

**General information**

Wellbore name	6506/11-1
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORWEGIAN SEA
Well name	6506/11-1
Seismic location	ST 8403 - 860 SP. 622
Production licence	134
Drilling operator	Den norske stats oljeselskap a.s
Drill permit	569-L
Drilling facility	DYVI DELTA
Drilling days	93
Entered date	30.12.1987
Completed date	31.03.1988
Release date	31.03.1990
Publication date	02.03.2004
Purpose - planned	WILDCAT
Reentry	NO
Content	GAS SHOWS
Discovery wellbore	NO
Kelly bushing elevation [m]	29.0
Water depth [m]	246.0
Total depth (MD) [m RKB]	4679.0
Final vertical depth (TVD) [m RKB]	4672.0
Maximum inclination [°]	10
Bottom hole temperature [°C]	143
Oldest penetrated age	EARLY JURASSIC
Oldest penetrated formation	ÅRE FM
Geodetic datum	ED50
NS degrees	65° 11' 4.49" N
EW degrees	6° 39' 53.88" E
NS UTM [m]	7231229.82
EW UTM [m]	390662.03
UTM zone	32
NPDID wellbore	1216



Wellbore history

General

Well 6506/11-1 was designed to prove hydrocarbons in the G-structure in the easternmost part of block 6506/11 close to Smørbukk Field. The primary purpose of the well was to prove significant hydrocarbon accumulations in the Middle-Early Jurassic reservoirs. Secondary targets were sands of Cretaceous age, especially the Lysing Formation that has been proven to be oil-bearing in the area. The well should also test the hypothesis of a western ultra-high pore pressure area, verify the geophysical and structural interpretation and to improve the geological, paleontological, and geochemical understanding of the area. Total depth was planned 200 m into the coal-bearing Åre Formation.

Operations and results

Wildcat well 6506/11-1 was spudded with Smedvig Drilling semi-submersible installation Dyvi Delta on 30 December 1987 and drilled to TD at 4679 m in the Early Jurassic Åre Formation. The well was drilled with spud mud down to 590 m, with gypsum/polymer mud from 590 m to 3500 m, and with Ligno/Lignite/Gel mud from 3500 m to TD. Shallow gas was present between 613 m and 618 m. The drilling generally went without problems. The Lysing Formation sandstone was thinner than expected in this location. It was water bearing with weak shows only. In the lower part of the Lange Formation an 85 m sequence of sandstone with poor porosity and interbedded claystones was encountered. Weak shows were recorded in the sandstones and the sequence proved to be gas-bearing. The Fangst Group prospect came in as prognosed, but did not indicate hydrocarbons except for poor to fair shows. Logs showed that it was water-bearing. High pressure was registered. This is typical for water-bearing holes on Haltenbanken. Four cores were cut in the well; two in the Garn Formation from 4140 m to 4195 m; one in the Ile Formation in the interval 4262 m to 4274 m; and one core in the Ror/Tilje Formations from 4477 m to 4504 m. No wire line fluid samples were taken. The well was permanently abandoned on 31 March 1988 as a well with shows.

Testing

One DST test was performed in the lower Cretaceous, with perforated intervals 3727 m to 3730 m and 3741 m to 3745 m in the lower part of the Lange Formation. It produced 690 Sm³ gas / day through a 12.7 mm choke. Gas gravity was 0.645 (air =1)

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
600.00	4677.00

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	4140.0	4167.5	[m]
2	4167.5	4195.5	[m]
3	4262.0	4273.5	[m]
4	4483.0	4505.3	[m]

