

**General information**

Wellbore name	32/4-1
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Well name	32/4-1
Seismic location	TE 90 -112 * TE 90 - 207
Production licence	205
Drilling operator	Phillips Petroleum Company Norway
Drill permit	863-L
Drilling facility	TRANSOCEAN 8
Drilling days	45
Entered date	21.10.1996
Completed date	04.12.1996
Release date	04.12.1998
Publication date	29.05.2002
Purpose - planned	WILDCAT
Reentry	NO
Content	DRY
Discovery wellbore	NO
Kelly bushing elevation [m]	24.0
Water depth [m]	312.0
Total depth (MD) [m RKB]	3186.0
Final vertical depth (TVD) [m RKB]	3185.0
Maximum inclination [°]	3
Bottom hole temperature [°C]	110
Oldest penetrated age	PRE-DEVONIAN
Oldest penetrated formation	BASEMENT
Geodetic datum	ED50
NS degrees	60° 43' 21.58" N
EW degrees	4° 4' 36.44" E
NS UTM [m]	6732537.25
EW UTM [m]	558747.24
UTM zone	31
NPDID wellbore	2918



Wellbore history

General

Wildcat well 32/4-1 was the first well drilled in Production Licence 205. It is located on the Horda Platform in the Northern North Sea about five kilometers east of the East Troll Gas Field. The primary objective of the well was to prove commercial reserves within the Upper Jurassic Sognefjord Formation sand reservoirs. The Alpha prospect was believed to be filled with oil spilled from the Troll Field. Secondary objectives were present in potential stacked Upper, Middle and Lower Jurassic sand reservoirs, in Triassic, and in possible Paleozoic sand reservoirs.

Operations and results

Well 32/4-1 was spudded 21 October 1996, using the semi-submersible drilling rig "Transocean 8". The first attempt to drill the well failed after experiencing problems when running the 13 3/8" casing. The casing unscrewed and parted at 619 m. The hole was filled with cement and abandoned. The rig was moved about 50 m to the north and the well was respudded. The well was drilled without major drilling problems, except for some difficulties with getting the 9 5/8" casing hanger through the BOP stack and mud losses when drilling through the Viking Group. The well was drilled into Basement rocks at a total depth of 3186 m. The well was drilled with spud mud to 720 m and water based KCl/Drispac with glycol from 720 m to TD.

The Upper Jurassic reservoir interval was encountered 6 m shallower than prognosed and contained 65.5 m of water-wet Sognefjord sandstones. In addition, water wet sandstones of the secondary targets were present as the Fensfjord, Krossfjord, Cook, Statfjord and Lunde Formations.

Four cores were cut in the Upper Jurassic. The two first were cut in the Heather Formation silt- and sandstones, while core 3 and 4 were cut in sandstones of the Sognefjord Formation (1220-1235.5 m, 1232.5-1237.5 m, 1237.5-1256 m and 1257-1275 m, respectively). A FMT water sample was collected from 1359 m.

The well was permanently plugged and abandoned as a dry well.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
730.00	3186.00

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	1220.0	1232.6	[m]
2	1232.6	1237.1	[m]
3	1237.5	1242.1	[m]
4	1256.0	1275.2	[m]

Total core sample length [m]	40.9
Cores available for sampling?	YES

Core photos

1220-1225m



1225-1230m



1230-1232m



1232-1237m



1237-1242m



1256-1261m



1261-1266m



1266-1271m



1271-1275m

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
730.0	[m]	DC	RRI
760.0	[m]	DC	RRI
800.0	[m]	DC	RRI
820.0	[m]	DC	RRI
840.0	[m]	DC	RRI
860.0	[m]	DC	RRI
880.0	[m]	DC	RRI
890.0	[m]	DC	RRI
910.0	[m]	DC	RRI
940.0	[m]	DC	RRI
960.0	[m]	DC	RRI



980.0 [m]	DC	RRI
1000.0 [m]	DC	RRI
1020.0 [m]	DC	RRI
1040.0 [m]	DC	RRI
1070.0 [m]	DC	RRI
1100.0 [m]	DC	RRI
1120.0 [m]	DC	RRI
1140.0 [m]	DC	RRI
1150.0 [m]	DC	RRI
1156.0 [m]	DC	RRI
1162.0 [m]	DC	RRI
1171.0 [m]	DC	RRI
1180.0 [m]	DC	RRI
1189.0 [m]	DC	RRI
1198.0 [m]	DC	RRI
1207.0 [m]	DC	RRI
1216.0 [m]	DC	RRI
1220.4 [m]	DC	RRI
1226.4 [m]	DC	RRI
1233.0 [m]	DC	RRI
1240.0 [m]	DC	RRI
1240.6 [m]	DC	RRI
1260.6 [m]	DC	RRI
1266.8 [m]	DC	RRI
1277.0 [m]	DC	RRI
1310.0 [m]	DC	RRI
1316.0 [m]	DC	RRI
1328.0 [m]	DC	RRI
1340.0 [m]	DC	RRI
1368.0 [m]	DC	RRI
1374.0 [m]	DC	RRI
1395.0 [m]	DC	RRI
1404.0 [m]	DC	RRI
1410.0 [m]	DC	RRI
1416.0 [m]	DC	RRI
1422.0 [m]	DC	RRI
1431.0 [m]	DC	RRI
1440.0 [m]	DC	RRI
1458.0 [m]	DC	RRI
1467.0 [m]	DC	RRI



