

SARI

Cekungan Sumatra Tengah dikenal sebagai cekungan matang dan memiliki potensi hidrokarbon yang sangat baik. Cekungan Sumatra Tengah merupakan salah satu cekungan penyumbang migas terbesar bagi Indonesia. Cekungan Sumatra Tengah tersusun atas beberapa formasi, salah satunya Formasi *Upper Red Bed* dan Formasi *Brown Shale* yang memiliki karakteristik *reservoir* yang beragam. Metode yang digunakan dalam penelitian adalah metode deskriptif analitik yang terdiri dari interpretasi litologi menggunakan metode penentuan *cut-off* dan analisis fasies menggunakan metode elektrofases. Berdasarkan analisis data didapatkan litologi berupa batupasir masif berukuran sangat halus – kasar dan *shale* berwarna coklat. Asosiasi fasies penyusun tiap sumur penelitian adalah *braided stream*, *overbank* dan *floodplain*, *channel*, *crevasse splay*, *fan delta*, *prodelta*, *shallow lacustrine* dan *deep lacustrine* dengan lingkungan pengendapan *Fluvial-Lacustrine*. Berdasarkan hasil analisis kontrol fasies terhadap karakteristik *reservoir*, fasies *braided stream* dan *channel* termasuk dalam pengontrol yang sangat baik untuk karakteristik *reservoir*, pada fasies *fan delta* termasuk dalam pengontrol cukup baik untuk karakteristik *reservoir*, dan pada fasies *shallow lacustrine* termasuk dalam pengontrol buruk untuk karakteristik *reservoir*.

Kata Kunci: Formasi *Brown Shale*, Formasi *Upper Red Bed*, Fasies, Karakteristik, *Reservoir*

ABSTRACT

The Central Sumatra Basin is known as a mature basin and has excellent hydrocarbon potential. The Central Sumatra Basin is one of the largest oil and gas contributing basins for Indonesia. The Central Sumatra Basin is composed of several formations, one of which is the Upper Red Bed Formation and the Brown Shale Formation which have diverse reservoir characteristics. The method used in the research is analytical descriptive method consisting of lithology interpretation using cut-off determination method and facies analysis using electrofacies method. Based on data analysis, the lithology is obtained in the form of massive sandstones of very fine - coarse size and brown shale. The facies association of each research well is braided stream, overbank and floodplain, channel, crevasse splay, fan delta, prodelta, shallow lacustrine and deep lacustrine with Fluvial-Lacustrine depositional environment. Based on the results of the facies control analysis of reservoir characteristics, braided stream and channel facies are excellent controllers of reservoir characteristics, fan delta facies are fair controllers of reservoir characteristics, and shallow lacustrine facies are poor controllers of reservoir characteristics.

Keywords: *Brown Shale Formation, Upper Red Bed Formation, Facies, Characteristics, Reservoir,*