

## PALEOGEOGRAPHY

### Early Cretaceous

Paleogeography prevailing during deposition of the Lower Cretaceous Strzelecki Group has been inferred from only eleven offshore wells, all but one of which are located in the northern portion of the offshore basin. The Strzelecki Group is typified as a mineralogically and texturally immature clastic succession among these wells.

Sand percentage of the penetrated Strzelecki section ranges from 30 (Gannet-1) to 90 (Moray-1). Paleontological analyses indicate that the Strzelecki Group is of continental paleoenvironmental identity.

Distribution of sand percentages among the wells which penetrated the Lower Cretaceous suggest a northwest-trending Early Cretaceous basin bordered by continental clastic deposits (sand percentage less than 80%), grading basinward into a relatively narrow zone of basin-margin conglomeratic sediments (sand percentage greater than 80%).

The orientation and lithologic variation of the inferred Early Cretaceous basin are in agreement with published interpretations that the offshore Gippsland Basin was at this time a rift basin subject to a northeast/southwest tensional regime. According to this model, the zone of conglomeratic Strzelecki clastics most likely represents fault-related fanglomerates of the rift-basin margin.

Available well data do not permit determination of the lithologic/paleoenvironmental identity of the Strzelecki Group in the axial portion of the inferred basin. Hypothetically, a relatively deep-water, restricted basin of organic shale deposition could have existed in this area. In this regard, it is of interest to note that most of the known oil accumulations overlie this central area, while the major gas fields overlie the zone of continental Strzelecki deposition.