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## **The Petroleum Potential of the Emerging Mediterranean Offshore Gas Plays, Egypt**

The offshore Mediterranean of the Nile Delta is an emerging giant gas province. Over 30 TCF of gas has been found, with more than 30% of that in that last two years. Most of these giant discoveries are in turbidite channel/levee complexes draped over large four-way closures. Sixty-five to one hundred TCF may remain yet to find.

Source rocks occur from Lower Miocene through Jurassic strata and commercial pay has been established from Lower Miocene through Pleistocene reservoirs. Additional deep potential remains in Oligocene and older strata. Fewer than 240 wells have been drilled in this province in an area equivalent in size to the Gulf of Mexico shelf fringing the Texas coastline. Only a handful of penetrations have tested the pre-Serravalian section offshore.

Seismic imaging, high pressures and the general lack of direct hydrocarbon indicators (DHI's) in the pre-Messinian section create challenges to developing new plays which can experience the 90%+ success rate demonstrated in the maturing Pliocene fairway. In addition, perched water is common, providing a development and reserve estimate challenge.

The offshore Mediterranean is also one of the world's few deep water gas provinces. Hence, little dynamic data is available to gauge reserve per well and continuity of gas pays in complex reservoirs and structures. This paper reviews the recent giant field discoveries and future potential within the context of the known petroleum system as well as challenges to opening new plays in deeper horizons or new structural and stratigraphic trends