generation.

C. 1003m (swc)-1053m (swc) : middle N. asperus Zone

Assignment to the middle Nothofagidites asperus Zone is indicated at the top by the youngest occurrences of Beaupreadites verrucosus, Liliacidites lanceolatus, Proteacidites reticulatus, common P. pachypolus and the dinoflagellate data. The Zone base is defined by the oldest occurrence of Triorites magnificus and Proteacidites tuberculatus.

Age significant dinoflagellates include Alisocysta ornata at 1003m indicating assignment to the upper part of the middle N. asperus Zone. Other significant forms include Deflandrea phosphoritica, Systematophora placacantha, Areosphaeridium arcatum and Phthanoperidinium comatum, all of which indicate a lower N. asperus Zone assignment or younger.

Environments are marginal marine to nearshore marine (as shown by the rare low diversity dinoflagellates) amongst the common and diverse spores and pollen.

Yellow to yellow/brown spore colours indicate immaturity for hydrocarbon generation.

D. 1145m (swc)-1206.5m (swc) : lower N. asperus Zone

The top of the lower Nothofagidites asperus Zone is defined by the absence of younger indicators seen above, and the zone base is defined by the base of Nothofagidites dominated assemblages. Oldest occurrences supporting the zone base include Gemmatricolporites gestus and Nothofagidites falcatus (1165m swc).