General information

Wellbore name	6707/10-2 S
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	NORWEGIAN SEA
Field	AASTA HANSTEEN
Discovery	6707/10-2 S
Well name	6707/10-2
Seismic location	BPN9601STR07-inline 1735 & x-line 2326
Production licence	218
Drilling operator	StatoilHydro ASA
Drill permit	1194-L
Drilling facility	TRANSOCEAN LEADER
Drilling days	44
Entered date	31.08.2008
Completed date	13.10.2008
Release date	13.10.2010
Publication date	13.10.2010
Purpose - planned	WILDCAT
Reentry	NO
Content	GAS
Discovery wellbore	YES
1st level with HC, age	LATE CRETACEOUS
1st level with HC, formation	NISE FM
Kelly bushing elevation [m]	23.5
Water depth [m]	1248.0
Total depth (MD) [m RKB]	3365.0
Final vertical depth (TVD) [m RKB]	3356.0
Maximum inclination [°]	11
Bottom hole temperature [°C]	86
Oldest penetrated age	LATE CRETACEOUS
Oldest penetrated formation	NISE FM
Geodetic datum	ED50
NS degrees	67° 2' 48.8'' N
EW degrees	7° 3' 38.3'' E
NS UTM [m]	7438113.36

EW UTM [m]	415608.90
UTM zone	32
NPDID wellbore	5918

Wellbore history

General

The 6707/10-2 S Haklang well was drilled ca 3.5 km south-east of the 6707/10-1 Luva Discovery on the Nyk High in the Northern Norwegian Sea. The objective of the Haklang well was to prove hydrocarbons in the ?Nise 1 sandstone?. After completion of this well bore a sidetrack well, 6707/10-2 A Haklang West flank, was planned to prove hydrocarbons in the ?Nise 2 sandstone?.

Operations and results

Wildcat well 6707/10-2 S was spudded in 1247.5 m water depth with the semi-submersible installation Transocean Leader on 31 August 2008 and drilled to TD at 3365 m in the Late Cretaceous Nise Formation. No pilot hole was drilled. Neither shallow gas nor shallow water flow was observed. The BOP and riser was run three times before it landed and tested successfully. In the two first attempts leaks were identified that required replacements. Otherwise no significant technical problems were encountered in the operations. The well was drilled with seawater and hi-vis sweeps down to 2010 m and with Glydril mud from 2010 m to TD.

The top of the reservoir was picked at 3150.5 m (3146.5 m TVD RKB).The reservoir showed good properties (Net/Gross: 0.73, porosity 0.25) and contained dry gas. The gas-water contact was defined at 3281.1 m (3274.6 m TVD RKB), giving a gas column of 128 m. Variable oil shows, as proven by cut and weakly coloured fluorescence (light hydrocarbons), were observed on the cores from the gas-bearing reservoir section, otherwise no shows were recorded in the well.

A total of 142.6 m core was recovered in 8 cores from the interval 3158 to 3308 m in the Nise Formation reservoir. One MDT run for pressure points and fluid sampling was performed in the well. Fluid samples were obtained at 3165.6 m MD/3161.3 m TVD and 3282.9 m MD/3276.3 m TVD. Gas was the movable fluid on both sampling depths.

The well was plugged back and prepared for sidetracking on 13 October 2010. It is a gas discovery.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
2020.00	3365.00

Cuttings available for sampling?	YES

Cores at the Norwegian Offshore Directorate

Core sample number	Core sample - top depth	Core sample - bottom depth	Core sample depth - uom
1	3158.0	3176.4	[m]
2	3177.0	3194.0	[m]
3	3195.2	3213.9	[m]
4	3214.0	3231.8	[m]
5	3232.0	3247.3	[m]
6	3246.0	3263.9	[m]
7	3264.0	3281.0	[m]
8	3282.0	3306.2	[m]

Total core sample length [m]	146.1
Cores available for sampling?	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
1271	NORDLAND GP
1271	NAUST FM
2068	KAI FM
2096	HORDALAND GP
2096	BRYGGE FM
2189	ROGALAND GP
2189	TARE FM
2224	TANG FM
2294	SHETLAND GP
2294	SPRINGAR FM
3127	NISE FM

Logs

Log type	Log top depth [m]	Log bottom depth [m]
FMI HNGS ACTS ECRD	3090	3365
MDT	3135	3344
MSIP CMR EDTC ACTS ECRD	2840	3365
MWD - ARCVRES6 POWERPULSE	3100	3365
MWD - ARCVRES9 POWERPULSE	1360	3100
PEX HRLA ECS EDTC ACTS ECRD	3090	3365

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	1360.0	36	1363.0	0.00	LOT
SURF.COND.	20	2000.0	26	2010.0	1.39	LOT
INTERM.	9 5/8	3090.0	12 1/4	3100.0	1.54	LOT
INTERM.	9 5/8	3100.0	12 1/4	0.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
1363	1.35	19.0		Spud Mud	
2010	1.35	15.0		Glydril	
2136	1.14	9.0		Glydril	
2253	1.15	10.0		Glydril	
2450	1.16	10.0		Glydril	
2525	1.16	11.0		Glydril	
2687	1.15	11.0		Glydril	
2810	1.15	12.0		Glydril	
2950	1.16	12.0		Glydril	
3030	1.15	13.0		Glydril	
3052	1.17	14.0		Versatec	
3098	1.16	14.0		Versatec	
3100	1.15	13.0		Glydril	
3103	1.16	16.0		Glydril DW #36	
3158	1.20	16.0		Glydril DW #36	
3195	1.20	16.0		Glydril DW #36	
3195	1.20	16.0		Glydril DW #36	

3213	1.23	15.0		Glydril DW #36	
3231	1.23	15.0		Glydril DW #36	
3282	1.24	16.0		Glydril DW #36	
3308	1.25	16.0		Glydril DW #36	
3365	1.25	15.0		Glydril DW #36	

Pressure plots

The pore pressure data is sourced from well logs if no other source is specified. In some wells where pore pressure logs do not exist, information from Drill stem tests and kicks have been used. The data has been reported to the NPD, and further processed and quality controlled by IHS Markit.

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