

Post-Jurassic sediments are made up of sandstones, shales and siltstones and have both source and reservoir potential. Convergence of basement and Tertiary (?) strata across the King Island Ridge in the permit area suggest a long growth history for this feature. Faulting and folding in the eastern part of the Otway Basin have dominant northeastern trends.

A sub-basin is suggested southeast of King Island which was open to the sea to the southwest. Prograding Paleocene and Eocene clastic sedimentation overlying a thick Cretaceous section is envisaged followed by the Tertiary deposition of marine marls and shales.

#### D. PREVIOUS GEOPHYSICAL WORK

##### 1. South Sydney Basin

No previous geophysical work has been done in the permit area. North of the permit aeromagnetic and seismic work have demonstrated the extension of the Sydney Basin offshore on the continental slope. In Victorian waters south of the permit a reconnaissance seismic survey by Shell demonstrated the existence of up to 3,000 feet of Tertiary (?) section approaching the N.S.W. border in approximately 600 feet of water.

##### 2. East Gippsland Basin Area

Magellan submitted a subsidy report on the East Gippsland Marine Seismic and Magnetic Survey in June 1969. This was a semi-detailed survey of Permits VIC/P3, VIC/P4 and T/1P.

Previous to this work a detailed aeromagnetic survey of these permits (not subsidized) was accomplished indicating interesting section thickness and possible structural anomalies in the area. The aeromagnetic results