

GEOLOGICAL ANALYSIS

a) Stratigraphy

The stratigraphic section at Pelican-4 is similar to that drilled in the Pelican-1 and Pelican-2 wells.

The Torquay Group was drilled from sea floor to 1634 m (5360 ft). This marine Miocene and Oligocene section comprises bioclastic limestone, fossiliferous, calcareous claystone and siltstone (in part carbonaceous) and fine-grained sandstone. It conformably overlies the Eocene to Oligocene Demons Bluff Formation.

The Demons Bluff Formation consists of marine argillaceous siltstone and shale, commonly pyritic and slightly carbonaceous. It overlies the Eastern View Coal Measures at 1750 m (5740 ft).

The Eastern View Coal Measures of Eocene age, consist of interbedded sandstone, siltstone, shale and coal deposited in delta and alluvial plain environments.

As anticipated, because of its location lower down on the structure, Pelican-4 penetrated a slightly thicker section in the upper Eastern View Coal Measures. Stratigraphic correlation of logs between Pelican-4 and Pelican-1 has proved difficult. Correlation is good to about the level of the 'X' shale marker above Sand A and it appears probable that the 24 m (80 ft) sand at 2879 m (9445 ft) K.B. in Pelican-4 is the Green Sand of Pelican-1 (Figure 2). In the reservoir interval between, however, correlation of individual beds is uncertain. The reservoir sands in Pelican-4 occur at stratigraphic levels which are at about the same position in Pelican-1 but they may not be continuous.