General information

Wellbore name	30/3-6 S
Type	EXPLORATION
Purpose	WILDCAT
Status	RE-CLASS TO DEV
Factmaps in new window	link to map
Main area	NORTH SEA
Field	VESLEFRIKK
Discovery	30/3-6 S
Well name	30/3-6
Seismic location	ST 8513-46 & CDP 320
Production licence	052
Drilling operator	Den norske stats oljeselskap a.s
Drill permit	777-L
Drilling facility	VESLEFRIKK A
Drilling days	71
Entered date	26.12.1993
Completed date	06.03.1994
Release date	06.03.1996
Publication date	07.01.2015
Purpose - planned	WILDCAT
Reclassified to wellbore	30/3-A-20
Reentry	NO
Content	OIL/GAS
Discovery wellbore	YES
1st level with HC, age	MIDDLE JURASSIC
1st level with HC, formation	BRENT GP
Kelly bushing elevation [m]	57.0
Water depth [m]	175.0
Total depth (MD) [m RKB]	6085.0
Final vertical depth (TVD) [m RKB]	3766.0
Maximum inclination [°]	70
Oldest penetrated age	EARLY JURASSIC
Oldest penetrated formation	STATFJORD GP
Geodetic datum	ED50
NS degrees	60° 46' 57.87'' N
EW degrees	2° 53' 51.95'' E
NS UTM [m]	6738752.13
EW UTM [m]	494432.47

UTM zone	31
NPDID wellbore	2269

Wellbore history

General

Well 30/3-6 S was drilled from the fixed installation Veslefrikk A. The Veslefrikk Field is located on the Brage Horst north of the Oseberg Field in the North Sea. The objective of 30/3-6 S was to test the hydrocarbon potential in the I-prospect within the Brent, Dunlin and Statfjord reservoirs. The I-prospect is located on a down-faulted drag structure just southwest of the main Veslefrikk field.

Operations and results

Well 30/3-6 S was spudded from slot number 20 on the fixed installation Veslefrikk A. The drilling phase was from 26 December 1993 to 6 March 1994. The well was drilled in a southwesterly direction from Veslefrikk A, and it has an S-shape wellbore with maximum inclination of 70°. Due to missing well logs for the upper part of the well, lithostratigraphy for this part of the well is not supplied.

The well encountered hydrocarbons in the Brent Group down to the middle of the Oseberg Formation, and found a significantly thicker Jurassic sequence than anticipated.

Seven cores were cut between 5241 m and 5478.6 m, covering the Tarbert, Ness, and Etive Formations. Core recoveries from 86% to 100% was obtained. The RFT tool was run for pressure points, but no fluid samples were taken.

Exploration well 30/3-6 S is classified as a Brent Group oil and gas discovery. As the discovery was economic favourably, the well was completed permanently as oil producer, and on 20 April 1994 it was re-classified to development well 30/3-A-20.

Testing

Two tests were performed in the Oseberg Formation.

Reservoir Unit B2C was tested in test 1 from 5580 m to 5598 m (3229.2 m to 3244.1 m TVD MSL). It produced 310 Sm3 volatile oil/day with a GOR of 282 Sm3/Sm3.

Reservoir Unit B3 was tested in test 2 from 5503 m to 5530 m (3168.6 m to 3189.2 m TVD MSL). It produced 512000 Sm3 gas/day with a GOR of 1160 Sm3/Sm3.

Cores at the Norwegian Offshore Directorate

Core sample number	Core sample - top depth	Core sample - bottom depth	Core sample depth - uom
1	5241.0	5265.5	[m]
2	5294.0	5313.7	[m]
3	5315.0	5323.0	[m]
4	5328.0	5340.8	[m]

5	5341.0	5356.4	[m]
6	5359.0	5386.1	[m]
7	5451.0	5478.6	[m]

Total core sample length [m]	135.0
Cores available for sampling?	YES

Core photos


5241-5246m


5246-5251m


5251-5256m


5256-5261m


5261-5265m


5294-5299m


5299-5304m


5304-5309m


5309-5313m


5315-5320m


5320-5323m


5328-5333m


5333-5338m


5338-5340m


5341-5346m


5346-5351m


5351-5356m


5356-5356m


5359-5364m


5364-5369m


5369-5374m


5374-5379m


5379-5384m


5384-5386m


5451-5456m


5456-5461m


5461-5466m


5466-5471m


5471-5476m


5476-5478m

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
5214	BRENT GP
5214	TARBERT FM
5299	NESS FM
5442	ETIVE FM
5481	RANNOCH FM
5503	OSEBERG FM
5688	DUNLIN GP
5688	DRAKE FM
5823	COOK FM
5897	AMUNDSEN FM
6027	STATFJORD GP

