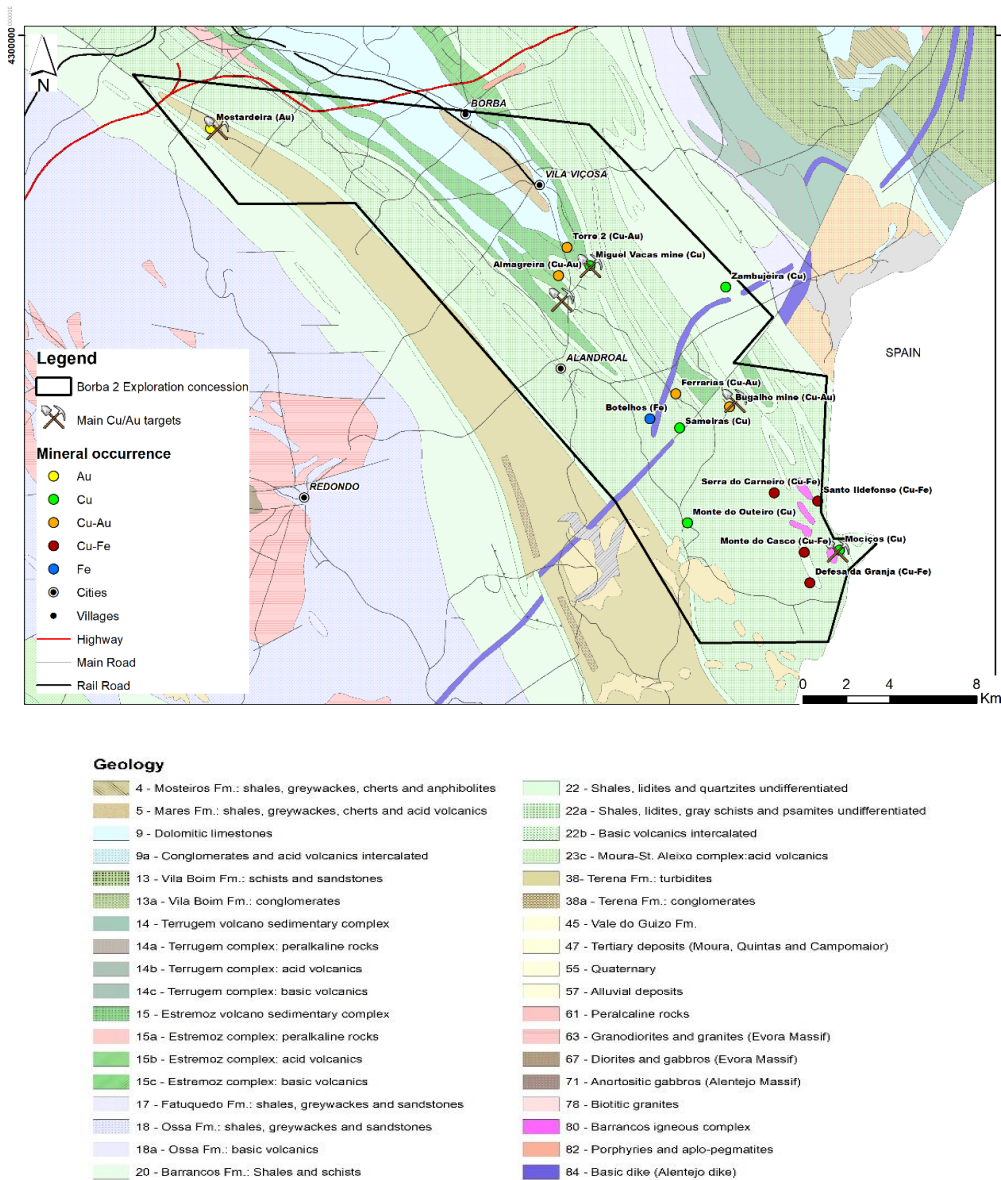


Figure 3 – General geology map of the Borba 2 district (1:500 000) showing the known mineral occurrences (SIORMINP-LNEG)

5. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

From Lisbon or Évora there is easy road access to Borba and Estremoz, as well as paved access to the urban areas within the concession area (e.g. Alandroal and Vila Viçosa). Most of the concession can be reached via gravel roads and trails, and all parts are accessible by foot.

The NW-SE trending, 42 km by 8 km Estremoz Anticline represents one of the main tectonic structures in the area. The older Precambrian and Cambrian rocks in the Anticline core are more resistant to erosion than the Ordovician and Silurian rocks, resulting in relief variations between 140 to 505 m above sea level, with the highest points located between Borba and Vila Viçosa. The topography is gentler from Alandroal to Colmeal in the southernmost part of the concession.

The region has a temperate Mediterranean climate, with short, mild winters with little precipitation and long, hot, and dry summers. The summers have temperatures reaching 40° C. Average annual temperatures vary between 15°C and 17.5°C. The relative humidity decreases in summer and fluctuates between 70 and 80% in winter. Due to its distance from the coast, the area experiences considerable daily thermal amplitudes.

The towns of Estremoz, Vila Viçosa, Borba and Alandroal are located within the concession and their population is around 12,683, 7,388, 6,428, and 5007 inhabitants, respectively. From Estremoz, access to Borba (12.8 km), Vila Viçosa (20 km) and Alandroal (26 km) can be made by good paved roads (N4 and N255). Farm-lands dominate the south part of the concession; these are mostly occupied by cork and olive trees, as well as scrubland that is used for pasturage. Many parts between Estremoz and Alandroal have marble workings that extend along a 20 km geological belt.

Abandoned mine buildings and tailings are present at the Mostardeira, Miguel Vacas and Bugalho mine sites. High voltage power is available locally and the property is crossed by important streams that drain into the Guadiana River which runs along the eastern portion of the concession. The Miguel Vacas open pit is flooded and could provide a water source for diamond drilling.

6. HISTORY

Historic records indicate that Roman-era mining for copper, iron, manganese and other minerals took place in the Borba 2 area. The main exploration targets on the property lie in the vicinities of the Miguel Vacas (Cu), Mociços (Cu), Mostardeira (Au, Cu) and Bugalho (Cu, Au) historic mines.

At Miguel Vacas between 1925 and 1929, the British firm G.F. Norton & Co., performed important reconnaissance and mine exploration work. This included organizing the water drainage and driving more than 1000 meters of exploration adits. Three shafts were opened for mineral extraction and ventilation. But the firm did not start operating due to the economic post 1929 depression.

In 1948-1949 an American firm, American Smelting and Refining, carried out a study of the shallow parts of the Miguel Vacas deposit. In order to check the continuity of mineralization, they drilled 3 diamond holes that intersected the vein system between 151, 181 and 240 m depth. However, the firm eventually abandoned the work (Gomes and Parreirão, 1987).

Two Portuguese mining companies carried out small-scale quarrying of the mineralization from 1950 to 1953. They sold the mined concentrate to the national refinery CUF. From 1956 to 1979 EMIL (Empresa de Mineração, Sarl) held the ground. In 1965, EMIL signed an agreement with a Canadian company, Mining Exploration International (MEI), and both executed a comprehensive investigation of the Miguel Vacas deposit. Exploration included surface and underground geochemical sampling, geological mapping, and trenching; this was concentrated on the mineralized structures. A 20-hole drilling project totaled 4,093 m and tested depths from 60 m to 330 m. However, the company then abandoned the project for economic reasons.

In 1979 EMIL was acquired by Minargol – Sociedade Mineira de Argozelo, Sarl who planned to mine the Cu oxide mineralization at Miguel Vacas, which represented an 80 m thick supergene zone. Extraction was carried out by deepening the previous small open pit. Beneficiation was performed by heap leaching using sulfuric acid, followed by electrolytic recovery using metal scrub. The mine operated until 1986, with a reported total of 215 000 tonnes extracted, which produced 481.3 tonnes of copper metal. These poor recoveries were apparently the main reason for the subsequent mine closure. A potential investor should

note that this production data is not compliant with NI 43-101 regulations and thus should be regarded with great caution.

Around 1990, the British firm Carnon Holdings Ltd carried out a regional exploration program in the Vila Viçosa – Alandroal area, with particular attention to the old Miguel Vacas mine. Carnon examined the old data and estimated that three million tonnes of mineralized rock was present with an average grade 1.42% copper. However, this estimation is not viable because it lacks NI 43-101 credibility.

The old Bugalho mine was registered in 1866 and operated intermittently until 1900 (Brandão and Matos, 2000). Records indicate that underground galleries reached down to 120 m in depth.

The first reference to the Mociços mine was in 1868 under the name " Mina da Cova do Monge" where iron was mined from the gossans, similarly to other nearby mines. It was later worked for copper and operated between 1919 and 1934 as the ancient "Mina de Cobre da Granja" concession by Empresa Mineira do Rosário, LDA. In 1922 two different concessions were demarked over the mine camp (Defesa da Granja nº2 and Defesa da Granja nº3). It is likely that only the near surface oxidized zone was exploited. In 1982, two holes were drilled by SFM; these reached depths of 90.35 m and 152.85 respectively.

At Almagreira, iron and manganese were extracted before the 19th century, and continued intermittently until 1933. The mineralization consisted of hematite and pyrolusite, concentrated in lenticular masses within Ordovician meta-volcanics.

The Mostardeira mine began producing copper in 1863. Two shafts were driven down to a 100 m depth. One was for mine extraction and the other for underground drainage. Up to 1894, around 2,000 tonnes of mineralized rock were reportedly exported, although this production data must be regarded with caution.

7. GEOLOGICAL SETTING AND MINERALIZATION

7.1 REGIONAL GEOLOGY

The property lies in the OMZ (Ossa Morena Zone) which is the tectono-stratigraphic unit between SPZ (South Portuguese Zone to the south) and CIB (Centro Iberian Zone to the north) in continental Portugal. The OMZ is composed of distinct sectors (Figure 4) and the area of interest is located in the Sousel/Estremoz-Barrancos sector. This is limited to the north by the Alter do Chão-Elvas zone and to the south by the Montemor-Ficalho sector and the Santo Aleixo da Restauração thrust. Regionally, there are major structures and rock units that include the Messejana fault, the Barrancos Igneous Complex and the Estremoz and Ferrarias Anticlines.

The general lithostratigraphic sequence in Barrancos, close to the Terena Syncline and the Estremoz Anticline is representative of the Estremoz-Barrancos sector (Oliveira, 1991). The oldest unit is the Ossa Formation (Middle Cambrian), which contains shales and psammites, with intercalations of metavolcanics at the base. Above this is the Ordovician Barrancos Formation comprising gray, green and purple shales. At its base are intercalations of felsic and mafic volcanics. These vary in thicknesses from a few meters in the Estremoz Anticline to 200 m north of Barrancos. Overlying this unit is the Colorada Formation (Upper Ordovician). This comprises shales, psammites and bioturbated sandstones, above which is the Silurian Xistos com Nódulos Formation, containing graphitic shales with lydites and lesser limestones. It varies in thickness from 100 to 150 m.

The overlying, 200 m thick Xistos Raiados Formation contains Early Devonian shales and psammities. This overlaps the Russianas Formation (Lower Devonian) which is marked by interbedded shales, psammities and calcarenites. At the top of this stratigraphic sequence is the Upper Devonian Terena Formation which has a turbiditic succession with pelites, greywackes and conglomerates. This unit partially overlies the older succession and is exposed along an extensive, NW-SE trending syncline. (Oliveira et al., 1991).

The NE trending Messejana fault is at least 500 km in length and extends between Odemira in SE Portugal to and Ávila in Spain. It represents a late Variscan structure with left lateral movement which has been reactivated during the Alpine Orogeny and caused uplift of rocks to the south-east.

