

PALEOCENE/CRETACEOUS PLAY

The BMR studies of the Bass Basin J. C. Branson et al, (Enclosure 1.) can be summarized as follows:

- Recent reviews of the hydrocarbon potential have 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.

- Slower basin subsidence prevailed in the Late Cretaceous with sediments derived from eroded Paleozoic and Proterozoic highland areas, as well as Upper and Lower Cretaceous elevated portions of horst blocks. These sediments were deposited under fluvial and lacustrine conditions. Minor marine incursions may have occurred as these are known in the Otway basin to the west. During the Paleocene-Eocene, coal deposition was widespread in what appears to have been a dominantly alluvial basin.

- The major hydrocarbon indications have been found closer to the basin depocenter. The Pelican gas/oil field is located on just such an intra-basin structure. Whereas previous interpretation have correlated the Pelican structures with those along the southwest margin of the basin, this new structural model correlates them across transform-like faults with the major blocks near Aroo #1 and Bass #3, in the basin center. The coincidence of an Early Cretaceous tilt block with a thick Late Cretaceous to Paleocene source section is now regarded as being highly prospective, and play concepts have been developed accordingly.