Karakteristik Mikrofasies Batugamping Formasi Bojongmanik, Studi Kasus Gunung Jambu, Kecamatan Leuwisadeng, Kabupaten Bogor = Characteristics of Limestone Microfacies in Bojongmanik Formation Study Case of Mount Jambu, Leuwisadeng District, Bogor Regency

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Abstrak

Gunung Jambu merupakan sebuah bukit karbonat terisolir. Keunikan dari bukit ini ialah pada kondisi geologinya, di mana batugamping tersingkap secara masif. Bukit ini termasuk pada Anggota Batugamping Formasi Bojongmanik yang memiliki umur Miosen dengan komposisi litologi berupa batugamping. Bukit ini terletak pada Kecamatan Leuwisadeng, Kabupaten Bogor, Jawa Barat. Penelitian ini bertujuan untuk menentukan mikrofasies, zona fasies, serta tipe dan kualitas porositas pada sayatan tipis batugamping di daerah penelitian. Metode yang digunakan berupa analisis secara kualitatif dan kuantitatif dengan menggunakan data sayatan petrografi untuk mengetahui tekstur, kandungan fosil, serta porositas. Berdasarkan analisis mikrofasies pada daerah penelitian, ditemukan 5 tipe mikrofasies standar yang berbeda berdasarkan Flugel (2010), yaitu SMF 5, SMF 7, SMF 8, SMF 10, dan SMF 12. Setelah tipe mikrofasies diketahui, didapatkan 4 tipe zona fasies berdasarkan model Wilson (1975), yaitu FZ 2 deep shelf, FZ 4 slope, FZ 5 platform margin reefs, dan FZ 7 open marine. Terdapat 5 jenis porositas yang berkembang, yaitu vug, moldic, intraparticle, fracture, dan fenestral dengan nilai porositas berkisar antara 0 hingga 22% yang dihitung menggunakan rumus berdasarkan data grid point counting. Dari nilai porositas tersebut dapat diketahui batuan pada daerah penelitian terdapat kualitas porositas negligible hingga good, sehingga disimpulkan bahwa zona fasies mungkin memiliki hubungan terhadap kualitas batugamping tertentu.
.....Mount Jambu is an isolated carbonate hill. The uniqueness of this hill is in its geological conditions where the limestone is exposed massively. This hill belongs to the Limestone Member of the Bojongmanik Formation which has a Miocene age with a lithological composition of limestone. This hill is located in Leuwisadeng District, Bogor Regency, West Java. This study aims to determine the microfacies, facies zones, and the type and quality of porosity in thin sections of limestone in the study area. The method used is in the form of qualitative and quantitative analysis using petrographic incision data to determine texture, fossil content, and porosity. Based on microfacies analysis in the study area, 5 different types of standard microfacies were found according to Flugel (2010), namely SMF 5, SMF 7, SMF 8, SMF 10, and SMF 12. After the microfacies type was known, 4 types of facies zones were obtained based on the Wilson model. (1975), namely FZ 2 deep shelf, FZ 4 slope, FZ 5 platform margin reefs, and FZ 7 open marine. There are 5 types of porosity that develop, namely vug, moldic, intraparticle, fracture, and fenestral with porosity values ranging from 0 to 22% calculated using a formula based on grid point counting data. From the porosity value, it can be seen that the rock in the study area has a negligible to good porosity quality, so it can be concluded that the facies zone may have a relationship with certain limestone qualities.