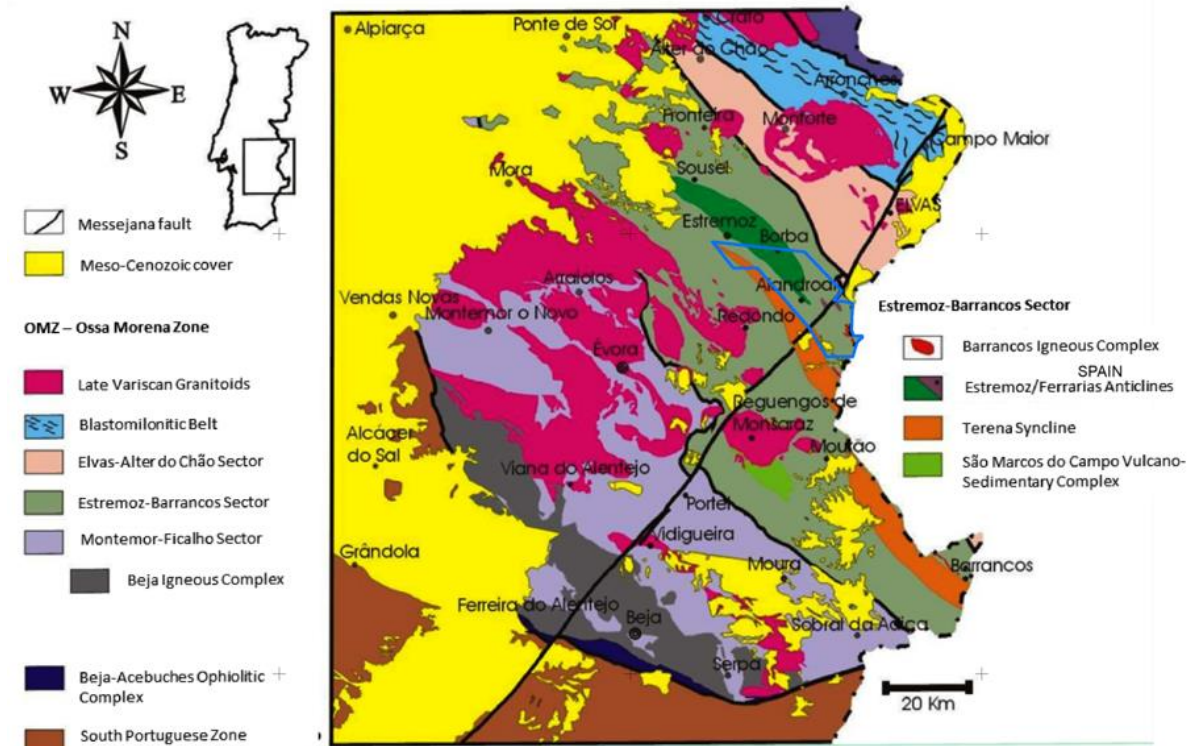


Figure 4 – The main sectors of the Ossa Morena Zone (adapted from Oliveira et al, 1991). Note location of the Borba 2 concession (blue border)

7.2 LOCAL GEOLOGY

The 328.51 km² Borba 2 concession lies in the Sousel/Estremoz-Barrancos sector of the Ossa Morena Zone. The Estremoz and Ferrarias Anticlines, the Terena Syncline and the Messejana fault represent the main geological structures (Figure 5). The stratigraphic sequence of the Estremoz antiform was initially established using correlations with the Alter do Chão-Elvas sector. The oldest part of the sequence is occupied by the Mares Formation which comprises black shales, greywackes and cherts. This basal unit is seen at two localities, both in the axial zone of the structure. It is probably Neo-Proterozoic in age, correlating with the Mosteiros Formation which lies NE of Alentejo. It discordantly follows a volcanoclastic member consisting of conglomerates, arkoses and felsic volcanics. On this member rests, discordantly, the Dolomitic Formation. This consists of dolomitic limestones with several siliceous units that may be Lower Cambrian in age (Carvalhosa et al., 1987 and Oliveira et al., 1991). At the top there is a siliceous horizon that locally host sulfide mineralization, and Oliveira (1984), Carvalhosa et al. (1987) and Oliveira et al. (1991) regarded this to be an important stratigraphic marker.

In the Ferrarias Antiform, the oldest rock is a thin horizon of dolomitic limestones which may correlate with the Dolomitic Formation in the Estremoz Antiform (Oliveira, 1984). The overlying Carbonated-Vulcano-Sedimentary Complex of Estremoz (CVSCE) has marbles and intercalations of felsic and mafic metavolcanics. Above the CVSCE lies impure quartzites, lydites and black shales of uncertain age. Gonçalves et al. (1974) believed it is Lower Cambrian in age while Oliveira et al. (1984) and Carvalhosa et al. (1987) suggest it is Ordovician.

The long, NE-SW striking Messejana fault is a deep structure that extends from Aljezur and S. Teotónio, through Messejana and extends to Placencia in Spain. This large, regional-scale fault system is spatially related to Mesozoic-age igneous rocks (Schermerhorn et al., 1987) that correspond to the so-called 'grande filão do Alentejo'. This represented an episode of magmatism derived from great depths.

Several veins and dikes occur in the Alandroal-Juromenha region. Petrographically they can be divided into two groups, one dominated by quartz and carbonates, the other includes dikes of mafic, doleritic rocks. These rocks are discordant or oblique to the trend of the country rocks. The former trend NE-SW while latter strike NW-SE. The mafic rocks are barren but some of the quartz-carbonate veins contain Cu-Au mineralization. All rocks in the district underwent low grade, greenschist facies regional metamorphism (Oliveira, 1984).

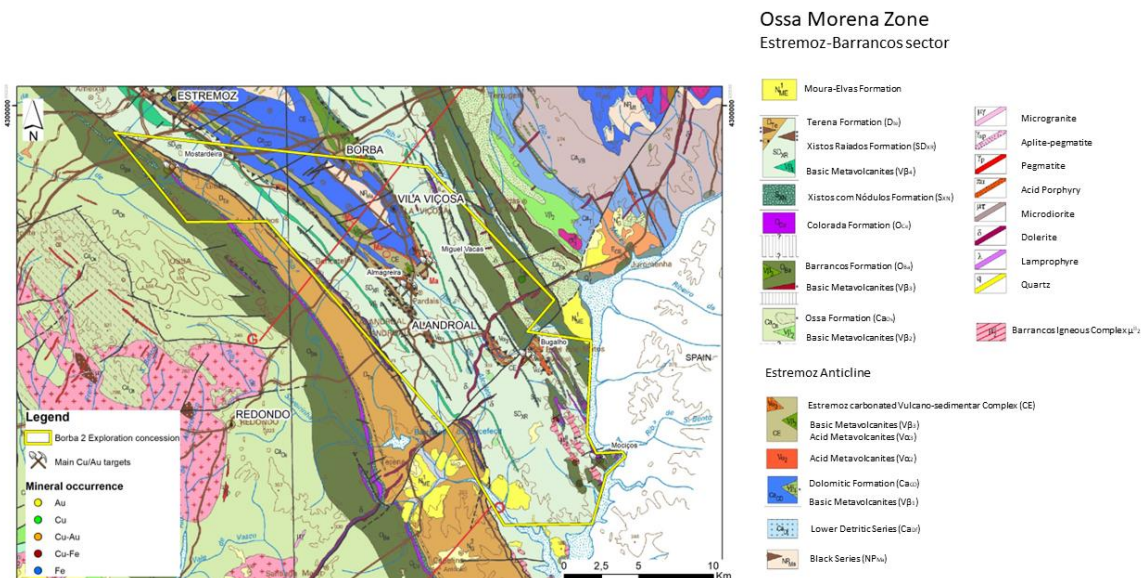


Figure 5 – Borba 2 regional geology. (Portugal Geological Map, Sheet nº 6, 1:200 000)

7.3 GEOLOGY AND MINERALIZATION AT SOME OLD MINES

The geology of some old mines and mineral occurrences on the Borba 2 property are described briefly below. From NW to SE, they include those in the Mostardeira, Miguel Vacas, Almagreira, Bugalho and Mociços areas, the best known of which is the Miguel Vacas mine.

MIGUEL VACAS

The Miguel Vacas Cu deposit is located on the NE flank of the Estremoz Anticline, close to the contact between Silurian and Ordovician rocks (Oliveira, 1984) (Fig. 3). The deposit lies in a NNW-SSE striking breccia-vein system that dips 50°-70°E. It is mainly hosted by Silurian carbonaceous shales and is at least 2000 m long and from 10 to 20 m thick. A second, less important vein occurs 500 m east of the main

system. This trends N-S and is hosted by mafic metavolcanics (Oliveira, 1984). The deposit includes mineralized fault breccias, sometimes with hydrothermally altered rock fragments (Mateus et al., 2003). Primary mineralization consists of chalcopyrite with pyrite ± arsenopyrite ± tetrahedrite-tenantite. Chalcopyrite occurs as fractured masses. It is younger than pyrite but predates the arsenopyrite. Tetrahedrite-tenantite is the youngest mineral and it forms small euhedral crystals. The upper parts of the deposit have a supergene enrichment zone that may reach 80 m in thickness. It contains malachite, libethenite, chrysocolla, atacamite and covellite (Oliveira, 1984). Exploration during the 1960's and 1970's identified mineralisation extending down to 330 m below surface.

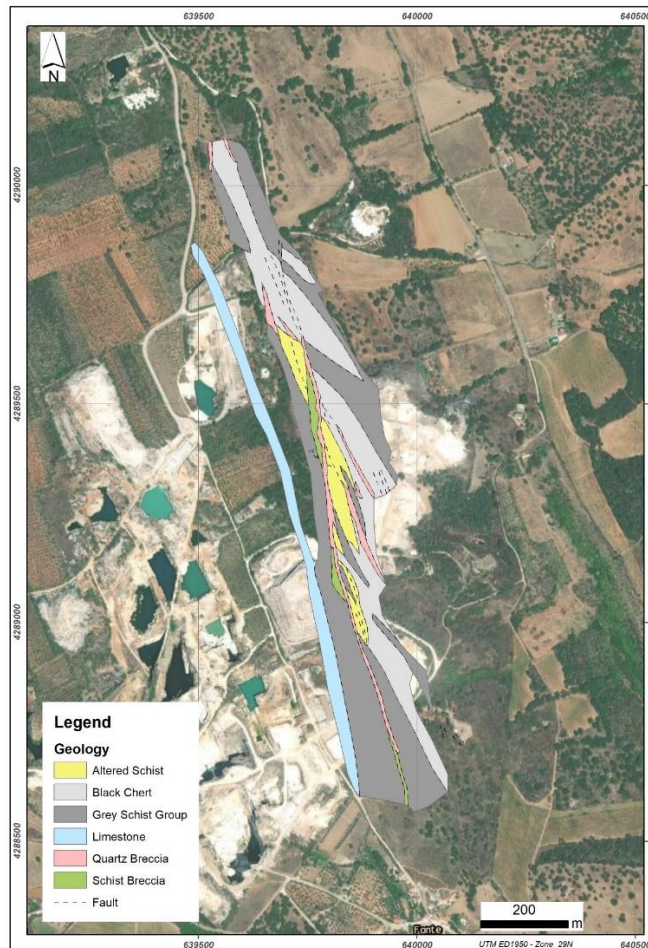


Figure 6 – Miguel Vacas deposit detailed geology (Adapted from Corrula & Branco, 2005)

MOSTARDEIRA

The Mostardeira Cu-Au vein is hosted by Silurian and Devonian meta-sedimentary units (Figure 7). It includes three parallel, ENE-WSW trending veins located in the northern zone of the Terena Syncline, just 2 km from the town of Estremoz. Two of the veins previously mined are shown below in Figure 7. The mineralization includes chalcopyrite, pyrite, arsenopyrite, native copper, tetrahedrite-tenantite and rare sphalerite (Braga 1861; Leuschner 1865; Spengler 1872; Monteiro 1889). In the uppermost parts, there is malachite, cuprite and hematite. The main vein generally ranges from 1 m to > 5 m in thickness and is controlled by a fault zone that has undergone left lateral movements. Underground mining during the late 19th century reached a depth of 120 m. Mapping suggests that the sulfide content increases where the vein cuts greywackes.

