

## 6.0 CONCLUSIONS

### 6.1 LEADS

#### 6.1.1 Structural

The most significant structural leads can be observed on the southern Top Latrobe Coal Measures (Sheet 6). They are leads 18 and 19, named Furneaux and Flinders respectively, and are centered at 39° 34'S, 148° 43'E and 38° 32'S, 148° 42'E. Also on this sheet, lead 12 involves a significant structural high.

The Flinders lead (lead 19) has a thin cover (approx. 50ms) of Latrobe Group. It has a possible 50ms of closure, and area of 4 km<sup>2</sup>. The Furneaux lead (lead 18) has a thicker section (200 msec) of Latrobe Group, but the closure is reduced to 30ms. Both prospects are updip from substantial thicknesses of Latrobe Group and are optimally located to receive hydrocarbons.

Leads 18 and 19 may prove to be one large area of closure bounded approximately by 148° 45'E, 39° 32'S; 148° 41'E, 39° 31'S; 148° 40'E, 39° 32'S; 148° 42'E, 39° 36'S, and 148° 45'E, 39° 35'S.

Further seismic coverage would lead valuable velocity information which may make this area considerably more attractive than presently mapped. Extreme area of closure may be as great as 20 square kilometres.

Other leads in the southern sheet include lead 12, centered at 39° 41'S, 148° 44'E. This is indicated only by line G-37 and could be created by a replacement static problem.

On the other hand, if lead 20 proves to be real, it may be continuous with lead 13 and another structurally high area to the north. Closure against basement on the fault to the west could give an areal closure of around 12 square kilometres. Again, only further seismic will verify this.

#### 6.1.2 Stratigraphic

Lead #9, 10 and 11 are all stratigraphic plays which rely upon overlying Gurnard or Lakes Entrance Formations pinching the Latrobe Group out onto Basement.

Of the three, lead 9 is the largest of 6 km<sup>2</sup> and 120ms of closure. The migration pathway is restricted, and may not permit accumulation of hydrocarbons from a great area. However, there are possibly 700ms of Latrobe Group sediments within the reservoir, which could compensate for restricted migration from the east.

Leads 10 & 11 are more open to hydrocarbon migration, but are each less than 1 km<sup>2</sup> and have small vertical closure.