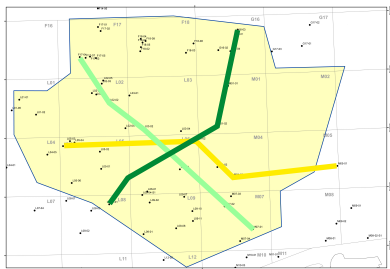
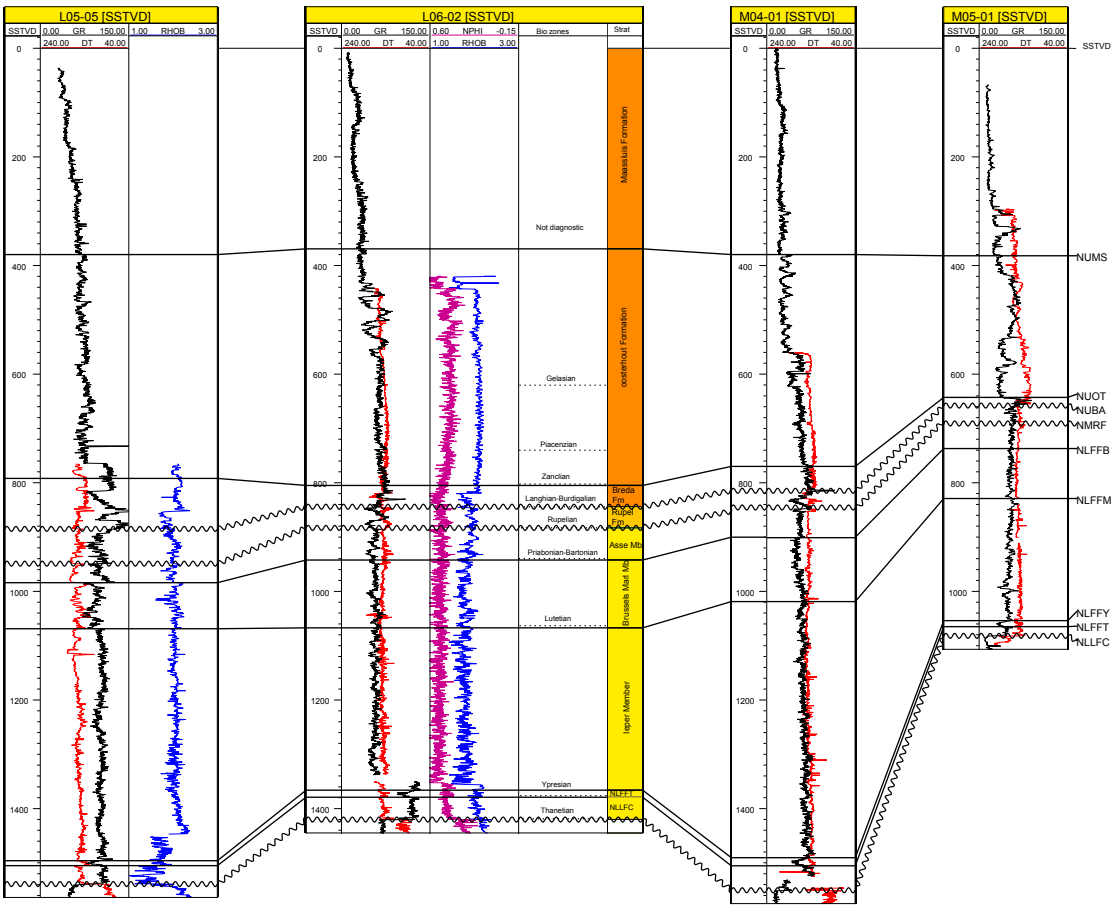
