

Offshore Otway Basin Marine Seismic and Magnetic Survey, EP-67; Offshore Otway ER-68 Seismic and Magnetic Survey; and Tasmania EE-68 Marine Seismic and Magnetic Survey (all by Esso Exploration and Production Australia Inc).

WATER DEPTH MAP (Plate 4)

Except in the shallow water area (where the fathometer tapes were used) this map was constructed from the water bottom event occurring on the sections. A velocity of 5,000 ft/second was used to convert time to depth and the map was integrated with adjacent data. It is apparent that a rapid deepening of water is occurring westward, and the shelf slope is often heavily channelled (Plates 5 to 10).

Approximately 175 sq. miles of the permit lie within the 100 fathom line and the westward plunge shows water depths of up to 7,500 ft.

APPROXIMATE MAGNETIC BASEMENT (Plate 1)

Over the area of their occurrence reflections on this horizon varied from poor to good, the enclosed plates 7, 8, 9 and 10 show the variation in quality.

Generally speaking, the relief on the horizon is large and from approximately line M-25-0 southwards the features trend NNW-SSE, approximately the trend of the edge of the continental shelf. The trend north of line M-25-0 is north-south. At least one of the possible anticlines (that at M-28-0, SP 05) extends under the area of shallow water. It was not possible to determine whether other anticlinal features continued under this region due to the generally poor quality of results here and the short eastward extent of most lines from the edge of the shelf. The reports previously mentioned did not contain a basement map for the adjacent area.

In at least one location (Plate 8, M-28-0, SP 75) the surface giving rise to the reflection was an erosional high and tertiary beds sit immediately on basement.