



## **Lead and Zinc Contents and Distribution in the Mineral Deposit of Hajvali, Kosovo**

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**Abstract.** In this paper, we present the metals content of lead (Pb), zinc (Zn), and their distribution in the Hajvali mineral deposit. Same ore bodies are studied about the zinc (Zn) and lead (Pb) content and the geochemical surfaces are drawn for the ore body 1 in the deepest 9th working level (average content: Zn-21.6 % and Pb-11.7 %). The correlations of Zn and Pb content in thirty (30) representative underground samples of the Hajvali mineral deposit results insignificant. Significant correlations exist between Pb and Ag content. Silver (Au) is correlated with sphalerite. The same regularities are seen in the distribution of Zn and Pb content across the ore bodies and in the surface of the ore body 1 in the IX-th level. The Zn/Pb ratio is 2-3 in average with a wide range (0.3-12). The Zn “anomalies” are found in the middle part of the bodies and the Pb one in the peripheral parts. There is a constant Zn, Pb deposition until the depth of 345m, then a clear trend of the increasing content in the depth. The temperature conditions seem to control the main contents of zinc (Zn) mesothermal and lead (Pb) mesothermal–epithermal phase. The main content of silver (Ag) is correlated with the crystallization of galena and pyrargyrite.

**Key words;** *Distribution, polymetallic mineralization, lead, zinc, silver, mineral deposit, Hajvali, Kosovo*

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