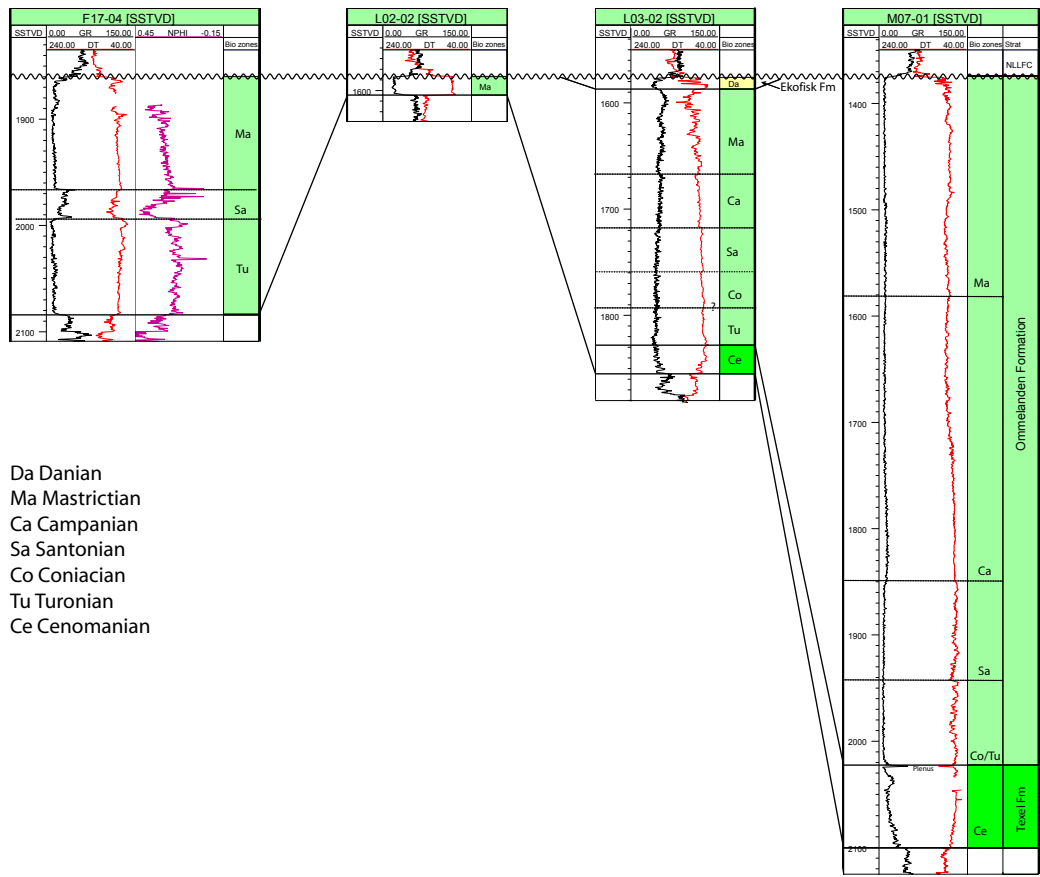


