

The amplitude data were extracted for the four trial surfaces. This technique should work well in the individual fault blocks, however, the bulk shift value doesn't compensate for the extra thickness of section off structure, and the trial event will start to "snap" to a different reflector. The results were generally inconclusive, although the Trial 2 and Trial 3 surfaces showed some northeast lineations that align with the interpreted strand plain direction of the marine-deltaic depositional system, (Figures 22 and 23). If this is the case, then there should exist good reservoir continuity over the Yolla structure. (The seismic response of the Trial 2 and Trial 3 events are more likely to be affected by the thick reservoir sand at 2809 metres that flowed 15 MMCFD on testing).

A second series of trials involved interpreting one in-line and an intersecting cross line within the Yolla 1 fault compartment, at the same four levels as identified for the previous trial series (Figure 21). The correlation co-efficient was tightened up for the autopick system, which was then activated. The aim was to see how far the autopick would be able to interpret, and hence give some idea of the continuity of the reservoir sands. Reasonable continuity was indicated by the results, as shown in Figures 24 and 25, the time maps for the Trial 2 and Trial 3 surfaces. Perhaps these two maps also indicate the significance of the small fault between the Yolla 1 and Yolla North compartments at different levels by the larger amount of data present over the fault at the Trial 2 level.

5 DEPTH CONVERSION

5.1 Average Velocity

Three separate methods were employed to convert the interpreted time data to depth. The first and simplest involved using a single average velocity, as determined from the Yolla 1 well. The nearby Bass 1 well didn't penetrate to the M.diversus level and hence doesn't provide any useful velocity data, and the Tilana 1 well, penetrating a similar section to Yolla 1, shows little or no variance in the average velocity field. So the single velocity for each level provided a quick look depth map. Table 4 lists the interval and average velocities at each interpreted level.