Generell informasjon

Brønnbane navn	30/9-20 S
Type	EXPLORATION
Formål	WILDCAT
Status	P&A
Pressemelding	lenke til pressemelding
Faktakart i nytt vindu	lenke til kart
Hovedområde	NORTH SEA
Felt	OSEBERG SØR
Funn	30/9-20 S
Brønn navn	30/9-20
Seismisk lokalisering	NH-9356-118/NH-9356-318
Utvinningstillatelse	104
Boreoperatør	Norsk Hydro Produksjon AS
Boretillatelse	1028-L
Boreinnretning	TRANSOCEAN ARCTIC
Boredager	33
Borestart	09.01.2002
Boreslutt	11.02.2002
Frigitt dato	11.02.2004
Publiseringsdato	27.02.2004
Opprinnelig formål	WILDCAT
Gjenåpnet	NO
Innhold	OIL
Funnbrønnbane	YES
1. nivå med hydrokarboner, alder	LATE JURASSIC
1. nivå med hydrokarboner, formasjon.	INTRA HEATHER FM SS
2. nivå med hydrokarboner, alder	MIDDLE JURASSIC
2. nivå med hydrokarboner, formasjon	TARBERT FM
Avstand, boredekk - midlere havflate [m]	24.0
Vanndybde ved midlere havflate [m]	101.0
Totalt målt dybde (MD) [m RKB]	3124.0
Totalt vertikalt dybde (TVD) [m RKB]	3096.0
Maks inklinasjon [°]	16.3
Temperatur ved bunn av brønnbanen [°C]	125

Eldste penetrerte alder	EARLY JURASSIC
Eldste penetrerte formasjon	DRAKE FM
Geodetisk datum	ED50
NS grader	60° 19' 1.67'' N
ØV grader	2° 48' 3.38'' E
NS UTM [m]	6686903.78
ØV UTM [m]	489002.73
UTM sone	31
NPDID for brønnbanen	4463

Brønnhistorie

General

The well 30/9-20S was an exploration well, located in the Oseberg Sør field area, in block 30/9 on the R prospect of the PL104 Oseberg Sør Unit. The main objectives of the well was to prove oil and/or gas in The Brent

deltaic sands of the Tarbert Formation, and additional potential within the Ness and Oseberg-Rannoch-Etive Formations, and to confirm the seismic interpretation. The R prospect is located between the K-west and the Omega structures.

Operations and results

Well 30/9-20S was spudded with the semi-submersible installation Transocean Arctic on 9 January 2002 and reached a total depth of 3124 m (3096 m TVD) in the Early Jurassic Drake Formation. The well was drilled with spud mud down to 400 m, with KCl/Polymer mud from 400 m to 870 m, with KCl/Polymer/Glycol mud from 870 m to 1297 m, and with Versavert oil based mud from 1297 m to TD.

The Viking Group was encountered at 2750 m with top Intra Heather Formation Sandstone at 2751 m (2722 m TVD). A total gross hydrocarbon column of 65.8 m TVD was found in Intra Heather Formation Sandstone and in the Tarbert Formation, of this the lower 10.8 m is in the Tarbert Formation. A probable OWC was identified at 2817 m (2787.8 m TVD). The gross oil column was separated in two independent zones separated by a calcite barrier at ca 2796 m. A pressure barrier (0.5 bar) was interpreted internally between the two oil zones. The Intra Heather Formation Sandstone represents a poor, low permeability reservoir while Tarbert represents fair reservoir quality.

A total of 72.65 m core was recovered from 2791 m to 2864 m over the major sandstone interval. The core shows a homogeneous, generally fine-grained sand sequence that is both silica and calcareous cemented. MDT fluid samples were taken in the oil zone at 2766.5 m and 2807 m, and in the water zone at 2868 m. Analyses on the rig as well as later geochemical analyses on shore showed that the samples were of good quality, not significantly affected by mud contamination.

The well was permanently abandoned as an oil discovery on 11 February 2002.

