General information

Wellbore name	25/4-9 S
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	NORTH SEA
Field	VILJE
Discovery	25/4-9 S Vilje
Well name	25/4-9
Seismic location	NH0074-107/305
Production licence	036
Drilling operator	Norsk Hydro Produksjon AS
Drill permit	1006-L
Drilling facility	DEEPSEA DELTA
Drilling days	25
Entered date	05.09.2003
Completed date	29.09.2003
Release date	29.09.2005
Publication date	07.11.2005
Purpose - planned	WILDCAT
Reentry	NO
Content	OIL
Discovery wellbore	YES
1st level with HC, age	PALEOCENE
1st level with HC, formation	HEIMDAL FM
Kelly bushing elevation [m]	29.0
Water depth [m]	120.0
Total depth (MD) [m RKB]	2377.0
Final vertical depth (TVD) [m RKB]	2297.3
Maximum inclination [°]	23.6
Bottom hole temperature [°C]	80
Oldest penetrated age	PALEOCENE
Oldest penetrated formation	HEIMDAL FM
Geodetic datum	ED50
NS degrees	59° 40' 20.5'' N
EW degrees	2° 16' 40.71'' E
NS UTM [m]	6615298.86

EW UTM [m]	459328.07
UTM zone	31
NPDID wellbore	4278

Wellbore history

General

The primary target for well 25/4-9 S was a prospect of Paleocene age called Klegg, approximately 11 km north-northeast of the Heimdal field, and four km south-southwest of Vale.

Operations and results

Wildcat well 25/4-9 S was spudded with the semi-submersible installation Deepsea Delta on 5 September 2003 and drilled to TD at 2377 m in the Paleocene Heimdal Formation. It was drilled deviated with a maximum deviation of 23.6 deg at 1609 m. The first two hole sections (36" and 17 1/2 ") were drilled with seawater. The 12 1/4" hole section was drilled with Versavert OBM, while the 8 1/2" hole section (reservoir section) was drilled with NaCl WBM.

The Heimdal Formation reservoir was encountered at 2236 m with 61 meters gross sand (55.9 m net). The sand had very good reservoir properties and was oil bearing. Production from the nearby Heimdal and Frigg fields had caused depletion of the regional aquifer by approximately 18 bars. A Free Water Level was interpreted to be at 2297 m (2197.4 m TVD MSL), but this is probably affected by the production pressure depletion.

Two MDT runs were carried out. Representative oil and water samples, and a large volume of oil were recovered from the Heimdal Formation. One core was cut from 2239.2 m to 2256.5 m close to top of the Heimdal Formation.

The well was permanently abandoned on 29 September 2003 as an oil discovery (the Vilje Discovery).

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
1100.00	2377.00

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	2237.0	2254.5	[m]

Total core sample length [m]	17.5
Cores available for sampling?	YES

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
1100.0	[m]	DC	RRI
1120.0	[m]	DC	RRI
1140.0	[m]	DC	RRI
1160.0	[m]	DC	RRI
1180.0	[m]	DC	RRI
1200.0	[m]	DC	RRI
1220.0	[m]	DC	RRI
1240.0	[m]	DC	RRI
1260.0	[m]	DC	RRI
1280.0	[m]	DC	RRI
1300.0	[m]	DC	RRI
1320.0	[m]	DC	RRI
1340.0	[m]	DC	RRI
1360.0	[m]	DC	RRI
1370.0	[m]	DC	RRI
1380.0	[m]	DC	RRI
1390.0	[m]	DC	RRI
1400.0	[m]	DC	RRI
1410.0	[m]	DC	RRI
1420.0	[m]	DC	RRI
1430.0	[m]	DC	RRI
1440.0	[m]	DC	RRI
1450.0	[m]	DC	RRI
1460.0	[m]	DC	RRI
1480.0	[m]	DC	RRI
1500.0	[m]	DC	RRI
1520.0	[m]	DC	RRI
1540.0	[m]	DC	RRI
1560.0	[m]	DC	RRI
1580.0	[m]	DC	RRI

