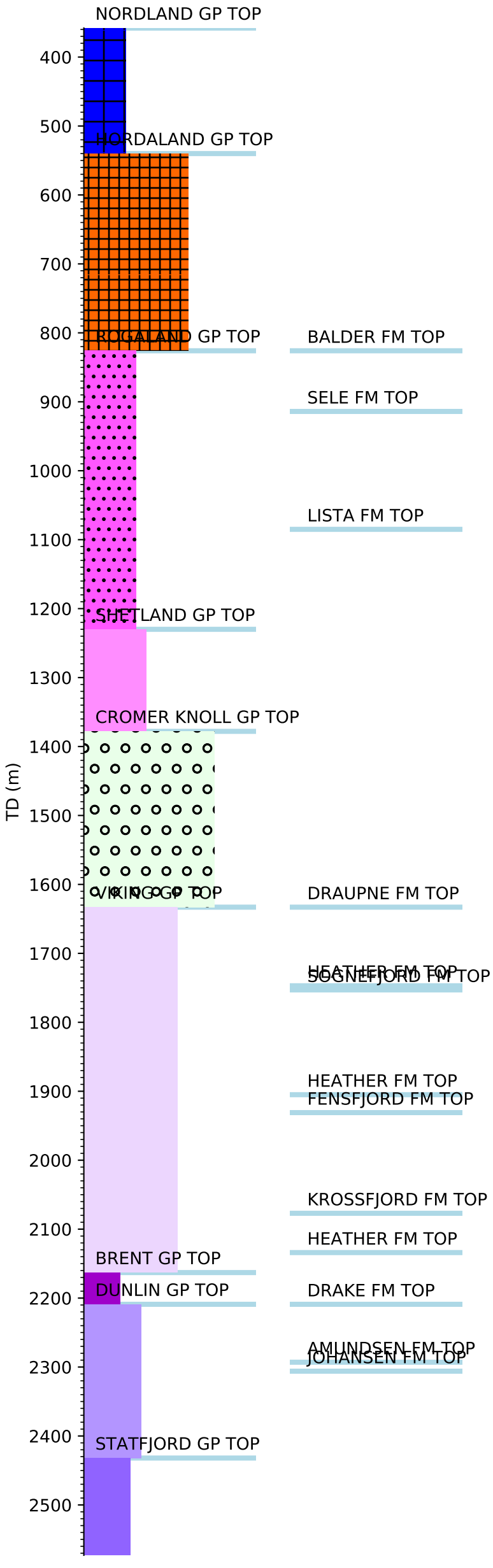
Groups

Formation Tops



Wellbore History

GENERAL

The wildcat well 31/3-3 was drilled on a structure east of the Troll Field. The structure, which is deeper than the oil/water contact proved in the Troll Field area, is defined on the Top Sognefjord Formation and situated on a rotated fault block compartment dipping gently to the east. The main objective of the well was to test the Late Jurassic sandstones, which were gas and oil bearing in the Troll Field. A possible stratigraphic trap in the Early Cretaceous sequence and small closures of the Brent Group and Statfjord Formation were secondary targets.

OPERATIONS AND RESULTS

Well 31/3-3 was spudded with the semi-submersible installation Treasure Saga on 13 October 1984 and drilled to TD at 2573 m in the Early Jurassic Statfjord Formation. No major problems occurred due to drilling. The well was drilled using spud mud down to 406 m, with KCl/polymer from 406 m to 1630 m, with $CaCO_3$ mud from 1630 m to 2112 m, and with gel/lignosulphonate from 2112 m to TD.

No reservoir rock was encountered in the Early Cretaceous. In the Jurassic a 152 m thick sequence of Sognefjord Formation consisting of several stacked coarsening upward sand sequences was penetrated. The Statfjord Formation consisted of alternating sandstones and claystones with traces of limestone, mica and coal fragments. The only trace of hydrocarbons in the well were two very weak shows, possibly dope contamination, in cores no 3 and 5 in the Sognefjord Formation. Seven conventional cores were cut, one in the lower part of the Cromer Knoll Group and the last six in the Late Jurassic Sognefjord and Heather Formations. Totally 168.5 m were cut with a recovery of 166.5 m (99%). No fluid samples were taken.

The well was permanently abandoned on 18 November 1984 as a dry well.

TESTING

No drill stem test was performed

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 31/3-3