Testing

No drill stem test was performed

Borekaks i Sokkeldirektoratet

Borekaksprøve, topp dybde [m]	Borekaksprøve, bunn dybde [m]
425.00	3123.00

Borekaks tilgjengelig for prøvetaking?	YES

Borekjerner i Sokkeldirektoratet

Kjerneprøve nummer	Kjerneprøve - topp dybde	Kjerneprøve - bunn dybde	Kjerneprøve dybde - enhet
1	2791.0	2826.5	[m]
2	2826.5	2863.7	[m]

Total kjerneprøve lengde [m]	72.7
Kjerner tilgjengelig for prøvetaking?	YES

Palynologiske preparater i Sokkeldirektoratet

Prøve dybde	Dybde enhet	Prøve type	Laboratorie
425.0	[m]	DC	GEOSTR
450.0	[m]	DC	GEOSTR
475.0	[m]	DC	GEOSTR
500.0	[m]	DC	GEOSTR
525.0	[m]	DC	GEOSTR
550.0	[m]	DC	GEOSTR
575.0	[m]	DC	GEOSTR
600.0	[m]	DC	GEOSTR
625.0	[m]	DC	GEOSTR
650.0	[m]	DC	GEOSTR
675.0	[m]	DC	GEOSTR
700.0	[m]	DC	GEOSTR
725.0	[m]	DC	GEOSTR
750.0	[m]	DC	GEOSTR
775.0	[m]	DC	GEOSTR
800.0	[m]	DC	GEOSTR
825.0	[m]	DC	GEOSTR
850.0	[m]	DC	GEOSTR
875.0	[m]	DC	GEOSTR

900.0	[m]	DC	GEOSTR
925.0	[m]	DC	GEOSTR
950.0	[m]	DC	GEOSTR
975.0	[m]	DC	GEOSTR
1000.0	[m]	DC	GEOSTR
1025.0	[m]	DC	GEOSTR
1050.0	[m]	DC	GEOSTR
1075.0	[m]	DC	GEOSTR
1100.0	[m]	DC	GEOSTR
1125.0	[m]	DC	GEOSTR
1150.0	[m]	DC	GEOSTR
1175.0	[m]	DC	GEOSTR
1200.0	[m]	DC	GEOSTR
1225.0	[m]	DC	GEOSTR
1250.0	[m]	DC	GEOSTR
1275.0	[m]	DC	GEOSTR
1300.0	[m]	DC	GEOSTR
1325.0	[m]	DC	GEOSTR
1350.0	[m]	DC	GEOSTR
1375.0	[m]	DC	GEOSTR
1400.0	[m]	DC	GEOSTR
1425.0	[m]	DC	GEOSTR
1450.0	[m]	DC	GEOSTR
1475.0	[m]	DC	GEOSTR
1500.0	[m]	DC	GEOSTR
1525.0	[m]	DC	GEOSTR
1550.0	[m]	DC	GEOSTR
1575.0	[m]	DC	GEOSTR
1600.0	[m]	DC	GEOSTR
1625.0	[m]	DC	GEOSTR
1650.0	[m]	DC	GEOSTR
1675.0	[m]	DC	GEOSTR
1700.0	[m]	DC	GEOSTR
1725.0	[m]	DC	GEOSTR
1750.0	[m]	DC	GEOSTR
1775.0	[m]	DC	GEOSTR
1800.0	[m]	DC	GEOSTR
1825.0	[m]	DC	GEOSTR
1850.0	[m]	DC	GEOSTR
1875.0	[m]	DC	GEOSTR

1900.0	[m]	DC	GEOSTR
1925.0	[m]	DC	GEOSTR
1950.0	[m]	DC	GEOSTR
1975.0	[m]	DC	GEOSTR
2000.0	[m]	DC	GEOSTR
2025.0	[m]	DC	GEOSTR
2050.0	[m]	DC	GEOSTR
2075.0	[m]	DC	GEOSTR
2100.0	[m]	DC	GEOSTR
2125.0	[m]	DC	GEOSTR
2150.0	[m]	DC	GEOSTR
2175.0	[m]	DC	GEOSTR
2200.0	[m]	DC	GEOSTR
2225.0	[m]	DC	GEOSTR
2250.0	[m]	DC	GEOSTR
2275.0	[m]	DC	GEOSTR
2310.0	[m]	DC	GEOSTR
2340.0	[m]	DC	GEOSTR
2370.0	[m]	DC	GEOSTR
2390.0	[m]	DC	GEOSTR
2610.0	[m]	DC	GEOSTR
2625.0	[m]	DC	GEOSTR
2631.0	[m]	DC	GEOSTR
2637.0	[m]	DC	GEOSTR
2643.0	[m]	DC	GEOSTR
2649.0	[m]	DC	GEOSTR
2655.0	[m]	DC	GEOSTR
2661.0	[m]	DC	GEOSTR
2667.0	[m]	DC	GEOSTR
2673.0	[m]	DC	GEOSTR
2679.0	[m]	DC	GEOSTR
2685.0	[m]	DC	GEOSTR
2691.0	[m]	DC	GEOSTR
2697.0	[m]	DC	GEOSTR
2703.0	[m]	DC	GEOSTR
2709.0	[m]	DC	GEOSTR
2715.0	[m]	DC	GEOSTR
2721.0	[m]	DC	GEOSTR
2727.0	[m]	DC	GEOSTR
2733.0	[m]	DC	GEOSTR

