An Integrated Approach to Reservoir Typing and Characterization of a Complex Deepwater System, Stampede Field, Green Canyon, Gulf of Mexico

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EXTENDED ABSTRACT

The Stampede Field located in the Gulf of Mexico Green Canyon (GC) Protraction Area, spans blocks GC468 and GC512 and is currently operated by Hess in partnership with ChevronTexaco, Nexen, and StatOil. The field was initially discovered by the Knotty Head partnership in 2005 when they drilled a well on GC512. A follow-up well, Pony 1, was drilled by Hess in 2006 on GC468 and confirmed a continuous structure between the two blocks (Fig. 1). From 2006 until 2009, 6 more wells were drilled to appraise the hydrocarbon distribution over 3 pay zones in the Middle Miocene. This in itself is rare to have 8 well penetrations in a deep water field prior to development. Despite the numerous appraisal wells, the main reservoir interval in the Stampede Field is both unique and complicated: unique, as it is one of the deepest fields in the Gulf of Mexico (approximately 27000 ft below mud line), and complicated, because of its 2 orders of magnitude range in permeability, mineralogical influences on wireline logs, elevated water saturations (>50%), and cored wells that display significantly better quality than poorer quality non-cored wells. Lastly, state-of-the-art dual coil 3D seismic data indicates no uplift to define reservoir architecture in this single cycle seismic reservoir.

… (Note: The full version of this extended abstract, including complete text, illustrations, and references, will be made available at a later date on both the 2014 GCAGS convention website [www.gcags2014.com] and AAPG Search and Discovery website [www.searchanddiscovery.com]).