



Generell informasjon

Brønnbane navn	35/11-11
Type	EXPLORATION
Formål	APPRAISAL
Status	P&A
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	FRAM
Funn	35/11-8 S
Brønn navn	35/11-11
Seismisk lokalisering	MN 920196- INLINE 3530 & X-LINE 114
Utvinningstillatelse	090
Boreoperatør	Norsk Hydro Produksjon AS
Boretillatelse	927-L
Boreinnretning	TRANSOCEAN LEADER
Boredager	37
Borestart	16.04.1998
Boreslutt	22.05.1998
Frigitt dato	22.05.2000
Publiseringsdato	15.06.2005
Opprinnelig formål	APPRAISAL
Gjenåpnet	NO
Innhold	SHOWS
Funnbrønnbane	NO
Avstand, boredekk - midlere havflate [m]	23.5
Vanndybde ved midlere havflate [m]	359.0
Totalt målt dybde (MD) [m RKB]	3225.0
Totalt vertikalt dybde (TVD) [m RKB]	3224.0
Maks inklinasjon [°]	3.5
Temperatur ved bunn av brønnbanen [°C]	115
Eldste penetrerte alder	EARLY JURASSIC
Eldste penetrerte formasjon	DRAKE FM
Geodetisk datum	ED50
NS grader	61° 6' 31.42" N
ØV grader	3° 33' 49.08" E
NS UTM [m]	6775189.73
ØV UTM [m]	530381.59



UTM sone	31
NPDID for brønnbanen	3356

Brønnhistorie

General

Well 35/11-11 is located east of the Fram Field and ca 17 km North of the Troll Field. The main objective for well 35/11-11 was to appraise the eastward extension of the Oxfordian Turbidites (Intra Heather Sandstone unit), in the H-East compartment of the Fram Field. Oil and gas were encountered in the discovery well 35/11-8 S and the extension toward the south was confirmed by the drilling of well 35/11-9, which encountered good reservoir quality and pressure communication between the two wells. Possible hydrocarbons in the Brent Group was a secondary objective, although the well was expected to penetrate the Brent Group in a down flank position below the OWC. A third objective was Paleocene sands to assess the reservoir- and production properties as a source for make-up water. This interval was supposed to be penetrated close to a high amplitude reflector and the presence of hydrocarbons could not be excluded.

Operations and results

Wildcat well 35/11-11 was spudded with the semi-submersible installation Transocean Leader on 16 April 1998 and drilled to TD at 3225 m in the Early Jurassic Drake Formation. Operations went without significant problems. The well was drilled with spud mud down to 1253 m and with AQUACOL/KCl/polymer mud and freshwater from 1253 m to TD. AQUACOL is a glycol mud system.

Two sands equivalent to the Heimdal and Ty Formations were encountered in the Paleocene. Both were water wet. A total of 119 m gross Late Jurassic reservoir sequence was penetrated in well 35/11-11 on the H East Structure. All massive sands have been interpreted as three individual turbidite deposits of Kimmeridgian/Volgian (Intra Draupne Sand), Oxfordian (Intra Heather Sand) and Callovian (Intra Heather Sand) age respectively. Oil shows were recorded on sandstones and siltstones throughout Late Jurassic, but all main target reservoirs were found water bearing and not in pressure communication with the H Structure. In the Brent Group the Ness and Etive Formations were found poorly developed with no shows of hydrocarbons. A total of nine conventional cores were cut in the Late - Middle Jurassic, recovering 181 m in all. No core was obtained from the Paleocene.

The well was permanently abandoned on 22 May as a well with shows.

Testing

No drill stem test was performed.

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
1260.00	3225.00

Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	2550.5	2551.0	[m]
2	2552.0	2569.2	[m]
3	2570.0	2597.0	[m]
4	2597.5	2620.0	[m]
5	2621.0	2638.2	[m]
6	2638.3	2647.0	[m]
7	2695.5	2722.0	[m]
8	2723.0	2767.4	[m]
9	3085.0	3102.3	[m]

