

The Demon's Bluff was mapped over a wide area and occurs over a time range of 800 to 1700ms on the seismic data. Structurally the top Demon's Bluff is very similar to the top EVCM, although fewer faults penetrate this level. Only Flinders and Hunter stand out as prominent culminations on a map that shows mostly regional basin sag. The long axis of this basin is still NW-SE and through Poonboon 1. The Demon's Bluff isochron shows that an almost E-W depositional basin has formed during Demon's Bluff deposition with its longitudinal axis centred near Tarook. This occurs at Clarke Lead and Tarook indicating that these features were structurally high at this time.

6.8 Late Oligocene Reflector

Figure 6.14 (Enclosure 14) "Late Oligocene Reflector, Time Structure Map (ms TWT)"

Figure 6.15 (Enclosure 15) "Isochron from Top Demon's Bluff to Upper Oligocene"

This Late Oligocene Reflector was chosen because it sits just below the Miocene/Oligocene unconformity and thus it might show the effect of a Miocene compressional event. The event was mapped over most of T/25P and well into southern T/18P. It varies from 400 to 1300ms on the seismic data in the mapped area.

The structure map shows that this level was affected by a downwarping basin sag event centred southeast of Poonboon 1. To this extent it does not look too different to the top Demon's Bluff map. The deformations caused by the Miocene aged Flinders intrusion is pronounced as is the drape over an Oligocene Volcano near the Clarke Lead.

The isochron of the Late Eocene to Late Oligocene interval shows that the depocentre for this unit has moved northeast a considerable distance (in fact off the mapped area) to the extent that it may be centred just south of Aroo. Another small depocentre is located at Flinders. The thinning of this interval over the Hunter Lead indicates the intrusion present in the *M.diversus* sequence has almost certainly occurred before the end of the Late Oligocene but most probably in the Early Oligocene. This contrasts