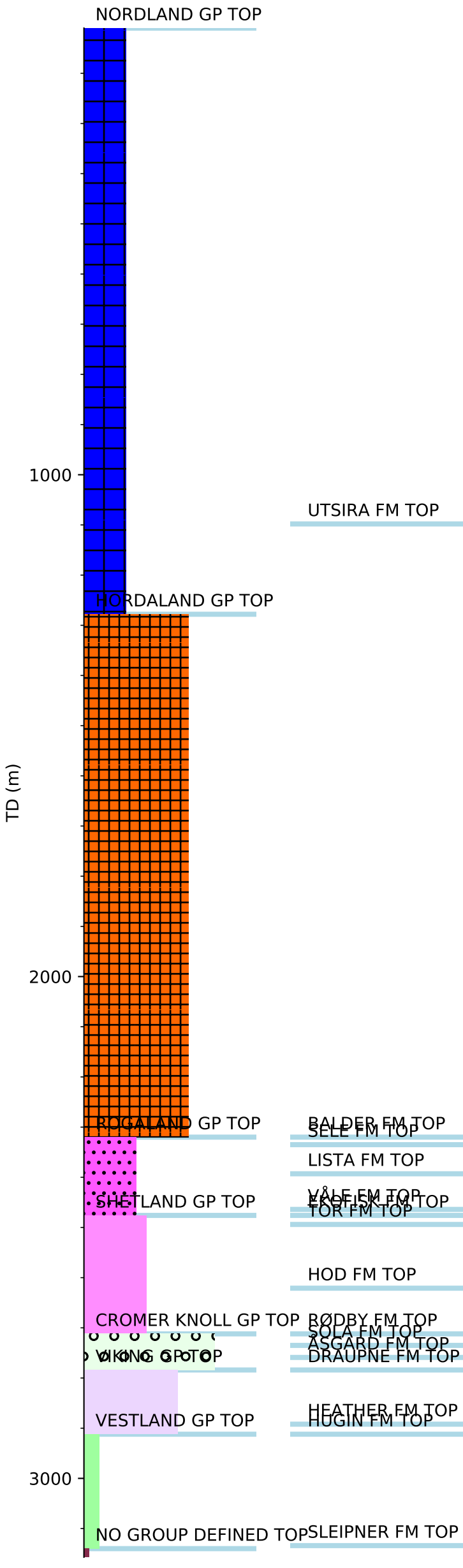
Groups

Formation Tops



Wellbore History

Wildcat well 15/12-4 is located on the Maureen Terrace in the South Viking Graben in the North Sea. The primary objectives were the Palaeocene Heimdal Formation and sandstones of Jurassic and Triassic age. Secondary objectives were the Frigg Formation and fractured limestone in the Cretaceous.

OPERATIONS AND RESULTS

Well 15/12-4 was spudded with the semi-submersible installation Deepsea Bergen on 13 September 1984 and drilled to TD at 3157 m, 17 m into the Triassic Group. Operations were completed within the time schedule and with very few problems. The well was drilled with seawater and gel down to 505 m, with gypsum polymer from 505 m to 2680 m, and with lignosulphonate from 2680 m to TD.

No Heimdal or Frigg sands were encountered in the well. From logs and cores hydrocarbons were seen in the uppermost part of the Cretaceous chalk in the interval 2490 ? 2515 m. Core analysis and log analysis indicated very poor reservoir properties in this chalk. The water saturation was high (60 - 80 %) and the permeability was extremely low (0.01 - 0.5 mD). A 1.5 meter oil column was seen in the Jurassic sandstone, from 2911.5 to 2913 m with a transition zone down to 2915.5. Apart from these two intervals there were no shows or other hydrocarbon indications in the well.

Four cores were cut, one in the Palaeocene, two in the Late Cretaceous and one in the Late Jurassic sequence. One FMT run was made in the Cretaceous. Here, no pressure points out of 19 attempts were successful due to seal failure and very low permeability in the formation. One attempt to get sample at 2439.5 m failed due to tight formation. In the Jurassic a segregated FMT sample was taken at 2912 m (5.8 l oil with a density of 0.847 g/cm3 in the 2 3/4 gallon chamber) and a second segregated sample at 2913.5 m (0.5 l oil and 9 l water/mud filtrate in the 2 3/4 gallon chamber).

The well was permanently abandoned on 31 October 1984 as an oil discovery.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 15/12-4