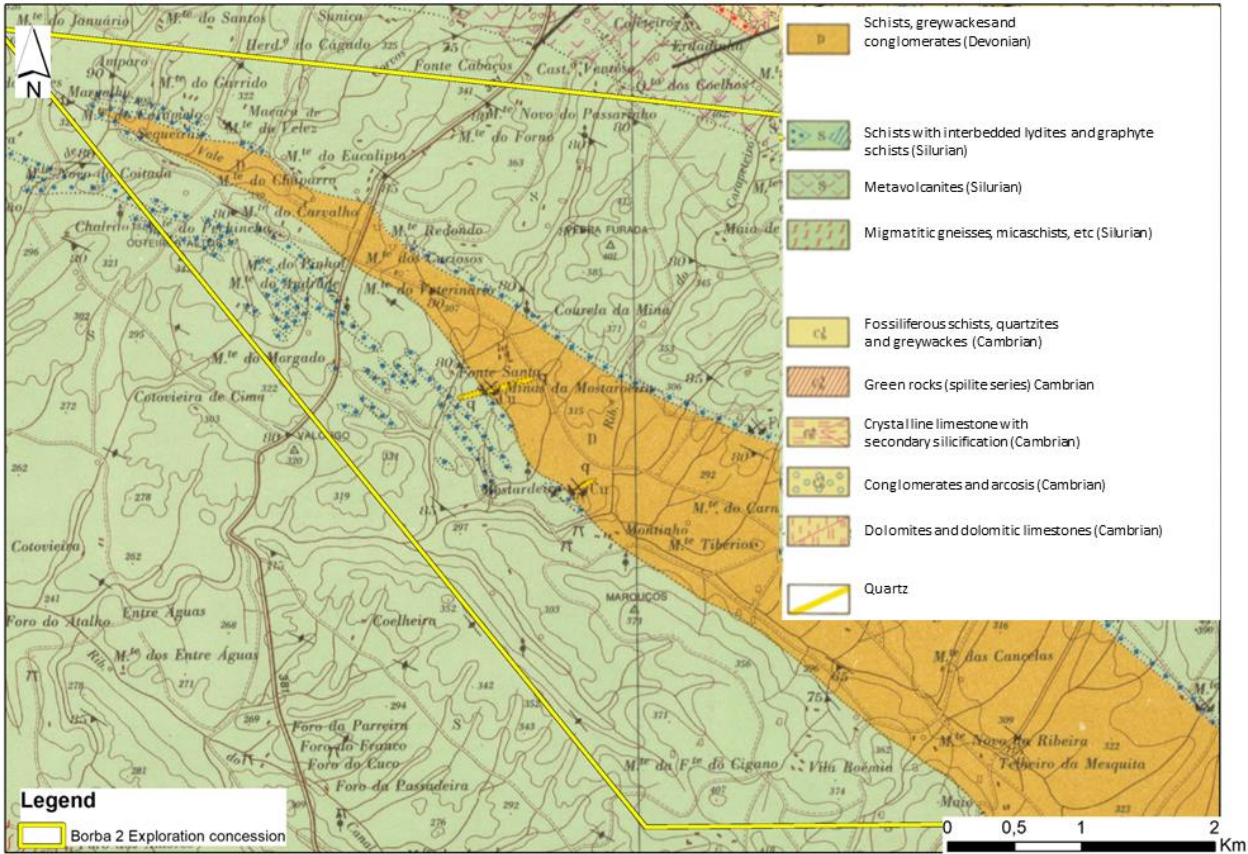


Figure 7 – The geology of the Mostardeira Cu-Au deposit (Geological Map 36-B, Estremoz, 1:50 000). Terena Formation (D), Xistos com Nódulos (S) and Colorada Formation (blue circles).

ALMAGREIRA

In 2005 Rio Narcea produced a detailed, 1:2000 scale geological map of the Almagreira gold prospect (Figure 8) which lies on the SW flank of the Estremoz Anticline and is hosted by volcanics, silicified dolomites, shales and marbles. Geological mapping shows that the Ordovician volcano-sedimentary sequence has the best gold potential.

Colt Resources historic mapping and anomalous Au soil geochemistry indicates the area has NW and SE sectors (Figure 9) that have differing geochemistry. In the NW sector, mineralization is associated with a 40 m thick, strongly altered and gossanous tuff horizon. By contrast, the main mineralized zone in the SE sector lies along an E-W striking, 10 m thick fault structure that is over 400 m in length.

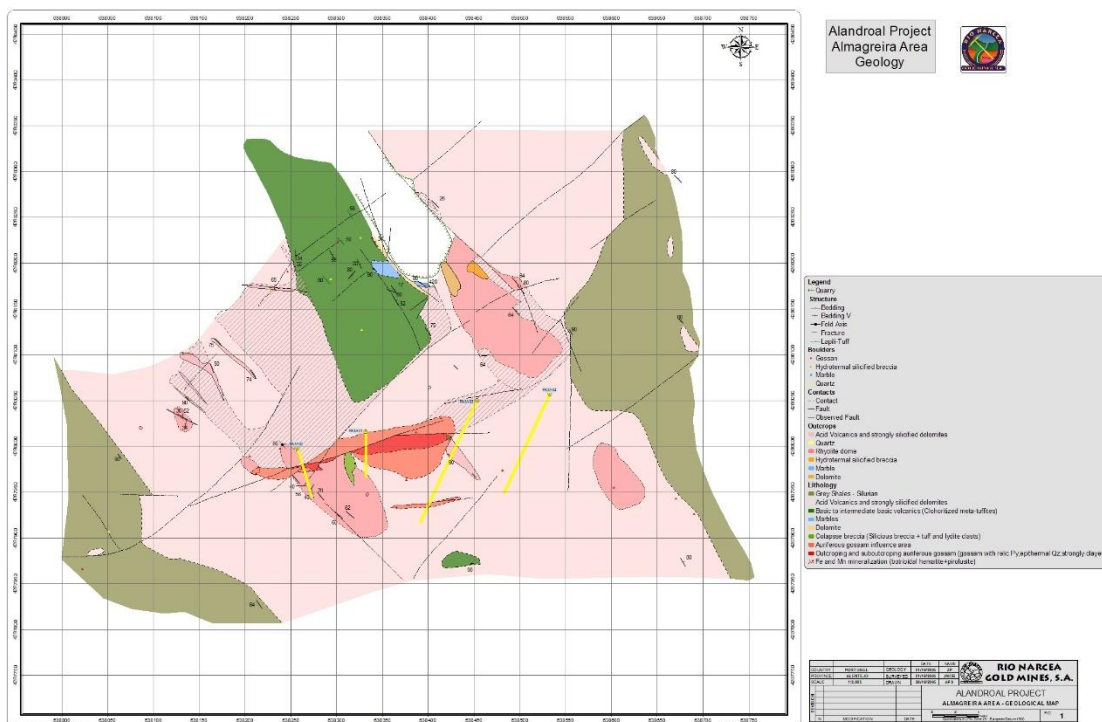


Figure 8 – The geology of the Almagreira area (Rio Narcea, 2005). Coordinates in UTM Zone 29 ED50.

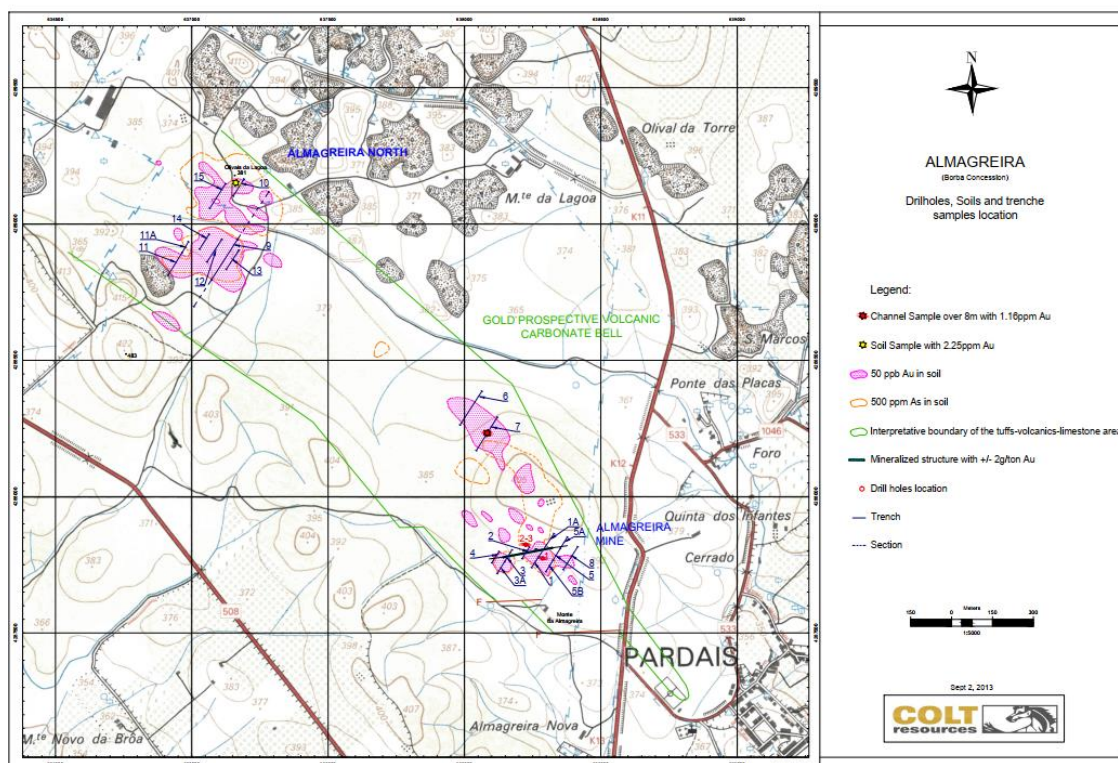


Figure 9 – Almagreira mineralization and its NW and SE sectors. Map showing soil Au and Cu anomalies and the location of drillholes and trenches made in the area by Colt Resources.

BUGALHO

The geology and location of the Bugalho deposit are shown in Figures 10 and 11. Mineralization lies in a quartz vein breccia that is hosted by shales, quartzite lenses and intercalations of lydites belonging to the Charneca Formation. The vein lies on subsidiary structures related to the large, NE-SW trending Messejana fault. The main gold zone occurs along a northern trending shear which is 200 m in length and up to 10 m thick. The main vein is up to 1.2 m wide and was mined along a 1 km distance and down to 200 m below surface. In addition, two other less mineralized veins were identified. Dump samples (Rio Narcea) from the old mine assayed 20% Cu and more that 2 ppm Au. Higher Au values were found in gossans containing pyrite, chalcopyrite and arsenopyrite.

