

UGM Doctoral Student Examines Gold Deposits of Randu Kuning Hill and Papandayan


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To estimate mineral resources, people have been relying more on the content facts to identify the chances of mineral deposits. Meanwhile, qualitative geological data variables have not been used as an optimization of drilling data, core sample, and mineragraphy analysis result. Doctoral student in Geology UGM, Nurhamim, S.T., M.T., conducted a research using qualitative geological variables to determine the mineral content of Randu Kuning Hill in Wonogiri, Central Java, and the prospect of low and medium sulphidation epithermal gold in Arinem, Papandayan, Garut city, West Java.

Other than studying the distance between boreholes, his research uses geological variables of sediment geometry, alteration intensity, mineral proportions, and level distribution. Nurhamim admitted the research can determine the prospect of gold and copper deposits in the area. "It focuses on the study of geological variables that affect exploration risk by optimizing data from core drilling. The geological risk is found in the probability value of gold deposits," said the Mining Engineering lecturer of UPN Yogyakarta during his doctoral public examination at KPTU of UGM Faculty of Engineering, Monday (7/30).

Based on the comparison of content distribution map and gold probability map, Nurhamim stated there is a strong correlation between convergence of high-grade blocks and high probability blocks. He mentioned there are 36 blocks in Arinem and 11 in Randu Kuning that have a similar content



distribution location and pattern with gold probability. Therefore, it shows a strong correlation between the content distribution and gold probability.

Meanwhile, the calculation of risk and mineral deposit probability show that gold and copper prospects in Randu Kuning are lower at 43,31 and 26,39 percent. On the other hand, epithermal gold prospects in Arinem are 96,82 percent for gold and 48,83 percent for silver. "The complexity of porphyry gold and silver deposits in Randu Kuning is more complex, so the exploration risk tends to be higher," he concluded.

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