

**General information**

Wellbore name	35/9-14
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	NORTH SEA
Discovery	35/9-14
Well name	35/9-14
Seismic location	HORDA (CGG 14003) Inline 8659. Xline 30374
Production licence	682
Drilling operator	Spirit Energy Norge AS
Drill permit	1688-L
Drilling facility	SONGA ENABLER
Drilling days	42
Entered date	20.01.2018
Completed date	02.03.2018
Plugged date	02.03.2018
Release date	02.03.2020
Publication date	02.03.2020
Purpose - planned	WILDCAT
Reentry	NO
Content	OIL
Discovery wellbore	YES
1st level with HC, age	MIDDLE JURASSIC
1st level with HC, formation	INTRA HEATHER FM SS
Kelly bushing elevation [m]	32.0
Water depth [m]	365.0
Total depth (MD) [m RKB]	3657.0
Final vertical depth (TVD) [m RKB]	3657.0
Maximum inclination [°]	3.8
Bottom hole temperature [°C]	119
Oldest penetrated age	MIDDLE JURASSIC
Oldest penetrated formation	HEATHER FM
Geodetic datum	ED50
NS degrees	61° 25' 19.87" N
EW degrees	3° 49' 41.93" E



NS UTM [m]	6810256.82
EW UTM [m]	544205.62
UTM zone	31
NPDID wellbore	8358

Wellbore history

General

Well 35/9-14 is the replacement well for 35/9-13, which was abandoned due to shallow water flow. It was drilled about 35 m to the south-east of 35/9-13, on the Tethys prospect on the Måløy slope in the northern North Sea. The primary objective was to test the hydrocarbon potential in Oxfordian age Intra-Heather Formation sandstone.

Operations and results

Wildcat well 35/9-14 was spudded with the semi-submersible installation Songa Enabler on 20 January 2018 and drilled to TD at 3657 m in the Late Jurassic Heather Formation. The 20" casing was set shallow at 572 m, above the sand that was interpreted as source of the shallow water flow in 35/9-13. Further drilling commenced with BOP in place. No shallow waterflow issues were recognized during drilling of the actual section. At TD in the 17 1/2" section a fish in the hole caused 8 days NPT. The 35/9-14 well was drilled to TD at 3657 m in the Middle Jurassic Heather Formation. The well was drilled with seawater and hi-vis pills down to 578 m, with KCL/GEM/Polymer mud from 578 m to 1556 m, and with Innovert oil-based mud from 1556 m to TD.

A 20 m thick Intra Heather Formation sandstone was encountered at 3493 m. The sandstone had poor reservoir quality, but contained oil, as confirmed by sampling. Oil shows were recorded in the oil-bearing reservoir, otherwise no oil shows were described in the well.

No core was cut. MDT oil samples were taken at 3496.5 m. The samples were contaminated with 11.9 to 13.3 % mud filtrate.

The well was permanently abandoned on 29 March 2018 as an oil discovery.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
590.00	3657.00

Cuttings available for sampling?	YES
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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		0.00	0.00			YES
MDT		3496.50	0.00	OIL	27.02.2018 - 22:15	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
396	NORDLAND GP
591	UTSIRA FM
638	HORDALAND GP
660	NO FORMAL NAME
841	HORDALAND GP
872	ROGALAND GP
872	BALDER FM
943	SELE FM
959	LISTA FM
1298	VÅLE FM
1382	SHETLAND GP
1382	JORSALFARE FM
1518	KYRRE FM
2502	TRYGGVASON FM
2737	BLODØKS FM
2774	SVARTE FM
3189	CROMER KNOLL GP
3189	RØDBY FM
3376	ÅSGARD FM
3387	VIKING GP
3387	DRAUPNE FM
3406	HEATHER FM
3493	INTRA HEATHER FM SS
3512	HEATHER FM

Logs



Log type	Log top depth [m]	Log bottom depth [m]
LWD - TELE ARC ECO SON	397	3656
SATURN MDT IFA HNGS	3222	3651
USIT CBL VDL GR	365	561
VSI4	418	3648
XL ROCK	3373	3600

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	461.9	36	462.0	0.00	
SURF.COND.	20	571.8	26	578.0	0.00	
INTERM.	13 3/8	1548.0	17 1/2	1556.0	0.00	
		1549.0		0.0	1.50	FIT
LINER	9 5/8	3224.0	12 1/2	3224.0	1.48	FIT
OPEN HOLE		3657.0	8 1/2	3657.0	0.00	

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
460	1.39	30.0		KCl/Polymer	
581	1.18	11.0		KCl/Polymer/GEM	
1244	1.18	12.0		KCl/Polymer/GEM	
1475	1.22	17.0		Innovert	
1556	1.18	11.0		KCl/Polymer/GEM	
1678	1.20	16.0		Innovert	
2437	1.27	20.0		Innovert	
2545	1.20	15.0		Innovert	
3005	1.23	19.0		Innovert	
3095	1.27	20.0		Innovert	
3102	1.24	20.0		Innovert	
3230	1.27	20.0		Innovert	
3657	1.27	21.0		Innovert	