

**General information**

Wellbore name	6608/10-1
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORWEGIAN SEA
Well name	6608/10-1
Seismic location	NRGS 84 - 457 SP 1203
Production licence	128
Drilling operator	Den norske stats oljeselskap a.s
Drill permit	605-L
Drilling facility	ROSS RIG (2)
Drilling days	45
Entered date	15.04.1989
Completed date	29.05.1989
Release date	29.05.1991
Publication date	09.03.2004
Purpose - planned	WILDCAT
Reentry	NO
Content	DRY
Discovery wellbore	NO
Kelly bushing elevation [m]	24.0
Water depth [m]	375.0
Total depth (MD) [m RKB]	3437.0
Final vertical depth (TVD) [m RKB]	3436.0
Maximum inclination [°]	5
Bottom hole temperature [°C]	110
Oldest penetrated age	EARLY JURASSIC
Oldest penetrated formation	ÅRE FM
Geodetic datum	ED50
NS degrees	66° 6' 56.92" N
EW degrees	8° 10' 0.72" E
NS UTM [m]	7333255.04
EW UTM [m]	462357.45
UTM zone	32
NPDID wellbore	1391



Wellbore history

General

Well 6608/10-1 is located on the Nordland Ridge nearby the Revfallet Fault Complex. The primary objective of the well was to test a Turonian/Coniacian prospect in a position where Lysing sandstone was within defined closure. The well should also test the facies development of the Early Cretaceous Fan, reservoir properties and formation pressure in the Middle Jurassic, and the source rock potential of the Late Jurassic Spekk Formation and the Early Jurassic/Late Triassic Åre Formation. Planned TD was 3373 m, in the coal bearing Åre Formation. Prognosed sand layers in the interval 661 - 685 m could be gas charged.

Operations and results

Wildcat well 6608/10-1 was spudded with the semi-submersible installation Ross Rig on 15 April 1989 and drilled to TD at 3437 m in the Early Jurassic Åre Formation. No shallow gas was encountered while drilling and the well was drilled to TD without significant drilling problems. The well was drilled with seawater and hi-vis pills down to 820 m, with gyp/polymer mud from 820 m to 2508 m, and with gel/lingo mud from 2508 m to TD.

The main target was penetrated at 2661 m, but proved to be only 1.5 m thick in the well position. There was no indication of hydrocarbons in the reservoir. The Lower Cretaceous Fan was penetrated in a very distal position, and consisted of mudstone with thin sandstone stringers. The Fangst group (Garn, Not and Ile Formations) was penetrated approximately 100 m deeper than prognosed. All reservoirs were water bearing, but shows were recorded in the Garn and Åre Formations. Post-well organic geochemical analyses showed poor potential in the Cretaceous and Tertiary sections except for an interval around 1580 m to 1670 m in Oligocene / Brygge Formation, where TOC in the range 2-3 % and Hydrogen Indexes around 110 mg/g were measured. Good source potentials were proven in the Spekk and Åre Formations. A total of three cores were cut in the well with 100 % recovery. The first core was cut in a Barremian black mudstone of the Lange Formation (2885 m to 2897 m), the second in sandstones of the Garn Formation (3063 m to 3090.15 m) and the third from the Ile/Ror/Tofte formations (3157 m to 3184.9 m). Out of 180 sidewall cores attempted 152 were recovered. Two segregated RFT samples were recovered from 2931 m and 3185 m. Both indicated a low-salinity formation water (fresh water). No hydrocarbons were reported in the samples. Well 6608/10-1 was permanently abandoned on 29 May 1989 as a dry well.

Testing

No drill stem test was performed

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
820.00	3435.00

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	2885.0	2897.3	[m]
2	3063.0	3090.2	[m]
3	3163.0	3184.8	[m]

Total core sample length [m]	61.2
Cores available for sampling?	YES

Core photos

2885-2889m



2890-2894m



2895-2897m



3063-3067m



3068-3072m



3073-3077m



3078-3082m



3083-3087m



3088-3090m



3157-3161m



3162-3166m



3167-3171m



3172-3176m



3177-3182m



3182-3184m

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
1418.0	[m]	SWC	STAT
1473.0	[m]	SWC	STAT
1535.0	[m]	SWC	STAT
1583.0	[m]	SWC	STAT



