General information

Wellbore name	30/9-22
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	OSEBERG SØR
Discovery	30/9-22 Stjerne
Well name	30/9-22
Seismic location	inline3401 & crossline 6973(NH05-M01-Full 3D cube)
Production licence	104
Drilling operator	StatoilHydro Petroleum AS
Drill permit	1226-L
Drilling facility	POLAR PIONEER
Drilling days	41
Entered date	29.01.2009
Completed date	10.03.2009
Release date	10.03.2011
Publication date	10.03.2011
Purpose - planned	WILDCAT
Reentry	NO
Content	OIL/GAS
Discovery wellbore	YES
1st level with HC, age	LATE JURASSIC
1st level with HC, formation	INTRA HEATHER FM SS
2nd level with HC, age	MIDDLE JURASSIC
2nd level with HC, formation	TARBERT FM
Kelly bushing elevation [m]	23.0
Water depth [m]	95.3
Total depth (MD) [m RKB]	3255.0
Final vertical depth (TVD) [m RKB]	3254.0
Maximum inclination [°]	4
Bottom hole temperature [°C]	117
Oldest penetrated age	MIDDLE JURASSIC
Oldest penetrated formation	DRAKE FM
Geodetic datum	ED50

NS degrees	60° 17' 31.78'' N
EW degrees	2° 42' 5.84'' E
NS UTM [m]	6684143.45
EW UTM [m]	483503.35
UTM zone	31
NPDID wellbore	6034

Wellbore history

General

Well 30/9-22 (Katla) was drilled on the edge of the Horda Platform in the northern part of the Viking Graben, south of the Oseberg Sør field. The objective was to prove the presence of commercial hydrocarbons in the Middle Jurassic Tarbert Formation and to collect all data needed to assess the development of the prospect.

Operations and results

Wildcat well 30/9-22 was spudded with the semi-submersible installation Polar Pioneer on 29 January 2009 and drilled to TD at 3255 m in the Early Jurassic Dunlin Group. No shallow gas was observed by the ROV at the wellhead or by the MWD while drilling the 26" hole or the 17 1/2" hole. No significant problems occurred in the operations. The well was drilled with seawater and CaCl2 /polymer down to 339 m and with Glydril water based mud from 339 m to TD.

The well penetrated rocks of Quaternary, Tertiary, Cretaceous, and Jurassic age. The Heather Formation (Intra-Heather Formation Sandstone) was encountered at 2828 m, 44 m shallower than prognosed. The Tarbert Formation was encountered at 2866 m, 55 m shallower than prognosed. The Intra Heather Formation sandstone was gas filled, and the Tarbert Formation sandstone contained both gas and oil. Pressure measurements indicated a higher gas gradient and a pressure regime that was ca one bar lower in the Intra-Heather reservoir compared to the Tarbert Formation. The Tarbert Formation had a gas-oil contact at 2874 m and an oil-water contact at 2911 m. No oil shows were recorded outside of the target reservoir sections.

Two cores were cut; the first one started in the Heather Formation and continued in the Tarbert Formation, core #2 was cut in the Tarbert Formation only. MDT fluid samples were collected in the Intra-Heather sandstone at 2829.9 m (gas), and in the Tarbert Formation at 2867.9 m (gas), 2893.5 m (oil), and 2920.8 m (water)

The well was permanently abandoned on 10 March 2009 as an oil and gas discovery.

Testing

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
340.00	3255.00

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	2841.0	2895.4	[m]
2	2895.5	2949.7	[m]

Total core sample length [m]	108.6
Cores available for sampling?	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
118	NORDLAND GP
688	UTSIRA FM
864	HORDALAND GP
2139	ROGALAND GP
2139	BALDER FM
2197	SELE FM
2255	LISTA FM
2345	VÅLE FM
2430	SHETLAND GP
2430	HARDRÅDE FM
2678	KYRRE FM
2749	CROMER KNOLL GP
2749	SOLA FM
2758	ÅSGARD FM
2790	VIKING GP
2790	DRAUPNE FM
2830	HEATHER FM
2867	BRENT GP
2867	TARBERT FM
2995	NESS FM
3205	DUNLIN GP
3205	DRAKE FM

Geochemical information

Document name	Document format	Document size [MB]
6034_01_30_9_22_gch_transfer_1	txt	0.00
6034_02_30_9_22_gch_results_1	txt	0.40

Logs

Log type	Log top depth [m]	Log bottom depth [m]
MDT PRESSURE	2829	3032
MDT SAMPLE	2829	3032
MWD LWD - ARC & GEOVISION6	2770	3255
MWD LWD - POWERPULSE	117	183
MWD LWD - POWERPULSE ARCVISION9	183	1465
MWD LWD - TELESCOPE ARCVISION8	1465	2770
PEX HRLA MSIP	2705	3248
VSI ZOVSP	650	3248

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	180.0	36	183.0	0.00	LOT
SURF.COND.	20	336.0	26	339.0	1.71	LOT
INTERM.	13 3/8	1460.0	17 1/2	1465.0	1.82	LOT
INTERM.	9 5/8	2768.0	12 1/2	2770.0	1.94	LOT
OPEN HOLE		3255.0	8 1/2	3255.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
478	1.25	17.0		Glydril	
867	1.25	19.0		Glydril	
1376	1.25	16.0		Glydril	
1512	1.45	11.0		Glydril	
1919	1.45	20.0		Glydril	
2685	1.46	23.0		Glydril	

2770	1.45	24.0		Glydril	
2779	1.25	14.0		Glydril	
2852	1.45	24.0		Glydril	
2971	1.25	16.0		Glydril	
3255	1.25	16.0		Glydril	