SARI

Pegunungan Kulon Progo tersusun atas batuan gunung api Tersier dan memiliki prospek mineralisasi yang cukup banyak, antara lain Gunung Menoreh, Daerah Kaligono, dan Daerah Bagelen. Penelitian ini dilakukan pada bagian barat Gunung Api Ijo, tepatnya pada Desa Somorejo dan sekitarnya, Kecamatan Bagelen, Kabupaten Purworejo, Provinsi Jawa Tengah dan membahas mengenai alterasi dan mineralisasi berdasarkan aspek mineralogi dan tekstural yang ada pada. Tahapan penelitian yang dilakukan dibagi menjadi lima tahapan, yakni tahap pendahuluan, tahap pekerjaan lapangan, tahap analisis laboratorium, tahap integrasi hasil analisis dan interpretasi, serta tahap pelaporan. Daerah penelitian tersusun atas batuan terobosan, yakni satuan andesit dan satuan dasit. Struktur geologi yang dijumpai pada daerah penelitian, antara lain kekar kompresi, kekar ekstensi, serta sesar geser sinistral, dan sesar geser dekstral. Batuan andesit dan dasit berlaku sebagai *hostrock* yang bersifat lebih brittle dan ketika terbentuk struktur akan terbentuk jalan untuk diterobos oleh fluida hidrotermal. Kontrol sesar yang memberikan jalan kepada fluida hidrotermal berupa *sheeted veins*, *splay*, dan *flexure*. Alterasi hidrotermal yang dijumpai pada daerah penelitian, antara lain kuarsa- serisit-pirit-*illite*±karbonat, pirit±klorit±karbonat, smektit-*illite*-kaolinit±kuarsa, dan *illite*-kaolinit-kuarsa±smektit, serta *illite*-kaolinit-kuarsa. Urat hidrotermal yang terbentuk memiliki struktur urat berupa massif *vuggy*, dan *stockwork* serta tekstur urat berupa masif, *comb*, dan *drussy*. Urat hidrotermal yang terbentuk memiliki komposisi mineral *gangue*, seperti kuarsa, kalsedon, barit, kalsit, dan mineral oksida, serta mineral logam, antara lain sfalerit, galena, pirit, kalkopirit, dan hematit. Keterdapatan urat hidrotermal yang mengandung mineral *gangue* dan mineral bijih dapat menunjukkan tahapan mineralisasi yang terbentuk pada daerah penelitian. tahapan mineralisasi di daerah penelitian dapat dibagi menjadi lima tahapan, yaitu tahapan awal, tengah 1, tengah akhir, 2, dan supergen. Berdasarkan karakteristik endapan mineral yang meliputi *hostrock*, tekstur urat, tekstur bijih, dan lain-lain, daerah penelitian menunjukkan bahwa tipe endapan epitermal sulfidasi rendah dengan *style epithermal quartz Au-Ag*.

Kata kunci: Endapan mineral, Endapan epitermal, Pegunungan Kulon Progo, Bagelen, Purworejo

Abstract

The Kulon Progo Dome are composed of Tertiary volcanic rocks and have quite a lot of mineralization prospects, including Mount Menoreh, Kaligono District, and Bagelen District. This research was conducted in the western part of Ijo Volcano, especially in Somorejo Village and its surroundings, Bagelen District, Purworejo Regency, Central Java Province. This research will discusses alteration and mineralization based on mineralogical and textural aspects. The stages of the research carried out were divided into five stages, namely the preliminary stage, the fieldwork stage, the laboratory analysis stage, the integration stage of the analysis and interpretation results, and the reporting stage. The research area is composed of intrusive rocks, namely the andesite and dacite. Geological structures found in the study area include compression fractures, extension fractures, sinistral shear faults, and dextral shear faults. Andesite and dacite rocks act as hostrock which is brittle and when a structure is formed, a way is formed to be penetrated by hydrothermal fluid. Fault control gives way to hydrothermal fluids in the form of sheeted veins, splay, and flexure. Hydrothermal alterations found in the study area include quartz-sericite-pyrite-illite±carbonate, pyrite±chlorite±carbonate, smectite-illite-kaolinite±quartz, and illite-kaolinite-quartz±smectite, and illite-kaolinite-quartz. The hydrothermal veins formed have a vein structure in the form of massive, vuggy, and stockwork and vein textures in the form of massive, comb, and drussy. The hydrothermal veins formed have a gangue mineral composition, such as quartz, chalcedony, barite, calcite, and oxide minerals, as well as metal minerals, including sphalerite, galena, pyrite, chalcopyrite, and hematite. The presence of hydrothermal veins containing gangue minerals and ore minerals can indicate the stages of mineralization formed in the study area. The stages of mineralization in the research area can be divided into five stages, namely the initial stage, middle 1, middle final, 2, and supergene. Based on the characteristics of mineral deposits which include hostrock, vein texture, ore texture, the research area shows that the type of epithermal deposits is low sulfidation with epithermal quartz Au-Ag style.

Keywords: Hydrothermal alteration, epithermal deposits, Kulon Progo Dome, Bagelen, Purworejo