



Generell informasjon





Brønnbane navn	33/12-5
Type	EXPLORATION
Formål	APPRAISAL
Status	P&A
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	STATFJORD
Funn	33/12-1 Statfjord
Brønn navn	33/12-5
Seismisk lokalisering	LINE MNG-34 SP.145
Utvinningstillatelse	037
Boreoperatør	Mobil Exploration Norway INC
Boretillatelse	140-L
Boreinnretning	NORSKALD
Boredager	136
Borestart	09.10.1975
Boreslutt	21.02.1976
Frigitt dato	21.02.1978
Publiseringsdato	02.12.2014
Opprinnelig formål	APPRAISAL
Gjenåpnet	NO
Innhold	DRY
Funnbrønnbane	NO
Avstand, boredekk - midlere havflate [m]	25.0
Vanndybde ved midlere havflate [m]	143.0
Totalt målt dybde (MD) [m RKB]	4574.0
Totalt vertikalt dybde (TVD) [m RKB]	4572.0
Maks inklinasjon [°]	4
Eldste penetrerte alder	TRIASSIC
Eldste penetrerte formasjon	LOMVI FM
Geodetisk datum	ED50
NS grader	61° 11' 5.53" N
ØV grader	1° 51' 53.39" E
NS UTM [m]	6784070.29
ØV UTM [m]	438959.62
UTM sone	31
NPDID for brønnbanen	115



Brønnhistorie

General

Well 33/12-5 was drilled on the Tampen Spur in the northern North Sea. It was drilled on the southeast, downfaulted flank of the Statfjord structure, but on the upthrown block of the major, east-bounding Statfjord fault. The well was programmed to test in a higher structural position, a Triassic sand, found water bearing in the 33/12-2 well, and to evaluate older, untested section beneath the sand. The Triassic sand in 33/12-2, defined seismically by the "R2" horizon, had been tentatively identified as Early Triassic. Secondary objectives were possible Jurassic reservoirs preserved within this downfaulted area east of the Statfjord Field. The 33/12-4 well was a similar test on the east flank of the Statfjord feature. This well found a thin Jurassic/Upper Triassic? sand with good porosity, which tested saltwater with minor amounts of oil.

The well is type well for the Lomvi and Teist formations.

Operations and results

Appraisal well 33/12-5 was spudded with the semi-submersible installation Norskald on 9 October 1975 and drilled to TD at 4574 m in the Triassic Lomvi Formation. The well was drilled water based with a lignosulphonate mud from 485 m to TD.

The Tertiary and Late Cretaceous sections were similar to other wells in the area, consisting predominantly of claystones and siltstones with minor sands. Along the southeast flank of the Statfjord feature, erosion appears to have removed Jurassic sediments and a portion of the Upper Triassic prior to draping of an indeterminate Jurassic sand, interpreted as reworked Statfjord Formation sand, on the eroded Triassic surface. Only minor shows were encountered in the reworked Jurassic sand, which tested saltwater on DST. These were the only shows reported from the well.

Top Triassic, Hegre Group, was penetrated at 2735 m. The main Triassic objective, previously interpreted as an Early Triassic Bunter Sand (Lomvi Formation) in 33/12-2 and projected to 33/12-5, was encountered at 3741 m. The sand was 115 m thick and 307.5 higher than in the 12-2 well. Reinterpretation of palynology indicates that this sand is of Late Triassic Carnian-Norian age in both wells. The sand was found water wet and exhibited marginal reservoir characteristics with an average log porosity of only 11 percent.

No cores were cut and no wire line fluid samples were taken in this well.

The well was permanently abandoned on 21 February 1976 as a dry well.

Testing

One drill stem test was performed in the reworked sand on top of the Triassic in the interval 2718 m to 2724.1 m. The test produced 443 m³/day of water without any oil. The bottom hole temperature during the test was 97.8 °C.

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
147.52	1393.55

Borekaks tilgjengelig for prøvetaking?	YES
--	-----



Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
168	NORDLAND GP
931	UTSIRA FM
945	HORDALAND GP
1701	ROGALAND GP
1701	BALDER FM
1772	SELE FM
1911	SHETLAND GP
2707	CROMER KNOLL GP
2718	UNDEFINED GP
2735	HEGRE GP
2735	LUNDE FM
3747	LOMVI FM
3867	TEIST FM

Geokjemisk informasjon

Dokument navn	Dokument format	Dokument størrelse [KB]
115_GCH_1	pdf	0.70
115_GCH_2	pdf	1.36

Dokumenter - eldre Søkeldirektoratets WDSS rapporter og andre relaterte dokumenter

Dokument navn	Dokument format	Dokument størrelse [KB]
115_01_WDSS_General_Information	pdf	0.28

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
115_33_12_5_Completion_log	pdf	2.42
115_33_12_5_Completion_Report	pdf	4.05





Borestrengtester (DST)

Test nummer	Fra dybde MD [m]	Til dybde MD [m]	Reduksjonsven til størrelse [mm]
1.0	2718	2724	0.0

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					

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
BHC	477	2000
CBL	2600	2795
CDM	1938	4217
CDM AP	2861	4217
FDC CNL	1937	4568
GR	3800	4564
IES	477	2000
ISF SON	230	486
TEMP	1599	2374
VELOCITY	230	4573

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	230.0	36	230.0	0.00	
SURF.COND.	20	477.0	26	485.0	0.00	
INTERM.	13 3/8	1937.0	17 1/2	2003.0	0.00	
INTERM.	9 5/8	2861.0	12 1/4	2873.0	0.00	



OPEN HOLE		4574.0	8 1/2	4574.0	0.00	
-----------	--	--------	-------	--------	------	--

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm ³]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
485	1.04			waterbased	
1683	1.07	40.0		waterbased	
2005	1.25	57.0		waterbased	
2040	1.48	47.0		waterbased	
2283	1.60	80.0		waterbased	
2995	1.54	46.0		waterbased	
3245	1.59	55.0		waterbased	