
Seismo-stratigraphy of the Miocene turbidites in the Tembungo Field, offshore Sabah

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Seismo-stratigraphic study of the Tembungo area, offshore West Sabah provided a depositional model for the hydrocarbon-bearing Stage IVD turbidite sequence in the Tembungo Oilfield. The model suggests that the turbidite sequence, characterised by an oblique seismic reflection pattern was deposited in a sedimentary bypass system tract as a result of wrench-related uplift of the Bunbury-St Joseph area. The uplift and subsequent removal of Stage IVC-IVA coastal fluviomarine and lower coastal plain sediments during the Shallow Regional Unconformity followed by active Stage IVD deltaic progradation provided a huge volume of sediment input to the confined Tembungo depression beyond the contemporaneous shelf edge. The deltaic sediments with good reservoir and source rock properties have contributed to the hydrocarbon potential of Stage IVD turbidites in the Tembungo Oilfield.