General information

Wellbore name	6407/8-6
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	BAUGE
Discovery	6407/8-6 Bauge
Well name	6407/8-6
Seismic location	3D survey ST 10021-inline 1344 & xline 2099
Production licence	348 B
Drilling operator	Statoil Petroleum AS
Drill permit	1479-L
Drilling facility	SONGA TRYM
Drilling days	31
Entered date	20.09.2013
Completed date	20.10.2013
Release date	20.10.2015
Publication date	20.10.2015
Purpose - planned	WILDCAT
Reentry	NO
Content	OIL
Discovery wellbore	YES
1st level with HC, age	MIDDLE JURASSIC
1st level with HC, formation	ILE FM
2nd level with HC, age	EARLY JURASSIC
2nd level with HC, formation	TILJE FM
3rd level with HC, age	LATE TRIASSIC
3rd level with HC, formation	ÅRE FM
Kelly bushing elevation [m]	25.0
Water depth [m]	282.0
Total depth (MD) [m RKB]	3420.0
Final vertical depth (TVD) [m RKB]	3420.0
Oldest penetrated age	LATE TRIASSIC
Oldest penetrated formation	GREY BEDS (INFORMAL)
Geodetic datum	ED50

NS degrees	64° 21' 12.7'' N
EW degrees	7° 27' 44.48'' E
NS UTM [m]	7137484.98
EW UTM [m]	425743.95
UTM zone	32
NPDID wellbore	7265

Wellbore history

General

Well 6407/8-6 was drilled on the Snilehorn prospect in the south-eastern part of the Halten Terrace in the Norwegian Sea. The primary objective was to test reservoirs of Early to Middle Jurassic age in the Åre and Tilje formations.

Operations and results

A 9 7/8" pilot hole 6407/8-U-1 was drilled with seawater and returns to seafloor down to 996 m (the planned setting depth for 13 3/8" casing). No shallow gas was encountered.

Wildcat well 6407/8-6 was spudded with the semi-submersible installation Songa Trym on 20 September and drilled to TD at 3420 m in Late Triassic sediments in the Åre Formation. No significant problem was encountered in the operations. The well was drilled with seawater and hi-vis sweeps down to 985 m and with XP07 oil based mud from 985 m to TD.

The Fangst Group, Ile Formation was unexpectedly encountered at 2789 m. Oil was proven throughout the Ile Formation from top to base at 2831 m, in the Tilje Formation from 2902 m to 3035 m, and in an Åre Sandstone from 3191 m to 3214.8 m. Total net pay for the three reservoir intervals is 116 m (58%). All three oil columns were in down-to situations. Thin oil-bearing sands were also proven in the Tofte Formation from 2842 m to 2872 m.

Three consecutive cores were cut from 2918 to 3040.4 m. Recovery was 94%, 100%, and 100% for cores one, two, and three, respectively. MDT fluid samples were taken at 2790 m (oil), 2826 m (oil), 2909.4 m (oil), 3023.5 m (oil), 3195.7 m (oil), 3198.6 m (oil), 3254.6 m (water), and 3311.1 m (water).

The well was permanently abandoned on 20 October 2013 as an oil discovery.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
990.00	3419.00

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	2918.0	2942.4	[m]
2	2944.0	2999.6	[m]
3	2999.5	3040.7	[m]

Total core sample length [m]	121.1
Cores available for sampling?	YES

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
1000.0	[m]	DC	BIOSTRAT
1020.0	[m]	DC	BIOSTR
1040.0	[m]	DC	BIOSTR
1060.0	[m]	DC	BIOSTR
1080.0	[m]	DC	BIOSTR
1100.0	[m]	DC	BIOSTR
1120.0	[m]	DC	BIOSTR
1140.0	[m]	DC	BIOSTR
1160.0	[m]	DC	BIOSTR
1180.0	[m]	DC	BIOSTR
1200.0	[m]	DC	BIOSTR
1220.0	[m]	DC	BIOSTR
1240.0	[m]	DC	BIOSTR
1260.0	[m]	DC	BIOSTR
1280.0	[m]	DC	BIOSTR
1300.0	[m]	DC	BIOSTR
1310.0	[m]	DC	BIOSTR
1320.0	[m]	DC	BIOSTR
1340.0	[m]	DC	BIOSTR
1360.0	[m]	DC	BIOSTR
1380.0	[m]	DC	BIOSTR
1400.0	[m]	DC	BIOSTR
1420.0	[m]	DC	BIOSTR
1440.0	[m]	DC	BIOSTR
1460.0	[m]	DC	BIOSTR
1480.0	[m]	DC	BIOSTR

