

**General information**

Wellbore name	34/7-5
Type	EXPLORATION
Purpose	APPRAISAL
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Field	STATFJORD ØST
Discovery	33/9-7 Statfjord Øst
Well name	34/7-5
Seismic location	SG 82 31 - 113 SP. 485
Production licence	089
Drilling operator	Saga Petroleum ASA
Drill permit	448-L
Drilling facility	TREASURE SAGA
Drilling days	59
Entered date	17.01.1985
Completed date	16.03.1985
Release date	16.03.1987
Publication date	01.04.2012
Purpose - planned	WILDCAT
Reentry	NO
Content	OIL
Discovery wellbore	NO
1st level with HC, age	MIDDLE JURASSIC
1st level with HC, formation	NESS FM
Kelly bushing elevation [m]	26.0
Water depth [m]	244.0
Total depth (MD) [m RKB]	3146.0
Final vertical depth (TVD) [m RKB]	3145.0
Maximum inclination [°]	4.6
Bottom hole temperature [°C]	98
Oldest penetrated age	LATE TRIASSIC
Oldest penetrated formation	LUNDE FM
Geodetic datum	ED50
NS degrees	61° 21' 54.95" N
EW degrees	2° 1' 23.67" E
NS UTM [m]	6804026.01
EW UTM [m]	447777.65



UTM zone	31
NPDID wellbore	458

Wellbore history

General

Well 34/7-5 is located in the Statfjord Øst area of the Northern North Sea. The primary objectives of the well were to test the reservoir potential of the Brent Group, and to determine if the oil/water contact is the same as that found in the 33/9-7 Statfjord Øst discovery well drilled to the south southwest of this well in the neighbouring block, but on the assumed same structure. A secondary objective was to test the reservoir potential of the Statfjord Formation.

Operations and results

Wildcat well 34/7-5 was spudded with the semi-submersible installation Treasure Saga on 17 January 1985 and drilled to TD at 3146 m in the Late Triassic Lunde Formation. Drilling proceeded without significant problems. The well was drilled with spud mud down to 930 m and with gypsum/polymer mud from 930 m to TD.

Trace oil shows appeared in sandstone lamina in the Cretaceous from about 2380, limestones had shows from about 2488 m. The Brent Group reservoir came in at 2502 m, approximately 60 m deeper than prognosed. Hydrocarbons were encountered in the upper section belonging to the Ness Formation. The oil/water contact could not be defined from pressure data. From shows on cores and the well logs an OWC could be placed at approximately 2521 m, in accordance with the results from well 33/9-7. Below the OWC oil shows on sandstone decreased gradually from 2523 m until they vanished at 2616 m. The Statfjord Formation was dry.

Eleven cores were cut. Cores 1 to 10 were cut from 2508 m to 2633 m in the Brent Group and the uppermost part of the Drake Formation. Core 1, from 2508 to 2510 gave no recovery. The core depths for Cores 2 to 10 were from 0.5 m to 2.2 m short of logger's depth. Core 11 was cut from 2869 m to 2883.5 m in the calcareous Amundsen Formation. For this core there was no difference between core depth and logger's depth. No wire line fluid samples were taken.

The well was permanently abandoned on 16 March 1985 as an oil appraisal.

Testing

Two drill stem tests were performed from the interval 2502.5 - 2512.5 m.

The first test, DST 1, produced oil with a water cut of 50%, strongly suggesting water channelling behind casing from the underlying water zone.

Cement was squeezed behind casing to isolate the perforated zone and a second repeat test, DST 1A was initiated. This test produced clean oil at a rate of 260 Sm³/day through a 9.5 mm choke. The wellhead pressure was 72 bar. The highest recorded bottom hole temperature was 88 deg C in both DST 1 and in DST 1A.

Cuttings at the Norwegian Offshore Directorate



Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
390.00	3147.00

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
2	2510.0	2520.7	[m]
3	2521.0	2527.3	[m]
4	2529.5	2541.2	[m]
5	2542.0	2555.1	[m]
6	2555.1	2571.9	[m]
7	2573.0	2590.7	[m]
8	2591.0	2607.5	[m]
9	2609.0	2622.2	[m]
10	2624.0	2631.6	[m]
11	2869.0	2883.4	[m]

Total core sample length [m]	127.7
Cores available for sampling?	YES

Core photos



2510-2515m



2515-2520m



2520-2521m



2521-2526m



2526-2527m



2529-2534m



2534-2539m



2539-2541m



2542-2547m



2547-2552m



2552-2555m



2555-2560m



2560-2565m



2565-2570m



2570-2571m



2573-2578m



2578-2583m



2583-2588m



2588-2590m



2591-2596m



2596-2601m



2601-2606m



2606-2607m



2609-2614m



2614-2619m



2619-2622m



2624-2629m



2629-2631m



2869-2874m



2874-2879m



2819-2883m

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
2148.0	[m]	DC	RRI
2166.0	[m]	DC	RRI
2196.0	[m]	DC	RRI



