



Generell informasjon

Brønnbane navn	31/6-2 R
Type	EXPLORATION
Formål	APPRAISAL
Status	P&A
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	TROLL
Funn	31/6-1 (Troll Øst)
Brønn navn	31/6-2
Seismisk lokalisering	ST 8007 - 351 SP 1647
Utvinningstillatelse	085
Boreoperatør	Den norske stats oljeselskap a.s
Boretillatelse	393-L2
Boreinnretning	DEEPSEA BERGEN
Boredager	40
Borestart	31.07.1984
Boreslutt	08.09.1984
Plugget og forlatt dato	08.09.1984
Frigitt dato	08.09.1986
Publiseringsdato	06.06.2006
Opprinnelig formål	APPRAISAL
Gjenåpnet	YES
Årsak til gjenåpning	DRILLING/PLUGGING
Innhold	GAS
Funnbrønnbane	NO
1. nivå med hydrokarboner, alder	LATE JURASSIC
1. nivå med hydrokarboner, formasjon.	SOGNEFJORD FM
Avstand, boredekk - midlere havflate [m]	23.0
Vanndybde ved midlere havflate [m]	303.0
Totalt målt dybde (MD) [m RKB]	2235.0
Totalt vertikalt dybde (TVD) [m RKB]	2235.0
Maks inklinasjon [°]	1
Temperatur ved bunn av brønnbanen [°C]	72
Eldste penetrerte alder	LATE TRIASSIC
Eldste penetrerte formasjon	HEGRE GP



Geodetisk datum	ED50
NS grader	60° 34' 58.24" N
ØV grader	3° 54' 55.76" E
NS UTM [m]	6716831.54
ØV UTM [m]	550164.40
UTM sone	31
NPDID for brønnbanen	498

Brønnhistorie

General

Well 31/6-2 R is a re-entry of well 31/6-2 gas appraisal well on the south-east periphery of the Troll East gas province. Well 31/6-2 was suspended at 2020 m after drilling through the main target reservoir (Sognefjord Formation) and into the Early Jurassic Drake Formation. The objectives for 31/6-2 R re-entry were to test the gas column in the Sognefjord Formation, and to drill on to the planned Triassic level.

Operations and results

Well 31/6-2 was re-entered (31/6-2 R) with the semi-submersible installation Deepsea Bergen on 31 July 1984 and drilled from 2020 m in the Early Jurassic Drake Formation to final TD at 2235 m in the Late Triassic Hegre Group. The well was drilled with lignosulphonate mud. Drilling went without significant problems. No cores were cut and no fluid samples taken in this well bore.

The well was permanently abandoned on 8 September 1984 as a gas appraisal.

Testing

Prior to testing a large amount of steel particles and rust, possibly caused by oxidation of casing, was circulated out of the hole. This caused several days lost time. The rust also created problems with valves in the Otis sub-sea test tree and the Pre-Gravel-Pack test string had to be pulled because of leakage caused by steel particles in the ball valve.

The well was tested from the interval 1506 m to 1510 m in the middle of the gas column in the Sognefjord Formation, first without gravel-pack and then with gravel-pack. The well flowed 276000 Sm³/day to surface in the pre-gravel-pack test. In the gravel-pack test several acid-jobs were performed and the flow rate increased after each job. After the fifth and final acid-job the well produced gas at a rate of 851000 Sm³/day on a 1.5" choke.

Oljeprøver i Sokkeldirektoratet

Test type	Flaske nummer	Topp dyp MD [m]	Bunn dyp MD [m]	Væske type	Test tidspunkt	Prøver tilgjengelig
DST	TEST1	1510.00	1506.00		06.08.1984 - 21:50	YES



PROD	TEST1	1510.00	1506.00		06.08.1984 - 21:50	YES
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Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
326	NORDLAND GP
505	HORDALAND GP
626	ROGALAND GP
626	BALDER FM
776	SELE FM
885	LISTA FM
968	SHETLAND GP
968	HARDRÅDE FM
978	UNDIFFERENTIATED
1128	CROMER KNOLL GP
1128	RØDBY FM
1223	ÅSGARD FM
1322	VIKING GP
1322	DRAUPNE FM
1435	HEATHER FM
1460	SOGNEFJORD FM
1625	HEATHER FM
1642	FENSFJORD FM
1875	KROSSFJORD FM
1910	HEATHER FM
1931	BRENT GP
1975	DUNLIN GP
1975	DRAKE FM
2055	JOHANSEN FM
2138	AMUNDSEN FM
2164	STATFJORD GP
2198	HEGRE GP

Spleisede logger

Dokument navn	Dokument format	Dokument størrelse [KB]
498	pdf	0.42





Borestrengtester (DST)

Test nummer	Fra dybde MD [m]	Til dybde MD [m]	Reduksjonsven til størrelse [mm]
1.0	1506	1510	19.1

Test nummer	Endelig avstengningstrykk [MPa]	Endelig strømningstrykk [MPa]	Bunnhullstrykk [MPa]	Borehullstemperatur [°C]
1.0	13.000	5.000		

Test nummer	Olje produksjon [Sm3/dag]	Gass produksjon [Sm3/dag]	Oljetetthet [g/cm3]	Gasstygde rel. luft	GOR [m3/m3]
1.0				0.600	

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
CDL CNL GR CAL	2002	2231
DIFL BHC AC GR SP	2002	2231
VELOCITY	326	2231

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	412.0	36	412.0	0.00	LOT
SURF.COND.	20	801.0	26	818.0	1.56	LOT
INTERM.	13 3/8	902.0	17 1/2	920.0	1.76	LOT
INTERM.	9 5/8	1391.0	12 1/4	1400.0	1.61	LOT
LINER	7	2004.0	8 1/2	2020.0	0.00	LOT
OPEN HOLE		2235.0	6	2235.0	0.00	LOT

Boreslam



Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Fløytetegnelse [Pa]	Type slam	Dato, måling
2005	1.10	52.0	4.8	WATER BASED	
2075	1.10	63.0	6.2	WATER BASED	
2235	1.11	56.0	5.8	WATER BASED	
2235	1.11	57.0	4.8	WATER BASED	

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]
498 Formation pressure (Formasjonstrykk)	pdf	0.21

