

**General information**

Wellbore name	6507/7-11 S
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORWEGIAN SEA
Well name	6507/7-11
Seismic location	CN 6507 - INLINE 2616 & X-LINE 921
Production licence	095
Drilling operator	Conoco Norway Inc.
Drill permit	897-L
Drilling facility	MÆRSK JUTLANDER
Drilling days	51
Entered date	25.06.1997
Completed date	14.08.1997
Release date	14.08.1999
Publication date	18.05.2004
Purpose - planned	WILDCAT
Reentry	NO
Content	DRY
Discovery wellbore	NO
Kelly bushing elevation [m]	23.0
Water depth [m]	274.0
Total depth (MD) [m RKB]	3749.0
Final vertical depth (TVD) [m RKB]	3744.0
Maximum inclination [°]	7.8
Bottom hole temperature [°C]	127
Oldest penetrated age	EARLY JURASSIC
Oldest penetrated formation	ÅRE FM
Geodetic datum	ED50
NS degrees	65° 18' 4.8" N
EW degrees	7° 7' 42.27" E
NS UTM [m]	7243514.99
EW UTM [m]	412743.08
UTM zone	32
NPDID wellbore	3131



Wellbore history

General

Well 6507/7-11 S was drilled to test a 3-way dip closed structure (Heidrun SW) between the Smørbukk Field to the southwest and the Heidrun Field to the northeast. The Heidrun SW prospect consists of a downthrown fault closure, W-segment and an independent up-thrown three way dip-closure; the SW-segment. The trap is a structural hanging wall trap, and formed as a consequence of Late Jurassic to Middle Cretaceous extensional tectonics. The prospect has a 3-way dip closure to the north, west and south and an up-thrown fault closure to the east, requiring a fault seal in order to have hydrocarbons present. The primary objective was to prove up commercial reserves for the Heidrun SW structure, by testing the hydrocarbon potential of the Middle Jurassic Fangst Group, by means of wire line logging and coring. Secondary objectives were to test the Early Jurassic Tilje and Åre reservoirs and the Early Cretaceous sandstones for Hydrocarbon potential. The flowing potential and productivity of a discovery, if made, should be evaluated by MDT and DST-tools. If no indications of hydrocarbons in Late Tilje were found, the well would reach TD at 3706 m TVD RKB (3710 m MD RKB) or 50 m below top Tilje Formation. If hydrocarbons were present, the well would reach TD deeper, at 3926 m TVD RKB (3930 mMD RKB) or 270 m below top Tilje.

Operations and results

Well 6507/7-11 S was spudded with the semi-submersible installation Mærsk Jutlander on 25 June 1997 and drilled to TD at 3749 m (3744 m TVD RKB) in the Early Jurassic Tilje Formation. The well was drilled with Seawater and hi-vis pills down to 754 m and with KCl glycol enhanced mud from 754 m to TD.

Nearly 40 m net thickness (of 100 m gross) of Fangst Group sandstones was encountered. Apart from elevated high background levels of mud gas in the interval 1500 m to 1540 m (7% to 11%) the well was practically devoid of hydrocarbon indications and the target reservoir zones in the Fangst and Båt Groups were found to be dry. A drill break in the Garn Formation confirmed only background levels of gas. One core was cut from the Garn Formation and into the Not Formation in the interval 3461 m to 3488 m, recovering sandstone with a siltstone bed. A PVT water sample was taken at the depth of 3458.9 m in the Garn Formation.

The well was permanently abandoned as a dry well on 14 August 1997.

Testing

No drill stem test was performed

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
754.00	3749.00

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	3461.0	3487.8	[m]

Total core sample length [m]	26.8
Cores available for sampling?	YES

Core photos



3461-3466m



3466-3471m



3471-3476m



3476-3481m



3481-3486m



3481-3488m

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
2100.0	[m]	DC	RRI
2120.0	[m]	DC	RRI
2140.0	[m]	DC	RRI
2180.0	[m]	DC	RRI
2200.0	[m]	DC	RRI
2220.0	[m]	DC	RRI
2240.0	[m]	DC	RRI
2260.0	[m]	DC	RRI
2280.0	[m]	DC	RRI
2290.0	[m]	DC	RRI
2320.0	[m]	DC	RRI
2340.0	[m]	DC	RRI



2360.0	[m]	DC	RRI
2380.0	[m]	DC	RRI
2400.0	[m]	DC	RRI
2420.0	[m]	DC	RRI
2440.0	[m]	DC	RRI
2460.0	[m]	DC	RRI
2480.0	[m]	DC	RRI
2500.0	[m]	DC	RRI
2520.0	[m]	DC	RRI
2540.0	[m]	DC	RRI
2560.0	[m]	DC	RRI
2580.0	[m]	DC	RRI
2600.0	[m]	DC	RRI
2620.0	[m]	DC	RRI
2640.0	[m]	DC	RRI
2660.0	[m]	DC	RRI
2680.0	[m]	DC	RRI
2700.0	[m]	DC	RRI
2720.0	[m]	DC	RRI
2730.0	[m]	DC	RRI
2760.0	[m]	DC	RRI
2780.0	[m]	DC	RRI
2800.0	[m]	DC	RRI
2810.0	[m]	DC	RRI
2815.0	[m]	DC	RRI
2820.0	[m]	DC	RRI
2825.0	[m]	DC	RRI
2835.0	[m]	DC	RRI
2845.0	[m]	DC	RRI
2850.0	[m]	DC	RRI
2855.0	[m]	DC	RRI
2860.0	[m]	DC	RRI
2865.0	[m]	DC	RRI
2880.0	[m]	DC	RRI
2885.0	[m]	DC	RRI
2890.0	[m]	DC	RRI
2895.0	[m]	DC	RRI
2900.0	[m]	DC	RRI
2905.0	[m]	DC	RRI
2910.0	[m]	DC	RRI



