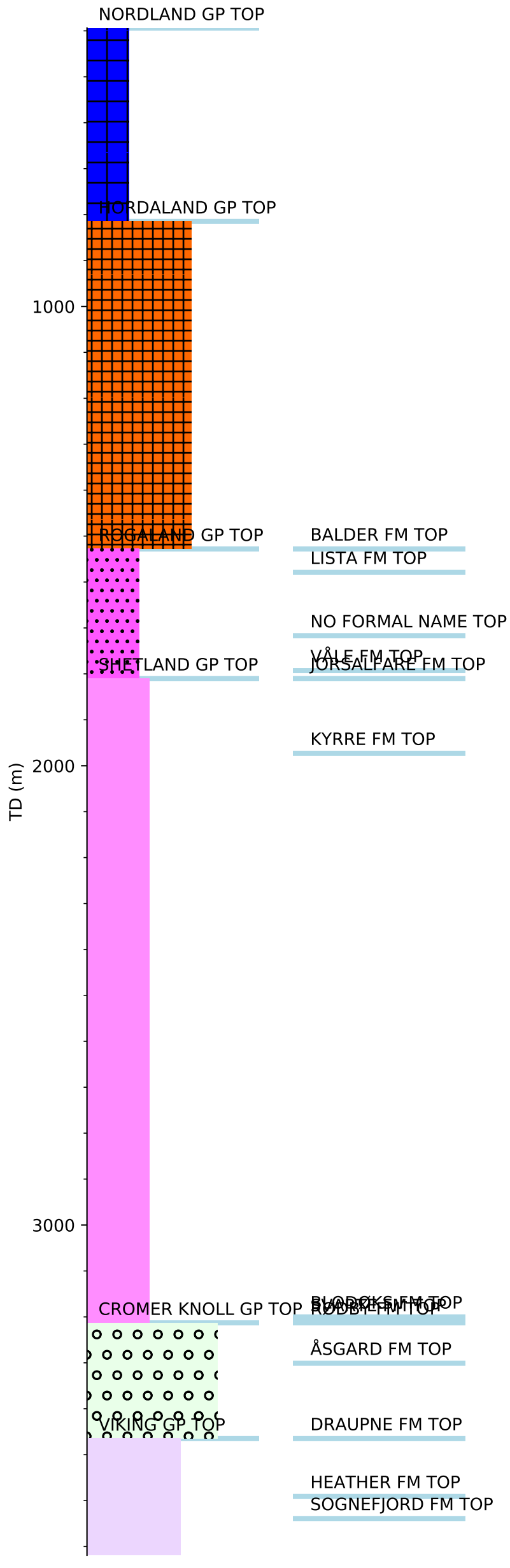
Groups

Formation Tops



Wellbore History

General

The main objective of well 35/8-4 was to test the stratigraphic upside model of the Upper Jurassic Aurora prospect. The well was targeted at Upper Jurassic marine gravity flow sandstone of the Sognefjord Formation.

Operations and results

Exploration well was spudded on 4 July 1999 by the semi-submersible installation "West Alpha" and and drilled to a total depth of 3719 in the Late Jurassic Sognefjord Formation. The well was drilled with seawater and high viscosity bentonite pills through the 36" and 26" hole to 910 m. A water based BARASILC/KCl system was used from 910 m to 3356 m. From 3356 m to TD BARASILC was depleted naturally by replacing with a water based KCl Glycol Enhanced Mud (GEM).

Top reservoir was penetrated at 3639 m. The top reservoir pick was based on a shift in MWD gamma response combined with a small increase in gas and the appearance of sand in the cuttings. Shows were seen in drilled cuttings from depth 3512 m to TD. The best shows were seen in the Draupne Formation and upper part of the Heather Formation. There was no visible stain. Poor shows from cuttings were seen in the lower part of the Heather Formations and the Sognefjord Formation. LWD logs were acquired throughout the well. Data quality was very good and of sufficient quality to replace wireline logging for petrophysical data. Thirty-one attempts to acquire MDT pressure data were made in the reservoir section but the formation was too tight to obtain more than one good and two fairly good pressure readings, and one MDT sample. The pressure data indicated that the Sognefjord Formation is in a different pressure regime and over pressured compared to the nearest well 35/8-3. There were insufficient pressure points of good quality to define a fluid gradient.

Shows in cuttings, gas data, LWD logs and an MDT sample from 3705.2 m confirmed a dry hole with minor gas and oil shows. The reservoir quality and the net to gross in the Sognefjord Formation were poorer than predicted. No cores were cut. The well was plugged and abandoned as a dry hole with minor gas and oil shows.

Testing

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 35/8-4