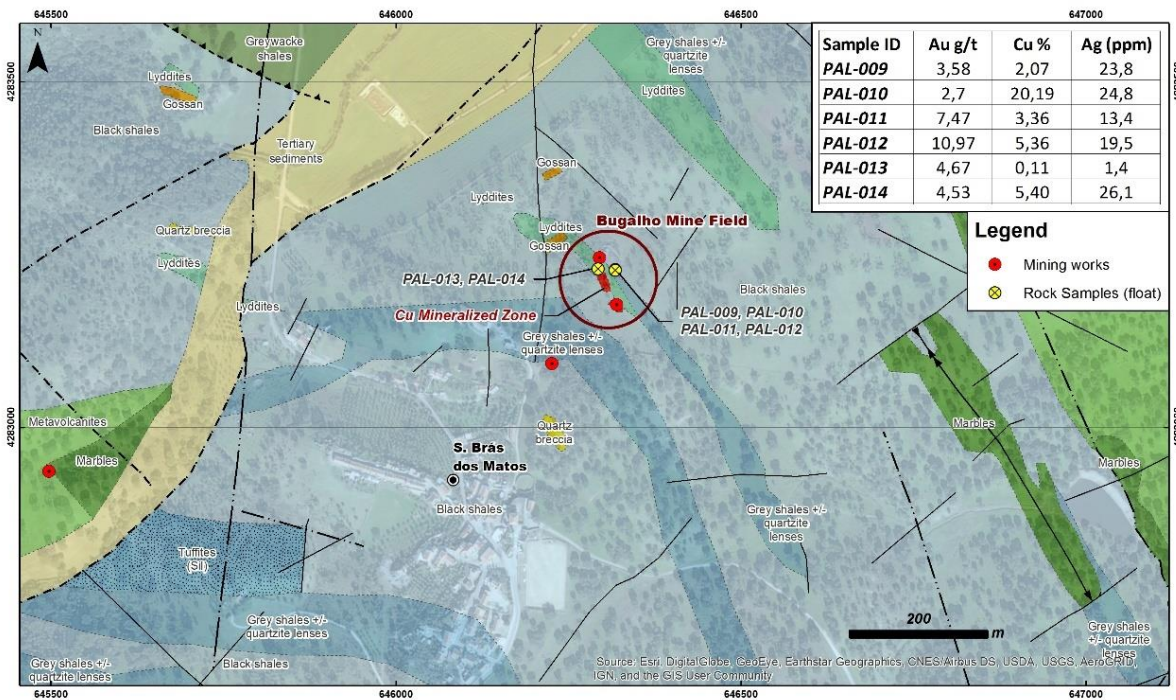


Figure 10 – Geology of the Bugalho area by Rio Narcea showing the location of the mine, drillholes and rock samples.

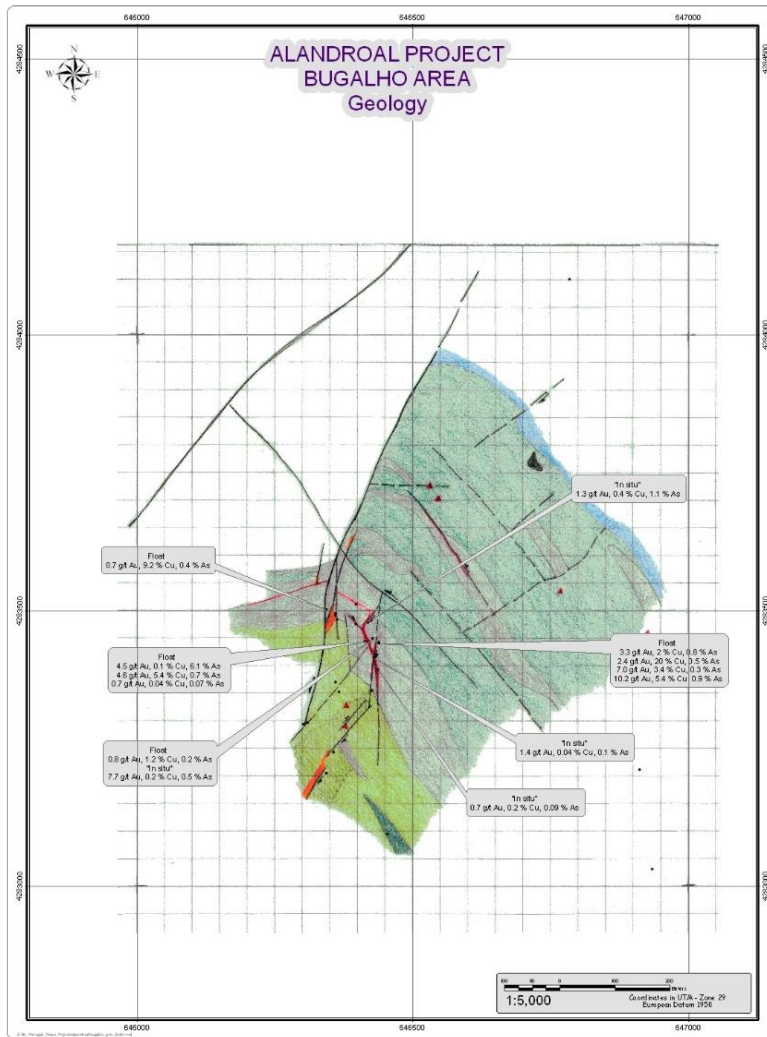


Figure 11- Detailed geology of the Bugalho area by Rio Narcea (1:5 000). Coordinates in UTM Zone 29 ED50.

MOCIÇOS

The geology of the Mociços area is shown in Figure 12. A NNW-SSE trending structure cuts a sequence of Paleozoic metasedimentary rocks (Oliveira, 1984; Pereira et al., 2012). Geometric and kinematic observations (Moreira et al., 2017, 2018), suggests the vein formed during the late stages of the Variscan deformation. In the Mociços vicinity, four main units were identified. From bottom to top these are:

- i) the Barrancos Formation (Lower-Middle Ordovician) comprising shales and psammites.
- ii) the Colorada Formation (Upper Ordovician to Lower Silurian), characterized by impure quartzites, psammites and greywackes, with interbedded black shales.
- iii) the Xistos com Nódulos Formation (Silurian) which has shales interbedded with lydites and black quartzites.
- iv) the Xistos Raiados Formation (Upper Silurian to Lower Devonian), composed of thin bedded fine sandstones and black shales.

Mineralization lies in a brecciated quartz zone that contains pyrite and chalcopyrite. The controlling structure is at least 1 km along strike. Vicente et al. (2017) identified three distinct types of hydrothermal alteration, namely sericitization, chloritization and silicification.

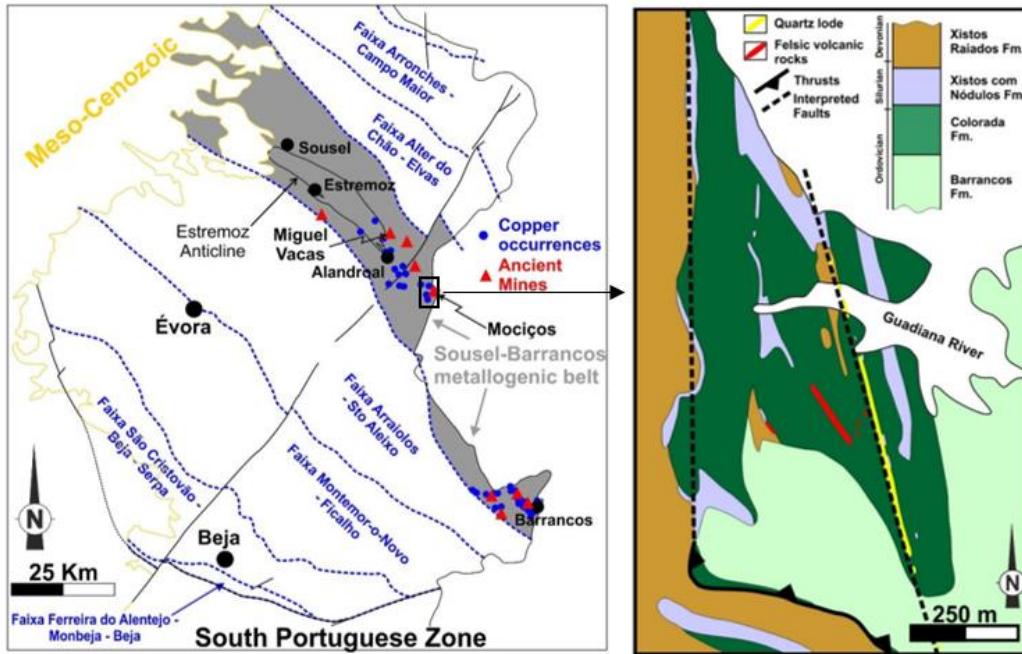


Figure 12 – Simplified geological map of the Mociços area (Maia, M., 2019)

8. DEPOSIT TYPES

The most economically important type of $Cu \pm Au \pm Ag$ mineralization on the Borba 2 concession is hosted by epigenetic, shear-controlled quartz \pm carbonate veins as seen Miguel Vacas and other old workings in the area. These carry chalcopyrite with variable and lesser amounts of gold, sphalerite, galena and arsenopyrite. Such veins are produced when fluid over-pressuring occurs in parts of the Earth’s crust. It often takes place in extensional environments and may result in single, isolated veins or vein swarms as is seen in some sedimentary basins and in crystalline basement. Fault zones become highly permeable during seismic rupture and the after-shock period, but permeability then diminishes due to gouge compaction and hydrothermal sealing.

If a fault ruptures across an over-pressured fluid reservoir there is potential for post-seismic discharge along the permeable rupture zone before self-sealing occurs (Figure 13). This has been termed the “fault-valve” behavior. Crust under horizontal compression is better at generating and containing over-pressure with the most extreme valving discharges often associated with steep reverse faults. Such structures become frictionally ‘locked’ at dips of 60°. Re-shearing of faults with dips beyond lock-up is possible only when favorable hydro-fracture conditions are met; this enhances their ability to behave as fluid-pressure activated ‘valves’. Valving discharges are responsible for a significant proportion of fault-hosted hydrothermal veins, particularly orogenic gold-quartz lodes and other orogenic quartz-polymetallic bodies.

The characteristics of deposits formed by fault-valve action include: (i) hydrothermal vein textures recording intermittent deposition and fluid-pressure cycling; (ii) mineralization from near-lithostatically over-pressured fluids with temperatures ranging from 250 °C to 400 °C at depths of 7-15 km, which is consistent with lower portions of the upper crustal seismogenic zone; and (iii) mineralization extending over a considerable depth range (< 2-3 km).

Tectonic settings favorable to extreme fault-valve action include areas of active compression, and collision zones where imbricate thrust stacks undergo domino steepening during continued shortening. Electrical and seismic velocity anomalies below such areas reveal near-lithostatic over-pressures in the mid-crust.

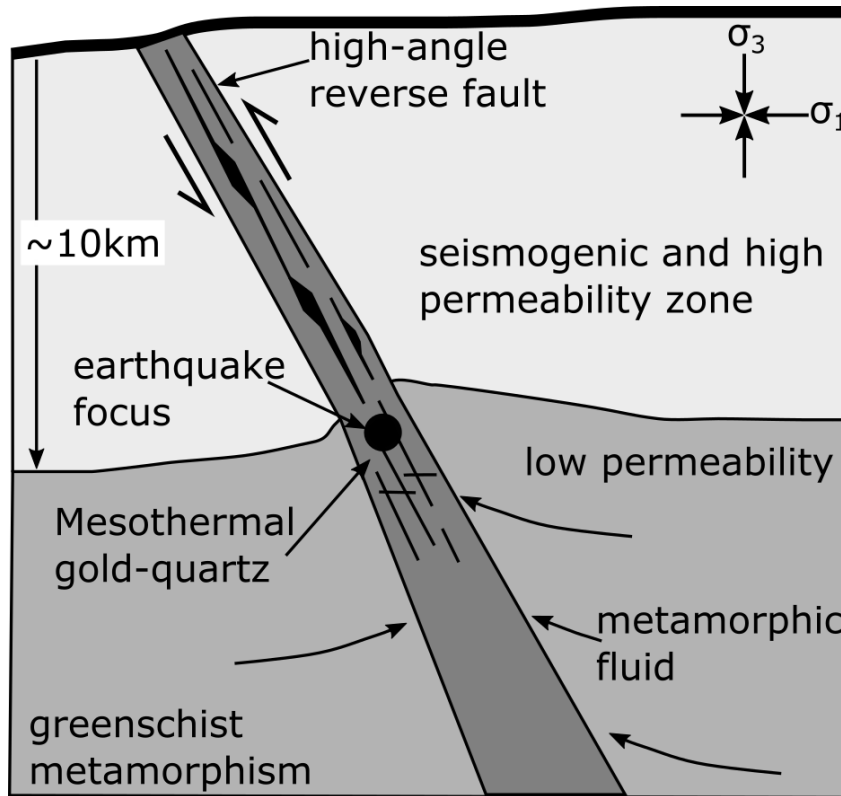


Figure 13 – Schematic section of the fault-valve mechanism showing how it creates permeable conduits for over pressured hydrothermal fluids to discharge and eventually seal the conduits with ore-bearing mineral assemblages. (after Sibson, et al., 1988)

9. EXPLORATION

9.1 INTRODUCTION

Archaeological records show that mining has taken place intermittently in the Borba 2 area since Roman times. Records show that Rio Tinto explored the area for epithermal gold deposits during the early 1980's. They were followed by Carnon Holdings Ltd in the 1990's, and then by Auvista Minerals from 1996 to 1998. More recently between 2005 and 2007, Rio Narcea Gold Mines joint ventured with Kernow Resources. Colt Resources were the last company to investigate parts of the property. In the 1980's, SFM (former Portuguese State Agency) carried out a regional soil sampling program which covered the northern portion of the Borba 2 concession, as well as areas in the south (Figure 14). The focus of that investigation was to follow-up several historic Cu, Au, Zn and Pb geochemical anomalies.

