

Illustrations prepared for this interpretive discussion include a Water Depth Map (Plate 6), a Basement Time Map (Plate 7), and a Water Bottom-Basement Time Interval Map (Plate 8) at a scale of 1:250,000 which illustrate sparker results. In addition, revised versions of the depth maps presented with the East Gippsland Marine Seismic and Magnetic Survey, June, 1969, have been prepared for the interpretation of Lines M55T through M60T. These include three Structure Contour Maps at Mid-Miocene (Plate 9) Top Latrobe Complex (Plate 10) and Basement (Plate 11) Levels, a Water Depth Map (Plate 12) and two isopachs (Plates 13 and 14) all on a scale of 1:100,000.

2. N.S.W. - Victoria Tie Line (M45S)

About 74 miles of sparker profiling and marine magnetics were recorded to relate section thickness and stratigraphy between permits NSW EPP/1 and VIC/P3. These data were taken on a Shell permit with their permission and studied in conjunction with reconnaissance data using four-fold analog dynamite shooting. (For details of this work see Shell's subsidy report "Offshore Gippsland Seismic Survey"; Victoria PEP57; March, 1966).

Shell contoured the "Base of Tertiary" in this area at roughly .7 seconds (two-way sub-sea time) obtaining an approximate thickness of 2,500 feet for Tertiary deposits. This interpretation was confirmed on Line M45S by both sparker and magnetics data. The reflecting section resembles that found in New South Wales for 20 miles southwestward along M45S. The low amplitude, high frequency appearance of this thin section suggests absence or, at most, a thin veneer of the basal Tertiary Latrobe Complex.

From about SP 150 southwestward the section gradually thickens and changes appearance to that of the Gippsland Basin with high-amplitude, low-frequency