

Just west of Geelong the north flank is marked by a sharp line of demarcation, presumably a fault, between the outcropping Otway and basement rocks. Between Geelong and Casterton three of the seismic lines extend sufficiently northward to show that the edge of the basin rises with a slope of about  $5^{\circ}$ . Casterton No. 1 found the Mesozoic to be 8,039 feet thick, whereas a few miles to the north the Otway laps on basement outcrop, thus indicating a steep flank, possibly faulted.

From Casterton westward to the coast, three refraction profiles plus some reflection points show that the north edge of the basin, beginning near Penola, becomes much steeper, dipping  $15-25^{\circ}$ . The refraction profile between Kingston and the Robe bore seems to tie in with the offshore seismic lines. (Map Top Basement, Fig. 10).

Lines SA-12, SA-3, SS-29 (Fig. 19), SA-10, SS-2 and SS-28 give a good picture of the manner in which the sediments wedge against the steep flank.

The steepness of the basement slope together with the wedging effect is attributed to progressive downward flexing during sedimentation. However, faulting is indicated in the lower part of the section where the beds butt against basement, as in line SS-29.

The north flank passes through the offshore survey area, maintaining its westward course and degree of steepness. This is also indicated on the Magnetometer Map, Fig. 21, which, unfortunately, does not extend beyond the seismic control.

The northward displacement of the eastern and western extremities of the south flank reflects the two major uplifts that occurred within the framework of the basin, apparently at about the time of epeirogenic uplift (and erosion). The possible amount of northward displacement of the south flank is shown by the hypothetical position of the original flank. (Fig. 1).