Generell informasjon

Brønnbane navn	34/4-2
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Brønn navn	34/4-2
Seismisk lokalisering	ST 606-403 SP.77
Utvinningstillatelse	057
Boreoperatør	Saga Petroleum ASA
Boretillatelse	242-L
Boreinnretning	BYFORD DOLPHIN
Boredager	80
Borestart	06.03.1980
Boreslutt	24.05.1980
Frigitt dato	24.05.1982
Publiseringsdato	28.06.2007
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	DRY
Funnbrønnbane	NO
Avstand, boredekk - midlere havflate [m]	25.0
Vanndybde ved midlere havflate [m]	322.0
Totalt målt dybde (MD) [m RKB]	3599.0
Totalt vertikalt dybde (TVD) [m RKB]	3571.0
Maks inklinasjon [°]	20
Temperatur ved bunn av brønnbanen [°C]	120
Eldste penetrerte alder	LATE TRIASSIC
Eldste penetrerte formasjon	LUNDE FM
Geodetisk datum	ED50
NS grader	61° 30' 30.93'' N
ØV grader	2° 4' 17.04'' E
NS UTM [m]	6819953.53
ØV UTM [m]	450579.59
UTM sone	31
NPDID for brønnbanen	228

Brønnhistorie

General

Well 34/4-2 is located in the northern North Sea, approximately 5 km west of the Snorre Field. The purpose of the well was to test the stratigraphic sequence below the Base Cretaceous Unconformity. The primary target was the Statfjord Formation, which was known from the license 037 area to contain porous sandstones of appreciable thicknesses.

The secondary target was possible Brent Group / Late Jurassic sands immediately below the Base Cretaceous unconformity. Thirdly, well 34/4-2 was a stratigraphic test of the Triassic deposits between the Statfjord Formation and the Middle to Late Triassic sequence penetrated in well 34/4-1.

Operations and results

Wildcat well 34/4-2 was spudded with the semi-submersible installation Byford Dolphin on 6 March 1980 and drilled to TD at 3599 m in the Late Triassic Lunde Formation. No significant incidents occurred during operations, but the well developed as much as 20 deg deviation towards TD, giving a TVD RKB of 3571 m, 28 m less than measured depth. The well was drilled with spud mud down to 816 m, with gypsum/lignosulphonate mud from 816 m to 1975 m, and with lignosulphonate mud from 1975 m to TD.

The well penetrated Tertiary, Cretaceous, Jurassic and Triassic strata as required in the work programme for License 057. More than 900 m of Triassic deposits were penetrated in order to obtain stratigraphic information. The Statfjord Formation was eroded and the reservoir characteristics here were on large negative. The exception was the upper seven meter thick Eiriksson Member with a net/gross-value of 1.00 and an average porosity of 24.3%. The underlying Raude Member had a high clay content, which reduced prospectiveness to a N/G value of 0.18 and porosities only rarely exceeding 20%. The Jurassic sequence proved to be different from the expected with Dunlin Group claystones directly underlying Barremian limestones. Hence, no Brent/Late Jurassic sands were present.

No significant indications of hydrocarbons were established during the drilling of the well. Coriband processing of the Jurassic/Triassic sequences indicated a varying amount of residual hydrocarbons to be present from 2990 m, but geochemical study of these intervals showed that these readings most likely were incorrect. Oil shows were reported in limestone and sandstone stringers of the Shetland Group, giving yellow to white fluorescence, moderately fast streaming bluish white cut, occasionally crush cut. In the Jurassic to Triassic sequence, the only reported show was from a few limestone grains, in the interval 3249 - 3256 m, with golden yellow fluorescence and slow streaming, milky white cut.

One core was cut from the Dunlin Group and into the Eiriksson Member. No wire line fluid samples were taken. The bottom hole temperature at TD, from Horner corrected wire line temperatures, was 120 deg C.

The well was permanently abandoned on 24 May 1980 as a dry well.

