

interval base is defined by the absence of older indicators in the deepest diverse sidewall core assemblage. Middle M. diversus indicators are seen commonly in cuttings samples, but are absent from the sidewall cores and cores, and so are presumed caved.

Assemblages are of low diversity. Some preparations are swamped with amorphous liptinite, thus diluting the pollen assemblage. Other preparations have been strongly oxidised to remove the amorphous liptinite, and have destroyed the pollen as well. This is typical of an oil soaked rock.

Non-marine to marginal marine environments are indicated. Most assemblages lack dinoflagellates, or have only the lacustrine Morkallacysta pyramidalis. The only assemblages containing marine dinoflagellates are at 2898-2907m, (cutts, into which the dinoflagellates may be caved with the middle M. diversus pollen) and 2846m (swc), both near the top of the interval, and indicating marginal marine conditions.

Spore colours of mid brown indicate peak maturity for oil generation, and the onset of gas/condensate maturity.

H. 3069 (cutts)-3139m (swc) : indeterminate

This interval includes three samples, comprising two cuttings samples (3069-78m and 3114-23) and a single sidewall core (3139m). The sidewall core is very mature, with only fragmentary fossil pollen seen, from which a non-diagnostic assemblage was identified, lacking indicators of either the lower M. diversus or underlying L. balmei Zones. The overlying cuttings samples (3114-23m and 3069-78m) contain a middle M. diversus Zone assemblage, lighter in colour than the overlying swc, and clearly indicating that caving has taken place. Indicators of the L. balmei Zone are lacking.