

07-6**AN INTEGRATED GEOPHYSICAL STUDY OF THE DEZFUL EMBAYMENT SW IRAN****S. H. TABATABAEI, M. MOKHTARI and M. A. GHOROORI**

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Dezful Embayment area is one of the most important oil province which is located in the SW of Iran. In 1907 the first well near oil seepage's in the vicinity of the village of Mamatain was drilled.

From 1965 to 1977 several seismic surveys were conducted in this area but failed to clearly define the Mamatain structure especially its south eastern portion, where the high density Gachsaran Formation is outcropped. Due to this reason to achieve a better geological understanding a combined seismic, gravity, magnetic and borehole study has been carried out in the region.

Until 1931 seven shallow wells were drilled in this area. The latest wells in the in the 70's at the crest of the structure reached to a depth of ca. 4500 meters was successfully tested at the hydrocarbon bearing formations.

In early 1998, the study area was covered by gravity and magnetic data.

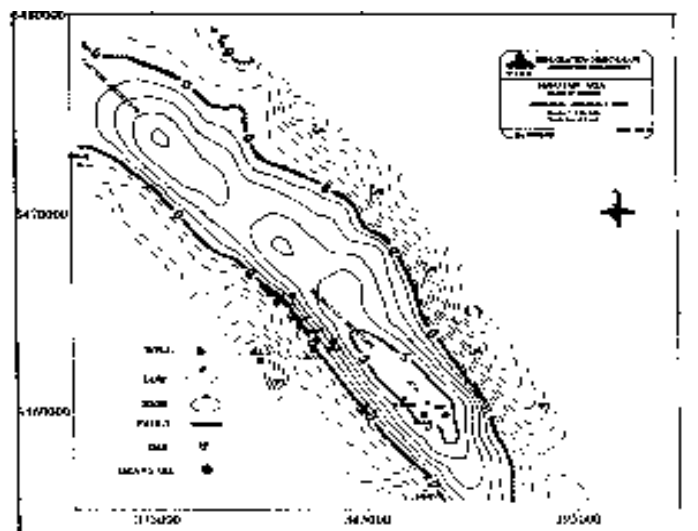
In a well close to supposed crest of structure the Fahliyan / Garau (Neocomain) section was found to be repeated in inverted position below 3790 m to the total depth, indicating the presence in the Mamatain structure of a large isoclinal overturned fold of which the core is affected by small scale faulting and folding.

The gravity data was used in preparation of residual (Fig. 1) and regional maps. The isolation of the local and deep structure were computed with application of 2D and 3D inverse and forward modeling.

In the presantation we will discuss results of the integrated study and it's implication on hydrocarbon exploration and exploitation.

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**Fig. 1**