



Generell informasjon

Brønnbane navn	35/9-11 S
Type	EXPLORATION
Formål	APPRAISAL
Status	P&A
Pressemelding	lenke til pressemelding
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Funn	35/9-6 S
Brønn navn	35/9-11
Seismisk lokalisering	RD1205-inline 1134 & crossline 0305
Utvinningstillatelse	420
Boreoperatør	RWE Dea Norge AS
Boretillatelse	1502-L
Boreinnretning	LEIV EIRIKSSON
Boredager	45
Borestart	01.03.2014
Boreslutt	15.04.2014
Frigitt dato	15.04.2016
Publiseringsdato	15.04.2016
Opprinnelig formål	APPRAISAL
Gjenåpnet	NO
Innhold	OIL/GAS
Funnbrønnbane	NO
1. nivå med hydrokarboner, alder	MIDDLE JURASSIC
1. nivå med hydrokarboner, formasjon.	BRENT GP
2. nivå med hydrokarboner, alder	EARLY JURASSIC
2. nivå med hydrokarboner, formasjon	COOK FM
Avstand, boredekk - midlere havflate [m]	25.0
Vanndybde ved midlere havflate [m]	367.5
Totalt målt dybde (MD) [m RKB]	3800.0
Totalt vertikalt dybde (TVD) [m RKB]	3733.0
Maks inklinasjon [°]	21.8
Eldste penetrerte alder	EARLY JURASSIC
Eldste penetrerte formasjon	AMUNDSEN FM
Geodetisk datum	ED50



NS grader	61° 21' 25.45" N
ØV grader	3° 40' 44.57" E
NS UTM [m]	6802911.35
ØV UTM [m]	536315.22
UTM sone	31
NPDID for brønnbanen	7347

Brønnhistorie

General

Well 35/9-11 S was drilled to appraise the 35/9-6 Titan discovery on the northern tip of the Ryggsteinen Ridge, west of the Gjøa Field. The 35/9-6 Titan Discovery had encountered oil and gas at five stratigraphic levels: in Intra Heather Formation sandstones of Callovian age and in the Tarbert, Etive, Drake and Cook formations. The 35/9-11 S well was drilled down-flank of the discovery well in order to prove up additional HC volumes and reduce the resource uncertainty. Well 35/9-11 S was drilled to verify the discovery in 35/9-6. If hydrocarbons are verified a sidetrack (35/9-11 A) was planned to perform necessary data acquisition.

Operations and results

Appraisal well 35/9-11 S was spudded with the semi-submersible installation Leiv Eiriksson on 1 March 2014 and drilled to TD at 3800 m (3733 m TVD) in the Early Jurassic Amundsen Formation. A 9-7/8 pilot hole was drilled from 463 m to 785 m to check for shallow gas and to identify a casing point in the Lark shale. No shallow gas was seen. Operations went forth according to planned schedule apart from minor NPT connected to trouble with the 13 3/8" wear bushing and junk in hole before proceeding with the 12 1/4" section. The well was drilled with spud mud down to 464 m and with Glydril mud from 464 m to TD.

The Oxfordian and Callovian Intra Heather sandstones were absent in 35/9-11 S. The Tarbert, Etive and Cook formations were intersected. From CPI log hydrocarbons were confirmed in all three formations and core points were selected for the discovery case appraisal sidetrack.

Wire line logs were run in 35/9-11 S. However all sampling and coring was to be done in the A sidetrack.

The well was plugged back and permanently abandoned on 15 April 2014 as an oil appraisal.

Testing

No drill stem test was performed.

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
461.00	3800.00

Borekaks tilgjengelig for prøvetaking?	YES
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Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
393	NORDLAND GP
563	UTSIRA FM
575	UNDIFFERENTIATED
605	HORDALAND GP
605	SKADE FM
765	NO FORMAL NAME
834	GRID FM
965	UNDIFFERENTIATED
1018	FRIGG FM
1222	UNDIFFERENTIATED
1253	ROGALAND GP
1253	BALDER FM
1299	SELE FM
1340	LISTA FM
1634	TY FM
1704	SHETLAND GP
1704	JORSALFARE FM
1854	KYRRE FM
2800	TRYGGVASON FM
2945	BLODØKS FM
2970	SVARTE FM
2981	CROMER KNOLL GP
2981	RØDBY FM
3065	SOLA FM
3080	TUXEN FM
3095	ÅSGARD FM
3159	VIKING GP
3159	HEATHER FM
3442	BRENT GP
3442	TARBERT FM
3471	NESS FM
3503	ETIVE FM
3522	RANNOCH FM
3558	DUNLIN GP
3558	DRAKE FM



3624	COOK FM
3701	BURTON FM
3710	AMUNDSEN FM
3752	JOHANSEN FM
3782	AMUNDSEN FM

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
MWD LWD - DI GR	392	462
MWD LWD - GR RES DI PWD	462	785
MWD LWD - GR RES DI PWD SON	785	1757
MWD LWD - GR RES NEU DEN DI SON	1757	3800
MWD LWD - GR RES NEU DEN SON DI	462	785

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	459.0	36	459.2	0.00	
SURF.COND.	20	778.0	26	785.0	1.39	FIT
PILOT HOLE		785.0	9 7/8	785.0	0.00	
INTERM.	13 3/8	1750.0	17 1/2	1757.0	1.61	LOT
INTERM.	9 5/8	2901.0	12 1/4	2911.0	1.74	LOT
OPEN HOLE		3800.0	8 1/2	3800.0	0.00	

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
462	1.49			Spud Mud	
489	1.34	16.0		Glydril MC	
785	1.19	13.0		Glydril	
785	1.34	20.0		Glydril	
1176	1.19	15.0		Glydril	
1757	1.26	12.0		Glydril	
2330	1.27	12.0		GLYDRIL	



2911	1.34	15.0		Glydril	
3800	1.35	17.0		Glydril	