

**General information**

Wellbore name	7216/11-1 S
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	BARENTS SEA
Well name	7216/11-1
Seismic location	NH9803 INLINE A 2940 & X-LINE A 4882
Production licence	221
Drilling operator	Norsk Hydro Produksjon AS
Drill permit	980-L
Drilling facility	TRANSOCEAN ARCTIC
Drilling days	53
Entered date	24.07.2000
Completed date	14.09.2000
Release date	14.09.2002
Publication date	11.04.2003
Purpose - planned	WILDCAT
Reentry	NO
Content	DRY
Discovery wellbore	NO
Kelly bushing elevation [m]	24.0
Water depth [m]	361.0
Total depth (MD) [m RKB]	4239.0
Final vertical depth (TVD) [m RKB]	3733.2
Maximum inclination [°]	52.4
Bottom hole temperature [°C]	114
Oldest penetrated age	PALEOCENE
Oldest penetrated formation	TORSK FM
Geodetic datum	ED50
NS degrees	72° 0' 56.72" N
EW degrees	16° 36' 22" E
NS UTM [m]	7991645.42
EW UTM [m]	555345.64
UTM zone	33
NPDID wellbore	4129



Wellbore history

General

The objective for well 7216/11-1 S was to test the hydrocarbon potential of the A-structure in PL221. Three target horizons were defined in the Palaeogene Lower Torsk Formation (Sotbakken Group). The primary objective was to test the hydrocarbon potential of the A1 prospect, defined as a closure along the flanks of the "A1" horst block at Early Eocene & Late Palaeocene level. The secondary and tertiary objectives were to test the reservoir and hydrocarbon potential of the "A2" and "A3" prospects in the horst block further to the west. The well was originally planned as a straight vertical well east of the horst. The volumes that would be left up dip were, however, considerable. Early in the planning stage the licence therefore decided to drill the well as a deviated borehole.

Operations and results

Exploration well 7216/11-1 S was spudded with the semi-submersible installation "Transocean Arctic" on 24 July 2000 and drilled deviated to TD at 4239 m (3733.2 m TVD) in Late Palaeocene sediments of the Torsk Formation. The well was drilled water based with bentonite mud down to 1004 m, and with the "GLYDRIL" mud system from 1004 m to TD. A total of 30 m gross reservoir sequence of excellent quality turbidite sandstone was penetrated in the Late Palaeocene A1 Structure. The reservoirs of the prognosed A2 and A3 prospects were not developed. No HC was encountered in the A1 Formations. No shows were observed while drilling the well. No shows were recorded at well site. After core no 1 was brought onshore and slabbed a bright blue yellow fluorescence was observed in the interval 2991 - 2991.5 m. Neither oil stain nor petroleum odour was observed on the cores. The cuttings gas log indicated an increase in wetness through the claystones above the A1 reservoir, with a maximum wetness in the top of A1. The MWD logs indicated, however, that this sequence was water bearing. Two conventional cores were cut in the Torsk Formation: Core 1 recovered claystone / sandstone from 2988.0 m - 2996.4 m, while core 2 recovered claystone / shale from 4230.0 m & 4238.0 m. One MDT (Modular formation Dynamics Tester) was carried out, but fluid samples were not taken. Due to an obstruction in hole at 2806 m MD, neither logging on wire, TLC or CST was performed in the 8 1/2" section. Thus, only MWD / LWD logs exist from this section. No fluid contacts or fluid gradients was identified from the log and pressure data. A thin gas bearing sand was however observed from density/neutron log at 2012 m. The well was permanently abandoned as a dry well on 14 September 2000.

Testing

No drill stem test was performed

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
1010.00	4230.00

Cuttings available for sampling?	YES
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**Cores at the Norwegian Offshore Directorate**

Core sample number	Core sample - top depth	Core sample - bottom depth	Core sample depth - uom
1	2988.0	2996.4	[m]
2	4230.0	4238.0	[m]

