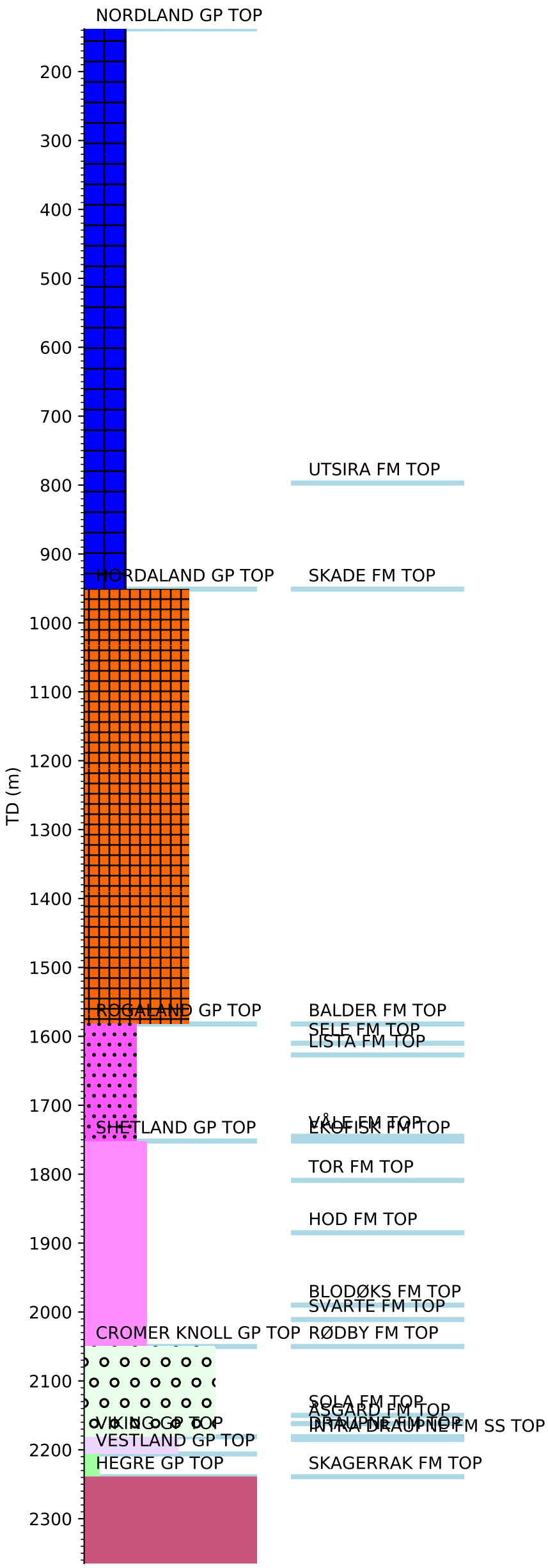
Groups

Formation Tops



Wellbore History

GENERAL

Well 16/2-11 A is a sidetrack to well 16/2-11. It was drilled to appraise the western part of the Johan Sverdrup (formerly Avaldsnes) discovery on the Utsira High in the North Sea. The primary objectives of 16/2-11 A was to verify the system pressure and oil-water contact in the 16/2-11 area and to get a representative water sample from the central part of the Johan Sverdrup field. The well would also give information about variations in lateral thickness and facies in the Johan Sverdrup Field for better understanding of geology and field drainage strategy.

OPERATIONS AND RESULTS

Appraisal well 16/2-11 A was kicked off from 770 m in the main well bore on 29 March 2012. It was drilled with the semi-submersible installation Bredford Dolphin to TD at 2365 m (2073 m TVD) in the Triassic Skagerrak Formation. The sidetrack deviation was up to 45 degrees and it penetrated BCU ca 950 m to the north-east of the main well location. No significant problem was encountered in the operations. The well was drilled with Performadril Water Based Mud from kick-off to TD.

The well penetrated a 4 m thick Draupne Formation from 2180 m to 2184 m. The Draupne Formation consisted of decimetre scale Spiculites and fine grained sandstones interbedded with centimetre scale laminated mudstones typical of the Draupne shales. It was dated Late Volgian to Late Ryazanian. Top Intra-Draupne Formation Sandstone was penetrated at 2184 m (1915 m TVD). The Vestland Group was encountered at 2206 m (1934 m TVD) with a section of claystone and silstone on top down to 2215 m (1942 m TVD) and heterolithic sandstone from there down to top Skagerrak Formation at 2239 m (1963 m TVD). The oil water contact was established at 2221 m (1947 m TVD). This is in line with other wells in the License. The well also confirmed the good reservoir properties encountered in the well 16/2-11. Minor oil shows were reported in one sample of tuff from the Balder Formation at 1600 m, otherwise oil shows were restricted to the Middle to Late Jurassic reservoir section.

Five cores were cut from 2169 m to 2243 m with 98-100% recovery in all cores. The cores covered the entire section from base Åsgard Formation, across the BCU, through the Late to Middle Jurassic reservoir, and into the upper Skagerrak Formation. MDT fluid samples were taken at 2186.1 m (oil), 2202 m (oil), 2223.5 m (oil), 2225.1 m (water), and 2233.4 m (water).

The well was permanently abandoned on 4 May 2012 as an oil appraisal well.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 16/2-11 A