



Generell informasjon

Brønnbane navn	34/8-3 A
Type	EXPLORATION
Formål	APPRAISAL
Status	P&A
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	VISUND
Funn	34/8-1 Visund
Brønn navn	34/8-3
Seismisk lokalisering	NH 8404 - 321 SP 245
Utvinningstillatelse	120
Boreoperatør	Norsk Hydro Produksjon AS
Boretillatelse	589-L
Boreinnretning	POLAR PIONEER
Boredager	48
Borestart	14.09.1988
Boreslutt	31.10.1988
Frigitt dato	31.10.1990
Publiseringsdato	21.12.2012
Opprinnelig formål	APPRAISAL
Gjenåpnet	NO
Innhold	OIL/GAS
Funnbrønnbane	NO
1. nivå med hydrokarboner, alder	MIDDLE JURASSIC
1. nivå med hydrokarboner, formasjon.	BRENT GP
Avstand, boredekk - midlere havflate [m]	23.0
Vanndybde ved midlere havflate [m]	382.0
Totalt målt dybde (MD) [m RKB]	3230.0
Totalt vertikalt dybde (TVD) [m RKB]	3091.2
Maks inklinasjon [°]	25.4
Temperatur ved bunn av brønnbanen [°C]	116
Eldste penetrerte alder	EARLY JURASSIC
Eldste penetrerte formasjon	COOK FM
Geodetisk datum	ED50
NS grader	61° 24' 28.04" N



ØV grader	2° 32' 45.06" E
NS UTM [m]	6808456.80
ØV UTM [m]	475751.35
UTM sone	31
NPDID for brønnbanen	1338

Brønnhistorie

**General**

Well 34/8-3 A is a sidetrack to well 34/8-3 on the A-structure on the Visund Field. Well 34/8-3 found oil and gas in the Brent Group without encountering the OWC. Well 34/8-3 A was sidetracked down flanks on the structure to establish the OWC and to test if the A-North could be in communication with the 34/8-1 A-South Discovery.

Operations and results

Appraisal well 34/8-3 A was kicked off at 944 m in the primary well on 14 November 1988. It was drilled with the semi-submersible installation Polar Pioneer to TD at 3230 m (3091 m TVD) in the Early Jurassic Cook Formation. During logging before setting of 9 5/8", the tool got stuck at 1284 m. The string was cut, and the instrument was fished. The well was drilled with KCl/polymer mud from kick-off to TD.

Spotted hydrocarbon shows were described on cuttings in the interval 2550 to 2660 m in the Kyrre Formation. Top Draupne Formation was encountered at 3003 m. Under Draupne, the sidetrack penetrated a 19 m thick Heather Formation sequence that was not present in the primary well bore. The Brent Group, Tarbert Formation was encountered at 3031 m (2900 m TVD), deeper than prognosed due to the unexpected Heather. The Brent Formation contained gas down to a gas/oil contact at 3059 m (2927 m TVD) and oil down to a clear oil/water contact at 3099.5 m (2966 m TVD). Oil shows continued down to 3162 m. The Cook Formation was found water bearing. The RFT pressures in both the primary well and the sidetrack proved higher pressure in the hydrocarbon zone than on the A-South compartment, but with pressure communication in the water zone.

Five cores were cut in the interval 3034 to 3148.5 m. The drill string got stuck during cutting of the 5th core and further coring was abandoned. RFT fluid samples were taken at 3073.2 m (0.4 Sm³ gas and 2.6 litres oil in 2 3/4 gallon chamber), and 3093.0 (1 Sm³ gas and 7 litres oil 2 3/4 gallon chamber).

The well was permanently abandoned on 31 October 1988 as an oil and gas appraisal well.

Testing

Two drill stem test was performed in the oil zone in the Ness Formation.

DST 1A tested the interval 3087 - 3093 m. It produced 746 Sm³ oil and 152640 Sm³ gas /day through a 12.7 mm (32/64") choke. The GOR was 205 Sm³/Sm³, the oil density was 0.850 g/cm³, and the gas gravity was 0.646 (air = 1) with 2 % CO₂ and 1ppm H₂S. The bottom hole temperature was 108.7 deg C, measured at 3020 m.

DST 1B tested the intervals 3071.6 - 3078.6 m plus 3081.7 - 3093.0 m. It produced 782 Sm³ oil and 155620 Sm³ gas /day through a 12.7 mm (32/64") choke. The GOR was 199 Sm³/Sm³, the oil density was 0.850 g/cm³, and the gas gravity was 0.650 (air = 1) with 2 % CO₂ and 1.2 ppm H₂S. The bottom hole temperature was 109.6 deg C, measured at 3020 m.

