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General information

Wellbore name	31/2-17 B
Туре	EXPLORATION
Purpose	APPRAISAL
Status	SUSPENDED
Factmaps in new window	link to map
Main area	NORTH SEA
Field	TROLL
Discovery	31/2-1 (Troll Vest)
Well name	31/2-17
Seismic location	NH-8901- LINJE 794 & SP. 1404
Production licence	054
Drilling operator	Norsk Hydro Produksjon AS
Drill permit	719-L
Drilling facility	TRANSOCEAN 8
Drilling days	14
Entered date	01.02.1992
Completed date	14.02.1992
Release date	14.02.1994
Publication date	06.06.2006
Purpose - planned	APPRAISAL
Reentry	NO
Content	GAS
Discovery wellbore	NO
1st level with HC, age	LATE JURASSIC
1st level with HC, formation	SOGNEFJORD FM
Kelly bushing elevation [m]	24.0
Water depth [m]	341.0
Total depth (MD) [m RKB]	1838.0
Final vertical depth (TVD) [m RKB]	1575.0
Maximum inclination [°]	88.8
Bottom hole temperature [°C]	80
Oldest penetrated age	LATE JURASSIC
Oldest penetrated formation	SOGNEFJORD FM
Geodetic datum	ED50
NS degrees	60° 52' 57.08'' N
EW degrees	3° 27' 5.79" E
NS UTM [m]	6749946.42
EW UTM [m]	524516.87
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UTM zone	31
NPDID wellbore	1899

Wellbore history



Factpages

Wellbore / Exploration

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General

Well bores 31/2-17 S, -A, and -B were drilled on the north-western periphery of the Troll West gas and oil discovery. The objective was to obtain the thickness of the oil zone and reservoir properties in the "Intermediate Area". Well bores 31/2-17 S and 31/2-17 A are located on each side of a fault subdividing the Intermediate Area into two main compartments. Well 31/2-17 S is located on the eastern side of the fault. The side track 31/2-17 A was turned 180 degrees and landed on the western side of the fault. Well 31/2-17 B was side-tracked from well 31/2-17 A and drilled horizontally to a position about 5 m above the oil water contact.

Operations and results

All three well bores were drilled with the semi-submersible installation Transocean 8 from the same wellhead location. Operations commenced with spud of 31/2-17 S on 28 December 1991 and ended with temporary abandonment of 31/2-17 B on 14 February 1992.

Well 31/2-17 S was drilled to TD at 2220 m in the Middle Jurassic Fensfjord Formation. No significant technical problem occurred in the well bore. The well bore was drilled with sea water and hi-vis pills down to 921 m and with KCl/brine/PHPA mud from 921 m to TD. One and a half m of Draupne Formation was penetrated at 1870 m. The Sognefjord Formation reservoir was encountered with gas at 1871.5 m. The Gas-Oil-Contact was penetrated at 1972 m (1544.2 m TVD MSL) and the Oil-Water-Contact was penetrated at 2011 m (1565.8 m TVD MSL), both contacts in the Heather Formation. Six cores were taken. Core one and two and the upper part of core three were cut in the Sognefjord Formation. The rest of the cores were cut in the Heather B Formation. No fluid sample was taken.

Well 31/2-17 A was kicked of from 31/2-17 S at 909 m and drilled to TD at 1924 m in the Middle Jurassic Fensfjord Formation. No significant technical problem occurred. The well bore was drilled with KCl/brine/PHPA mud from kick-off to 1012 m and with oil based mud from 1012 m to TD. Seven m of Draupne Formation was penetrated at 1681.5 m. The Sognefjord Formation reservoir was encountered with gas at 1688.5 m. The Gas-Oil-Contact was penetrated at 1725.4 m (1543.0 m TVD MSL) in the Sognefjord Formation. The Oil-Water-Contact was penetrated at 1746.5 m (1558.1 m TVD MSL) also in the Sognefjord Formation. Five cores were taken. Core one, two, three and the upper part of core four were cut in the Sognefjord Formation. Core no five was cut in the Heater Formation. No fluid sample was taken.

Well 31/2-17 B was kicked off from 31/2-17 A at 1645 m. The well angle was built up to approximately 90 degrees and was drilled to TD at 1838 m after 147 m nearly horizontal drilling in the Sognefjord Formation gas zone. The junk bonnet from the 9 5/8" liner running was accidentally left in the hole and 2 days were spent fishing for it, otherwise no significant technical problem occurred in this hole. The well bore was drilled with oilbased mud from kick-off to TD. Five m of Draupne Formation was penetrated at 1686 m. The Sognefjord Formation reservoir was encountered with gas at 1691 m. As expected no GOC was encountered, but the GOC is assumed to be the same as in well bore 31/2-17 A. One horizontal core (2.8 m) was taken at TD. Only MWD logs were run. No fluid sample was taken.

31/2-17 S and 31/2-17A were permanently abandoned, while well 31/2-17 B was temporary plugged and suspended for later re-entry. The wells were classified as oil and gas appraisals.

Testing

No drill stem test was performed in the well bores.



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Cores at the Norwegian Offshore Directorate

Core sample	Core sample - top	Core sample -	Core sample
number	depth	bottom depth	depth - uom
1	1833.5	1836.0	[m]

Total core sample length [m]	2.5
Cores available for sampling?	YES

Core photos



1833-1836m

Lithostratigraphy

	<u> </u>
Top depth [mMD RKB]	Lithostrat. unit
365	NORDLAND GP
803	HORDALAND GP
1412	ROGALAND GP
1412	BALDER FM
1454	SELE FM
1501	LISTA FM
1668	<u>VÅLE FM</u>
1686	VIKING GP
1686	DRAUPNE FM
1691	SOGNEFJORD FM

Documents - older Norwegian Offshore Directorate WDSS reports and other related documents

	Document format	Document size [MB]
1899 01 WDSS General Information	pdf	0.30



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1899	02	WDSS	completion	log	pdf	0.13
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Documents - reported by the production licence (period for duty of secrecy expired)

Document name	Document format	Document size [MB]
1899 31 2 17 B COMPLETION REPORT AN	pdf	20.96
D_LOG		

Logs

Log type	Log top depth [m]	Log bottom depth [m]
MWD - GR RES DIR	1642	1807

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	451.0	36	452.0	0.00	LOT
INTERM.	18 5/8	906.0	26	909.0	0.00	LOT
INTERM.	13 3/8	1642.0	17 1/2	1644.0	1.33	LOT
INTERM.	9 5/8	1815.0	12 1/4	1838.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
1764	1.25	30.0		OIL BASED	
1815	1.25	28.0		OIL BASED	
1829	1.26	31.0		OIL BASED	
1838	1.26	31.0		OIL BASED	

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