

**General information**

Wellbore name	34/10-24
Type	EXPLORATION
Purpose	APPRAISAL
Status	P&A
Factmaps in new window	<a href="#">link to map</a>
Main area	NORTH SEA
Field	<a href="#">GULLFAKS</a>
Discovery	<a href="#">34/10-1 Gullfaks</a>
Well name	34/10-24
Seismic location	ST 8488 2111 SP. 500
Production licence	<a href="#">050</a>
Drilling operator	Den norske stats oljeselskap a.s
Drill permit	471-L
Drilling facility	<a href="#">DEEPSEA BERGEN</a>
Drilling days	37
Entered date	30.06.1985
Completed date	05.08.1985
Release date	05.08.1987
Publication date	21.12.2012
Purpose - planned	APPRAISAL
Reentry	NO
Content	GAS
Discovery wellbore	NO
1st level with HC, age	PLIOCENE
1st level with HC, formation	NORDLAND GP
Kelly bushing elevation [m]	23.0
Water depth [m]	134.0
Total depth (MD) [m RKB]	600.0
Final vertical depth (TVD) [m RKB]	600.0
Maximum inclination [°]	4
Bottom hole temperature [°C]	29
Oldest penetrated age	PLIOCENE
Oldest penetrated formation	NORDLAND GP
Geodetic datum	ED50
NS degrees	61° 10' 32.65" N
EW degrees	2° 11' 28.1" E
NS UTM [m]	6782792.13
EW UTM [m]	456492.55



UTM zone	31
NPDID wellbore	483

## Wellbore history

### General

Well 34/10-24 was drilled to test possible shallow gas accumulation in sandstones at the location for the Gullfaks A platform. The targets were several sand layers of Pliocene age between 313 m and 600 m. Gas had been indicated on seismic anomalies and logs from other wells in the same field.

### Operations and results

Well 34/10-22 was spudded with the semi-submersible installation Deepsea Bergen on 28 June 1985 and drilled to TD at 600 m in Pliocene sediments in the Nordland Group. No significant problem was encountered in the operations. The well was drilled with water based mud.

Top Pliocene was encountered at 285 m. The well encountered sand layers at 334.5 to 337.5 m, 346 to 347 m, and at 436 to 441 m. The sand at 334.5 to 337.5 m was gas bearing. According to previous log correlations, the well should have run into rocks of Miocene age. But biostratigraphical investigations proved only fauna of Pleistocene and Pliocene, age.

No cores were cut and no wire line fluid samples were taken. Cuttings samples were collected every 5 m from 230 m to TD. A full set of conventional logs were run. Maximum bottom hole temperature on wire line, measured 4 hours after circulation was 29.2 deg C.

The well was permanently abandoned on 5 August 1985.

### Testing

One DST test was performed in the interval 334.5 to 336 m in order to bleed of the gas down to less than hydrostatic pressure. The sand was acid treated and gravel packed and over a ca one week period the well flowed 56 -71 Sm<sup>3</sup> gas/day through two parallel chokes of diameters 128/64" and 82/64". Total accumulated production was ca 400000 Sm<sup>3</sup> gas. The gas was 97.88% methane; the rest was mainly nitrogen (1.85%) and carbon-dioxide (0.18%). The gas gravity was 0.559 (air = 1). The initial reservoir pressure was estimated to be between 33.2 and 33.7 bar. A minor pressure reduction was registered in the reservoir, but it could not be concluded that the aim of the test was achieved. This indicated that the gas bearing interval was relatively widely distributed, and probably water driven.

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## Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
230.00	600.00



Cuttings available for sampling?	NO
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### Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
157	<a href="#">NORDLAND GP</a>

### Geochemical information

Document name	Document format	Document size [MB]
<a href="#">483_GCH_1</a>	pdf	0.06

### Documents - older Norwegian Offshore Directorate WDSS reports and other related documents

Document name	Document format	Document size [MB]
<a href="#">483_01_WDSS_General_Information</a>	pdf	0.25

### Documents - reported by the production licence (period for duty of secrecy expired)

Document name	Document format	Document size [MB]
<a href="#">483_34_10_24_Completion_log</a>	pdf	0.36
<a href="#">483_34_10_24_Completion_report</a>	pdf	9.34

### Drill stem tests (DST)

Test number	From depth MD [m]	To depth MD [m]	Choke size [mm]
1.0	335	336	32.5

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





Test number	Oil [Sm3/day]	Gas [Sm3/day]	Oil density [g/cm3]	Gas grav. rel.air	GOR [m3/m3]
1.0		70000		0.559	

**Logs**

Log type	Log top depth [m]	Log bottom depth [m]
4ARM CAL GR	309	599
CBL VDL GR	152	349
CDL CNL CAL GR	309	599
DIFL ACL MSFL GR	309	599
DLL MSFL GR	309	596

**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	221.0	36	221.5	0.00	LOT
SURF.COND.	20	310.0	26	315.0	1.30	LOT
INTERM.	9 5/8	587.0	12 1/4	600.0	0.00	LOT

**Drilling mud**

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
220	1.05	51.0	12.0	WATER BASED	03.07.1985
310	1.10	85.0	13.0	WATER BASED	09.07.1985
315	1.07	52.0	13.0	WATER BASED	03.07.1985
379	1.10	63.0	12.0	WATER BASED	09.07.1985
600	1.11	62.0	11.0	WATER BASED	09.07.1985