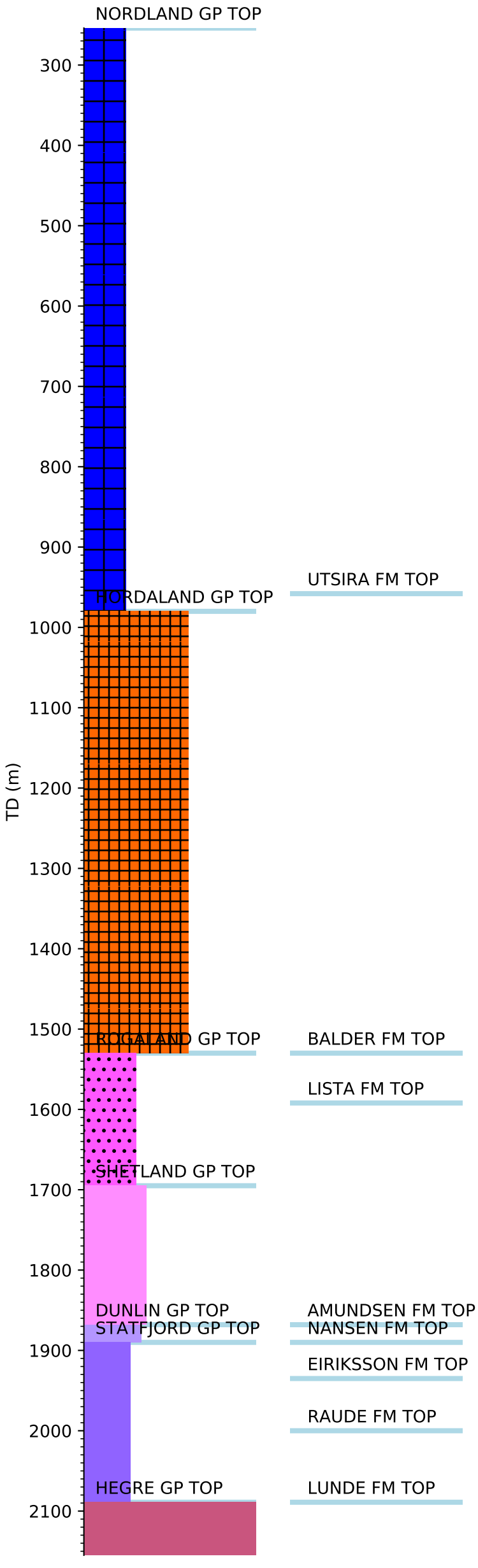
Groups

Formation Tops



Wellbore History

GENERAL

Well 34/10-11 was drilled on the Gullfaks Delta structure in the North Sea. The primary objective of the well was to test sandstones of Middle Jurassic age. Secondary objectives were sandstones of Lower Jurassic age.

OPERATIONS AND RESULTS

Appraisal well 34/10-11 was spudded with the semi-submersible installation Ross Rig on 23 October 1980 and drilled to TD at 2155 m in Late Triassic sediments of the Lunde Formation. Bad weather caused 511 hrs lost time (15.7% of total rig time). Significant lost time (509 hrs) was caused also by malfunction and repairs of the BOP. The well was drilled with spud mud down to 463 m, with gel/lignosulphonate/seawater mud from 463 m to 1100 m, with Gypsum/lignosulphonate/sweater mud from 1100 m to 1720 m, and with gel/lignosulphonate/seawater mud from 1720 m to TD.

First oil shows were recorded from 1090 m to 1200 m, intermittent weak shows were seen from 1420 to 1495, and more or less continuous oil shows were recorded on limestone from 1660 m to top reservoir at 1868 m. The well proved oil in sandstones from top of the Early Jurassic Amundsen Formation at 1868 down to the OWC at 2038 m in Late Triassic sediments of the Raude Formation. Below 2038 m shows were recorded down to TD.

Six cores were cut in the interval 1870 m to 1926.5 m in the Amundsen and Nansen formations. Two FIT fluid samplings were attempted. FIT 1 at 2081 m recovered 3 litres 35 °API oil and 7 litres of mud filtrate in the 2 3/4 gallon chamber. The FIT 2 at 2051 m did not recover any fluids.

The well was permanently abandoned on 5 march 1981 as a as an oil appraisal well on the Gullfaks field.

TESTING

Two drill stem tests were conducted in the Statfjord Group.

DST1 tested the interval 2018 to 2028 m in the Raude Formation. It produced 399 Sm3 oil and 60880 Sm3 gas /day through a 24/64” choke. GOR was 153 Sm3/Sm3, oil gravity was 36.5°API, and gas gravity was 0.647 (air = 1). The bottom hole temperature in the test was 79.9°C.

DST2 tested the interval 1891 to 1896 m in the Nansen Formation. It produced 389 Sm3 oil and 64560 Sm3 gas /day through a 24/64” choke. GOR was 166 Sm3/Sm3, oil gravity was 36.5°API, and gas gravity was 0.656 (air = 1). The bottom hole temperature in the test was 75.6°C.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 34/10-11