

**General information**

Wellbore name	7322/6-1 S
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	7322/6-1
Seismic location	3D survey HFC11. Inline 1657. Xline 11536
Production licence	722
Drilling operator	Equinor Energy AS
Drill permit	1856-L
Drilling facility	DEEPSEA NORDKAPP
Drilling days	50
Entered date	09.04.2021
Completed date	28.05.2021
Plugged and abandon date	28.05.2021
Release date	28.02.2022
Publication date	28.02.2022
Purpose - planned	WILDCAT
Reentry	NO
Content	DRY
Discovery wellbore	NO
Kelly bushing elevation [m]	32.7
Water depth [m]	439.0
Total depth (MD) [m RKB]	3850.0
Final vertical depth (TVD) [m RKB]	3583.0
Maximum inclination [°]	38.7
Oldest penetrated age	LATE CARBONIFEROUS
Oldest penetrated formation	ØRN FM
Geodetic datum	ED50
NS degrees	73° 34' 39.7" N
EW degrees	22° 55' 4.88" E
NS UTM [m]	8169552.05
EW UTM [m]	371272.19
UTM zone	35
NPDID wellbore	9285



Wellbore history

General

Well 7322/6-1 S was drilled to test the Shenzhou prospect on the south-western part of the Bjarmeland Platform in the Barents Sea. The main objectives were to prove petroleum in Snadd Formation Carnian and Ladinian sandstones, and in Late Carboniferous to Early Permian carbonate build-ups in the rn Formation.

Operations and results

An 8 1/2 pilot hole was drilled to 713 m to check for possible shallow gas in the St and Snadd formations, which were planned to be drilled riser-less. No shallow gas or water flow was encountered.

Wildcat well 7322/6-1 S was spudded with the semi-submersible installation Deepsea Nordkapp on 9 April 2021 and drilled to TD at 3850 m (3583 m TVD) in Late Carboniferous carbonates in the rn Formation. Operations proceeded without significant problems. The well was drilled with spud mud down to 525 m and with KCL/Polymer/GEM mud from 525 m to TD.

Well 7322/6-1 S encountered two sandstone intervals in the Snadd Formation.

An intra-Carnian channel sandstone was identified at 1634 m and is about 35 m thick. Side-wall cores and the conventional core from this section had good shows with both direct and cut fluorescence and hydrocarbon odour starting above this sandstone at 1629 to 1715 m below this sandstone. The channel sandstone is calcareous cemented in the top and silica cemented in the base, while pressure data proved tight to low mobility. An intra-Ladinian deltaic sandstone was identified at 1816 m with ca 20 m gross thickness. This sandstone was tight with no shows. A deeper Ladinian sandstone had weak shows between 1956 to 1964 m.

The rn Formation target was encountered deeper than expected, with carbonate build-ups from 3600 m. Approximately 140 m of rn carbonate build-ups with poor to moderate reservoir quality was drilled and proven dry.

Sandstones with moderate to good reservoir quality were also encountered shallower than the main targets, within the St -Fruholmen formations and Upper Snadd Formation. In the Upper Snadd a sandstone between 1110 and 1116 m had weak shows (no stain or direct fluorescence, cut only), while a cuttings sample at 1520 m had 50% sand with dull direct fluorescence.

Two cores were cut in the Snadd Formation. Core 1 was cut from 1644 to 1698 m with 100% recovery. Core 2 was cut from 1828 to 1892.3 m with 99.8 m recovery. MDT fluid samples were taken at 1667.4 m and 1715.9 m. All samples recovered water.

The well was permanently abandoned on 28 May 2021 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]
760.00	3850.00

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	1644.0	1698.0	[m]
2	1828.0	1892.1	[m]

Total core sample length [m]	118.1
Cores available for sampling?	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
472	NORDLAND GP
472	NAUST FM
548	ADVENTDALEN GP
548	KOLMULE FM
643	KNURR FM
651	HEKKINGEN FM
679	FUGLEN FM
707	KAPP TOSCANA GP
707	STØ FM
719	FRUHOLMEN FM
776	SNADD FM
1634	UNDIFFERENTIATED
1816	UNDIFFERENTIATED
2190	SASSENDALLEN GP
2190	KOBBE FM
2272	STEINKOBBE FM
2391	KLAPPMYSS FM
2447	HAVERT FM
2519	TEMPELFJORDEN GP
2519	ØRRET FM
3094	BJARMELAND GP



3094	ISBJØRN FM
3124	ULV FM
3326	POLARREV FM
3454	GIPSDALEN GP
3454	ØRN FM
3600	UNDIFFERENTIATED

Logs

Log type	Log top depth [m]	Log bottom depth [m]
MDT CMR	1558	1975
MSIP NEXT CPEX HRLA XPT	1120	2333
MWD - ADR DGR PWD PCDC	3024	3238
MWD - ADR DGR PWD XBAT PCDC	525	713
MWD - ADR DGR PWD XBAT PCDC	2337	3024
MWD - ADR GM XBAT PWD DM	3290	3850
MWD - DGR EWR PWD PCDC	1539	2337
MWD - EWR DGR PWD PCDC	525	760
MWD - EWR DGR PWD PCDC	763	1539
MWD - PC DC	472	525
NEXT CCMR XPT	3420	3854
PEX HRLA	3240	3855
VSI	1096	3840
XLR	1575	2320

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	36	522.2	42	525.0	0.00	
INTERM.	20	752.8	26	760.0	1.37	FIT
INTERM.	13 5/8	1531.4	17 1/2	1539.0	1.80	LOT
LINER	9 5/8	2336.0	12 1/4	2337.0	1.62	LOT
LINER	7	3237.0	8 1/2	3238.0	1.40	FIT
OPEN HOLE		3850.0	6	3850.2	0.00	

Drilling mud



Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
660	1.30	26.0	16.0	KCl/Polymer	
746	1.15	8.0	22.0	KCl/Polymer/GEM	
762	1.03	1.0	0.5	Seawater	
925	1.15	15.0	11.0	KCl/Polymer/GEM	
1445	1.16	19.0	12.5	KCl/Polymer/GEM	
1539	1.18	20.0	13.0	KCl/Polymer/GEM	
1603	1.17	21.0	15.5	KCl/Polymer/GEM	
1639	1.18	20.0	12.0	KCl/Polymer/GEM	
1892	1.20	20.0	11.5	KCl/Polymer/GEM	
2337	1.24	22.0	14.0	KCl/Polymer/GEM	
2439	1.23	16.0	10.0	KCl/Polymer/GEM	
2960	1.24	18.0	11.0	KCl/Polymer/GEM	
3238	1.27	16.0	10.0	KCl/Polymer/GEM	
3850	1.27	16.0	9.5	KCl/Polymer/GEM	