
No Guts, No Glory — Two Recent Discoveries in Stratigraphically Controlled Upper Miocene / Lower Pliocene Sands in Ship Shoal 181 and 194/206

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ABSTRACT

The distribution of stratigraphically isolated, porous sands as a result of sea-level fall and rise is often difficult to understand, and even more difficult to explain. For that reason stratigraphic plays can be a hard sell when seeking drilling capital. Continued search for hydrocarbons in the mature shelf area of the Gulf of Mexico has led to the recent drilling of two non-traditional amplitude defined and stratigraphically controlled discoveries in upper Miocene/ lower Pliocene sands in the vicinity of the Ship Shoal 169 Field.

In this area, the sands deposited during sea-level fall immediately following the 6.0-Ma maximum flooding event are markedly different than those deposited during the rising stage immediately prior to the 5.2-Ma flooding event. End-member fourth-order parasequence sets have been examined, and log suites and regional amplitude extractions will be used to highlight those differences. Depositional models show the prospect sands immediately above the 6.0-Ma flooding event to be isolated lobate upper slope delta front deposits, while the sands found immediately below the 5.2-Ma flooding event appear to be transgressive ravinement lags deposited in low relief incised valleys.

Structure maps, log suites, and production plots show that wells drilled into these stratigraphically controlled traps have recoverable reserves combined with robust production rates that make them highly economic, especially with strong market pricing.