

Determination of Estimation Space of Reserve Evaluation in Hypogene Zone of Ali Abad-Yazd Porphyry Copper deposit using Indicator Kriging

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ABSTRACT

In order to control the "estimation space" it is necessary to determine a specific area as "estimation space" first. This area must be a space which has maximum ore blocks and minimum waste blocks. Generally, this space is recognized by ore and waste boundary. Such process is important for determining the Behavior of ore composition with various qualities, for feeding of mineral processing plant. In this paper Indicator Kriging was used to determine the ore estimation space in Hypogene Zone of Ali Abad-Yazd Porphyry Copper deposit. Probability map of greater or equal quantities of a particular cut off grade could be drawn using Indicator Kriging results. If this cut off grade matched with economic cut off grade, this map explained ore and waste boundary. The optimized boundary of ore and waste blocks were determined considering %0.15 as the cut off grade of Cu and ore tonnage was evaluated equal to 76406250 tones in hypogene zone, considering the same cut off grade.

Keywords: Indicator Kriging, estimation space, Ali-abad Yazd Copper deposit, cut off grade