

have a distinctive seismic amplitude anomaly (Figure 18). The area of this anomaly is larger than that indicated by the time structural closure. If the anomaly is then accurately representing the gas-oil interface, it suggests that the time distortion caused by the overlying Miocene Volcanic sequence is significant.

The apparent time closure does not then accurately represent the depth structure, and a much larger oil-gas-condensate resource may be present at top EVCM than previously thought.

4.4.2 Mid-EVCM Gas/Condensate Reservoirs

There are no obvious areally significant amplitude anomalies associated with the interpreted seismic events at Near top 2718 sand or Early Palaeocene levels. These are shown by Drawing numbers 13856 and 13864 of Appendix 1. There exist, at both levels, some areally consistent features that may be significant, but these will require further well control to constrain and define the model. The best response is associated with the amplitude of the deep seismic onlap event, Figure 19, that shows an anomalous area roughly coincident with the interpreted structural closure in the Yolla 1 fault compartment, Figure 20.

This anomaly may be representative of the presence of hydrocarbon filled sand, and hopefully not a lava flow from the Late Cretaceous volcanic episode.

Despite the large tuning thickness at this level, and the apparent lack of amplitude response from the Near top 2718 sand and Early Palaeocene markers, a series of trials were initiated to investigate the amplitude response of other seismic events between those mapped in detail. The above two events were chosen for detailed mapping, due to their strong and persistent seismic character, but they are not directly coincident with the sand tops as shown in Table 2. These trials were to determine if further detailed mapping work was warranted, prior to the drilling of any appraisal wells.

Using a similar methodology as described previously, a bulk shift was applied to a grid of data, read back onto the individual lines and re-snapped to align with another seismic reflector. Table 3 below lists the bulk shifts applied, and the subsequent markers are illustrated in Figure 21.

TABLE 3
AMPLITUDE TRIALS

Mapped Event	Bulk Shift	Seismic Signature	Marker
Near Top 2718 sand (Peak)	+ 30 milliseconds	(Trough)	Trial 1
	+ 55 milliseconds	(Peak)	Trial 2
Early Palaeocene (Trough)	-25 milliseconds	(Peak)	Trial 3
	+ 55 milliseconds	(Trough)	Trial 4