Boulangerite and robinsonite from the Ochtiná-Čížko baňa occurrence (Slovak Republic)

MARTIN ŠTEVKO ¹)*A JIŘÍ SEJKORA ²)

¹) UK Mining Ventures Ltd., No. 1, The Old Coach Yard, East Coker, Somerset, BA22 9HY, Great Britain; *e-mail: msminerals@gmail.com
²) Mineralogicko-petrologické oddělení, Národní muzeum, Cirkusová 1740, 193 00 Praha 9 - Horní Počernice, Česká republika


Abstract

Pb sulphosalts, boulangerite and robinsonite were identified at the dump of the Middle adit, Čížko mine near Ochtiná, Slovak Republic. They occur as impregnations and irregular aggregates up to 5 mm in size, which are enclosed in quartz gangue with abundant pyrite and minor scheelite. Boulangerite is dominant phase of sulphosalts aggregates and it forms homogenous acicular crystals up to 300 μm in length, which are associated with minor robinsonite and galena. Besides of Pb, Sb and S it also contain minor amounts of Bi (up to 0.14 apfu), As (up to 0.11 apfu) and Cl (up to 0.05 apfu) and its average (n = 12) empirical formula is Pb₄.₈₃(Sb₃.₈₄Bi₀.₁₂As₀.₄₄)Σ₄.₀₀S¹₁.₁₄Cl₀.₀₃ based on sum of atoms = 20 apfu. Robinsonite is minor constituent of sulphosalts aggregates. It occur as acicular crystals up to 250 μm in length, which are intergrown with boulangerite and minor galena. Robinsonite from Čížko mine has elevated contents of Bi (up to 0.52 apfu), As (up to 0.07 apfu) and Cl (up to 0.05 apfu), with average (n = 12) empirical formula Pb₃.₈₀(Sb₅.₅₂Bi₀.₄₀As₀.₄₄)Σ₅.₉₆S¹₃.₁₆Cl₀.₃₂ based on sum of atoms = 2₃ apfu.

Key words: boulangerite, robinsonite, sulphosalts, chemical composition, Rochovce intrusion, Čižko baňa, Ochtiná, Slovak Republic