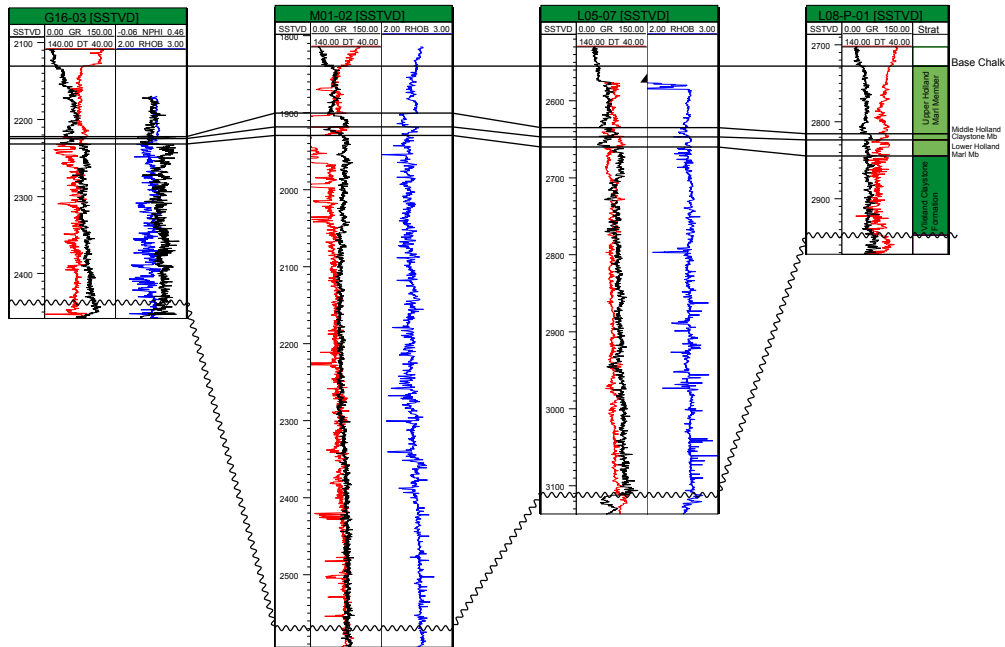
Annex la
Correlation panels in area 2A



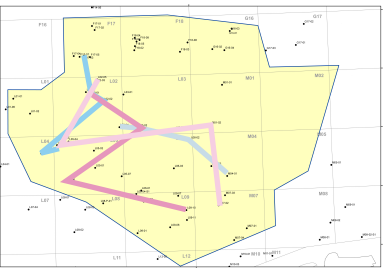
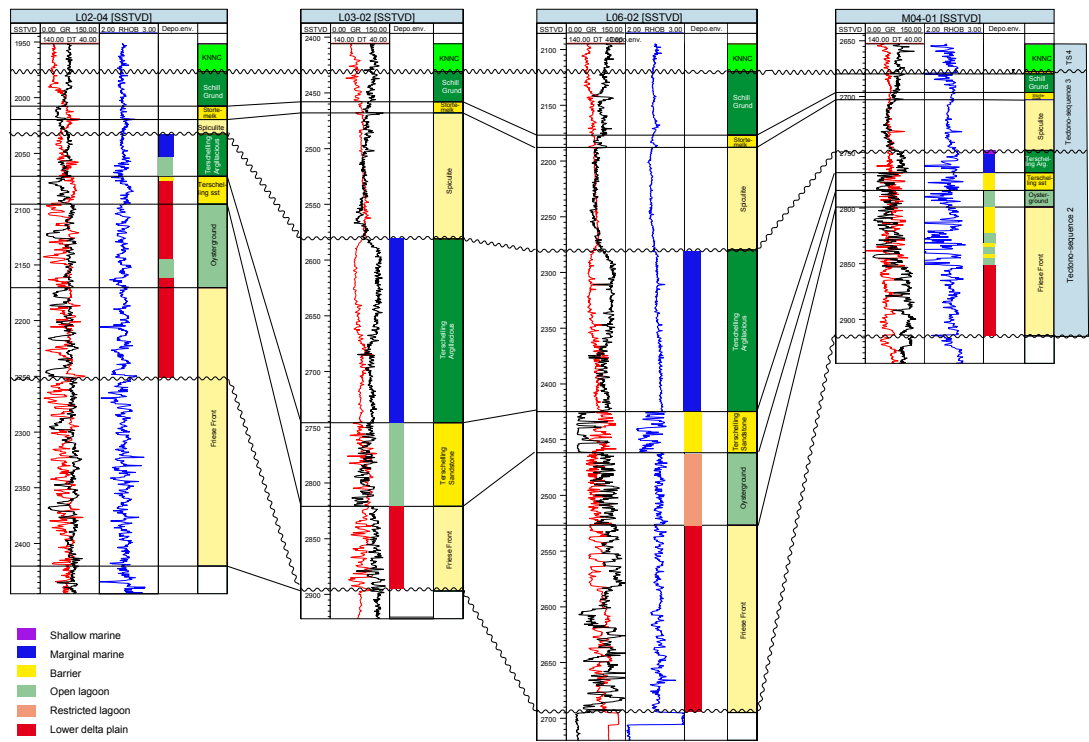
The correlation panel of the Lower, Middle and Upper North Sea groups shows a uniform development with a thinning in eastern direction. The Pyrenean and Savian erosional phases have removed part of the Oligocene and Lower to Middle Miocene deposits. Note the thick Pliocene sequence with stacked pro-delta sands which originate from the Eridanos river system.