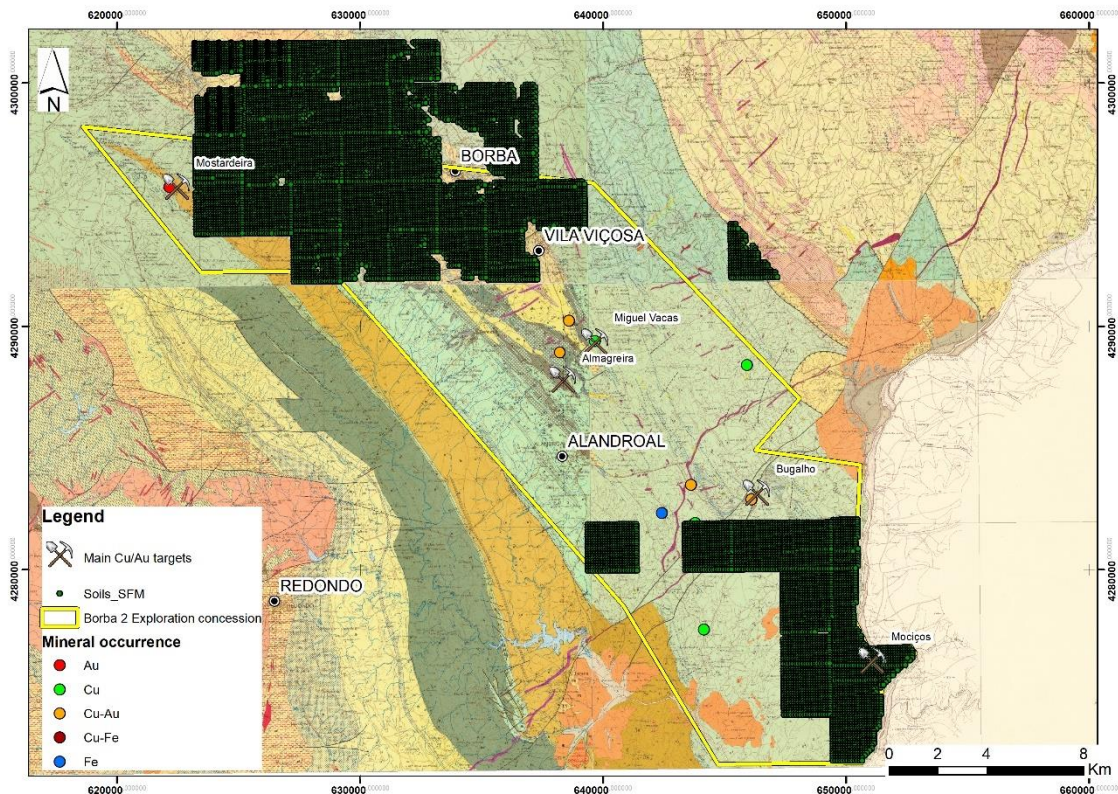


Figure 14 – Location of SFM soil campaigns in the Borba 2 concession

The first recorded drilling on the concession was in 1948-1949 when the America Smelting and Refining Co., explored the Miguel Vacas mine. The company drilled 3 holes to determine the depth and strike extent of the vein. Intersections were made at depths of 151 and 240 m, but no further information is available.

From 1956 to 1979, EMIL completed an exploration program that included a 20-hole drilling campaign. A total of 4,093 m was drilled with holes varying from 60 to 330 m in length. This was the first program to focus on defining the Miguel Vacas orebody. Between 2005 and 2007 five of these drillholes were relogged and re-assayed by Rio Narcea (see Table 4).

In 1986, RioFinEx explored the Almagreira prospect by trenching and drilling 4 holes. In that same year, SFM drilled 10 holes in the Ferrarias Anticline area and 3 holes in Mociços. Between 1996-1997, Auvista carried out a 9-hole drilling campaign at Miguel Vacas and the Torre 2 prospect, which is located NW of Miguel Vacas.

Rio Narcea focused its 2005-2009 work on relogging and resampling some of EMIL drillholes. It also drilled the Almagreira area targeting a carbonate-hosted epithermal gold system as suggested from previous RioFinEx drilling results. In the latter area, surface work identified two potential Au targets (NW and SE). That company, in a joint venture with Kernow Resources, drilled 6 holes, 4 in the SE and 2 in the NW sector.

In 2007-2008 MAEPA (Empreendimentos Mineiros e Participações, LDA), evaluated the mineral potential of the area using historic and recent geological, geophysical, mining and stream sediment data. They focused on the Mostardeira mine area with extensive trenching. They also began a 4-hole drilling

campaign that targeted the two main veins at Mostardeira; drilling totalled 485.4m in length. The anomalous gold intercepts encouraged some follow-up work.

Between 2013 and 2017, Colt Resources conducted a 5-hole drilling campaign at the Miguel Vacas Cu mine that totalled 684.49 m.

9.2. EXPLORATION ON THE PRINCIPAL MINING AREAS

Brief accounts of the exploration at the main historic mines in the Borba 2 property are given below.

MIGUEL VACAS MINE

From 1956 to 1979, EMIL investigated the Miguel Vacas area and drilled a total of 20 holes along a 1050 m section of the mineralized zone; this work confirmed mineralization down to a depth of 330 m.

Between 1996 and 1998, Auvista Minerals carried out a litho and soil geochemical campaign in an area between Borba and Alandroal. This was focused on the NW and SE extensions of the Miguel Vacas mineralized zone. In 1997 the company drilled 3 holes at Miguel Vacas; from 154 to 182 m hole VVDD 2 intersected the Miguel Vacas mineralized breccia, but no Au or Ag assays are available.

In 1998, Prominas – Geologia e Minas completed detailed geological mapping in the Miguel Vacas pit and concluded that the Cu ± Au mineralization was emplaced during two distinct episodes. The older phase was 'stratabound' and occurred when the metasedimentary host rocks were folded, whereas the later was confined to a younger, 20 to 30 m thick breccia zone containing chalcedonic quartz.

Later, Rio Narcea explored the SE and NW extension of the Miguel Vacas veins. A litho-geochemical survey involving the collection of 23 rock samples showed that the hematite gossans are anomalous in gold. The company completed a program of channel sampling along the south and north walls of the Miguel Vacas vein. But this showed disappointing Au values with a maximum of 0.1 ppm in both the structure and the adjacent host rocks. By contrast, an average grade of 1.6% Cu was noted along a 13 m long section, including a 2 m long high-grade portion in the north wall assaying 4.89 % Cu. However, in 2008 Rio Narcea abandoned the project due to low metal prices.

Colt Resources, INC. held the concession between 2013 and 2017. The company re-evaluated the existing stream sediment, soil, rock chip, channel and drill hole data. A new drill campaign was planned for Miguel Vacas, and a soil geochemical program for the Torre 2 target. During 2014-2015, the company drilled 5 holes around the Miguel Vacas open pit (Figure 15). Results confirmed the anomalous copper grades drilled previously by other operators, but Colt abandoned the project due to bankruptcy.

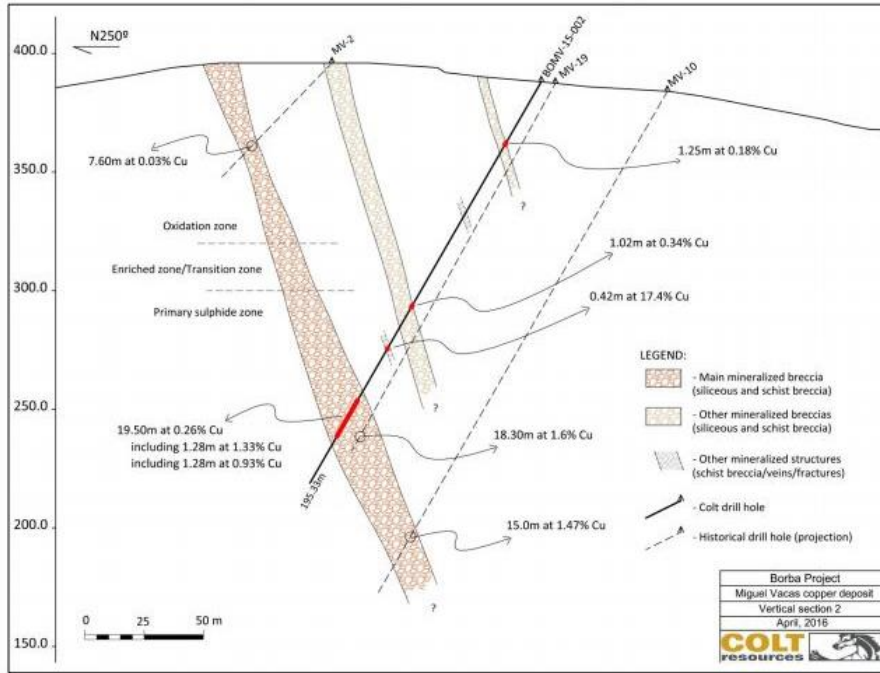


Figure 15 – Interpretative geological section of Colt’s drillhole BOMV-15-002 and older holes showing intersected veins with Cu mineralization.

MOSTARDEIRA

Between 2007 and 2008 MAEPA (associated with INETI – Instituto Nacional de Engenharia Tecnologia e Inovação) carried out a geophysical dipole-dipole (6 profiles) and induced polarization survey in the vicinity of the old Mostardeira mine (Figure 16). The goal was to trace possible depth extensions of the veins.

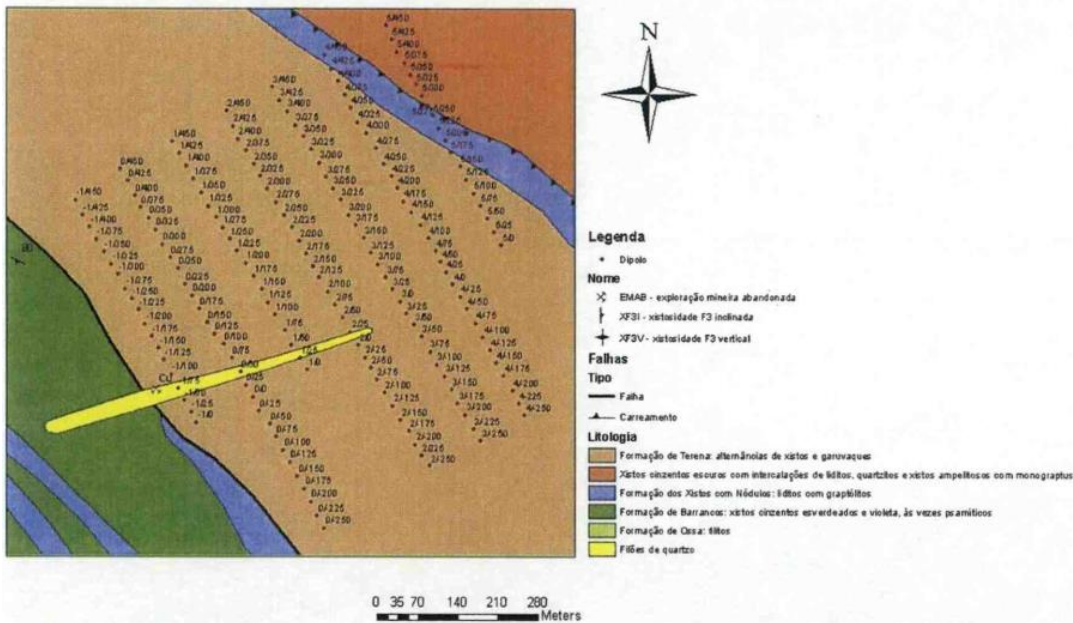


Figure 16 – Location of the geophysical profiles and electrodes targeting the Mostardeira mineralized vein (Maepa and Ineti).

