



General information

Wellbore name	7324/7-2
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	BARENTS SEA
Discovery	7324/7-2 (Hanssen)
Well name	7324/7-2
Seismic location	Surbvey HF09:inline 2530 & crolline 4248
Production licence	537
Drilling operator	OMV (Norge) AS
Drill permit	1515-L
Drilling facility	TRANSOCEAN BARENTS
Drilling days	85
Entered date	13.04.2014
Completed date	06.07.2014
Release date	06.07.2016
Publication date	06.07.2016
Purpose - planned	WILDCAT
Reentry	NO
Content	OIL
Discovery wellbore	YES
1st level with HC, age	MIDDLE JURASSIC
1st level with HC, formation	STØ FM
Kelly bushing elevation [m]	40.0
Water depth [m]	417.5
Total depth (MD) [m RKB]	1730.0
Final vertical depth (TVD) [m RKB]	1719.0
Maximum inclination [°]	14.3
Bottom hole temperature [°C]	51
Oldest penetrated age	MIDDLE TRIASSIC
Oldest penetrated formation	SNADD FM
Geodetic datum	ED50
NS degrees	73° 29' 27.09" N
EW degrees	24° 14' 2.56" E
NS UTM [m]	8157493.85
EW UTM [m]	412291.83



UTM zone	35
NPDID wellbore	7450

Wellbore history

General

Well 7324/7-2 was drilled to test the Hanssen prospect in the Hoop Fault Complex in the Barents Sea. The primary objective of well 7324/7-2 was to prove hydrocarbons in the Realgrunnen Subgroup. In addition, the well targeted the deeper Snadd Formation.

Operations and results

Wildcat well 7324/7-2 was spudded with the semi-submersible installation Transocean Barents on 13 April 2014 and drilled to TD at 1730 m (1719 m TVD) in the Middle Triassic Snadd Formation. After drilling the top hole to 576 m, the BOP could not be set according to schedule due to damaged Lower Marine Riser Package connector. Attempts to repair this and eventually mobilising a new LMRP connector from shore led to 414.5 hrs NPT. The target tolerance for the Early Carnian Snadd sand was revised from the drilling program. Due to this revision, a steerable drilling system was needed below 1200 m (the 6" hole) for hitting the well path inside the target box. No significant problem was encountered in the operations. The well was drilled with seawater and hi-vis pills down to 521 m and with Glydril mud from 521 m to TD.

The primary target Stø Formation was encountered at 712 m and was oil bearing down to the oil-water contact, defined at 732.2 m (731.95 m TVD) from fluid scanning. In the secondary target, the Snadd formation, oil shows were described and gas was found but in poor reservoir rocks, and no gas gradient was established.

Six cores were cut in the well. The two first, 577.5 to 580.9 m in the Kolmule Formation and 672 to 678 m in the Fuglen Formation, were shale cores for geomechanical purposes. Cores 3 to 6 were cut in succession from 710 m in Fuglen cap rock, through the Stø Formation and down to 783.4 m in the Fruholmen Formation. MDT fluid samples were taken at 715 m (oil), 731 m (oil), 731.5 m (oil), 747.5 m (water), 757.7 m (water), 768 m (water), and 883.7 m (water). Fluid scanning at 732 m, 732.2m and 734 m proved water and oil together.

The well was permanently abandoned on 6 July 2014 as an oil discovery.

Testing

One oil DST run was performed in the interval 713 to 727 m in the Stø Formation. The test produced 276 Sm³ oil and 9417 Sm³ gas /day through a 48/64" choke. The GOR was 38 Sm³/Sm³, the oil gravity was 0.846g/cm³ (35.7° API), and the gas gravity was 0.731 (air = 1). The CO₂ content was 6%. The DST temperature was 16.5 °C.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
577.00	1730.00

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	577.5	580.9	[m]
2	672.0	675.9	[m]
3	710.0	723.5	[m]
4	724.0	739.2	[m]
5	739.5	757.4	[m]
6	757.5	782.0	[m]

Total core sample length [m]	78.4
Cores available for sampling?	YES

Oil samples at the Norwegian Offshore Directorate

Test type	Bottle number	Top depth MD [m]	Bottom depth MD [m]	Fluid type	Test time	Samples available
MDT		714.80	0.00	OIL		NO
MDT		731.50	0.00	OIL		YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
458	NORDLAND GP
458	UNDIFFERENTIATED
506	ADVENTDALEN GP
506	KOLMULE FM
591	KOLJE FM
610	KNURR FM
630	HEKKINGEN FM
666	FUGLEN FM
712	KAPP TOSCANA GP
712	STØ FM
736	FRUHOLMEN FM
839	SNADD FM



Drill stem tests (DST)

Test number	From depth MD [m]	To depth MD [m]	Choke size [mm]
1.0	713	727	19.1

Test number	Final shut-in pressure [MPa]	Final flow pressure [MPa]	Bottom hole pressure [MPa]	Downhole temperature [°C]
1.0				17

Test number	Oil [Sm3/day]	Gas [Sm3/day]	Oil density [g/cm3]	Gas grav. rel.air	GOR [m3/m3]
1.0	276	9417	0.846	0.731	38

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CMR MDT	1199	1720
CMR MDT GR LEH	705	1199
DP MDT-TLC	1591	1655
FMIHD PPC1 MSIP PPC2 GR LEH	670	1199
GPIT PPC1 MSIP PPC2 GR	457	700
MDT TLC	715	883
MWD - GVR ES PS TS	576	700
MWD - GVR SS IM STS ADN	576	1730
MWD - PP	457	522
MWD - PS ES TS SONVIS	522	566
PEX HRLT ECS FMI	1199	1720
PPC1 MSIP PPC2 MCFL ZAIT HNGS	1199	1720
USIT CBL VDL GR	583	1195
VSP GR	314	0
ZAIT CAL ECS HNGS GR	500	700
ZAIT HRLA PEX HNGS	705	1199
ZVSP	1121	1722

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	518.0	36	523.0	0.00	
SURF.COND.	20	571.0	26	576.0	1.36	FIT
INTERM.	9 5/8	694.0	12 1/4	700.0	1.70	FIT
LINER	7	1199.0	8 1/2	1200.0	1.99	FIT
OPEN HOLE		1730.0	6	1730.0	0.00	

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
458	1.02			Sea Water	
510	1.19	15.0		GLYDRIL WBM	
521	1.02			Sea Water	
540	1.24	17.0		Glydril	
576	1.14	23.0		Glydril	
964	1.15	13.0		Glydril	
1002	1.14			Packer Fluid (NaCl brine)	
1200	1.18	13.0		Glydril	
1555	1.18	14.0		Glydril	
1730	1.18	12.0		Glydril	