Total core sample length [m]	16.4
Cores available for sampling?	YES

Core photos

2988-2993m



2993-2997m



4230-4231m



4231-4236m



4236-4238m

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
1450.0	[m]	SWC	OD
1550.0	[m]	SWC	OD
1640.0	[m]	SWC	OD
1700.0	[m]	SWC	OD
1760.0	[m]	SWC	OD
1820.0	[m]	SWC	OD
1880.0	[m]	SWC	OD
1940.0	[m]	SWC	OD
2000.0	[m]	SWC	OD
2000.0	[m]	DC	OD
2010.0	[m]	DC	OD
2020.0	[m]	DC	OD
2030.0	[m]	DC	OD
2040.0	[m]	DC	OD
2050.0	[m]	DC	OD
2060.0	[m]	DC	OD



2070.0	[m]	DC	OD
2080.0	[m]	DC	OD
2090.0	[m]	DC	OD
2090.0	[m]	SWC	OD
2100.0	[m]	DC	OD
2110.0	[m]	DC	OD
2120.0	[m]	DC	OD
2130.0	[m]	DC	OD
2140.0	[m]	DC	OD
2150.0	[m]	SWC	OD
2150.0	[m]	DC	OD
2160.0	[m]	DC	OD
2170.0	[m]	DC	OD
2180.0	[m]	SWC	OD
2180.0	[m]	DC	OD
2190.0	[m]	DC	OD
2200.0	[m]	DC	OD
2205.0	[m]	DC	OD
2210.0	[m]	DC	OD
2215.0	[m]	DC	OD
2220.0	[m]	DC	OD
2225.0	[m]	DC	OD
2230.0	[m]	DC	OD
2235.0	[m]	DC	OD
2240.0	[m]	SWC	OD
2240.0	[m]	DC	OD
2245.0	[m]	DC	OD
2250.0	[m]	DC	OD
2255.0	[m]	DC	OD
2255.0	[m]	DC	OD
2260.0	[m]	DC	OD
2265.0	[m]	DC	OD
2270.0	[m]	DC	OD
2275.0	[m]	DC	OD
2280.0	[m]	DC	OD
2285.0	[m]	DC	OD
2290.0	[m]	DC	OD
2295.0	[m]	DC	OD
2300.0	[m]	SWC	OD
2300.0	[m]	DC	OD



2305.0	[m]	DC	OD
2310.0	[m]	DC	OD
2315.0	[m]	DC	OD
2320.0	[m]	SWC	OD
2320.0	[m]	DC	OD
2325.0	[m]	DC	OD
2330.0	[m]	SWC	OD
2330.0	[m]	DC	OD
2335.0	[m]	DC	OD
2340.0	[m]	DC	OD
2345.0	[m]	DC	OD
2350.0	[m]	DC	OD
2355.0	[m]	DC	OD
2360.0	[m]	SWC	OD
2360.0	[m]	DC	OD
2365.0	[m]	DC	OD
2370.0	[m]	DC	OD
2375.0	[m]	DC	OD
2380.0	[m]	SWC	OD
2380.0	[m]	DC	OD
2385.0	[m]	DC	OD
2390.0	[m]	SWC	OD
2390.0	[m]	DC	OD
2395.0	[m]	DC	OD
2400.0	[m]	DC	OD
2402.0	[m]	SWC	OD
2405.0	[m]	DC	OD
2410.0	[m]	DC	OD
2415.0	[m]	DC	OD
2420.0	[m]	SWC	OD
2420.0	[m]	DC	OD
2425.0	[m]	DC	OD
2430.0	[m]	DC	OD
2435.0	[m]	DC	OD
2440.0	[m]	DC	OD
2445.0	[m]	DC	OD
2450.0	[m]	DC	OD
2455.0	[m]	DC	OD
2460.0	[m]	DC	OD
2465.0	[m]	DC	OD



2470.0 [m]	DC	OD
2475.0 [m]	DC	OD
2480.0 [m]	SWC	OD
2480.0 [m]	DC	OD
2485.0 [m]	DC	OD
2490.0 [m]	DC	OD
2495.0 [m]	DC	OD
2500.0 [m]	DC	OD
2505.0 [m]	DC	OD
2510.0 [m]	SWC	OD
2510.0 [m]	DC	OD
2515.0 [m]	DC	OD
2520.0 [m]	DC	OD
2525.0 [m]	DC	OD
2530.0 [m]	DC	OD
2535.0 [m]	DC	OD
2540.0 [m]	DC	OD
2545.0 [m]	DC	OD
2550.0 [m]	SWC	OD
2550.0 [m]	DC	OD
2555.0 [m]	DC	OD
2560.0 [m]	DC	OD
2565.0 [m]	DC	OD
2570.0 [m]	DC	OD
2575.0 [m]	DC	OD
2580.0 [m]	DC	OD
2585.0 [m]	DC	OD
2590.0 [m]	DC	OD
2595.0 [m]	DC	OD
2600.0 [m]	SWC	OD
2600.0 [m]	DC	OD
2605.0 [m]	DC	OD
2610.0 [m]	DC	OD
2615.0 [m]	DC	OD
2620.0 [m]	DC	OD
2625.0 [m]	DC	OD
2630.0 [m]	DC	OD
2635.0 [m]	DC	OD
2640.0 [m]	DC	OD
2645.0 [m]	DC	OD



