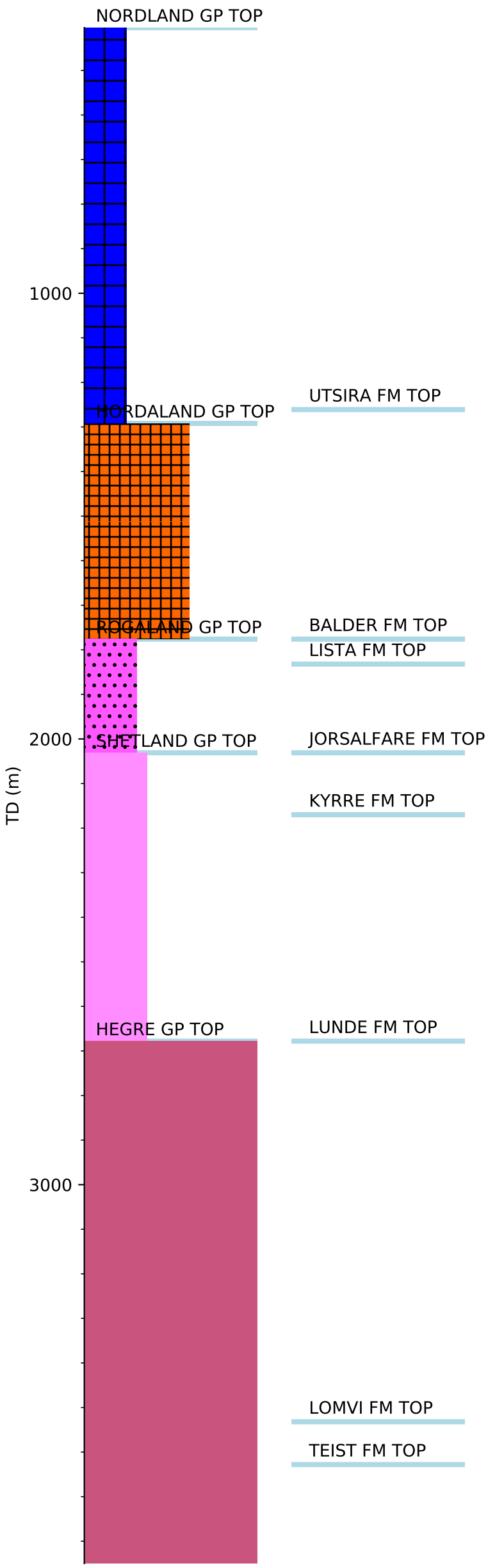
Groups

Formation Tops



Wellbore History

GENERAL

Well 6201/11-1 was drilled on the Albert structure as the first well on the Norwegian side of the Nordfjord Horst. The best well for correlation is expected to be UK well 211/2-1 which was terminated in rocks of possibly Rhaetian age and was dry. The primary objective for the well was to test the hydrocarbon potential in Triassic sandstones in the A prospect. A secondary objective was to test the structural closure in the Lista/Sele Formation and to acquire geological information related to remaining prospects in the block.

OPERATIONS AND RESULTS

Wildcat well 6201/11-1 was spudded with the Semi-submersible installation Deepsea Bergen on 13 August 1987 and drilled to TD at 3850 m in the Early Triassic Teist Formation. A 12 1/4" pilot hole was drilled with returns to seabed from 30" casing shoe to 930 m. The well started flowing water. It was plugged back and cement was dressed to 650 m. Opened to 26" hole and sat 20" casing already at 641 m. Possible source of water flow was between 650 m to 719 m, but most likely a stronger source was below 719 m. The 17 1/2" hole was drilled to 1808 m where the well kicked due to rapid pore pressure increase near section TD. The well was plugged back and 13 3/8" casing set at 1735 m. At 3384 m there was a problem with hole stability and drilling was stopped. It was decided to set 7" liner. The well was drilled with seawater and bentonite down to 479 m, with gypsum/PAC polymer mud from 479 m to 2701 m, and with gel/lignosulfonate mud from 3384 m to TD.

Oil shows appeared in limestones already in the Hordaland Group at 1325 m down to 1725 m. From 1725 m in the Hordaland Group to 1970 m in the Balder Formation oil shows was recorded on claystones. Below 2000 m oil shows were recorded in sandstones. Top reservoir came in as prognosed at 2678 m and was hydrocarbon bearing. There were good oil shows on cores down to 2881 m, and the logs show possible oil saturation down to the same depth. It was difficult to evaluate the logs due to a cemented reservoir. The porosity and permeability are low, and it was hard to take RFT-measurements. Two RFT segregated samples were taken, one sample at 2716 m and one at 3187 m. Nine cores were cut in the Lunde Formation, five in the interval 2701 m to 2785 m, and four from 2822 m to 2917.5 m. The well was permanently abandoned as an oil discovery on 6 November 1987.

TESTING

Three drill stem tests were performed in the Lunde Formation. DST 1 was performed in the intervals 2818 m to 2832 m and 2839 m to 2852 m; DST 2 from 2746.5 m to 2771 m and DST 3 from 2713 m to 2717 m. DST 1 and 2 did not produce to the surface. DST 3 produced ca. 91 Sm3 oil and 72600 Sm3 gas per day through a 10.3 mm choke during the main flow. Oil density was 0.835 g/cm3 and gas gravity was 0.630 (air = 1). Due to a tightly cemented reservoir, the proven resources in this hole are relatively small.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 6201/11-1