

ABSTRACT

The Gabus formation is located in the West Natuna Basin. This field is a production field and is still being explored to find oil and gas reserves. In order to carry out field development and exploration activities, it is necessary to carry out appropriate analysis and interpretation, one of which is by analyzing the depositional environment. The Upper Gabus Formation is the main target because this layer has the potential to be a reservoir rock containing oil and gas.

Broadly speaking, there are two methods carried out in this study, namely the well data analysis method and seismic data analysis, but only the well data analysis was carried out. Well data analysis is done by integrating wireline log data, mud log data, and study of log data. Based on the integration of wireline log data and mud log data, 4 sandstone reservoirs were obtained.

Based on the log pattern classification, the log pattern is obtained in the form of funnel and cylindrical, so it is interpreted that the "TKN" Field has lithological variations in the form of sandstone and shale, has a sedimentation process that is in the maximum flood zone and there is an association of reservoir depositional facies in the form of interdistributary channels and distributary channels with a depositional environment in the form of a Delta Plain.

Keywords: West Natuna Basin, Upper Gabus Formation, depositional facies association, depositional environment, sedimentation.

ABSTRAK

Formasi gabus terletak di Cekungan Natuna Barat. Lapangan ini merupakan lapangan produksi dan masih diekplorasi untuk menemukan cadangan minyak dan gas bumi. Guna melakukan kegiatan pengembangan lapangan dan eksplorasi maka perlu dilakukan analisis dan interpretasi yang tepat, salah satunya yaitu dengan melakukan analisis lingkungan pengendapan. Formasi *Upper Gabus* menjadi target utama karena lapisan ini berpotensi sebagai batuan reservoir yang mengandung minyak dan gas bumi.

Secara garis besar terdapat dua metode yang dilakukan dalam penelitian ini, yaitu metode analisis data sumur dan analisis data seismik namun yang dilakukan hanya analisis data sumur. Analisis data sumur dilakukan dengan mengintegrasikan data *wireline log*, data *mud log*, dan studi tentang data log. Berdasarkan integrasi data *wireline log* dan data *mud log* didapatkan 4 reservoir batupasir.

Berdasarkan klasifikasi *log pattern*, didapatkan *log pattern* berupa *funnel* dan *cylindrical*, sehingga diinterpretasikan pada Lapangan “TKN ” memiliki variasi litologi berupa batu pasir dan serpih, memiliki proses sedimentasi yang berada pada zona banjir maksimum serta terdapat asosiasi fasies pengendapan reservoir berupa *interdistributary channel* dan *distributary channel* dengan lingkungan pengendapan berupa *Delta Plain*.

Kata kunci : Cekungan Natuna Barat, Formasi *Upper Gabus*, asosiasi fasies pengendapan, lingkungan pengendapan, sedimentasi