Total core sample length [m]	89.3
Cores available for sampling?	YES

Core photos

4140-4145m



4145-4150m



4150-4155m



4155-4160m



4160-4165m



4165-4167m



4167-4172m



4172-4177m



4177-4182m



4182-4187m



4187-4192m



4192-4195m



4262-4267m



4267-4272m



4272-4273m



4477-4482m



4482-4487m



4487-4492m



4492-4497m



4497-4502m



4502-4505m

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
1890.0	[m]	DC	STRAT
1910.0	[m]	DC	STRAT
1920.0	[m]	DC	STRAT
1940.0	[m]	DC	STRAT
1950.0	[m]	DC	STRAT
1970.0	[m]	DC	STRAT
1980.0	[m]	DC	STRAT
2000.0	[m]	DC	STRAT
2010.0	[m]	DC	STRAT
2020.0	[m]	DC	STRAT
2060.0	[m]	DC	STRAT
2070.0	[m]	DC	STRAT
2090.0	[m]	DC	STRAT
2110.0	[m]	DC	STRAT
2120.0	[m]	DC	STRAT
2130.0	[m]	DC	STRAT
2150.0	[m]	DC	STRAT
2170.0	[m]	DC	STRAT
2202.0	[m]	SWC	STRAT
2206.0	[m]	DC	STRAT
2269.0	[m]	DC	STRAT
2290.0	[m]	DC	STRAT
2338.0	[m]	DC	STRAT
2356.0	[m]	SWC	STRAT
2356.0	[m]	DC	STRAT
2365.0	[m]	DC	STRAT
2400.0	[m]	DC	STRAT
2418.0	[m]	DC	STRAT
2427.0	[m]	DC	STRAT



2445.0	[m]	DC	STRAT
2455.0	[m]	SWC	STRAT
2463.0	[m]	DC	STRAT
2465.0	[m]	SWC	STRAT
2481.0	[m]	DC	STRAT
2499.0	[m]	DC	STRAT
2517.0	[m]	DC	STRAT
2526.0	[m]	DC	STRAT
2544.0	[m]	DC	STRAT
2562.0	[m]	DC	STRAT
2580.0	[m]	DC	STRAT
2616.0	[m]	DC	STRAT
2634.0	[m]	DC	STRAT
2652.0	[m]	DC	STRAT
2670.0	[m]	DC	STRAT
2685.0	[m]	DC	STRAT
2700.0	[m]	DC	STRAT
2712.0	[m]	DC	STRAT
2716.0	[m]	DC	STRAT
2724.0	[m]	DC	STRAT
2748.0	[m]	DC	STRAT
2763.0	[m]	SWC	STRAT
2766.0	[m]	DC	STRAT
2773.0	[m]	SWC	STRAT
2778.0	[m]	DC	STRAT
2796.0	[m]	DC	STRAT
2808.0	[m]	DC	STRAT
2826.0	[m]	DC	STRAT
2838.0	[m]	DC	STRAT
2856.0	[m]	DC	STRAT
2868.0	[m]	DC	STRAT
2886.0	[m]	DC	STRAT
2898.0	[m]	DC	STRAT
2928.0	[m]	DC	STRAT
2946.0	[m]	DC	STRAT
2958.0	[m]	DC	STRAT
2976.0	[m]	DC	STRAT
2988.0	[m]	DC	STRAT
3018.0	[m]	DC	STRAT
3036.0	[m]	DC	STRAT



3048.0	[m]	DC	STRAT
3066.0	[m]	DC	STRAT
3078.0	[m]	DC	STRAT
3096.0	[m]	DC	STRAT
3108.0	[m]	DC	STRAT
3136.0	[m]	SWC	STRAT
3138.0	[m]	DC	STRAT
3156.0	[m]	DC	STRAT
3185.0	[m]	SWC	STRAT
3198.0	[m]	DC	STRAT
3207.0	[m]	SWC	STRAT
3217.0	[m]	SWC	STRAT
3228.0	[m]	DC	STRAT
3250.0	[m]	SWC	STRAT
3260.0	[m]	SWC	STRAT
3276.0	[m]	DC	STRAT
3288.0	[m]	DC	STRAT
3306.0	[m]	DC	STRAT
3318.0	[m]	DC	STRAT
3336.0	[m]	DC	STRAT
3348.0	[m]	DC	STRAT
3366.0	[m]	DC	STRAT
3378.0	[m]	DC	STRAT
3396.0	[m]	DC	STRAT
3408.0	[m]	DC	STRAT
3426.0	[m]	DC	STRAT
3438.0	[m]	DC	STRAT
3456.0	[m]	DC	STRAT
3468.0	[m]	DC	STRAT
3486.0	[m]	DC	STRAT
3498.0	[m]	DC	STRAT
3546.0	[m]	DC	STRAT
3558.0	[m]	DC	STRAT
3576.0	[m]	DC	STRAT
3588.0	[m]	DC	STRAT
3606.0	[m]	DC	STRAT
3618.0	[m]	DC	STRAT
3636.0	[m]	DC	STRAT
3648.0	[m]	DC	STRAT
3666.0	[m]	DC	STRAT



