General information

Wellbore name	25/8-10 S
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Field	BALDER
Discovery	25/8-10 S Ringhorne
Well name	25/8-10
Seismic location	ESD96-3 & SP 577
Production licence	027
Drilling operator	Esso Exploration and Production Norway A/S
Drill permit	883-L
Drilling facility	DEEPSEA TRYM
Drilling days	37
Entered date	29.04.1997
Completed date	05.06.1997
Release date	05.06.1999
Publication date	29.08.2003
Purpose - planned	WILDCAT
Reentry	NO
Content	OIL
Discovery wellbore	YES
1st level with HC, age	PALEOCENE
1st level with HC, formation	HERMOD FM
2nd level with HC, age	PALEOCENE
2nd level with HC, formation	HEIMDAL FM
Kelly bushing elevation [m]	25.0
Water depth [m]	129.0
Total depth (MD) [m RKB]	1890.0
Final vertical depth (TVD) [m RKB]	1883.9
Maximum inclination [°]	10.4
Bottom hole temperature [°C]	83
Oldest penetrated age	PALEOCENE
Oldest penetrated formation	EKOFISK FM
Geodetic datum	ED50
NS degrees	59° 16' 22.69'' N

EW degrees	2° 32' 6.4'' E
NS UTM [m]	6570692.44
EW UTM [m]	473501.58
UTM zone	31
NPDID wellbore	3062

Wellbore history

General

Well 25/8-10 S is located north of the Grane Field. The well was drilled and tested to obtain representative fluid samples, production characteristics, and reservoir permeabilities in the Forseti Prospect in the Hermod - Middle Heimdal formation.

Operations and results

Exploration well 25/8-10 S was spudded with semi-submersible drilling installation "Deepsea Trym" on 29 April 1997 and drilled to TD at 1749.5 m in the Late Paleocene Lista Formation. The original 25/8-10 S well was drilled with a slightly deviated profile (+/- 6 degree maximum angle) to a depth of 1749 m MD RKB. Due to a mechanical problem, which occurred after coring at 1722-1749 m, the well was plugged back and a technical sidetrack (25/8-10S T2) was kicked off at 1076 m and drilled to the original geologic objective at a total depth of 1890 m in the Early Paleocene Ekofisk Formation. Well 25/8-10 S was drilled with seawater and bentonite sweeps down to 1091 m and with oil based "Ancovert" mud from 1091 m to TD. The technical sidetrack 25/810 S T2 was drilled with oil based with "Ancovert" mud. The sidetrack penetrated 18 m (net pay) of oil filled sand in the Hermod - Middle Heimdal formation with an OWC, based on logs, at 1755.5 m TVD SS. The pay zone consisted of three sand intervals. One core was cut in the 25/8-10 S wellbore in the interval 1722 m to 1749.65 m (Sele, Hermod, and Lista Formations). A second core was cut in the 25/8-10 S T2 sidetrack in the interval 1749 m to 1786 m. (Lista and Heimdal Formations). After wire line logging the 25/8-10S T2 well a drill stem test of the upper sand interval, in the Hermod Formation, was performed. Fluid samples were taken during the DST. The well was permanently abandoned on 5 June 1997 as an oil and gas discovery, named the 25/8-10 S Ringhorne Discovery.

Testing

The interval from 1727.0 m to 1740.5 m (1698.6 - 1711.9 m TVD SS) in the Hermod Formation was perforated. The test showed an unconsolidated reservoir with high porosity. The GOR at rate 445 Sm3 fluid/day increased roughly from 45 Sm3/Sm3 to 90 Sm3/Sm3 as the wellhead pressure increased from 600 to 800 psia. This was considered consistent with the presence of a gas cap.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
1100.00	1890.00

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	1722.0	1749.7	[m]
2	1749.0	1786.0	[m]

Total core sample length [m]	64.7
Cores available for sampling?	YES

Core photos


1749-1754m


1754-1759m


1759-1764m


1764-1769m


1769-1774m


1774-1779m


1779-1784m


1784-1786m

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
1110.0	[m]	DC	CGG
1130.0	[m]	DC	CGG
1150.0	[m]	DC	CGG
1160.0	[m]	DC	CGG
1170.0	[m]	DC	CGG
1190.0	[m]	DC	CGG
1200.0	[m]	DC	CGG
1220.0	[m]	DC	CGG
1230.0	[m]	DC	CGG
1240.0	[m]	DC	CGG

