

ABSTRACT

RELATIONS BETWEEN DENSITY AND QUALITY OF COAL BASED ON WELL LOGGING DATA, LOCATED IN BUKIT MAKMUR, TANJUNG REDEB SUB-DISTRICT, BERAU REGENCY, EAST BORNEO PROVINCE

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The research have been area is located on PT Berau Coal Bukit Makmur villag sub-district of Tanjung Redeb, Berau regency, East Borneo. With the coordinate of N 512300 - N 522239 and E 227230 - E 229722. Usable well logging data to know the quality parameter lining of coal based long spacing density log respons.

This research was uses geophysical method of well logging with 31 points drill. The purpose of this research is obtain density values at the coal and find out the density effect on the quality of coal (Total Moisture, Calorivic Value, Ash Content).

The results showed that the coal in the research area has a range of density values from 1.17 to 1.62 g/cc, total moisture from 42.06 to 48.97%, calories from 3226.43 to 3613.164 cal/g and ash content 2, 64 to 5.58%. bivariant scatterplot trideline was used to obtain the correlation of the two variables, obtained whereas in the study area has a strong until very strong relation. From the results, of the relations between density variation with total moisture has a very strong positive relations with the number of corelation is $R^2 = 0.779$. Relations between the caloric density has a positive relations with the number of corelation is $R^2 = 0.7401$. The relations between the density of the ash has strong ties categorized negative variation $R^2 = 0.6432$. Relations with the calorie content of ash has a positive variation categorized relations strong $R^2 = 0.6972 = 69.72\%$. Total Moisture relations with Calorie has a negative variation considered very strong relations $R^2 = 0, 7586$.

Keywords : well logging, density log, total moisture, calorific value, ash content