



General information

Wellbore name	6707/10-1
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORWEGIAN SEA
Field	AASTA HANSTEEN
Discovery	6707/10-1 Aasta Hansteen
Well name	6707/10-1
Seismic location	BPN-0196- INLINE 930& CROSSLINE 2130
Production licence	218
Drilling operator	BP Norway Limited U.A.
Drill permit	885-L
Drilling facility	OCEAN ALLIANCE
Drilling days	96
Entered date	19.04.1997
Completed date	23.07.1997
Release date	23.07.1999
Publication date	15.11.2001
Purpose - planned	WILDCAT
Reentry	NO
Content	GAS
Discovery wellbore	YES
1st level with HC, age	LATE CRETACEOUS
1st level with HC, formation	DELFIN FM (INFORMAL)
Kelly bushing elevation [m]	25.0
Water depth [m]	1274.0
Total depth (MD) [m RKB]	5039.0
Final vertical depth (TVD) [m RKB]	5026.5
Maximum inclination [°]	11.2
Bottom hole temperature [°C]	114
Oldest penetrated age	LATE CRETACEOUS
Oldest penetrated formation	KVITNOS FM
Geodetic datum	ED50
NS degrees	67° 4' 7.85" N
EW degrees	7° 0' 36.51" E
NS UTM [m]	7440629.70
EW UTM [m]	413490.42



UTM zone	32
NPDID wellbore	3075

Wellbore history

General

Well 6707/10-1 was the first well drilled in PL218 and the first in the Vøring Basin deepwater area. The well targeted a tilted fault block on the Nyk High comprising Late Cretaceous sandstones with a pronounced flat spot. The main objectives of the well were to establish the presence, quality, and fluid content of the Campanian age Nise Formation. The underlying Santonian age Lysing Formation provided a secondary target.

Operations and results

Wildcat well 6707/10-1 was spudded with the semi-submersible installation "Ocean Alliance" on 19 April 1997 and drilled to TD at 5039 m in Late Cretaceous sediments of the Kvitnos Formation. The well was drilled water based with "BARASILC" silicate mud with KCl and GEM GP (glycols) from 2240 m to 2890 m and with KCl/NaCl/GEM GP/Polymer mud from 2890 m to TD. Top Nise Formation was penetrated at 2957 m, 1 m deeper than the revised depth prognosis based on an intermediate VSP run. The reservoir was recognized by an abrupt decrease in LWD gamma combined with increased gas levels and the appearance of sand in the cuttings. Wire line logging and sampling confirmed a gas column from 2957.5 to 3113.5 m. A total of nine cores were cut over the interval 2967 - 3145 m with a total recovery of 171 m (96 %). Poor shows were recorded in cores throughout this reservoir section, down to the base of core 9, where moderate shows were seen in the interval 3140 - 3145 mBRT. One 27 m core (core 10) was cut in the secondary target (4118 - 4145 mBRT). This core had fair shows at the top. No shows were seen in the drilled cuttings. Altogether 10 MDT fluid samples were taken in the Nise Formation. Seven of these were taken from 2964 to 3086 m RKB in the reservoir zone, two samples were from 3114.5 m just below the gas-water contact, and one from further down at 3195 m. The MDT samples were contaminated with mud, but PVT flash to stock tank conditions gave a consistent gas gravity of 0.59 relative to air and a GOR in excess of 117000 m³/m³. The well was plugged and abandoned as a gas discovery with oil shows.

Testing

No DST was performed

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
2230.00	5039.00

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	2967.0	2986.0	[m]
2	2985.4	3011.8	[m]
3	3012.5	3026.7	[m]
4	3030.0	3047.5	[m]
5	3048.5	3065.4	[m]
6	3066.0	3083.5	[m]
7	3085.0	3107.2	[m]
8	3107.0	3127.6	[m]
9	3127.6	3146.6	[m]
10	4118.0	4138.2	[m]

