STRUCTURAL INTERPRETATION OF KAL AREA BY 2D SEISMIC REFLECTION DATA

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ABSTRACT

The Seismic lines (952-GJN-52, 942-GJN-51, 942-GJN-48, 942-GJN-47 and 942-GJN-46) were obtained from Directorate General of Petroleum Concessions (DGPC).These lines were shot by OGDCL in 1994 and 1995 in Kal area, which is located 08 Km South West of Rajian Oil Filed and 16 Km east of Chak Naurang Oil Fields in Gujar Khan E.L. For interpretation of these Seismic sections, reflectors were marked on the basis of prominent reflection from subsurface horizon due to change in lithology and diffraction from deformed strata. Three prominent reflectors R1, R2 and R3 were marked on the seismic sections on the basis of observed reflection events. The velocity information is in the form of average velocity at different time and is provided at selected CDP'S. Using the velocity panels given on seismic section for selected CDP'S an average velocity selected from seismic section arrival time (two Ways) of marked reflectors, is determined. Using these arrival times and the estimate velocity the depth of each reflector has been calculated and is represented in the depth section. The TWT were posted on the base map to make a time contour map. Shales of the Patala Formation are the source rocks. Sandstone of Khewra Formation of Cambrian age and Limestone of the Sakesar Formation of Eocene age are reservoir rock. The shale of the Chorgali and Kussak formation serve as the cap rocks for underlying limestone of Sakesar and sandstone of Khewra reservoirs respectively