

PLAY CONCEPTS

One example of a number of such new, tilt-block related Paleocene/Late Cretaceous plays in the vicinity of Bass-1 is illustrated. The uppermost play (1) is associated with differential compaction over the basement high and occurs in Eocene, Paleocene and Late Cretaceous sediments. In this particular example, direct hydrocarbon indicators (D.H.I.'s) are observed on the synthetic sonic log/seismic trace inversion record section. They occur at multiple depths over the structure as both velocity anomalies and 'flat spots'. The origin of such D.H.I.'s in this basin has not been previously tested. A deeper play (2) is related to sand aprons of Late Cretaceous age associated with the horst block. Such locally elevated areas should give rise to reworked sands during horst block erosion. The global sealevel highstand in the Late Cretaceous could provide a lateral regional seal through deposition of marine ingressive clays, particularly towards the centre of the basin. A play related to possible shale diapirism (3) in the thickest parts of the Late Cretaceous section occurs on the downthrown sides of horst blocks. The Cretaceous paleolatitudes of the region argue against evaporites, whereas overpressuring, related to shale mobilisation is known to occur around Pelican-2.