



Generell informasjon

Brønnbane navn	35/11-20 B
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Pressemelding	lenke til pressemelding
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Funn	35/11-20 B (Beaujolais)
Brønn navn	35/11-20
Seismisk lokalisering	3D survey WIN14M05 Inline 22570 X-line 11940
Utvinningstillatelse	248 F
Boreoperatør	Wintershall Norge AS
Boretillatelse	1637-L
Boreinnretning	BORGLAND DOLPHIN
Boredager	39
Borestart	07.08.2016
Boreslutt	15.09.2016
Frigitt dato	15.09.2018
Publiseringsdato	15.09.2018
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	OIL
Funnbrønnbane	YES
1. nivå med hydrokarboner, alder	LATE JURASSIC
1. nivå med hydrokarboner, formasjon.	SOGNEFJORD FM
2. nivå med hydrokarboner, alder	MIDDLE JURASSIC
2. nivå med hydrokarboner, formasjon	TARBERT FM
Avstand, boredekk - midlere havflate [m]	31.0
Vanndybde ved midlere havflate [m]	373.0
Totalt målt dybde (MD) [m RKB]	5114.0
Totalt vertikalt dybde (TVD) [m RKB]	4087.0
Maks inklinasjon [°]	65
Temperatur ved bunn av brønnbanen [°C]	147
Eldste penetrerte alder	EARLY JURASSIC



Eldste penetrerte formasjon	STATFJORD GP
Geodetisk datum	ED50
NS grader	61° 13' 20.29" N
ØV grader	3° 26' 25.57" E
NS UTM [m]	6787789.95
ØV UTM [m]	523655.76
UTM sone	31
NPDID for brønnbanen	8036

Brønnhistorie



Wellbore history

General

Well 35/11-20 B is a geological sidetrack to well 35/11-20 S. Well 35/11-20 S and its' first sidetrack 35/11-20 A reached the Middle-Late Jurassic Heather Formation and proved oil in Oxfordian age Intra-Heather Formation sandstone (Orion prospect). The objective of sidetrack well 35/11-20 B was to further appraise and test the oil bearing Oxfordian aged Intra-Heather Formation sandstone as found in 35/11-20S & 20A. The exploration objective was to test HC potential of the Middle Jurassic Brent Group as well as the Early Jurassic Cook Formation.

Operations and results

Wildcat well 35/11-20 B was kicked off from the main bore (35/11-20S) at 1812 m in the Shetland Group on 7 August 2016. It was drilled with the semi-submersible installation Borgland Dolphin to TD at 5114 m (4087 m TVD) m in the Early Jurassic Statfjord Group. No significant problem was encountered in the operations. The well was drilled with Innovert oil based mud from kick-off to TD.

Well 35/11-20B encountered the Oxfordian sandstones with top at 4131 m (3223 m TVD). These sandstones are 36 m TVD thick and with lower reservoir quality compared to the 35/11-20 A sidetrack. The top 8 m TVD is oil bearing. Top Tarbert Formation was penetrated at 4596 m (3616 m TVD). The upper 10 m were oil-bearing with oil in a Down-To situation. These sandstones had moderate reservoir quality with an average porosity of 14%. The Ness, Etive and Oseberg reservoirs are of low to medium quality with an average porosity of 13 -15% and water wet with some residual hydrocarbons. The Cook Formation was of low quality and is believed to be water bearing with some residual hydrocarbon. Only the top of the Statfjord Group was penetrated and it is water bearing with some residual HC.

No cores were cut. MDT fluid samples were taken at 4606.6 m in the Tarbert Formation (formation oil), 4803.5 m in the Oseberg Formation (formation water with traces of live hydrocarbon), and 5095.20 m in the Statfjord Group (formation water with traces of live hydrocarbon).

The well was permanently abandoned on 15 September as an oil discovery.

Testing

No drill stem test was performed.

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Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
1800.00	5114.00

Borekaks tilgjengelig for prøvetaking?	YES
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Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
404	NORDLAND GP
724	UTSIRA FM
921	HORDALAND GP
1527	FRIGG FM
1625	ROGALAND GP
1625	BALDER FM
1694	SELE FM
1720	LISTA FM
1943	SHETLAND GP
1943	JORSALFARE FM
2155	KYRRE FM
3632	TRYGGVASON FM
3720	SVARTE FM
3745	CROMER KNOLL GP
3745	RØDBY FM
3750	ÅSGARD FM
3812	VIKING GP
3812	DRAUPNE FM
3871	HEATHER FM
4131	SOGNEFJORD FM
4176	HEATHER FM
4596	BRENT GP
4596	TARBERT FM
4607	NESS FM
4706	ETIVE FM
4725	RANNOCH FM
4789	OSEBERG FM
4862	DUNLIN GP
4862	DRAKE FM
4900	COOK FM
5075	STATEFJORD GP

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
CMR MDT	4463	4625



CMR MDT GR	3981	4265
LWD - DIR	403	501
LWD - GR RES DEN NEU DIR PWD	4465	5114
LWD - GR RES DEN NEU SON DIR PWD	3885	4465
LWD - GR RES DIR PWD	501	1098
LWD - GR RES SON DIR PWD	1098	3885
LWD - PWD	5114	5114
PEX AIT SON	4463	5114
SWC	3910	4380
TLC CMR MDT	3586	5098
USIT CBL	3289	3785
VSP GR	1748	4463

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	494.0	36	501.0	0.00	
SURF.COND.	20	1091.8	26	1098.0	1.77	FIT
INTERM.	13 3/8	1789.3	17 1/2	1795.5	1.71	LOT
INTERM.	9 5/8	3875.5	12 1/4	3885.0	1.81	LOT
LINER	7	4463.0	8 1/2	4465.0	1.95	LOT
OPEN HOLE		5114.0	6	5114.0	0.00	

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
1100	1.29	13.0		PERFORMADRIL	
1789	1.44	28.0		INNOVERT OBM	
2535	1.44	29.0		INNOVERT OBM	
3147	1.44	29.0		INNOVERT OBM	
3630	1.44	32.0		INNOVERT OBM	
3885	1.39	28.0		INNOVERT OBM	
3885	1.47	30.0		INNOVERT OBM	
4012	1.39	24.0		INNOVERT	
4494	1.54	30.0		INNOVERT	
5114	1.54	28.0		INNOVERT	

