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## **Lower Tertiary Deepwater Channel Systems In Offshore Douala Basin, Cameroon**

A series of Early Tertiary (Paleocene-Eocene) deepwater, channel fills were identified from 2D seismic data in offshore Douala Basin, Cameroon. They are about 3 to 5 km wide and 200-500 m thick, and occur in middle to lower depositional settings. On seismic sections perpendicular to the channel axis, the channel fills are characterized by chaotic, high amplitude reflections, which are in sharp contrast with the relatively continuous but low amplitude reflections of slope and overbank deposits flanking the channel fills. In map view, they are about 3-5 km apart, running from east to west, roughly perpendicular to the paleo shelf break. The lower part of the channel fills can be correlated to high-amplitude reflections on the shelf, which consists of interbedded sandstone and shale. The upper part of the channel fills consists almost entirely of shale and siltstone possibly deposited in Oligocene time during a channel abandonment phase.

The lower part of the channel fills are interpreted to be sand-prone, consisting of sinuous and sheet-like sands deposited by high-density turbidity currents, and mudstone deposited by low-density turbidity currents and debris flows. No wells have penetrated to the sandy fills within the channel belt. Updip pinchout of the sandstone is expected to occur in the vicinity of the paleo toe-of-slope. The sandy fill is believed to be a viable hydrocarbon play in the basin. The channel systems identified in the modern Hueneme Fan, in California continental borderland, provides a modern analog for the channel system in the Douala basin.