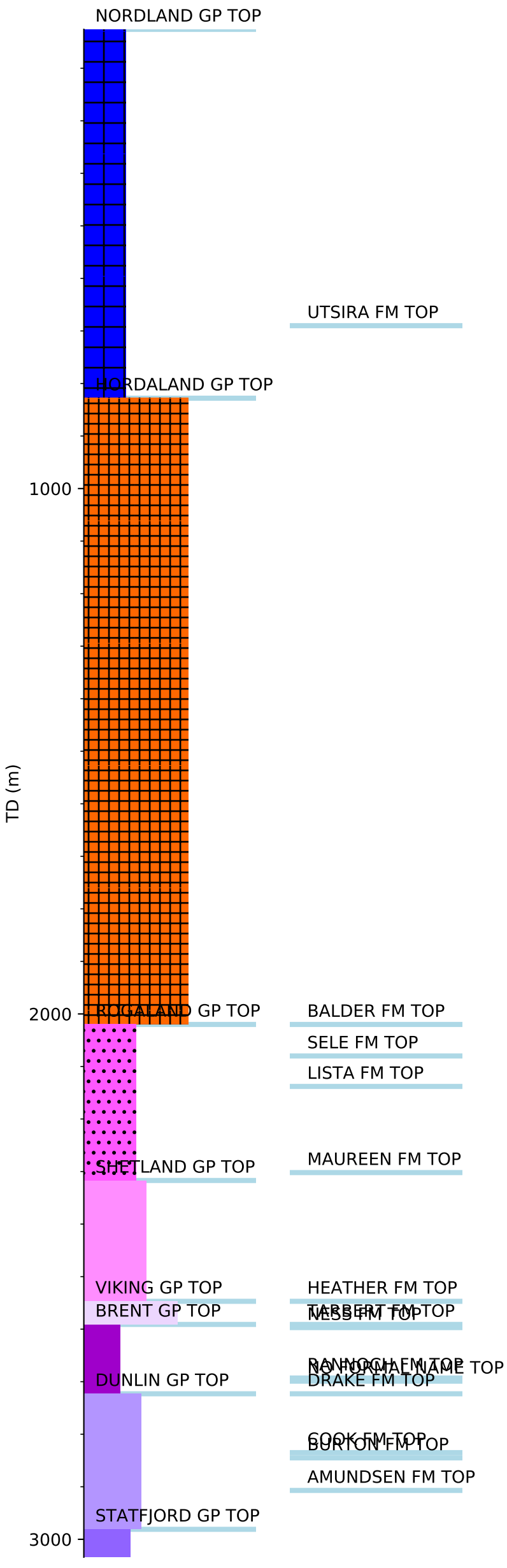
Groups

Formation Tops



Wellbore History

GENERAL

Well 30/9-6 was drilled on the C-prospect on the southeast flank of the Oseberg Fault block. The structure is a rotated fault block with overall easterly dips towards the Horda Platform fault. The prospect is further bounded by faults to the west and to the northwest. The primary objective was to prove hydrocarbons in the Brent Group and verify possible pressure communication between the C-structure and the Oseberg Field Alpha structure to the North.

OPERATIONS AND RESULTS

Wildcat well 30/9-6 was spudded with the semi-submersible installation Polar Pioneer on 8 March 1987 and drilled to TD at 3034 m in the Early Jurassic Statfjord Group. Drilling proceeded without significant problems. The well was drilled with spud mud down to 970 m and with KCl/polymer mud from 970 m to TD.

The Brent Group was encountered at 2591 m and had oil in three differently pressured sand bodies, one in the Tarbert Formation and two in the Ness Formation. The lowest seen oil was at 2645 m in the Ness Formation. Four different pressure regimes were found in the Brent group. The Tarbert Formation has 6 m gross with 4.5 m net pay. The average porosity is 19% and the average water saturation is 44%. The Ness Formation has 49 m gross (hydrocarbon-bearing interval) with 13.3 m net pay (combining the two oil bearing sand bodies). The average porosity is 23% and the average water saturation is 39%.

Weak shows were described in limestones in the interval 2318 m to 2358 m in the top of the Shetland Group. Otherwise, no oil shows were described outside of the oil-bearing Brent reservoirs.

Five conventional cores were cut in the Brent Group from 2593.5 - 2686 m. RFT fluid samples were taken at 2619 m in both runs 2A and 2B. Run 2B was performed in order to verify the previous run.

The well was permanently abandoned on 21 April as an oil discovery.

TESTING

Two drill stem tests were performed.

DST 1 tested the interval 2637.9 m to 2645.5 m in the lowermost oil bearing section in the Ness Formation. This test produced 185 Sm3 oil and 17175 Sm3 gas /day through a 20/64” choke. The GOR was 92.8 Sm3/Sm3, the oil density was 0.855 G/cm3, and the gas gravity was 0.698 (air = 1) with 1% CO2 and no detectable H2S. The bottom hole temperature was 100 °C.

DST2 tested the interval 2591.5 m to 2596.5 m in the Tarbert Formation. This test produced 166 Sm3 oil and 16980 Sm3 gas /day through a 20/64” choke. The GOR was 102 Sm3/Sm3, the oil density was 0.856 g/cm3, and the gas gravity was 0.698 with 1% CO2 and no detectable H2S. The bottom hole temperature was 100 °C.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 30/9-6