Total core sample length [m]	193.6
Cores available for sampling?	YES

Core photos



2967-2972m



2972-2977m



2977-2982m



2982-2986m



2985-2990m



2990-2995m



2995-3000m



3000-3005m



3005-3010m



3010-3012m



3012-3017m



3017-3022m



3022-3027m



3030-3035m



3035-3040m



3040-3045m



3045-3048m



3048-3053m



3053-3058m



3058-3063m



3063-3065m



3066-3071m



3071-3076m



3076-3081m



3081-3083m



3085-3090m



3090-3095m



3095-3100m



3100-3105m



3105-3107m



3107-3112m



3112-3117m



3117-3122m



3122-3127m



3127-3128m



3127-3132m



3132-3137m



3137-3142m



3142-3147m



4118-4123m



4123-4128m



4128-4133m



4133-4138m



4138-4138m

**Palynological slides at the Norwegian Offshore Directorate**

Sample depth	Depth unit	Sample type	Laboratory
2230.0	[m]	DC	DONG
2370.0	[m]	DC	DONG
2390.0	[m]	DC	DONG
2410.0	[m]	DC	DONG
2967.2	[m]	C	OD
2967.5	[m]	C	OD
2969.2	[m]	C	OD
2970.3	[m]	C	OD
2971.9	[m]	C	OD
2972.8	[m]	C	OD
2974.5	[m]	C	OD
2976.4	[m]	C	OD
2978.7	[m]	C	OD
2982.0	[m]	C	OD
2983.8	[m]	C	OD
2986.6	[m]	C	OD
2989.3	[m]	C	OD
2991.6	[m]	C	OD
2993.6	[m]	C	OD
2995.9	[m]	C	OD
2998.7	[m]	C	OD
3001.9	[m]	C	OD
3002.7	[m]	C	OD
3003.6	[m]	C	OD
3008.9	[m]	C	OD
3010.0	[m]	C	OD
3010.9	[m]	C	OD
3016.9	[m]	C	OD
3018.8	[m]	C	OD
3021.8	[m]	C	OD
3032.3	[m]	C	OD
3035.6	[m]	C	OD
3037.8	[m]	C	OD
3040.7	[m]	C	OD
3043.7	[m]	C	OD
3047.1	[m]	C	OD



3049.8	[m]	C	OD
3051.9	[m]	C	OD
3053.7	[m]	C	OD
3056.2	[m]	C	OD
3060.0	[m]	C	OD
3060.4	[m]	C	OD
3064.9	[m]	C	OD
3068.9	[m]	C	OD
3070.1	[m]	C	OD
3073.7	[m]	C	OD
3077.1	[m]	C	OD
3079.1	[m]	C	OD
3092.9	[m]	C	OD
3099.4	[m]	C	OD
3100.9	[m]	C	OD
3104.5	[m]	C	OD
3112.9	[m]	C	OD
3122.2	[m]	C	OD
3130.7	[m]	C	OD
3145.5	[m]	C	OD
4119.5	[m]	C	OD
4119.5	[m]	C	OD
4126.7	[m]	C	OD
4137.0	[m]	C	OD
4138.2	[m]	C	OD
4147.0	[m]	DC	OD
4252.0	[m]	DC	OD
4300.0	[m]	DC	OD
4402.0	[m]	DC	OD
4501.0	[m]	DC	OD
4597.0	[m]	DC	OD
4651.0	[m]	DC	OD
4720.0	[m]	DC	OD
4801.0	[m]	DC	OD
4900.0	[m]	DC	OD
4993.0	[m]	DC	OD
5029.0	[m]	DC	OD

Lithostratigraphy



Top depth [mMD RKB]	Lithostrat. unit
1299	NORDLAND GP
2142	ROGALAND GP
2142	TARE FM
2200	TANG FM
2448	SHETLAND GP
2448	SPRINGAR FM
2898	NISE FM
2977	DELFIN FM (INFORMAL)
3810	NISE FM
3939	DELFIN FM (INFORMAL)
4241	KVITNOS FM

Composite logs

Document name	Document format	Document size [MB]
3075	pdf	0.74

Geochemical information

Document name	Document format	Document size [MB]
3075_1	pdf	1.73
3075_2	pdf	1.90

Documents - reported by the production licence (period for duty of secrecy expired)

Document name	Document format	Document size [MB]
3075_6707_10_1_COMPLETION_LOG	pdf	4.13
3075_6707_10_1_COMPLETION_REPORT_DRILLING	pdf	73.87
3075_6707_10_1_COMPLETION_REPORT_GEOLOGY	pdf	22.33

Logs





Log type	Log top depth [m]	Log bottom depth [m]
CSI GR	3650	5000
CST GR	2210	2447
CST GR	3882	5027
DIR FE	3145	5039
DIR GR PWD	2204	2967
DST DSI IPL SP AMS	1275	2887
FMS AMS HNGS	2886	3858
MDT GR AMS	2955	2965
MDT GR AMS	2960	3145
MDT GR AMS	3109	3820
PEX HALS DSI AMS SP	2886	3861
PEX HALS DSI SP ACTS	3860	5030
RFT CBL VDL GR AMS	2400	4233
RFT HP GR AMS	2232	2412
RLL FE	3048	3145
VSP GR	1300	2735
VSP GR AMS	2560	3845

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	1371.0	36	1376.3	0.00	LOT
SURF.COND.	20	2202.7	26	2207.0	1.37	LOT
INTERM.	13 3/8	2890.7	17 1/2	2896.0	1.49	LOT
INTERM.	9 5/8	3865.2	12 1/4	3871.0	1.70	LOT
OPEN HOLE		5039.0	8 1/2	5039.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
1299	0.00			seawater/be	
1376	1.04			Seawater/be	
2207	1.04	17.0	11.0	Seawater/be	
2896	1.26	12.0	18.0	Barasilc	
3871	1.28	23.0	24.0	Nacl/Kcl/Ge	



5039	1.26	20.0	19.0	Nacl/Kcl/Ge	
------	------	------	------	-------------	--

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.

Document name	Document format	Document size [MB]
3075 Formation pressure (Formasjonstrykk)	pdf	0.24

