

Tectonic settings of the Zagros oil fields – a comparison with the known world ones

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Abstract

Out of the 10 sedimentary settings of the world, the foreland basins or the shallow ocean basins are the most favourable sites for the HCS accumulations. None of the common discouraging aspects prevailing in the other settings are witnessed in these basins. The Gaint HCS fields of Zagros- Iran, with more than 81 bbl recoverable reserves are having multiple triple essentials for the accumulation which have been preserved since the end of the Permian time. The most crucial necessity in these fields, viz the thick pile of the cap evaporitic rocks (the Ghachsaran Formation) of the Oligocene time furnished the impermeable obstacle for the HCS accumulation. Secondary porosities of the interstitial cavities and the dolomitization of the reservoir rocks, are added the potentials of this Gaint fields. Similar examples, viz the Arabian and Gulf regions, may have a common point in this aspect. Such favourable conditions have never existed in other types of the sedimentary settings, like the Trenches, Interiors, Rifts and the Tertiary basins of the world. Each of them have weak points that prevent them to be considered as Gaint fields. I have discussed these two sided situations in the Zagros and the outstanding examples of the world.