3678.0 [m]	DC	STRAT
3696.0 [m]	DC	STRAT
3710.0 [m]	SWC	STRAT
3726.0 [m]	DC	STRAT
3738.0 [m]	DC	STRAT
3756.0 [m]	DC	STRAT
3768.0 [m]	DC	STRAT
3786.0 [m]	DC	STRAT
3867.0 [m]	DC	STRAT
3906.0 [m]	DC	STRAT
3927.0 [m]	DC	STRAT
3936.0 [m]	DC	STRAT
3957.0 [m]	DC	STRAT
3966.0 [m]	DC	STRAT
3987.0 [m]	DC	STRAT
3996.0 [m]	DC	STRAT
4017.0 [m]	DC	STRAT
4026.0 [m]	DC	STRAT
4047.0 [m]	DC	STRAT
4056.0 [m]	DC	STRAT
4077.0 [m]	DC	STRAT
4086.0 [m]	DC	STRAT
4107.0 [m]	DC	STRAT
4116.0 [m]	DC	STRAT
4140.0 [m]	C	STRAT
4146.0 [m]	DC	STRAT
4147.0 [m]	C	STRAT
4150.7 [m]	C	STRAT
4153.7 [m]	C	STRAT
4155.0 [m]	DC	STRAT
4158.1 [m]	C	STRAT
4161.5 [m]	C	STRAT
4165.7 [m]	C	STRAT
4166.3 [m]	C	STRAT
4167.9 [m]	C	STRAT
4170.5 [m]	C	STRAT
4175.6 [m]	C	STRAT
4179.7 [m]	C	STRAT
4193.5 [m]	C	STRAT
4227.0 [m]	DC	STRAT



4245.0 [m]	DC	STRAT
4264.0 [m]	C	STRAT
4265.9 [m]	C	STRAT
4268.2 [m]	C	STRAT
4270.8 [m]	C	STRAT
4287.0 [m]	DC	STRAT
4305.0 [m]	DC	STRAT
4317.0 [m]	DC	STRAT
4335.0 [m]	DC	STRAT
4347.0 [m]	DC	STRAT
4365.0 [m]	DC	STRAT
4377.0 [m]	DC	STRAT
4392.0 [m]	DC	STRAT
4404.0 [m]	DC	STRAT
4425.0 [m]	DC	STRAT
4437.0 [m]	DC	STRAT
4455.0 [m]	DC	STRAT
4467.0 [m]	DC	STRAT
4476.0 [m]	DC	STRAT
4477.0 [m]	C	STRAT
4479.0 [m]	C	STRAT
4479.5 [m]	C	STRAT
4483.7 [m]	C	STRAT
4487.9 [m]	C	STRAT
4489.7 [m]	C	STRAT
4493.0 [m]	C	STRAT
4495.2 [m]	C	STRAT
4505.2 [m]	C	STRAT
4524.0 [m]	DC	STRAT
4578.0 [m]	DC	STRAT
4614.0 [m]	DC	STRAT
4623.0 [m]	DC	STRAT
4626.0 [m]	DC	STRAT
4632.0 [m]	DC	STRAT
4635.0 [m]	DC	STRAT
4641.0 [m]	DC	STRAT
4644.0 [m]	DC	STRAT
4650.0 [m]	DC	STRAT
4653.0 [m]	DC	STRAT
4656.0 [m]	DC	STRAT



4659.0	[m]	DC	STRAT
4662.0	[m]	DC	STRAT
4665.0	[m]	DC	STRAT
4668.0	[m]	DC	STRAT
4674.0	[m]	DC	STRAT
4677.0	[m]	DC	STRAT

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
275	NORDLAND GP
275	NAUST FM
1468	KAI FM
1889	HORDALAND GP
1889	BRYGGE FM
2060	ROGALAND GP
2060	TARE FM
2147	TANG FM
2192	SHETLAND GP
2192	SPRINGAR FM
2558	NISE FM
2918	KVITNOS FM
3159	CROMER KNOLL GP
3159	LYSING FM
3211	LANGE FM
3813	LYR FM
3844	VIKING GP
3844	SPEKK FM
3862	MELKE FM
4136	FANGST GP
4136	GARN FM
4214	NOT FM
4263	ILE FM
4363	BÅT GP
4363	ROR FM
4387	TOFTE FM
4445	ROR FM
4485	TILJE FM
4662	ÅRE FM



