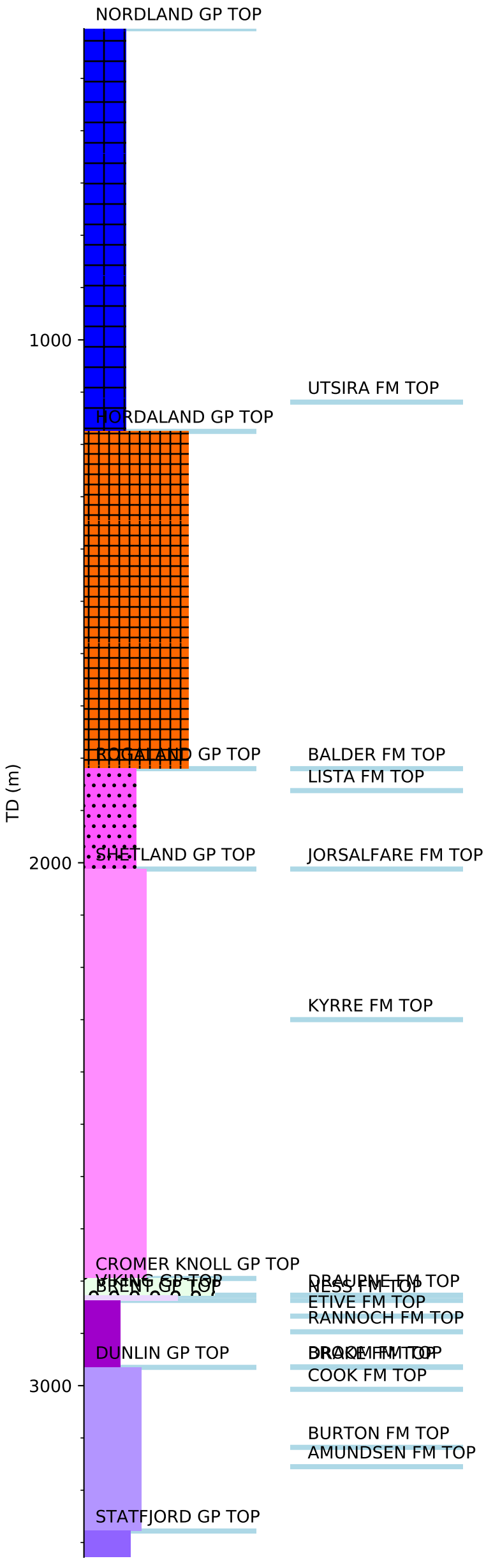
Groups

Formation Tops



Wellbore History

GENERAL

Well 34/8-3 was drilled on the A-structure on the Visund Field. This is a NNE-SSW oriented elongated fault block with the Pre-Cretaceous strata dipping towards WNW. The A-Central fault divides the A-structure into the A-North and A-South compartments. The primary objectives of the well were to test the hydrocarbon potential of the Brent Group on the A-North compartment. Planned TD was 50 m into the Statfjord Formation.

OPERATIONS AND RESULTS

Wildcat well 34/8-3 was spudded with the semi-submersible installation Polar Pioneer on 14 July 1988 and drilled to TD at 3328 m (3320 m TVD) in the Early Jurassic Statfjord Formation. There were no problems with shallow gas. 9 5/8" casing was set at 2597 m instead of 2800 m due to higher pressure than prognosed in formation of Cretaceous age. Below 2600 m the well started to build some angle, up to 9.6 deg at the most. This resulted in 8 meter discrepancy between measured depth and vertical depth towards TD. The well was drilled with seawater and hi-vis pills down to 1302 m and with KCl/polymer mud from 1302 m to TD.

Oil shows were recorded in thin sandstone stringers in the Kyrre Formation between 2364 m and 2555 m. The Brent Group was encountered at 2837 m. It contained a 90 m gas column and a 13 m oil column. The gas/oil contact was at 2929 m. The oil/water contact could not be established, but DST 1 produced clean oil from the interval 2935 to 2947 m. Oil shows were recorded on sandstone on cores down to 2951 m.

Seven cores were cut in the interval 2839.0 to 2957.5 m in the Brent Group. The core depths are 1 m shallow compared to logger's depth. One RFT wire line fluid sample was taken at 2936 m. The 2 3/4 gallon chamber contained 9 litres water and mud filtrate, 0.6 litres oil and 0.14 Sm3 gas.

Since the oil/water contact was not found, it was decided to sidetrack. The well bore was plugged back to 845 m and permanently abandoned on 14 September 1988 as an oil and gas appraisal well.

TESTING

Three drill stem tests were performed in the well.

DST 1 tested the interval from 2935 to 2947 m in the oil zone in the Rannoch Formation. It produced 68 Sm3 oil and 18200 Sm3 gas /day through a 4.76 mm (12/64") choke. The GOR was 268 Sm3/Sm3, the oil density was 0.847 g/cm3, and the gas gravity was 0.635 (air = 1) with 1 % CO2 and 0 ppm H2S. The bottom hole temperature was 108.9 deg C, measured at 2895.8 m.

DST 2 tested the interval from 2905 to 2921 m in the gas zone in the Rannoch Formation. It produced 613 Sm3 oil and 1540000 Sm3 gas /day through a 28.58 mm (72/64") choke. The GOR was 2520 Sm3/Sm3, the oil density was 0.0.775 g/cm3, and the gas gravity was 0.640 (air = 1) with 1.6 % CO2 and 1 ppm H2S. The bottom hole temperature was 110.8 deg C, measured at 2850.11 m.

DST 3 tested the interval from 2868 to 2880 m in the gas zone in the Etive Formation. It produced 554 Sm3 oil and 1540000 Sm3 gas /day through a 25.4 mm (64/64") choke. The GOR was 2780 Sm3/Sm3, the oil density was 0.782 g/cm3, and the gas gravity was 0.648 (air = 1) with 1.5 % CO2 and 1 ppm H2S. The bottom hole temperature was 110.4 deg C, measured at 2825.56 m.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 34/8-3