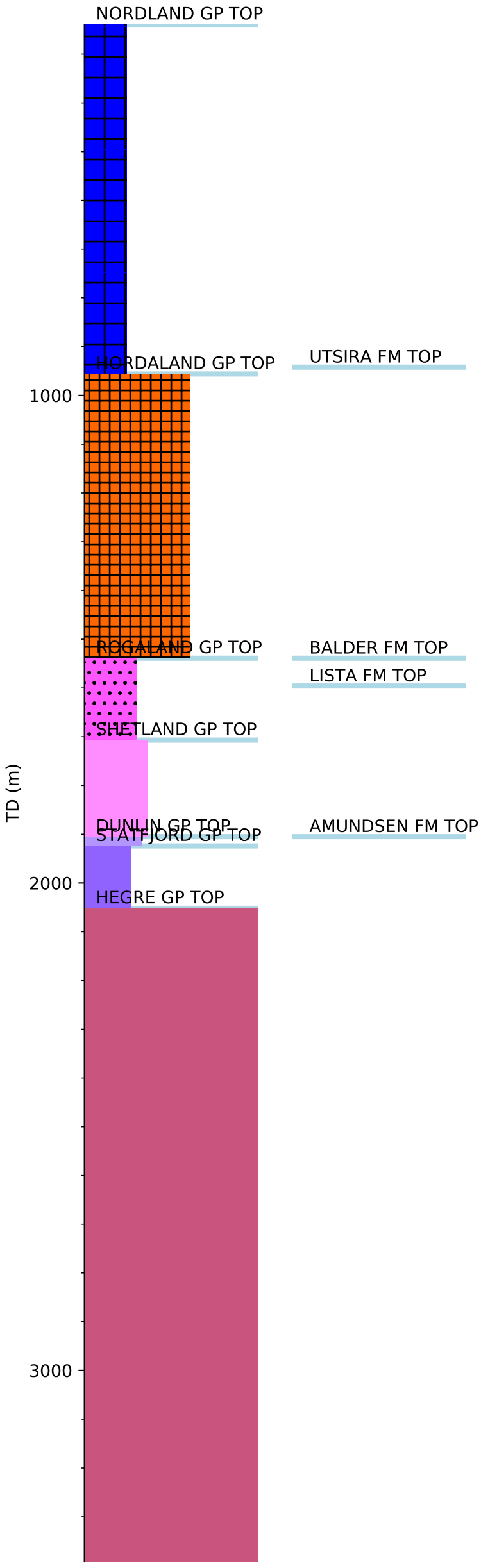
Groups

Formation Tops



Wellbore History

GENERAL

Well 34/10-13 was drilled on a horst block in the eastern part of the Gullfaks Fault Block. The primary objective of the well was to test the sandstone of Early Jurassic age (Statfjord formation). The Secondary objective was Carnian sandstone.

OPERATIONS AND RESULTS

Appraisal well 34/10-13 was spudded with the semi-submersible installation Deepsea Saga on 24 August 1981 and drilled to TD at 3392 m, 76 m into the Carnian sandstone. At 1725 m, the well started to flow. The influx was circulated out with 1.69 s.g. mud. A total of 21.5 days were lost due to a strike after the drilling of the 6" section had been initiated. The well was drilled with spud mud down to 300 m, with seawater gel from 300 m to 893 m, and with gel/lignosulphonate mud from 893 m to TD. The RFT tool stuck at 2882 m during sampling. The tool was left in the hole and the well was plugged back and tested.

First oil shows, typically cut and/or fluorescence on claystone and limestone cuttings, was recorded at 1350 m in the Hordaland Group. The shows were described more or less continuous down to top Statfjord reservoir at 1924 m. When drilling mudstones, limestone and marl in the Lista Formation from 1656 to 1701 m there was oil in the mud. Oil was found from top Statfjord Group at 1924 m and down to at least 2114 m in the Hegre Group where oil was tested on DST. No oil/water contact could be established in the Statfjord sandstone and pressure measurements in the Hegre Group were inconclusive. Shows were recorded on sandstones down to 2450 m. From petrophysical analyses the Statfjord Group had 70 m net pay with 27% average porosity and 24% average water saturation. The Hegre Group reservoir had 16.5 m net pay with average 27.8% porosity and 56% average water saturation. The Carnian sand was encountered at 3316 m. It was waterbearing without shows.

Sixteen cores were cut in the well. Fifteen cores were cut in succession from 1931 m to 2087 m in the Amundsen Formation and Statfjord Group and recovered a total of 150.8 m core (87% total recovery). The last core was cut from 3373.5 m to 3391.5 m in the Carnian sandstone with 92% recovery. RFT fluid samples were taken at 1936.5 m (oil and gas), 1940 m (oil and gas) and 2111 m (oil and gas).

The well was permanently abandoned on 5 January 1982 as an oil appraisal well on the Gullfaks Field.

TESTING

Two drill stem tests were performed.

DST 1 tested the interval 2107 m to 2114 m in the Hegre Group. The test produced 440 Sm3 oil/day through a 32/64” choke. The GOR was 82.1 Sm3/Sm3 and the oil gravity was 31 °API. The temperature measured at gauge depth was 84 °C.

DST2 tested the interval 2003 to 2009 m in the Statfjord Group. The test produced 835 Sm3 oil/day through a 32/64” choke. The GOR was 92.5 Sm3/Sm3 and the oil gravity was 40.1 °API. Solution gas had a gravity of 0.82 (air = 1). The temperature measured at gauge depth was 79.8 °C.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 34/10-13