

APPEARANCE OF GOLD IN SOME DRILLHOLES OF THE LAHÓCA EPITHERMAL DEPOSIT, MÁTRA MTS., HUNGARY

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The Recsk mineralized complex lies in NE Hungary, 30 km west to the town of Eger. As an ancient mining district, it has been known, explored and mined from the 18th century. A wide range of ore mineralization is known in the complex. Porphyry copper and molybdenum, skarn copper are the most important formations in the central intrusive zone. Zinc skarns, lead-zinc metasomatic replacement mineralizations are found along the reactive horizons of the altered sedimentary rocks. High sulphidation enargite-pyrite-gold mineralization was developed in relation to late volcanic centers. Low sulphidation gold-silver mineralization has become known in the peripheral southern parts of the volcanic–intrusive complex.

Gold is an important component in the epithermal part of the complex. Its distribution is known by systematic assaying of drift and drill-core samples. Several research studies have been carried out attempting to clear the details of mineralogical–chemical relationships between the geological environment and the precious metal elements. In the present study the previous mass of information is completed by microscopic, microprobe and scanning electron microscope analyses of the main ore types.

The Lahóca epithermal ore is characterized by a complex sulphide and gangue mineralogical assemblage. The host rock is highly silicified. Both „vuggy silica” and strong silicification can be observed. Porphyric minerals are often substituted by quartz and pyrite. Pyrite is the most abundant opaque mineral. It is visible in euhedral, subhedral, framboidal and amorphous forms. Rutile needles are frequently associated with pyrite. Dawsonite was also determined. Enargite, luzonite and marcasite are present in minor quantities.

Gold assay results extend a few tenths to ten ppm. Gold is associated both with pyrite and quartz in native form. It does not contain measurable silver. It forms a few microns to few ten microns large aggregate-like structures. The largest native gold that was found in silica environment is 40 µm. A few microns large native silver was also visible. Different minerals of Sn, Cu, Te, As and Sb were also identified as inclusions in enargite.

References

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