

**General information**

Wellbore name	8/10-3
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	NORTH SEA
Well name	8/10-3
Seismic location	intersection of inline 7264 and trace 24860
Production licence	331
Drilling operator	ConocoPhillips Skandinavia AS
Drill permit	1242-L
Drilling facility	MÆRSK GALLANT
Drilling days	127
Entered date	02.06.2010
Completed date	06.10.2010
Release date	01.04.2012
Publication date	01.04.2012
Purpose - planned	WILDCAT
Reentry	NO
Content	DRY
Discovery wellbore	NO
Kelly bushing elevation [m]	45.0
Water depth [m]	68.5
Total depth (MD) [m RKB]	5738.0
Final vertical depth (TVD) [m RKB]	5737.0
Maximum inclination [°]	2
Bottom hole temperature [°C]	176
Oldest penetrated age	EARLY PERMIAN
Oldest penetrated formation	ROTLIEGEND GP
Geodetic datum	ED50
NS degrees	57° 2' 23.57" N
EW degrees	3° 17' 1.85" E
NS UTM [m]	6322002.76
EW UTM [m]	517225.49
UTM zone	31
NPDID wellbore	6098



Wellbore history

General

Well 8/10-3 was drilled on the Megalodon prospect in the western part of Norwegian-Danish Basin in the southern North Sea. The objective was to test the pre-Zechstein play potential of the Rotliegendes sandstone (Auk Formation equivalent) in relation to a potential Carboniferous source. The evaporites of the Upper Permian Zechstein Group form an effective top seal. The Megalodon well was planned as a vertical HPHT well with an anticipated dry hole TD of 5600 m.

Operations and results

Wildcat well 8/10-3 was spudded with the jack-up installation Mærsk Galant on and drilled to TD at 5737 m in sandstone of the Permian Rotliegendes Group. A 12 1/4" pilot hole was drilled from 261 to 1061 m to check for shallow gas. A notable formation gas peak of 7.7% (C1 only) occurred at 566m in a thick sand unit. This correlated with a shallow gas anomaly identified on the site survey 67 m from the well position. The well was drilled with seawater and sweeps down to 216 m, with spud mud and NaCl water based mud from 216 m to 1100 m, with Versatec oil based mud from 1100 m to 3452 m, and with Paratherm oil based mud from 3452 m to TD.

The well was dry at the Rotliegendes target. No specific secondary target had been identified, however, due to the position of the well on top of a salt diapir, 4-way dip closures were drilled through at several levels from Paleocene to Top Zechstein. No hydrocarbons were found here. Sandstone and siltstone were penetrated in the Triassic, Skagerrak and Smith Bank Formation. Above this, the Jurassic Mandal, Farsund and Sandnes Formation were penetrated without sand.

The Rotliegendes Group, penetrated at 5397.5 m, came in 56.5 m low to prognosis, under 2003 m of Zechstein salt and carbonates. The uppermost 192m of the Rotliegendes consisted of shales interbedded with argillaceous sandstones, overlying 154 m of well developed Auk Formation Equivalent sandstones with interbedded shales. Dead oil and tarry oil stains were observed in sandstones at several depths often confined to the upper parts of the sandstone beds. The reservoir properties of the sandstones are good, with porosities averaging 18% and a net-to-gross of 77%. Three pressure points were obtained in the lower sandstone unit using the XPT tool. These indicate permeabilities in the 2 - 4 mD range.

No cores were cut and no wire line fluid samples were taken.

The well was permanently abandoned on 6 October 2010 as a dry well.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate



Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
220.00	5738.00

Cuttings available for sampling?	YES
----------------------------------	-----

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
114	NORDLAND GP
1416	HORDALAND GP
2372	ROGALAND GP
2372	BALDER FM
2397	SELE FM
2422	LISTA FM
2527	VIDAR FM
2550	LISTA FM
2556	SHETLAND GP
2556	EKOFISK FM
2621	TOR FM
2743	HOD FM
2898	CROMER KNOLL GP
2898	RØDBY FM
2927	SOLA FM
2950	TUXEN FM
3009	ÅSGARD FM
3077	TYNE GP
3077	MANDAL FM
3090	FARSUND FM
3099	VESTLAND GP
3099	SANDNES FM
3158	SKAGERRAK FM
3221	SMITH BANK FM
3394	ZECHSTEIN GP
5397	KUPFERSCHIEFER FM
5398	ROTLIEGEND GP

Logs



Log type	Log top depth [m]	Log bottom depth [m]
MWD - DIR	113	216
MWD - DIR	216	1100
MWD - RLL GR RES PWD DIR	216	1061
MWD - RLL GR RES PWD DIR	3023	3452
MWD - RLL GR RES PWD GEOTAP DIR	5350	5575
MWD - RLL GR RES PWD SON DIR	3452	5350
QAIT QSLT QTGC	113	5743
XPT-H	5599	5612

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	208.0	36	216.0	0.00	LOT
PILOT HOLE		1061.0	12 1/4	1061.0	0.00	LOT
SURF.COND.	20	1080.0	26	1100.0	1.73	LOT
INTERM.	13 5/8	3447.0	17 1/2	3452.0	2.15	LOT
INTERM.	9 5/8	5245.0	12 1/2	5350.0	2.15	LOT
OPEN HOLE		5738.0	8 1/2	5738.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
216	1.05	4.0		Spud Mud	
510	1.10	7.0		Spud Mud	
730	1.61	34.0		Versatec	
890	1.13	6.0		Spud Mud	
980	1.22	16.0		NACl Brine	
1088	1.25	15.0		NACl Brine	
1100	1.43	34.0		Versatec	
1190	1.43	38.0		Versatec	
2646	1.58	44.0		Versatec	
3023	1.55	41.0		Versatec	
3452	1.61	55.0		Versatec	
4005	1.97	52.0		Paratherm	
5350	1.94	35.0		Paratherm	



5466	1.94	52.0		Paratherm	
5552	1.79	26.0		Paratherm	
5738	1.77	36.0		Paratherm	