

Compressional Tectonics and Oil Fields Offshore Sri Lanka

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Geological and geomorphologic evidence suggest that the island of Sri Lanka is undergoing uplift. This uplift can be explained by the location of the island at the convergence area of northeast and northwest trending major transform faults that has resulted in a compressional tectonic milieu. Recent 2-D seismic data acquired by TGS-NOPEC over the Mannar Basin, offshore western Sri Lanka, show ample evidence of compressional tectonics. Thrust faults and popup structures are some of the features seen in the seismic data.

Areas of compressional tectonics appear to be prolific petroleum producing regions. This is partly due to the fact that compressional tectonics produce numerous structures that could host oil and gas accumulations. Geological data in the Mannar Basin are lacking due to the fact that all the wells in the area have been drilled in the north where the section is thin. Available data suggest that the age of the section may span from Jurassic to Recent and oil prone source rocks and good reservoir rocks could be present.

Sri Lanka is planning a bid round in the Mannar Basin for 2006. Exploration could start in 2007 under production sharing contracts.