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Alif Field, A Giant Field Discovery in the Marib-Al Jawf Basin, Republic of Yemen

Alif Field is located near the center of the Marib-Al Jawf Basin, a tilted half- graben basin in the north-central portion of the Republic of Yemen. The field has an area of approximately 30 square kilometers and produces light grade oil, referred to as "Marib Light", from a depth of 1,750 meters. The structural framework is characterized by detachment zones, tilted and later reactivated faulted blocks, with the reservoir sands overlain with thick beds of evaporites. Deposition of the reservoir sandstones occurred as a post-rift event during the upper Jurassic and was deposited into an environment of alluvial braid-plain, braid-delta shoreline, and braid-delta slope/prodelta facies. Porosities of the reservoir sands range from 6 to 28% (average field porosity of 20%), and permeabilities range from 7 to 4,000 millidarcies, (average field permeability of 1,200 millidarcies). Early initial production rates averaged 2,400 BOPD per well with some wells having rates as high as 10,000 BOPD. The hydrocarbons filling the Alif Field reservoir were generated and migrated during the Cretaceous, and were sourced from older (Jurassic) organic-rich Meem and Lam Formations. The Alif Field is now in a mature stage of development, having produced over 450 MMSTB.