

SARI

Cekungan Kutai merupakan salah satu cekungan terbesar penghasil hidrokarbon di Indonesia. Cekungan Kutai memiliki nilai ekonomis yang tinggi dengan proses eksplorasi dan eksploitasi yang telah dilakukan oleh beberapa perusahaan minyak dan gas bumi sejak tahun 1898. Cekungan Kutai tersusun atas beberapa formasi, salah satunya Formasi Kampungbaru yang memiliki karakteristik reservoir yang beragam.

Dalam penelitian ini, peneliti menggunakan metode elektrofases, sikuen stratigrafi, *system tract*, fasies, dan lingkungan pengendapan yang terbagi menjadi empat tahap, yaitu tahap pendahuluan, tahap pengumpulan data, tahap analisis data, dan tahap penyelesaian. Secara garis besar dilakukan beberapa analisis, yaitu analisis sumuran, analisis korelasi sumur, analisis fasies dan lingkungan pengendapan, analisis karakteristik reservoir, analisis peta bawah permukaan.

Berdasarkan analisis data didapatkan litologi berupa batupasir, *shale*, batugamping, batubara. Asosiasi fasies penyusun tiap sumur penelitian adalah *channel*, *interdistributary bay* dan *tidal channel* dengan lingkungan pengendapan yaitu *delta plain* dan *delta front*. Sikuen stratigrafi pada interval penelitian, Formasi Kampungbaru terdiri dari marker sikuen stratigrafi berupa *Sequence Boundary* (SB), *Transgressive Sureface* (TS), dan *Maximum Flooding Surface* (MFS). Dengan karakteristik reservoir menggunakan klasifikasi dari Koesoemadinata (1980), berdasarkan nilai porositas efektif pada lapisan A tergolong sangat baik – istimewa, pada lapisan B tergolong istimewa. Sedangkan karakteristik reservoir berdasarkan nilai permeabilitas pada lapisan A tergolong ketat - baik, pada lapisan B tergolong baik – baik sekali. Sehingga dari perbandingan karakteristik pada kedua lapisan lebih baik lapisan A sebagai reservoir meskipun keduanya sama – sama memiliki karakteristik yang tergolong bagus untuk dilakukan eksploitasi.

Kata kunci : Cekungan Kutai, Delta, Fasies, Formasi Kampungbaru, Lingkungan Pengendapan

ABSTRACT

Kutai Basin is one of the largest hydrocarbon producing basins in Indonesia. Kutai Basin has high economic value with exploration and exploitation processes that have been carried out by several oil and gas companies since 1898. Kutai Basin is composed of several formations, one of which is the Kampungbaru Formation which has diverse reservoir characteristics.

In this study, researchers used electrofacies, sequence stratigraphy, system tract, facies, and depositional environment methods which were divided into four stages, namely the preliminary stage, data collection stage, data analysis stage, and completion stage. In general, several analyses were carried out, namely well analysis, well correlation analysis, facies and depositional environment analysis, reservoir characteristic analysis, and subsurface map analysis.

Based on data analysis, the lithology obtained is sandstone, shale, limestone, coal. The facies association of each research well is channel, interdistributary bay and tidal channel with depositional environments, namely delta front and pro-delta. The stratigraphic sequence in the research interval, the Kampungbaru Formation consists of stratigraphic sequence markers in the form of Sequence Boundary (SB), Transgressive Surface (TS), and Maximum Flooding Surface (MFS). With reservoir characteristics using the classification of Koesoemadinata (1980), based on the effective porosity value in layer A, it is classified as very good - special, in layer B it is classified as special. While the reservoir characteristics based on the permeability value in layer A are classified as tight - good, in layer B it is classified as good - very good. So from the comparison of characteristics in both layers, layer A is better as a reservoir even though both have characteristics that are classified as good for exploitation.

Keyword : *Kutai Basin, Delta, Facies, Kampungbaru Formation, Depositional Environment*