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
1000.00	3230.00

Borekaks tilgjengelig for prøvetaking?	YES
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Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	3034.0	3061.9	[m]
2	3062.0	3079.9	[m]
3	3081.0	3101.8	[m]
4	3103.0	3130.9	[m]
5	3131.0	3148.5	[m]

Total kjerneprøve lengde [m]	111.9
Kjerner tilgjengelig for prøvetaking?	YES

Kjernebilder



3034-3039m



3039-3044m



3044-3049m



3049-3054m



3054-3059m



3059-3061m



3062-3067m



3067-3072m



3072-3077m



3077-3079m



3081-3086m



3086-3091m



3091-3096m



3096-3101m



3101-3106m



3106-3111m



3111-3116m



3116-3121m



3121-3126m



3126-3130m



3126-3130m



3131-3136m



3136-3141m



3141-3146m



3146-3148m



3078-3078m



3078-3078m

Palynologiske preparater i Sjøkeldirektoratet

Prøve dybde	Dybde enhet	Prøve type	Laboratorie
2665.0	[m]	SWC	HYDRO
2760.0	[m]	SWC	HYDRO
2885.0	[m]	SWC	HYDRO
2978.5	[m]	SWC	HYDRO
2981.0	[m]	SWC	HYDRO
2990.0	[m]	SWC	HYDRO
3005.0	[m]	SWC	HYDRO
3007.5	[m]	SWC	HYDRO
3008.0	[m]	SWC	HYDRO
3011.0	[m]	SWC	HYDRO
3016.0	[m]	SWC	HYDRO
3018.0	[m]	SWC	HYDRO
3023.0	[m]	SWC	HYDRO
3025.0	[m]	SWC	HYDRO
3029.5	[m]	SWC	HYDRO
3035.8	[m]	CC	HYDRO



3043.6	[m]	CC	HYDRO
3053.9	[m]	CC	HYDRO
3057.0	[m]	DC	RRI
3057.9	[m]	CC	HYDRO
3059.0	[m]	DC	RRI
3061.0	[m]	DC	RRI
3063.0	[m]	DC	RRI
3063.2	[m]	CC	HYDRO
3064.0	[m]	DC	RRI
3065.0	[m]	DC	RRI
3068.0	[m]	DC	RRI
3069.0	[m]	DC	RRI
3069.7	[m]	CC	HYDRO
3070.0	[m]	DC	RRI
3074.0	[m]	DC	RRI
3075.0	[m]	CC	HYDRO
3075.0	[m]	DC	RRI
3076.0	[m]	DC	RRI
3077.5	[m]	CC	HYDRO
3078.0	[m]	DC	RRI
3082.0	[m]	DC	RRI
3082.3	[m]	CC	HYDRO
3084.0	[m]	DC	RRI
3084.7	[m]	CC	HYDRO
3094.0	[m]	DC	RRI
3094.5	[m]	CC	HYDRO
3095.0	[m]	DC	RRI
3095.5	[m]	CC	HYDRO
3098.2	[m]	CC	HYDRO
3112.5	[m]	CC	HYDRO
3120.7	[m]	CC	HYDRO
3126.0	[m]	DC	RRI
3126.5	[m]	CC	HYDRO
3128.0	[m]	DC	RRI
3129.0	[m]	DC	RRI
3129.9	[m]	CC	HYDRO
3130.0	[m]	DC	RRI
3132.8	[m]	CC	HYDRO
3136.8	[m]	CC	HYDRO
3146.8	[m]	CC	HYDRO



Oljeprøver i Sokkeldirektoratet

Test type	Flaske nummer	Topp dyp MD [m]	Bunn dyp MD [m]	Væske type	Test tidspunkt	Prøver tilgjengelig
DST		3071.00	3093.00		20.10.1988 - 00:00	YES
DST	DST1B	3071.50	3078.50		23.10.1988 - 00:00	YES

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
405	NORDLAND GP
1120	UTSIRA FM
1180	HORDALAND GP
1873	ROGALAND GP
1873	BALDER FM
1920	LISTA FM
2088	SHETLAND GP
2088	JORSALFARE FM
2395	KYRRE FM
2975	CROMER KNOLL GP
3003	VIKING GP
3003	DRAUPNE FM
3012	HEATHER FM
3031	BRENT GP
3031	TARBERT FM
3071	NESS FM
3101	ETIVE FM
3131	RANNOCH FM
3184	DUNLIN GP
3184	DRAKE FM
3227	COOK FM

Geokjemisk informasjon





Dokument navn	Dokument format	Dokument størrelse [KB]
1338_GCH_1	pdf	0.25
1338_GCH_2	pdf	9.20

Dokumenter - eldre Sokkeldirektoratets WDSS rapporter og andre relaterte dokumenter

Dokument navn	Dokument format	Dokument størrelse [KB]
1338_01_WDSS_General_Information	pdf	0.25
1338_02_WDSS_completion_log	pdf	0.22

