

Mineralogical and Geochemical Signatures of Gold-Silver-Base Metal Mineralization in Bantarhuni Vein of Arinem Deposit, Western Java, Indonesia

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Introduction

The so-far unexploited mineralization in Arinem deposit, to date has been regarded as low to high sulfidation epithermal quartz vein deposit (Yuningsih et al, 2012; Yuningsih and Matsueda, 2014). Gold exploration in the Arinem area and its surroundings has started since the early 1980s by Antam, the state mining company. Since 1990, detail exploration, including some drilling activities, is ongoing to define the gold and base metal reserve as well as the deposit characteristics.

Arinem area is located on the island of Java as a part of West Java province of Indonesia. The deposit is located at the south of Mt. Papandayan active volcano, about 200 km southeast of the capital city of Jakarta (Fig. 1).

As a general guide to the economics of mining, a target study is focus in the Arinem and Bantarhuni veins mineralization with potential to develop, then should be subject to more detailed evaluation. The purpose of present study is to characterize the mineralogical and geochemical signatures of the mineralization in Bantarhuni vein of Arinem deposit.

This study documents the complex of mineralogy and geochemistry in Au-Ag-base metal hydrothermal system and based mainly on samples collected from exploration drill holes (drilled by PT. Antam Tbk.) in Bantarhuni vein. Detailed sampling of the mineralized

vein was undertaken, as well as sampling of the altered host rocks. Seven drill holes data of Bantarhuni vein are analyzed with over a length of 1,000m and depth of 290m. Some surface data is also available to support the investigation.

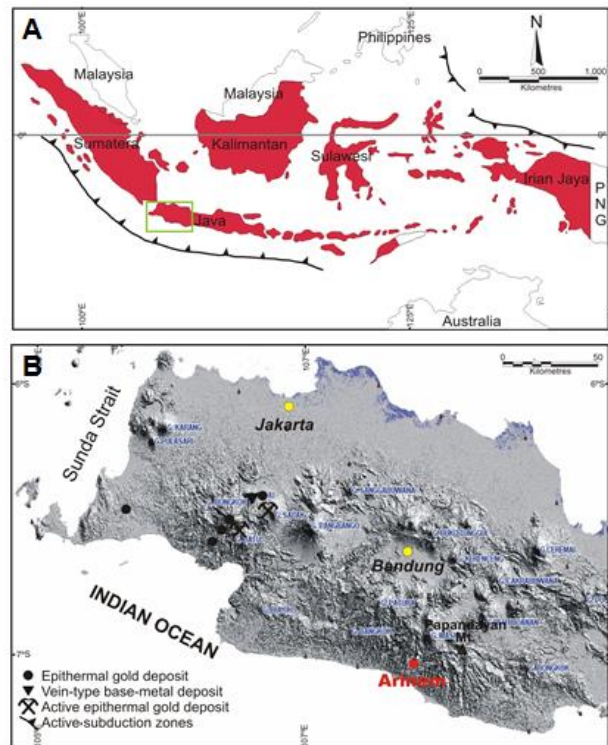


Figure 1. (A) map of the Indonesia region, (B) Morphology of western Java with the distribution of active volcanoes and ore deposits. The location of the Arinem deposit is indicated.

Geology and Tectonic Setting