

**General information**

Wellbore name	30/9-21 S
Type	EXPLORATION
Purpose	APPRAISAL
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	NORTH SEA
Field	OSEBERG
Discovery	30/9-19
Well name	30/9-21
Seismic location	Seismic 3D survey: N9802-inline 1141 & x-line 2425
Production licence	104
Drilling operator	StatoilHydro Petroleum AS
Drill permit	1176-L
Drilling facility	TRANSOCEAN WINNER
Drilling days	49
Entered date	13.03.2008
Completed date	30.04.2008
Release date	30.04.2010
Publication date	30.04.2010
Purpose - planned	WILDCAT
Reentry	NO
Content	OIL/GAS
Discovery wellbore	NO
1st level with HC, age	MIDDLE JURASSIC
1st level with HC, formation	TARBERT FM
Kelly bushing elevation [m]	26.0
Water depth [m]	106.0
Total depth (MD) [m RKB]	4090.0
Final vertical depth (TVD) [m RKB]	3463.0
Maximum inclination [°]	50.6
Bottom hole temperature [°C]	132
Oldest penetrated age	MIDDLE JURASSIC
Oldest penetrated formation	NESS FM
Geodetic datum	ED50
NS degrees	60° 25' 29.12" N
EW degrees	2° 41' 38.47" E



NS UTM [m]	6698913.45
EW UTM [m]	483151.56
UTM zone	31
NPDID wellbore	5800

Wellbore history

General

Well 30/9-21 S was drilled in the Oseberg Field area in the northern Viking Graben. The objective was to prove commercial amount of hydrocarbons in the Delta S2 prospect in Middle Jurassic, middle Tarbert Formation sandstone, and to collect all data needed for development of the prospect.

Operations and results

Wildcat well 30/9-21 S was spudded with the semi-submersible installation Transocean Winner on 13 March 2008 and drilled to TD at 4090 m (3463 m TVD) in the Middle Jurassic Ness Formation. No shallow gas was observed by the ROV at the wellhead or by the MWD while drilling the 36" hole and the 20" hole. The well was drilled vertical down to 1150 m, and then deviated with inclination up to 50 deg at 3300 m. While drilling the 12 1/4" section at 1320 m operations were suspended for a day because a trawler's fishing net had become snagged around anchor chain #7. The well was drilled with sea water and bentonite sweeps down to 850 m, with sea water/bentonite sweeps and Glydril mud from 850 m to m to 2130 m, and with Paratech oil based mud from 2130 m to TD. Chromatographic analyses of mud filtrate from the well (PVT report) indicated that the base oil consist of mainly n-alkanes in the range C13 to C20.

The well penetrated rocks of Quaternary, Tertiary, and Cretaceous and Jurassic age. The well encountered top Tarbert Formation at 3774 m (3204.9 m TVD) and penetrated the target Middle Tarbert reservoir section at 3808 m (3231.2 m TVD RKB), 29 m deeper than prognosed. Wire line logs and pressure data proved an oil bearing interval from 3808 m (3231.2 m TVD) down to an OWC at 3856 m (3268 m TVD).

No cores were cut in this wellbore. MDT wire line fluid samples were taken at 3822.5 m (oil), 3852.0 m (oil), and at 3860.5 m (water). Contamination of base oil from the mud was analysed to be from 7% to 20%, with the least contamination in the samples from 3852.0 m.

The well was plugged back permanently abandoned on 30 April 2008 as an oil and gas discovery.

Testing

No drill stem test was performed.

Reclassification

On 9 September 2016 the well was reclassified as an appraisal well for the discovery "30/9-19" from 1998.

Cuttings at the Norwegian Offshore Directorate



Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
1230.00	4090.00

Cuttings available for sampling?	YES
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Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
1230.0	[m]	DC	FUGRO
1270.0	[m]	DC	FUGRO
1310.0	[m]	DC	FUGRO
1370.0	[m]	DC	FUGRO
1430.0	[m]	DC	FUGRO
1470.0	[m]	DC	FUGRO
1530.0	[m]	DC	FUGRO
1590.0	[m]	DC	FUGRO
1630.0	[m]	DC	FUGRO
1690.0	[m]	DC	FUGRO
1730.0	[m]	DC	FUGRO
1770.0	[m]	DC	FUGRO
1790.0	[m]	DC	FUGRO
1830.0	[m]	DC	FUGRO
1850.0	[m]	DC	FUGRO
1890.0	[m]	DC	FUGRO
1930.0	[m]	DC	FUGRO
1990.0	[m]	DC	FUGRO
2030.0	[m]	DC	FUGRO
2090.0	[m]	DC	FUGRO
2140.0	[m]	DC	FUGRO
2160.0	[m]	DC	FUGRO
2190.0	[m]	DC	FUGRO
2219.0	[m]	DC	FUGRO
2230.0	[m]	DC	FUGRO
2260.0	[m]	DC	FUGRO
2280.0	[m]	DC	FUGRO
2310.0	[m]	DC	FUGRO
2340.0	[m]	DC	FUGRO
2360.0	[m]	DC	FUGRO
2390.0	[m]	DC	FUGRO
2420.0	[m]	DC	FUGRO



