General information

Wellbore name	34/8-8
Type	EXPLORATION
Purpose	APPRAISAL
Status	SUSPENDED
Factmaps in new window	link to map
Main area	NORTH SEA
Field	VISUND
Discovery	34/8-1 Visund
Well name	34/8-8
Seismic location	NH-9001-3D: ROW 925 & COL. 585
Production licence	120
Drilling operator	Norsk Hydro Produksjon AS
Drill permit	730-L
Drilling facility	TRANSOCEAN 8
Drilling days	56
Entered date	30.06.1992
Completed date	24.08.1992
Release date	24.08.1994
Publication date	10.01.2012
Purpose - planned	APPRAISAL
Reentry	NO
Content	OIL
Discovery wellbore	NO
1st level with HC, age	MIDDLE JURASSIC
1st level with HC, formation	BRENT GP
Kelly bushing elevation [m]	23.5
Water depth [m]	340.5
Total depth (MD) [m RKB]	3625.0
Final vertical depth (TVD) [m RKB]	3623.0
Maximum inclination [°]	6.5
Bottom hole temperature [°C]	125
Oldest penetrated age	LATE TRIASSIC
Oldest penetrated formation	LUNDE FM
Geodetic datum	ED50
NS degrees	61° 22' 46.19'' N
EW degrees	2° 28' 43.81'' E
NS UTM [m]	6805332.03
EW UTM [m]	472148.13

UTM zone	31
NPDID wellbore	1969

Wellbore history

General

Well 34/8-8 was drilled to appraise the N-1 segment of the 34/8-1 Visund discovery on Tampen Spur in the Northern North Sea. The N-1 segment is estimated to contain approximately 30% of the resources in the Brent-North area. Confirmation of these resources was critical for reservoir management and production layout in future development plans. The primary objectives of the well were thus to confirm the resources in the Brent Group and to obtain data that could be used in reservoir engineering studies on improved oil recovery. Secondary objectives were evaluations of the Statfjord Formation and the Lunde B/C Formation. The well design and location was chosen primarily to evaluate the Brent target with respect to defining fluid contacts in clean sands, avoid faults, and penetrate as close as possible to the erosion edge of the top of the Brent Group.

Operations and results

Appraisal well 34/8-8 was spudded with the semi-submersible installation Transocean 8 on 30 June 1992 and drilled to TD at 3625 m in the Late Triassic Lund Formation. After drilling to 1430 m in the 12 1/4" section the drill string got stuck. 16.55 m of the BHA was left in the hole and the hole was plugged back to 1354 m where a minor technical sidetrack was performed. After setting the 30" casing an industry strike caused ca 5 days downtime. The well was drilled with spud mud down to 1364 m, and with Anco 2000 glycol mud from 1364 m to TD.

The Brent Group was encountered at 2921 to 3077 m. It was oil bearing and wire line logs confirmed an OWC at 2971 m, while RFT pressure tests suggested a free water level between 2973.4 m and 2976.8 m. From a gross Brent Group thickness of 156 m, a net pay thickness of 97 m was identified. An average porosity of 20.6% and average Sw of 34.7% were computed for the Brent Group oil zone. The Cook Formation, from 3122.5 to 3260 m, was found to be water wet without shows. The Amundsen Formation, from 3287 to 3387.5 m, was mainly claystone, but had a 12 m thick sandstone towards its base. The Amundsen Formation was water wet without shows. The Statfjord Formation was penetrated from 3387.5 to 3475 m. From a gross thickness of 87.5 m, a total net sand thickness of 46.25 m was recognised. The Lunde Formation was encountered at 3475 m and continued to TD. Both the Statfjord and Lunde formations were water wet without shows. Apart from in the oil bearing Brent reservoir, oil shows were recorded only in cuttings from thin sand stringers at 2460 m, 2515 m, and 2615 m in the Kyrre Formation.

Ten conventional cores were cut in the well. The whole of the Brent Group was cored in eight cores and two cores were taken in the Hegre Group. RFT fluid samples were taken at 2923.3 m in the Brent oil zone (water and filtrate), 2940 m in the Brent oil zone, at 2983.5 m in the Brent water zone (water and some gas), at 3390 m in the top of the Statfjord Formation (water and some gas).

The well was suspended on 24 August 1992 with the provision for further testing. It is classified as an oil appraisal.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
1370.00	3620.00

Cuttings available for sampling?	YES

Cores at the Norwegian Offshore Directorate

Core sample number	Core sample - top depth	Core sample - bottom depth	Core sample depth - uom
1	2885.0	2912.0	[m]
2	2912.0	2919.0	[m]
3	2920.5	2948.0	[m]
4	2948.0	2975.8	[m]
5	2976.5	3004.0	[m]
6	3004.0	3031.5	[m]
7	3031.5	3066.0	[m]
8	3068.5	3083.0	[m]
9	3503.0	3517.2	[m]
10	3567.4	3575.0	[m]

