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## **New Perspectives on Structural Style and Petroleum Prospectivity, Offshore Eastern Otway Basin**

The recognition of N-S axial trending anticlinal and synclinal folds within the Upper Cretaceous Sherbrook Group of the Otway Basin, necessitated the creation of a new structural model. This folding, together with the prominent synclinorium represented by the Shipwreck Trough, are interpreted to have resulted from transpressional processes directly related to Late Cretaceous rifting. The suggested mechanism involves NE-SW directed crustal extension acting on pre-existing N-S basement lineaments or zones of weakness imparting conjugate components of NE-SW extension and E-W compressive stress. The structuring is syn-depositional and exerted major control on the stratigraphic development and distribution of Sherbrook Group sediments. Structural traps at the La Bella and Minerva fields together with the recent new field discoveries at Thylacine and Geographe, display elements of transpressional folding as do a significant number of other untested, faulted anticlinal structures seen on seismic across the region. Faulted anticline traps are more numerous, have a greater trap volume and lower trap risk than interpreted previously, enhancing the basin's exploration potential.