This correlation panel of the Chalk Group shows a cross section over the inversion axis in the Dutch Central Graben. In this panel with only Danian deposits are present in well L02-02. Note the aberrant facies in the Santonian in well F17-04. The interval consists of glauconite rich sandstones. In L03-02 on the flank of the inverted area a complete but condensed section is present as biostratigraphic analysis demonstrates. In M07-01, further to the south, the uppermost Danian stage is not present due to erosion or non-deposition.

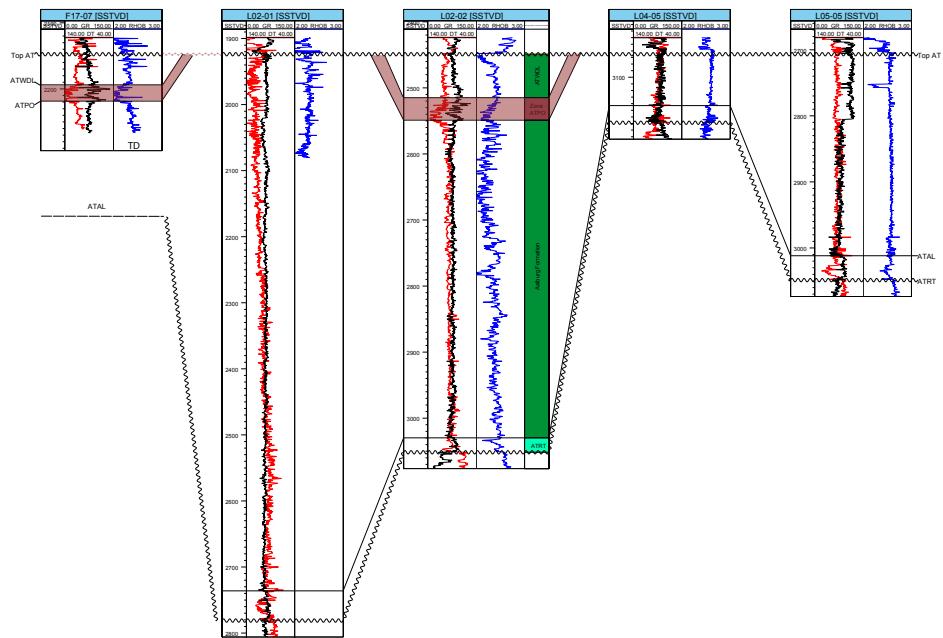


The Vlieland Claystone Formation of the Rijnland Group is mainly a clayey succession and has its greatest thickness in the centre of the Terschelling Basin. The overlying Holland Formation shows a regular succession with the calcareous Lower and Upper Holland Marl members separated by the Middle Holland Claystone Member.

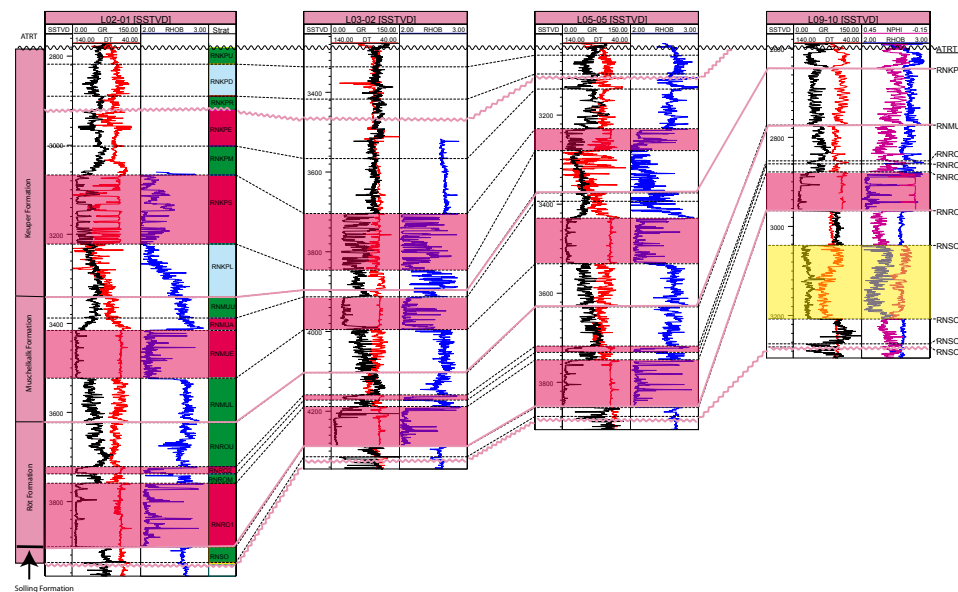


This correlation panel stems from the sedimentological study performed on 'tectono-stratigraphic unit 2' in the Upper Jurassic. TNO report 2006-U-R0191/A.

