

ABSTRAK

Formasi Baturaja, Lapangan “FR”, termasuk dalam Sub-Cekungan Palembang Selatan, Cekungan Sumatra Selatan yang berada pada Blok Lematang. Cekungan Sumatra Selatan ini merupakan salah satu cekungan yang cukup prospek dalam proses eksplorasi hidrokarbon yang berupa minyak maupun gas. Berdasarkan hal tersebut, dilakukan suatu penelitian pada Formasi Baturaja, Lapangan “FR”, untuk mengetahui siklus stratigrafi pada area penelitian dan melakukan pemodelan dari fasies lingkungan pengendapan pada lokasi penelitian. Penelitian dilakukan dengan melakukan analisis persebaran fasies dan interpretasi lingkungan pengendapan dengan menggunakan data sumur yang meliputi data *core*, *mud log*, dan data log sumur. Berdasarkan analisis dan pengolahan data yang dilakukan, diketahui bahwa formasi pada daerah penelitian tersusun atas batugamping yang terbentuk pada Miosen Awal yaitu terdiri dari litofasies *Mudstone*, *Wackestone*, *Floatstone*, *Rudstone*, dan *Bindstone* yang terdapat pada bagian *Upper Baturaja*, sedangkan untuk *Lower Baturaja* terdiri dari litofasies berupa *Shale*, *Sandy Limestone*, dan *Terrigenous Mudstone*. Daerah penelitian ini terdiri atas 2 siklus yang meliputi *Maximum Flooding Surface* (MFS 1), *Maximum Regressive Surface* (MRS 1), *Sequence Boundary* (SB 1), *Maximum Flooding Surface* (MFS 2), *Maximum Regressive Surface* (MRS 2), *Sequence Boundary* (SB 2). Berdasarkan interpretasi yang dilakukan, lingkungan pengendapan litofasies-litofasies daerah penelitian adalah lingkungan *interreef lagoonal*, *reef flat lagoon*, *reef*, dan *reef flat*. Pada daerah penelitian, berkembang struktur geologi yang berupa sesar berarah relatif barat-timur dan sesar normal yang berarah relatif baratdaya-timurlaut yang terbentuk saat fase kompresi pada megasiklus *syn-orogenic/ inversion* yang terjadi pada Pliosen–Plistosen.

Kata Kunci: Cekungan Sumatra Selatan, Fasies Karbonat, Formasi Baturaja, Siklus Stratigrafi

ABSTRACT

The Baturaja Formation, "FR" Field, is included in the South Palembang Sub-Basin, South Sumatra Basin which is in the Lematang Block. The South Sumatra Basin is one of the basins that is quite promising in the process of exploring hydrocarbons in the form of oil and gas. Based on this, research was carried out on the Baturaja Formation, "FR" Field, to determine the stratigraphic sequence in the research area and to model the depositional environmental facies at the research location. The research was carried out by analyzing the distribution of facies and interpreting the depositional environment using well data which includes core data, mud logs, well log data, and secondary seismic data. Based on the analysis and data processing carried out, it is known that the formation in the study area is composed of limestone which was formed in the Early Miocene, namely consisting of the lithofacies Mudstone, Wackestone, Floatstone, Rudstone, and, Bindstone which is found in the Upper Baturaja section, while for Lower Baturaja it consists of lithofacies in the form of Shale, Sandy Limestone, and Terrigenous Mudstone. This research area consists of 2 sequences which include Maximum Flooding Surface (MFS 1), Maximum Regressive Surface (MRS 1), Sequence Boundary (SB 1), Maximum Flooding Surface (MFS 2), Maximum Regressive Surface (MRS 2), Sequence Boundary (SB 2). Based on the interpretation carried out, the depositional environments of the lithofacies - lithofacies in the study area are interreef lagoonal, reef flat lagoon, reef, and reef flat environments. In the study area, geological structures have developed in the form of faults trending relatively west-east and normal faults trending relatively southwest-northeast which were formed during the compression phase of the syn-orogenic/inversion mega-sequence that occurred in the Pliocene–Pleistocene.

Keywords: *South Sumatra Basin, Carbonate Facies, Baturaja Formation, Stratigraphic Sequence*