



Generell informasjon

Brønnbane navn	15/3-9
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Pressemelding	lenke til pressemelding
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	GUDRUN
Funn	15/3-9
Brønn navn	15/3-9
Seismisk lokalisering	inline 2725 & xline 2721.seismic cube ST 208707
Utvinningstillatelse	187
Boreoperatør	Statoil Petroleum AS
Boretillatelse	1306-L
Boreinnretning	TRANSOCEAN LEADER
Boredager	87
Borestart	19.05.2010
Boreslutt	13.08.2010
Frigitt dato	13.08.2012
Publiseringsdato	16.10.2012
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	OIL/GAS
Funnbrønnbane	YES
1. nivå med hydrokarboner, alder	LATE JURASSIC
1. nivå med hydrokarboner, formasjon.	INTRA DRAUPNE FM SS
2. nivå med hydrokarboner, alder	MIDDLE JURASSIC
2. nivå med hydrokarboner, formasjon	HUGIN FM
Avstand, boredekk - midlere havflate [m]	23.5
Vanndybde ved midlere havflate [m]	108.0
Totalt målt dybde (MD) [m RKB]	4654.0
Totalt vertikalt dybde (TVD) [m RKB]	4650.5
Maks inklinasjon [°]	6.9
Temperatur ved bunn av brønnbanen [°C]	154



Eldste penetrerte alder	MIDDLE JURASSIC
Eldste penetrerte formasjon	SLEIPNER FM
Geodetisk datum	ED50
NS grader	58° 49' 14.04" N
ØV grader	1° 46' 20.71" E
NS UTM [m]	6520872.03
ØV UTM [m]	429105.07
UTM sone	31
NPDID for brønnbanen	6354

Brønnhistorie



General

Well 15/3-9 was drilled on the Brynhild prospect situated on the east flank of the south Viking Graben, west of the Utsira High. The Brynhild Prospect was interpreted as the eastwards continuation of the Gudrun Field. The main objective of the 15/3-9 well was to prove economical hydrocarbon columns in the Late Jurassic SST1 and the Late Jurassic SST2 of the Draupne Formation. The Hugin Formation was a secondary objective.

Operations and results

Wildcat well 15/3-9 (Brynhild) was drilled with the semi-submersible installation Transocean Leader. A pilot hole 15/3-U6 was drilled to 918 m. No shallow gas was observed by the ROV at the wellhead or by the MWD while drilling the pilot hole. The main well was spudded 15 m off the pilot-hole location on 19 May 2010 and drilled to the Ty Formation where the pipe got stuck. It was not possible to get it loose. A technical sidetrack, 15/3-9 S T2 was decided. The sidetrack was kicked off from 2350 m and the well was drilled to TD at 4654 m in the Middle Jurassic Sleipner Formation without further significant problems. The well was drilled with Seawater and SW/PAC sweeps down to 1001 m, with Performadril WBM from 1001 m to 2724 m (primary well and sidetrack), and with XP-07 OBM from 2724 m to TD.

The Late Jurassic Draupne Formation was encountered at 3975 m with top Intra Draupne Formation SST1 sandstone at 4112 m. The SST1 was oil bearing down to an oil water contact was at 4132 m TVD. The prognosed SST2 sandstone was encountered at 4226 m and was entirely water filled. The Hugin Formation was encountered at 4475 m and contained both gas and oil, each fluid type with its own down-to contact. The Draupne SST1 had a net to gross ratio of 0.75, while the net to gross ratio in the Hugin Formation was 0.16. Except for the petroleum bearing SST1 and Hugin reservoirs no oil shows were reported from the well.

Two cores were cut in sidetrack 15/3-9 T2, Core 1 in the Draupne SST1 (23 m), and Core 2 in the upper part of the Hugin Formation (32.15 m). The cored section in the Draupne SST1 extends from 4124 to 4147 m MD, while the cored section in the Hugin Formation extends from 4482 to 4514.17 m MD. Core 1 and Core 2 are shifted against the log curves with +2.13 m and +2.89 m, respectively. MDT fluid sampling was performed. Oil samples were taken at 4115 m and 4128 m in the Intra Draupne Formation SST1 sandstone. In the Hugin Formation a gas/condensate sample was taken at 4580.7 and an oil samples was taken at 4510 m. MDT water samples were taken at 4182.5 m and at 4528.7 m in the Hugin Formation.

The well was permanently abandoned on 13 August 2010 as an oil and gas discovery.

Testing

No drill stem test was performed.

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
1010.00	2690.00



Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	4124.0	4147.0	[m]
2	4482.0	4514.2	[m]

Total kjerneprøve lengde [m]	55.2
Kjerner tilgjengelig for prøvetaking?	YES

Palynologiske preparater i Sokkeldirektoratet

Prøve dybde	Dybde enhet	Prøve type	Laboratorie
2550.0	[m]	DC	PETROSTR
2570.0	[m]	DC	PETROS
2590.0	[m]	DC	PETROS
2610.0	[m]	DC	PETROS
2630.0	[m]	DC	PETROS
2650.0	[m]	DC	PETROS
2670.0	[m]	DC	PETROS
2690.0	[m]	DC	PETROS
2710.0	[m]	DC	PETROS
2721.0	[m]	DC	PETROS
2730.0	[m]	DC	PETROS
2750.0	[m]	DC	PETROS
2770.0	[m]	DC	PETROS
2790.0	[m]	DC	PETROS
2810.0	[m]	DC	PETROS
2830.0	[m]	DC	PETROS
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2970.0	[m]	DC	PETROS
2990.0	[m]	DC	PETROS



