



Generell informasjon

Brønnbane navn	34/10-8
Type	EXPLORATION
Formål	APPRAISAL
Status	P&A
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	GULLFAKS
Funn	34/10-1 Gullfaks
Brønn navn	34/10-8
Seismisk lokalisering	S3D - 236 SP. 170
Utvinningstillatelse	050
Boreoperatør	Den norske stats oljeselskap a.s
Boretillatelse	243-L
Boreinnretning	DEEPSEA SAGA
Boredager	84
Borestart	03.03.1980
Boreslutt	25.05.1980
Frigitt dato	25.05.1982
Publiseringsdato	14.11.2012
Opprinnelig formål	APPRAISAL
Gjenåpnet	NO
Innhold	OIL
Funnbrønnbane	NO
1. nivå med hydrokarboner, alder	MIDDLE JURASSIC
1. nivå med hydrokarboner, formasjon.	BRENT GP
Avstand, boredekk - midlere havflate [m]	25.0
Vanndybde ved midlere havflate [m]	133.0
Totalt målt dybde (MD) [m RKB]	2214.0
Totalt vertikalt dybde (TVD) [m RKB]	2213.7
Maks inklinasjon [°]	2.7
Temperatur ved bunn av brønnbanen [°C]	84
Eldste penetrerte alder	EARLY JURASSIC
Eldste penetrerte formasjon	COOK FM
Geodetisk datum	ED50
NS grader	61° 9' 59.53" N



ØV grader	2° 12' 3.44" E
NS UTM [m]	6781760.88
ØV UTM [m]	457008.04
UTM sone	31
NPDID for brønnbanen	230

Brønnhistorie

General

Well 34/10-8 was drilled on the southern part of the Gullfaks Field. The primary objective was to test sandstones of Middle Jurassic age. Secondary objectives were sandstones in the Early Jurassic.

Operations and results

Appraisal well 34/10-8 was spudded with the semi-submersible installation Deepsea Saga on 8 March and drilled to TD at 2214 m in the Early Jurassic Cook Formation. Some problems with lost circulation was encountered when circulating prior to cementing the 13 3/8" casing. Also the drill string became stuck during plug back operations at 2037 m and 9 days were lost when fishing for it. The well was drilled with Gel/spud mud down to 875 m and with gel/lignosulphonate from 875 m to TD.

The Middle Jurassic Brent Group sandstones came in with Tarbert Formation on top at 1821 m and the Ness Formation at 1853 m. The Tarbert and Ness formations were hydrocarbon-bearing with a 151 m gross pay zone from 1821 to 1972 m. The Early Jurassic sandstones of the Cook Formation were water saturated. Above the reservoir good oil shows were recorded on limestone from 1712 to 1745 m and on limestone/mudstone/siltstone from 1665 to 1705 m. Otherwise traces of oil shows were recorded above the reservoir up to a depth of 1220 m. No shows were recorded below the oil bearing reservoir.

A total of 13 cores were taken from 1823 to 1976 m, with a total recovery of 140 m. The RFT tool was run in the Brent sand and good data was obtained from 1826 to 2006 m. Fifteen out of seventeen tests were successful. In the Ness zone a fluid sample was taken at 1950 m.

The well was permanently abandoned on 25 May 1980 as an oil appraisal well.

Testing

The well was perforated and tested in the interval 1869 to 1873 m in the Brent Group, Ness Formation. The test produced 498 Sm³ oil and 33900 Sm³ gas /day. The GOR was 68 Sm³/Sm³, the oil gravity was 29.5 deg API, and the gas gravity was 0.622 (air = 1). After the flow test an injection test was performed, indicating a fracture pressure of ca 5500 psig.



Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
230.00	2216.00

Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	1823.0	1828.5	[m]
2	1828.5	1832.5	[m]
3	1839.0	1851.5	[m]
4	1856.5	1860.8	[m]
5	1861.5	1869.0	[m]
6	1877.0	1883.6	[m]
7	1885.0	1898.5	[m]
8	1898.5	1908.5	[m]
9	1908.5	1925.0	[m]
10	1925.0	1939.5	[m]
11	1939.5	1956.0	[m]
12	1956.0	1956.6	[m]
13	1964.0	1975.8	[m]

Total kjerneprøve lengde [m]	123.8
Kjerner tilgjengelig for prøvetaking?	YES

Kjernebilder



1942-1944m



1939-1942m



1938-1939m



1935-1938m



1938-1939m



1933-1935m



1927-1930m



1925-1927m



1924-1925m



1922-1924m



1919-1922m



1916-1919m



1913-1916m



1911-1913m



1908-1911m



1906-1908m



1903-1906m



1901-1903m



1898-1901m



1895-1898m



1893-1895m



1890-1893m



1887-1890m



1885-1887m



1882-1883m



1879-1882m



1877-1879m



1866-1869m



1864-1866m



1861-1864m



1859-1860m



1856-1859m



1849-1851m



1847-1849m



1844-1847m



1841-1844m



1839-1841m



1831-1832m



1828-1831m



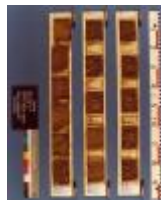
1828-1828m



1825-1828m



1823-1825m



1947-1950m



1944-1947m



1947-1950m



1953-1955m



1955-1956m



1956-1956m



1966-1969m



1964-1966m



1972-1974m



1969-1972m



1974-1976m

Oljeprøver i Sokkeldirektoratet

Test type	Flaske nummer	Topp dyp MD [m]	Bunn dyp MD [m]	Væske type	Test tidspunkt	Prøver tilgjengelig
DST	DST 1	1845.00	1848.00		17.05.1980 - 00:00	YES