1610.0	[m]	DC	RRI
1630.0	[m]	DC	RRI
1650.0	[m]	DC	RRI
1670.0	[m]	DC	RRI
1690.0	[m]	DC	RRI
1710.0	[m]	DC	RRI
1730.0	[m]	DC	RRI
1750.0	[m]	DC	RRI
1770.0	[m]	DC	RRI
1790.0	[m]	DC	RRI
1810.0	[m]	DC	RRI
1830.0	[m]	DC	RRI
1850.0	[m]	DC	RRI
1870.0	[m]	DC	RRI
1890.0	[m]	DC	RRI
1910.0	[m]	DC	RRI
1930.0	[m]	DC	RRI
1950.0	[m]	DC	RRI
1970.0	[m]	DC	RRI
1990.0	[m]	DC	RRI
2010.0	[m]	DC	RRI
2030.0	[m]	DC	RRI
2050.0	[m]	DC	RRI
2060.0	[m]	DC	RRI
2067.0	[m]	DC	RRI
2080.0	[m]	DC	RRI
2090.0	[m]	DC	RRI
2100.0	[m]	DC	RRI
2110.0	[m]	DC	RRI
2120.0	[m]	DC	RRI
2130.0	[m]	DC	RRI
2140.0	[m]	DC	RRI
2150.0	[m]	DC	RRI
2160.0	[m]	DC	RRI
2170.0	[m]	DC	RRI
2180.0	[m]	DC	RRI
2190.0	[m]	DC	RRI
2200.0	[m]	DC	RRI
2210.0	[m]	DC	RRI
2220.0	[m]	DC	RRI

2230.0	[m]	DC	RRI
2230.0	[m]	DC	FUGRO
2237.1	[m]	C	RRI
2237.9	[m]	C	RRI
2245.4	[m]	C	RRI
2245.8	[m]	C	RRI
2246.4	[m]	C	RRI
2246.5	[m]	C	FUGRO
2246.6	[m]	C	FUGRO
2246.8	[m]	C	FUGRO
2247.0	[m]	C	PETROSTR
2247.1	[m]	C	RRI
2247.3	[m]	C	FUGRO
2247.5	[m]	C	RRI
2247.9	[m]	C	RRI
2248.0	[m]	C	FUGRO
2248.5	[m]	C	FUGRO
2249.1	[m]	C	RRI
2250.0	[m]	C	PETROSTR
2250.1	[m]	C	RRI
2250.3	[m]	C	FUGRO
2250.5	[m]	C	FUGRO
2250.9	[m]	C	FUGRO
2260.0	[m]	DC	RRI
2265.0	[m]	DC	RRI
2270.0	[m]	DC	RRI
2275.0	[m]	DC	RRI
2280.0	[m]	DC	RRI
2285.0	[m]	DC	RRI
2290.0	[m]	DC	RRI
2300.0	[m]	DC	RRI
2310.0	[m]	DC	RRI
2315.0	[m]	DC	RRI
2320.0	[m]	DC	RRI
2325.0	[m]	DC	RRI
2330.0	[m]	DC	RRI
2335.0	[m]	DC	RRI
2340.0	[m]	DC	RRI
2345.0	[m]	DC	RRI
2350.0	[m]	DC	RRI

2355.0	[m]	DC	RRI
2360.0	[m]	DC	RRI
2365.0	[m]	DC	RRI
2370.0	[m]	DC	RRI
2375.0	[m]	DC	RRI
2377.0	[m]	DC	RRI

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
149	NORDLAND GP
460	UTSIRA FM
958	HORDALAND GP
958	NO FORMAL NAME
1158	SKADE FM
1346	NO FORMAL NAME
2150	ROGALAND GP
2150	BALDER FM
2167	SELE FM
2194	LISTA FM
2236	HEIMDAL FM

Composite logs

Document name	Document format	Document size [MB]
4278_25_4_9_S	pdf	0.30

Geochemical information

Document name	Document format	Document size [MB]
4278_1	pdf	1.48

Logs

Log type	Log top depth [m]	Log bottom depth [m]
MDT GR	2240	2335
MDT GR	2294	2294
MWD - CDR GR RES DIR	220	2236
MWD - GVR6 ARC GR RES DIR	2236	2377
SP DSI HRLA PEX	146	2377
VSP GR	800	2370

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	145.0	36	149.0	0.00	LOT
SURF.COND.	13 3/8	1080.0	17 1/2	1086.0	1.45	LOT
INTERM.	9 5/8	2231.0	12 1/4	2236.0	1.40	LOT
OPEN HOLE		2377.0	8 1/2	2377.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
297	1.30			WATER BASED	
954	1.30			WATER BASED	
1067	1.27	20.0		OIL BASED	
1666	1.35	29.0		OIL BASED	
2185	1.35	25.0		OIL BASED	
2236	1.35	23.0		OIL BASED	
2255	1.25	12.0		WATER BASED	
2377	1.24	11.0		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]
4278_Formation_pressure_(Formasjonstrykk)	pdf	0.22