General information

Wellbore name	25/10-6 S
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Well name	25/10-6
Seismic location	ST 9304- INLINE 648 & CROSSLINE 717
Production licence	168
Drilling operator	Den norske stats oljeselskap a.s
Drill permit	836-L
Drilling facility	DEEPSEA BERGEN
Drilling days	88
Entered date	26.12.1995
Completed date	22.03.1996
Release date	22.03.1998
Publication date	29.08.2003
Purpose - planned	WILDCAT
Reentry	NO
Content	SHOWS
Discovery wellbore	NO
Kelly bushing elevation [m]	23.0
Water depth [m]	117.0
Total depth (MD) [m RKB]	4706.0
Final vertical depth (TVD) [m RKB]	4281.5
Maximum inclination [°]	43.5
Bottom hole temperature [°C]	158
Oldest penetrated age	MIDDLE JURASSIC
Oldest penetrated formation	SLEIPNER FM
Geodetic datum	ED50
NS degrees	59° 8' 8.69'' N
EW degrees	2° 1' 37.54'' E
NS UTM [m]	6555724.91
EW UTM [m]	444322.99
UTM zone	31
NPDID wellbore	2728

Wellbore history

General

Well 25/10-6 S is located West-Southwest of the Balder field. The main objectives for the well were to prove the hydrocarbon potentials of the Heimdal, Ty, and the Hugin Formations.

Operations and results

Wildcat well 25/10-6 S well was spudded with the semi-submersible installation "Deepsea Bergen" on 26 December 1995 and drilled deviated to a TD of 4706 m (4281.5 m TVD) in the Middle Jurassic Sleipner Formation. The well was drilled using bentonite / CMC EHV mud down to 1039 m, with "ANCO 2000" mud from 1039 m to 2377 m, and with oil based "ANCOVERT" mud from 2377 m to TD. Several drilling problems were encountered below 1339 m and it took 30 days more than budget to reach TD. The problems included mud pump failure, MWD failure and difficulties with controlling the angle, bad weather, and bit problems. Many of the problems were due to hard formation. The well was drilled vertically to 1631 m before building angle.

Well 25/10-6 S drilled through sediments of Tertiary, Cretaceous and into Jurassic ages. The well penetrated the Heimdal Formation at 2317.5 m and the Ty Formation at 2636.5 m. The angle was then approximately 15.5°. The angle increased through the Shetland Group and reached a maximum of 43.5° at approximately 4330 m in the Vestland Group. The well penetrated the Hugin Formation at 4337.5 m (3995.5 m TVD), 41.5 m deeper than prognosed (at an angle of 42°). The potential reservoirs in Palaeocene sandstones (Heimdal and Ty Formations) were water bearing. The Hugin Formation contained hydrocarbons, but the core data and FMT-results showed tight formation. Three cores were cut in the Hugin Formation. Of these, a total of only 12.7 m core were recovered because a very hard formation wore out the bit earlier than expected No fluid samples were collected. The well was permanently plugged and abandoned on 22 March 1996 as a dry well with shows.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
1040.00	4704.00

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	4339.2	4343.5	[m]
2	4344.0	4349.5	[m]

3	4397.0	4399.7	[m]

Total core sample length [m]	12.5
Cores available for sampling?	YES

Core photos


4339-4343m


4344-4349m


4349-4399m

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
1040.0	[m]	DC	RRI
1060.0	[m]	DC	RRI
1070.0	[m]	DC	RRI
1090.0	[m]	DC	RRI
1100.0	[m]	DC	RRI
1120.0	[m]	DC	RRI
1130.0	[m]	DC	RRI
1150.0	[m]	DC	RRI
1170.0	[m]	DC	RRI
1190.0	[m]	DC	RRI
1200.0	[m]	DC	RRI
1220.0	[m]	DC	RRI
1240.0	[m]	DC	RRI
1260.0	[m]	DC	RRI
1270.0	[m]	DC	RRI
1290.0	[m]	DC	RRI
1300.0	[m]	DC	RRI
1320.0	[m]	DC	RRI
1330.0	[m]	DC	RRI
1350.0	[m]	DC	RRI
1370.0	[m]	DC	RRI