Litostratigrafi



Topp Dyb [mMD RKB]	Litostrat. enhet
158	NORDLAND GP
933	UTSIRA FM
946	HORDALAND GP
1096	NO FORMAL NAME
1365	NO FORMAL NAME
1534	ROGALAND GP
1534	BALDER FM
1575	LISTA FM
1719	SHETLAND GP
1719	JORSALFARE FM
1821	BRENT GP
1821	TARBERT FM
1853	NESS FM
1975	ETIVE FM
2005	RANNOCH FM
2040	BROOM FM
2054	DUNLIN GP
2054	DRAKE FM
2133	COOK FM

Dokumenter - eldre Sokkeldirektoratets WDSS rapporter og andre relaterte dokumenter

Dokument navn	Dokument format	Dokument størrelse [KB]
230_01_WDSS_General_Information	pdf	0.13
230_02_WDSS_completion_log	pdf	0.17

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
230_34_10_8_Completion_log	pdf	1.31
230_34_10_8_Completion_report	pdf	22.29
230_34_10_8_Corex_Report_and_Comments	pdf	8.43
230_34_10_8_Core_description	pdf	2.72
230_34_10_8_Core_measurements	pdf	2.15
230_34_10_8_Drilling_Completion_report	pdf	26.84
230_34_10_8_Laboratory_report	pdf	1.44





230 34 10 8 Paleontological Report	pdf	2.10
230 34 10 8 Petrophysical Evaluation	pdf	3.06
230 34 10 8 Reservoir Fluid Study	pdf	0.20
230 34 10 8 Rock Analysis	pdf	0.45
230 34 10 8 Special Core Analysis Study	pdf	3.42
230 34 10 8 Well Test Report	pdf	1.09

Borestrengtester (DST)

Test nummer	Fra dybde MD [m]	Til dybde MD [m]	Reduksjonsven til størrelse [mm]
1.0	1845	1848	12.7

Test nummer	Endelig avstengningstrykk [MPa]	Endelig strømningstrykk [MPa]	Bunnhullstrykk [MPa]	Borehullstemperatur [°C]
1.0				

Test nummer	Olje produksjon [Sm3/dag]	Gass produksjon [Sm3/dag]	Oljetetthet [g/cm3]	Gasstyngde rel. luft	GOR [m3/m3]
1.0	501		0.882		117

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
CBL	600	1727
CBL VDL	1582	1877
CST	1748	2210
DLL MSFL GR	1800	2017
FDC CAL GR	858	1483
FDC CNL GR	1470	1744
HDT	1732	2216
ISF SON GR SP	216	2216

Foringsrør og formasjonsstyrketester





Type utforing	Utforing diam. [tommer]	Utforing dybde [m]	Brønnbane diam. [tommer]	Brønnbane dyp [m]	LOT/FIT slam eqv. [g/cm3]	Type formasjonstest
CONDUCTOR	30	216.0	36	216.0	0.00	LOT
SURF.COND.	20	858.0	26	875.0	1.63	LOT
INTERM.	13 3/8	1470.0	17 1/2	1483.0	1.75	LOT
INTERM.	9 5/8	1735.0	12 1/4	1745.0	1.90	LOT
LINER	7	1917.0	8 1/2	2216.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	flytegrense [Pa]	Type slam	Dato, måling
200	1.08	90.0		waterbased	
755	1.09	45.0		waterbased	
825	1.10	39.0		waterbased	
1025	1.08	44.0		waterbased	
1350	1.26	44.0		waterbased	
1550	1.65	46.0		waterbased	
1610	1.72	48.0		waterbased	
1735	1.80	53.0		waterbased	

Tynnslip i Sokkeldirektoratet

Dybde	Enhet
1840.00	[m]
1828.00	[m]
1842.00	[m]

Trykkplott

Porertrykksdataene kommer fra logging i brønnen hvis ingen annen kilde er oppgitt. I noen brønner der trykk ikke er logget, er det brukt informasjon fra formasjonstester eller brønnspark. Trykkdataene er rapportert inn til Oljedirektoratet og videre prosessert og kvalitetssikret av IHS Markit.





Dokument navn	Dokument format	Dokument størrelse [KB]
230 Formation pressure (Formasjonstrykk)	pdf	0.21

