## Evaluating the Stratigraphy of a Paleo-Stepped Slope Profile, Offshore Northwestern Borneo

Erik Scott<sup>1</sup> and Wayne Abraham<sup>2</sup>

<sup>1</sup>Talisman Energy USA, 2445 Technology Forest Blvd., The Woodlands, Texas 77381 <sup>2</sup>Talisman Energy Malaysia, 165 Jalan Ampang, Kuala Lumpur 50450, Malaysia

## EXTENDED ABSTRACT

Investigation of the deeper hydrocarbon potential offshore Sabah, northwestern Borneo (Fig. 1) has revealed two basins along a stepped slope profile followed by a prograding slope that has the potential to hold reservoir quality deposits in the middle Miocene-aged Stage 4B and lower Stage 4C stratigraphy (Fig. 2). The Trona and Titanite basins are separate accommodation spaces created by a complex structural history involving the evolution of a fold-thrust belt (Fig. 3). Seismic characteristics of both basins show continuous reflector terminations in an onlap configuration with substantial thinning towards the basin margins predominately in the lower stratigraphy that transitions to include semi-continuous seismic reflectors with limited thinning in the upper stratigraphy. The Realgar prospect, elevated seismic amplitudes over background bounded by apparent faults, sits above the Trona Basin in an interpreted slope setting (Fig. 3). Detailed analysis of the fill of the basins, the sedimentological relationship between the basins and characterization of the subsequent overriding slope allowed for the reconstruction of the depositional history to assess both reservoir presence and reservoir quality. Mapping of almost every trough-peak pair in the basins and through the slope, followed by horizon-based seismic attribute extractions and volume visualization provide the needed understanding to reduce the uncertainty of the reservoir risk as well as the seal potential of any potential hydrocarbon columns.

... (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]).