2450.0	[m]	DC	FUGRO
2480.0	[m]	DC	FUGRO
2510.0	[m]	DC	FUGRO
2540.0	[m]	DC	FUGRO
2570.0	[m]	DC	FUGRO
2600.0	[m]	DC	FUGRO
2630.0	[m]	DC	FUGRO
2690.0	[m]	DC	FUGRO
2740.0	[m]	DC	FUGRO
2770.0	[m]	DC	FUGRO
2830.0	[m]	DC	FUGRO
2880.0	[m]	DC	FUGRO
2940.0	[m]	DC	FUGRO
3000.0	[m]	DC	FUGRO
3070.0	[m]	DC	FUGRO
3130.0	[m]	DC	FUGRO
3190.0	[m]	DC	FUGRO
3220.0	[m]	DC	FUGRO
3250.0	[m]	DC	FUGRO
3280.0	[m]	DC	FUGRO
3310.0	[m]	DC	FUGRO
3350.0	[m]	DC	FUGRO
3380.0	[m]	DC	FUGRO
3410.0	[m]	DC	FUGRO
3440.0	[m]	DC	FUGRO
3470.0	[m]	DC	FUGRO
3490.0	[m]	DC	FUGRO
3520.0	[m]	DC	FUGRO
3550.0	[m]	DC	FUGRO
3580.0	[m]	DC	FUGRO
3610.0	[m]	DC	FUGRO
3640.0	[m]	DC	FUGRO
3670.0	[m]	DC	FUGRO
3683.0	[m]	DC	FUGRO
3686.0	[m]	DC	FUGRO
3689.0	[m]	DC	FUGRO
3692.0	[m]	DC	FUGRO
3695.0	[m]	DC	FUGRO
3698.0	[m]	DC	FUGRO
3701.0	[m]	DC	FUGRO



3704.0 [m]	DC	FUGRO
3707.0 [m]	DC	FUGRO
3710.0 [m]	DC	FUGRO
3713.0 [m]	DC	FUGRO
3716.0 [m]	DC	FUGRO
3719.0 [m]	DC	FUGRO
3722.0 [m]	DC	FUGRO
3725.0 [m]	DC	FUGRO
3728.0 [m]	DC	FUGRO
3731.0 [m]	DC	FUGRO
3734.0 [m]	DC	FUGRO
3737.0 [m]	DC	FUGRO
3740.0 [m]	DC	FUGRO
3743.0 [m]	DC	FUGRO
3746.0 [m]	DC	FUGRO
3749.0 [m]	DC	FUGRO
3752.0 [m]	DC	FUGRO
3755.0 [m]	DC	FUGRO
3758.0 [m]	DC	FUGRO
3761.0 [m]	DC	FUGRO
3764.0 [m]	DC	FUGRO
3767.0 [m]	DC	FUGRO
3770.0 [m]	DC	FUGRO
3773.0 [m]	DC	FUGRO
3776.0 [m]	DC	FUGRO
3779.0 [m]	DC	FUGRO
3782.0 [m]	DC	FUGRO
3785.0 [m]	DC	FUGRO
3788.0 [m]	DC	FUGRO
3791.0 [m]	DC	FUGRO
3794.0 [m]	DC	FUGRO
3797.0 [m]	DC	FUGRO
3800.0 [m]	DC	FUGRO
3803.0 [m]	DC	FUGRO
3806.0 [m]	DC	FUGRO
3809.0 [m]	DC	FUGRO
3812.0 [m]	DC	FUGRO
3815.0 [m]	DC	FUGRO
3818.0 [m]	DC	FUGRO
3821.0 [m]	DC	FUGRO



3824.0	[m]	DC	FUGRO
3827.0	[m]	DC	FUGRO
3830.0	[m]	DC	FUGRO
3833.0	[m]	DC	FUGRO
3836.0	[m]	DC	FUGRO
3839.0	[m]	DC	FUGRO
3842.0	[m]	DC	FUGRO
3845.0	[m]	DC	FUGRO
3890.0	[m]	DC	FUGRO
3893.0	[m]	DC	FUGRO
3896.0	[m]	DC	FUGRO
3899.0	[m]	DC	FUGRO
3902.0	[m]	DC	FUGRO
3905.0	[m]	DC	FUGRO
3908.0	[m]	DC	FUGRO
3911.0	[m]	DC	FUGRO
3914.0	[m]	DC	FUGRO
3920.0	[m]	DC	FUGRO
3926.0	[m]	DC	FUGRO
3929.0	[m]	DC	FUGRO
3932.0	[m]	DC	FUGRO
3935.0	[m]	DC	FUGRO
3938.0	[m]	DC	FUGRO
3941.0	[m]	DC	FUGRO
3944.0	[m]	DC	FUGRO
3947.0	[m]	DC	FUGRO
3950.0	[m]	DC	FUGRO
3953.0	[m]	DC	FUGRO
3956.0	[m]	DC	FUGRO
3959.0	[m]	DC	FUGRO
3962.0	[m]	DC	FUGRO
3965.0	[m]	DC	FUGRO
3968.0	[m]	DC	FUGRO
3971.0	[m]	DC	FUGRO
3974.0	[m]	DC	FUGRO
3977.0	[m]	DC	FUGRO
3980.0	[m]	DC	FUGRO
3983.0	[m]	DC	FUGRO
3986.0	[m]	DC	FUGRO
3989.0	[m]	DC	FUGRO



