



General information





Wellbore name	25/11-1
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Field	BALDER
Discovery	25/11-1 Balder
Well name	25/11-1
Seismic location	
Production licence	001
Drilling operator	Esso Exploration and Production Norway A/S
Drill permit	2-L
Drilling facility	OCEAN TRAVELER
Drilling days	265
Entered date	18.10.1966
Completed date	09.07.1967
Release date	09.07.1969
Publication date	19.12.2007
Purpose - planned	WILDCAT
Reentry	NO
Content	OIL
Discovery wellbore	YES
1st level with HC, age	EOCENE
1st level with HC, formation	INTRA BALDER FM SS
Kelly bushing elevation [m]	27.0
Water depth [m]	126.0
Total depth (MD) [m RKB]	2459.0
Maximum inclination [°]	2.75
Bottom hole temperature [°C]	71
Oldest penetrated age	PRE-DEVONIAN
Oldest penetrated formation	BASEMENT
Geodetic datum	ED50
NS degrees	59° 10' 57.35" N
EW degrees	2° 24' 24.89" E
NS UTM [m]	6560686.91
EW UTM [m]	466105.01
UTM zone	31
NPDID wellbore	143



Wellbore history

General

Well 25/11-1 is located on the Utsira High in the Northern North Sea. The objective of the well was to test the hydrocarbon potential of the sedimentary section; to investigate the lithology and sequence in this portion of the North Sea basin; and to partially fulfil Esso's drilling obligation to the Norwegian Government incurred on behalf of the Licenses.

Operations and results

Wildcat well 25/11-1 was spudded with the semi-submersible installation Ocean Traveler on and drilled to TD at 2459 m in Basement rock. Actual drilling problems with the 25/11-1 were few. However, other major problems occurred. The number 2 column of Ocean Traveler was bumped by a supply boat on 6 November and began taking water. On 18 November, 1966 the rig was towed to Stavanger for repairs. By 14 April, 1967 the rig was able to continue drilling at the 25/11-1 location. Bad weather caused a new break in the drilling operations from 17 April to 10 May.

From the sea floor to 370 m (1213'), the hole was drilled with sea water and gel. Returns in this interval were to the sea floor. Below 370 m to total depth a sea water slurry with Bentonite, Zeogel, Spersene, XP-20, Caustic Soda and 0 -12% diesel oil was used.

First show in the well was reported in thin siltstone and sandstone bands at ca1690 m. Gas and live oil were found in Paleocene clastic sediments (Balder Formation; top has been set at 1698). The recovered cores from this interval (1726.7 to 1745.9 m) showed a predominantly shale section containing interbedded tuffaceous siltstone and sandstone. The shale bled gas throughout and developed a film of oil along fractured surfaces. The siltstone, though tight, bled oil at the base of most beds. The sandstone, whether 1/2 inch or three feet thick, was saturated with live oil which gave a yellow fluorescence and a streaming yellow-white or blue-white cut. Two FIT tests at 1755 and 1777 m yielded oil and gas, while a FIT at 1801.4 m recovered salt water and mud. An OWC was set at 1783 m. In this early phase of exploration in the North Sea, this was encouraging. The prospective reservoir rocks, however, were too thin to justify further tests in this well.

Fourteen cores were cut in the well. Core 1 was cut from 991.2 to 1000.3 m in the Hordaland Group; core no 2 from 1097.2 to 1104.9 m gave no recovery; core 3 was cut from 1104.9 to 1109.4 m in the Skade Formation, cores 4, 5, and 6 from 1726.7 to 1745.9 m in the Balder Formation; cores 7 and 8 from 1876.9 to 1904.0 m in the Ty and Ekofisk Formations; core 9 from 1956.8 to 1960.6 m in the Sola Formation, core 10 from 2013.5 to 2022.6 m in the Statfjord Formation; cores 11 and 12 in the interval 2186.9 to 2363.0 m in the Skagerrak Formation; and cores 13 and 14 in the interval 2391.1 to 2459.4 m in Basement rocks. Fifteen Formation Interval Tests (FIT) were attempted. The test at 1755 m recovered 323 litre gas and 6 litre of 22.3 deg API oil, while the one at 1777 recovered 535 litre gas and 7 litre of 20.2 deg API oil. Tests at 1801, 4 m, 1873.3 m, 2007.4 m, and 2196.4 m all yielded salt water. Nine tests between 1713 - 1876 m failed.

The well was permanently abandoned on 9 July 1967 as an oil discovery, the first in Norway.

Testing

No drill stem test was performed.



Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
1213.00	2270.00

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
3	3623.0	3640.0	[ft]
4	5665.0	5695.0	[ft]
5	5695.0	5728.0	[ft]
6	5714.0	5725.0	[ft]
7	6159.0	6196.0	[ft]
8	6196.0	6247.0	[ft]
9	6420.0	6432.5	[ft]
10	6606.0	6636.0	[ft]
11	7175.0	7212.0	[ft]
12	7709.0	7755.0	[ft]
13	7845.0	7858.0	[ft]
14	8032.0	8065.0	[ft]

Total core sample length [m]	106.8
Cores available for sampling?	YES

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
0.0	[m]	DC	
0.0	[m]	C	
1721.0	[m]	DC	
1880.4	[m]	C	
1882.0	[m]	C	
1890.0	[m]	C	
3252.0	[ft]	C	
3280.0	[ft]	DC	
3370.0	[ft]	DC	
3490.0	[ft]	DC	



3520.0 [ft]	DC	
3600.0 [ft]	C	
3626.0 [ft]	C	
3633.5 [ft]	C	
3640.0 [ft]	C	
3700.0 [ft]	DC	
3700.0 [ft]	DC	
3800.0 [ft]	DC	
3900.0 [ft]	DC	
4000.0 [ft]	DC	
4000.0 [ft]	DC	
4080.0 [ft]	DC	
4100.0 [ft]	DC	
4170.0 [ft]	DC	
4190.0 [ft]	DC	
4230.0 [ft]	DC	
4280.0 [ft]	DC	
4360.0 [ft]	DC	
4380.0 [ft]	DC	
4405.0 [ft]	DC	
4430.0 [ft]	DC	
4460.0 [ft]	DC	
4490.0 [ft]	DC	
4520.0 [ft]	DC	
4580.0 [ft]	DC	
4610.0 [ft]	DC	
4670.0 [ft]	DC	
4700.0 [ft]	DC	
4790.0 [ft]	DC	
4790.0 [ft]	DC	
4880.0 [ft]	DC	
4880.0 [ft]	DC	
4970.0 [ft]	DC	
5000.0 [ft]	DC	
5090.0 [ft]	DC	
5180.0 [ft]	DC	
5210.0 [ft]	DC	
5290.0 [ft]	DC	
5300.0 [ft]	DC	
5390.0 [ft]	DC	



5500.0 [ft]	DC	
5540.0 [ft]	DC	
5560.0 [ft]	DC	
5569.0 [ft]	SWC	
5570.0 [ft]	SWC	
5580.0 [ft]	DC	
5600.0 [ft]	DC	
5640.0 [ft]	DC	
5665.0 [ft]	C	
5665.0 [ft]	DC	
5670.0 [ft]	C	
5675.0 [ft]	C	
5680.0 [ft]	C	
5688.0 [ft]	SWC	
5693.0 [ft]	SWC	
5695.0 [ft]	C	
5696.0 [ft]	C	
5714.0 [ft]	C	
5714.0 [ft]	C	
5722.0 [ft]	SWC	
5726.0 [ft]	SWC	
5728.0 [ft]	C	
5728.0 [ft]	DC	
5731.0 [ft]	SWC	
5736.0 [ft]	SWC	
5738.0 [ft]	SWC	
5800.0 [ft]	DC	
5815.0 [ft]	SWC	
5819.0 [ft]	SWC	
5825.0 [ft]	SWC	
5833.0 [ft]	SWC	
5840.0 [ft]	DC	
5900.0 [ft]	DC	
5960.0 [ft]	DC	
5980.0 [ft]	DC	
6000.0 [ft]	DC	
6020.0 [ft]	DC	
6080.0 [ft]	DC	
6100.0 [ft]	DC	
6140.0 [ft]	DC	



6157.0 [ft]	DC	
6158.0 [ft]	C	
6171.0 [ft]	C	
6171.0 [ft]	C	
6196.0 [ft]	C	
6198.0 [ft]	DC	
6201.0 [ft]	C	
6250.0 [ft]	DC	
6250.0 [ft]	DC	
6290.0 [ft]	DC	
6300.0 [ft]	DC	
6340.0 [ft]	DC	
6390.0 [ft]	DC	
6420.0 [ft]	C	
6421.0 [ft]	C	
6423.0 [ft]	C	
6427.0 [ft]	C	
6428.0 [ft]	C	
6431.0 [ft]	C	
6432.0 [ft]	C	
6445.0 [ft]	DC	
6500.0 [ft]	DC	
6540.0 [ft]	DC	
6550.0 [ft]	DC	
6550.0 [ft]	DC	
6600.0 [ft]	DC	
6610.0 [ft]	DC	
6615.0 [ft]	DC	
6620.0 [ft]	DC	
6650.0 [ft]	DC	
6710.0 [ft]	DC	
6740.0 [ft]	DC	
6750.0 [ft]	DC	
6800.0 [ft]	DC	
6850.0 [ft]	DC	
6900.0 [ft]	DC	
6927.0 [ft]	C	
6940.0 [ft]	DC	
7000.0 [ft]	DC	
7040.0 [ft]	DC	



