

INTISARI

ANALISIS KARAKTERISTIK DAN PERKIRAAN KUALITAS BATUBARA BERDASARKAN DATA *WELL LOGGING* PADA SITE GURIMBANG, PIT “X”, PT BERAU COAL, KABUPATEN BERAU, KALIMANTAN TIMUR

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Indonesia merupakan negara dengan cadangan sumber daya alam yang melimpah, salah satunya cadangan batubara. Batubara di Indonesia secara besar dimanfaatkan dalam industri pembangkit listrik (PLTU) dan untuk memenuhi permintaan ekspor dari negara lain. Provinsi Kalimantan Timur menjadi salah satu daerah dengan potensi cadangan batubara. Penelitian ini dimaksudkan untuk memperkirakan ketebalan lapisan batubara dan kualitas batubara pada Formasi Lati, Kalimantan Timur menggunakan metode geofisika *well logging*.

Terdapat dua data yang digunakan dalam penelitian ini, data geofisika digunakan untuk melakukan interpretasi kedalaman dan ketebalan lapisan *seam* batubara, berupa data *well logging* yang mencakup *gamma ray* dan densitas dan data kualitas batubara hasil uji laboratorium, mencakup data nilai kalori dan densitas batubara. Dilakukan *crossplot* dan perhitungan nilai korelasi antara data geofisika dan data kualitas dalam melakukan analisis karakteristik batubara.

Hasil penelitian menunjukkan bahwa area penelitian memiliki ketebalan batubara antara 1,12 – 3,68 meter dan nilai densitas antara 1,35 – 1,72 gram/cc. Berdasarkan data hasil uji laboratorium berupa nilai kalori dan kadar abu batubara, batubara pada area penelitian digolongkan sebagai sub-bituminus C. Korelasi antara nilai densitas batubara dengan nilai kalori adalah cukup kuat - kuat. Sedangkan korelasi antara nilai densitas dengan kadar abu adalah cukup kuat – kuat.

Kata kunci : *Well logging*, log *gamma ray*, log densitas, kualitas batubara.

ABSTRACT

CHARACTERISTIC ANALYSIS AND ESTIMATION OF COAL QUALITY BASED ON WELL *LOGGING* DATA AT GURIMBANG SITE, PIT “X”, PT BERAU COAL, BERAU REGENCY, EAST KALIMANTAN

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Indonesia is a country with abundant reserves of natural resources, one of which is coal reserves. Coal in Indonesia is mostly used in the power generation industry (PLTU) and to meet export demand from other countries. East Kalimantan Province is one of the areas with potential coal reserves. This study is intended to estimate the thickness of the coal *seam* and coal quality in the Lati Formation, East Kalimantan using the geophysical method of well *logging*.

There are two data used in this study, geophysical data is used to interpret the depth and thickness of the coal *seam*, in the form of well *logging* data which includes *gamma ray* and density and coal quality data from laboratory tests, including data on calorific value and coal density. Crossplot and calculation of correlation value between geophysical data and quality data are performed in analyzing coal characteristics.

The results showed that the research area has a coal thickness between 1.12 – 3.68 meters and a density value between 1.35 – 1.72 gram/cc. Based on data from laboratory tests in the form of calorific value and coal ash content, coal in the research area is classified as sub-bituminous C. The correlation between coal density value and calorific value is quite strong - strong. While the correlation between the density value and the ash content is quite strong - strong.

Keywords : Well logging, gamma ray log, density log, coal quality.