Global Overview of Recent Exploration Investment in Deepwater - New Discoveries, Plays and Exploration Potential

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Strong global demand for liquid hydrocarbons and restricted access to new opportunities continues to push the oil and gas industry to explore frontier deep- and ultradeepwater basins. IHS data indicates that in the last 10 years, more than half of new global oil and gas reserves were discovered offshore. Remarkably, deep and ultra deepwater discoveries are becoming the dominant source of new reserve additions accounting for 41 percent of total new reserves based on a statistical evaluation of discoveries between 2005 and 2009. Despite all challenges such as the global economic downturn, fluctuation of oil prices and rising capital costs; this trend will continue into the future, making deepwater a key contributor to a new reserve and supply growth. Looking at the last five years: Giant and significant deepwater discoveries of oil and gas (41 BBOE, 2P) were made in Brazil, United States, Angola, Australia, India, Nigeria, Ghana and Malaysia. A number of countries recently joined the "Deepwater Club" including Ghana, China, Russia, Mexico, Trinidad & Tobago, Mozambique, Cameroon, Libya.

This study is aimed at identifying new plays in deepwater settings world-wide. These new plays were not known either on- or offshore prior to 2005, and represent new concepts of hydrocarbon accumulation in deepwater. In Brazil, almost 20 BBOE was reported discovered in sub-salt Cretaceous deposits. These finds inspired global interest in basins with evaporite deposits, especially those with pre-salt oil and gas accumulations. Although the Brazilian discoveries represent a new play type (Guaratiba Stratigraphic-Structural) in the Santos Basin, this geologic setting not is not unique. Globally about 30 BBOE were discovered in sub-salt Cretaceous reservoirs. Another significant oil discovery (3 BBOE, 2P) was made in Santonian turbidite sands of the Cote d'Ivoire Basin in Ghana. This discovery opens two new play fairways in the basin - a Turonian turbidite play and Campanian stratigraphic play. A significant natural gas discovery of 6.3 Tcf (2P) was made in a Lower Miocene structure in the Levantine Basin, Israel. A new play in Israel - Miocene Clastics Stratigraphic shows a high potential for gas reserve additions in Miocene channel-fills and deepwater fans. Other new deepwater plays were established in the in North Luconia Province (Malaysia), South Makassar Basin (Indonesia), Faridpur Trough (India), More Basin (Norway) and Campeche Deep Sea Basin (Mexico).