Due to old underground galleries and shafts, the results of the geophysical survey were difficult to interpret, although an extension of the Mostardeira secondary vein to the east was recognized. Sixteen trenches totalling 688 m were dug in the NW and SE sectors of the old mine. From these, 179 rock samples were collected. Continuous channel sampling (1m samples) from the trenches contained significant intercepts with anomalous values of Au and Cu. Trench 2 showed values of 1.58 ppm Au, 45.30 ppm Ag and 0.10% Cu over 4 m, while Trench 3 assayed 0.93 ppm Au, 7.40 ppm Ag and 0.09% Cu over 2 m. Trench 4 assayed 1.39 ppm Au, 16.74 ppm Ag and 0.43% Cu over 7m. Trench 5 assayed 1.40 ppm Au, 392.56 ppm Ag and 0.09% Cu over 5 m. Trench 8 assayed 2.69 ppm Au, 19.83 ppm Ag and 0.16 % Cu over 3 m.

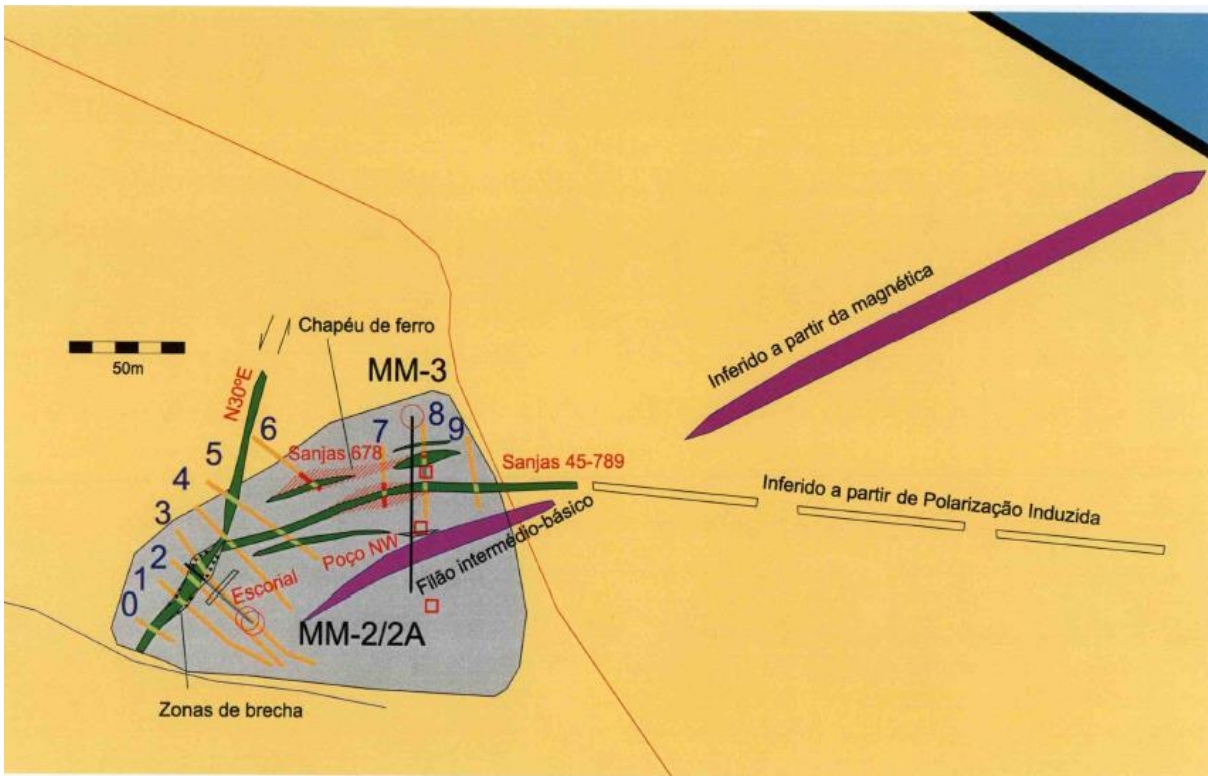


Figure 17 – Mostardeira mine: location map including trenching and targets (NW sector of the mine).

Between 2007 and 2008, MAEPA drilled 4 holes (MM1, MM2, MM2A and MM3) totalling 485.4 m at Mostardeira (Table 2). These attempted to trace on-strike and down-dip extensions of the veins. Sixty-two core samples were collected and analysed. Core lengths with anomalous Au, Ag and Cu values are shown in Table 2 – Maepa drilling in 2007-2008 at the old Mostardeira mine showing core intersects with the highest Au, Ag and Cu values.

Table 2 – Maepa drilling in 2007-2008 at the old Mostardeira mine showing core intersects with the highest Au, Ag and Cu values.

Hole #	Intercept		Int. (m)	Assay data		
	From (m)	To (m)		Au (g/t)	Ag (g/t)	Cu (%)
MM1	122,5	123,5	1,00	2,80	5,9	0,18
MM1	177,0	178,5	1,50	0,99	>200	3,98
MM1	180,5	181,5	1,00	0,13	157,0	0,04
MM2	43,7	44,7	1,00	5,72	78,9	-0,01
MM2A	26,3	26,8	0,50	0,84	27,1	3,89
MM2A	40,5	41,5	1,00	6,80	12,8	-0,01
MM3	100,6	101,3	0,70	5,28	1,0	-0,01
MM3	114,3	115,3	1,00	1,26	18,5	1,14

The reader should note that this drill intersection should be treated with caution as it is unsure if they represent true thicknesses.

Between 2013-2017, Colt Resources carried out a lithogeochemical sampling campaign involving the collection of 22 rock samples from the Mostardeira and the Monte dos Pereiros prospects which lie east from Terena village.

ALMAGREIRA

During the period 1985-1986 Rio Tinto dug 19 trenches at the Almagreira prospect in its NW and SE sectors. A total of 307 rock samples were collected and of these 290 were analysed for Au. The highest gold values were found in the SE sector (Table 3 – Best Au results from the Rio Tinto trenches campaign at the Almagreira prospect (SE sector)3) where they were associated with anomalous Cu, Ag and As.

Table 3 – Best Au results from the Rio Tinto trenches campaign at the Almagreira prospect (SE sector)

Trench	Sample	From (m)	To (m)	Interval (m)	Au (ppm)	Ag (ppm)	As (%)	Cu (ppm)	Pb (ppm)	Zn (ppm)
T2	5013	24.20	26.50	2.30	4.56	2.3	1.240	1160	750	304
T3	5026	32.00	36.00	4.00	2.68	<0.5	0.880	1340	BDL	129
T4	5037	31.80	32.50	0.70	1.77	0.60	0.525	930	490	112

Following these results, in 1986 RioFinEx drilled 4 holes (DA-1, DA-2, DA-3 and DA-4) totalling 232.25 m. In hole DA-1, between 31.5 and 32.5 m, a sample assayed 1.07 ppm Au, 1.7% As, 0.9 ppm Ag and 310 ppm Cu. Between 13.4 and 14.6 m, hole DA-2 assayed 3.94 ppm Au hosted by weathered tuffs (core sample A-6022). Hole DA-3 included a 0.3 m interval (19.50 to 19.80 m) grading 2.85 ppm Au in massive ironstone, while in hole DA-4 the first 10 m sampled had weak values of 120 ppb Au in red clays.

In 2005 Rio Narcea completed a lithogeochemical sampling program involving the collection of 45 rock samples. A geophysical survey totalling 23,120 m in length was done. The magnetic survey covered a 2.6 km x 1.3 km area with 200 m spacing between profiles; readings were taken every 5 m. This survey outlined a strong magnetic anomaly that may be related to the magnetite-bearing tuffs. In that same year

the company drilled 2 diamond holes in the SE area and dug 4 trenches in the NW and SE (Figure 18). A total of 70 trench samples were collected. These indicated a 10 m thick gossan horizon containing goethite, limonite, quartz and pyrite with gold grades above 0.5 ppm.

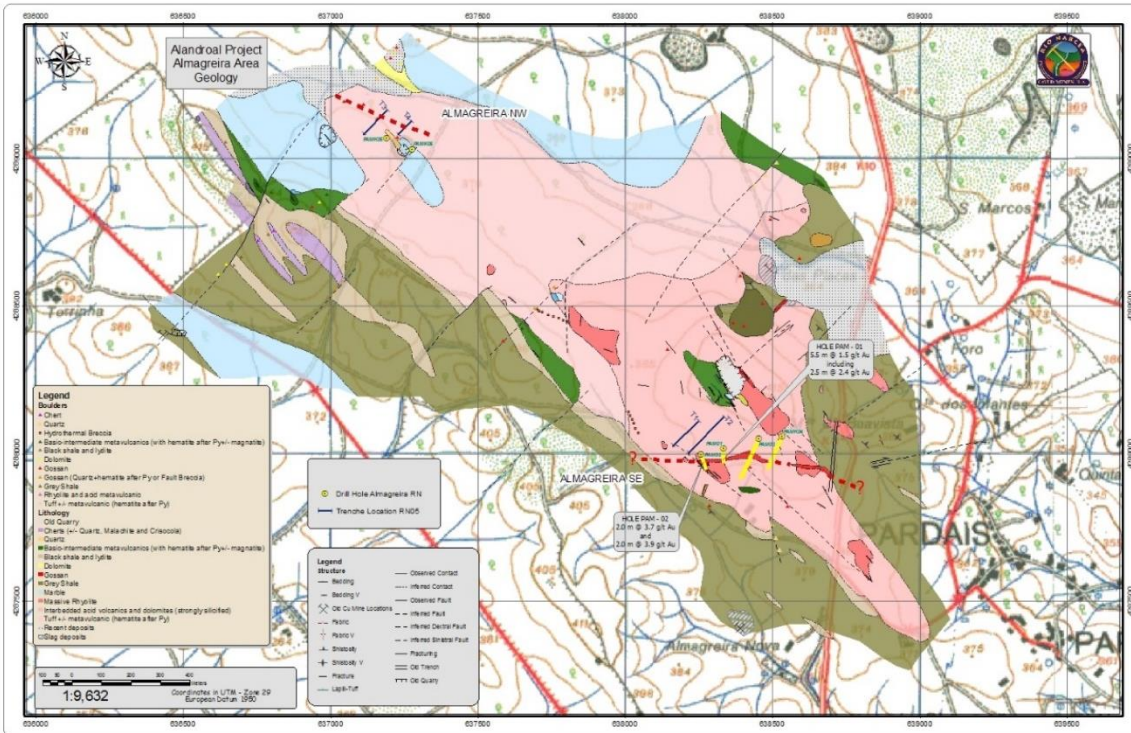


Figure 18 – Almagreira geological map (1:10 000) with the location of drillholes and trenches (Rio Narcea, 2006), including PAM-01 and PAM-02 gold intersections in Almagreira SE.