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

Document name	Document format	Document size [MB]
2269_30_3_6_S_Completion_log	pdf	2.13
2269_30_3_6_S_Completion_report	pdf	11.14

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CBL-VDL-GR	4645	6002
LDL CNL BHC DITE GR	5110	6085
MWD - SLIM EWR P4 DGR	5140	6085
MWD DGR GR	473	6085
MWD GR	5140	6068
RFT HP GR	5223	5633
VSP	4975	6007

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	20	619.0	24	625.0	0.00	
SURF.COND.	13 3/8	2036.0	17 1/2	2041.0	0.00	
INTERM.	9 5/8	3836.0	12 1/4	3876.0	1.70	FIT
INTERM.	7	5139.0	8 1/2	5140.0	1.65	
OPEN HOLE		6085.0	6	6085.0	0.00	

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
469	1.10			WATER BASED	28.12.1993
497	1.17	18.0	11.0	WATER BASED	30.12.1993
497	1.17	20.0	9.5	WATER BASED	30.12.1993
819	1.21	17.0	12.0	WATER BASED	03.01.1994
1305	1.28	15.0	10.5	WATER BASED	03.01.1994
1617	1.28	14.0	11.5	WATER BASED	03.01.1994
2041	1.28	14.0	10.5	WATER BASED	05.01.1994
2041	1.28	13.0	9.5	WATER BASED	06.01.1994
2041	1.28	14.0	9.5	WATER BASED	07.01.1994
2041	1.28	14.0	10.0	WATER BASED	07.01.1994
2113	1.65	26.0	12.0	WATER BASED	10.01.1994
2809	1.65	24.0	13.0	WATER BASED	10.01.1994
2930	1.66	26.0	12.5	WATER BASED	10.01.1994
2930	1.66	29.0	14.0	WATER BASED	14.01.1994
2930	1.66	27.0	10.5	WATER BASED	14.01.1994

2930	1.66	24.0	12.5	WATER BASED	14.01.1994
2930	1.70	27.0	11.5	WATER BASED	17.01.1994
2930	1.70	27.0	10.5	WATER BASED	17.01.1994
2930	1.66	25.0	11.0	WATER BASED	17.01.1994
2930	1.68	24.0	13.0	WATER BASED	17.01.1994
2956	1.70	28.0	10.5	WATER BASED	19.01.1994
2956	1.70	26.0	11.0	WATER BASED	20.01.1994
2956	1.70	25.0	11.5	WATER BASED	20.01.1994
2956	1.70	27.0	11.0	WATER BASED	21.01.1994
3524	1.66	29.0	14.0	WATER BASED	14.01.1994
3669	1.66	24.0	12.5	WATER BASED	14.01.1994
3706	1.66	27.0	10.5	WATER BASED	14.01.1994
3706	1.66	25.0	11.0	WATER BASED	17.01.1994
3706	1.68	24.0	13.0	WATER BASED	17.01.1994
3749	1.70	27.0	11.5	WATER BASED	17.01.1994
3836	1.70	28.0	13.5	WATER BASED	24.01.1994
3836	1.70	39.0	10.0	OIL BASED	24.01.1994
3836	1.65	43.0	9.5	OIL BASED	24.01.1994
3854	1.70	27.0	10.5	WATER BASED	17.01.1994
3876	1.70	26.0	11.0	WATER BASED	20.01.1994
3876	1.70	27.0	11.0	WATER BASED	21.01.1994
3876	1.70	25.0	11.5	WATER BASED	20.01.1994
3876	1.70	28.0	10.5	WATER BASED	19.01.1994
4274	1.65	52.0	10.5	OIL BASED	25.01.1994
4303	1.65	58.0	12.5	OIL BASED	27.01.1994
4446	1.65	61.0	10.0	OIL BASED	27.01.1994
4795	1.65	56.0	7.5	OIL BASED	28.01.1994
4795	1.65	53.0	7.0	OIL BASED	01.02.1994
4795	1.65	52.0	6.5	OIL BASED	01.02.1994
4795	1.65	52.0	7.0	OIL BASED	01.02.1994
4850	1.65	56.0	7.5	OIL BASED	28.01.1994
5126	1.65	53.0	7.0	OIL BASED	01.02.1994
5140	1.65	52.0	7.0	OIL BASED	01.02.1994
5140	1.25	38.0	8.0	OIL BASED	07.02.1994
5140	1.65	52.0	6.5	OIL BASED	01.02.1994
5140	1.55	34.0	5.5	OIL BASED	03.02.1994
5140	1.55	46.0	5.5	OIL BASED	03.02.1994
5140	1.25	28.0	7.0	OIL BASED	07.02.1994
5140	1.25	42.0	8.0	OIL BASED	09.02.1994
5140	1.25	38.0	6.0	OIL BASED	09.02.1994

