

### STRUCTURAL FRAMEWORK OF THE BASIN:

The region of the Bass basin was apparently stable throughout Mesozoic and was not involved in the block faulting which during that period produced thick deposits in the Gippsland and Otway basins to the north. The large Selwyn fault along the northwest side of the Mornington-King Island ridge (Fig. 1) marks the southern limit of the region affected by the Mesozoic breakdown.

The initial stage of the Bass basin is correlated with the early Tertiary breakdown that is well marked in Victoria, especially in the Gippsland basin. The movements forming the Bass basin were, however, more passive and without block faulting. The display of mobility during development of the lower half of the basin was never strong and became quite gentle in the upper half.

The Mornington-King Island ridge may be looked upon in somewhat the same manner as the Bass ridge and King Island-Tasmania.

The "magnetometer ridge" evident from both magnetic and seismic data (Fig. 1) is of a different order. It shows on the magnetic map (Fig. 26) by the character of the anomaly pattern and by a swing of the depth-to-basement contours, thus indicating a high that constricts or narrows the basin on both sides. The steeper portion of the hinge zone on either side of the basin, and the flexure line on the northeast side, coincide approximately with the width of the ridge, which has a northeast-southwest trend and could be the continuation of the Gippsland Palaeozoic ridge or ridges at Foster and Wonthaggi.

Across the basin there is no expression of the ridge; actually, the deepest part of the basin coincides with the trend. It is upon

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