General information

Wellbore name	24/12-5 S
Type	EXPLORATION
Purpose	APPRAISAL
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	NORTH SEA
Discovery	24/12-3 S
Well name	24/12-5
Seismic location	
Production licence	341
Drilling operator	Noil Energy ASA
Drill permit	1158-L
Drilling facility	BREDFORD DOLPHIN
Drilling days	37
Entered date	15.11.2007
Completed date	21.12.2007
Release date	21.12.2009
Publication date	21.12.2009
Purpose - planned	APPRAISAL
Reentry	NO
Content	DRY
Discovery wellbore	NO
Kelly bushing elevation [m]	25.0
Water depth [m]	116.0
Total depth (MD) [m RKB]	2325.0
Final vertical depth (TVD) [m RKB]	2239.0
Maximum inclination [°]	25
Bottom hole temperature [°C]	59
Oldest penetrated age	PALEOCENE
Oldest penetrated formation	HEIMDAL FM
Geodetic datum	ED50
NS degrees	59° 6' 41.66'' N
EW degrees	1° 47' 21.25'' E
NS UTM [m]	6553255.80
EW UTM [m]	430662.97
UTM zone	31
NPDID wellbore	5638

Wellbore history

General

Well 24/12-5 S is located in the Vana sub-basin in the North Sea about 20 km north of the 15/3-1 S Gudrun discovery, and about 20 km west of Balder. The exploration target for well 24/12-5 S was to delimit the Heimdal Formation discovery made in well 24/12-3 S in 1996.A base case oil column of 34 meters was prognosed at the well location. The oil column was calculated based upon the found oil water contact in well 24/12-3 S, which for the base case top reservoir map coincided with the structural spill. The Heimdal sandstone has a continuous extension in the area. Well 24/12-5 S was planned with a TD of approximately 30 m into the Heimdal Sands or 30 m below a found OWC.

Operations and results

Well was spudded with the semi-submersible installation on and drilled to TD at 2325 m (2239 m TVD) in the Paleocene Heimdal Formation sandstones. The well path was vertical down to 750 m, building angle up to a maximum of 25 deg at 1297 m, then falling off to 17 deg towards TD. A total of 21% Non-Productive Time was experienced in the well, mostly related to problems during plug and abandon, and 6% Waiting On Weather. The well was drilled with seawater and sweeps down to 658 m, with KCl/Glycol Enhanced Mud from 658 m to 1592 m, and with KCl/polymer mud (Performadril) from 1592 m to TD.

The target top Heimdal Formation was penetrated at 2277 m (2194 m TVD), 15 m TVD deeper than prognosed. The Heimdal Formation contained good quality reservoir sandstone. The well was however dry with no oil shows and generally low levels of gas.

No cores were cut and no wire line logging or fluid sampling was performed.

The well was permanently abandoned on 21 December 2007 as a dry well.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
660.00	2324.00

Cuttings available for sampling?	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
141	NORDLAND GP
448	UTSIRA FM

623	HORDALAND GP
657	SKADE FM
945	NO FORMAL NAME
1316	GRID FM
1540	NO FORMAL NAME
2130	ROGALAND GP
2130	BALDER FM
2202	SELE FM
2260	LISTA FM
2277	HEIMDAL FM

Logs

Log type	Log top depth [m]	Log bottom depth [m]
GR EWR BAT ALD CTN	1592	2323
MWD LWD - GR EWR	141	657
MWD LWD - GR EWR	651	1592

Casing and leak-off tests

Casing type	Casing diam. [inch]	Casing depth [m]	Hole diam. [inch]	Hole depth [m]	LOT/FIT mud eqv. [g/cm3]	Formation test type
CONDUCTOR	30	207.0	36	212.0	0.00	LOT
SURF.COND.	20	643.0	26	648.0	1.21	LOT
PILOT HOLE		657.0	9 7/8	657.0	0.00	LOT
INTERM.	13 3/8	1588.0	17 1/2	1592.0	2.03	LOT
OPEN HOLE		2325.0	12 1/4	2325.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
651	1.10	134.0		WATER BASED	
658	1.05	110.0		WATER BASED	
850	1.12			WATER BASED	