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Faktasider

Brønnbane / Leting

Utskriftstidspunkt: 12.5.2024 - 16:45

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4392.0 [m]	DC	PETROS
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Faktasider

Brønnbane / Leting

Utskriftstidspunkt: 12.5.2024 - 16:45

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4476.0 [m]	DC	PETROS
4479.0 [m]	DC	PETROS
4482.5 [m]	C	PETROS
4484.4 [m]	C	PETROS
4487.6 [m]	C	PETROS
4490.6 [m]	C	PETROS
4493.5 [m]	C	PETROS
4495.3 [m]	C	PETROS
4497.2 [m]	C	PETROS
4501.4 [m]	C	PETROS
4504.5 [m]	C	PETROS
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4607.0	[m]	DC	PETROS

Oljeprøver i Sokkeldirektoratet

Test type	Flaske nummer	Topp dyp MD [m]	Bunn dyp MD [m]	Væske type	Test tidspunkt	Prøver tilgjengelig
DST		4128.00	0.00	OIL		YES
DST		4510.00	0.00	OIL		YES
FMT		0.00	0.00			YES
FMT		4580.70	0.00	CONDE NSATE		NO

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
131	NORDLAND GP
678	UTSIRA FM
875	HORDALAND GP
1109	SKADE FM
1521	GRID FM
2209	ROGALAND GP
2209	BALDER FM
2259	SELE FM



2300	LISTA FM
2439	HEIMDAL FM
2610	TY FM
2714	SHETLAND GP
2714	EKOFISK FM
2792	JORSALFARE FM
3137	KYRRE FM
3304	TRYGGVASON FM
3615	BLODØKS FM
3625	SVARTE FM
3721	CROMER KNOLL GP
3721	RØDBY FM
3812	SOLA FM
3839	ÅSGARD FM
3975	VIKING GP
3975	DRAUPNE FM
4322	HEATHER FM
4475	VESTLAND GP
4475	HUGIN FM
4614	SLEIPNER FM

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
CMR RR	3900	4658
DUAL OBMI	3900	4658
IPLT CMR HNGS	3900	4658
MDT	4115	4589
MDT	4115	4115
MDT HC	4580	4580
MDT MINI-DST VIT	4115	4117
MDT MINI-DST VIT RR	4489	4510
MSCT SWC	4581	4587
MSCT SWC RR	4111	4182
MSIP RT SCANNER	3900	4658
MSIP RT SCANNER	3900	4618
MWD - ARC PP POWERDRIVE V	207	2690
MWD - ARC PP SON VIS	131	921



MWD - ARC SON VIS TELE PPMOTOR	2721	3900
MWD - ARC TELE POWERDRIVE	2350	2721
MWD - GVR STETH ARC TELE	3900	4654
MWD - PP	131	207
ZOVSP GR TRISOR	606	4598

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	203.0	36	203.0	0.00	LOT
SURF.COND.	20	991.0	26	1001.0	1.78	LOT
INTERM.	14	2715.0	17 1/2	2721.0	1.71	LOT
INTERM.	9 7/8	3900.0	12 1/4	3903.0	2.13	LOT
OPEN HOLE		4654.0	8 1/2	4654.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
685	1.43	22.0		Performadril	
898	1.43	21.0		Performadril	
1000	1.45	29.0		Performadril	
1157	1.25	20.0		Performadril	
1493	2.04	36.0		OBM-Low ECD- HTHP	
1879	1.37	32.0		Performadril	
2566	1.45	28.0		Performadril	
2587	1.37	30.0		Performadril	
2690	1.37	32.0		Performadril	
2718	1.45	30.0		Performadril	
2721	1.47	27.0		XP-07 - #14	
2736	1.39	23.0		XP-07 - #14	
3204	1.41	21.0		XP-07 - #14	
3486	1.43	20.0		XP-07 - #14	
3535	1.49	24.0		XP-07 - #14	
3604	2.00	42.0		OBM-Low ECD- HTHP	
3741	1.62	26.0		XP-07 - #14	



3754	2.00	44.0		OBM-Low ECD-HTHP	
3900	2.02	63.0		OBM-Low ECD-HTHP	
3900	2.02	47.0		OBM-Low ECD-HTHP	
3900	1.62	25.0		XP-07 - #14	
3900	1.62	26.0		XP-07 - #14	
4004	2.02	39.0		OBM-Low ECD-HTHP	
4103	2.03	36.0		OBM-Low ECD-HTHP	
4146	2.04	36.0		OBM-Low ECD-HTHP	
4234	2.05	36.0		OBM-Low ECD-HTHP	
4365	2.02	34.0		OBM-Low ECD-HTHP	
4404	2.02	33.0		OBM-Low ECD-HTHP	
4514	2.02	33.0		OBM-Low ECD-HTHP	
4654	2.00	39.0		OBM-Low ECD-HTHP	

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]
6354 Formation pressure (Formasjonstrykk)	pdf	0.18

