

Structural and Kinematic Analysis in the NW Part of the Fars Domain (Zagros Fold-Thrust Belt) with Respect to Hydrocarbon Basins

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The Zagros fold-thrust belt is situated on the northern margin of the Arabian plate that is one of the youngest continental collision belts. The main objectives of this project consist in the determination of the varying geometry of the Shahneshin anticline in the NW part of the Fars domain. This anticline has been selected because: In the north of Kazerun city in area of the Shahneshin anticline, there are dramatic difference in depth between the northern syncline of the Shahneshin anticline and its southern syncline. We try to peruse geometry and kinematic of the Shahneshin anticline based on field geology and another data (contain available well data, remote sensing from satellite data, aeromagnetic and high resolution gravimetric data, and reflection seismic data) to ascertain that this is the consequence of uplifting basement along major reverse faults in trend of Northwest-Southeast or duplication caused by thrust imbrications in the sedimentary cover. In field geology, we traverse several sections from four main anticlines including Shahneshin, Dashtak, Dasht-e-Gul and Sarbalesh anticline. 3D analogue modeling is used to systematically investigate the kinematical geometry of Shahneshin anticline in relation with mechanisms of reactivated or inactivated basement faults.