1623.0	[m]	SWC	STAT
1658.0	[m]	SWC	STAT
1683.0	[m]	SWC	STAT
1691.0	[m]	SWC	STAT
1697.0	[m]	SWC	STAT
1709.0	[m]	SWC	STAT
1725.0	[m]	SWC	STAT
1746.0	[m]	SWC	STAT
1755.0	[m]	SWC	STAT
1772.0	[m]	SWC	STAT
1796.0	[m]	SWC	STAT
1816.0	[m]	SWC	STAT
1839.0	[m]	SWC	STAT
1866.0	[m]	SWC	STAT
1892.0	[m]	SWC	STAT
1922.0	[m]	SWC	STAT
1937.0	[m]	SWC	STAT
1962.0	[m]	SWC	STAT
1980.0	[m]	SWC	STAT
2010.0	[m]	SWC	STAT
2030.0	[m]	SWC	STAT
2060.0	[m]	SWC	STAT
2090.0	[m]	SWC	STAT
2160.0	[m]	SWC	STAT
2202.0	[m]	SWC	STAT
2250.0	[m]	SWC	STAT
2290.0	[m]	SWC	STAT
2338.0	[m]	SWC	STAT
2375.0	[m]	SWC	STAT
2390.0	[m]	SWC	STAT
2430.0	[m]	SWC	STAT
2490.0	[m]	SWC	STAT
2510.0	[m]	SWC	STAT
2530.0	[m]	SWC	STAT
2560.0	[m]	SWC	STAT
2590.0	[m]	SWC	STAT
2630.0	[m]	SWC	STAT
2658.0	[m]	SWC	STAT
2664.0	[m]	SWC	STAT
2684.0	[m]	SWC	STAT



2691.0	[m]	SWC	STAT
2708.0	[m]	SWC	STAT
2724.0	[m]	SWC	STAT
2758.0	[m]	SWC	STAT
2785.0	[m]	SWC	STAT
2819.0	[m]	SWC	STAT
2836.0	[m]	SWC	STAT
2840.0	[m]	SWC	STAT
2860.0	[m]	SWC	STAT
2906.0	[m]	SWC	STAT
2917.0	[m]	SWC	STAT
2924.0	[m]	SWC	STAT
2926.0	[m]	SWC	STAT
2931.0	[m]	SWC	STAT
2946.0	[m]	SWC	STAT
2957.0	[m]	SWC	STAT
2971.0	[m]	SWC	STAT
2979.0	[m]	SWC	STAT
2995.0	[m]	SWC	STAT
3005.0	[m]	SWC	STAT
3025.0	[m]	SWC	STAT
3035.0	[m]	SWC	STAT
3047.0	[m]	SWC	STAT
3055.0	[m]	SWC	STAT
3063.3	[m]	C	STAT
3069.6	[m]	C	STAT
3076.0	[m]	C	STAT
3079.7	[m]	C	STAT
3085.0	[m]	C	STAT
3087.7	[m]	C	STAT
3095.0	[m]	SWC	STAT
3112.0	[m]	SWC	STAT
3125.0	[m]	SWC	STAT
3140.0	[m]	SWC	STAT
3157.0	[m]	SWC	STAT
3164.0	[m]	C	STAT
3168.7	[m]	C	STAT
3171.2	[m]	C	STAT
3171.9	[m]	C	STAT
3173.9	[m]	C	STAT



3176.9	[m]	C	STAT
3179.6	[m]	C	STAT
3183.8	[m]	C	STAT
3204.0	[m]	SWC	STAT
3213.0	[m]	SWC	STAT
3228.0	[m]	SWC	STAT
3245.0	[m]	SWC	STAT
3267.0	[m]	SWC	STAT
3315.0	[m]	SWC	STAT
3375.0	[m]	SWC	STAT
3394.0	[m]	SWC	STAT
3403.0	[m]	SWC	STAT
3413.0	[m]	SWC	STAT
3428.0	[m]	SWC	STAT
3438.0	[m]	SWC	STAT

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
399	NORDLAND GP
399	NAUST FM
1409	KAI FM
1490	HORDALAND GP
1490	BRYGGE FM
1865	ROGALAND GP
1865	TARE FM
1928	TANG FM
1954	SHETLAND GP
1954	SPRINGAR FM
2072	NISE FM
2548	KVITNOS FM
2661	CROMER KNOLL GP
2661	LYSING FM
2663	LANGE FM
2920	VIKING GP
2920	SPEKK FM
2928	NO FORMAL NAME
2934	SPEKK FM
2937	MELKE FM



