

3.2.3 Southwest Ramp Province

The southern edge of the Bass Basin encroaches on the southwestern portion of T/25P. The pinchout geometry is untested by drilling and poorly controlled by seismic having dip line spacing of 1.5 to 8.0 km and strike lines 4 to 8 km apart. Data quality is poor in some areas due to Miocene volcanics and interpretation is ambiguous due to the high dips and variable continuity. Basement varies in quality as a seismic event, but where present is a good aid to interpretation. Where data quality is reasonable, some dramatic and highly prospective geometries are visible (Figure 3.18). The apparent conformability of the EVCM elsewhere in the basin is misleading given the angular relationship the pre-basal *N. asperus* section has with the upper EVCM in this area. Clearly significant uplift occurred at the basin edge following *P. asperopolus* time.

Previous studies give the onset of hydrocarbon generation for the Palaeocene section as occurring at the Oligocene/Miocene boundary. For deeper source beds generation would have occurred earlier but given moderate levels of maturity even at basement in this area it is likely that the geometries present on the Southwest Ramp Province would pre-date the main phase of hydrocarbon migration. Where vertical migration into structures may pose a problem elsewhere in the basin in this area sealing units subcrop beneath the Basal Lower *N. asperus* unconformity possibly exposing deep conduit beds to the high quality reservoirs in the top EVCM which is top-sealed by the Demon's Bluff Formation. The high dips towards the basin edge, which often exceed 15°, must improve migration efficiency for the movement of hydrocarbons in this zone. For the source kitchen a substantial wedge of sediment is accessible by conduit beds which are focussed towards the basin edge.