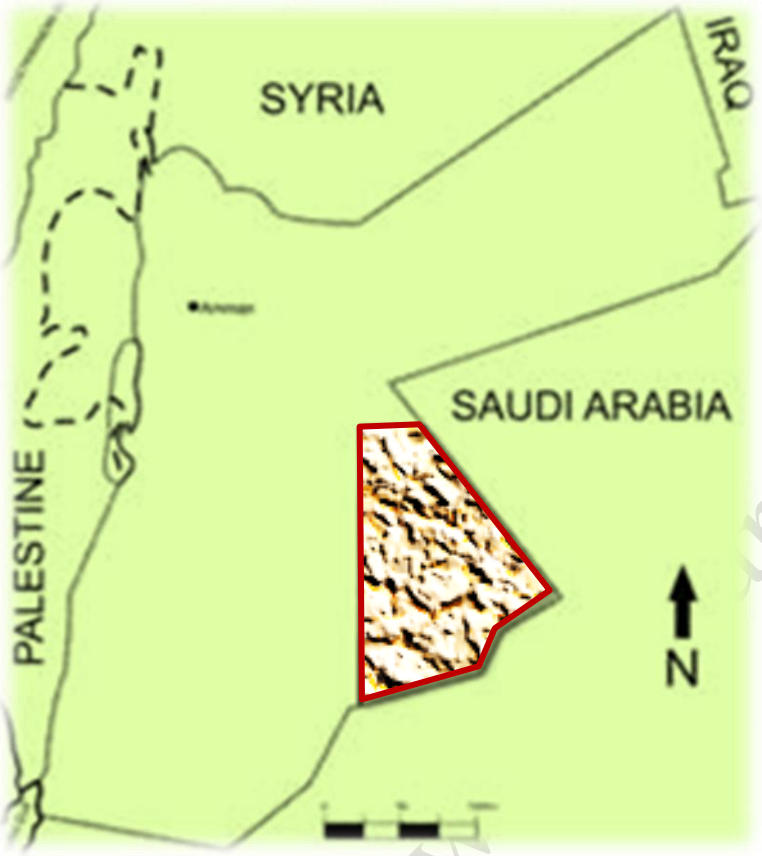
Target Exploration
Energy Geosciences Research & Development



Petroleum Potential of Wadi Sirhan Basin, Jordan

Sequence Stratigraphy, Basin Modelling, Seismic Interpretation of Proven/Potential Reservoirs and ML STOIIP Estimates of 5 Seismic Structural Prospects

Target Exploration Report Tar96

The Report

This is a 250 pages detailed prospects generation report (including13 tables and 57 illustrations) on the 11,600 Km^2 Wadi Sirhan exploration block of Jordan. The drilled stratigraphic sequence was basin modelled, leading to an assessment of its exploration potential, delineating 5 four-way closed seismic structural prospects, with ML STOIIP estimate for each.

Study, Analyses and Interpretations

So far, four exploration wells and six development wells have been drilled in Wadi Al Sirhan, in this study a central key well WS-3 (Wadi Sirhan-3) was studied in detailed, the resulted model was correlated with three exploration wells (WS-2, WS-4, and WS-10) and development wells within the block (of Wadi Sirhan Oil Field). This basin modelling study was carried on a studied and processed Jordanian's NRA data, and concluded with identification and ranking of 5 remaining seismic structural prospects within the block:

1. Sedimentological study and identification of depositional environment and digenetic histories of formations exposed at ground level and penetrated by well WS-3.
2. Detailed petrographic examination and XRD identification of rock facies (and their source, reservoir and cap rock potential).
3. Identification potential source rocks of the discovered Wadi Sirhan Oilfield as well as the several oil seeps located through this study in study area by assessing total organic carbon analysis, optical maturation and geochemical analyses on candidate source rocks intervals within well WS-3 and the other WS wells.
4. Sequence stratigraphy technique was used to identify possible source, reservoir and cap rocks in penetrated stratigraphic units in WS-3 and correlated across the other wells in the study area.
5. Seismic interpretation of seventeen seismic sections and mapping of potential reservoirs over the central and eastern parts of the study area.
6. Petrophysical analysis and documentation of porosities, permeability, water saturation, and hydrocarbon saturation of potential hydrocarbon reservoirs of all the WS wells within the study area.

7. Modelled times and locations of generation, and migration pathways of hydrocarbons up to several surface oil seeps in order to assess the hydrocarbon potentiality in the remaining seismic closures in the study area.
8. Illustrated descriptions, with seismic closures and STOIIP estimates of the remaining prospects/leads in the block.

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