

**General information**

Wellbore name	6507/3-12
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	NORWEGIAN SEA
Discovery	6507/3-12 (Osprey)
Well name	6507/3-12
Seismic location	3D EN0804.Inline 4883. X-line 2987
Production licence	159 B
Drilling operator	Statoil Petroleum AS
Drill permit	1648-L
Drilling facility	DEEPSEA BERGEN
Drilling days	25
Entered date	03.02.2017
Completed date	28.02.2017
Plugged date	27.02.2017
Release date	28.02.2019
Publication date	04.04.2019
Purpose - planned	WILDCAT
Reentry	NO
Content	GAS
Discovery wellbore	YES
1st level with HC, age	CRETACEOUS
1st level with HC, formation	LYSING FM
Kelly bushing elevation [m]	23.0
Water depth [m]	381.0
Total depth (MD) [m RKB]	3451.0
Final vertical depth (TVD) [m RKB]	3450.0
Maximum inclination [°]	4.11
Oldest penetrated age	EARLY JURASSIC
Oldest penetrated formation	TOFTE FM
Geodetic datum	ED50
NS degrees	65° 58' 3.95" N
EW degrees	7° 56' 1.53" E
NS UTM [m]	7316913.96
EW UTM [m]	451545.26



UTM zone	32
NPDID wellbore	8097

Wellbore history

General

Well 6507/3-12 was drilled to test the Mim prospect on the Revfallet Fault complex in the Norwegian sea. The primary objective was to prove economical hydrocarbon volumes in the Fangst Group, and possible also Båt Group, if discovery in Fangst. A sidetrack into the adjacent structure Mim North would test the same reservoir units if a discovery was made in Mim. A secondary objective was to acquire pressure points in Cretaceous sands associated with observed amplitude anomaly over the Mim structure.

Operations and results

Wildcat well 6507/3-12 was spudded with the semi-submersible installation Deepsea Bergen on 3 February 2017 and drilled to TD at 3451 m in the Early Jurassic Tofte Formation. Operations proceeded without significant problems. The well was drilled with seawater and hi-vis pills down to 1334 m and with XP-07 oil-based mud from 1334 m to TD.

A gas bearing Cretaceous sandstone belonging to the Lysing Formation was penetrated from 2614.5 m to a gas-down-to contact at 2621 m. The Lysing sandstone had very good permeability and 110 bar overpressure. This discovery was named Osprey. The Fangst group of the Mim structure was water bearing with residual hydrocarbons only. The Båt Group was not tested as a result of this and no sidetrack into Mim North was performed. Direct and cut fluorescence were described from top Garn Formation at 3295 to 3325 m. Direct and cut fluorescence were described also in the Ile Formation from 3347 to 3381 m.

One core was cut from 3299 to 3381 m in the Fangst Group with 100% recovery. Good pressure points were obtained on wire line in both the Lysing Formation and the primary target Fangst Group. MDT gas samples were taken at 2616.1 m in the Lysing Formation.

The well was permanently abandoned on 28 February 2017 as a gas discovery.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
1340.00	3452.00

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	3299.0	3381.6	[m]

Total core sample length [m]	82.6
Cores available for sampling?	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
404	NORDLAND GP
404	NAUST FM
1290	KAI FM
1615	HORDALAND GP
1615	BRYGGE FM
1885	ROGALAND GP
1885	TARE FM
1925	TANG FM
1986	SHETLAND GP
1986	SPRINGAR FM
2365	KVITNOS FM
2615	CROMER KNOLL GP
2615	LYSING FM
2621	LANGE FM
2736	LYR FM
2891	VIKING GP
2891	SPEKK FM
3004	MELKE FM
3295	FANGST GP
3295	GARN FM
3303	NOT FM
3347	ILE FM
3396	BÅT GP
3396	ROR FM

Logs



Log type	Log top depth [m]	Log bottom depth [m]
GR MDT	1325	2895
GR XPT PEX MSIP AIT	2818	3451
MWD - DIR	404	441
MWD - GR RES APWD	441	3451
MWD - GR RES DIR APWD ARC-ADN	1325	2898
USIT CBL MSIP	1935	2888

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	441.0	36	441.0	0.00	
INTERM.	13 5/8	1325.7	17 1/2	1334.0	1.61	FIT
INTERM.	9 5/8	2888.0	12 1/4	2898.0	1.96	LOT
OPEN HOLE		3451.0	8 1/2	3451.0	0.00	

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
1325	1.53	26.0		XP-07	
1325	1.52	28.0		XP-07	
1334	1.54	24.0		XP-07	
1396	1.51	25.0		XP-07	
2409	1.51	24.0		XP-07	
2898	1.51	27.0		XP-07	
3197	1.51	25.0		XP-07	
3451	1.51	22.0		XP-07	