

## **Wadi Aabeid Field in Northwest Euphrates Graben in Central Syria**

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Heavy oil was discovered in Cretaceous Rmah and Judea formations in the Wadi Aabeid structure in 1990 in the northwest Euphrates graben at approximately 2000m. The structure is an elongated domal anticline located on the up thrown side of a deep-seated east west fault bounding the Euphrates-Palmyride transition zone. Since then a 3D survey has been shot and several wells were drilled to develop the field. The Rmah formation is composed of organic rich dark brown chert and brown argillaceous limestone and Judea formation is mostly sucrosic dolomite with lesser amounts of limestone and mudstone. The production comes from fracture and primary porosities in these formations. The discovery well tested 6800 BOPD. Although, the field is structurally controlled, the fracture porosity is unevenly distributed. The knowledge of fracture porosity is an important issue in field development since the flow capacity of wells is greatly improved by proper acidification.

Rmah chert with Type II Kerogen is immature in all wells studied within and surrounding the field. Basin modeling suggests that hydrocarbons found in the Wadi Aabeid field have been migrated from depth from other source rocks in adjacent basins via deep seated faults.

Various attribute maps and neural net generated seismic and attribute facies maps for the producing interval suggest a NW-SE and NE-SW conjugate fault system which possibly controls the fracture system. These maps have provided useful guidance in the development of Wadi Aabeid field.