

(cutts), indicating non-marine environments for most of the interval. Only at the base (2511-20m, cutts) were very scarce dinoflagellates seen, indicating marginal marine conditions.

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

F. 2557 (swc)-2808m (CORE) : middle M. diversus Zone

Assignment to the middle Malvacipollis diversus Zone is indicated at the top by the absence of younger indicators and supported by the youngest occurrence of Tricolpites gillii (2557m, swc). At the base, assignment is indicated by the oldest "in situ" occurrences of Anacolosidites acutullus, Proteacidites kopiensis and Proteacidites ornatus, all at 2808m (CORE).

Preservation in this interval was good, but fossils were sparse, with abundant amorphous liptinite in the preparations. This is frequently observed with good mature oil source rocks in a hydrocarbon section.

Extremely rare dinoflagellates were not age diagnostic.

Marginal marine to non-marine environments are indicated by the very rare presence of dinoflagellates (2557m, swc and 2637, cutts - 2808m, core) and their occasional absence (2592m, swc).

Spore colours of light to mid brown indicate maturity for oil generation, and marginal maturity for gas/condensate generation.

G. 2846 (swc)-3042m (swc) : lower M. diversus Zone

Assignment to the lower Malvacipollis diversus Zone is indicated at the top by the absence of younger indicators, supported by the youngest occurrence of Cyathidites gigantis at 2846m (swc). The