ABSTRAK

IDENTIFIKASI STRUKTUR GEOLOGI BAWAH PERMUKAAN HASIL PENGOLAHAN POST-STACK TIME MIGRATION FK DATA SEISMIK 2D PADA LINTASAN "JMC-11'', CEKUNGAN PATI, PERAIRAN UTARA JEPARA – JAWA TENGAH

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Telah dilakukan penelitian hasil pengolahan *Post Stack Time Migration* metode FK pada lintasan "JMC 11" Cekungan Pati, Secara fisiografis, daerah penelitian termasuk dari bagian paparan Laut Jawa, yang dan secara geografis termasuk dalam wilayah perairan Kabupaten Jepara, Provinsi Jawa Tengah. Terletak pada koordinat antara $111^{o}06'$ – $111^{o}29'$ BT dan $06^{o}22'$LS – $06^{o}33'$ LS dengan panjang lintasan 35,20 km, dan *Seismic Recording System* dilakukan di kapal Geomarin III, pengolahan data seismik 2D dengan menggunakan perangkat lunak ***Landmark ProMax2D Linux (Promax 2D Version 2003.12.1)***. Dimana pengolahan data seismik dilakukan dengan S/N (*Signal To Noise Ratio*) sebaik mungkin.

Penelitian ini bertujuan untuk mengidentifikasi gambaran struktur geologi bawah permukaan guna mengetahui bidang batas lapisan, struktur patahan, dan mengetahui konfigurasi refleksi dari interval batuan yang dibatasi, dimana diperoleh dari data rekaman seismik yang direkam dipermukaan bumi.

Hasil yang diperoleh dari Identifikasi Struktur Geologi berdasarkan analisa seismik 2D yang diinterpretasi dari penampang time migration terdapat 6 (enam) satuan batuan (formasi) sebagai pembatas antar bidang lapisan, 7 (tujuh) bidang patahan, dan Terdapat 3 (tiga) konfigurasi refleksi pada tubuh/interval batuan yang dibatasi (*Upper/Lower*) oleh bidang perlapisan yaitu: KR 1, KR 2, KR 3.

Kata kunci: *Post Stack Time Migration, Signal To Noise Ratio, Identifikasi Struktur*

ABSTRACT

IDENTIFICATION OF GEOLOGICAL STRUCTURE BELOW THE SURFACE OF PROCESSING POST-STACK TIME MIGRATION FK 2D SEISMIC DATA LINE "JMC 11" PATI BASIN, JEPARA NORTHERN WATERS – CENTRAL JAVA

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Had been done research results of *Post Stack Time Migration* processing using FK method on the line "JMC 11" Pati Basin, The Physiographic areas of research included the exposure of the Java Sea, and is geographically included in the teritorial waters Jepara Regency, Central Java Province. Located at coordinates between 111^{o}'06' – 111^{o}29'BT and 06^{o}22'LS – 06^{o}33' LS with 35.20 km line length, and *Seismic Recording System* carried on board Geomarine III, the processing of 2D seismic data using *Landmark software ProMax2D Linux (Promax 2D Version 1.12.2003*). Where seismic data processing is done by S/N (*Signal To Noise Ratio*) as possible.

This research aims to identify the picture of the subsurface geological structure in order to determine the boundary layer, structural faulting and know the configuration of reflection of the rock bounded interval which is obtained from the recorded seismic data recording surface of the earth.

The results obtained from the Identification of the structure geology based on seismic 2D analysis of the cross-section of time migration interpreted there are six (6) lithologies (formations) as a barrier between the boundary layer, seven (7) fault boundary, and There are three (3) configurations reflection on the body/rock interval bounded (Upper/Lower) by boundary layers that is: KR 1, KR 2, KR 3.