

**General information**

Wellbore name	2/7-19 R
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Discovery	2/7-19 (Ebba)
Well name	2/7-19
Seismic location	PG 030615- SP. 12
Production licence	018
Drilling operator	Phillips Petroleum Company Norway
Drill permit	262-L2
Drilling facility	ROSS ISLE
Drilling days	59
Entered date	15.01.1990
Completed date	14.03.1990
Plugged and abandon date	14.03.1990
Release date	14.03.1992
Publication date	17.06.2009
Purpose - planned	WILDCAT
Reentry	YES
Reentry activity	TESTING
Content	OIL
Discovery wellbore	NO
1st level with HC, age	LATE JURASSIC
1st level with HC, formation	ULA FM
Kelly bushing elevation [m]	22.0
Water depth [m]	73.0
Total depth (MD) [m RKB]	4873.0
Final vertical depth (TVD) [m RKB]	4873.0
Maximum inclination [°]	3.4
Bottom hole temperature [°C]	179
Oldest penetrated age	LATE PERMIAN
Oldest penetrated formation	ZECHSTEIN GP
Geodetic datum	ED50
NS degrees	56° 20' 19.1" N
EW degrees	3° 6' 12.2" E
NS UTM [m]	6243913.56



EW UTM [m]	506391.96
UTM zone	31
NPDID wellbore	1512

Wellbore history

General

Well 2/7-19 R is a re-entry of well 2/7-19, which was drilled in 1980/81 by the semi-submersible Borgsten Dolphin. The well encountered gas in Early Cretaceous sandstones, but was suspended in February 1981 due to a BOP system that was not rated to allow a DST test to be performed. RFT tests measurements indicated a possible wellhead pressure of 11200 psi, while the BOP was rated to 10000 psi. A 7" liner was run to a depth of 4839 m and cemented, but not perforated. The purpose of the re-entry was to test 43 m of gross pay distributed in four sand lenses from 4712 to 4839 m. The DST test was designed such that it would be possible to keep the well for future production if flow rates were commercial.

Operations and results

Wildcat well 2/7-19 was re-entered (2/7-19 R) with the semi-submersible installation Ross Isle on 15 January 1990.

During drilling of the 2/7-19 well, only gas was encountered. The test in the re-entry showed that the reservoir rocks were tight, but a positive feature was that oil was encountered during testing. The test confirmed the earlier anticipated formation pressure of 860 to 895 bar.

The well was permanently abandoned on 14 March 1990 as an oil appraisal.

Testing

One DST test was performed from four sand lenses in the intervals 4712 - 4727 m, 4762 - 4783 m (Ula Formation), 4800 - 4818 m Ula/Bryne Formations), and 4830 - 4838 m (Bryne Formation). The total net pay in the perforated sections was 23 m. After acid treatment the well produced hydrocarbons at a rate of 34.8 Sm³ oil and 15631 Sm³ gas /d through an 11.91 mm choke. The CO₂ content of the separator gas was 4.4%. The GOR was 449 Sm³/Sm³ but this figure is uncertain due to slugging of the well and poor rate measurements. The matrix/acid job performed was not effective. The stable shut-in temperature at 4628 m (gauge depth) was 169 deg C, while maximum recorded flowing temperature was 172 deg C. It was not established which of the four perforated sections that contributed to the flow.

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
4800.0	[m]	DC	IKU
4839.0	[m]	DC	IKU
4852.0	[m]	DC	IKU
4867.0	[m]	DC	IKU

**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
DST	DST1	4711.60	4838.40		16.02.1990 - 00:00	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
95	NORDLAND GP
1527	HORDALAND GP
2984	ROGALAND GP
2984	BALDER FM
3001	SELE FM
3024	LISTA FM
3066	VÅLE FM
3127	SHETLAND GP
3127	EKOFISK FM
3185	TOR FM
3441	HOD FM
4052	BLODØKS FM
4078	HIDRA FM
4209	CROMER KNOLL GP
4209	RØDBY FM
4325	SOLA FM
4465	ÅSGARD FM
4583	TYNE GP
4583	MANDAL FM
4587	FARSUND FM
4690	VESTLAND GP
4690	ULA FM
4807	BRYNE FM
4837	ZECHSTEIN GP

Geochemical information





Document name	Document format	Document size [MB]
1512_1	pdf	0.21
1512_2	pdf	1.01

Drill stem tests (DST)

Test number	From depth MD [m]	To depth MD [m]	Choke size [mm]
1.0	4711	4838	12.0

Test number	Final shut-in pressure [MPa]	Final flow pressure [MPa]	Bottom hole pressure [MPa]	Downhole temperature [°C]
1.0		2.700		169

Test number	Oil [Sm3/day]	Gas [Sm3/day]	Oil density [g/cm3]	Gas grav. rel.air	GOR [m3/m3]
1.0	35	15631			449

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
364	1.32	8.0	16.8	WATER BASED	12.03.1990
1106	1.32	5.0	6.7	WATER BASED	09.03.1990
1106	1.32	5.0	6.7	WATER BASED	12.03.1990
3399	2.06	58.0	19.6	OIL BASED	28.02.1990
3399	1.82	10.0	19.2	WATER BASED	02.03.1990
3399	1.82	11.0	19.6	WATER BASED	05.03.1990
3399	1.82	10.0	18.2	WATER BASED	05.03.1990
3399	1.82	11.0	16.8	WATER BASED	05.03.1990
3399	1.82	10.0	16.8	WATER BASED	06.03.1990
3399	1.82	10.0	17.2	WATER BASED	07.03.1990
3399	1.68	8.0	12.9	WATER BASED	08.03.1990
3399	1.82	11.0	20.6	WATER BASED	02.03.1990
4545	2.10	61.0	14.4	OIL BASED	28.02.1990
4545	2.04	53.0	9.6	OIL BASED	28.02.1990
4545	2.09	58.0	13.9	OIL BASED	28.02.1990
4545	2.06	58.0	19.6	OIL BASED	28.02.1990





4719	2.04	52.0	10.5	OIL BASED	22.02.1990
4719	2.04	51.0	10.5	OIL BASED	23.02.1990
4863	2.04	43.0	12.0	OIL BASED	12.02.1990
4863	2.04	48.0	12.9	OIL BASED	19.02.1990
4863	2.05	33.0	10.1	OIL BASED	05.02.1990
4863	2.06	54.0	17.2	OIL BASED	05.02.1990
4863	2.05	52.0	12.4	OIL BASED	05.02.1990
4863	2.04	50.0	10.5	OIL BASED	05.02.1990
4863	2.04	49.0	13.4	OIL BASED	06.02.1990
4863	2.04	42.0	10.1	OIL BASED	07.02.1990
4863	2.04	51.0	13.4	OIL BASED	08.02.1990
4863	2.04	45.0	14.4	OIL BASED	09.02.1990
4863	2.10	46.0	12.9	OIL BASED	12.02.1990
4863	2.04	50.0	14.4	OIL BASED	12.02.1990
4863	2.04	43.0	12.0	OIL BASED	13.02.1990
4863	2.04	43.0	12.0	OIL BASED	14.02.1990
4863	2.01	48.0	8.6	OIL BASED	15.02.1990
4863	2.04	50.0	14.4	OIL BASED	16.02.1990
4863	2.04	49.0	13.4	OIL BASED	19.02.1990
4863	2.04	51.0	14.8	OIL BASED	19.02.1990
4863	2.04	51.0	11.0	OIL BASED	20.02.1990
4863	2.04	50.0	10.5	OIL BASED	21.02.1990