In 2007-2009 Rio Narcea, in a joint venture with Kernow Resources Portugal, drilled another 4 holes totalling 626.65 m. Two of these were collared in the NW sector (PAMK5 and PAMK6) and the other two in the SE sector (PAMK03 and PAMK04). The core taken from the NW sector had higher Au values, assaying up to 1.07 ppm Au. The two holes drilled in the SE sector intersected some Cu mineralization. Hole PAMK03 cut a 2.2 m interval grading 0.35% Cu while hole PAMK04 intersected a 1.90 m section assaying 0.104% Cu. This Cu mineralization was hosted by a narrow, subvertical shear that is at least 250 m long.

BUGALHO

In 2004, Rio Narcea completed a lithochemical survey in the Bugalho mine area that focussed around the old workings. Mineralized dump material and breccia veins samples revealed high copper grades, with some reaching 20% Cu. Seven samples assayed >2 ppm Au with some containing up to 10 ppm Au. These gossanous dump samples contained pyrite, chalcopyrite and arsenopyrite. A brecciated vein exposed in an old shaft assayed 8 ppm Au, 0.2% Cu and 0.5% As. In 2005-2006 Rio Narcea mapped the area at scales of 1:10 000 and 1:5 000 and completed a detailed ground magnetic survey (Figure 19).

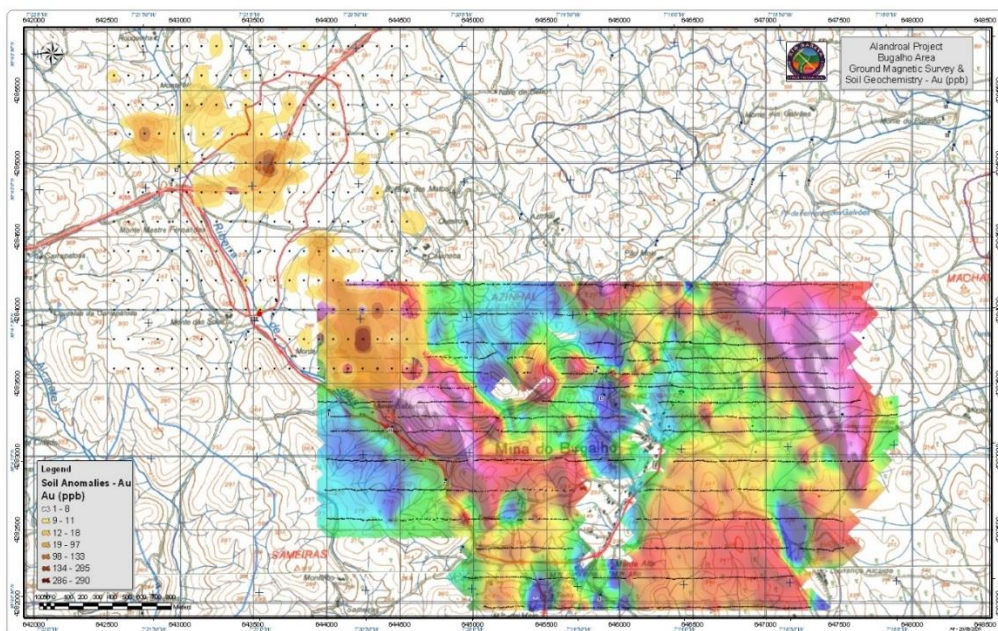


Figure 19 – Rio Narcea soils Au (ppb) anomaly results and magnetic survey in Bugalho.

A litho-geochemical campaign was carried out in 2006 focusing on the gossans and mineralized breccias. Significant gold was found with assays up to 2.87 ppm Au, usually associated with As. Thirty-one (31) channel samples were collected along a 100 m vein outcrop marked by strong silicification and brecciation (Figure 20). The highest Au value was 1.57 ppm, and some anomalous Au was noted in the host rocks.

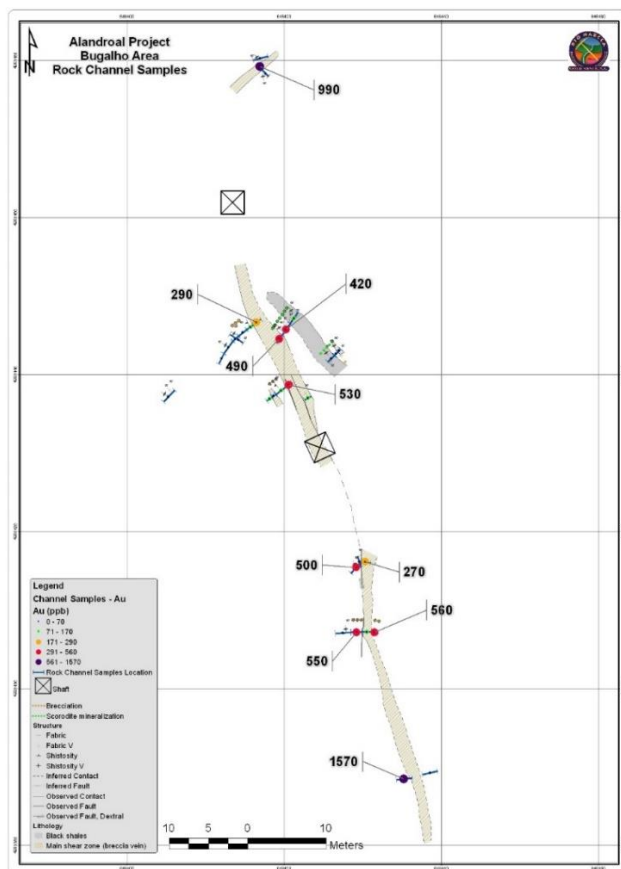


Figure 20 – Bugalho channel sampling in the main mineralized structure (Rio Narcea, 2006).

MOCIÇOS

In 2005 and 2006 Rio Narcea completed a small channel sampling program in the south portions of the gossanous Mociços quartz vein (Figure 21).

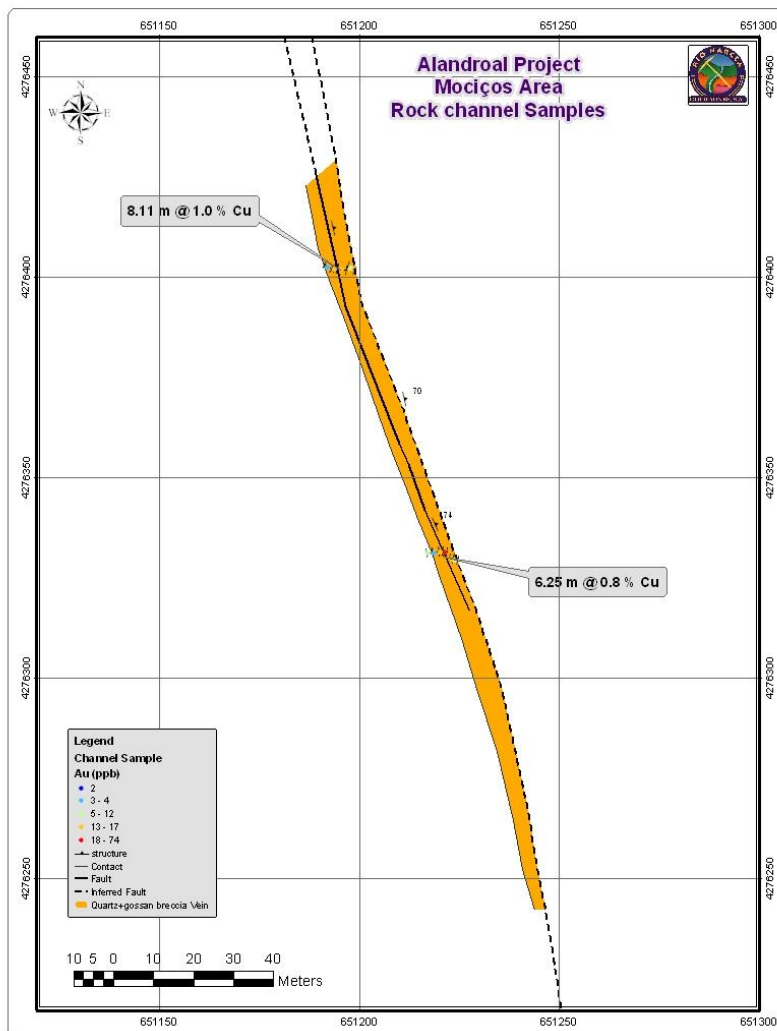


Figure 21 – Mociços channel sampling by Rio Narcea (2005-2006).

In 2013-2017, Colt Resources undertook a litho-geochemical survey at Mociços and at the Monte do Casco Cu-Fe prospect, located further west. Ground magnetics data was used to produce a subsurface model. This identified several NNW-SSE-trending magnetic anomalies, some of which correlated with the main mineralized vein. The geophysical features also coincided with Cu and Zn soil anomalies (Vicente et al., 2018). However, an additional NNW-SSE-striking geophysical anomaly may indicate the presence of a concealed vein (Oliveira et al., 2017). There are no records of drilling in this area.

10. WORK BY EUROPACIFIC METALS

Up to September 2022, EuroPacific Metals had done only a modest amount work on the property although they have plans to begin a robust exploration project in 2023. The work done so far includes a thorough examination of the historic mining and drilling data, as well as some prospecting. Visits were made to the old mine sites and six (6) rock grab samples were taken, two each from Almagreira, Miguel Vacas and Mostardeira. A description of these samples, the locations and assay values are shown in Table 4 below.

The assays from Miguel Vacas and Mostardeira were exciting with one from Miguel Vacas (sample B2R-003) assaying 6.5% Cu, 2.18 ppm Ag and 0.07 ppm Au, while the two collected at Mostardeira (samples B2R-005 and 006) contained respectively 4.23 ppm Au with 9.68 ppm Ag, and 1.38 ppm Au with 8.54 ppm Ag (Table 4). It should be noted that these six grab samples were selected because they were overprinted by strong hydrothermal alteration, or they contained visible sulfides. Consequently, there was sample bias and the values do not necessarily represent typical metal grades on Borba 2. However, these encouraging results have spurred EuroPacific Metals to undertake an exploration program in 2023 and 2024; this will include mapping, soil and rock sampling in conjunction with a geophysical program. Follow-up diamond drilling on selected targets will then take place.

Table 4 – Location, description, and assay results of six mineralized grab samples collected by EuroPacific Metals in 2022 from the Borba 2 concession. Anomalous values in red.

Sample No.	X_UTM29	Y_UTM29	Mine	Sample description					
B2R-001	638296	4288040	Almagreira (Fe-Au)	Float. Vuggy gossanous quartz-carbonate veins.					
B2R-002	638214	4287763	Almagreira (Au)	Outcrop. Massive hematite gossan in vuggy dolomite.					
B2R-003	639632	4289516	Miguel Vacas (Cu)	Float composite sample of shales with secondary Cu minerals.					
B2R-004	639833	4289248	Miguel Vacas (Cu)	Chip sample of old tailings adjacent to the main pit with mineralization.					
B2R-005	622368	4295750	Mostardeira (Au-Cu)	Float of mineralized (pyrite-arsenopyrite-chalcopyrite) quartz vein.					
B2R-006	622279	4295705	Mostardeira (Au-Cu)	Outcrop, 5 m massive quartz vein with pyrite, arsenopyrite & chalcopyrite.					
Sample No.	Au ppm	Cu %	Ag ppm	As ppm	Fe %	Pb ppm	S %	Sb ppm	Zn ppm
B2R-001	0.035	0.0040	0.25	452	15.95	6	0.01	2.55	13
B2R-002	0.003	0.0020	0.1	1540	41.5	2.2	0.01	1.08	230
B2R-003	0.078	6.5300	2.18	1745	6.37	27.1	0.02	15.05	134
B2R-004	0.062	0.0734	0.48	492	3.05	10.5	0.03	6.08	15
B2R-005	4.23	0.0415	9.68	>10000	20.4	48.9	>10.0	61.2	3
B2R-006	1.38	0.1000	8.54	>10000	5.49	65.7	0.1	33.8	6

11. SAMPLE PREPARATION, ANALYSES AND SECURITY

The preparation, analytical procedures and security of samples collected by previous exploration companies such as RioFinEx, Auvista, Rio Narcea, INETI and MAEPA are described in their various reports, but the author cannot verify the accuracy of this information.

