



Generell informasjon

Brønnbane navn	30/6-23
Type	EXPLORATION
Formål	APPRAISAL
Status	SUSPENDED
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	OSEBERG ØST
Funn	30/6-5 Oseberg Øst
Brønn navn	30/6-23
Seismisk lokalisering	NH 8606- ROW 548 & CDP NO 729
Utvinningstillatelse	053
Boreoperatør	Norsk Hydro Produksjon AS
Boretillatelse	634-L
Boreinnretning	TRANSOCEAN 8
Boredager	64
Borestart	29.04.1990
Boreslutt	01.07.1990
Frigitt dato	01.07.1992
Publiseringsdato	29.03.2014
Opprinnelig formål	APPRAISAL
Gjenåpnet	NO
Innhold	OIL
Funnbrønnbane	NO
1. nivå med hydrokarboner, alder	MIDDLE JURASSIC
1. nivå med hydrokarboner, formasjon.	BRENT GP
Avstand, boredekk - midlere havflate [m]	23.5
Vanndybde ved midlere havflate [m]	152.5
Totalt målt dybde (MD) [m RKB]	3209.5
Totalt vertikalt dybde (TVD) [m RKB]	3208.0
Maks inklinasjon [°]	3.7
Temperatur ved bunn av brønnbanen [°C]	133
Eldste penetrerte alder	EARLY JURASSIC
Eldste penetrerte formasjon	EIRIKSSON FM
Geodetisk datum	ED50
NS grader	60° 40' 58.01" N



ØV grader	2° 55' 58.97" E
NS UTM [m]	6727615.50
ØV UTM [m]	496342.56
UTM sone	31
NPDID for brønnbanen	1545

Brønnhistorie

**General**

Well 30/6-23 was drilled on the Beta South structure on the Brage Horst and south of the Veslefrikk Field in the North Sea. The Beta structure is surrounded by producing oil fields or commercial discoveries. On Beta, oil has been discovered in the Middle Jurassic Brent Group reservoirs in fault-block traps. The oil is contained in two main sub-structures, i.e. the Beta Saddle and Beta South, comprising several smaller sub-compartments. The discovery well on Beta was the 30/6-5 well, but this well was not tested due to the detection of H₂S in the RFT samples. Later wells proved oil in the Beta Saddle without encountering H₂S. The Beta Saddle is characterized by a multicontact reservoir having prominent shale barriers. There are also slight differences in fluid composition between the two compartments, which suggests that the saddle through is acting as a structural spill point at the top Etive level. Primary target for the well was Base Brent Group prognosed to come in at 2891 m. Secondary objective was top Statfjord prognosed at 3141 m. OWC was expected at 2880 m.

Operations and results

Appraisal well 30/6-23 was spudded 29 April 1990 by the semi-submersible rig Transocean 8 and drilled to TD at 3209.5 m in the Early Jurassic Eirikson Formation. Shallow gas was indicated from mud gas and MWD at several levels between 440 m and 603 m. Gas influx occurred during a wiper trip back from 601 m to the 30" casing shoe at 261 m. Otherwise drilling proceeded without any significant issues. The well was drilled with spud mud down to 378 m and with KCl/polymer mud from 378 m to TD.

Formation tops came in approximately as prognosed. Top Viking Group was encountered 2534 m and consisted of 82 m Draupne Formation and 177 m Heather Formation. The target Brent Group came in at 2793 m and oil was proven in sandstones by logs, RFT pressure gradient and tests all through. No clear OWC was encountered, but good oil shows were seen in a sandstone as deep as 2896 m at the base of the Oseberg Formation. The Statfjord Formation was water bearing.

Six cores were cut: five in the interval 2787 to 2902 m in the Brent Group and one at 3018 to 3045 m in the Cook Formation. Good shows were recorded in cores 1 to 5, but core 6 (Cook Formation) displayed only weak shows on single sand grains. Segregated RFT samples were taken at 2843 m, 2871.5 m, 2899.5 m, 3016.5 m, and 3177.5 m.

The well was suspended on 1 July 1990 as an oil appraisal well.

Testing

Three DST tests were performed.

DST 1 tested the interval 2860 - 2881 m in the middle Oseberg formation. It produced 1375 Sm³ oil and 74500 Sm³ gas /day through a 25.4 mm choke. The separator GOR was 54 Sm³/Sm³ and the oil density was 0.840 g/cm³. The maximum flowing temperature measured at sensor depth 2761.4 m was 120.6 deg C.

DST 2 tested the interval 2827 - 2853 m in the upper Oseberg/Etive formations. It produced 849 Sm³ oil and 56500 Sm³ gas /day through a 60.64 mm choke. The separator GOR was 66 Sm³/Sm³ and the oil density was 0.840 g/cm³. The maximum flowing temperature measured at sensor depth 2755.7 m was 120.1 deg C.

