

J. 2016-2268m (cutts) : lower L. balmei Zone

Assignment to the lower Lygistepollenites balmei Zone is indicated by the absence of younger indicators above, and of older indicators below. The oldest occurrence of L. balmei at 2268m confirms the assignment. Minor caving includes Proteacidites grandis (from its light spore colour caved a long way). A single specimen of Tricolpites confessus at 2268m is considered reworked, although it is possible that the Cretaceous was penetrated at this point, and obscured by heavy caving.

Non-marine environments are indicated by the lack of dinoflagellates and presence of common cuticle and spores and pollen.

Spore colours of light brown indicate marginal maturity for oil and immaturity for gas/condensate.

K. 2370-2805m : T. longus Zone

Assignment to the Tricolpites longus Zone is indicated at the top by the youngest occurrence of Tricolpites confessus (2370m) T. waipawaensis, Tricolporites lillei and Tripoporipollenites sectilis (at 2490m). The zone base is defined by the oldest occurrence of Tricolpites longus (at 2805m), and the increase in Nothofagidites spp. abundance in the T. lillei zone below. The oldest occurrences of Tetracolporites verrucosus (2370m) and Stereisporites (Tripunctisporis) punctatus (2490m) indicate that both upper and lower parts of the zone are present.

Non-marine environments are indicated by the absence of dinoflagellates, and common spores and pollen.