General information

Wellbore name	7119/12-1
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	BARENTS SEA
Well name	7119/12-1
Seismic location	738-424 &SP.484
Production licence	060
Drilling operator	Den norske stats oljeselskap a.s
Drill permit	251-L
Drilling facility	ROSS RIG (1)
Drilling days	119
Entered date	14.06.1980
Completed date	10.10.1980
Release date	10.10.1982
Publication date	11.02.2005
Purpose - planned	WILDCAT
Reentry	NO
Content	OIL SHOWS
Discovery wellbore	NO
Kelly bushing elevation [m]	25.0
Water depth [m]	200.0
Total depth (MD) [m RKB]	3088.0
Final vertical depth (TVD) [m RKB]	3087.0
Maximum inclination [°]	4.4
Bottom hole temperature [°C]	96
Oldest penetrated age	EARLY JURASSIC
Oldest penetrated formation	STØ FM
Geodetic datum	ED50
NS degrees	71° 6' 8'' N
EW degrees	19° 47' 40.29'' E
NS UTM [m]	7889443.98
EW UTM [m]	456424.42
UTM zone	34
NPDID wellbore	121

Wellbore history

General

Well 7119/12-1 was the first exploration well to be drilled in the Barents Sea. It was placed on a horst block forming the upper part of the seismic closure 7119/12-1 Alpha structure. The well was designed to gather information about the hydrocarbon potential of the Troms I area, specifically to test hydrocarbon potential and reservoir rock quality of 7119/12-Alpha. The primary target was sandstone of middle Jurassic age. Secondary targets were Early Jurassic and Late Triassic sandstones. Planned TD was into rocks of probable Triassic age at an estimated depth of 3500 m.

Operations and results

Wildcat well 7119/12-1 was spudded with the semi-submersible installation Ross Rig on 14 June 1980 and drilled to TD at 3088 m in Early Jurassic Stø Formation. Two major problems were encountered in the drilling phase of the well. The first one concerned boulders while drilling 36" hole, causing low ROP and the hole caving in. The second problem was the combination of junk in hole and a very hard, well-cemented sandstone at 2654 m causing heavy bit wear. On 13 July drilling was interrupted by a 38 days strike. Due to a late start-up and the strike, and as drilling season ended on 1 October, no test could be performed. The well was drilled with spud mud down to 615 m and with bentonite / lignosulphonate mud from 615 m to TD.

Top reservoir, Stø Formation, came in at 2658 m. Logs, RFT samples, and shows on cores and cuttings proved oil in the reservoir. The reservoir properties were however poor, with only 18,5 m net sand out of 430 m, and a moderate 13.6% average porosity in the net sand. Six RFT runs were conducted from 2658 m to TD. Out of a total of 73 pressure tests attempted only 15 pressure points were obtained due to tight formation. The pressure gradients obtained corresponded to 0.92 to 0.95 g/cc. Both logs and RFT showed that the OWC had not been reached. Repeat Formation Test (RFT) segregated fluid samples were collected at 2659 m, 2706 m, 2721 m, 2764 m, and 2775 m. All samples except the 1-gallon chamber from 2659 m were bled off on the rig at atmospheric pressure. On-rig analyses proved no or only traces of hydrocarbons in all samples. The 1-gallon sample from 2659 was opened and analyzed on-shore and contained mud filtrate with a film of hydrocarbons on top. Fourteen conventional cores were cut in the reservoir zone from 2667 m to 3002 m with a total of 164 meter recovered.

The well was permanently abandoned on 10 October 1980 as a well with oil shows.

Testing

No drill stem test was performed

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
295.00	3088.00

Cuttings available for sampling?	YES

Cores at the Norwegian Offshore Directorate

Core sample number	Core sample - top depth	Core sample - bottom depth	Core sample depth - uom
1	2667.0	2672.7	[m]
2	2674.0	2674.2	[m]
3	2675.5	2677.8	[m]
4	2680.0	2685.2	[m]
5	2700.0	2712.7	[m]
6	2714.0	2714.8	[m]
7	2718.0	2736.3	[m]
8	2736.3	2753.7	[m]
9	2754.0	2772.0	[m]
10	2772.0	2790.0	[m]
11	2810.0	2828.5	[m]
12	2828.5	2845.7	[m]
13	2924.0	2936.2	[m]
14	2984.0	3001.6	[m]

