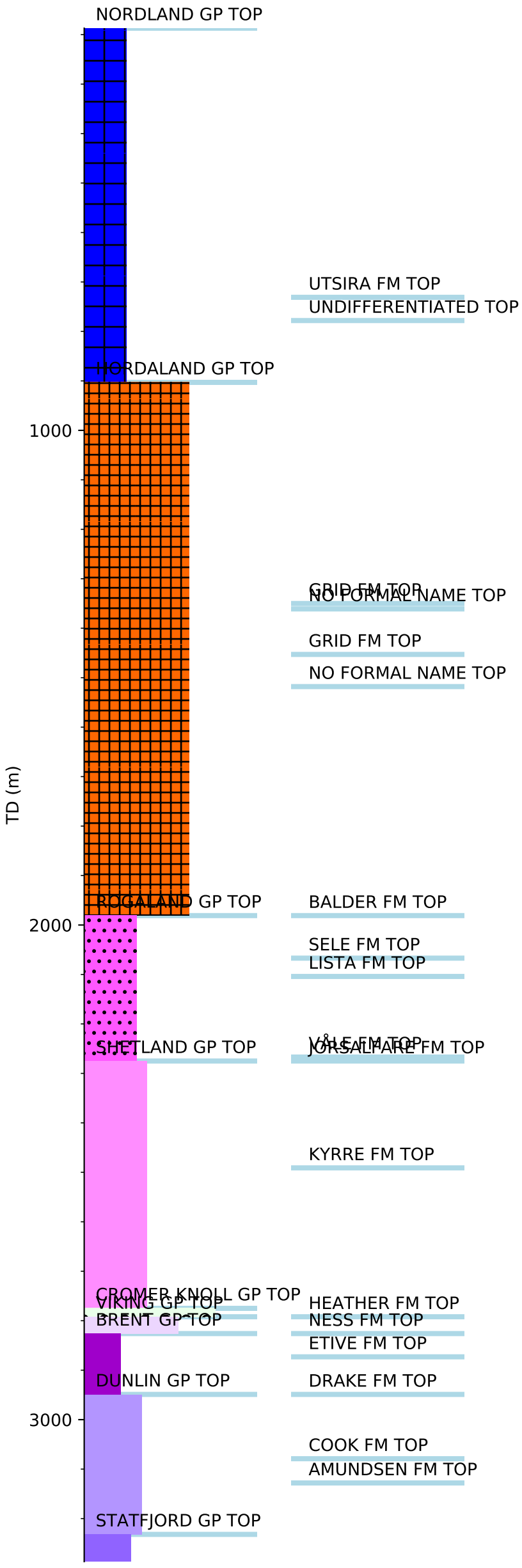

Wellbore History

GENERAL

Appraisal well 30/3-4 was drilled on the Veslefrikk Field. The primary objectives of the well were to investigate possible oil accumulations in sandstones in Ness and Etive Formations, and to determine the oil/water contact. Secondary objective was sandstone of the Early Jurassic Dunlin Group.

OPERATIONS AND RESULTS

Wildcat well 30/3-4 was spudded with the semi-submersible installation Deepsea Bergen on 5 February 1985 and drilled to TD at 3287 m in Early Jurassic sediments of the Statfjord Formation. Drilling went without problems to a depth of 1788 m. While running the 13 3/8" casing a wedge got stuck in the BOP and locked the casing. A technical sidetrack was decided. The sidetrack was kicked off from 790 m, and drilled to 1792 m. An attempt to set 13 3/8" casing at this depth was unsuccessful, as the shoe got stuck at 1178 m. The casing was cut at 872 m and a second technical sidetrack was kicked of from 630 m. The problems encountered while running casing might have been caused by differential pressure between the Utsira sand and a sand at 1700 m. A total of 4 weeks was spent on the 17 1/2" section before the 13 3/8" casing was finally in place. Drilling to TD proceeded without further problems. The interval below 3131 m was drilled with turbine. The well was drilled with seawater and hi-vis pills to 248 m, with gel/seawater from 248 m to 606 m, and with KCl/polymer mud in the 17 1/2" section from 606 m to 1605 m. In the final 17 12/2" sidetrack from 630 m "Torq Trim" and 7% diesel was added to the mud. The 12 1/4" section from 1605 m to 2812 m was drilled with KCl/polymer mud, and the 8 1/2" section from 2812 m to TD was drilled with Lignite/Lignosulphonate mud.

Hydrocarbons were encountered in both Ness and Etive Formations and in the secondary target, the Cook Formation. Top reservoir in the Brent Group is at 2843 m, and the oil/water contact is at 2930 m. Top Cook Formation sand came in at 3079 m, and the possible oil/ water contact is at 3129 m. Twelve cores were cut in 8 1/2" hole from 2830 - 2972 m and 3086 - 3131 m, covering both reservoir sections. No fluid sample was taken on wire line.

The well was suspended on 12 June 1985 for possible later use as a producer. It is classified as an oil/gas appraisal.

TESTING

Six Drill Stem Tests were performed with good results. The high production rate from Cook Formation was especially interesting.

DST 1 from 3079 m to 3096 m (Cook Formation) produced 1023 m oil/day and 114 800 m gas/day on 60/64" choke and wellhead pressure equal to 54 bar.

DST 2 from 2932 m to 2941 m (Etive Formation) flowed for 2 hours on 48/64" choke and produced 580 m water/day and wellhead pressure equal to 37 bars. A water injection test was performed.

DST 3 from 2903 m to 2923 m (Etive Formation) produced 1640 m oil/day and 126 700 m gas/day on 56/64" choke and wellhead pressure equal to 90 bar.

DST 4 from 2866 m to 2882 m (Ness/Etive Formations) produced 1230 m oil/day and 101 900 m gas/day on 46/64" choke and wellhead pressure equal to 103 bar.

DST 5 from 2850 m to 2857 m (Ness Formation) produced 578 m oil/day and 46 200 m gas/day on 48/64" choke and wellhead pressure equal to 41 bar.

DST 6 from 2826 m 2833 m (a separate sandstone section in top Ness Formation) produced 237 m water/day on 1" choke and wellhead pressure equal to 4 bar.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 30/3-4