

Where the dominant rock type of this unit becomes sand and gravel instead of coal, the interval velocities increase by about 2000 ft/sec. Velocity variations persist through the gravels, though not to the extent they do in the coal. The resultant reflection character is one of similar low frequency, but lower amplitude when compared to the predominantly coal bearing interval.

Maps have been constructed at the top and base of this interval based primarily on recognition of these various reflection characteristics.

(d) Horizon "D" through Horizon "E" (Postulated Otway Group)

Possibly the most dramatic improvement the C.D.P. data has made is the recognition, for the first time in the Gippsland Basin, of what are almost certainly valid reflections from within this unit. These reflections vary in character depending on the amount of the coal unit directly above them. Where there is no coal, such as in the "canyon", the reflections below horizon "D" are high amplitude low frequency events. One reflection from within this interval has been mapped. Where the overlying coal is thick, the reflections become distinctly higher frequency and lower amplitude.

#### INTERPRETATION

In every instance the horizons were mapped as far as the data quality permitted.

(a) Structure Contour Map: Horizon "A" (Postulated near top of the Gippsland Limestone) Plate I

There is good seismic evidence of shelfward onlap of the overlying formation onto this horizon. This probable disconformity is believed to represent the last period of tilting prior to the Pliocene uplift which resulted in the present geomorphic expression.

Closure at this horizon is found only on the (A-2)\* anomaly. Strong nosing is apparent over the (A-1) and (H) anomalies. Slight nosing is present over the (C) and (D) anomalies.

(b) Structure Contour Map: Horizon "B" (Postulated top of the Lakes Entrance Formation) Plate II

This horizon was mapped at the top of an increase in reflection amplitude and lowering of reflection frequency. This is a continuous horizon which carries very well over the area mapped. There are definite indications, in places, that some angular discordance may occur at this horizon. Thus the horizon mapped is considered to represent a disconformity.

\* Note Letter designations for anomalies do not infer prospect rating, but are merely for reference in the Report.