

zone has matured through to the overmature gas phase at the present day, and may always have been more gas prone due to the facies type of the source rock.

6.2.2. M diversus Unconformity to top L. balmei

The interval including upper L. balmei and lower M. diversus zones has been rated as "very good" source rock in Narimba 1 (see Table 6.1).

- a) For depocentre areas similar to Cormorant and Narimba, this interval, the upper part of which includes the pay zone at Pelican Field, reached peak generation for gas and oil approximately 12 m.y. ago (Miocene) and is probably still generating. However, a small error in the maturation TTI plot (Figure 5.7) could easily retard or advance the peak generation stage of this interval.
- b) Hydrocarbons generated from this interval and expelled up early faults would be vertically sealed by the Demons Bluff Formation.
- c) Based on evidence from existing shows and hydrocarbon distribution at Pelican Field it is likely that most migration has occurred laterally, and was confined to mature intervals by intraformational seals.
- d) Transgression of the marine Demons Bluff Formation shales over the EVCM sand units may also provide the ultimate updip seal for laterally migrating hydrocarbons.
- e) Fault seals to lateral migration occur at Pelican Field