

General information

Wellbore name	7220/6-3
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	BARENTS SEA
Well name	7220/6-3
Seismic location	LN15M03.Inline 28106.crossline 30664
Production licence	609
Drilling operator	Lundin Norway AS
Drill permit	1660-L
Drilling facility	LEIV EIRIKSSON
Drilling days	35
Entered date	01.09.2017
Completed date	05.10.2017
Release date	05.10.2019
Publication date	05.10.2019
Purpose - planned	WILDCAT
Reentry	NO
Content	SHOWS
Discovery wellbore	NO
Kelly bushing elevation [m]	25.0
Water depth [m]	425.0
Total depth (MD) [m RKB]	1300.0
Final vertical depth (TVD) [m RKB]	1300.0
Maximum inclination [°]	2.3
Oldest penetrated age	CARBONIFEROUS
Oldest penetrated formation	FALK FM
Geodetic datum	ED50
NS degrees	72° 43' 41.13" N
EW degrees	20° 50' 54.64" E
NS UTM [m]	8079812.21
EW UTM [m]	693550.04
UTM zone	33
NPDID wellbore	8203

Wellbore history

General

Well 7220/6-3 was drilled to test the Børselv prospect on the western side of the Loppa High in the Barents Sea. The primary objective was to test the reservoir properties and hydrocarbon potential in the carbonates of the Ørn Formation. TD was planned at 1300 m, 50 m below the Ørn Formation or 50 m into Basement, whichever came first.

Operations and results

Wildcat well 7220/6-3 was spudded with the semi-submersible installation Leiv Eiriksson on 1 September 2017 and drilled to TD at 1300 m in the Late Carboniferous Falk Formation. Operations proceeded without significant problems. The well was drilled with seawater and hi-vis sweeps down to 507 m, with KCl-GEM-polymer water-based mud from 504 to 586 m and with Performadril water-based mud from 586 m to TD.

The well encountered a 380 m thick sequence of Gipsdalen Group carbonates with medium to poor reservoir quality. The reservoir was water bearing with shows. Above the Ørn Formation the first oil show was in a single cuttings sample at 560 m. This had direct fluorescence, cut fluorescence and residue fluorescence. Weak shows were described on cuttings, sidewall cores and conventional cores from 733 to 757 m. Within the Ørn Formation the cored intervals 795 to 810 m, 817 to 839 m, and 858 to 864 m had good oil shows, generally described with "no to good HC odour, no stain to good trace dark brown oil, patchy bright yellow direct fluorescence to bright yellow direct fluorescence, slow streaming blue white fluorescent cut, blue white fluorescent residue". Sidewall cores in the interval 912 to 972 m had shows described as "40-70 % patchy dull yellow direct fluorescence, slow diffuse to streaming dull blue white fluorescent cut, 20% dull bluish white to cream fluorescent residue. There were no shows below 972 m.

The interval from 755 to 864.62 m was cored in four cores, with 100% total recovery. Core depths are equal to logger depths. No fluid sample was taken.

The well was permanently abandoned on 5 October 2017 as a dry well with shows.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
510.00	1300.00

Cuttings available for sampling?	YES
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Cores at the Norwegian Offshore Directorate

Core sample number	Core sample - top depth	Core sample - bottom depth	Core sample depth - uom
1	755.0	782.2	[m]
2	782.2	809.7	[m]
3	809.7	837.1	[m]
4	837.1	864.6	[m]

Total core sample length [m]	109.6
Cores available for sampling?	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
450	NORDLAND GP
509	KAPP TOSCANA GP
509	SNADD FM
750	BJARMELAND GP
750	ULV FM
795	GIPSDALEN GP
795	ØRN FM
1181	FALK FM

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CMR NEXT XPT	734	1285
FMI MSIP	730	1300
MSCT	733	1297
MWD - OTII	450	577
MWD - ZT OT	526	755
MWD - ZT OT OTD CCN ST	729	1300
UIB ADT HRLA PEX HNGS	680	1297
VSI	458	1297

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	504.6	36	504.6	0.00	
INTERM.	13 3/8	580.0	17 1/2	586.0	1.53	FIT
LINER	9 5/8	729.0	12 1/4	730.0	1.40	FIT
OPEN HOLE		1300.0	8 1/2	1300.0	0.00	

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
450	1.50			WBM	
450	1.04			WBM	
457	1.03	1.0		Other	
480	1.20	16.0		WBM	
500	1.04			WBM	
505	1.04			WBM	
505	1.50			WBM	
508	1.50	25.0		WBM	
586	1.20	19.0		WBM	
586	1.20	20.0		WBM	
591	1.20	19.0		WBM	
730	1.22	11.0		WBM	
730	1.20	17.0		WBM	
1300	1.20	15.0		WBM	