1500.0	[m]	DC	BIOSTR
1520.0	[m]	DC	BIOSTR
1540.0	[m]	DC	BIOSTR
1570.0	[m]	DC	BIOSTR
1590.0	[m]	DC	BIOSTR
1630.0	[m]	DC	BIOSTR
1650.0	[m]	DC	BIOSTR
1670.0	[m]	DC	BIOSTR
1690.0	[m]	DC	BIOSTR
1710.0	[m]	DC	BIOSTR
1730.0	[m]	DC	BIOSTR
1750.0	[m]	DC	BIOSTR
1770.0	[m]	DC	BIOSTR
1790.0	[m]	DC	BIOSTR
1810.0	[m]	DC	BIOSTR
1830.0	[m]	DC	BIOSTR
1850.0	[m]	DC	BIOSTR
1870.0	[m]	DC	BIOSTR
1890.0	[m]	DC	BIOSTR
1930.0	[m]	DC	BIOSTR
1950.0	[m]	DC	BIOSTR
1970.0	[m]	DC	BIOSTR
1990.0	[m]	DC	BIOSTR
2010.0	[m]	DC	BIOSTR
2020.0	[m]	DC	BIOSTR
2030.0	[m]	DC	BIOSTR
2040.0	[m]	DC	BIOSTR
2050.0	[m]	DC	BIOSTR
2060.0	[m]	DC	BIOSTR
2070.0	[m]	DC	BIOSTR
2080.0	[m]	DC	BIOSTR
2090.0	[m]	DC	BIOSTR
2100.0	[m]	DC	BIOSTR
2110.0	[m]	DC	BIOSTR
2120.0	[m]	DC	BIOSTR
2130.0	[m]	DC	BIOSTR
2140.0	[m]	DC	BIOSTR
2150.0	[m]	DC	BIOSTR
2160.0	[m]	DC	BIOSTR
2170.0	[m]	DC	BIOSTR

2180.0	[m]	DC	BIOSTR
2190.0	[m]	DC	BIOSTR
2200.0	[m]	DC	BIOSTR
2210.0	[m]	DC	BIOSTR
2220.0	[m]	DC	BIOSTR
2230.0	[m]	DC	BIOSTR
2240.0	[m]	DC	BIOSTR
2250.0	[m]	DC	BIOSTR
2260.0	[m]	DC	BIOSTR
2270.0	[m]	DC	BIOSTR
2280.0	[m]	DC	BIOSTR
2290.0	[m]	DC	BIOSTR
2300.0	[m]	DC	BIOSTR
2310.0	[m]	DC	BIOSTR
2320.0	[m]	DC	BIOSTR
2330.0	[m]	DC	BIOSTR
2340.0	[m]	DC	BIOSTR
2350.0	[m]	DC	BIOSTR
2360.0	[m]	DC	BIOSTR
2370.0	[m]	DC	BIOSTR
2380.0	[m]	DC	BIOSTR
2390.0	[m]	DC	BIOSTR
2400.0	[m]	DC	BIOSTR
2410.0	[m]	DC	BIOSTR
2420.0	[m]	DC	BIOSTR
2430.0	[m]	DC	BIOSTR
2440.0	[m]	DC	BIOSTR
2450.0	[m]	DC	BIOSTR
2460.0	[m]	DC	BIOSTR
2470.0	[m]	DC	BIOSTR
2480.0	[m]	DC	BIOSTR
2490.0	[m]	DC	BIOSTR
2500.0	[m]	DC	BIOSTR
2510.0	[m]	DC	BIOSTR
2520.0	[m]	DC	BIOSTR
2530.0	[m]	DC	BIOSTR
2540.0	[m]	DC	BIOSTR
2550.0	[m]	DC	BIOSTR
2560.0	[m]	DC	BIOSTR
2570.0	[m]	DC	BIOSTR

