

Unravelling the Structural and Stratigraphic Nature of the Late Miocene Cruse Reservoirs Along the Vance River/Boodoosingh Anticlines Within the Southern Sub-Basin, Trinidad

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Abstract

The Late Miocene Cruse sandstones are the most prolific producing reservoirs along the SW-NE trending Vance River Anticline. This Pliocene/Pleistocene anticline is bounded to the south by the southwesterly plunging Mid-Miocene Boodoosingh anticline. Both anticlines are heavily dissected by NW-SE trending tear faults that partition the Cruse reservoirs into numerous producing fault blocks.

Mired by traditional block boundaries established by predecessor companies, Petrotrin faces a daunting challenge to integrate a rather limited spread of vintage geological data. Nevertheless, integration of well log lithofacies, biostratigraphy, field analogues and surface geology unravels the dynamic interaction of 'growing' dissected south easterly verging anticlines with SW-NE trending Cruse tidal channels. Realising the depositional variability of the Cruse reservoirs may lead to the unlocking of hidden reserves and the de-risking of outstep drilling and exploration.