1390.0	[m]	DC	RRI
1400.0	[m]	DC	RRI
1420.0	[m]	DC	RRI
1430.0	[m]	DC	RRI
1450.0	[m]	DC	RRI
1470.0	[m]	DC	RRI
1480.0	[m]	DC	RRI
1500.0	[m]	DC	RRI
1510.0	[m]	DC	RRI
1530.0	[m]	DC	RRI
1540.0	[m]	DC	RRI
1570.0	[m]	DC	RRI
1590.0	[m]	DC	RRI
1600.0	[m]	DC	RRI
1620.0	[m]	DC	RRI
1630.0	[m]	DC	RRI
1650.0	[m]	DC	RRI
1660.0	[m]	DC	RRI
1680.0	[m]	DC	RRI
1700.0	[m]	DC	RRI
1710.0	[m]	DC	RRI
1730.0	[m]	DC	RRI
1740.0	[m]	DC	RRI
1760.0	[m]	DC	RRI
1770.0	[m]	DC	RRI
1790.0	[m]	DC	RRI
1800.0	[m]	DC	RRI
1820.0	[m]	DC	RRI
1830.0	[m]	DC	RRI
1850.0	[m]	DC	RRI
1860.0	[m]	DC	RRI
1880.0	[m]	DC	RRI
1890.0	[m]	DC	RRI
1910.0	[m]	DC	RRI
1930.0	[m]	DC	RRI
1940.0	[m]	DC	RRI
1960.0	[m]	DC	RRI
1970.0	[m]	DC	RRI
1990.0	[m]	DC	RRI
2000.0	[m]	DC	RRI

2020.0	[m]	DC	RRI
2030.0	[m]	DC	RRI
2050.0	[m]	DC	RRI
2060.0	[m]	DC	RRI
2080.0	[m]	DC	RRI
2100.0	[m]	DC	RRI
2110.0	[m]	DC	RRI
2120.0	[m]	DC	RRI
2130.0	[m]	DC	RRI
2140.0	[m]	DC	RRI
2150.0	[m]	DC	RRI
2160.0	[m]	DC	RRI
2170.0	[m]	DC	RRI
2180.0	[m]	DC	RRI
2190.0	[m]	DC	RRI
2200.0	[m]	DC	RRI
2210.0	[m]	DC	RRI
2220.0	[m]	DC	RRI
2229.0	[m]	DC	RRI
2232.6	[m]	SWC	WESTLAB
2238.0	[m]	DC	RRI
2247.0	[m]	DC	RRI
2256.0	[m]	DC	RRI
2265.0	[m]	DC	RRI
2272.6	[m]	SWC	WESTLAB
2283.0	[m]	DC	RRI
2287.6	[m]	SWC	WESTLAB
2292.0	[m]	DC	RRI
2301.0	[m]	DC	RRI
2307.6	[m]	SWC	WESTLAB
2328.0	[m]	DC	RRI
2337.0	[m]	DC	RRI
2346.0	[m]	DC	RRI
2355.0	[m]	DC	RRI
2364.0	[m]	DC	RRI
2373.0	[m]	DC	RRI
2385.0	[m]	DC	RRI
2406.0	[m]	DC	RRI
2418.0	[m]	DC	RRI
2427.0	[m]	DC	RRI

2436.0	[m]	DC	RRI
2448.0	[m]	DC	RRI
2457.0	[m]	DC	RRI
2469.0	[m]	DC	RRI
2478.0	[m]	DC	RRI
2490.0	[m]	DC	RRI
2499.0	[m]	DC	RRI
2508.0	[m]	DC	RRI
2526.0	[m]	DC	RRI
2535.0	[m]	DC	RRI
2553.0	[m]	DC	RRI
2580.0	[m]	DC	RRI
2589.0	[m]	DC	RRI
2598.0	[m]	DC	RRI
2616.0	[m]	DC	RRI
2631.1	[m]	SWC	WESTLAB
2637.5	[m]	SWC	WESTLA
2643.0	[m]	DC	RRI
2652.0	[m]	DC	RRI
2670.0	[m]	DC	RRI
2679.0	[m]	DC	RRI
2691.0	[m]	SWC	WESTLAB
2700.0	[m]	DC	RRI
2718.0	[m]	DC	RRI
3350.0	[m]	DC	RRI
3360.0	[m]	DC	RRI
3380.0	[m]	DC	RRI
3390.0	[m]	DC	RRI
3590.0	[m]	DC	RRI
3860.0	[m]	DC	RRI
3870.0	[m]	DC	RRI
3890.0	[m]	DC	RRI
3900.0	[m]	DC	RRI
3920.0	[m]	DC	RRI
3930.0	[m]	DC	RRI
3950.0	[m]	DC	RRI
3960.0	[m]	DC	RRI
3980.0	[m]	DC	RRI
3990.0	[m]	DC	RRI
4010.0	[m]	DC	RRI