2915.0	[m]	DC	RRI
2920.0	[m]	DC	RRI
2925.0	[m]	DC	RRI
2930.0	[m]	DC	RRI
3005.0	[m]	DC	RRI
3010.0	[m]	DC	RRI
3015.0	[m]	DC	RRI
3020.0	[m]	DC	RRI
3025.0	[m]	DC	RRI
3030.0	[m]	DC	RRI
3035.0	[m]	DC	RRI
3040.0	[m]	DC	RRI
3045.0	[m]	DC	RRI
3050.0	[m]	DC	RRI
3060.0	[m]	DC	RRI
3065.0	[m]	DC	RRI
3075.0	[m]	DC	RRI
3080.0	[m]	DC	RRI
3085.0	[m]	DC	RRI
3090.0	[m]	DC	RRI
3095.0	[m]	DC	RRI
3100.0	[m]	DC	RRI
3105.0	[m]	DC	RRI
3110.0	[m]	DC	RRI
3115.0	[m]	DC	RRI
3120.0	[m]	DC	RRI
3125.0	[m]	DC	RRI
3130.0	[m]	DC	RRI
3135.0	[m]	DC	RRI
3140.0	[m]	DC	RRI
3145.0	[m]	DC	RRI
3150.0	[m]	DC	RRI
3155.0	[m]	DC	RRI
3160.0	[m]	DC	RRI
3165.0	[m]	DC	RRI
3170.0	[m]	DC	RRI
3175.0	[m]	DC	RRI
3180.0	[m]	DC	RRI
3185.0	[m]	DC	RRI
3190.0	[m]	DC	RRI



3195.0	[m]	DC	RRI
3200.0	[m]	DC	RRI
3205.0	[m]	DC	RRI
3210.0	[m]	DC	RRI
3215.0	[m]	DC	RRI
3220.0	[m]	DC	RRI
3225.0	[m]	DC	RRI
3230.0	[m]	DC	RRI
3235.0	[m]	DC	RRI
3240.0	[m]	DC	RRI
3245.0	[m]	DC	RRI
3250.0	[m]	DC	RRI
3260.0	[m]	DC	RRI
3265.0	[m]	DC	RRI
3270.0	[m]	DC	RRI
3275.0	[m]	DC	RRI
3280.0	[m]	DC	RRI
3285.0	[m]	DC	RRI
3290.0	[m]	DC	RRI
3295.0	[m]	DC	RRI
3300.0	[m]	DC	RRI
3305.0	[m]	DC	RRI
3310.0	[m]	DC	RRI
3315.0	[m]	DC	RRI
3320.0	[m]	DC	RRI
3325.0	[m]	DC	RRI
3330.0	[m]	DC	RRI
3335.0	[m]	DC	RRI
3340.0	[m]	DC	RRI
3345.0	[m]	DC	RRI

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
297	NORDLAND GP
297	NAUST FM
1509	KAI FM
1857	HORDALAND GP
1857	BRYGGE FM



2072	ROGALAND GP
2072	TARE FM
2158	TANG FM
2189	SHETLAND GP
2189	SPRINGAR FM
2230	NISE FM
2321	KVITNOS FM
2901	CROMER KNOLL GP
2901	LYSING FM
2915	LANGE FM
3322	LYR FM
3327	VIKING GP
3327	SPEKK FM
3348	MELKE FM
3458	FANGST GP
3458	GARN FM
3476	NOT FM
3497	ILE FM
3558	BÅT GP
3558	ROR FM
3615	TILJE FM

Composite logs

Document name	Document format	Document size [MB]
3131	pdf	0.49

Geochemical information

Document name	Document format	Document size [MB]
3131_1	pdf	2.64

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





Document name	Document format	Document size [MB]
3131_6507_7_11_S_COMPLETION_REPORT	pdf	78.80

Logs

Log type	Log top depth [m]	Log bottom depth [m]
AIT LDT CNL HNGS DSI ACTS GR	1987	3365
CST GR	0	0
DSI GR AMS	3357	3750
FMI GR ACTS	3357	3750
LDT APS HNGS AIT ACTS	3357	3750
MDT GR ACTS	3458	3739
MWD	749	754
MWD - DGR EWR-P4 SLD SNP	3365	3749
MWD - DGR EWR-P4 SLD SNP CLSS	1995	3365
MWD - DGR EWRS	754	1995
ZOVSP GR	2400	3740

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	359.0	36	360.0	0.00	LOT
SURF.COND.	20	749.0	26	754.0	1.37	LOT
INTERM.	13 3/8	1987.0	17 1/2	1995.0	1.92	LOT
INTERM.	9 5/8	3357.0	12 1/4	3365.0	1.96	LOT
OPEN HOLE		3749.0	8 1/2	3749.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
330	1.20			SPUD MUD	
680	1.20			SPUD MUD	
806	1.28	14.0		KCL/GEM GP	
1123	1.31	12.0		KCL/GEM GP	
1598	1.27	16.0		KCL/GEM GP	





1987	1.27	14.0		KCL/GEM GP	
2500	1.52	28.0		KCL/GEM GP	
2788	1.64	36.0		KCL/GEM GP	
3049	1.64	38.0		KCL/GEM GP	
3061	1.70	36.0		KCL/GEM GP	
3204	1.70	37.0		KCL/GEM GP	
3246	1.70	40.0		KCL/GEM GP	
3343	1.68	38.0		KCL/GEM GP	
3365	1.70	33.0		KCL/GEM GP	
3749	1.20	22.0		KCL/GEM GP	