

**2-D SEISMIC DATA INTERPRETATION OF DARYA KHAN
AREA AND PETROPHYSICAL ANALYSIS OF
DARBULA - 01 WELL**



By

MALIK FAHIMULLAH KHAN

JAWAD AKRAM MUGHAL

ASIF ALI

Department Of Earth and Environmental Sciences

Bahria University, Islamabad.

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Dedicated To Our

Parents for fulfilling all our wishes and for the support they had been throughout our life,

Supervisors **Mr. Muyassar Hussain & Mr. Fahad Mahmood** (Bahria University, Islamabad) and also my seniors for their continuous support and help.

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ABSTRACT

Migrated seismic lines 835-DK-02, 835-DK-03, 835-DK-04, 804-DK-32 of Darya Khanarea, Punjab Platform were obtained from Directorate General of Petroleum Concessions(DGPC) for seismic interpretation and Well Logs of well Darbula 01 were obtained for petrophysical evaluation. The information we required was given within the time section, which was helpful in the conversion of the time section into depth section. These calculations helped in subsurface interpretation of the area, which was the basic purpose of this project. Four reflectors were marked with Baghanwala, Kussak and Khewra Sandstone formation. Fault was marked, and then time contour maps were generated. After that time sections were converted into depth sections with the help of average velocity and finally depth contour maps were generated, this helped to know the basic mechanism of the tectonic movement in the area. The area was tectonically stable and almost no deformation was found in the area. No faults were were found and hence not marked in the subject area, but nearby areas maybe good zones for hydrocarbons. The well was found to be dry and abandoned.

Petrophysical evaluation of well Darbula 01 was carried out to highlight the reservoir area which included the selection of zone of interest followed by Log interpretation. The volume of shale, porosity was interpreted. On the basis of Petrophysical evaluation it was noted that clastic reservoir Khewra sandstone have good shows of heavy oil and the reservoir of Cambrian (Khewra Sandstone) bore good porosity and have good shows of oil but the problem was the placement of well from where well cannot flow with economical value. The source rock distribution problem also exists in the area, so all these conditions make the well very uneconomical so it was abandoned.

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