1476.0	[m]	DC	RRI
1494.0	[m]	DC	RRI
1503.0	[m]	DC	RRI
1524.0	[m]	DC	RRI
1653.0	[m]	DC	RRI
1662.0	[m]	DC	RRI
1674.0	[m]	DC	RRI
1680.0	[m]	DC	RRI
1704.0	[m]	DC	RRI
1707.0	[m]	DC	RRI
1719.0	[m]	DC	RRI
1737.0	[m]	DC	RRI
1747.0	[m]	DC	RRI
1765.0	[m]	DC	RRI
1783.0	[m]	DC	RRI
1794.0	[m]	DC	RRI
1801.0	[m]	DC	RRI
1815.0	[m]	DC	RRI
1833.0	[m]	DC	RRI
1845.0	[m]	DC	RRI
1872.0	[m]	DC	RRI
1959.0	[m]	DC	RRI
2079.0	[m]	DC	RRI
2133.0	[m]	DC	RRI
2160.0	[m]	DC	RRI
2250.0	[m]	DC	RRI
2343.0	[m]	DC	RRI
2403.0	[m]	DC	RRI
2463.0	[m]	DC	RRI
2553.0	[m]	DC	RRI
2613.0	[m]	DC	RRI
2703.0	[m]	DC	RRI
2787.0	[m]	DC	RRI
2853.0	[m]	DC	RRI
2913.0	[m]	DC	RRI
3003.0	[m]	DC	RRI
3093.0	[m]	DC	RRI
3141.0	[m]	DC	RRI
3180.0	[m]	DC	RRI

**Lithostratigraphy**

Top depth [mMD RKB]	Lithostrat. unit
336	NORDLAND GP
535	ROGALAND GP
535	SELE FM
652	LISTA FM
837	VÅLE FM
846	SHETLAND GP
846	JORSALFARE FM
849	KYRRE FM
894	TRYGGVASON FM
940	BLODØKS FM
956	SVARTE FM
1081	CROMER KNOLL GP
1081	RØDBY FM
1106	ÅSGARD FM
1109	VIKING GP
1109	DRAUPNE FM
1216	HEATHER FM
1238	SOGNEFJORD FM
1306	HEATHER FM
1366	FENSFJORD FM
1595	HEATHER FM
1598	KROSSFJORD FM
1645	HEATHER FM
1650	BRENT GP
1650	NESS FM
1655	ETIVE FM
1680	DUNLIN GP
1680	DRAKE FM
1733	COOK FM
1783	BURTON FM
1785	JOHANSEN FM
1791	AMUNDSEN FM
1816	STATFJORD GP
1832	HEGRE GP
3132	BASEMENT



Composite logs

Document name	Document format	Document size [MB]
2918	pdf	0.37

Geochemical information

Document name	Document format	Document size [MB]
2918_1	pdf	1.62
2918_2	pdf	0.49

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

Document name	Document format	Document size [MB]
2918_32_4_1_COMPLETION_REPORT_AND_COMPLETION_LOG	pdf	25.30

Logs

Log type	Log top depth [m]	Log bottom depth [m]
DLL MLL MAC ORIT CN ZDL DSL	1137	3155
DLL MLL MAC ORIT DSL	708	1138
FMT GR	1247	1367
MWD LWD DGR EWR4	399	3132
VSP GR	670	3170
ZDL GR	1137	3164

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	394.0	36	395.0	0.00	LOT
INTERM.	13 3/8	709.0	17 1/2	710.0	0.00	LOT
INTERM.	9 5/8	3186.0	12 1/4	3186.0	0.00	LOT



**Drilling mud**

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
352	1.30			WATER BASED	
370	1.10			WATER BASED	
395	1.20			WATER BASED	
399	1.20	2.0		WATER BASED	
556	1.20	2.0		WATER BASED	
720	1.20	7.0		WATER BASED	
723	1.10	30.0		WATER BASED	
920	1.10	46.0		WATER BASED	
1153	1.10	21.0		WATER BASED	
1156	1.10	37.0		WATER BASED	
1232	1.10	40.0		WATER BASED	
1274	0.00	24.0		WATER BASED	
1541	0.00	30.0		WATER BASED	
1915	0.00	24.0		WATER BASED	
1980	0.00	24.0		WATER BASED	
2033	0.00	28.0		WATER BASED	
2072	0.00	24.0		WATER BASED	
2249	1.41	31.0		WATER BASED	
2284	0.00	26.0		WATER BASED	
2425	0.00	31.0		WATER BASED	
2588	0.00	36.0		WATER BASED	
2991	0.00	29.0		WATER BASED	
3132	0.00	26.0		WATER BASED	
3176	0.00	30.0		WATER BASED	
3186	0.00	30.0		WATER BASED	

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]
2918 Formation pressure (Formasjonstrykk)	PDF	0.12