Composite logs

Document name	Document format	Document size [MB]
1216	pdf	0.76

Geochemical information

Document name	Document format	Document size [MB]
1216_1	pdf	0.60

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

Document name	Document format	Document size [MB]
1216_01_WDSS_General_Information	pdf	0.25
1216_02_WDSS_completion_log	pdf	0.31

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

Document name	Document format	Document size [MB]
1216_6506_11_1_COMPLETION_REPORT_AND_LOG	pdf	13.72

Drill stem tests (DST)

Test number	From depth MD [m]	To depth MD [m]	Choke size [mm]
1.0	3741	3745	9.5

Test number	Final shut-in pressure [MPa]	Final flow pressure [MPa]	Bottom hole pressure [MPa]	Downhole temperature [°C]
1.0	30.000		20.000	122





Test number	Oil [Sm3/day]	Gas [Sm3/day]	Oil density [g/cm3]	Gas grav. rel.air	GOR [m3/m3]
1.0		690		0.645	

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CARBON OXYGEN	3150	3250
CBL VDL	246	2067
CBL VDL	3580	4120
CDL CN SPL GR	2067	4118
CDL SN SPL GR	4120	4671
DIEL- SPC	3150	3250
DIFL AC GR CDL CN	2067	4132
DIFL ACL GR	4120	4678
DIFL ACL GR CDL	584	2083
HP FMT GR	4150	4570
HRDIP	4121	4678
MWD - GR RES ROP DIR	246	4679
SWC	2190	4034
VSP	600	4640

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	372.0	36	372.0	0.00	LOT
SURF.COND.	20	586.0	26	590.0	1.47	LOT
INTERM.	13 3/8	2071.0	17 1/2	2088.0	1.87	LOT
INTERM.	9 5/8	4124.0	12 1/4	4138.0	2.16	LOT
OPEN HOLE		4679.0	8 1/2	4679.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
325	1.03			WATER BASED	29.03.1988
325	1.03			WATER BASED	30.03.1988



325	0.00			WATER BASED	05.04.1988
372	1.07			WATER BASED	04.01.1988
387	1.03			WATER BASED	04.01.1988
410	1.05			WATER BASED	04.01.1988
456	1.03			WATER BASED	04.01.1988
490	1.07			WATER BASED	05.01.1988
530	1.45	20.0	9.5	WATER BASED	28.03.1988
560	1.03			WATER BASED	08.01.1988
590	1.08			WATER BASED	06.01.1988
590	1.08			WATER BASED	07.01.1988
615	1.30	12.0	4.5	WATER BASED	11.01.1988
685	1.45	18.0	4.0	WATER BASED	28.03.1988
742	1.30	12.0	4.5	WATER BASED	11.01.1988
1124	1.30	15.0	5.5	WATER BASED	11.01.1988
1124	1.30	14.0	4.5	WATER BASED	11.01.1988
1343	1.30	14.0	5.0	WATER BASED	12.01.1988
1509	1.40	15.0	5.0	WATER BASED	13.01.1988
2000	1.45	18.0	5.0	WATER BASED	28.03.1988
2029	1.40	16.0	7.5	WATER BASED	14.01.1988
2088	1.45	17.0	6.5	WATER BASED	15.01.1988
2088	1.45	5200.0	7.0	WATER BASED	18.01.1988
2088	1.45	5100.0	6.0	WATER BASED	18.01.1988
2091	1.67	5900.0	12.0	WATER BASED	18.01.1988
2300	1.75	5400.0	6.0	WATER BASED	19.01.1988
2300	1.75	5200.0	7.0	WATER BASED	20.01.1988
2300	1.75	7000.0	17.5	WATER BASED	21.01.1988
2300	1.75	7000.0	13.0	WATER BASED	22.01.1988
2300	1.75	22.0	14.0	WATER BASED	25.01.1988
2300	1.75	22.0	12.0	WATER BASED	25.01.1988
2300	1.75	24.0	11.0	WATER BASED	26.01.1988
2300	1.75	24.0	13.0	WATER BASED	27.01.1988
2300	1.75	28.0	14.0	WATER BASED	28.01.1988
2300	1.75	27.0	14.0	WATER BASED	29.01.1988
2300	1.75	25.0	27.0	WATER BASED	01.02.1988
2300	1.75	24.0	13.5	WATER BASED	01.02.1988
2300	1.75	26.0	14.0	WATER BASED	02.02.1988
2300	1.75	26.0	12.5	WATER BASED	03.02.1988
2300	1.75	32.0	11.0	WATER BASED	05.02.1988
2300	1.75	26.0	8.0	WATER BASED	08.02.1988
2300	1.75	22.0	6.0	WATER BASED	08.02.1988