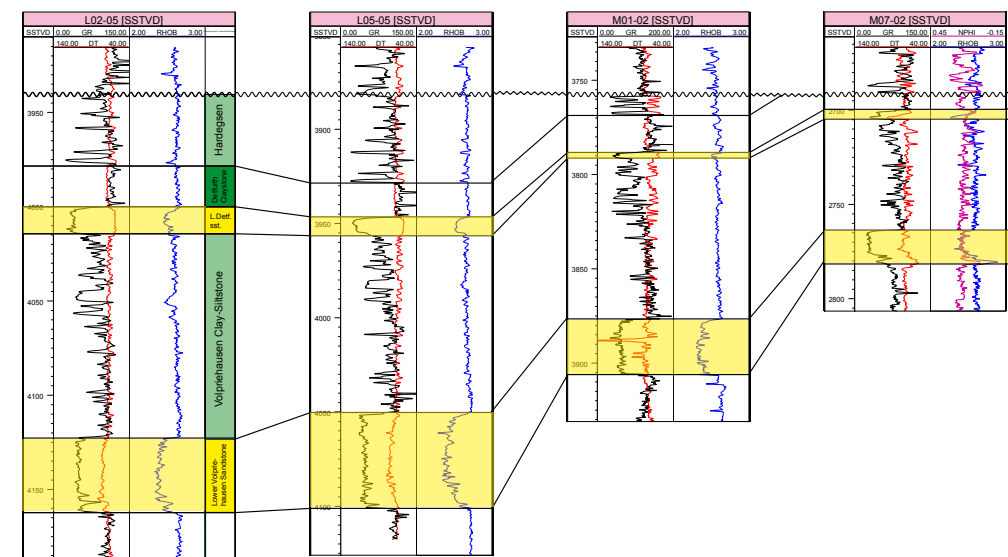
It shows the lithostratigraphic correlation in both tectono-sequence 2 and 3 as well as an indication of the depositional environment. In these wells (from bottom to top) the depositional environment shifts from lower delta plain in the Friese Front Fm (bottom TS 2) to lagoonal and barrier sand to marginal to shallow marine at the top of sequence 2.



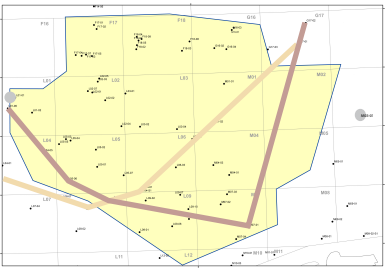
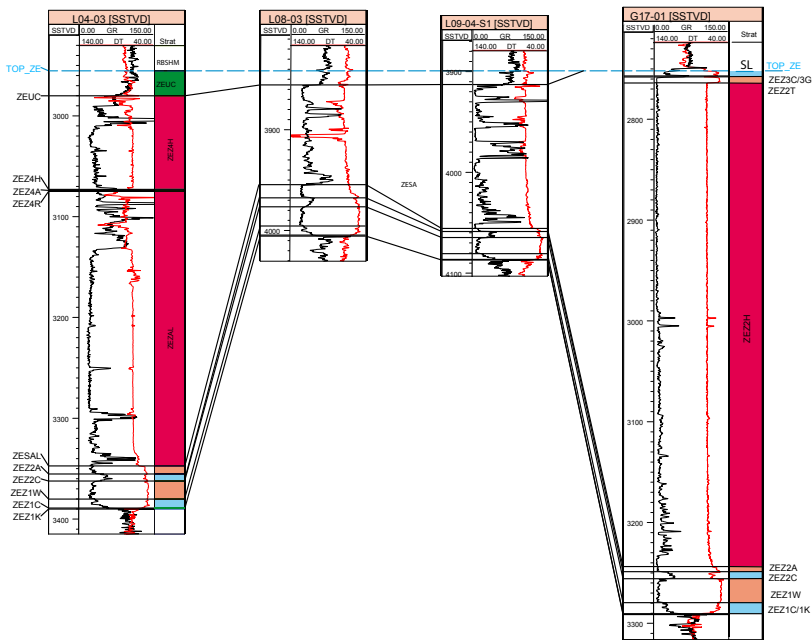
The Jurassic sediments of the Altena Group are only present in the Dutch Central Graben. Maximum thickness of almost 900 m is in well reached in well L02-01. The Posidonia Shale Formation isolated spots. In this correlation panel the Posidonia Shale is shown in two wells. The thickness is about 35 m in L02-02.



