Mass Transport Complexes of the Rakhine Basin, Myanmar – Deepwater Examples from Recent 3D Seismic Data

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Abstract

Woodside's entry into the frontier Rakhine Basin, offshore Myanmar, was via farm-ins to Blocks A-6 (with MPRL) and AD-7 (with Daewoo) in 2013. These blocks are 350km apart, with AD-7 located in the north adjacent to the Bangladeshi border, and A-6 in the south, off the northwest Myanmar coast. Our understanding of the Rakhine Basin geology has been vastly improved by the acquisition of two 3D seismic surveys in A-6 and AD-7 in 2013 and 2014 respectively. The deepwater depositional environments and reservoir architecture in the blocks are much more clearly defined than on the sparse vintage and modern 2D seismic data. A key feature of both seismic surveys is the presence of Mass Transport Complexes (MTCs), although the nature of the MTCs differs considerably between these two areas, particularly in terms of scale and cyclicity. This paper seeks to describe the MTCs and to try to understand the reasons for their differences and any implications for future exploration.