RINGKASAN

Formasi Talang Akar merupakan salah satu formasi penyusun Cekungan Sumatera Selatan yang berumur Oligosen Akhir hingga Miosen Awal. Formasi Talang Akar tersebar cukup banyak dan merata di daerah penelitian. Metode yang digunakan dalam penelitian ini mencakup pemetaan geologi, *measuring section* (MS), dan analisa petrografi. Dusun Sungai Landai Kabupaten Tebo Provinsi Jambi merupakan target penelitian yang berada di Cekungan Sumatera Selatan terdiri dari Formasi Lahat, Formasi Talangakar dan Formasi Gumai. Ketebalan lapisan batubara termasuk dalam salah satu parameter geometri lapisan batubara. Geometri lapisan batubara dipengaruhi oleh faktor lingkungan pengendapan dan proses tektonik yang berlangsung. Hasil pemetaan geologi menunjukkan bahwa penyusun Formasi Talang Akar yang terdapat di daerah penelitian terdiri atas batulempung batupasir dan batubara. Analisis lingkungan pengendapan batubara terhadap ketebalan lapisan batubara dilakukan dengan dua macam analisis yaitu analisis makroskopis pada profil stratigrafi dan analisis mikroskopis yaitu petrografi batubara. Berdasarkan analisis secara makrokopis dengan melihat asosiasi fasies dari beberapa profil di lapangan lalu menginterpretasikan lingkungan pengendapan nya didapatkan lingkungan pengendapan lower delta plain dengan sub lingkungan pengendapan *crevasse splay*, *channel, interdisributary bay, dan swamp*. Sedangkan berdasarkan analisis secara mikroskopis yaitu petrografi batubara yang merupakan sampel dari lokasi pengamatan 15, didapatkan bahwa lingkungan pengendapan yaitu *lower delta plain* dengan fasies *marsh* yaitu rawa yang didominasi oleh tumbuhan perdu atau tanaman merambat yang sering terdapat disekitar pinggir danau atau laut secara periodik oleh air tawar atau air garam Dari kedua analisis tersebut baik secara makroskopis dan mikroskopis didapatkan bahwa lingkungan pengendapan batubara di daerah penelitian adalah *lower delta plain*. Dimana pengaruh dari lingkungan pengendapan *lower delta plain* terhadap ketebalan lapisan batubara di daerah penelitian mengakibatkan adanya variasi ketebalan pada lapisan batubara yang dipengaruhi oleh morfologi serta keterdapatan fenomena geologi batubara yaitu *chanelling*.

Kata Kunci *: Lingkungan Pengendapan, Ketebalan, Talangakar, Batubara.*

SUMMARY

The Talang Akar Formation is one of the formations that make up the South Sumatra Basin which is in the Late Oligocene to Early Miocene age. The Talang Akar Formation is quite abundant and evenly distributed in the study area. The methods used in this study include geological mapping, measuring section (MS), and petrographic analysis. Sungai Landai Hamlet, Tebo Regency, Jambi Province is a research target located in the South Sumatra Basin consisting of the Lahat Formation, Talangakar Formation and Gumai Formation. Coal seam thickness is one of the parameters of coal seam geometry. The geometry of the coal seam is influenced by environmental factors of deposition and tectonic processes that take place. The results of geological mapping show that the constituents of the Talang Akar Formation in the study area consist of claystone, sandstone and coal. Coal depositional environmental analysis of the thickness of the coal seam was carried out by two kinds of analysis, namely macroscopic analysis of the stratigraphic profile and microscopic analysis of coal petrography. Based on macroscopic analysis by looking at facies associations from several profiles in the field and then interpreting the depositional environment, it is obtained that the depositional environment is lower delta plain with crevasse splay, channel, interdistributary bay, and swamp depositional sub-environments. Meanwhile, based on microscopic analysis, namely petrography of coal which is a sample from observation location 15, it was found that the depositional environment is lower delta plain with marsh facies, namely swamps dominated by shrubs or vines that are often found around the edge of lakes or seas periodically by fresh water. or brine From the two analyzes, both macroscopically and microscopically, it was found that the coal depositional environment in the study area was lower delta plain. Where the influence of the lower delta plain depositional environment on the thickness of the coal seam in the study area resulted in variations in the thickness of the coal seam which was influenced by morphology and the presence of the geological phenomenon of coal, namely chanelling.

Keywords: Depositional Environment, Thickness, Talangakar, Coal.