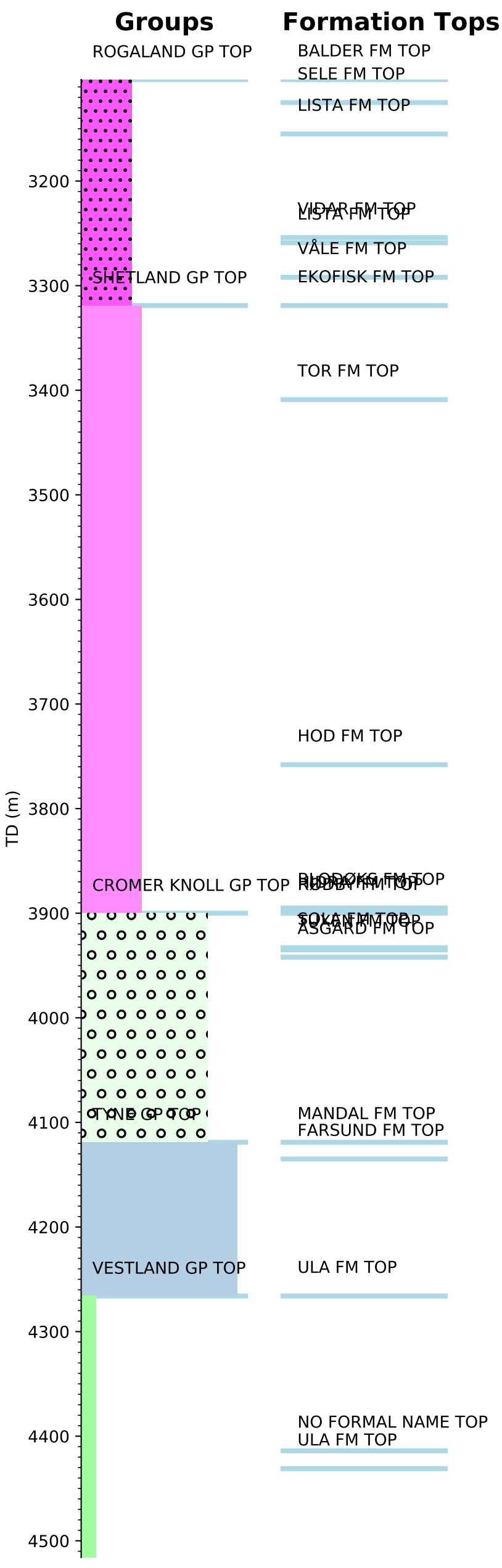

Wellbore History

GENERAL

Well 1/3-9 S is located on the Tambar Field on the Cod Terrace in the North Sea. The objective was to appraise the possibility of commercial quantities of hydrocarbons in the Ula Formation sandstones of the JU8 prospect (the Ula Formation is sometimes referred to as the "Gyda Sandstone Member" in this part of the North Sea). The well was planned deviated to avoid shallow gas anomalies and to fully appraise the target sand.

OPERATIONS AND RESULTS

Well 1/3-9 S was spudded with the semi-submersible installation Mærsk Jutlander on 8 May 1998 and drilled to 3100 m where hole problems led to plug-back and a sidetrack (1/3-9 S T2) with kick-off at 1836 m. Final TD of the well was set at 4516 m in the Late Jurassic Ula Formation. The well was drilled with seawater and hi-vis pills down to 1050 m, with Barasilc WBM from 1050 m to 3185 m, and with Enviromul OBM from 3185 m to TD. Total Non-Productive time for the well was 40%, most of which was due to contamination of the mud system, the side-track of the well and the TD logging performance. The 12 1/4" Section was notably different from plan, after an unexpected water kick was taken at 2535 m. This not only reduced the mud systems ability to accept contaminants, with a required MW increase up to 1.7sg, but also severely reduced the ROP, due to high overbalance drilling, later in the section. This also resulted in setting the 9 5/8" casing high, leaving reactive shales open whilst drilling the 8 1/2" section.

The Palaeocene Forties sands of the 1/3-6 and 1/3-7 wells were not encountered.The target Ula Formation sandstone was encountered at 4266.3 m, 33.7 m high to prognosis. It was oil-bearing with an estimated OWC at ca 4375 m. Oil shows, both fluorescence in cuttings samples and drilled gas with the compositional range of C1 - C5, were observed through the interval 4273 - 4377 m, within this unit. No other shows were recorded in the well. Analysis of MDT pressure revealed a 550 psi difference compared to well 1/3-3 and Gyda well 2/1-6. This is interpreted as being a result of depletion from Gyda oil production, and suggests there is significant communication through the aquifer between the JU8 structure and the Gyda Field.

A total of 105 m of core was cut in two cores in the Ula Formation. A total recovery of 99.7% was obtained, representing the two longest core recoveries in the area. MDT oil samples were taken at 4279.5 m, 4304.98 m, and at 4346.49 m. Following extensive logging of the well, a 7" liner was run in preparation for future development. The well was temporarily suspended on 31 July 1998, with a combined trawl guard and corrosion cap left on top. In June 2001 it was re-entered and reclassified to development well on the Tambar and Tambar Øst Fields.

Well 1/3-9 S is classified as an appraisal of the 1/3-3 Tambar Discovery.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 1/3-9 S