

**PETROPHYSICAL ANALYSIS OF SONRO-04 WELL,
SOUTHERN INDUS BASIN, PAKISTAN**



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DEDICATION

This dissertation is dedicated to our parents, who always facilitated us in every sphere of life with their immense practical advices and fulfilled all our wishes. We also dedicate it to our teachers who were committed and devoted all their efforts to guide us through the unsteady course of life, more than ever to our supervisor for their continuous support and help.

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ABSTRACT

The main objective of the study is to evaluate the petrophysical properties of Sonro-04, Southern Indus Basin, Pakistan. This is located in Hyderabad district, Sindh about 1395 km south of Islamabad having coordinates longitude $68^{\circ} 41' 56.46''$ E and latitude $25^{\circ} 07' 38.32''$ N. The well under study lies in Thar platform which is bounded in north east by Jacobabad and Mari Kandhok highs, in south by Arabian Sea, in west by Karachi trough and in northwest by Kirthar depression.

Petrophysical evaluation of Sonro-04 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, water saturation and hydrocarbon saturation were interpreted by using different tools like gamma ray tool, porosity tool, density tool, resistivity tool. On the basis of petrophysical evaluation Lower Goru Formation (B Sand) is acting as a reservoir, which has volume of shale, effect porosity and saturation of hydrocarbon is 29.56%, 16.36% and 51.47% respectively.

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