DST 3 tested the interval 2803 - 2812 m in the Ness formation. It produced 1040 Sm³ oil and 64200 Sm³ gas /day through a 20.64 mm choke. The separator GOR was 62 Sm³/Sm³ and the oil density was 0.840 g/cm³. The maximum flowing temperature measured at sensor depth 2750.8 m was 120.8 deg C.



Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
430.00	3210.00

Borekaks tilgjengelig for prøvetaking?	YES
--	-----

Borekjerne i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	2787.0	2813.7	[m]
2	2814.0	2821.5	[m]
3	2822.3	2850.0	[m]
4	2850.0	2868.5	[m]
5	2869.0	2902.0	[m]
6	3018.0	3045.0	[m]

Total kjerneprøve lengde [m]	140.5
Kjerner tilgjengelig for prøvetaking?	YES

Kjernebilder



2787-2792m



2792-2797m



2797-2802m



2802-2907m



2807-2812m



2812-2813m



2814-2819m



2819-2821m



2822-2827m



2827-2832m



2832-2837m



2837-2842m



2842-2847m



2847-2850m



2850-2855m



2855-2860m



2860-2865m



2865-2868m



2859-2874m



2874-2879m



2879-2884m



2884-2889m



2889-2894m



2894-2899m



2899-2902m



3018-3023m



3023-3028m



3028-3033m



3033-3038m



3038-3043m



3043-3045m

Palynologiske preparater i Sokkeldirektoratet

Prøve dybde	Dybde enhet	Prøve type	Laboratorie
2787.0	[m]	C	RRI
2788.0	[m]	C	RRI
2828.0	[m]	C	RRI



2833.0	[m]	C	RRI
2835.0	[m]	C	RRI
2849.0	[m]	C	RRI
2851.0	[m]	C	RRI
2854.0	[m]	C	RRI
2857.0	[m]	C	RRI
2877.0	[m]	C	RRI
2879.0	[m]	C	RRI
2882.0	[m]	C	RRI
2886.0	[m]	C	RRI
2890.0	[m]	C	RRI
2893.0	[m]	C	RRI
2896.0	[m]	C	RRI
2900.0	[m]	C	RRI

Oljeprøver i Sokkeldirektoratet

Test type	Flaske nummer	Topp dyp MD [m]	Bunn dyp MD [m]	Væske type	Test tidspunkt	Prøver tilgjengelig
DST		2860.00	2881.00			YES
DST	DST2	2827.00	2853.00		18.06.1990 - 00:00	YES
DST	DST3	2803.00	2812.00		21.06.1990 - 17:16	YES

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
176	NORDLAND GP
730	UTSIRA FM
887	HORDALAND GP
1939	ROGALAND GP
1939	BALDER FM
2022	SELE FM
2096	LISTA FM
2207	VÅLE FM
2232	SHETLAND GP
2454	CROMER KNOLL GP



2534	VIKING GP
2534	DRAUPNE FM
2607	HEATHER FM
2793	BRENT GP
2793	NESS FM
2828	ETIVE FM
2836	RANNOCH FM
2839	OSEBERG FM
2902	DUNLIN GP
2902	DRAKE FM
3016	COOK FM
3065	BURTON FM
3102	AMUNDSEN FM
3163	STATFJORD GP
3163	NANSEN FM
3179	EIRIKSSON FM

Dokumenter - eldre Sokkeldirektoratets WDSS rapporter og andre relaterte dokumenter

Dokument navn	Dokument format	Dokument størrelse [KB]
1545 01 WDSS General Information	pdf	0.23
1545 02 WDSS completion log	pdf	0.21

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
1545 30 6 23 COMPLETION REPORT AND LOG	pdf	14.39

Borestrengtester (DST)

Test nummer	Fra dybde MD [m]	Til dybde MD [m]	Reduksjonsven til størrelse [mm]
1.0	2860	2881	25.4
2.0	2827	2853	20.4
3.0	2803	2812	20.4





Test nummer	Endelig avstengningstrykk [MPa]	Endelig strømningsstrykk [MPa]	Bunnhullstrykk [MPa]	Borehullstemperatur [°C]
1.0				
2.0				
3.0				

Test nummer	Olje produksjon [Sm3/dag]	Gass produksjon [Sm3/dag]	Oljetetthet [g/cm3]	Gasstygde rel. luft	GOR [m3/m3]
1.0	1575	74200	0.840		47
2.0	849	56500	0.840		66
3.0	1040	64200	0.840		62

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
BHC	951	2689
CBL VDL GR	173	951
DIL LSS LDT GR	725	2690
DITE LSS LDL CNL GR AMS	857	117
DITE SDT LDT CNT GR CAL	2690	3211
DLL MSFL GR	2690	3211
FMS	2690	2970
MWD	174	3210
RFT	2806	2806
RFT	2843	2843
RFT	2871	2871
RFT	2899	2899
RFT	3016	3016
RFT	3177	3177
VSP	900	3140