Total kjerneprøve lengde [m]	181.4
Kjerner tilgjengelig for prøvetaking?	YES

Kjernebilder



2550-2551m



2552-2557m



2557-2562m



2562-2567m



2567-2569m



2570-2575m



2575-2580m



2580-2585m



2585-2590m



2590-2595m



2595-2597m



2597-2602m



2602-2607m



2607-2612m



2612-2617m



2617-2620m



2621-2626m



2626-2631m



2631-2636m



2636-2638m



2638-2643m



2643-2646m



2695-2700m



2700-2705m



2705-2710m



2710-2715m



2715-2720m



2720-2721m



2723-2728m



2728-2733m



2733-2738m



2738-2743m



2743-2748m



2748-2753m



2753-2758m



2758-2763m



2763-2767m



3085-3090m



3090-3095m



3095-3100m



3100-3102m



Palynologiske preparater i Sokkeldirektoratet

Prøve dybde	Dybde enhet	Prøve type	Laboratorie
2457.0	[m]	DC	PETROSTR
2467.0	[m]	DC	PETROS
2472.0	[m]	DC	PETROS
2482.0	[m]	DC	PETROS
2490.0	[m]	DC	PETROS
2505.0	[m]	DC	PETROS
2510.0	[m]	DC	PETROS
2520.0	[m]	DC	PETROS
2525.0	[m]	DC	PETROS
2535.0	[m]	DC	PETROS
2540.0	[m]	DC	PETROS
2545.0	[m]	DC	PETROS
2547.0	[m]	DC	PETROS
2550.0	[m]	DC	PETROS
2555.3	[m]	C	PETROS
2556.3	[m]	C	PETROS
2560.4	[m]	C	PETROS
2568.2	[m]	C	PETROS
2571.1	[m]	C	PETROS
2571.5	[m]	C	HYDRO
2571.8	[m]	C	HYDRO
2573.1	[m]	C	PETROSTR
2576.2	[m]	C	PETROSTR
2580.4	[m]	C	PETROS
2584.9	[m]	C	PETROS
2585.4	[m]	C	PETROS

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
383	NORDLAND GP
711	UTSIRA FM
763	HORDALAND GP
1466	ROGALAND GP



1466	BALDER FM
1523	SELE FM
1582	LISTA FM
1624	NO FORMAL NAME
1679	LISTA FM
1825	NO FORMAL NAME
1914	SHETLAND GP
1914	JORSALFARE FM
2056	KYRRE FM
2343	SVARTE FM
2420	CROMER KNOLL GP
2420	RØDBY FM
2469	VIKING GP
2469	DRAUPNE FM
2540	INTRA DRAUPNE FM SS
2569	HEATHER FM
2580	INTRA HEATHER FM SS
2616	HEATHER FM
2683	INTRA HEATHER FM SS
2727	HEATHER FM
3005	BRENT GP
3005	TARBERT FM
3008	NESS FM
3077	ETIVE FM
3085	RANNOCH FM
3119	OSEBERG FM
3177	DUNLIN GP
3177	DRAKE FM

Spleisede logger

Dokument navn	Dokument format	Dokument størrelse [KB]
3356	pdf	0.53

Geokjemisk informasjon





Dokument navn	Dokument format	Dokument størrelse [KB]
3356_1	pdf	3.81

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
3356_35_11_11_COMPLETION_REPORT	pdf	17.28
3356_35_11_11_COMPOSITE_PLOT	pdf	2.30

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
FMS NGT AMS	2450	3175
HALS TLD HGNS DSI AMS	1245	3225
MDT GR AMS	1626	3167
MWD - GR RES DIR	1250	3225
VSP GR	1250	3150

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	444.0	36	444.0	0.00	LOT
SURF.COND.	13 3/8	1245.0	17 1/2	1245.0	1.63	LOT
OPEN HOLE		2550.0	12 1/4	2550.0	0.00	LOT
OPEN HOLE		3225.0	8 1/2	3225.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	flytegrense [Pa]	Type slam	Dato, måling
345	1.20	15.0		WATER BASED	
450	1.33	32.0		WATER BASED	
1145	1.33	32.0		WATER BASED	
1253	1.03	11.0		WATER BASED	
1520	1.32	32.0		WATER BASED	
1891	1.25	22.0		WATER BASED	





2177	1.25	25.0		WATER BASED	
2505	1.26	30.0		WATER BASED	
2605	1.26	29.0		WATER BASED	
2648	1.28	28.0		WATER BASED	
2723	1.27	31.0		WATER BASED	
3225	1.27	30.0		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]
3356 Formation pressure (Formasjonstrykk)	pdf	0.23

