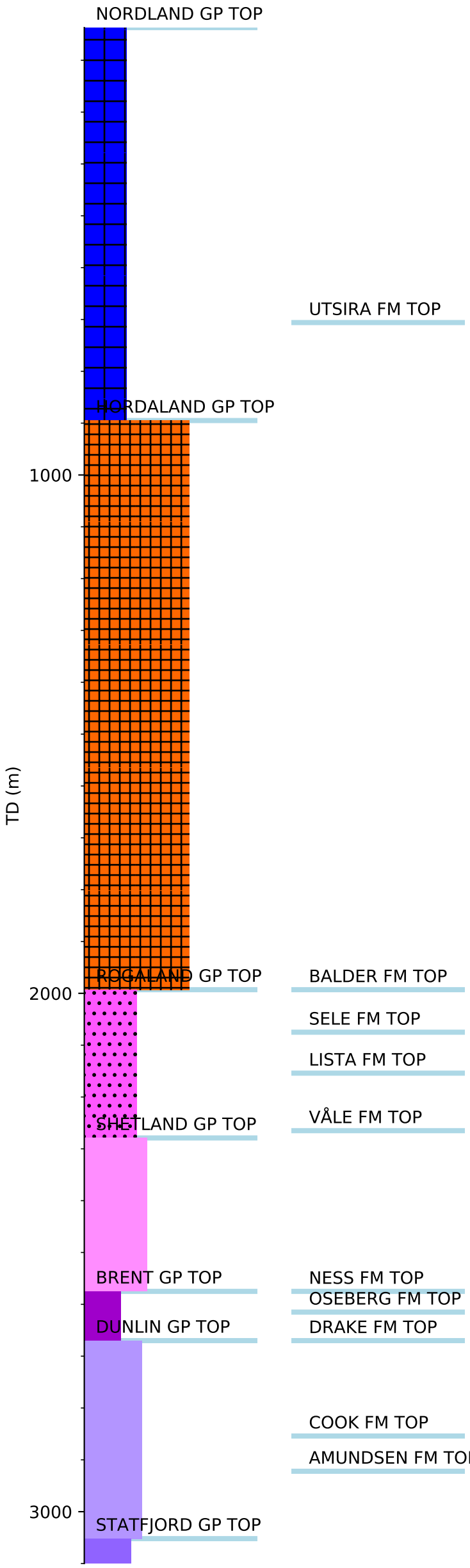
Groups

Formation Tops



Wellbore History

GENERAL

Well 30/6-21 was drilled on the Alpha North structure in the Oseberg fault block. Well 30/6-7 proved oil in the Ness Formation in 1982. The main purpose of well 30/6-21 was to test the hydrocarbon content in the Oseberg Formations. The well was located in a position where it could be utilized as a subsea oil producer/PTS well.

OPERATIONS AND RESULTS

Appraisal well 30/6-21 was spudded with the semi-submersible rig Vildkat Explorer on 22 February 1987 and drilled to TD at 3100 m in Early Jurassic rocks of the Statfjord Group. Drilling proceeded without significant problems except for some tight hole problems in the upper Oseberg Formation. The well was drilled with sea water and hi-vis pills down to 664 m and with Enviromul oil based mud from 664 m to TD.

Top Brent Group, Ness Formation was penetrated at 2575 m and proved to be oil filled down to top Dunlin at 2670.5 m. This was a down-to oil contact. The RFT data showed a fluid density of .66 g/cc. The Ness Formation proved not to be a reservoir rock due to lack of sand, while the Oseberg Formation had a net/gross ratio close to 1.0. The Cook- and Statfjord formations were both water filled.

Four cores were cut from 2563 m at base Shetland to 2669 m at top Dunlin with close to 100% recovery. RFT fluid samples were taken at 2590 m, 2619 m, and 2660 m.

The well was suspended on 9 April 1987 as an oil appraisal well.

TESTING

One Drill Stem Test was performed in the interval 2645 to 2657 m in the Oseberg Formation. It produced 342 Sm3 oil and 50885 Sm3 gas /day through a 9.5 mm choke. The GOR was 149 Sm3/Sm3, the oil density was 0.847, and the gas gravity was 0.724 (air = 1). The test temperature was 106.1 deg C.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 30/6-21