

TECTONIC SETTING OF THE ZAGROS OIL BASINS IN IRAN-A COMPARISON WITH THE WORLD KNOWN ONES.

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With respect to the oldest oil basins of the Riphean and the youngest Tertiary deltas of the world (The Nile, Niger and Amazon) from the point of global Tectonics, the ten sedimentary basins with their peculiar characteristics determine the settings of these joint oil fields. Among all, the only suitable example without subsiding factor is the small seas which contain more than 49% of oil and 65% of the joint hydrocarbon fields. These basins, like the Zagros basins of Iran, Tampico basin in Brazil, Severdrup basin in Canada and the southern Caspian oil fields are included in this type of marginal seas. In the Middle East and especially in the Zagros, the closure of the marginal seas since from the Permian to the Eocene-Oligocene times, the Neo-tethyan ocean, is considered the main sedimentary basins of the source and reservoir rocks. The source rocks were deposited during transgression and the sandstone with lime horizons as the reservoir rocks were accumulated during the regression of the sea. Later tectonic thrusting resulted into the Tertiary marine and reefy limestone sedimentation during the first and second Alpine-Himalayan periods. The commencing of the subduction at the end of the Cretaceous time in the northern margin of the Neo-tethys accompanied with the formation of oil traps and tight anticlines. The special characteristic of the Zagros basins is the occurrence of suitable evaporitic sediments acting as the cap rock,