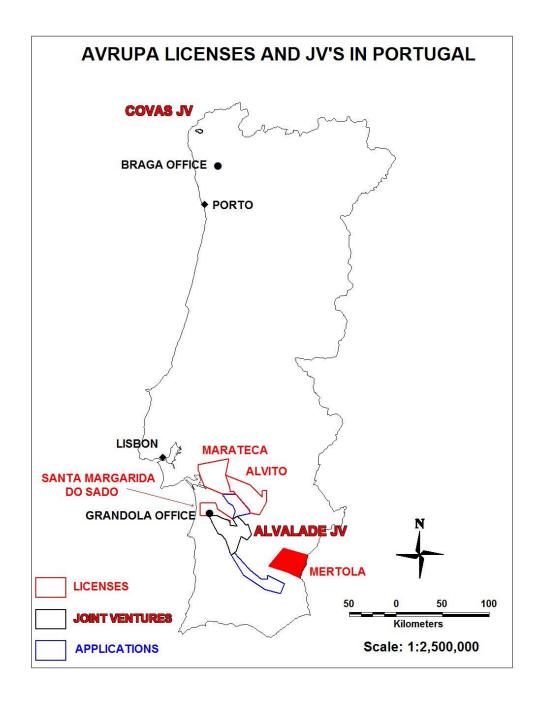
# **MERTOLA LICENSE**

(762.9 km<sup>2</sup> -- available for joint venture)



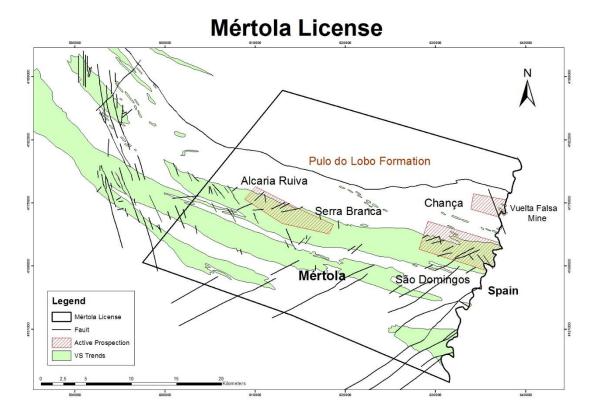


Fig.1- Location Map of Mértola License.

## **Geological Setting:**

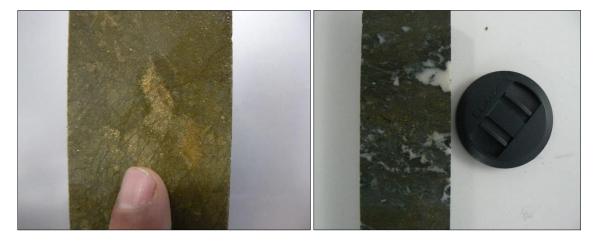


**Fig.2**- São Domingos/Chança Prospects. **2a** – São Domingos historical open pit (left side); **2b** – Thrust Fault in Vuelta Falsa mine on Spanish side of the Chança prospect (right side).

- Abundant outcropping rock exposed with visible alteration, which allows for quicker structural reinterpretation of the area.
- Active prospection focused along the São Domingos (Rio Tinto-La Zarza) and Águas Tenidas (Vuelta Falsa-Chança) trends.
- Main structures: ENE-WSW (parallel to VS bedding), NE-SW, NW-SE, NNW-SSE (important strike slip component);
- São Domingos: Exploitation from Roman times to 1966. Ore body consists of a single sub-vertical lens containing ~ 25Mt of sulphides (1.2% Cu and 3% Zn). Note that all other IPB deposits consist of multiple lenses of massive sulphide mineralization.
  - o Modern mining between 1857 and 1966 resulted in an open pit that reached 120m depth and underground workings reaching a depth of 420m (single lens exploited).

