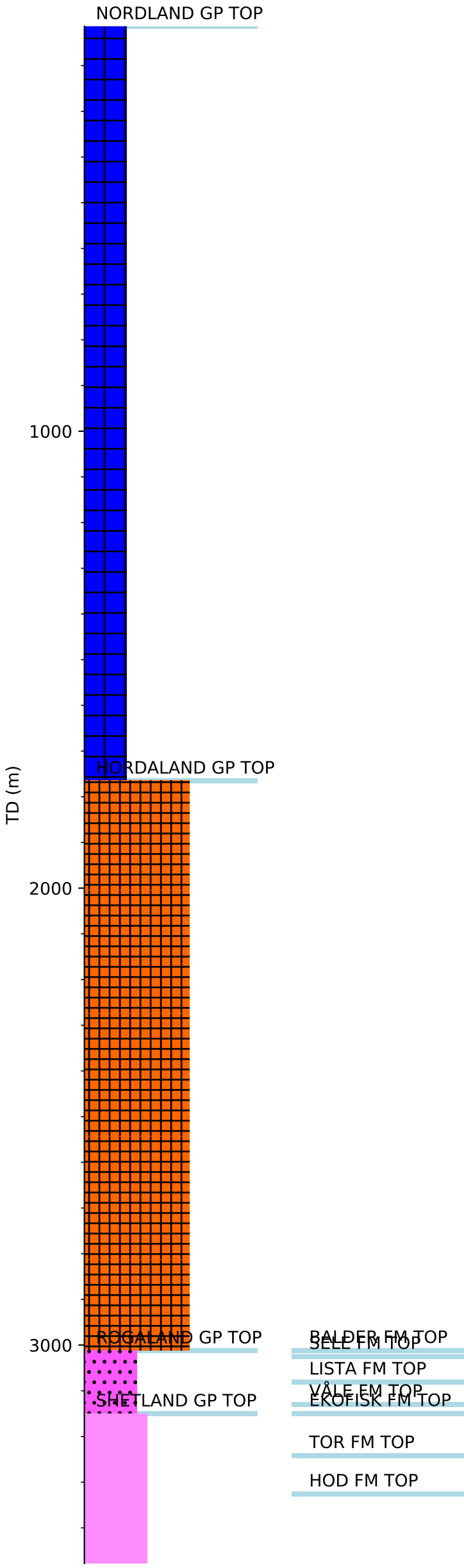
Groups

Formation Tops



Wellbore History

GENERAL

Well 2/7-30 was drilled on the Edgar prospect in the Feda Graben ca 4 km north-east of the Eldfisk Field in the southern North Sea. The objective was to test a combined structural/stratigraphic play first identified on seismic data as a high-amplitude anomaly within the Late Cretaceous (Maastrichtian) Tor Formation. The primary target for the 2/7-30 well was the upper Tor Formation as defined through seismic inversion modelling of the anomaly. The Paleocene (Danian) Ekofisk Formation was regarded as a secondary target, with two possible productive intervals, an upper zone of reworked Danian chalk and a lower zone dominated by reworked Maastrichtian deposits.

OPERATIONS AND RESULTS

Wildcat well 2/7-30 was spudded with the jack-up installation Maersk Guardian on 27 February 1995 and drilled to TD at 3478 m in the Late Cretaceous Hod Formation. No significant problem was encountered in the operations. Coring in the well was performed with a "Security/DBS coring system" where the inner barrel is oil filled. Apparently the base oil in this system have contaminated some of the organic geochemical data from the cores from the well. The well was drilled with seawater and bentonite/native clay down to 469 m and with a KCl/Pac/Glycol mud from 469 m to TD.

The top Ekofisk Formation was encountered at 3150.1 m wire line depth, which was 17.4 m higher than prognosed. Both the upper and lower allochthonous intervals in Ekofisk Formation proved water wet, despite some fair shows observed during drilling/coring. Porosity up to 25-28% and permeability close to 1 mD was obtained in these intervals. No pressure data or formation fluid samples were collected due to the low permeabilities. Geochemical analysis of residual oil from the core samples concluded that the Egdar oil is similar to the oil in the Eldfisk Bravo structure. The primary target, top Tor Formation, was encountered at 3241.9 m, 12.2 m high to prognosis. A 36.6 m thick section with porosity of 30-35% (average 31 %) and permeabilities of 1-4 mD was penetrated. There was an isolated show of oil at 3248.6 m; otherwise the Tor Formation was devoid of hydrocarbons. The pressure measurements fell on a water gradient and were 200-300 psi (13.6 - 20.4 bar) lower than the initial pressure estimate for Eldfisk Field at comparable depth. It is likely that the upper Tor Formation on Egdar is in pressure communication with the Eldfisk Bravo structure. No porous intervals or shows were encountered in the Hod Formation.

A total of 125.3 m core was cut in 6 cores from 3140.0 m in the lower Vale Formation, through the entire Ekofisk Formation and terminated at 3276.0 m in the base of the porous Tor Formation interval. No wire line fluid samples were taken due to the low permeabilities encountered in the chalk sections.

The well was permanently abandoned on 10 April 1995 as a dry well with shows.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 2/7-30