

Submarine Fan Complex, the Challenging of Block M-11 Deep Water Myanmar Exploration

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Abstract

Drilling the well in the deep water necessitates enormous amount of investment for operations hence a huge prospect that yields several trillion cubic feet (TCF) of gas must be well identified. Submarine fans are one of common targets in the deep-water exploration supporting current energy reserves and resources. Its size varies from a few kilometers radius to depositional systems covering over a million square kilometers. Block M-11, Offshore Myanmar is located in the Moattama basin. It is approximately 300 km from Yangon and close to Zawtika Production Area at Block M-9. The water column ranges from 200 to 2,000 meters.

The West Moattama Basin lies in the northern Andaman Sea back-arc system, which commenced extension during early Oligocene time. This extension occurred within earlier Eocene and older accretionary prism material, the present-day version of which is physiographically represented by the modern Andaman and Nicobar Island chain. The Mergui dextral strike-slip fault marks the present-day continent-ocean boundary, separating the Sundaland Craton from the accretionary prism and back-arc basin. The Western Moattama Basin is mainly composed of Miocene to Plio-Pleistocene deltaic offlap and slope sediments derived from the interior basins of Burma. The western margin of the basin is bounded by the Western Basement High, which is composed of mainly Eocene volcanogenic arc material. To the east, it is bounded by the Sagaing Fault, a Plio-Pleistocene offset spur of the Mergui Fault.