

The Cretaceous to Recent Bass, Gippsland and Otway Basins lie predominantly offshore in the Bass Strait region between southeast mainland Australia and Tasmania (see map). The Gippsland Basin is responsible for more than 90% of domestic crude oil production, but the Bass and Otway Basins have yet to yield a commercial hydrocarbon discovery, despite superficial similarities of stratigraphy and evolution.

In the Gippsland Basin, hydrocarbons are largely trapped in anticlinal and fault-related structures at a Late Eocene unconformity. Structures of this age are poorly developed in the Bass Basin. However, a recent review of hydrocarbon potential by BMR scientists, had demonstrated that suitable source rocks and maturation conditions existed in the Late Cretaceous to Paleocene sequence, and that plays could be developed at that level which may justify further examination.

Exploration of this deeper portion of the Bass Basin was previously hampered by relatively poor quality of seismic data generated at and below highly reflective and reverberant Eocene coal measures. In 1982, the Bureau of Mineral Resources, Geology and Geophysics (BMR) conducted a contract seismic survey using a high energy airgun source and a 3200 metre long streamer (96 channel, 48 fold). Over