



GENERAL

Well 1/3-12 S was drilled in the Breiflabb Basin of the southern North Sea, about half-way between the Albuskjell Field and the 1/3-11 discovery. The principal objective of the well was to penetrate the Mandarin East pod and evaluate a prognosed un-faulted section of Triassic (Skagerrak Formation) within which there was a strong amplitude event that was interpreted pre-drilling as being the Top Julius mudstone, with a Joanne Sandstone section above and the Judy Sandstone beneath. Both of these were prognosed to contain hydrocarbons. The secondary objective was to evaluate the hydrocarbon potential of the Late Jurassic Sandstones, if any were present.

OPERATIONS AND RESULTS

Well 1/3-12 S was spudded with the jack-up installation Rowan Gorilla VI on 1 December 2009 and drilled to TD at 5931 m (5868 m TVD) in the Late Triassic Skagerrak Formation. At final TD the pipe became stuck and after some time working to free the pipe it parted just below the rotary table. A complex 12 day fishing operation then commenced, eventually recovering the fish from 5590 m upwards, but leaving the BHA across the Judy Sandstones. This made wire line logging operations impossible. Following recovery of the fish a further 32 days were spent plugging and abandoning the well before the rig moved off location. The well was drilled with seawater and pre-hydrated bentonite down to 1150 m, with Carbosea oil based mud from 1150 m to 5412 m, and with Magma-Teq oil based mud from 5412 m to TD.

The stratigraphic sequence was different to that expected, with a thicker Late Jurassic, and the unexpected presence of Middle Jurassic claystones and sandstones eroding down into the Triassic sequence. The Joanne sandstones was not encountered and the well went directly into what was believed to be the Judy Sandstones at 5817.5 m. When the well had gone deep enough to ensure that Julius Mudstone was not present, a core was taken for evaluation of reservoir quality. The LWD GR and resistivity logs clearly showed the Middle Jurassic and Skagerrak Sandstones to be water bearing. There were no oil shows above OBM seen on cuttings from the Jurassic and Triassic sandstones. No shows were seen on the core.

One core was cut from 5876 m to 5903 m in the Skagerrak Formation, Judy Member. Only 8.43 m (32.6%) was recovered. It was not possible to obtain wire line log data, pressures, and fluid samples over the Middle Jurassic and Skagerrak Sandstones due to the BHA becoming stuck at TD.

The well was permanently abandoned on 22 July 2010 as a dry well.

TESTING

No drill stem test was performed.

LITHOSTRATIGRAPHY & HISTORY FOR WELL: 1/3-12 S