

**General information**

Wellbore name	33/6-4
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	33/6-4
Seismic location	PCR06M1 inline 2794 & crossline 3154
Production licence	370
Drilling operator	Wintershall Norge AS
Drill permit	1398-L
Drilling facility	BORGLAND DOLPHIN
Drilling days	29
Entered date	06.07.2012
Completed date	03.08.2012
Release date	03.08.2014
Publication date	03.12.2014
Purpose - planned	WILDCAT
Reentry	NO
Content	DRY
Discovery wellbore	NO
Kelly bushing elevation [m]	31.0
Water depth [m]	328.0
Total depth (MD) [m RKB]	1845.0
Final vertical depth (TVD) [m RKB]	1845.0
Maximum inclination [°]	1.7
Bottom hole temperature [°C]	56
Oldest penetrated age	LATE CRETACEOUS
Oldest penetrated formation	JORSALFARE FM
Geodetic datum	ED50
NS degrees	61° 38' 58.23" N
EW degrees	1° 44' 1.51" E
NS UTM [m]	6835951.92
EW UTM [m]	432916.39
UTM zone	31
NPDID wellbore	6822



Wellbore history

General

Well 33/6-4 was drilled on the Penguin Ridge between the Makrell Horst and the Marulk Basin in the Northern North Sea. The objective was to test the Kakelborg prospect, an intra-Lista Formation sandstone reservoir interpreted as fan deposits of a channel system prograding from the west across the East Shetland Basin. The fan deposits were supported by an AVO-class III anomaly response.

Operations and results

Wildcat well 33/6-4 was spudded with the semi-submersible installation Borgland Dolphin on 6 July 2012 and drilled to TD at 1845 m in the Late Cretaceous Jorsalfare Formation. A 9 7/8" pilot hole was drilled from TD in 36" section at 425 m to 650 m to check for shallow gas. No shallow gas was seen. The well was drilled with seawater and sweeps down to 650 m and with Aqua-Drill glycol mud from 650 m to TD.

The Lista Formation was encountered at 1746 m, 6 m shallow to prognosis. The Intra-Lista Formation sandstones were not present and no hydrocarbon shows or anomalous gas values seen when penetrating the Lista Formation. The AVO response observed in the seismic dataset was interpreted as the result of an interference effect where two class IV responses (a hard basal-Lista shale in combination a hard Top Shetland) generated an AVO-class III anomaly. The anomalous seismic response is not observed in any of the neighbouring wells.

Due to lack of reservoir and no shows of hydrocarbons, the logging was limited to LWD and VSP on wireline. No cores were cut and no wire line fluid samples were taken.

The well was permanently abandoned on 3 August 2014 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]
660.00	1845.00

Cuttings available for sampling?	YES
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Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
359	NORDLAND GP
1080	UTSIRA FM
1184	HORDALAND GP



1621	ROGALAND GP
1621	BALDER FM
1675	SELE FM
1746	LISTA FM
1797	SHETLAND GP
1797	JORSALFARE FM

Logs

Log type	Log top depth [m]	Log bottom depth [m]
MWD - DIR GR RES PWD DEN NEU SON	1738	1845
MWD LWD - DIR	359	425
MWD LWD - DIR GR RES PWD	429	1737
VSP GR	1308	1818

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	425.0	36	425.0	0.00	
SURF.COND.	20	645.0	26	653.0	1.21	
PILOT HOLE		650.0	9 7/8	650.0	0.00	
INTERM.	13 3/8	1237.5	17 1/2	1243.0	1.73	
INTERM.	9 5/8	1731.0	12 1/4	1738.0	0.00	
OPEN HOLE		1845.0	8 1/2	1845.0	0.00	

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
425	1.29	17.0		Seawater / PHB Sweeps	
653	1.14	15.0		Aqua-drill KCL WBM	
1243	1.36	29.0		Aqua-drill KCL WBM	
1581	1.14	12.0		Aqua-drill KCL WBM	



1737	1.36	29.0		Aqua-drill KCL WBM	
1738	1.36	23.0		Aqua-drill KCL WBM	
1845	1.39	22.0		Aqua-drill KCL WBM	