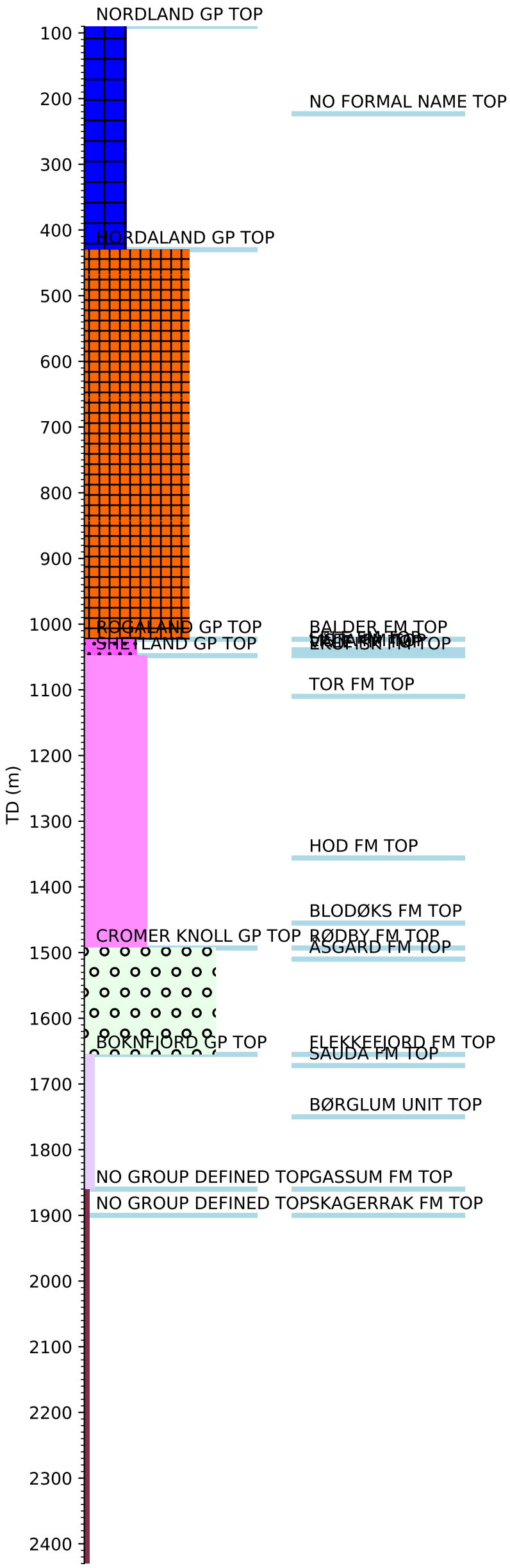

Wellbore History

GENERAL

Wildcat well 11/10-1 was drilled in the eastern part of the Danish Norwegian Basin close to the borderline between the Norwegian and the Danish sectors. The well is situated close to the Kreps fault zone on the western flank of the Horns Graben. The main objectives of the 11/10-1 well were to test the hydrocarbon potential of the Tertiary and the Mesozoic formations. Well 11/10-1 is the first well in quadrant 11 and one of the few wells drilled in the southeastern part of the Norwegian continental shelf so long.

OPERATIONS AND RESULTS

Wildcat well 11/10-1 was spudded with the semi-submersible rig "Ocean Viking" on 2 August 1969 and completed 19 August the same year. The well was drilled at 63 m water depth and bottomed at a total depth of 2430 m in a Triassic sand section without having encountered hydrocarbons in any of the targets.

Three casing strings were set in the well. Sea water was used for the initial drilling down to 253 m. From this depth down to 1023 m a sea water gel mud was used and from 1023 down to TD a sea water Q-Broxin mud system was the drilling fluid. No significant drilling problems occurred during the drilling of this well.

No samples are available from the sea floor down to 305 m. From 305 to 430 m the sampled sequence consists of medium to coarse grained, subangular to subrounded, glauconitic sand and sandstone with scattered rock fragments. The sand is generally unconsolidated and mostly clear quartz and is relatively well sorted. Carbonaceous material, plant remains and shell fragments occur throughout. Dolomitic limestone are also present, increasing towards the bottom of the unit where the dolomite forms the cement of the sand. The underlying shales are dated Late Oligocene, the age of the sandy section is questionable as the upper 300m of the well has not been sampled.

No sandstones are developed in the Rogaland Group which is much reduced in this well. The Upper Cretaceous chalk formations penetrated below 1048 m are approximately 400 m thick. 200 m of marls and shales containing limestone stringers constitute the Cromer Knoll Group below 1493m. The Upper Jurassic section is 200 m thick and consists of mainly shale with only stringers of sandstone. The Lower and Middle Jurassic section is missing in this well. The interval from 1860 to 1900 is considered to belong to the Triassic Gassum formation. At the top of this sequence there is a bed of light grey lime mudstone. Most of the interval, however, consists of loose, clear quartz sand, coarse to very coarse and a fine grained white to light grey sandstone with calcareous cement. From 1900 to 2430 m (TD) interbedded reddish and brownish sandstones and shales of the Skagerrak Formation are present. Visual porosity is good throughout this unit. No shows were observed when drilling through almost 600 m of Triassic section.

Neither fluid samples nor pressure point were taken in this well.

No cores were taken in this well.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 11/10-1