Paper 29

Off-shore Mediterranean sea oil potential, Egypt

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The off-shore Mediterranean area is the most active exploration province in Egypt and predominantly considered as a gas province. Undeveloped oil and condensate were found in a number of wells (e.g. Mango-1, Warta Geologi, Vol. 29, No. 6, Nov-Dec 2003

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Tineh, West Abu Qir, Abu Qir, Marakia-1 and El King).

The majority of the developed gas discoveries are from the Pliocene reservoirs and the rest are from the Miocene. The undeveloped oil and condensate discoveries which were found in some wells are from older (Miocene and Pre-Miocene) and deeper reservoirs compared to the proven gas discoveries.

The presence of active sea floor oil seeps, the trend of heavier API hydrocarbon with increasing reservoir depth, increasing of condensate/gas ratio with increasing depth and most of the discovered gas pools are of thermogenic origin, all these indicate the possibility for the presence of liquid hydrocarbon in the deeper reservoirs.

The latest geochemical studies carried out on some of the deeper wells in the off-shore Mediterranean area indicate the presence of mature oil prone source rocks preserved in this area. In addition, the well known and proven oil prone source rocks (Jurassic coal, Cretaceous, Oligocene and Miocene) in the on-shore Nile Delta and Western Desert should be preserved in the off-shore Mediterranean.

Extending and focusing the seismic and geologic studies on the Pre-Pliocene sections may indicate possible traps for commercial liquid hydrocarbon.