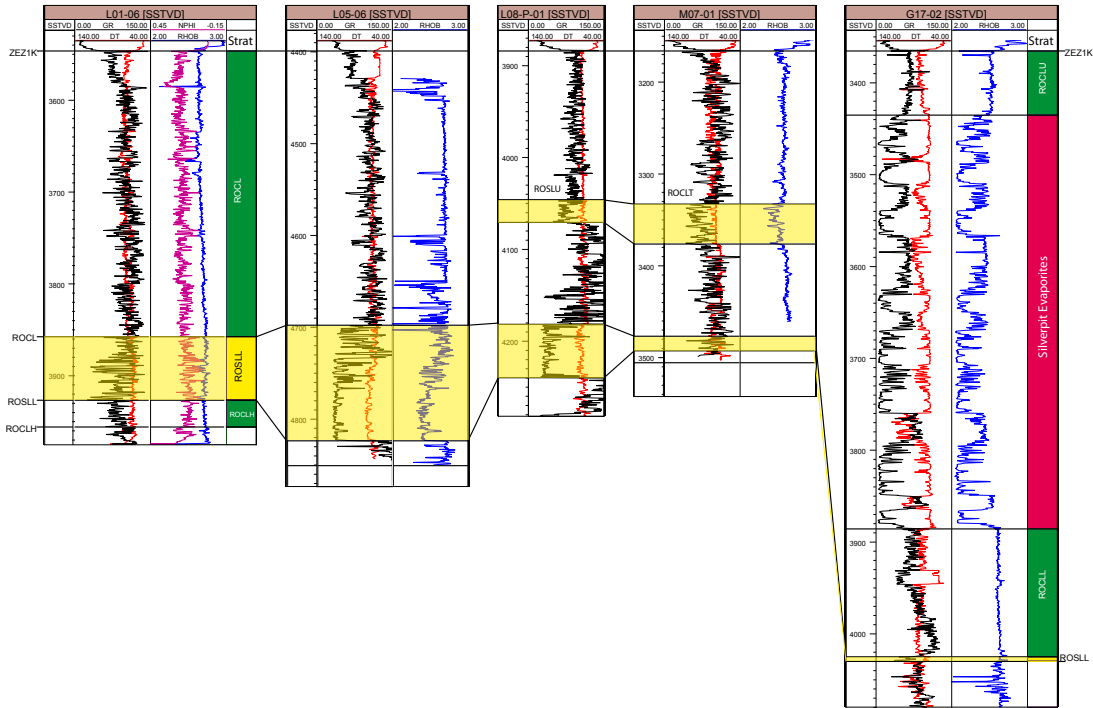
The Upper Germanic Trias Group shows an almost complete succession in well L02-01 in the Dutch Central Graben with a thickness of more than 1150 m. Due to salt movements and later erosion the thickness of the Upper Germanic Trias Group varies enormously in area 2A. Note the anomalous thick sand deposition in the Solling Formation in well L09-10. These eolian sands form an excellent reservoir.