Total core sample length [m]	163.9
Cores available for sampling?	YES

Core photos


2667-2669m


2669-2672m


2672-2673m


2675-2677m


2680-2682m


2682-2685m


2700-2702m


2702-2705m


2705-2708m


2708-2710m


2710-2712m


2714-2715m


2718-2720m


2720-2723m


2723-2726m


2726-2728m


2728-2731m


2731-2734m


2734-2736m


2736-2739m


2739-2741m


2741-2744m


2744-2747m


2747-2749m


2749-2752m


2752-2753m


2754-2756m


2756-2759m


2759-2762m


2762-2764m


2764-2767m


2767-2770m


2770-2772m


2772-2774m


2774-2777m


2777-2780m


2780-2782m


2782-2785m


2785-2788m


2788-2790m


2810-2812m


2812-2815m


2815-2818m


2818-2820m


2820-2823m


2823-2826m


2826-2828m


2828-2831m


2831-2833m


2833-2836m


2836-2839m


2839-2842m


2842-2844m


2844-2845m


2924-2926m


2926-2929m


2929-2932m


2932-2934m


2934-2936m


2984-2986m


2986-2989m


2989-2992m


2992-2994m


2994-2997m


2997-3000m


3000-3001m

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
460.0	[m]	DC	OD
480.0	[m]	DC	OD
500.0	[m]	DC	OD
520.0	[m]	DC	OD
540.0	[m]	DC	OD
560.0	[m]	DC	OD
580.0	[m]	DC	OD
600.0	[m]	DC	OD
620.0	[m]	DC	OD
640.0	[m]	DC	OD
660.0	[m]	DC	OD
680.0	[m]	DC	OD
700.0	[m]	DC	OD
720.0	[m]	DC	OD
740.0	[m]	DC	OD
760.0	[m]	DC	OD
780.0	[m]	DC	OD
800.0	[m]	DC	OD
820.0	[m]	DC	OD
840.0	[m]	DC	OD
860.0	[m]	DC	OD
860.0	[m]	DC	OD
870.0	[m]	DC	OD
870.0	[m]	DC	OD
880.0	[m]	DC	OD
880.0	[m]	DC	OD
890.0	[m]	DC	OD
890.0	[m]	DC	OD
900.0	[m]	DC	OD
900.0	[m]	DC	OD
910.0	[m]	DC	OD
910.0	[m]	DC	OD
920.0	[m]	DC	OD
920.0	[m]	DC	OD
930.0	[m]	DC	OD
930.0	[m]	DC	OD

940.0	[m]	DC	OD
940.0	[m]	DC	OD
950.0	[m]	DC	OD
950.0	[m]	DC	OD
960.0	[m]	DC	OD
960.0	[m]	DC	OD
970.0	[m]	DC	OD
970.0	[m]	DC	OD
980.0	[m]	DC	OD
980.0	[m]	DC	OD
990.0	[m]	DC	OD
1010.0	[m]	DC	OD
1020.0	[m]	DC	OD
1030.0	[m]	DC	OD
1030.0	[m]	DC	OD
1040.0	[m]	DC	OD
1040.0	[m]	DC	OD
1050.0	[m]	DC	OD
1050.0	[m]	DC	OD
1060.0	[m]	DC	OD
1060.0	[m]	DC	OD
1080.0	[m]	DC	OD
1100.0	[m]	DC	OD
1120.0	[m]	DC	OD
1140.0	[m]	DC	OD
1160.0	[m]	DC	OD
1180.0	[m]	DC	OD
1200.0	[m]	DC	OD
1220.0	[m]	DC	OD
1240.0	[m]	DC	OD
1260.0	[m]	DC	OD
1280.0	[m]	DC	OD
1300.0	[m]	DC	OD
1320.0	[m]	DC	OD
1340.0	[m]	DC	OD
1360.0	[m]	DC	OD
1380.0	[m]	DC	OD
1400.0	[m]	DC	OD
1420.0	[m]	DC	OD
1440.0	[m]	DC	OD