2739.0	[m]	DC	GEOSTR
2745.0	[m]	DC	GEOSTR

Litostratigrafi

Topp Dyb [mMD RKB]	Litostrat. enhet
125	NORDLAND GP
590	NO FORMAL NAME
607	NO FORMAL NAME
665	UTSIRA FM
706	NO FORMAL NAME
874	HORDALAND GP
902	SKADE FM
920	NO FORMAL NAME
960	SKADE FM
991	NO FORMAL NAME
1215	NO FORMAL NAME
1247	NO FORMAL NAME
1300	NO FORMAL NAME
1340	NO FORMAL NAME
1436	NO FORMAL NAME
1449	NO FORMAL NAME
1579	GRID FM
1613	NO FORMAL NAME
2075	ROGALAND GP
2075	BALDER FM
2132	SELE FM
2181	LISTA FM
2283	VÅLE FM
2361	SHETLAND GP
2361	HARDRÅDE FM
2588	KYRRE FM
2629	SVARTE FM
2703	CROMER KNOLL GP
2703	RØDBY FM
2734	ÅSGARD FM
2750	VIKING GP
2750	DRAUPNE FM
2751	INTRA HEATHER FM SS

2806	BRENT GP
2806	TARBERT FM
2923	NESS FM
3072	DUNLIN GP
3072	DRAKE FM

Spleisede logger

Dokument navn	Dokument format	Dokument størrelse [KB]
4463	pdf	0.41

Geokjemisk informasjon

Dokument navn	Dokument format	Dokument størrelse [KB]
4463_1	pdf	2.72

Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

Dokument navn	Dokument format	Dokument størrelse [KB]
4463_30_9_20_S_COMPLETION_LOG	.pdf	2.84
4463_30_9_20_S_COMPLETION_REPORT	.pdf	1.55

Logger

Type logg	Topp dyp for logg [m]	Bunn dyp for logg [m]
AIT IPLT	2362	3124
GR DSI OBMI	2000	3124
GR MDT	2746	2934
GR MSCT	747	2975
GR VSP	2040	3124
MWD - PP CDR	125	2369
MWD - RAB VPP ADN	2369	3124

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	198.0	36	200.0	0.00	LOT
INTERM.	20	398.0	26	400.0	1.51	LOT
LINER	16	621.0	20	630.0	0.00	LOT
INTERM.	13 3/8	1291.0	17 1/2	1297.0	1.68	LOT
INTERM.	9 5/8	2362.0	12 1/4	2369.0	1.60	LOT
OPEN HOLE		3124.0	8 1/2	3124.0	0.00	LOT

Boreslam

Dybde MD [m]	Egenvekt, slam [g/cm3]	Viskositet, slam [mPa.s]	Flytegrense [Pa]	Type slam	Dato, måling
198	1.03			WATER BASED	
400	1.50			WATER BASED	
600	1.30	20.0		WATER BASED	
623	1.30	20.0		WATER BASED	
1297	1.21	15.0		WATER BASED	
1585	1.45	36.0		OIL BASED	
1596	1.45	35.0		OIL BASED	
2369	1.45	37.0		OIL BASED	
2370	1.30	31.0		OIL BASED	
2864	1.30	28.0		OIL BASED	
3124	1.30	28.0		OIL BASED	

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]
4463_Formation_pressure_(Formasjonstrykk)	pdf	0.23