3061	FANGST GP
3061	GARN FM
3127	NOT FM
3153	ILE FM
3164	BÅT GP
3164	ROR FM
3177	TOFTE FM
3218	ÅRE FM

Composite logs

Document name	Document format	Document size [MB]
1391	pdf	0.48

Geochemical information

Document name	Document format	Document size [MB]
1391_1	pdf	2.41

Documents - older Norwegian Offshore Directorate WDSS reports and other related documents

Document name	Document format	Document size [MB]
1391_01_WDSS_General_Information	pdf	0.26
1391_02_WDSS_completion_log	pdf	0.18

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

Document name	Document format	Document size [MB]
1391_6608_10_1_COMPLETION_REPORT_AND_LOG	pdf	48.66

Logs





Log type	Log top depth [m]	Log bottom depth [m]
CBL VDL	433	1527
CBL VDL	1273	2451
CST	898	1535
CST	1559	2490
CST	2510	3438
CST	2510	3438
DIT LSS CAL GR SP	2480	3440
DIT LSS GR SP	808	1541
DIT LSS GR SP	1537	2503
LDT CAL GR	808	1522
LDT CAL GR	1537	2485
LDT CNT NGT	2480	3440
MWD - GR RES DIR	404	3440
NGT	2480	3432
RFT	2662	3156
RFT	2931	3185
RFT	3181	3211
SHDT	1537	2505
SHDT	2480	3440
VSP	399	1630
VSP	1570	3150
VSP	3110	3430

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	463.0	36	463.0	0.00	LOT
INTERM.	20	808.0	26	820.0	1.35	LOT
INTERM.	13 3/8	1538.0	17 1/2	1549.0	1.87	LOT
INTERM.	9 5/8	2480.0	12 1/4	2502.0	1.86	LOT
OPEN HOLE		3437.0	8 1/2	3437.0	0.00	LOT

Drilling mud



Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
820	1.20	9999.0	999.0	WATER BASED	26.04.1989
943	1.11	1400.0	2.1	WATER BASED	26.04.1989
1303	1.67	2200.0	4.5	WATER BASED	29.05.1989
1349	1.11	1200.0	1.5	WATER BASED	26.04.1989
1487	1.20	1200.0	1.5	WATER BASED	26.04.1989
1549	1.32	1500.0	3.5	WATER BASED	27.04.1989
1549	1.32	1200.0	3.0	WATER BASED	27.04.1989
1549	1.44	1300.0	6.0	WATER BASED	28.04.1989
1754	1.60	700.0	5.3	WATER BASED	02.05.1989
2033	1.67	1000.0	7.7	WATER BASED	02.05.1989
2300	1.67	1200.0	11.5	WATER BASED	02.05.1989
2474	1.67	900.0	7.6	WATER BASED	02.05.1989
2502	1.67	500.0	6.2	WATER BASED	05.05.1989
2502	1.67	1900.0	6.0	WATER BASED	05.05.1989
2502	1.67	900.0	9.6	WATER BASED	03.05.1989
2540	1.52	1400.0	5.0	WATER BASED	08.05.1989
2584	1.52	1600.0	5.0	WATER BASED	09.05.1989
2664	1.52	60.0	6.0	WATER BASED	10.05.1989
2716	1.52	1700.0	4.6	WATER BASED	10.05.1989
2750	1.52	1700.0	5.0	WATER BASED	11.05.1989
2852	1.52	1900.0	6.0	WATER BASED	12.05.1989
2885	1.52	1700.0	5.0	WATER BASED	16.05.1989
2925	1.52	1600.0	4.0	WATER BASED	16.05.1989
3007	1.52	1800.0	5.0	WATER BASED	16.05.1989
3063	1.52	1900.0	5.0	WATER BASED	16.05.1989
3090	1.52	1800.0	5.0	WATER BASED	19.05.1989
3146	1.52	1800.0	6.0	WATER BASED	19.05.1989
3181	1.52	1500.0	5.0	WATER BASED	19.05.1989
3268	1.52	1700.0	5.0	WATER BASED	22.05.1989
3402	1.52	1900.0	5.0	WATER BASED	22.05.1989
3437	1.52	2000.0	5.0	WATER BASED	22.05.1989

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]
1391 Formation pressure (Formasjonstrykk)	pdf	0.27

