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## **A Regional Structural Interpretation of the Zagros Mountain Belt in Northern Fars and High Zagros (SW Iran)**

Based upon field data, interpretation of 120 seismic lines and data from over 60 wells, a regional NE-SW transect across Northern Fars has been constructed and balanced with Locace software. It starts from the Persian Gulf, crosses Northern Fars and High Zagros east of the Kazerun tear fault and ends at the Imbricate Zone.

The structural style is controlled by the stratigraphic position of the decollement levels, that varies with depth for the different areas of the 300 km long transect. Within the sedimentary pile, the main decollement level is the Hormuz salt. Sometimes this decollement level as well as pre Hormuz sedimentary basins can be clearly observed on seismic lines.

Paleozoic formations are therefore involved in the main structures. The second decollement and disharmonic level is the evaporitic Dashtak formation (Trias). The difference in the tectonic style between Northern Fars, in the southern part of the transect and High Zagros in the northern part of the transect is partly due to the lateral facies changes in the Triassic formations, from evaporite to dolomite. The shaly layers of the Kazhdumi (Cretaceous) and Pabdeh/Gurpi (late Cretaceous/Early Tertiary) as well as Gachsaran (Late Miocene) evaporitic layer can locally act as secondary decollement.

All the disharmonic levels induce a complex structural pictures and shift the different reservoir culminations from surface to depth. Furthermore, basement shift exist from South to North and stepwise uplifts the whole sedimentary sequence in the area. Locally, the basement is seismically active today.

The Zagros follows the classical build up of a thrust belt with thin skin tectonic propagating in front of a thick skin deformation, which induces basement shift and large folded structures higher in the sedimentary pile.