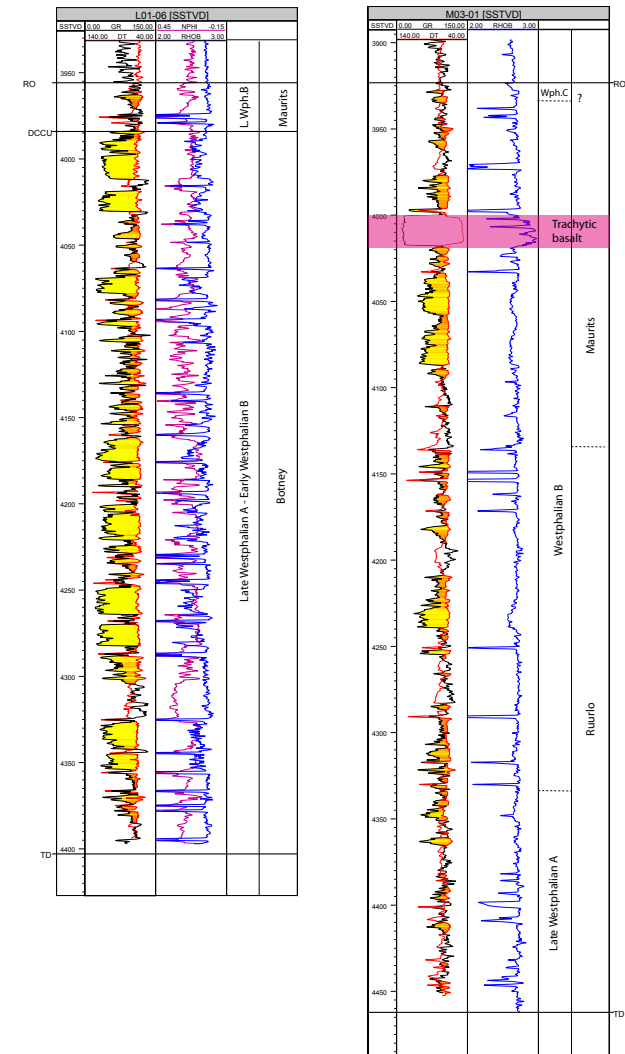
The correlation panel of the Lower Germanic Trias Group only shows the Main Buntsandstein Subgroup. The cross section presents an almost complete section in the Dutch Central Graben area with the Hardeggen Fm present under the base Solling Unconformity. More to the east the unconformity cuts in deeper into the deposits. The Lower Volpriehausen Sandstone and the Lower Detfurth Sandstone members have both good reservoir qualities. Only the Lower Volpriehausen Sandstone is a producing reservoir in area 2A.



In 2A and surrounding area only few wells have reached base Zechstein Group. Due to halokinesis none of them have representative examples of a complete cyclic sequence. This cross section shows a possible Zechstein 4 cycle in well L04-03 overlying disturbed Ze2 and Ze3 salt (ZESAL). In L08-03 and L09-04-S1 a thin salt section represents squeezed out salt to nearby salt domes. In G17-02, however, a thick Ze2 salt has been preserved with on top Ze3 carbonate, anhydrite and caprock.



The Slochteren Formation of the Upper Rotliegend Group is present at the southern edge of the area 2A. The fluvial Lower Slochteren Sandstones form an excellent reservoir. The Upper Slochteren Sandstones pinch out in northern direction and harbour no producing fields in area 2A. The lateral transition to playa/lake deposits of the Silverpit Formation results in a thick Silverpit Evaporites section in well G17-02, just north of the area. At the base a thin layer of Lower Slochteren Sandstone Member is interpreted. This sand was deposited by a east-west trending river system. The Lower Slochteren Sandstone in the southern part of area 2A has a south-north distributary (Geluk & Mijnlieff, 2002)



The Limburg Group lies deeply buried in the 2A area. Few wells have reached the top, even fewer wells contain a representative section. Well L01-06 in the western part of the area shows the Botney Member of the Klaverbank Fm with its characteristic stacked sand bodies. Its British equivalent is 'the Caister Sand unit' in the Caister field, one of the major gasfield in the UK. Biostratigraphic analysis of well M03-01 gives an age of Late Westphalian A to B. At the top evidence is found for Early Westphalian C. Lithostratigraphically the interval can be divided into Ruurlo and Maurits formations. In the Maurits Formation an intrusive of trachytic basalt is encountered. According to K-Ar dating the dyke originates from Early Jurassic, Pliensbachian.