



General information





Wellbore name	36/7-2
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Discovery	36/7-2 (Ulven)
Well name	36/7-2
Seismic location	NH 9205 - 113 A & SP. 625
Production licence	153
Drilling operator	Norsk Hydro Produksjon AS
Drill permit	869-L
Drilling facility	WEST VANGUARD
Drilling days	21
Entered date	02.09.1997
Completed date	22.09.1997
Release date	22.09.1999
Publication date	23.05.2006
Purpose - planned	WILDCAT
Reentry	NO
Content	OIL
Discovery wellbore	YES
1st level with HC, age	LATE JURASSIC
1st level with HC, formation	FENSFJORD FM
Kelly bushing elevation [m]	22.0
Water depth [m]	269.0
Total depth (MD) [m RKB]	1435.0
Final vertical depth (TVD) [m RKB]	1435.0
Maximum inclination [°]	1.8
Bottom hole temperature [°C]	34
Oldest penetrated age	PRE-DEVONIAN
Oldest penetrated formation	BASEMENT
Geodetic datum	ED50
NS degrees	61° 18' 23.5" N
EW degrees	4° 19' 47" E
NS UTM [m]	6797817.45
EW UTM [m]	571225.20
UTM zone	31
NPDID wellbore	2990



Wellbore history

General

Well 36/7-2 was drilled on the Øygarden Fault Complex, ca 14 km west of the outer skerries of Bulandet in Sogn og Fjordane county. The primary target were the Late Jurassic Sognefjord and the Upper Jurassic Fensfjord formations.

Operations and results

Wildcat well 36/7-2 was spudded with the semi-submersible installation West Vanguard on 2 September 1997 and drilled to TD at 1435 m in basement rock. An anchor test was performed after setting the 13 3/8" casing shoe. Anchor no. 2 and 3 failed the test to 180 ton and slipped at 170 ton. Piggyback anchors were set on anchor no. 2, while main anchor no. 3 was lost. Fishing for the anchor chain was delayed 47.5 hrs due to bad weather. The anchor chain was retrieved and the anchor reset with two piggy backs. Both anchors then stood a successful test. The well was drilled with seawater and hi-vis pills down to 591 m and with ANCO 2000 from 591 m to TD.

The well discovered heavily biodegraded oil in the Middle Jurassic deltaic sandstone reservoir of the Fensfjord Formation. The overlying Sognefjord Formation sands were tight and contained no hydrocarbons. A 32.5 m oil column was proven from 931.5 to ca 964.0 m. The exact level of the oil-water contact could not be determined as it was in a shaley zone. Oil shows on cuttings were recorded from 915 m down to 1045 m. The reservoir zone of the Fensfjord Formation was divided into two units, from which only the upper had good reservoir properties.

No conventional cores were cut, but 60 sidewall cores were taken from 603 to 1408 m with a recovery of 56 samples. The MDT tool was run and 23 good pressure points were acquired in addition to a fluid sample at 934.5 m.

The well was completed on 22 September 1997 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]
595.00	1435.00

Cuttings available for sampling?	YES
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Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
603.0	[m]	SWC	RRI
615.0	[m]	SWC	RRI



623.0	[m]	SWC	RRI
639.0	[m]	SWC	RRI
653.5	[m]	SWC	RRI
665.0	[m]	SWC	RRI
685.0	[m]	SWC	RRI
695.0	[m]	DC	RRI
705.0	[m]	SWC	RRI
722.0	[m]	SWC	RRI
730.0	[m]	DC	RRI
744.0	[m]	SWC	RRI
755.0	[m]	DC	RRI
768.0	[m]	SWC	RRI
775.0	[m]	DC	RRI
785.0	[m]	DC	RRI
795.0	[m]	SWC	RRI
805.0	[m]	DC	RRI
817.5	[m]	SWC	RRI
834.0	[m]	DC	RRI
847.0	[m]	DC	RRI
859.0	[m]	DC	RRI
867.0	[m]	DC	RRI
870.0	[m]	DC	RRI
887.0	[m]	DC	RRI
900.0	[m]	DC	RRI
908.0	[m]	DC	RRI
920.0	[m]	DC	RRI
935.0	[m]	DC	RRI
945.0	[m]	DC	RRI
955.0	[m]	DC	RRI
969.5	[m]	SWC	RRI
975.0	[m]	DC	RRI
987.5	[m]	SWC	RRI
995.0	[m]	DC	RRI
1005.0	[m]	DC	RRI
1017.0	[m]	SWC	RRI
1037.0	[m]	SWC	RRI
1045.0	[m]	DC	RRI
1055.0	[m]	DC	RRI
1065.0	[m]	DC	RRI
1075.0	[m]	DC	RRI



1090.0	[m]	DC	RRI
1100.0	[m]	DC	RRI
1110.0	[m]	DC	RRI
1124.0	[m]	DC	RRI
1135.0	[m]	DC	RRI
1142.0	[m]	DC	RRI
1155.0	[m]	DC	RRI
1165.0	[m]	DC	RRI
1175.0	[m]	DC	RRI
1190.0	[m]	DC	RRI
1195.0	[m]	DC	RRI
1210.0	[m]	DC	RRI
1225.0	[m]	DC	RRI
1231.0	[m]	DC	RRI
1245.0	[m]	DC	RRI
1255.0	[m]	DC	RRI
1267.0	[m]	SWC	RRI
1280.0	[m]	DC	RRI
1290.0	[m]	DC	RRI
1300.0	[m]	SWC	RRI
1310.0	[m]	DC	RRI
1325.0	[m]	DC	RRI
1335.0	[m]	SWC	RRI
1340.0	[m]	DC	RRI
1352.0	[m]	SWC	RRI
1370.0	[m]	DC	RRI
1387.0	[m]	SWC	RRI
1390.0	[m]	DC	RRI
1400.0	[m]	DC	RRI
1408.0	[m]	SWC	RRI
1435.0	[m]	DC	RRI

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
291	NORDLAND GP
648	ROGALAND GP
648	BALDER FM
678	CROMER KNOLL GP



678	SOLA FM
774	ÅSGARD FM
880	VIKING GP
880	DRAUPNE FM
917	SOGNEFJORD FM
936	HEATHER FM
947	FENSEFJORD FM
1363	STATFJORD GP
1429	BASEMENT

Composite logs

Document name	Document format	Document size [MB]
2990	pdf	0.24

Geochemical information

Document name	Document format	Document size [MB]
2990_1	pdf	11.89

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

Document name	Document format	Document size [MB]
2990_36_7_2_COMPLETION_REPORT	pdf	8.87

Logs

Log type	Log top depth [m]	Log bottom depth [m]
ARRAY SONIC GR AMS	586	1431
CST GR AMS	603	1408
MDT GR AMS	918	1100
MDT GR AMS	934	1375
MWD - GR RES DIR	291	1435
PEX AMS	291	1433





VSP GR	586	1430
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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	340.0	36	355.0	0.00	LOT
SURF.COND.	13 3/8	587.0	17 1/2	591.0	1.48	LOT
OPEN HOLE		925.0	12 1/4	925.0	0.00	LOT
OPEN HOLE		1435.0	8 1/2	1435.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
592	1.05			WATER BASED	
1117	1.15	20.0		WATER BASED	
1435	1.16	18.0		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]
2990 Formation pressure (Formasjonstrykk)	pdf	0.16

