

STRATIGRAPHY

General Statement:

The stratigraphy of the Otway basin must be considered broadly in terms of two units - Mesozoic and Tertiary - each forming a distinct sedimentary basin and separated by a major hiatus and angular unconformity. There is little justification for continuing to look upon the basin in terms of two to five embayments.

Results from the onshore drilling show broad divisions of the Mesozoic, the main one being based on lithologic character and presence of marine fossils assigned to Upper Cretaceous (Text Fig. 26). Zoning from spores and pollen and from petrographic studies has also been possible. From the seismic profiles of the offshore area, however, such subdivisions have not been feasible. Therefore, only the generalized divisions most applicable to the offshore conditions will be used. For purposes of reference the term "Mesozoic" is used where "Otway Group" and "Upper Mesozoic" are indistinguishable. "Upper Mesozoic" generally refers to the Upper Cretaceous Group of Paaratte, Belfast and Flaxmans.

The onshore Tertiary is well known and has been broken down into two generalized rock units and into several correlatable formations. Some geologists classify as unconformities the variations in thickness and character of sediments associated with formation boundaries; but only the unconformity separating the Tertiary from the Mesozoic is of regional extent and conspicuous because offshore the Tertiary dips south, whereas the Mesozoic dips north. It has been mapped over the entire basin by means of the seismic records. (Base Tertiary Fig. 14 and Representative Seismic Profiles, Fig. 19).

Depositional irregularities are conspicuous, especially in the upper beds, and the entire Tertiary disappears on the continental slope through progressive fore-set bedding. (Text Fig. 26).
