

ABSTRACT

The location of this research is in the "PBW" field of the Berau Sub Basin, North Kalimantan with a research focus on the Birang Formation. In the Berau Sub Basin area there are interesting things, especially in the Birang Formation where there is sandy lithology in the deep sea. This is very interesting to discuss because as we know, sandy lithology is generally found in terrestrial sediments. The study of facies and depositional environments is important in oil and gas exploration activities.

The method used is a descriptive analysis method in the form of well data analysis such as lithology analysis, channel system analysis, stratigraphic sequence analysis, electrofacies analysis, well correlation, facies analysis and depositional environment.

From the results of the analysis, the lithology was obtained in the form of sandstone, shale and limestone with channel systems found in the form of Lowstand System Channels, Transgressive System Channels and Highstand System Channels. Then, based on electrofacies analysis, cylindrical, funnel-shaped and bell-shaped patterns were obtained with facies development in the form of Basin Plain, Lower Fan, Middle Fan and Upper Fan. The depositional environment is the Submarine Fan.

Keywords: *Berau Sub-Basin, Facies, Birang Formation, Depositional Environment, Submarine Fan*