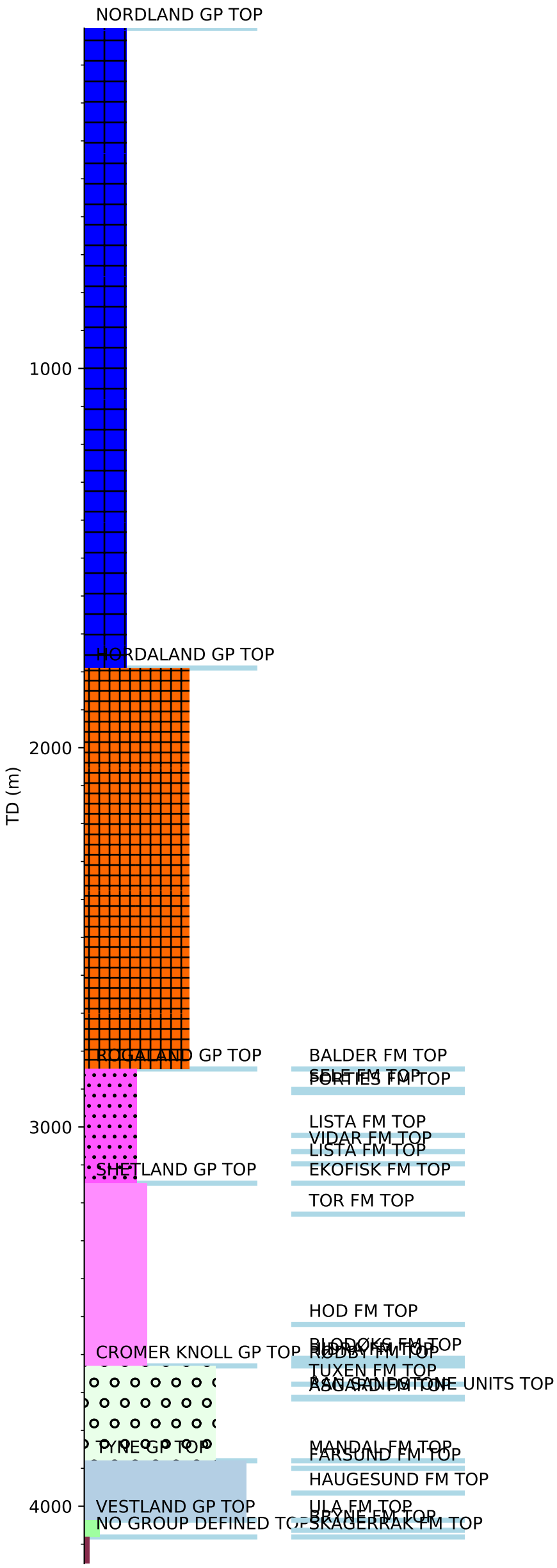

Wellbore History

GENERAL

Well 2/1-8 was drilled on the Cod Terrace on the margin between the southern Vestland Arch and the Central Trough in the North Sea. The objective was to evaluate the Late Jurassic Gyda member reservoir sandstone (the "2/1-3 Sand") in the south-eastern part of the field.

OPERATIONS AND RESULTS

Appraisal well 2/1-8 was spudded with the jack-up installation Neddrill Trigon on 28 July 1985 and drilled to TD at 4151 m (4159 m Logger's Depth) in the Triassic Skagerrak Formation. The well was drilled with spud mud down to 635 m, and with KCl/polymer mud from 635 m to 3474 m. At this depth the drill string got stuck while pulling out of the hole. It was freed after pumping pipelax into the hole. Following the pipelax pill and down to 3888 m the mud contained 1.0 - 2.5% oil. Drilling commenced with an oil-free KCl/polymer mud from 3888 m to TD. Below 2000 m logger's depth = driller's depth + 8 m. Above this depth there is no discrepancy. In the following all quoted depths are logger's depths.

A 40 m thick Gyda member sandstone was penetrated at a depth of 3899.5 m. Cores from the reservoir proved a coarsening up sequence of very fine to medium grained sandstone. The reservoir was oil bearing throughout. Oil stain and gas bleed were observed in cores of very fine sandstones and siltstones from the underlying Farsund and Haugesund Formations. The Ula Formation at 4037 m was 26 m thick and water bearing. Traces of hydrocarbons were recorded from 3818 - 3821 m in the Early Cretaceous Åsgard Formation. These possibly result from leakage, up a minor fault, from Late Jurassic rocks. There were no significant hydrocarbon shows in any other section of the well.

Three cores were cut in the Late Jurassic Gyda member, Farsund Formation, and Haugesund Formation, from 3906.0 to 3989.3 m with 95 to 100 % recovery. The RFT tool was run for pressure points, but no wire line fluid samples were taken.

The well was permanently abandoned on 23 November 1985 as an oil appraisal well.

TESTING

Two drill stem tests were carried out in the Gyda member sandstone

DST1A tested the interval 3919 to 3926 m. This test was designed to evaluate the lower part of the reservoir; however it is thought that communication vas established behind casing with more permeable higher zones. Thus the results are unreliable. The test produced oil at a maximum rate of 1950 Sm3/day through a 16/64" choke. Oil gravity was 39.8 deg API and GOR was 633 Sm3/Sm3. The maximum flowing bottom hole temperature measured in the test was 154 deg C.

DST1B tested the interval 3900.5-3926 m. Dry oil was produced at a maximum rate of 1010 Sm3/day through a 28/64" fixed choke. The oil gravity was 40 deg API and the GOR was 665 Sm3/Sm3.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 2/1-8