

ABSTRAK

ANALISA POTENSI LAPISAN BATUBARA BERDASARKAN DATA *WELL LOGGING* DAN UJI *SAMPLE CORE* DAERAH “X”, KABUPATEN TABALONG, PROVINSI KALIMANTAN SELATAN

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Telah dilakukan penelitian menggunakan metode *Well Logging* di Kabupaten Tabalong, Provinsi Kalimantan Selatan, yang bertujuan mengidentifikasi litologi, menentukan karakteristik lapisan batubara, serta menentukan lapisan batubara (*Seam*) potensial yang ada di daerah penelitian, berdasarkan data *Well Logging* dan uji kualitas *sample core*.

Data yang digunakan dalam penelitian ini berupa data *Well logging* dalam bentuk defleksi kurva log, hasil uji kualitas *sample core* dari hasil kegiatan pemboran yang dilakukan pada 6 sumur dengan kedalaman yang bervariasi. Pengolahan data dilakukan dengan menggunakan *software interactive petrophysic, microsoft excel, serta corel* dengan *output* berupa penampang litologi beserta defleksi kurva log.

Berdasarkan penampang litologi, defleksi kurva log, serta uji kualitas *sample core* di peroleh Pada Daerah penelitian terdapat 2 *Seam* potensial yaitu seam T100 pada sumur ST678, ST1151, dan GA26 sedangkan pada seam T300 terdapat di sumur ST703C, ST1143C, dan GA52C. Pada hasil pembacaan kurva log dan hasil uji lab *Seam* T100 memiliki ketebalan rata-rata 63 – 70.6 meter, *Total moisture* 20.4 – 24.8% , *Ash Content* 0.55 – 0.70% , *Fixed Carbon* 41.9 – 43.1% , *Total Sulfure* 0.09 – 0.11 , Nilai Kalori rata – rata sebesar 5973 – 6404 Kcal/kg , serta volume shale sebesar 0.0027 – 0.0049%. Pada *Seam* T300 memiliki ketebalan rata-rata 20.68 – 53 meter, *Total moisture* 30.4 – 34% , *Ash Content* 1 – 1.9% , *Fixed Carbon* 36.3 – 38.8, *Total Sulfure* 0.09 – 0.14% , Nilai Kalori rata – rata sebesar 5430 – 5911 Kcal/kg , serta *volume shale* sebesar 0.0045 – 0.0068.

Kata kunci : *Well Logging*, batubara, *Seam* potensial.

ABSTRACT

COAL SEAM POTENTIAL ANALYSIS BASED ON WELL LOGGING DATA AND CORE SAMPLE TEST AT AREA "X" , TABALONG DISTRICT, SOUTH KALIMANTAN PROVINCE

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The research has been carried out using Well logging method in Tabalong District, South Kalimantan province, which aims to identify lithology, to determine the characteristics of a coal seam, and to determine coal seams potential in the research regions, based on Well logging data and quality data from sample cores.

The data used in this research are Well logging data in the form of deflection curve logs and core sample quality test results from the drilling activities performed on 6 wells with various depth. Data processing is done using interactive petrophysic software, Microsoft Excel, and Corel to produce cross-section along the deflection curve lithology logs.

Based on the form of a cross-sectional lithology, deflection curve logs, and the quality of the test sample obtained at the core area of research, there are 2 potential Seams. Seam T100 at well ST678, ST1151, and GA26 whereas the T300 seam found in wells ST703C, ST1143C, and GA52C. On result's reading of log curves and lab tests, Seam T100 has an average thickness of 63 - 70.6 meters, Total moisture 20.4 - 24.8%, Ash Content 0.55 - 0.70%, Fixed Carbon 41.9 - 43.1%, Total Sulfure 0.09-0.11, average Calorific Value of 5973 - 6404 Kcal/kg, and the volume of shale 0.0027 - 0.0049%. Seam T300 has an average thickness of 20.68 - 53 meters, Total moisture 30.4 - 34%, Ash Content 1-1.9%, Fixed Carbon 36.3-38.8, Total Sulfure 0.09 to 0.14%, average Calorific Value of 5430-5911 Kcal/kg, and the volume of shale amounted to 0.0045 - 0.0068.

Keywords : *Well Logging, Coal, Seam Potential*