2580.0	[m]	DC	BIOSTR
2590.0	[m]	DC	BIOSTR
2600.0	[m]	DC	BIOSTR
2610.0	[m]	DC	BIOSTR
2620.0	[m]	DC	BIOSTR
2630.0	[m]	DC	BIOSTR
2640.0	[m]	DC	BIOSTR
2650.0	[m]	DC	BIOSTR
2660.0	[m]	DC	BIOSTR
2670.0	[m]	DC	BIOSTR
2680.0	[m]	DC	BIOSTR
2690.0	[m]	DC	BIOSTR
2700.0	[m]	DC	BIOSTR
2710.0	[m]	DC	BIOSTR
2720.0	[m]	DC	BIOSTR
2730.0	[m]	DC	BIOSTR
2740.0	[m]	DC	BIOSTR
2750.0	[m]	DC	BIOSTR
2760.0	[m]	DC	BIOSTR
2770.0	[m]	DC	BIOSTR
2770.0	[m]	SWC	BIOSTR
2780.0	[m]	DC	BIOSTR
2790.0	[m]	DC	BIOSTR
2800.0	[m]	DC	BIOSTR
2810.0	[m]	DC	BIOSTR
2816.0	[m]	DC	BIOSTR
2821.0	[m]	SWC	BIOSTR
2822.0	[m]	DC	BIOSTR
2828.0	[m]	DC	BIOSTR
2834.0	[m]	DC	BIOSTR
2837.0	[m]	SWC	BIOSTR
2840.0	[m]	DC	BIOSTR
2846.0	[m]	DC	BIOSTR
2846.5	[m]	SWC	BIOSTR
2852.0	[m]	DC	BIOSTR
2858.0	[m]	DC	BIOSTR
2864.0	[m]	DC	BIOSTR
2870.0	[m]	DC	BIOSTR
2876.0	[m]	DC	BIOSTR
2877.0	[m]	SWC	BIOSTR

2882.0	[m]	DC	BIOSTR
2888.0	[m]	DC	BIOSTR
2894.0	[m]	DC	BIOSTR
2897.3	[m]	SWC	BIOSTR
2900.0	[m]	DC	BIOSTR
2903.5	[m]	SWC	BIOSTR
2906.0	[m]	DC	BIOSTR
2912.0	[m]	DC	BIOSTR
2919.8	[m]	C	BIOSTR
2922.3	[m]	C	BIOSTR
2924.7	[m]	C	BIOSTR
2928.5	[m]	C	BIOSTR
2931.6	[m]	C	BIOSTR
2934.8	[m]	C	BIOSTR
2936.3	[m]	C	BIOSTR
2939.8	[m]	C	BIOSTR
2946.1	[m]	C	BIOSTR
2947.5	[m]	C	BIOSTR
2951.3	[m]	C	BIOSTR
2955.6	[m]	C	BIOSTR
2956.5	[m]	C	BIOSTR
2959.4	[m]	C	BIOSTR
2963.8	[m]	C	BIOSTR
2965.8	[m]	C	BIOSTR
2970.0	[m]	C	BIOSTR
2971.1	[m]	C	BIOSTR
2974.9	[m]	C	BIOSTR
2982.7	[m]	C	BIOSTR
2983.6	[m]	C	BIOSTR
2987.3	[m]	C	BIOSTR
2990.1	[m]	C	BIOSTR
2994.7	[m]	C	BIOSTR
3003.5	[m]	C	BIOSTR
3007.2	[m]	C	BIOSTR
3010.4	[m]	C	BIOSTR
3012.6	[m]	C	BIOSTR
3014.6	[m]	C	BIOSTR
3025.3	[m]	C	BIOSTR
3026.6	[m]	C	BIOSTR
3034.5	[m]	C	BIOSTR

