

**General information**

Wellbore name	30/9-20 S
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	NORTH SEA
Field	OSEBERG SØR
Discovery	30/9-20 S
Well name	30/9-20
Seismic location	NH-9356-118/NH-9356-318
Production licence	104
Drilling operator	Norsk Hydro Produksjon AS
Drill permit	1028-L
Drilling facility	TRANSOCEAN ARCTIC
Drilling days	33
Entered date	09.01.2002
Completed date	11.02.2002
Release date	11.02.2004
Publication date	27.02.2004
Purpose - planned	WILDCAT
Reentry	NO
Content	OIL
Discovery wellbore	YES
1st level with HC, age	LATE JURASSIC
1st level with HC, formation	INTRA HEATHER FM SS
2nd level with HC, age	MIDDLE JURASSIC
2nd level with HC, formation	TARBERT FM
Kelly bushing elevation [m]	24.0
Water depth [m]	101.0
Total depth (MD) [m RKB]	3124.0
Final vertical depth (TVD) [m RKB]	3096.0
Maximum inclination [°]	16.3
Bottom hole temperature [°C]	125
Oldest penetrated age	EARLY JURASSIC
Oldest penetrated formation	DRAKE FM
Geodetic datum	ED50
NS degrees	60° 19' 1.67" N



EW degrees	2° 48' 3.38" E
NS UTM [m]	6686903.78
EW UTM [m]	489002.73
UTM zone	31
NPDID wellbore	4463

Wellbore history

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

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
425.00	3123.00



Cuttings available for sampling?	YES
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Cores at the Norwegian Offshore Directorate

Core sample number	Core sample - top depth	Core sample - bottom depth	Core sample depth - uom
1	2791.0	2826.5	[m]
2	2826.5	2863.7	[m]

Total core sample length [m]	72.7
Cores available for sampling?	YES

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
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

Lithostratigraphy



Top depth [mMD RKB]	Lithostrat. unit
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



Composite logs

Document name	Document format	Document size [MB]
4463	pdf	0.41

Geochemical information

Document name	Document format	Document size [MB]
4463_1	pdf	2.72

Documents - reported by the production licence (period for duty of secrecy expired)

Document name	Document format	Document size [MB]
4463_30_9_20_S_COMPLETION_LOG	.pdf	2.84
4463_30_9_20_S_COMPLETION_REPORT	.pdf	1.55

Logs

Log type	Log top depth [m]	Log bottom depth [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

Casing and leak-off tests

Casing type	Casing diam. [inch]	Casing depth [m]	Hole diam. [inch]	Hole depth [m]	LOT/FIT mud eqv. [g/cm3]	Formation test type
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

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
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	

Pressure plots

The pore pressure data is sourced from well logs if no other source is specified. In some wells where pore pressure logs do not exist, information from Drill stem tests and kicks have been used. The data has been reported to the NPD, and further processed and quality controlled by IHS Markit.

Document name	Document format	Document size [MB]
4463 Formation pressure (Formasjonstrykk)	pdf	0.23