1250.0	[m]	DC	CGG
1260.0	[m]	DC	CGG
1270.0	[m]	DC	CGG
1280.0	[m]	DC	CGG
1290.0	[m]	DC	CGG
1300.0	[m]	DC	CGG
1310.0	[m]	DC	CGG
1320.0	[m]	DC	CGG
1330.0	[m]	DC	CGG
1340.0	[m]	DC	CGG
1350.0	[m]	DC	CGG
1360.0	[m]	DC	CGG
1370.0	[m]	DC	CGG
1380.0	[m]	DC	CGG
1390.0	[m]	DC	CGG
1410.0	[m]	DC	CGG
1420.0	[m]	DC	CGG
1430.0	[m]	DC	CGG
1440.0	[m]	DC	CGG
1460.0	[m]	DC	CGG
1470.0	[m]	DC	CGG
1480.0	[m]	DC	CGG
1500.0	[m]	DC	CGG
1510.0	[m]	DC	CGG
1520.0	[m]	DC	CGG
1530.0	[m]	DC	CGG
1540.0	[m]	DC	CGG
1560.0	[m]	DC	CGG
1570.0	[m]	DC	CGG
1580.0	[m]	DC	CGG
1590.0	[m]	DC	CGG
1600.0	[m]	DC	CGG
1612.0	[m]	DC	CGG
1618.0	[m]	DC	CGG
1624.0	[m]	DC	CGG
1630.0	[m]	DC	CGG
1636.0	[m]	DC	CGG
1642.0	[m]	DC	CGG
1648.0	[m]	DC	CGG
1654.0	[m]	DC	CGG

1660.0	[m]	DC	CGG
1662.0	[m]	DC	CGG
1672.0	[m]	DC	CGG
1684.0	[m]	DC	CGG
1690.0	[m]	DC	CGG
1702.0	[m]	DC	CGG
1705.0	[m]	DC	CGG
1711.0	[m]	DC	CGG
1717.0	[m]	DC	CGG
1722.7	[m]	C	CGG
1723.0	[m]	C	CGG
1725.8	[m]	C	CGG
1726.0	[m]	C	CGG
1727.0	[m]	C	CGG
1728.1	[m]	C	CGG
1729.0	[m]	C	CGG
1730.0	[m]	C	CGG
1731.4	[m]	C	CGG
1732.0	[m]	C	CGG
1733.7	[m]	C	CGG
1735.0	[m]	C	CGG
1735.5	[m]	C	CGG
1738.0	[m]	C	CGG
1738.3	[m]	C	CGG
1739.0	[m]	C	CGG
1741.0	[m]	C	CGG
1744.0	[m]	C	CGG
1747.0	[m]	C	CGG
1750.0	[m]	C	CGG
1753.0	[m]	C	CGG
1756.0	[m]	C	CGG
1759.0	[m]	C	CGG
1761.0	[m]	C	CGG
1765.0	[m]	C	CGG
1768.0	[m]	C	CGG
1771.0	[m]	C	CGG
1774.0	[m]	C	CGG
1777.0	[m]	C	CGG
1778.0	[m]	C	CGG
1779.0	[m]	C	CGG

1780.9	[m]	C	CGG

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
FMT		0.00	0.00			YES
MDT		0.00	0.00			YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
154	NORDLAND GP
629	UTSIRA FM
692	NO FORMAL NAME
757	HORDALAND GP
757	SKADE FM
900	NO FORMAL NAME
910	SKADE FM
1100	NO FORMAL NAME
1645	ROGALAND GP
1645	BALDER FM
1708	SELE FM
1725	HERMOD FM
1741	LISTA FM
1761	HEIMDAL FM
1765	LISTA FM
1777	HEIMDAL FM
1827	SHETLAND GP
1827	EKOFISK FM

Composite logs

Document name	Document format	Document size [MB]
3062	pdf	0.28

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

Document name	Document format	Document size [MB]
3062_25_8_10_S_COMPLETION_REPORT	pdf	87.99

Drill stem tests (DST)

Test number	From depth MD [m]	To depth MD [m]	Choke size [mm]
1.0	1727	1740	14.4

Test number	Final shut-in pressure [MPa]	Final flow pressure [MPa]	Bottom hole pressure [MPa]	Downhole temperature [°C]
1.0	4.000	4.000	4.000	70

Test number	Oil [Sm3/day]	Gas [Sm3/day]	Oil density [g/cm3]	Gas grav. rel.air	GOR [m3/m3]
1.0	413	15	0.900	0.680	

Logs

Log type	Log top depth [m]	Log bottom depth [m]
MWD - GR RES DIR	228	1086
MWD - GR RES DIR	1076	1707

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	227.0	36	228.0	0.00	LOT
SURF.COND.	13 3/8	1076.0	17 1/2	1091.0	0.00	LOT
OPEN HOLE		1890.0	8 1/2	1890.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
228	1.03			SPUD MUD	
890	1.32	31.0		OIL (REGULAR)	
1000	1.06			SPUD MUD	
1050	1.32	32.0		OIL (REGULAR)	
1091	1.43	60.0		LO-TOX OBM	
1150	1.32	28.0		LO-TOX OBM	
1244	1.32	26.0		LO-TOX OBM	
1518	1.32	28.0		LO-TOX OBM	
1751	1.32	29.0		LO-TOX OBM	
1786	1.32	30.0		LO-TOX OBM	
1890	1.32	30.0		OIL (REGULAR)	

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]
3062_Formation_pressure_(Formasjonstrykk)	pdf	0.19