4020.0	[m]	DC	RRI
4040.0	[m]	DC	RRI
4050.0	[m]	DC	RRI
4065.0	[m]	DC	RRI
4080.0	[m]	DC	RRI
4095.0	[m]	DC	RRI
4110.0	[m]	DC	RRI
4125.0	[m]	DC	RRI
4140.0	[m]	DC	RRI
4152.0	[m]	DC	RRI
4167.0	[m]	DC	RRI
4182.0	[m]	DC	RRI
4197.0	[m]	DC	RRI
4206.0	[m]	DC	RRI
4215.0	[m]	DC	RRI
4224.0	[m]	DC	RRI
4233.0	[m]	DC	RRI
4242.0	[m]	DC	RRI
4251.0	[m]	DC	RRI
4260.0	[m]	DC	RRI
4269.0	[m]	DC	RRI
4278.0	[m]	DC	RRI
4287.0	[m]	DC	RRI
4296.0	[m]	DC	RRI
4305.0	[m]	DC	RRI
4314.0	[m]	DC	RRI
4323.0	[m]	DC	RRI
4332.0	[m]	DC	RRI
4332.0	[m]	DC	APT
4335.0	[m]	DC	APT
4338.0	[m]	DC	APT
4338.0	[m]	DC	RRI
4339.2	[m]	C	RRI
4342.7	[m]	C	RRI
4343.2	[m]	C	WESTLAB
4344.7	[m]	C	WESTLA
4345.6	[m]	C	APT
4349.2	[m]	C	APT
4349.4	[m]	C	WESTLAB
4397.1	[m]	C	APT

4397.5	[m]	C	WESTLAB
4397.9	[m]	C	APT
4398.3	[m]	C	WESTLAB
4398.5	[m]	C	APT
4399.4	[m]	C	APT
4401.0	[m]	DC	APT
4413.0	[m]	DC	APT
4413.0	[m]	DC	RRI
4416.0	[m]	DC	APT
4419.0	[m]	DC	APT
4422.0	[m]	DC	RRI
4431.0	[m]	DC	RRI
4440.0	[m]	DC	RRI
4455.0	[m]	DC	RRI
4464.0	[m]	DC	RRI
4473.0	[m]	DC	RRI
4482.0	[m]	DC	RRI
4491.0	[m]	DC	RRI
4500.0	[m]	DC	RRI
4509.0	[m]	DC	RRI
4518.0	[m]	DC	RRI
4527.0	[m]	DC	RRI
4536.0	[m]	DC	RRI
4545.0	[m]	DC	RRI
4554.0	[m]	DC	RRI
4563.0	[m]	DC	RRI
4572.0	[m]	DC	RRI
4581.0	[m]	DC	RRI
4590.0	[m]	DC	RRI
4599.0	[m]	DC	RRI
4608.0	[m]	DC	RRI
4617.0	[m]	DC	RRI
4626.0	[m]	DC	RRI
4635.0	[m]	DC	RRI
4644.0	[m]	DC	RRI
4653.0	[m]	DC	RRI
4662.0	[m]	DC	RRI
4671.0	[m]	DC	RRI
4680.0	[m]	DC	RRI
4689.0	[m]	DC	RRI

4698.0	[m]	DC	RRI
4704.0	[m]	DC	RRI

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
140	NORDLAND GP
444	UTSIRA FM
695	NO FORMAL NAME
791	HORDALAND GP
791	SKADE FM
982	UNDIFFERENTIATED
1168	NO FORMAL NAME
1200	UNDIFFERENTIATED
1456	GRID FM
1472	NO FORMAL NAME
1491	GRID FM
1530	NO FORMAL NAME
2126	ROGALAND GP
2126	BALDER FM
2221	SELE FM
2286	LISTA FM
2318	HEIMDAL FM
2619	LISTA FM
2637	TY FM
2686	VÅLE FM
2789	SHETLAND GP
2789	JORSALFARE FM
3069	KYRRE FM
3160	TRYGGVASON FM
3521	BLODØKS FM
3639	SVARTE FM
3885	CROMER KNOLL GP
3885	RØDBY FM
4057	SOLA FM
4074	ÅSGARD FM
4240	VIKING GP
4240	DRAUPNE FM
4314	HEATHER FM