### **Historical Data Available:**

- Geochemistry
  - Chança: Soils (Cu, Pb, Zn and As); Gossan lithogeochemistry.
  - o São Domingos: Soils (Cu, Pb, Zn, Hg, As, Bi, Au); Gossan lithogeochemistry.
  - O Serra Branca: Soils (Cu, Ag, Pb, Zn, As); Stream Sediments (Cu, Au, Pb, Zn); Lithogeochemistry.
- Geologic maps:
  - 1:50.000 and 1:25.000 (Portuguese Geological Survey);
  - 1:5.000 in Chança, São Domingos, Serra Branca and Alcaria Ruiva (exploration and mining companies);
- Regional geophysical data available:
  - o Chança: Gravity, EM, MAG, IP, UTEM, 3D Inversions.
  - o São Domingos: Gravity, EM, MAG,IP.
  - o **Serra Branca:** Gravity, EM, MAG, IP, UTEM.
  - Alcaria Ruiva: Gravity, EM, MAG.
- Historic Drilling with core available for logging and sampling:
  - O Chança:
    - S-6652 (505.60m) Stockwork mineralization (Py ± Cpy) between ~ 230. 00 and 300.00m.
    - CH-1 (486.50m) Disseminated Py ± Cpy mineralization between 428.10 and 450.10m.
      Locally massive to semi-massive.
    - CHA-1 (456.40m) Stockwork mineralization in last 187m. Mainly pyrite with chalcopyrite, sphalerite and galena.
    - CH0601-Rep (512,60m) Disseminated Py ± Cpy mineralization between 441.75 and 512.60.
      Locally massive to semi-massive.
      - High Cu Value: 457.75-459.75m: 2m @ 0.7% Cu.
    - CH0602 (650m) Stockwork mineralization between 307.80 and 376.25m.
      - High Cu Value: 329.80-331.80m: 2m @ 1.34% Cu.
    - CH0703 (589.20m) Stockwork mineralization between 96.50 121.20m; 155.10 167.60m
      (1.30m @ 1.62% Cu; 3.12%Zn) and 185.70 216.70m (4.00m @ 1.32% Cu; 3.10%Zn).



**Fig.3-** CH0601-Rep. **3a** — Massive Sulphide with abundant chalcopyrite (leftside). **3b** — Pyrite and chalcopyrite as disseminations and in veins, hosted in a siliceous breccia.

- São Domingos:
  - SD-1002 (785.20m) Stockwork mineralization (Py ± Cpy ± Sph) between 540.00 and 573.00m.

- TG-1 (353.50m) Mineralized breccia (Py + Gn ± Cpy) between 55.00 and 55.60m.
- MSD-2 (324.75m) Disseminated Py (locally massive) between 145.00 and 234.00m. Rare Cpy, Gn and Sph.
- MSD-3 (350.00m) Disseminated Py between 318.20 and 332.60m. Rare Gn and Sph. Cpy in fractures and S1.
- MSD-4 (257.20m) Fine Py disseminated. Gn and Cpy rare in fractures and S1.

## Serra Branca:

- SB-1 (164.50m): Gossan area. Weak Py mineralization (47.50-55.00m; 65.00-70.00m; 134,8-146,9m)
- SB-2 (362.20m): Massive sulphide with low Cu content between 146.00 and 147.70m.
- SB-5 (171.80m): To test the evolution of the SB2 mineralized level at 90m NW (mineralization found between 135.00 and 140.60m).
- SB-6 (322.80m): Poor mineralization between 272.80 and 275.30m.

### o Alcaria Ruiva:

- AS2 (150m), AS3 (142m): Py disseminations and clots locally.
- VC2 (66.20m) Disseminated mineralization (Py + Cpy ± Sph ± Gn) between 23.40 and 26.50.
- VC3 (128.30m) Chalcopyrite blebs in quartz-carbonate stringer zone (44.30m).

# **Work in Progress:**

- Re-logging historic drilling core (Chança 1<sup>st</sup> Priority; São Domingos 2<sup>nd</sup> Priority; Serra Branca 3<sup>rd</sup> Priority and Alcaria Ruiva 4<sup>th</sup> Priority);
- Detailed geologic mapping: 1:5.000 (Chança 1<sup>st</sup> Priority, São Domingos 2<sup>nd</sup> Priority);
- Structural and lithostratigraphy reinterpretation of target zones based on Avrupa's understanding of the Iberian Pyrite Belt.