Total core sample length [m]	215.1
Cores available for sampling?	YES

Core photos


2885-2890m


2890-2895m


2895-2900m


2900-2905m


2905-2910m


2910-2912m


2912-2917m


2917-2919m


2920-2925m


2925-2930m

2930-2935m 2935-2940m 2940-2945m 2945-2948m 2948-2953m





2953-2958m 2958-2963m 2963-2968m 2968-2973m 2973-2975m





2976-2981m 2981-2986m 2986-2991m 2991-2996m 2996-3001m





3001-3004m 3004-3009m 3009-3014m 3014-3019m 3019-3024m





3024-3029m 3073-3078m 3029-3031m 3031-3036m 3036-3041m





3041-3046m 3046-3051m 3051-3056m 3056-3061m 3061-3066m





3068-3073m 3078-3083m 3503-3508m 3508-3513m 3513-3517m


3567-3572m


3572-3575m

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
2880.0	[m]	DC	GEOSTR
2887.0	[m]	DC	GEOSTR
3258.0	[m]	SWC	HYDRO
3367.0	[m]	SWC	HYDRO
3440.0	[m]	SWC	HYDRO
3477.0	[m]	SWC	HYDRO
3482.0	[m]	SWC	HYDRO
3565.0	[m]	SWC	HYDRO

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
364	NORDLAND GP
1115	UTSIRA FM
1164	NO FORMAL NAME
1190	HORDALAND GP
1368	NO FORMAL NAME
1401	NO FORMAL NAME
1527	NO FORMAL NAME
1559	NO FORMAL NAME
1829	ROGALAND GP
1829	BALDER FM
1873	LISTA FM
1998	SHETLAND GP
1998	JORSALFARE FM
2232	KYRRE FM
2877	CROMER KNOLL GP

2877	SOLA FM
2883	ÅSGARD FM
2901	VIKING GP
2901	DRAUPNE FM
2902	HEATHER FM
2921	BRENT GP
2921	TARBERT FM
2935	NESS FM
2967	ETIVE FM
3008	RANNOCH FM
3077	DUNLIN GP
3077	DRAKE FM
3123	COOK FM
3260	BURTON FM
3287	AMUNDSEN FM
3388	STATFJORD GP
3474	HEGRE GP
3474	LUNDE FM

Geochemical information

Document name	Document format	Document size [MB]
1969_1	pdf	0.74
1969_2	pdf	0.62
1969_3	pdf	2.69

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

Document name	Document format	Document size [MB]
1969_01_WDSS_General_Information	pdf	0.52
1969_02_WDSS_completion_log	pdf	0.21

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

Document name	Document format	Document size [MB]
1969_34_8_8_COMPETION_REPORT_AND_LOG	pdf	22.13

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CST GR	2830	3596
CST GR	3093	3596
DIL LSS GR SP CAL AMS	360	2735
DIL LSS LDL CNL NGL SP AMS	2764	3622
DLL MSFL LDL CNL GR SP AMS	2764	3294
FMI GR	2764	3622
MWD - GR RES DIR	364	3625
NMRT	2862	3105
NMRT	2865	3110
RFT GR	2922	3256
RFT HP GR	2922	2964
RFT HP GR	2983	3505
RFT HP GR	3390	3390
SUMT GR GHMT	2860	3105
VELOCITY	1410	3600

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.	13 3/8	1351.0	17 1/2	1353.0	1.66	LOT
INTERM.	9 5/8	2765.0	12 1/4	2766.0	1.82	LOT
LINER	7	3170.0	8 1/2	3625.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
432	1.03	14.0		WATER BASED	
452	1.06	14.0		WATER BASED	
621	1.20	24.0		WATER BASED	
900	1.20	23.0		WATER BASED	
1112	1.05	13.0		WATER BASED	

1348	1.39	14.0		WATER BASED	
1360	1.39	24.0		WATER BASED	
1364	1.39	14.0		WATER BASED	
1390	1.38	12.0		WATER BASED	
1392	1.39	20.0		WATER BASED	
1430	1.39	19.0		WATER BASED	
1512	1.40	26.0		WATER BASED	
1767	1.39	25.0		WATER BASED	
2179	1.47	29.0		WATER BASED	
2459	1.47	28.0		WATER BASED	
2765	1.47	30.0		WATER BASED	
2885	1.62	29.0		WATER BASED	
2916	1.62	30.0		WATER BASED	
2948	1.62	33.0		WATER BASED	
2990	1.65	28.0		WATER BASED	
3006	1.60	37.0		WATER BASED	
3032	1.62	29.0		WATER BASED	
3074	1.62	33.0		WATER BASED	
3109	1.67	30.0		WATER BASED	
3114	1.62	32.0		WATER BASED	
3172	1.70	30.0		WATER BASED	
3300	1.62	33.0		WATER BASED	
3475	1.60	31.0		WATER BASED	
3516	1.60	34.0		WATER BASED	
3625	1.60	34.0		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]
1969_Formation_pressure_(Formasjonstrykk)	pdf	0.22