4338	VESTLAND GP
4338	HUGIN FM
4489	SLEIPNER FM

Composite logs

Document name	Document format	Document size [MB]
2728	pdf	0.71

Geochemical information

Document name	Document format	Document size [MB]
2728_1	pdf	1.73
2728_2	pdf	1.75

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

Document name	Document format	Document size [MB]
2728_25_10_6_S_COMPLETION_REPORT_AND_COMPLETION_LOG	pdf	15.63

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CDL CN GR CHT	4036	4628
DIPL MAC ZDL CN DSL	2095	3080
DLL MAC ZDL GR	1024	2115
DPIL MAC DSL CHT	4038	4637
FMT GR	2318	2638
FMT GR	2318	2735
FMT GR CHT	4361	4690
FMT QDYNE GR CHT	0	0
FMT QDYNE GR CHT	0	0
FMT QDYNE GR CHT	0	0
MAC DSL	2906	4054

MWD - DPR TF4	204	2375
MWD - DPR TF4	2483	3014
MWD - DPR TF5A	3014	3452
MWD - NAVIGATOR	2375	2547
SWC GR	2232	2760
VSP GR	1400	4040
VSP GR	3890	4180
VSP GR	4390	4700

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
SURF.COND.	30	200.0	36	200.0	0.00	LOT
INTERM.	20	1024.0	26	1026.0	1.74	LOT
INTERM.	13 3/8	2210.0	17 1/2	2212.0	1.79	LOT
INTERM.	9 5/8	4037.0	12 1/4	4037.0	2.10	LOT
OPEN HOLE		4706.0	8 1/2	4706.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
1024	1.47	21.0		ANCO 2000	
1024	1.47	21.0		ANCO 2000	
1562	1.41	18.0		ANCO 2000	
1700	1.47	20.0		ANCO 2000	
1860	1.47	20.0		ANCO 2000	
2085	1.47	21.0		ANCO 2000	
2216	1.47	21.0		ANCO 2000	
2217	1.47	22.0		ANCO 2000	
2250	1.47	19.0		ANCO 2000	
2668	1.30	36.0		ANCO VERT	
2719	1.33	40.0		ANCO VERT	
2791	1.35	44.0		ANCO VERT	
2859	1.36	34.0		ANCO VERT	
2870	1.36	34.0		ANCO VERT	
2982	1.37	31.0		ANCO VERT	
3034	1.37	32.0		ANCO VERT	

3132	1.38	34.0		ANCO VERT	
3154	1.38	35.0		ANCO VERT	
3303	1.37	37.0		ANCO VERT	
3371	1.38	34.0		ANCO VERT	
3458	1.38	36.0		ANCO VERT	
3481	1.38	36.0		ANCO VERT	
3614	1.38	35.0		ANCO VERT	
3650	1.38	33.0		ANCO VERT	
3782	1.41	35.0		ANCO VERT	
3827	1.41	34.0		ANCO VERT	
4049	1.85	43.0		ANCO VERT	
4052	1.85	48.0		ANCO VERT	
4208	1.91	47.0		ANCO VERT	
4320	1.95	54.0		ANCO VERT	
4337	1.95	50.0		ANCO VERT	
4339	1.95	48.0		ANCO VERT	
4350	1.95	46.0		ANCO VERT	
4360	1.95	46.0		ANCO VERT	
4403	1.95	49.0		ANCO VERT	
4424	1.95	48.0		ANCO VERT	
4430	1.95	48.0		ANCO VERT	
4480	1.95	49.0		ANCO VERT	
4514	1.95	48.0		ANCO VERT	
4548	1.95	46.0		ANCO VERT	
4611	1.95	46.0		ANCO VERT	
4662	1.95	45.0		ANCO VERT	
4702	1.95	47.0		ANCO VERT	
4706	1.95	47.0		ANCO VERT	

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]
2728_Formation_pressure_(Formasjonstrykk)	pdf	0.21