3036.8	[m]	C	BIOSTR
3038.6	[m]	C	BIOSTR
3044.0	[m]	DC	BIOSTR
3050.0	[m]	DC	BIOSTR
3056.0	[m]	DC	BIOSTR
3062.0	[m]	DC	BIOSTR
3068.0	[m]	DC	BIOSTR
3074.0	[m]	DC	BIOSTR
3080.0	[m]	DC	BIOSTR
3086.0	[m]	DC	BIOSTR
3092.0	[m]	DC	BIOSTR
3098.0	[m]	DC	BIOSTR
3104.0	[m]	DC	BIOSTR
3110.0	[m]	DC	BIOSTR
3116.0	[m]	DC	BIOSTR
3122.0	[m]	DC	BIOSTR
3128.0	[m]	DC	BIOSTR
3134.0	[m]	DC	BIOSTR
3140.0	[m]	DC	BIOSTR
3146.0	[m]	DC	BIOSTR
3152.0	[m]	DC	BIOSTR
3158.0	[m]	DC	BIOSTR
3164.0	[m]	DC	BIOSTR
3170.0	[m]	DC	BIOSTR
3176.0	[m]	DC	BIOSTR
3182.0	[m]	DC	BIOSTR
3188.0	[m]	DC	BIOSTR
3206.0	[m]	DC	BIOSTR
3212.0	[m]	DC	BIOSTR
3218.0	[m]	DC	BIOSTR
3230.0	[m]	DC	BIOSTR
3236.0	[m]	DC	BIOSTR
3242.0	[m]	DC	BIOSTR
3248.0	[m]	DC	BIOSTR
3254.0	[m]	DC	BIOSTR
3260.0	[m]	DC	BIOSTR
3266.0	[m]	DC	BIOSTR
3273.0	[m]	DC	BIOSTR
3278.0	[m]	DC	BIOSTR
3284.0	[m]	DC	BIOSTR

3290.0	[m]	DC	BIOSTR
3296.0	[m]	DC	BIOSTR
3302.0	[m]	DC	BIOSTR
3308.0	[m]	DC	BIOSTR
3314.0	[m]	DC	BIOSTR
3320.0	[m]	DC	BIOSTR
3332.0	[m]	DC	BIOSTR
3338.0	[m]	DC	BIOSTR
3344.0	[m]	DC	BIOSTR
3350.0	[m]	DC	BIOSTR
3362.0	[m]	DC	BIOSTR
3368.0	[m]	DC	BIOSTR
3380.0	[m]	DC	BIOSTR
3386.0	[m]	DC	BIOSTR
3392.0	[m]	DC	BIOSTR
3398.0	[m]	DC	BIOSTR
3404.0	[m]	DC	BIOSTR
3410.0	[m]	DC	BIOSTR
3416.0	[m]	DC	BIOSTR

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
307	NORDLAND GP
441	NAUST FM
971	KAI FM
1022	HORDALAND GP
1022	BRYGGE FM
1677	ROGALAND GP
1677	TARE FM
1805	TANG FM
1950	SHETLAND GP
1950	SPRINGAR FM
1996	NISE FM
2167	KVITNOS FM
2424	CROMER KNOLL GP
2424	LANGE FM
2754	VIKING GP
2754	SPEKK FM

2760	MELKE FM
2789	FANGST GP
2789	ILE FM
2831	BÅT GP
2831	ROR FM
2842	TOFTE FM
2872	ROR FM
2902	TILJE FM
3035	ÅRE FM

Logs

Log type	Log top depth [m]	Log bottom depth [m]
ECS CMR	2600	3425
MDT	2790	3212
MDT	2987	3406
MSCT	2756	3406
MWD - ARCVRES9 TELE	361	985
MWD - ECO GVR6 TELE EXCEED	1982	2015
MWD - GR RES APWD DIR	307	887
MWD - PDX5 ARC6 TELE	1988	3220
MWD - PDX5 PERI15 TELE	3220	3420
MWD - TELE	307	361
OBMI MSIP	1982	3425
PEX AIT	1983	3223
PEX AIT	2700	3420
VSP	975	3210

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	357.0	36	361.0	0.00	
SURF.COND.	20	980.0	26	985.0	1.58	FIT
INTERM.	9 5/8	1982.0	12 1/4	1991.0	1.61	FIT
OPEN HOLE		3420.0	8 1/2	3420.0	0.00	

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
989	1.25	10.0		XP-07 - Yellow	
1075	1.26	15.0		XP-07 - Yellow	
1236	1.40	20.0		XP-07 - Yellow	
1471	1.50	20.0		XP-07 - Yellow	
1735	1.51	23.0		XP-07 - Yellow	
1988	1.42	25.0		XP-07 - Yellow	
2918	1.45	18.0		XP-07 - Yellow	
2945	1.45	19.0		XP-07 - Yellow	
3420	1.45	22.0		XP-07 - Yellow	