

6.2 Top Palaeocene

Figure 6.2 (Enclosure 3) "Top Palaeocene, Time Structure Map (ms TWT)"
(Refer to Figure 11.1 for names of Leads and Prospects)

Two major regional deeps are present on the Palaeocene Map corresponding to the Pelican and Yolla Troughs. The NW-SE fault orientation is clearly pervasive but from Poonboon southward a zone of N-S faulting is apparent, but poorly sampled by seismic. This faulting corresponds to N-S Zone 3 observed by Smit, 1988 and described as a "north-south transfer fault with a wrench component" aged Early Cretaceous. Further seismic and specific study would be necessary to confirm this interpretation of the observed faulting. In T/25P the Pelican Trough has been set up by large longitudinal NW-SE basement involved synthetic faults and their generally non-basement involved antithetic conjugates. Structural complexity occurs with structural development because major antithetic faults have their own minor antithetic faulting and so on. Additionally, relay ramps have developed and are present in various stages of structural maturity. Mature "Stage 4" relay ramps (see Figure 6.3 after Peacock & Sanderson, 1994) with associated cross-ramp faultings are observed on the Palaeocene map and these contribute to trapping geometrics in several areas (eg Peron Lead).

TABLE 6.1

MAJOR BASEMENT INVOLVED FAULTS IN T/25P

<u>Synthetic</u>	<u>Antithetic Conjugates</u>
Warrego Fault Tourville Fault Clarke Fault	Eddystone Fault, Grindstone Fault

Normal faulting is the major mechanism and fault planes are only slightly curved with depth.