

INTISARI

IDENTIFIKASI PERSEBARAN BATUAN VULKANIK MENGGUNAKAN ANALISIS IMPEDANSI AKUSTIK PADA LAPANGAN “WATER7” FORMASI JATIBARANG CEKUNGAN JAWA BARAT UTARA

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Metode inversi seismik berbasis model dilakukan pada lapangan “WATER7” untuk mengidentifikasi persebaran tuf. Zona target berada di formasi Jatibarang, Cekungan Jawa Barat Utara. Tuf adalah batuan reservoir pada sistem vulkanik reservoir formasi Jatibarang.

Inversi seismik berbasis model digunakan untuk mengetahui nilai persebaran impedansi akustik tuf. Data yang digunakan yaitu data seismik 2D PSTM dengan satu buah sumur.

Proses diawali dengan melakukan analisa sensitivitas log untuk mengetahui kisaran nilai impedansi akustik tuf, batupasir dan batugamping, selanjutnya dibuatkan model awal dan dilakukan proses inversi. Berdasarkan hasil dari penelitian, nilai impedansi akustik tuf adalah 10000-25000 ft/s*g/cc dengan arah pola persebaran relatif ke arah barat daya-timur laut

Kata kunci : inversi, impedansi akustik, tuf

ABSTRACT

IDENTIFICATION OF VOLCANIC ROCK DISTRIBUTION USING ACOUSTIC IMPEDANCE INVERSION IN "WATER7" FIELD, JATIBARANG FORMATION, NORTH WEST JAVA BASIN

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Model based seismic inversion method has been used at "Water7" field to identify tuff distribution. "Water7" field is located in Jatibarang formation, North West Java basin. Tuff is reservoir rock at volcanic reservoir system of the Jatibarang formation.

Model based seismic inversion was used to determine range value of acoustic impedance for tuff. This study use 2D seismic PSTM with an exploration well.

*The inversion process begins by performing a sensitivity analysis to know range value of acoustic impedance for sandstone, limestone and tuff, followed by making background model and the inversion process. Based on the research result, value range of acoustic impedance for tuff is 10000-25000 ft/s*g/cc, the distribution pattern relative to the direction southwest to northeast.*

Keyword :inversion, acoustic impedance, tuff