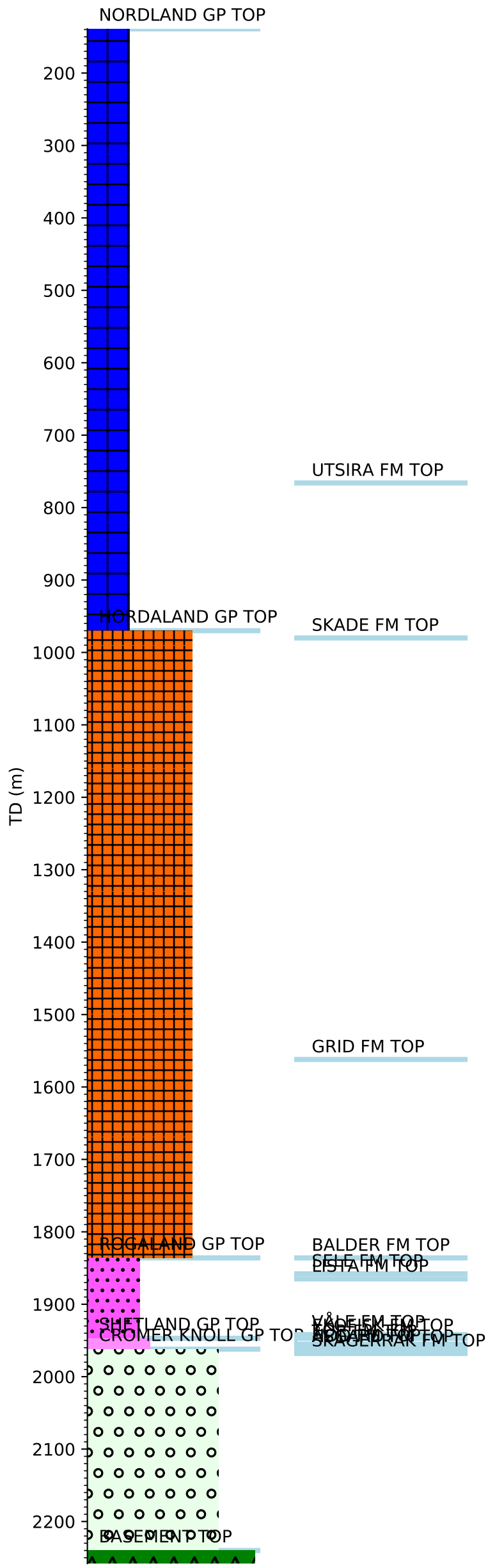
Groups

Formation Tops



Wellbore History

GENERAL

Well 16/1-27 was drilled on the Edvard Greg Field on the Utsira High in the North Sea. It was drilled as an appraisal well to verify top reservoir and sand content in the western part of the field.

OPERATIONS AND RESULTS

Appraisal well 16/1-27 was spudded with the semi-submersible installation Island Innovator on 1 March 2017 and drilled to TD at 2258 m in Basement rock. Operations proceeded without significant problems. The well was drilled with seawater and hi-vis pills down to 611 m and with Aquadril mud with 4% glycol from 611 m to TD.

Top reservoir, Åsgard Formation sandstone, was encountered at 1962 m, directly overlying Triassic Skagerrak Formation sandstone at 1968.35 m. The reservoir contained oil from top down to the OWC at 1978 m (1948 m TVD MSL), 9 meters deeper than the established FWL at 1939 m TVD MSL in the central Edvard Grieg area. Pressure data showed one oil gradient through the Cretaceous to Triassic sandstones, and two water gradients below the oil: one in communication with the oil gradient and one with 6 bar higher pressure in the lower conglomerates of the Skagerrak Formation, below a shaly layer around 2150 m.

Apart from shows in the reservoir section significant oil shows were recorded above reservoir level. First oil show in the well was described in thin Oligocene sandstones at 1309 to 1322.5 m as fair patchy straw yellow direct fluorescence, fast blooming to streaming bluish white cut fluorescence, medium straw to bluish white fluorescent residue, no visible residue.

At 1506 to 1543 m, in thin Eocene Hordaland Group sandstones, there were oil shows described as no to weak hydrocarbon odour, no to medium brown oil stain, patchy to even weak to dull straw yellow to orange direct fluorescence, slow blooming to streaming bluish white cut fluorescence, weak bluish white fluorescent residue, no visible residue.

At 1811 to 1858 m, in Early Eocene Balder Formation and base Hordaland group Tuff and limestone, there were oil shows described as medium brown to dark brown oil stain, weak spotty to patchy bluish white to light yellowish brown direct fluorescence, slowly bleeding to blooming light yellowish brown cut fluorescence, no fluorescent or visible residue. Below the OWC only poor shows were recorded down to 2023 m.

Three cores were cut. Core 1 was cut from 1967 to 1993.1 m with 95.8% recovery. The core-log shift is +0.7 m. Core 2 was cut from 1993.1 to 2002.2 m with 78.8% recovery. The core-log shift is +0.5 m, Core 3 was cut from 2002.2 to 2023 m with 98.7% recovery. The core-log shift is -0.25 m. MDT fluid samples were taken at 1972.3 m (oil), 1976 m (oil), and 2025 m (water). The two oil sampling stations gave similar oils according to PVT analysis, with GOR ranging from 120.3 to 123.2 Sm3/Sm3 and stock tank oil density ranging from 0.8545 to 0.8565 g/cm3.

The well was permanently abandoned on 11 April 2017 as an oil appraisal

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 16/1-27