



## Wellbore History

### GENERAL

Well 24/6-4 (Boa) was originally spudded as 24/6-3, which was junked for technical reasons. The well was designed to appraise the Kameleon 24/6-2 discovery made in 1998. The well objectives were: to verify the field wide extent of fluid and gas contacts, eliminate geologic risk associated with the Boa structure, provide additional time-depth control, provide gas, oil and water samples, and to test local stratigraphic control of the T57 shale horizon.

### OPERATIONS AND RESULTS

Well 24/6-4 was spudded 22 April 2003 with the semi-submersible installation Deepsea Bergen. The well was drilled to 1329 m when hole problems occurred and a technical sidetrack (24/6-4 T2) was decided. The sidetrack was kicked off at 1010 m and drilled slightly deviated to 1340 m (maximum deviation was 11.6°) where a vertical path was re-established. The well was then drilled as planned to TD at 2325 m in the Paleocene Heimdal Formation. Water based bentonite mud spotted with KCl mud was used in the first well bore down to 1329 m. The sidetrack was drilled with oil-based mud.

Apart from the target Heimdal Formation the only sandy formation penetrated was the Grid Formation from 1147 m to 1301 m. The Heimdal Sandstone was encountered at 2123 m and proved to be both gas and oil-bearing with a gas-oil contact (GOC) at 2147.7 m MD (2118.5 m TVD SS) and an oil-water contact (OWC) at 2176.3 m (2147.1 m TVD SS). This was consistent with shows described from core and cuttings within the Heimdal. No shows were recorded below 2177 m, apart from a possible trace of residual oil, at 2315 m. The GOC in 24/6-2 (Kameleon) was found at 2125 m TVD SS, ca 5 m deeper than in 24/6-4, and the OWC in 24/6-2 was found at 2143 m TVD SS, ca 4 m higher than in 24/6-4. Formation pressure measurements in the two wells showed 2 bars lower pressure in the 24/6-2 hydrocarbon column than in the 24/6-4 HC column. Communication between the two wells was thus found to be unlikely.

A total of 54.65 m of core was cut in two cores in the Heimdal formation, with 99.3% recovery. Coring point was at 2124 m, determined by cuttings and drilling parameter changes. A total of 32 MDT formation pressures were obtained in 39 attempts from 2125.0 m to 2276.0 m. A total of 23 MDT fluid samples, 10 gas samples from 2138 m and 13 oil samples from 2162 m, were obtained.

The well was permanently abandoned as a gas and oil discovery on 24 March 1969.

### TESTING

No drill stem test was performed.

## LITHOSTRATIGRAPHY & HISTORY FOR WELL: 24/6-4