2650.0	[m]	DC	OD
2655.0	[m]	DC	OD
2660.0	[m]	SWC	OD
2660.0	[m]	DC	OD
2660.0	[m]	DC	OD
2665.0	[m]	DC	OD
2670.0	[m]	DC	OD
2675.0	[m]	DC	OD
2680.0	[m]	DC	OD
2685.0	[m]	DC	OD
2690.0	[m]	SWC	OD
2690.0	[m]	DC	OD
2695.0	[m]	DC	OD
2700.0	[m]	DC	OD
2750.0	[m]	SWC	OD

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
385	NORDLAND GP
2397	SOTBAKKEN GP
2397	TORSK FM

Composite logs

Document name	Document format	Document size [MB]
4129	pdf	0.67

Geochemical information

Document name	Document format	Document size [MB]
4129_1	pdf	1.80
4129_2	pdf	1.97
4129_3	pdf	1.84
4129_4	pdf	1.95
4129_5	pdf	1.95





4129_6	pdf	1.83
4129_7	pdf	0.83

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

Document name	Document format	Document size [MB]
4129_7216_11_1_S_COMPLETION_LOG	.pdf	1.71
4129_7216_11_1_S_COMPLETION_REPORT	.PDF	8.38

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CST - TLC	1440	2686
CST - WIRELINE	2570	2750
MDT	1435	1586
MWD MPR - GR RES DIR	386	4239
MWD ORD/CNN - SON DENS POR	2758	4239
PEX DSI SP	999	2752
SWC	1390	2750
VSP	1100	2750

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	507.0	36	507.0	1.46	LOT
SURF.COND.	20	999.0	26	1000.0	1.58	LOT
INTERM.	13 3/8	1390.0	17 1/2	1437.0	1.58	LOT
INTERM.	9 5/8	2750.0	12 1/4	2758.0	1.72	LOT
OPEN HOLE		4239.0	8 1/2	4239.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
450	1.38	13.0		WATER BASED	
685	1.46	23.0		WATER BASED	





1004	1.03			WATER BASED	
1012	1.30			WATER BASED	
1094	1.30	15.0		WATER BASED	
1337	1.38	16.0		WATER BASED	
1390	1.39	16.0		WATER BASED	
1395	0.00	16.0		WATER BASED	
1437	1.38	16.0		WATER BASED	
1650	1.39	14.0		WATER BASED	
1841	1.46	18.0		WATER BASED	
1888	1.46	23.0		WATER BASED	
2195	1.46	17.0		WATER BASED	
2400	1.46	18.0		WATER BASED	
2618	1.46	20.0		WATER BASED	
2696	1.55	25.0		WATER BASED	
2758	1.46	22.0		WATER BASED	
2793	1.30	13.0		WATER BASED	
2941	0.00	14.0		WATER BASED	
2988	1.30	14.0		WATER BASED	
3011	0.00	14.0		WATER BASED	
3170	1.31	15.0		WATER BASED	
3273	1.46	17.0		WATER BASED	
3511	1.52	19.0		WATER BASED	
3604	1.52	23.0		WATER BASED	
3861	1.52	24.0		WATER BASED	
4041	1.52	25.0		WATER BASED	
4183	1.52	24.0		WATER BASED	
4230	1.55	27.0		WATER BASED	
4239	1.55	25.0		WATER BASED	

Thin sections at the Norwegian Offshore Directorate

Depth	Unit
2988.03	[m]
2989.03	[m]
2991.50	[m]
2992.75	[m]
2993.02	[m]

**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]
4129 Formation pressure (Formasjonstrykk)	pdf	0.27

