

**2D SEISMIC INTERPRETATION AND
PETROPHYSICAL ANALYSIS OF RAJ EAST AREA,
BADIN BLOCK, LOWER INDUS BASIN, PAKISTAN**



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of the requirement for the degree of BS in Geophysics

Owais Ahmad Qureshi

**Department of Earth and Environmental Sciences
Bahria University, Islamabad**

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ABSTRACT

This dissertation presents the 2D seismic interpretation of Badin area in Southern Indus Basin, which is located in the southwestern margin of the Indian plate. The key objective of this thesis is to describe the subsurface geometry with the help of seismic data, in order to understand the geology of the given area. Lower Goru Formation has been marked on the seismic data and the structural variations have been identified. Generated contours maps depict that the study area is tectonically present in extensional regime having horst and graben structures. Petrophysical Interpretation is carried out and results are analyzed on the basis of Log suites. According to the petrophysical interpretation, Raj East-1 was plugged and abandoned due to very high water saturation. Geological Investigation was carried out to confirm the validity of the structure which is proved on the basis of Fault Seal Analysis and Allen Diagram of the structure.

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