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	261.0	36	262.0	0.00	LOT
INTERM.	20	372.0	26	601.0	0.00	LOT



Faktasider

Brønnbane / Leting

Utskriftstidspunkt: 31.5.2024 - 11:44

INTERM.	13 3/8	950.0	17 1/2	965.0	1.65	LOT
INTERM.	9 5/8	2689.0	12 1/4	2704.0	1.75	LOT
LINER	7	3208.0	8 1/2	3210.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
378	1.20			WATER BASED	03.05.1990
378	1.20			WATER BASED	04.05.1990
378	1.15			WATER BASED	10.05.1990
380	1.22	17.0	11.0	WATER BASED	02.07.1990
607	1.17	13.0	7.0	WATER BASED	10.05.1990
950	1.18	17.0	10.0	WATER BASED	10.05.1990
965	1.18	18.0	11.0	WATER BASED	10.05.1990
965	1.18	19.0	12.0	WATER BASED	10.05.1990
965	1.18	17.0	10.0	WATER BASED	10.05.1990
1012	1.18	19.0	12.0	WATER BASED	14.05.1990
1356	1.40	25.0	14.0	WATER BASED	14.05.1990
1614	1.40	21.0	14.0	WATER BASED	14.05.1990
1987	1.40	22.0	15.0	WATER BASED	14.05.1990
2167	1.40	23.0	17.0	WATER BASED	15.05.1990
2260	1.40	24.0	13.0	WATER BASED	16.05.1990
2469	1.40	24.0	16.0	WATER BASED	21.05.1990
2536	1.40	27.0	15.0	WATER BASED	21.05.1990
2704	1.40	26.0	17.0	WATER BASED	21.05.1990
2704	1.40	26.0	17.0	WATER BASED	21.05.1990
2704	1.40	26.0	17.0	WATER BASED	22.05.1990
2704	1.40	26.0	17.0	WATER BASED	21.05.1990
2756	1.22	20.0	8.0	WATER BASED	23.05.1990
2813	1.22	20.0	8.0	WATER BASED	25.05.1990
2823	1.22	20.0	8.0	WATER BASED	25.05.1990
2825	1.22	19.0	12.0	WATER BASED	27.06.1990
2825	1.22	20.0	12.0	WATER BASED	02.07.1990
2825	1.22	17.0	11.0	WATER BASED	02.07.1990
2825	1.22	20.0	12.0	WATER BASED	21.06.1990
2825	1.22	20.0	11.0	WATER BASED	22.06.1990
2825	1.22	20.0	11.0	WATER BASED	25.06.1990
2825	1.22	20.0	12.0	WATER BASED	25.06.1990



2825	1.22	20.0	12.0	WATER BASED	25.06.1990
2825	1.22	19.0	12.0	WATER BASED	26.06.1990
2825	1.22	20.0	12.0	WATER BASED	28.06.1990
2858	1.22	10.0	11.0	WATER BASED	18.06.1990
2858	1.22	19.0	11.0	WATER BASED	18.06.1990
2858	1.22	19.0	10.0	WATER BASED	19.06.1990
2858	1.22	19.0	11.0	WATER BASED	20.06.1990
2858	1.22	19.0	11.0	WATER BASED	13.06.1990
2858	1.22	19.0	12.0	WATER BASED	14.06.1990
2858	1.22	20.0	13.0	WATER BASED	14.06.1990
2858	1.22	17.0	11.0	WATER BASED	18.06.1990
2869	1.22	21.0	9.0	WATER BASED	28.05.1990
2900	1.22	21.0	9.0	WATER BASED	28.05.1990
3018	1.23	23.0	9.0	WATER BASED	28.05.1990
3098	1.22	20.0	9.0	WATER BASED	29.05.1990
3210	1.22	20.0	9.0	WATER BASED	30.05.1990
3210	1.22	19.0	9.0	WATER BASED	31.05.1990
3210	1.22	22.0	11.0	WATER BASED	06.06.1990
3210	1.22	21.0	12.0	WATER BASED	08.06.1990
3210	1.22	21.0	11.0	WATER BASED	11.06.1990
3210	1.22	21.0	11.0	WATER BASED	11.06.1990
3210	1.22	21.0	11.0	WATER BASED	11.06.1990
3210	1.22	21.0	11.0	WATER BASED	12.06.1990
3210	1.22	19.0	9.0	WATER BASED	05.06.1990
3210	1.22	20.0	8.0	WATER BASED	05.06.1990
3210	1.22	23.0	12.0	WATER BASED	05.06.1990
3210	1.22	22.0	11.0	WATER BASED	05.06.1990
3210	1.22	21.0	11.0	WATER BASED	07.06.1990
3210	1.22	19.0	9.0	WATER BASED	05.06.1990

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]
1545_Formalion_pressure_(Formasjonstrykk)	pdf	0.23