3992.0 [m]	DC	FUGRO
3995.0 [m]	DC	FUGRO
3998.0 [m]	DC	FUGRO
4001.0 [m]	DC	FUGRO
4004.0 [m]	DC	FUGRO
4007.0 [m]	DC	FUGRO
4010.0 [m]	DC	FUGRO
4013.0 [m]	DC	FUGRO
4016.0 [m]	DC	FUGRO
4019.0 [m]	DC	FUGRO
4022.0 [m]	DC	FUGRO
4025.0 [m]	DC	FUGRO
4028.0 [m]	DC	FUGRO
4031.0 [m]	DC	FUGRO
4034.0 [m]	DC	FUGRO
4037.0 [m]	DC	FUGRO
4040.0 [m]	DC	FUGRO
4043.0 [m]	DC	FUGRO
4046.0 [m]	DC	FUGRO
4049.0 [m]	DC	FUGRO
4052.0 [m]	DC	FUGRO
4055.0 [m]	DC	FUGRO
4058.0 [m]	DC	FUGRO
4061.0 [m]	DC	FUGRO
4064.0 [m]	DC	FUGRO
4067.0 [m]	DC	FUGRO
4070.0 [m]	DC	FUGRO
4073.0 [m]	DC	FUGRO
4076.0 [m]	DC	FUGRO
4079.0 [m]	DC	FUGRO
4082.0 [m]	DC	FUGRO
4085.0 [m]	DC	FUGRO
4088.0 [m]	DC	FUGRO
4090.0 [m]	DC	FUGRO

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
132	NORDLAND GP



613	UTSIRA FM
881	NO FORMAL NAME
1108	HORDALAND GP
1315	SKADE FM
1350	NO FORMAL NAME
1443	SKADE FM
1525	NO FORMAL NAME
1656	GRID FM
1727	NO FORMAL NAME
2195	ROGALAND GP
2195	BALDER FM
2275	SELE FM
2370	LISTA FM
2520	VÅLE FM
2628	SHETLAND GP
2628	EKOFISK FM
2675	HARDRÅDE FM
2770	KYRRE FM
3538	CROMER KNOLL GP
3538	RØDBY FM
3597	VIKING GP
3597	DRAUPNE FM
3656	HEATHER FM
3774	BRENT GP
3774	TARBERT FM
3962	NESS FM

Geochemical information

Document name	Document format	Document size [MB]
5800_1	pdf	0.28
5800_2	pdf	0.62

Logs

Log type	Log top depth [m]	Log bottom depth [m]
AIT PEX ECS PPC MSIP	3671	4096
LWD - EWR DGR	182	3158





MDT	3777	3860
XPT	3809	4036

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	180.0	36	182.0	0.00	LOT
SURF.COND.	20	1215.0	26	1222.0	1.62	LOT
INTERM.	13 3/8	2123.0	17 1/2	2130.0	1.72	LOT
INTERM.	9 5/8	3671.0	12 1/4	3680.0	1.60	LOT
OPEN HOLE		4090.0	8 1/2	4090.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
1247	1.30	22.0		Glydril	
1325	1.37	27.0		Glydril	
1494	1.39	26.0		Glydril	
1698	1.50	31.0		Glydril	
1720	1.50	31.0		Glydril	
1873	1.50	29.0		Glydril	
2059	1.50	30.0		Glydril	
2131	1.52	28.0		Glydril	
2188	1.39	23.0		Paratec	
2445	1.39	26.0		Paratec	
2906	1.41	29.0		Paratec	
2930	1.41	30.0		Paratec	
3136	1.41	28.0		Paratec	
3255	1.41	34.0		Paratec	
3379	1.41	34.0		Paratec	
3521	1.30	32.0		Paratec	
3680	1.43	38.0		Paratec	
4090	1.52	38.0		Paratec	

Pressure plots





The pore pressure data is sourced from well logs if no other source is specified. In some wells where pore pressure logs do not exist, information from Drill stem tests and kicks have been used. The data has been reported to the NPD, and further processed and quality controlled by IHS Markit.

Document name	Document format	Document size [MB]
5800 Formation pressure (Formasjonstrykk)	PDF	0.24

