



Generell informasjon

Brønnbane navn	33/6-3 S
Type	EXPLORATION
Formål	APPRAISAL
Status	P&A
Pressemelding	lenke til pressemelding
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Funn	34/4-10 (Beta Brent)
Brønn navn	33/6-3
Seismisk lokalisering	Seismic iln 1829. seismic xln 2600
Utvinningstillatelse	375 B
Boreoperatør	Suncor Energy Norge AS
Boretillatelse	1399-L
Boreinnretning	SONGA DELTA
Boredager	99
Borestart	17.04.2012
Boreslutt	24.07.2012
Frigitt dato	24.07.2014
Publiseringsdato	03.12.2014
Opprinnelig formål	APPRAISAL
Gjenåpnet	NO
Innhold	DRY
Funnbrønnbane	NO
Avstand, boredekk - midlere havflate [m]	29.0
Vanndybde ved midlere havflate [m]	332.0
Totalt målt dybde (MD) [m RKB]	4444.0
Totalt vertikalt dybde (TVD) [m RKB]	4200.0
Maks inklinasjon [°]	38.5
Temperatur ved bunn av brønnbanen [°C]	142
Eldste penetrerte alder	LATE TRIASSIC
Eldste penetrerte formasjon	LUNDE FM
Geodetisk datum	ED50
NS grader	61° 35' 38.58" N
ØV grader	1° 57' 9.74" E
NS UTM [m]	6829568.33
ØV UTM [m]	444415.99



UTM sone	31
NPDID for brønnbanen	6835

Brønnhistorie

General

Well 33/6-3 S was drilled in the Marulk Basin in the Northern North Sea in order to test the extension of the 34/4-10 oil discovery across a saddle point to a structural high in the south-west. The objective was to evaluate sandstones in the Statfjord Formation, the Beta Statfjord South prospect. The well was planned as a near-HPHT well.

Operations and results

Appraisal well 33/6-3 S was spudded with the semi-submersible installation Songa Delta on 17 April 2012 and drilled to TD at 4444 m (4200 m TVD) 65 m into the Late Triassic Lunde Formation. The well was drilled directionally (S-shaped well with a sail angle through the 12 1/4" interval (2496 to 4015 m) of approximately 38.5 deg. The well was drilled with seawater down to 1364 m, with Carbo-Sea oil based mud from 1364 m to 2496.5 m, and with Magma-Teq oil based mud from 2496.5 m to TD.

Top of the Statfjord Formation (primary target) was penetrated at 4266 m (4023 m TVD), 6m TVD shallower than prognosis. The Lunde Formation (Hegre Group) was recorded at 4379 m (4135.2 m TVD). The petrophysical interpretation of the logging data recorded a gross Statfjord Formation reservoir of 112.5 m with 35.9 m net water bearing reservoir (average porosity of 13.0% and average SW of 96.7%). The only shows recorded in the well were poor oil shows in cuttings and two sidewall cores, all in the Statfjord Formation sandstones from 4230 m to 4376 m. Formation pressure and temperature data confirmed the central fault terrace was not in the HPHT regime and that it was in a lower pressure regime to the 34/4-11 and 34/4-13S fault terraces.

No conventional cores were cut in the well. Six RCI formation fluid samples were acquired at the top of the Statfjord Formation (at 4299 m); all were confirmed by laboratory analysis to be formation water.

The well was permanently abandoned on 24 July 2012 as a dry well.

Testing

No drill stem test was performed.

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
1370.00	4444.00
Borekaks tilgjengelig for prøvetaking?	YES

Litosstratigrafi



Topp Dyb [mMD RKB]	Litostrat. enhet
361	NORDLAND GP
1117	UTSIRA FM
1301	HORDALAND GP
1720	ROGALAND GP
1720	BALDER FM
1756	SELE FM
1817	LISTA FM
1890	SHETLAND GP
1890	JORSALFARE FM
2159	KYRRE FM
3320	TRYGGVASON FM
3949	SVARTE FM
3975	CROMER KNOLL GP
3975	RØDBY FM
4070	SOLA FM
4080	MIME FM
4084	VIKING GP
4084	DRAUPNE FM
4114	HEATHER FM
4154	DUNLIN GP
4154	COOK FM
4198	BURTON FM
4230	AMUNDSEN FM
4267	STATFJORD GP
4267	NANSEN FM
4285	EIRIKSSON FM
4332	RAUDE FM
4377	HEGRE GP
4377	LUNDE FM

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
HDIL 6CAL XMAC DSL	3800	4434
HDIL 6CAL XMAC ORIT ZDL CN DSL..	3400	4009
MRCH TTRM JAR SWVL DSL 6CAL OR..	3435	4185



MWD - DI	361	1364
MWD - GR ECD RES DI DENS CAL NEU	4306	4444
MWD - GR RES PWD DI	361	1363
MWD - GR RES PWD DI	4184	4306
MWD - GR RES PWD DI SON	1364	2497
MWD - NB GR RES PWD GR DI SON	2497	4184
PCOR	4260	4390
RCI	4268	4375
RCI	4270	4300
SBT PMFC	320	3948
VSP	1515	4324

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	439.0	36	440.0	0.00	
SURF.COND.	20	1358.0	26	1364.0	1.77	LOT
PILOT HOLE		1363.0	9 7/8	1363.0	0.00	
INTERM.	13 3/8	2484.0	17 1/2	2497.0	1.84	LOT
INTERM.	9 7/8	4006.0	12 1/4	4015.0	2.12	LOT
LINER	7	4181.0	8 1/2	4184.0	2.10	LOT
OPEN HOLE		4444.0	6	4444.0	0.00	

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
439	1.05			Spud Mud	
750	1.74	42.0		CarboSea OBM	
1363	1.49	51.0		Spud Mud	
1494	1.53	32.0		CarboSea OBM	
2496	1.44	26.0		CarboSea OBM	
3107	1.71	39.0		CarboSea OBM	
3488	1.85	34.0		MagmaTEQ OBM	
3996	1.99	39.0		MagmaTEQ OBM	
4015	1.89	39.0		MagmaTEQ OBM	
4015	1.74	38.0		CarboSea OBM	



4164	1.97	38.0		MagmaTEQ OBM	
4184	1.84	37.0		MagmaTEQ OBM	
4306	1.94	39.0		MagmaTEQ OBM	
4444	1.86	32.0		MagmaTEQ OBM	