2211.0	[m]	DC	RRI
2241.0	[m]	DC	RRI
2256.0	[m]	DC	RRI
2271.0	[m]	DC	RRI
2320.0	[m]	DC	RRI
2510.5	[m]	C	RRI
2535.0	[m]	DC	RRI
2556.0	[m]	DC	RRI
2565.0	[m]	DC	RRI
2577.0	[m]	DC	RRI
2598.0	[m]	DC	RRI
2610.0	[m]	DC	RRI
2621.4	[m]	C	RRI
2624.3	[m]	C	RRI
2626.0	[m]	C	RRI
2628.7	[m]	C	RRI
2631.3	[m]	C	RRI
2709.0	[m]	DC	RRI
2727.0	[m]	DC	RRI
2739.0	[m]	DC	RRI
2781.0	[m]	DC	RRI
2796.0	[m]	DC	RRI
2811.0	[m]	DC	RRI
2826.0	[m]	DC	RRI
2895.0	[m]	DC	RRI
2910.0	[m]	DC	RRI

Oil samples at the Norwegian Offshore Directorate

Test type	Bottle number	Top depth MD [m]	Bottom depth MD [m]	Fluid type	Test time	Samples available
DST	DST1A	2502.50	2512.50		08.03.1985 - 01:00	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
270	NORDLAND GP



1075	UTSIRA FM
1082	UNDIFFERENTIATED
1094	HORDALAND GP
1239	NO FORMAL NAME
1330	NO FORMAL NAME
1670	ROGALAND GP
1670	BALDER FM
1738	LISTA FM
1841	NO FORMAL NAME
1885	LISTA FM
1911	SHETLAND GP
1911	JORSALFARE FM
2090	KYRRE FM
2485	CROMER KNOLL GP
2485	SOLA FM
2489	MIME FM
2496	VIKING GP
2496	HEATHER FM
2502	BRENT GP
2502	NESS FM
2531	ETIVE FM
2564	RANNOCH FM
2622	DUNLIN GP
2622	DRAKE FM
2696	COOK FM
2768	BURTON FM
2794	AMUNDSEN FM
2893	STATFJORD GP
3010	HEGRE GP
3010	LUNDE FM

Geochemical information

Document name	Document format	Document size [MB]
458_1	pdf	0.55
458_2	pdf	1.91
458_3	pdf	0.72
458_4	pdf	8.71





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

Document name	Document format	Document size [MB]
458_01_WDSS_General_Information	pdf	0.30
458_02_WDSS_completion_log	pdf	0.28

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

Document name	Document format	Document size [MB]
458_34_7_5_Completion_log	pdf	1.94
458_34_7_5_Completion_report	pdf	41.54

Drill stem tests (DST)

Test number	From depth MD [m]	To depth MD [m]	Choke size [mm]
1.0	2503	2512	9.5
2.0	2502	2512	9.5

Test number	Final shut-in pressure [MPa]	Final flow pressure [MPa]	Bottom hole pressure [MPa]	Downhole temperature [°C]
1.0	13.000	9.000	36.000	
2.0		11.000		

Test number	Oil [Sm3/day]	Gas [Sm3/day]	Oil density [g/cm3]	Gas grav. rel.air	GOR [m3/m3]
1.0	318	46000	0.085	0.760	145
2.0	262	4000	0.845		151

Logs

Log type	Log top depth [m]	Log bottom depth [m]
ACBL	680	1840
CDL CNL GR	1843	2746
CDL CNL GR	2470	3143





CDL GR	379	929
CDL GR	912	1860
DIFL LSBHC GR	379	929
DIFL LSBHC GR	912	1863
DIFL LSBHC GR	1840	3143
DIPLOG	1840	3143
DLL MLL GR	2450	2746
FMT	1840	3143
FMT	1843	2746
GR	120	384
SIGNATURE	2440	2610
SIGNATURE	2891	3115
SWC	0	0
VSP	380	3131

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	380.0	36	790.0	0.00	LOT
SURF.COND.	20	913.0	26	930.0	1.52	LOT
INTERM.	13 3/8	1844.0	17 1/2	1865.0	1.79	LOT
INTERM.	9 5/8	2636.0	12 1/4	3146.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
384	1.03			WATER BASED	18.01.1985
790	1.10			WATER BASED	25.01.1985
930	1.12			WATER BASED	25.01.1985
1164	1.10	10.0	17.0	WATER BASED	29.01.1985
1489	1.22	10.0	13.0	WATER BASED	29.01.1985
1785	1.40	20.0	22.0	WATER BASED	29.01.1985
1865	1.43	19.0	18.0	WATER BASED	29.01.1985
1865	1.43	50.0	18.0	WATER BASED	29.01.1985
1865	1.43	50.0	18.0	WATER BASED	29.01.1985
1985	1.52	55.0	18.0	WATER BASED	31.01.1985
2138	1.62	55.0	16.0	WATER BASED	01.02.1985



2325	1.66	55.0	20.0	WATER BASED	04.02.1985
2434	1.69	50.0	15.0	WATER BASED	04.02.1985
2454	1.69	52.0	15.0	WATER BASED	04.02.1985
2672	1.68	55.0	16.0	WATER BASED	12.02.1985
2750	1.68	64.0	17.0	WATER BASED	13.02.1985
2750	1.68	54.0	13.0	WATER BASED	14.02.1985
2750	1.68	54.0	13.0	WATER BASED	14.02.1985
2794	1.63	51.0	18.0	WATER BASED	15.02.1985
2836	1.64	51.0	18.0	WATER BASED	18.02.1985

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]
458 Formation pressure (Formasjonstrykk)	pdf	0.22