5140	1.25	37.0	6.5	OIL BASED	11.02.1994
5140	1.25	32.0	5.5	OIL BASED	15.02.1994
5140	1.25	31.0	5.5	OIL BASED	15.02.1994
5140	1.25	32.0	5.5	OIL BASED	16.02.1994
5140	1.25	33.0	5.0	OIL BASED	17.02.1994
5140	1.25	38.0	5.5	OIL BASED	17.02.1994
5140	1.25	35.0	5.5	OIL BASED	22.02.1994
5140	1.25	39.0	6.0	OIL BASED	22.02.1994
5140	1.25	37.0	7.0	OIL BASED	22.02.1994
5140	1.25	42.0	7.0	OIL BASED	23.02.1994
5140	1.25	40.0	7.0	OIL BASED	23.02.1994
5140	1.25	36.0	5.5	OIL BASED	24.02.1994
5140	1.25	38.0	6.0	OIL BASED	25.02.1994
5140	1.25	36.0	5.5	OIL BASED	28.02.1994
5140	1.55	37.0	5.5	OIL BASED	03.02.1994
5140	1.25	37.0	6.0	OIL BASED	04.02.1994
5140	1.25	37.0	8.0	OIL BASED	07.02.1994
5140	1.25	36.0	6.5	OIL BASED	11.02.1994
5140	1.25	40.0	6.5	OIL BASED	15.02.1994
5140	1.25	39.0	6.5	OIL BASED	22.02.1994
5140	1.25	41.0	7.5	OIL BASED	28.02.1994
5140	1.25	42.0	8.0	OIL BASED	01.03.1994
5140	1.25	41.0	6.0	OIL BASED	02.03.1994
5140	1.25	35.0	5.0	OIL BASED	04.03.1994
5194	1.25	42.0	8.0	OIL BASED	09.02.1994
5241	1.25	37.0	8.0	OIL BASED	07.02.1994
5267	1.25	38.0	8.0	OIL BASED	07.02.1994
5315	1.25	38.0	6.0	OIL BASED	09.02.1994
5328	1.25	36.0	6.5	OIL BASED	11.02.1994
5359	1.25	37.0	6.5	OIL BASED	11.02.1994
5386	1.25	40.0	6.5	OIL BASED	15.02.1994
5410	1.25	32.0	5.5	OIL BASED	15.02.1994
5451	1.25	31.0	5.5	OIL BASED	15.02.1994
5514	1.25	32.0	5.5	OIL BASED	16.02.1994
5585	1.25	33.0	5.0	OIL BASED	17.02.1994
5643	1.25	38.0	5.5	OIL BASED	17.02.1994
5732	1.25	35.0	5.5	OIL BASED	22.02.1994
5837	1.25	39.0	6.0	OIL BASED	22.02.1994
5932	1.25	39.0	6.5	OIL BASED	22.02.1994
6061	1.25	37.0	7.0	OIL BASED	22.02.1994

6085	1.25	42.0	7.0	OIL BASED	23.02.1994
6085	1.25	36.0	5.5	OIL BASED	28.02.1994
6085	1.25	38.0	6.0	OIL BASED	25.02.1994
6085	1.25	36.0	5.5	OIL BASED	24.02.1994
6085	1.25	40.0	7.0	OIL BASED	23.02.1994
6085	1.25	35.0	5.0	OIL BASED	04.03.1994
6085	1.25	33.0	5.5	OIL BASED	04.03.1994
6085	1.25	33.0	5.5	OIL BASED	04.03.1994
6085	1.10			DUMMY	08.03.1994
6085	1.10			DUMMY	11.03.1994
6085	1.10			DUMMY	15.03.1994
6085	1.10			DUMMY	15.03.1994
6085	1.10			DUMMY	15.03.1994
6085	1.10			DUMMY	15.03.1994
6085	1.10			DUMMY	17.03.1994
6085	1.25	41.0	6.0	OIL BASED	02.03.1994
6085	1.25	41.0	7.5	OIL BASED	28.02.1994
6085	1.25	42.0	8.0	OIL BASED	01.03.1994
6085	1.10			DUMMY	11.03.1994
6085	1.10			DUMMY	16.03.1994

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]
2269_Formation_pressure_(Formasjonstrykk)	pdf	0.21