Testing

No production tests were performed as no significant hydrocarbon shows were encountered.

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
480.00	3600.00

Borekaks tilgjengelig for prøvetaking?	YES

Borekjerner i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	2595.6	2602.6	[m]

Total kjerneprøve lengde [m]	7.0
Kjerner tilgjengelig for prøvetaking?	YES

Kjernebilder

2595-2598m

2598-2600m

2600-2603m

Palynologiske preparater i Sokkeldirektoratet

Prøve dybde	Dybde enhet	Prøve type	Laboratorie
1110.0	[m]	DC	GEOCH
1140.0	[m]	DC	GEOCH
1170.0	[m]	DC	GEOCH
1200.0	[m]	DC	GEOCH
1230.0	[m]	DC	GEOCH
1260.0	[m]	DC	GEOCH
1290.0	[m]	DC	GEOCH
1320.0	[m]	DC	GEOCH

1350.0	[m]	DC	GEOCH
1380.0	[m]	DC	GEOCH
1410.0	[m]	DC	GEOCH
1440.0	[m]	DC	GEOCH
1470.0	[m]	DC	GEOCH
1500.0	[m]	DC	GEOCH
1530.0	[m]	DC	GEOCH
1560.0	[m]	DC	GEOCH
1590.0	[m]	DC	GEOCH
1620.0	[m]	DC	GEOCH
1650.0	[m]	DC	GEOCH
1670.0	[m]	DC	GEOCH
1690.0	[m]	DC	GEOCH
1720.0	[m]	DC	GEOCH
1750.0	[m]	DC	GEOCH
1780.0	[m]	DC	GEOCH
1800.0	[m]	DC	GEOCH
1810.0	[m]	DC	GEOCH
1820.0	[m]	DC	GEOCH
1850.0	[m]	DC	GEOCH

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
347	NORDLAND GP
1130	UTSIRA FM
1151	HORDALAND GP
1650	ROGALAND GP
1650	BALDER FM
1678	LISTA FM
1809	SHETLAND GP
1809	JORSALFARE FM
2127	KYRRE FM
2566	CROMER KNOLL GP
2584	DUNLIN GP
2584	AMUNDSEN FM
2597	STATFJORD GP
2697	HEGRE GP
2697	LUNDE FM

Geokjemisk informasjon

Dokument navn	Dokument format	Dokument størrelse [KB]
228_1	pdf	0.05
228_2	pdf	1.90

Dokumenter - eldre Sokkeldirektoratets WDSS rapporter og andre relaterte dokumenter

Dokument navn	Dokument format	Dokument størrelse [KB]
228_01_WDSS_General_Information	pdf	0.23
228_02_WDSS_completion_log	pdf	0.19

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
228_01_34_4_2_Completion_Report_and_Composite_Well_Log	pdf	13.03

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
CBL VDL	340	2800
CBL VDL	340	2800
CST	2811	3595
FDC CNL GR	1963	3598
HDT	1963	3597
ISF BHC GR	477	1972
ISF BHC MSFL SP GR CAL	1963	3597
RFT	2599	3517
VELOCITY	347	3599

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	451.0	36	451.0	0.00	LOT
CONDUCTOR	30	461.0	36	451.0	0.00	LOT
SURF.COND.	20	776.0	26	791.0	1.47	LOT
INTERM.	13 3/8	1940.0	17 1/2	1950.0	1.76	LOT
INTERM.	9 5/8	2785.0	12 1/4	2798.0	1.87	LOT
LINER	7	3575.0	8 1/2	3575.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
756	1.08	35.0		seawater	
1975	1.38	68.0		waterbased	
2405	1.50	48.0		waterbased	
2610	1.61	67.0		waterbased	
3010	1.67	48.0		waterbased	
3600	1.63	54.0		waterbased	

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]
228_Formation_pressure_(Formasjonstrykk)	pdf	0.22