Delineasi reservoar migas berdasarkan dekomposisi spektral, studi kasus: lapangan FTM Cekungan Sulawesi Tengah = Reservoar geophysics oil and gas reservoir with spectral decomposition, case study: FTM field Central Sulawesi Basin

Fatimah, author

Abstrak

[Lapangan FTM sebagai lapangan minyak dan gas bumi. Pada lapangan FTM terdapat dua reservoir gas dan reservoir minyak, yaitu formasi Minahaki dan Formasi Tomori. Penelitian yang dilakukan pada formasi Tomori dengan litologi batuan karbonat dan merupakan reservoir minyak yang berumur Miocene Akhir. Stuktur ini terbentuk oleh sesar mendatar (Trust fault) dengan sudut kecil yang berarah NE-SW. Identifikasi hidrokarbon pada studi ini didasarkan pada hasil metode dekomposisi spektral. Metode dekomposisi spektral berbasis ISA dan CWT digunakan untuk
analisa anomali frekuensi rendah. Anomali frekuensi rendah berasosiasi adanya hidrokarbon. Analisa petrofisika pada lapangan FTM pada daerah hidrokarbon mempunyai porositas yang bagus dan saturasi air yang kecil. Hasil dari pemetaan zona prospek hidrokarbon dan analisa petrofisika ini diharapkan bisa dilakukan delineasi zona prospek untuk kepentingan survey seismik lebih lanjut dan acuan untuk proses pemboran.
.....FTM Field is one of the new fields as energy reserves in Indonesia as an oil and gas field. In the field there are two reservoirs FTM gas and oil reservoirs, namely the formation Minahaki and Tomori Formation. Research conducted on the formation lithology Tomori with carbonate rocks and an oil reservoir Late Miocene. This structure is formed by a horizontal fault (Trust fault) with a small angle of the NE - SW trending.
Hydrocarbon determination using spectral decomposition method, based spectral decomposition method is used for analysis ISA and CWT low frequency anomaly. Low frequency anomaly associated hydrocarbon indicator. Petrophysical analysis FTM field have good porosity and water saturation small on hydrocarbon area.
Results of mapping zones of hydrocarbon prospects and petro physical analysis is expected to be used for the benefit of the prospect delineation zone further seismic surveys and drilling of reference for the process;FTM Field is one of the new fields as energy reserves in Indonesia as an oil and gas field. In the field there are two reservoirs FTM gas and oil reservoirs, namely the formation Minahaki and Tomori Formation. Research conducted on the formation lithology Tomori with carbonate rocks and an oil reservoir Late Miocene. This structure is formed by a horizontal fault (Trust fault) with a small angle of the NE - SW trending. Hydrocarbon determination using spectral decomposition method, based spectral decomposition method is used for analysis ISA and CWT low frequency anomaly. Low frequency anomaly associated hydrocarbon indicator. Petrophysical analysis FTM field have good porosity and water saturation small on hydrocarbon area. Results of mapping zones of hydrocarbon prospects and petro physical analysis is expected to be used for the benefit of the prospect delineation zone further seismic
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