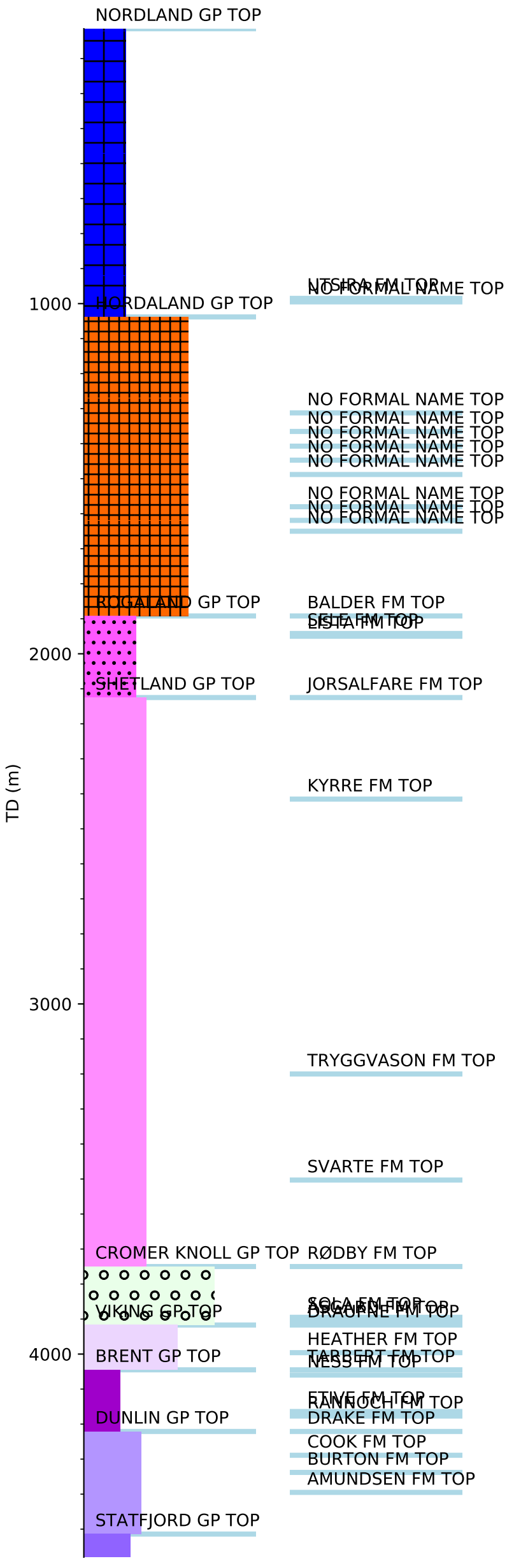

Wellbore History

GENERAL

Well 34/11-1 was drilled on the Tjalve Terrace south-east of the Gullfaks Field in the northern North Sea. The main objective for the well was to explore the hydrocarbon potential of the Early-Middle Jurassic reservoirs within the Alpha structure, and to test the current geological model for the Alpha structure and the Gullfaks Gamma complex.

OPERATIONS AND RESULTS

Wildcat well 34/11-1 was spudded with the semi-submersible installation Ross Rig on 7 July 1994 and drilled to TD at 4580 m in Early Jurassic, possibly Late Triassic sediments of the Statfjord Formation. No significant problem was encountered in the drilling phase. Due to fish in the hole logs were not run below 2563 m. The well was drilled with bentonite/CMC EHV mud down to 1110 m, with ANCO 2000 mud with 3.2 - 4.4 % ANCO 208 glycols from 1110 m to 3932 m, and with ANCO THERM mud from 3932 m to TD.

The top of the Brent Group was penetrated at 4045 m, 18 m lower than prognosed and proved to be gas/condensate bearing. A true gas-water contact was found at 4163 m at the base of the Ness Formation. Both the Cook and the Statfjord Formations were water bearing. First trace of fluorescence in the well was reported in minor sandstones in the Lista Formation at 2115 m. Traces of light coloured fluorescence was observed sporadically on limestone down to top Brent Group, generally associated with elevated drill gas readings. At 3605 "oil film on shakers" was reported.

A total of 131 m core was recovered in 12 cores in the Brent Group from 4054 m to 4220 m. The core depths were from 1 to 4 m shallow compared to the logger's depth. Segregated FMT samples were collected at 4142 m in the Ness Formation and in the Tarbert Formation at 4059.5 m.

The well was permanently abandoned on 25 October 1994 as a gas/condensate discovery.

TESTING

A single drill stem test was performed in the Ness Formation across the interval 4116.5 - 4137 m and produced 664221 Sm3/day of gas (gravity 0.690 rel. to air) and 387 Sm3/day of oil (gravity 794 kg/m3 at 20 deg C). The GOR was 1728 Sm3/Sm3. The gas contained 1% CO2 and 3 ppm H2S. The maximum temperature measured down-hole at the gauge was 152 deg C.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 34/11-1