

**2-D SEISMIC INTERPRETATION AND
PETROPHYSICAL ANALYSIS OF DINA AREA, UPPER
INDUS BASIN, PAKISTAN**



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ABSTRACT

The main purpose of this study is to evaluate the hydrocarbon potential of Dina block which is the part of Potwar sub-basin, Upper Indus Basin, Pakistan. The Potwar sub-basin has severe deformation during Himalayan orogeny in Pliocene to Middle Pleistocene. The major structures present in this block are anticlinal pop-up structures and thrust fault blocks produced due to the decollement by basement. The targeted formations are Chorgali and Sakesar Formation of Eocene age. Time, Velocity and depth contour maps of two Eocene horizons, Chorgali and Sakesar formations are generated which also confirms the anticlinal pop-up structure delineated through seismic data. For petrophysical analysis two zones have been marked at the level of Chorgali and Sakesar formations. The effective porosity of Chorgali and Sakesar formations are 3.23% and 2.37%, respectively. The Vsh (volume of shale) of Chorgali and Sakesar formations are 10.11% and 12.69%, respectively. The Sh (saturation of hydrocarbon) of Chorgali and Sakesar formations are 31.33% and 34.48%, respectively. The well is suspended due to the mechanical failure (fishery), in which drill bit fall or stuck into the wellbore. For its removal it takes days to complete and during this time, drilling cannot occur, although it is very expensive.

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