7090.0 [ft]	DC	
7140.0 [ft]	DC	
7188.0 [ft]	C	
7203.0 [ft]	C	
7207.0 [ft]	C	
7211.0 [ft]	C	
7212.0 [ft]	DC	
7230.0 [ft]	DC	
7350.0 [ft]	DC	
7391.0 [ft]	C	
7395.0 [ft]	C	
7440.0 [ft]	DC	
7500.0 [ft]	DC	
7545.0 [ft]	DC	
7590.0 [ft]	DC	
7640.0 [ft]	DC	
7650.0 [ft]	SWC	
7655.0 [ft]	SWC	
7665.0 [ft]	SWC	
7665.0 [ft]	SWC	
7675.0 [ft]	SWC	
7742.0 [ft]	C	
7753.0 [ft]	C	
7755.0 [ft]	SWC	
7760.0 [ft]	SWC	
7765.0 [ft]	SWC	
7770.0 [ft]	SWC	
7780.0 [ft]	SWC	
7785.0 [ft]	SWC	
7795.0 [ft]	SWC	
7800.0 [ft]	SWC	
7800.0 [ft]	DC	
7810.0 [ft]	SWC	
7815.0 [ft]	SWC	
7820.0 [ft]	SWC	
7825.0 [ft]	SWC	
7830.0 [ft]	SWC	
7835.0 [ft]	SWC	
7840.0 [ft]	SWC	
7845.0 [ft]	C	



7900.0	[ft]	DC	
7922.0	[ft]	SWC	
7935.0	[ft]	SWC	
7940.0	[ft]	SWC	
7945.0	[ft]	SWC	
7985.0	[ft]	SWC	
8053.0	[ft]	C	

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
154	NORDLAND GP
615	UTSIRA FM
731	NO FORMAL NAME
758	HORDALAND GP
758	SKADE FM
976	NO FORMAL NAME
1085	SKADE FM
1110	NO FORMAL NAME
1698	ROGALAND GP
1698	BALDER FM
1753	INTRA BALDER FM SS
1768	BALDER FM
1778	SELE FM
1794	HERMOD FM
1817	SELE FM
1821	LISTA FM
1868	TY FM
1895	SHETLAND GP
1895	EKOFISK FM
1920	CROMER KNOLL GP
1920	RØDBY FM
1938	SOLA FM
1980	VIKING GP
1980	DRAUPNE FM
1988	STATFJORD GP
2109	NO GROUP DEFINED
2109	SKAGERRAK FM
2391	BASEMENT



Geochemical information

Document name	Document format	Document size [MB]
143_1	pdf	0.07
143_2	pdf	0.71
143_3	pdf	1.15
143_4	pdf	0.32
143_5	pdf	0.12

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

Document name	Document format	Document size [MB]
143_01_WDSS_General_Information	pdf	0.20

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

Document name	Document format	Document size [MB]
143_01_25_11_1_Completion_Report_and_Completion_log	pdf	3.68

Documents - Norwegian Offshore Directorate papers

Document name	Document format	Document size [MB]
143_01_NPD_Paper_No.2_Lithology_Well_25_11_1	pdf	14.98
143_02_NPD_Paper_No.2_Interpreted_Lithology_log_Well_25_11_1	pdf	63.32
143_03_NPD_Paper_No.28_Lithologic_Correlation_chart_Well_25_11_1	pdf	0.48
143_04_NPD_Paper_No.28_Lithology_Balder_area_Well_25_11_1	pdf	18.56
143_05_NPD_Paper_No.28_Log_Correlation_chart_Profile_NW-SE_Well_25_11_1	pdf	0.25



**Logs**

Log type	Log top depth [m]	Log bottom depth [m]
CAL	1232	1718
CDM	1232	2451
FDC	610	2461
IES	362	2462
LL-7	362	2459
MLL	362	2460
SGR	180	2457

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	179.0	36	179.0	0.00	LOT
SURF.COND.	20	363.0	26	363.0	0.00	LOT
INTERM.	13 3/8	1233.0	17 1/2	1244.0	0.00	LOT
OPEN HOLE		2460.0	12 1/4	2460.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
369	0.00			seawater	
1213	0.00			waterbased	

Thin sections at the Norwegian Offshore Directorate

Depth	Unit
991.00	[m]
1879.00	[m]
1896.00	[m]
1904.00	[m]
1938.00	[m]
1936.00	[m]
6215.00	[m]

**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]
143 Formation pressure (Formasjonstrykk)	pdf	0.21