During EuroPacific Metals recent exploration, a total of 6 rock samples were collected for litho-geochemical analysis (Table 4), each weighing 5 to 10 kg. The QA/QC protocol for field rock samples was:

- (i) Samples were kept under secure storage before being shipped for assay.
- (ii) Samples were transported under strict security to the ALS CHEMEX laboratory in Seville. ALS is a registered and reputable assay facility.
- (iii) The sample preparation was done using the PREP-31B method. They were crushed to 70% less than 2mm, then a riffle split of 1kg, then pulverized to a powder where more than 85% was less than 75 microns.
- (iv) Litho-geochemical analysis then took place using the ME-MS61 (four acid digestion with ICP-MS finish), Au-ICP21 (Au by fire assay and ICP-AES for trace levels) and Au-GRA21 (Au by fire assay and gravimetric finish for ore grade) methods.

In the field, each of the six samples were placed in clean, labeled plastic bags, accompanied by a sample number ID tag, after which the bags were sealed with plastic ties. To perform the QA/QC protocol described above, the samples were sent to the ALS Chemex laboratory at Poligono Parque Plata, Calle Camino Mozarabe naves 13 y 15, Camas (Seville) 41900, for base, precious metals and other element analyses.

ALS Chemex reports that their standard operating procedures require that samples at every preparation station are tested regularly throughout each shift. Measurements of sample preparation quality allows the identification of equipment, operators and processes that are not operating within specifications. Quality control results from all global sample preparation laboratories are captured by the LIM System and the Quality Analysis Department. They compile a monthly review report for senior management on the performance of each laboratory from this data. In addition to routine screen tests, sample preparation quality is monitored at ALS through the insertion of sample preparation duplicates.

ALS Laboratory Group's Mineral Division, ALS Chemex, has developed and implemented a Quality Management System (QMS) designed to ensure the production of consistently reliable data. The system covers all laboratory activities and takes into consideration the requirements of ISO standards. The ALS Chemex analytical laboratories are certified and accredited by the Standards Council of Canada (SCC). Accreditation involves detailed, on-site audits to evaluate ALS Chemex's quality management system and verify the technical competence of their methods and personnel. This technical verification includes the requirement for successful participation in inter-laboratory proficiency testing programs and full method validation.

The author is confident that the collection, preparation, safety, and analytical procedures of ALS Chemex were of high and reliable standards. Both EuroPacific Metals and the author are independent from and have no financial interest or holdings with the ALS Chemex Laboratory Group. EuroPacific Metals relationship with ALS Chemex is that of an independent paying customer requiring reliable and meticulous assay work.

12. DATA VERIFICATION

There is no reliable information available regarding data verification techniques used by the historic mining and exploration companies from the 1880's until the 1970's. In 2005, Rio Narcea re-analysed 5 of 20 drillholes drilled previously by EMIL between 1965 and 1971 to confirm anomalous Au grades. But this follow-up test revealed discrepancies as seen in Table 5 – Comparison between EMIL and Rio Narcea analytical results from the mineralized intervals in the Miguel Vacas EMIL drillholes..

Table 5 – Comparison between EMIL and Rio Narcea analytical results from the mineralized intervals in the Miguel Vacas EMIL drillholes.

DDH Reference	EMIL	Rio Narcea
MV-07	1.17 % Cu over 7.6 m	0.80% Cu over 8.25m
MV-04	1.27 % Cu over 2.6 m	1.08 % Cu over 3.38 m
MV-08	1.78 % Cu over 12.8 m	1.44% Cu over 18.88m
MV-09	2.09 % Cu over 4.0 m	1.44 % Cu over 4.25m
MV-11	1.06 % Cu over 2.7 m	1.30 % cu over 2.23 m

The author is confident that the geochemical data concerning the six assayed rock samples gathered recently during EuroPacific Metals recent exploration as presented in this technical report (Table 4) is reliable and trustworthy.

13. MINERAL PROCESSING AND METALLURGICAL TESTING

There are no reliable historic records concerning mineral processing and metallurgical testing on any mineralized rocks on the Borba 2 property.

14. MINERAL RESOURCES AND RESERVES ESTIMATES

Historic reports quoting estimates of so-called “mineral resources” and “reserves” at the old Miguel Vacas mine are not NI 43-101 compliant and must be treated with great caution. Despite the presence of numerous mineral showings and some old mines, Borba 2 is regarded as a greenfields exploration project. To date no metal reserves or resources are known on the property. Historic estimates quoted in this technical report are not reliable or NI 43-101 compliant. They must be treated with some scepticism.

15. ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT

No detailed environmental studies have been carried out on the Borba 2 concession because to date they have not been required for the exploration-related work conducted by EuroPacific Metals. Access to any site and any land use are subject to a landowner permission. If the land is located in an area subject to any type of additional regulation by the Portuguese state (e.g. nature reserves) it also requires an authorization from the state responsible branch (ICNF – Instituto da Conservação da Natureza e Florestas). These permits can be issued without major implications as the process is essentially bureaucratic. The Borba 2 concession contains a nature protection area and permits have generally been issued by ICNF within 1-2 months of requesting said permits.

The local community is in general mining friendly because past mining activities and current marble quarrying are regarded as having had a positive impact in the local economy. The concession lies in an area where the annual rainfall is relatively low. No significant social or community impacts are foreseen by the exploration proposed in this report.

16. ADJACENT PROPERTIES

As far as the author knows, there is no reliable information about any exploration or mining properties adjacent to the Borba 2 property.

17. OTHER RELEVANT DATA AND INFORMATION

To the writer's knowledge, no other relevant data needs to be included in this report.

18. INTERPRETATION AND CONCLUSIONS

EuroPacific Metals Borba 2 concession is 328.51 km² in size. It has several old, abandoned Cu ± Au mines as well as numerous mineral showings. This suggests that the property has a good exploration potential for hosting undiscovered economic orebodies although no current NI 43-101 compliant metal reserves or resources exist.

The mineralization lies in a series of chalcopyrite-bearing quartz ± carbonate veins hosted by shears that cut schistose metasedimentary and volcanic rocks. Near-surface, the mineralization is marked by zones of secondary copper oxides. Historically, productive veins exceeded many hundreds of meters in length and depth. One of the most important mines was the Miguel Vacas. It and other mineralized areas on the property, such as Mostardeira, Almagreira, Bugalho and Mociços deserve further exploration, including drilling. Miguel Vacas remains open along strike and at depth, and in 2006, Rio Narcea estimated that 5.54 million tonnes of mineralized rock was present with average grade of 1.24% Cu. However, the potential investor is warned that this data is not NI 43-101 compliant and is thus unreliable.

In addition to detailed geological mapping and geochemical rock sampling in prospective areas, it is recommended that EuroPacific Metals uses IP and magnetic geophysics to locate favourable target for drilling. Once favourable geological, geochemical or geophysical targets are identified they should be tested by diamond drilling.

The reader is cautioned that while the Borba 2 property is believed to have a good potential for hosting economic Cu ± Au mineralization, the project faces the usual economic risks common to the precious and base metal exploration industry worldwide. One risk is not knowing whether the precious and base metals can be recovered economically, or if the current market prices of these metals will be sustained; a significant fall in metal prices could impact the economic viability of any exploration-mining operation. Other uncertainties include the Portuguese government regarding their granting title and permits, as well as the legal requirements to undertake an exploration-mining program that would satisfy both environmental standards and local landowners.

19. RECOMMENDATIONS

At Borba 2, the author recommends that EuroPacific Metals begins a two year-long exploration program that would involve the following:

1. Re-analyse the historic mining, drilling and exploration data to define areas that have good chances of hosting economic Cu-Au deposits. The old mines in the Miguel Vacas, Bugalho,

Mostardeira, Almagreira and Mociços areas represent prime target areas, but other undiscovered ore bodies may exist elsewhere on the property.

2. Chosen favourable areas should first be explored using suitable prospecting, mapping, and geochemical-geophysical techniques. These may include soil and rock sampling, as well as either airborne or ground geophysics. Depending on local circumstances, the latter may include IP, magnetics, radiometrics and/or EM.
3. Once geological, chemical, and geophysical targets have been chosen, these should be tested by a diamond drill program.

Up to September 2022, EuroPacific Metals spent 170,416 Euros exploring the Borba 2 concession. These Itemized expenditures as well as the forecast budget for 2023 and 2024 are shown below in Table 6.

Table 6 – EuroPacific Metals past and forecast expenditures on the Borba 2 property between 2022 and 2024 (in Euros)..

	EuroPacific Metals expenditures to Sept, 2022(€)	EuroPacific Metals proposed expenditures 2023- 2024	
		2023 (€)	2024 (€)
Acquisition- holding	57,739		
Assays & Analysis	1,898	10,000	25,000
Consultants	12,593		
Communications	690		
Drilling/Sampling	0		82,500
Field costs	0	8,000	35,000
Geologists	46,920	45,000	60,000
Geophysics	0	25,000	50,000
Geotechnicians	0		
Haulage	0		
Maps	1,725		
Mob/demob	0		
Rentals	0	10,000	10,000
Reports	8,625		
Supplies	1,035	2,000	3,000
Shipping	4,485	2,000	4,500
Travel	34,706	10,000	13,000
Environment	0		
Legal, Taxes & Fees	0	16,500	16,500
Total	170,416	128,500	299,500

Exchange rate: 1 \$CAN = 0.69 €

20. DATE & AUTHOR SIGNATURE

Endorsed by Qualified Persons:



Marcelo S. Pereira, MSc Geology

Registered European Geologist, Title No. 1662

Porto, Portugal.

Dated this 13th day of February 2023

21. CERTIFICATE OF AUTHOR & AUTHOR SIGNATURE (QUALIFIED PERSON)

Marcelo S. Pereira, M.Sc in Geology

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I, Marcelo Soares Pereira, M.Sc in Geology, do hereby certify that:

1. In order to undertake a field examination of the Borba 2 property in Alentejo, Portugal, and write this NI 43-101 technical report I was temporarily retained by EuroPacific Metals, at 650-1021 West Hastings Street Vancouver, BC V6E 0C3 as an independent consulting geologist. Other than wages for writing this report, I will not receive any additional benefits from EuroPacific Metals , neither do I have any financial interests in the company or their Barrancos property.
2. I graduated with a B.Sc, degree in Geology in 2010, and M.Sc, degree in Geology from the University of Porto (Portugal) in 2013.
3. I am a member of the Associação Portuguesa de Geólogos (Association of Geologists of Portugal - Member # O1345) and I was on the 20th of March 2020 elected to the title of European Geologist by European Federation of Geologists (EurGeol Title No. 1662).
4. I have worked as an exploration geologist for a total of 10 years since my graduation from university. This has involved employment with private companies and clients of exploration companies including WResources, EuroPacific Metals and EDM (Portuguese government company). This work included exploration for W, Sn, Li, Au and Cu projects in Portugal.
5. I have read the definition of “qualified person” set out in the National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with professional associations (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.

6. I am fully responsible for all items in this document and for the preparation of all sections of this document titled "Geology and mineralization of the Borba 2 copper-gold property, Alentejo, Portugal " and dated the 4th day of January 2023 (the "Technical Report"). I visited the Barrancos property several days in the last year.
7. I was directly involved with the explorations works on the Barrancos property, especially in the EURO-PACIFIC METALS Rock-chip sampling last year, as an independent consulting geologist.
8. As of the 13th of February 2023, I am not aware of any material fact or material changes with respect to the subject matters of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
9. I am independent of EuroPacific Metals applying all the tests in section 1.5 of the National Instrument 43-101.
10. I have read National Instrument 43-101 and Form 43-101FI, and the Technical Report has been prepared in compliance with that instrument and form.

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