# EVALUATION OF POTENTIAL HYDROCARBON BEARING ZONE AND WELL CORRELATION OF QADIRPUR-15 AND QADIRPUR-16 WELLS, MIDDLE INDUS BASIN, PAKISTAN



By

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#### ABSTRACT

The Qadirpur area is situated in sindh province, Middle Indus Basin, Pakistan. The Qadirpur area is studied with the help of petrophysical analysis. The main purpose of the study is to evaluate hydrocarbons potential of a well named Qadirpur-15 and Qadirpur-16 and to establish a well correlation of the formations encountered in the wells. This has been achieved by using complete suite of wire line log data. To complete the above mentioned task, all logs were correlated to mark the horizon of interest i.e. reservoir zone. In our case the reservoir lies in Sui Main limestone which is of Eocene age whereas Habib Rahi Limestone is considered as secondary reservoir which is of Middle Eocene age. The methodology adopted to accomplish this task includes the measurement for the shale volume by using gamma ray log, porosities of the reservoir zone by density and neutron log, resistivity of water by using resistivity log, saturation of water in the zone of reservoir and hydrocarbons saturation using Archie equation. On the basis of the petrophysical results Sui Main Limestone was determined as the better potential reservoir among the two interpreted.

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