

### 3 PREVIOUS EXPLORATION

#### 3.1 Introduction

The Bass Basin has only been relatively lightly explored, and encouraging indications of hydrocarbons have at times been encountered and tested. None of the discoveries so far has led to commercial development. BHP took out a permit covering the entire Bass Strait area in 1960 and in 1961 a regional aeromagnetic survey was flown. The subsequent 1962-1963 regional seismic survey provided data for basic concepts to be developed about the basin. In 1965 Esso commenced exploration under a sole-risk agreement (Brown, 1976).

The following is paraphrased from Baillie *et al* 1991. "Early exploration of the basin by Esso-BHP & subsequently by BHP alone (1965-82) concentrated on structures at the top of the Eastern View Group, similar to these in the Gippsland Basin where the largest accumulations are found at, or near the top of the stratigraphically equivalent Latrobe Group. Following this initial phase of exploration, which resulted only in the discovery of the sub-economic Pelican gas accumulation, exploration of the basin declined and was subsequently taken over by two groups led by Bass Strait Oil & Gas and Weaver Oil & Gas. The results of the initial exploration phase indicated that the upper Eastern View Group was largely thermally immature, that only limited vertical migration had occurred in the basin, and that the best potential for hydrocarbons occurs within deeper, thermally mature levels of the lower Eastern View Group (Nicholas *et al*, 1981; Davidson *et al*, 1984; Williamson *et al*, 1985; Williamson & Pigram, 1986).

The Bass Strait Oil & Gas group succeeded in attracting Amoco Production Company into the basin and four wells were drilled during 1985-1986. Bridge Oil Limited became operator of the other consortium which drilled two wells in the same period. This phase of drilling, in part designed to test deeper targets than the earlier Esso-BHP exploration, resulted in the Yolla 1 oil and gas discovery well, the dry wells Koorkah 1, Chat 1 and Seal 1, Tilana 1 and Pelican 5 which had gas shows".