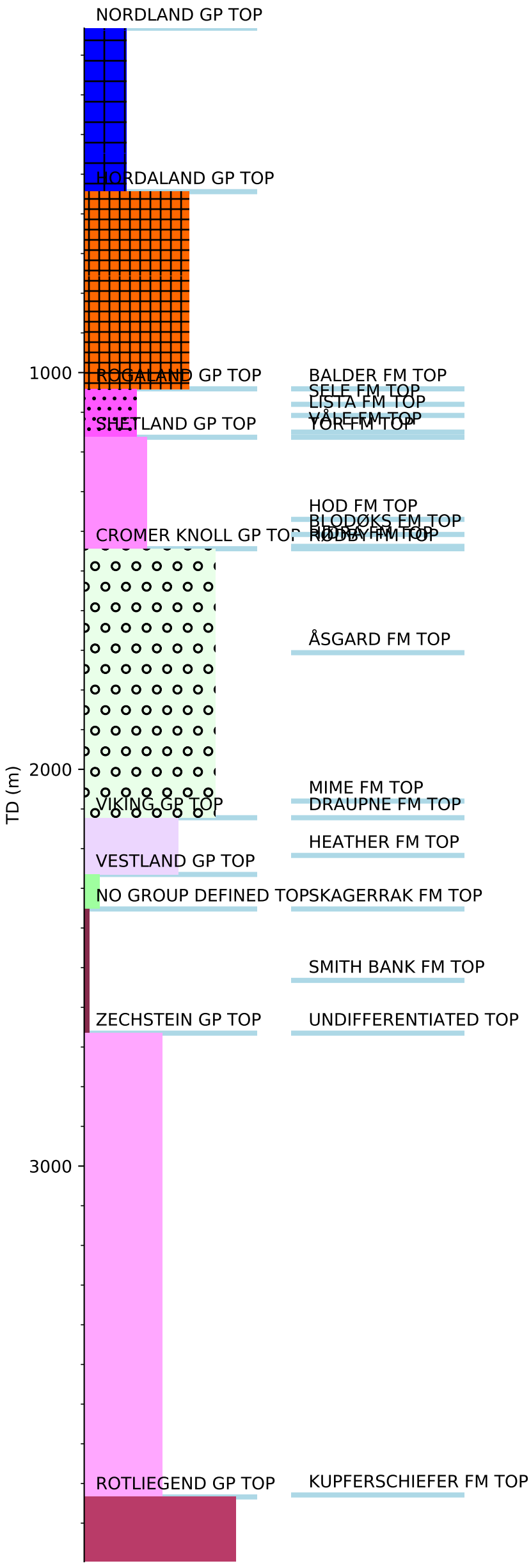


## Wellbore History

GENERAL

Well 17/4-1 was drilled on a NNE-SSW trending monocline in the Ling Depression between the Sele High and the Utsira High /Patch Bank ridge. The objective was to investigate the sedimentary section down to the pre-Permian, and particularly to test the hydrocarbon potential of the Mesozoic sands and Zechstein dolomites. Furthermore, Early Permian and/or pre-Permian reservoirs were to be evaluated if present.

OPERATIONS AND RESULTS

Wildcat well 17/4-1 was spudded with the semi-submersible installation Ocean Viking on 15 June 1968 and drilled to TD at 3997 m in conglomerate in the Early Permian Rotliegend Group. Initial drilling to 444 m was with seawater, and the returns were to the sea floor. The 17 1/2" hole was drilled out using an LFC-LC/sea water type mud, and the 13 3/8" casing shoe was set at 1803 m. From this depth the mud system was salt saturated. The 12 1/4" hole was drilled down to 3942 m from where the hole diameter was reduced to 8 1/2". An inverted oil-base mud was used from 2900 m to TD.

Sandstones were encountered in the Jurassic and Triassic. They had medium to good porosities, but generally poor permeabilities due to calcite cement. The pre-Zechstein conglomerate was very tight with no porosity. On top of this there were nearly 1200 m of evaporites, apparently undisturbed by halokinesis. The evaporites were overlain by around 300 m of continental Triassic deposits. The Jurassic consisted of fluvial sandstones overlain by carbonaceous dark shales belonging to the Late Jurassic "hot" shale (Draupne Formation). This shale was penetrated at 2122 m and is 95 m thick in the well position. No samples of any kind was recovered from this interval, but analysis of caved cuttings believed to originate from Draupne indicated TOC in the range 2 % to 7 % with potential for oil and gas. The Draupne formation is immature in the well. The Early Cretaceous marine, low energy shales range in age from Hauterivian to Albian, and they reflect deposition in a subsiding basin. There were approximately 280 m of Late Cretaceous carbonates which were deposited in an open marine environment. Deposition of lime muds probably terminated at the end of the Cretaceous, and the Tertiary is mostly represented by low energy marine sediments. A shoaling of the water in Neogene time resulted in shallow marine conditions where both sand and clay were deposited.

Minor gas shows were recorded while drilling the Tertiary section and the Late Jurassic Draupne Formation. Two conventional cores were cut. The first in the interval 2271 m to 2288 m in the Vestland Group, and the second in the interval 3881.5 m to 3884 m in the Rotliegend Group. No fluid sample was taken.

The well was permanently abandoned as dry on 22 August 1968.

TESTING

No drill stem test was performed

# LITHOSTRATIGRAPHY & HISTORY FOR WELL: 17/4-1