Diagenesis Batugamping di Formasi Bojongmanik Berdasarkan Analisa Petrografi = Limestone Diagenesis in the Bojongmanik Diagenesis Formation Based on Petrographic Analysis

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Abstrak

Formasi Bojongmanik adalah endapan yang termasuk bagian Blok Banten, memiliki rentang umur Miosen Tengah hingga awal Pliosen yang perselingan batupasir, napal, batulempung menyerpih dan batugamping (Sudana dan Santosa, 1992). Anggota batugamping Formasi Bojongmanik merupakan batugamping mengandung moluska dengan umur setara Miosen Tengah (Efendi, 1998). Tujuan daripada penelitian ini untuk mengetahui penamaan mikroskopis, proses diagenesis yang bekerja pada batugamping di Formasi Bojongmanik, mengetahui tahapan diagenesis dan hubungan proses diagenesis dengan porositas batugamping. Metode yang digunakan dalam penelitian ini adalah analisa petrografi. Berdasarkan hasil penelitian dari 15 sampel sayatan tipis Formasi Bojongmanik terdapat 3 jenis batugamping yakni, batugamping packstone, batugamping floatstone, dan batugamping wakckestone yang mengalami proses diagenesis sementasi, pelarutan, neomorfisme, mikritisasi mikrobial dan kompaksi. Lingkungan pengendapan diagenesis batugamping Formasi Bojongmanik berada pada lingkungan marine phreatic, burial, meteoric phreatic dan meteoric vadose. Porositas yang dominan ditemukan yakni tipe vuggy dan intraparticle. Salah satu faktor yang mempengaruhi proses diagenesis adalah keterbentukan porositas sekunder pada batugamping. Semakin rendah nilai porositas menandakan hanya sedikit efek pelarutan, semakin tinggi nilai porositas menunjukan berada di zona phreatic banyak terjadinya pelarutan.
.....The Bojongmanik Formation is a deposit that belongs to the Banten Block, has an age range from Middle Miocene to early Pliocene which is interspersed with sandstone, marl, shale claystone, and limestone (Sudana and Santosa, 1992). The limestone members of the Bojongmanik Formation are limestones containing mollusks with an age equivalent to the Middle Miocene (Efendi, 1998). This research aims to know the microscopic labeling, the diagenetic process that works on the limestone in the Bojongmanik Formation, the stages of diagenesis, and the relationship between the diagenetic process and the porosity of the limestone. The method used in this research is petrographic analysis. Based on the research results from 15 samples of thin incisions of the Bojongmanik Formation, there are 3 types of limestone namely, packstone limestone, floatstone limestone, and wackestone limestone which undergo the process of diagenetic cementation, dissolution, neomorphism, microbial micritization, and compaction. The depositional environment of the diagenetic limestones of the Bojongmanik Formation is in marine phreatic, burial, meteoric phreatic and meteoric vadose environments. The dominant porosity was found to be vuggy and intraparticle types. One factor that influences the process of diagenesis is the formation of secondary porosity in limestone. The lower the porosity value indicates that there is a little dissolving effect, the higher the porosity value indicates that there is a lot of dissolving in the phreatic zone.