2300	1.75	26.0	8.0	WATER BASED	09.02.1988
2300	1.80	26.0	9.0	WATER BASED	10.02.1988
2300	1.80	23.0	8.0	WATER BASED	11.02.1988
2300	1.80	27.0	8.0	WATER BASED	15.02.1988
2300	1.80	29.0	8.0	WATER BASED	15.02.1988
2300	1.80	26.0	7.0	WATER BASED	15.02.1988
2300	1.80	27.0	9.0	WATER BASED	17.02.1988
2300	1.75	26.0	7.0	WATER BASED	08.02.1988
2300	1.80	29.0	8.0	WATER BASED	12.02.1988
2300	1.80	25.0	8.0	WATER BASED	16.02.1988
2300	1.80	25.0	7.5	WATER BASED	18.02.1988
3121	1.80			WATER BASED	24.03.1988
3121	1.80	20.0	4.0	WATER BASED	25.03.1988
3699	1.85	22.0	5.0	WATER BASED	22.03.1988
3699	1.85	22.0	5.0	WATER BASED	21.03.1988
3699	1.85	24.0	4.0	WATER BASED	24.03.1988
3727	1.95	29.0	5.0	WATER BASED	21.03.1988
3727	1.95	26.0	4.0	WATER BASED	21.03.1988
3768	1.75	16.0	3.0	WATER BASED	09.03.1988
3770	1.75	26.0	4.5	WATER BASED	14.03.1988
3770	1.85	23.0	3.5	WATER BASED	14.03.1988
3770	1.85	30.0	3.5	WATER BASED	15.03.1988
3770	1.85	32.0	4.5	WATER BASED	16.03.1988
3770	1.95	22.0	4.0	WATER BASED	17.03.1988
3770	1.95	27.0	5.0	WATER BASED	18.03.1988
3770	1.75	14.0	1.5	WATER BASED	14.03.1988
3777	1.75	15.0	2.0	WATER BASED	10.03.1988
3777	1.75	15.0	2.0	WATER BASED	11.03.1988
3956	1.88	23.0	4.0	WATER BASED	08.03.1988
4050	1.80	26.0	6.0	WATER BASED	19.02.1988
4050	1.80	26.0	6.5	WATER BASED	22.02.1988
4050	1.80	25.0	7.0	WATER BASED	22.02.1988
4138	1.80	25.0	6.5	WATER BASED	22.02.1988
4138	1.80	22.0	5.0	WATER BASED	23.02.1988
4150	1.88	21.0	5.0	WATER BASED	07.03.1988
4150	1.88	20.0	5.0	WATER BASED	07.03.1988
4167	1.88	27.0	9.0	WATER BASED	29.02.1988
4167	1.88	25.0	4.5	WATER BASED	29.02.1988
4167	1.88	21.0	4.5	WATER BASED	29.02.1988
4167	1.88	24.0	6.5	WATER BASED	01.03.1988



4167	1.88	20.0	5.0	WATER BASED	02.03.1988
4167	1.88	21.0	5.0	WATER BASED	03.03.1988
4168	1.86	23.0	5.0	WATER BASED	24.02.1988
4168	1.88	27.0	7.0	WATER BASED	26.02.1988
4195	1.88	22.0	5.0	WATER BASED	25.02.1988

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]
1216 Formation pressure (Formasjonstrykk)	pdf	0.29

