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Analysis of Process Methane Hydrate Formation That Include the Important Role of Deep-Sea Sediments with Analogy in Kerek Formation, Sub-Basin Kendeng, Central Java, Indonesia

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Abstract : Demand of Energy in Indonesia always increases 5-6% a year, but production of conventional energy always decreases 3-5% a year, it means that conventional energy in 20-40 years ahead will not able to complete all energy demand in Indonesia, one of the solve way is using unconventional energy that is gas hydrate, gas hydrate is gas that form by biogenic process, gas hydrate stable in condition with extremely depth and low temperature, gas hydrate can form in two condition that is in pole condition and in deep-sea condition, wherein this research will focus in gas hydrate that association with methane form methane hydrate in deep-sea condition and usually form in depth between 150-2000 m, this research will focus in process of methane hydrate formation that is biogenic process and the important role of deep-sea sediment so can produce accumulation of methane hydrate, methane hydrate usually will be accumulated in find sediment in deep-sea environment with condition high-pressure and low-temperature this condition too usually make methane hydrate change into white nodule, methodology of this research is geology field work and laboratory analysis, from geology field work will get sample data consist of 10-15 samples from Kerek Formation outcrops as random for imagine the condition of deep-sea environment that influence the methane hydrate formation and also from geology field work will get data of measuring stratigraphy in outcrops Kerek Formation too from this data will help to imagine the process in deep-sea sediment like energy flow, supply sediment, and etc, and laboratory analysis is activity to analyze all data that get from geology field work, the result of this research can used to exploration activity of methane hydrate in another prospect deep-sea environment in Indonesia.

Keywords : methane hydrate, deep-sea sediment, kerek formation, sub-basin of kendeng, central java, Indonesia
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