

**General information**

Wellbore name	34/10-15
Type	EXPLORATION
Purpose	APPRAISAL
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Field	GULLFAKS
Discovery	34/10-1 Gullfaks
Well name	34/10-15
Seismic location	3D - 223 SP 265
Production licence	050
Drilling operator	Den norske stats oljeselskap a.s
Drill permit	349-L
Drilling facility	NORDRAUG
Drilling days	57
Entered date	16.10.1982
Completed date	12.12.1982
Release date	12.12.1984
Publication date	02.12.2014
Purpose - planned	APPRAISAL
Reentry	NO
Content	SHOWS
Discovery wellbore	NO
Kelly bushing elevation [m]	25.0
Water depth [m]	164.0
Total depth (MD) [m RKB]	2400.0
Final vertical depth (TVD) [m RKB]	2399.0
Maximum inclination [°]	3.7
Bottom hole temperature [°C]	71
Oldest penetrated age	LATE TRIASSIC
Oldest penetrated formation	STATFJORD GP
Geodetic datum	ED50
NS degrees	61° 10' 30.06" N
EW degrees	2° 14' 44.57" E
NS UTM [m]	6782676.91
EW UTM [m]	459427.04
UTM zone	31
NPDID wellbore	67



Wellbore history

General

Well 34/10 15 was drilled as a wildcat on a horst block in the south-eastern part of the Gullfaks Field. The primary purpose of the well was to test hydrocarbon accumulations in the Jurassic and Brent sands. Secondary objectives were the Early Jurassic Statfjord sands and to test shallow gas accumulations in Pliocene sands.

Operations and results

Appraisal well 34/10-15 was spudded with the semi-submersible installation Neptuno Nordraug on 16 October 1982 and drilled to TD at 2400 m in Late Triassic sediments in the Statfjord Group. A 12 1/4" pilot hole was drilled from 250 m to 950 m to check for shallow gas. The well was situated ca 90 m south of the location for the well 34/10-10, which was abandoned due to gas flow from a gas filled sand at 428 m. The same sandlense was penetrated in the well 34/10-15 from 444-447 m. The well was drilled with spud mud down to 250 m and with gel/seawater/lignosulphonate mud from 250 m to TD.

Weak shows on cuttings, mostly on limestone, were recorded intermittently from 1220 m in the Hordaland Group to 1630 m in the Lista Formation. The Brent Group sands were not encountered. Late Triassic Statfjord Group sands were found water wet without shows. The Cook Formation sands contained residual oil.

Ten cores were cut. Cores 1 to 5 were cut from 1870 m to 1945 m in the Cook Formation with recoveries varying from 34% to 75%. Cores 6, 7, and 8 were cut from 2170 m to 2213 m in the Amundsen Formation with recoveries varying from 87% to 93%. Cores 9 and 10 were cut from 2301 m to 2323 m in the Statfjord Group with 90% and 85% recoveries, respectively. An RFT fluid sample was taken at 1875.5 m in the Cook Formation residual oil zone. The sample contained brown water and smelled oil.

The well was permanently abandoned on 12 December 1982 as a dry well with shows.

Testing

A shallow gas test was planned from the interval 444 m to 447 m. The purpose of this test was to gather information about whether the gas would flow to surface and if the sandlense could be drained. The test was cancelled due to problems in cutting the 13 3/8" casing deep enough to allow for perforations in the 20" casing in the test interval.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
250.00	2399.00

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	1870.0	1879.5	[m]
2	1888.0	1897.0	[m]
3	1900.0	1905.7	[m]
4	1917.0	1923.0	[m]
5	1935.0	1940.7	[m]
6	2170.0	2187.0	[m]
7	2187.5	2199.8	[m]
8	2201.0	2211.4	[m]
9	2301.0	2314.8	[m]
10	2316.5	2322.0	[m]

Total core sample length [m]	94.9
Cores available for sampling?	YES

Core photos



1870-1876m



1876-1879m



1888-1894m



1894-1897m



1900-1905m



1917-1923m



1923-1928m



1935-1940m



2170-2176m



2176-2182m



2182-2187m



2187-2193m



2193-2199m



2199-2199m



2201-2207m



2207-2211m



2301-2307m



2307-2313m



2313-2314m



2316-2322m

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
1865.0	[m]	SWC	PAS
2002.0	[m]	SWC	PAS
2043.0	[m]	SWC	PAS
2100.0	[m]	SWC	PAS

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
189	NORDLAND GP
903	UTSIRA FM
918	HORDALAND GP
1515	ROGALAND GP
1515	BALDER FM
1568	LISTA FM
1687	SHETLAND GP
1827	DUNLIN GP
1827	DRAKE FM
1870	COOK FM
2034	BURTON FM
2049	AMUNDSEN FM
2213	STATFJORD GP

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

Document name	Document format	Document size [MB]
67_01_WDSS_General_Information	pdf	0.18
67_02_WDSS_completion_log	pdf	0.20



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

Document name	Document format	Document size [MB]
67_34_10_15_ Reservoarstudie over Delta Struktur	pdf	2.84
67_34_10_15 Completion Report	pdf	23.12
67_34_10_15 Paleontological Stratigraphical Final Report	pdf	4.44
67_34_10_15 Petrofysisk Evaluering	pdf	1.69
67_34_10_15 Petrografi av Brentgruppen	pdf	4.85
67_34_10_15 Routine Core Analysis	pdf	0.91
67_34_10_15 Special Core Analysis	pdf	0.29
67_34_10_15 Water Analysis	pdf	0.11
67_34_10_15 Well Testing	pdf	0.09

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CBL VDL BI	644	1737
DLL MSFL NGS	1752	1988
GEODIP	1865	2404
HDT	1737	2405
ISF SON GR MSFL	249	2400
NGS	1752	2400
VSP	253	2400

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	249.0	36	249.0	0.00	LOT
SURF.COND.	20	940.0	26	950.0	1.57	LOT
INTERM.	13 3/8	1564.0	17 1/2	1579.0	1.80	LOT
INTERM.	9 5/8	1736.0	12 1/4	1750.0	2.07	LOT
OPEN HOLE		2400.0	8 1/2	2400.0	0.00	LOT

Drilling mud





Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
260	1.04			waterbased	
965	1.08			waterbased	
1415	1.26			waterbased	
1510	1.42			waterbased	
1670	1.68			waterbased	
2080	1.81			waterbased	

Thin sections at the Norwegian Offshore Directorate

Depth	Unit
1936.00	[m]
1923.00	[m]
1903.00	[m]
1895.00	[m]
1889.00	[m]
1870.00	[m]

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]
67 Formation pressure (Formasjonstrykk)	pdf	0.21