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
1338_34_8_3_A_Completion_log	pdf	2.62
1338_34_8_3_A_Completion_report	pdf	16.59

Borestrengtester (DST)

Test nummer	Fra dybde MD [m]	Til dybde MD [m]	Reduksjonsven til størrelse [mm]
1.0	3087	3093	12.7
1.1	3072	3093	12.7

Test nummer	Endelig avstengningstrykk [MPa]	Endelig strømningstrykk [MPa]	Bunnhullstrykk [MPa]	Borehullstemperatur [°C]
1.0				
1.1				

Test nummer	Olje produksjon [Sm3/dag]	Gass produksjon [Sm3/dag]	Oljetetthet [g/cm3]	Gasstyngde rel. luft	GOR [m3/m3]
1.0	746	153000	0.850	0.646	205
1.1	782	156000	0.850	0.650	199





Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
CBL VDL GR	1875	3165
CST GR	2525	3031
DIL LSS GR SP	405	3229
DLL MSFL GR SP	3000	3182
LDT CNL	2443	3195
MWD	945	3034
MWD FE WD	3062	3230
NGT AMS	2443	3186
RFT GR AMS	3034	3162
VSP	1000	3160

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	491.0	36	0.0	0.00	LOT
INTERM.	13 3/8	944.0	17 1/2	1475.0	1.67	LOT
INTERM.	13 3/8	944.0	17 1/2	1475.0	1.67	LOT
INTERM.	9 5/8	2442.0	12 1/4	2486.0	1.84	LOT
INTERM.	9 5/8	2442.0	12 1/4	2486.0	1.84	LOT
LINER	7	3227.0	8 1/2	3230.0	0.00	LOT
LINER	7	3230.0	8 1/2	3230.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
944	1.53	20.0	8.0	WATER BASED	19.09.1988
949	1.40	21.0	11.0	WATER BASED	20.09.1988
951	1.52	22.0	11.0	WATER BASED	19.09.1988
966	1.52	23.0	10.0	WATER BASED	19.09.1988
989	1.40	22.0	11.0	WATER BASED	22.09.1988
1152	1.40	23.0	11.0	WATER BASED	22.09.1988
1255	1.40	21.0	9.0	WATER BASED	19.09.1988
1475	1.40	24.0	10.0	WATER BASED	23.09.1988
1795	1.41	24.0	9.0	WATER BASED	27.09.1988



2045	1.40	24.0	8.0	WATER BASED	27.09.1988
2390	1.50	24.0	8.0	WATER BASED	27.09.1988
2400	1.40	20.0	7.0	WATER BASED	27.09.1988
2486	1.52	18.0	11.0	WATER BASED	28.09.1988
2486	1.52	20.0	12.0	WATER BASED	29.09.1988
2486	1.52	22.0	8.0	WATER BASED	30.09.1988
2486	1.52	24.0	7.0	WATER BASED	03.10.1988
2489	1.52	23.0	7.0	WATER BASED	03.10.1988
2591	1.52	23.0	8.0	WATER BASED	03.10.1988
2674	1.52	21.0	8.0	WATER BASED	04.10.1988
2954	1.55	22.0	8.0	WATER BASED	11.10.1988
3034	1.60	24.0	8.0	WATER BASED	11.10.1988
3034	1.60	22.0	8.0	WATER BASED	11.10.1988
3103	1.60	25.0	7.0	WATER BASED	11.10.1988
3131	1.60	23.0	6.0	WATER BASED	11.10.1988
3148	1.60	24.0	8.0	WATER BASED	12.10.1988
3175	1.70	26.0	10.0	WATER BASED	18.10.1988
3175	1.70	26.0	12.0	WATER BASED	17.10.1988
3177	1.70	28.0	7.0	WATER BASED	24.10.1988
3177	1.70	27.0	6.0	WATER BASED	25.10.1988
3177	1.70	28.0	6.0	WATER BASED	26.10.1988
3177	1.70	29.0	7.0	WATER BASED	19.10.1988
3177	1.70	29.0	7.0	WATER BASED	20.10.1988
3177	1.70	29.0	7.0	WATER BASED	24.10.1988
3177	1.70	27.0	6.0	WATER BASED	24.10.1988
3177	1.71	30.0	7.0	WATER BASED	27.10.1988
3177	1.71	30.0	7.0	WATER BASED	31.10.1988
3177	1.50	15.0	5.0	WATER BASED	31.10.1988
3230	1.60	26.0	8.0	WATER BASED	17.10.1988
3230	1.60	26.0	9.0	WATER BASED	14.10.1988
3230	1.60	26.0	8.0	WATER BASED	14.10.1988
3230	1.60	24.0	5.0	WATER BASED	17.10.1988

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]
1338 Formation pressure (Formasjonstrykk)	pdf	0.22