1460.0	[m]	DC	OD
1480.0	[m]	DC	OD
1500.0	[m]	DC	OD
1520.0	[m]	DC	OD
1540.0	[m]	DC	OD
1560.0	[m]	DC	OD
1580.0	[m]	DC	OD
1600.0	[m]	DC	OD
1620.0	[m]	DC	OD
1640.0	[m]	DC	OD
1660.0	[m]	DC	OD
1680.0	[m]	DC	OD
1700.0	[m]	DC	OD
1720.0	[m]	DC	OD
1740.0	[m]	DC	OD
1760.0	[m]	DC	OD
1780.0	[m]	DC	OD
1800.0	[m]	DC	OD
1820.0	[m]	DC	OD
1840.0	[m]	DC	OD
1860.0	[m]	DC	OD
1880.0	[m]	DC	OD
1900.0	[m]	DC	OD
1920.0	[m]	DC	OD
1940.0	[m]	DC	OD
1960.0	[m]	DC	OD
1980.0	[m]	DC	OD
2000.0	[m]	DC	OD
2020.0	[m]	DC	OD
2040.0	[m]	DC	OD
2060.0	[m]	DC	OD
2080.0	[m]	DC	OD
2100.0	[m]	DC	OD
2120.0	[m]	DC	OD
2140.0	[m]	DC	OD
2160.0	[m]	DC	OD
2180.0	[m]	DC	OD
2200.0	[m]	DC	OD
2220.0	[m]	DC	OD
2240.0	[m]	DC	OD

2260.0	[m]	DC	OD
2280.0	[m]	DC	OD
2320.0	[m]	DC	OD
2340.0	[m]	DC	OD
2360.0	[m]	DC	OD
2380.0	[m]	DC	OD
2420.0	[m]	DC	OD
2440.0	[m]	DC	OD
2460.0	[m]	DC	OD
2480.0	[m]	DC	OD
2500.0	[m]	DC	OD
2520.0	[m]	DC	OD
2540.0	[m]	DC	OD
2560.0	[m]	DC	OD
2580.0	[m]	DC	OD
2600.0	[m]	DC	OD
2620.0	[m]	DC	OD
2640.0	[m]	DC	OD
2660.0	[m]	DC	OD
2988.0	[m]	C	ICDRON
2999.0	[m]	C	ICDRON

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
225	NORDLAND GP
465	SOTBAKKEN GP
465	TORSK FM
810	NYGRUNNEN GP
810	KVEITE FM
1058	ADVENTDALEN GP
1058	KOLMULE FM
2004	KOLJE FM
2441	KNURR FM
2498	HEKKINGEN FM
2498	KRILL MBR
2574	ALGE MBR
2610	FUGLEN FM
2658	KAPP TOSCANA GP

2658	STØ FM

Composite logs

Document name	Document format	Document size [MB]
121	pdf	0.57

Geochemical information

Document name	Document format	Document size [MB]
121_1	pdf	6.08
121_2	pdf	3.17

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

Document name	Document format	Document size [MB]
121_01_WDSS_General_Information	pdf	0.12
121_02_WDSS_completion_log	pdf	0.19

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

Document name	Document format	Document size [MB]
121_01_Completion_Report	pdf	15.33
121_02_Completion_log	pdf	1.72

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CBL	225	1551
CBL	1000	2504
CBL	2300	3054
CST	743	3086
DLL MSFL	2504	3088
FDC CNL GR CAL	1551	3092

FDC GR CAL	600	1567
HDT	600	2509
HDT GEODIP	2504	3092
ISF SONIC GR SP	225	613
ISF SONIC GR SP MSFL	600	3092
LSS	287	3092
RFT	2658	3088
VELOCITY	440	3088
WAVEFORM VDL	2650	3092

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	262.0	36	263.0	0.00	LOT
SURF.COND.	20	575.0	26	590.0	1.10	LOT
INTERM.	13 3/8	1526.0	17 1/2	1540.0	1.68	LOT
INTERM.	9 5/8	2479.0	12 1/4	2491.0	1.80	LOT
LINER	7	3063.0	8 1/2	3063.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
255	1.05	45.0		seawater	
615	1.20	29.0		seawater	
1055	1.20	17.0	16.0	seawater	
1699	1.20	30.0	12.0	seawater	
2450	1.20	17.0	11.0	seawater	
2598	1.32	21.0	11.0	seawater	
2807	1.30	21.0	9.0	seawater	
3088	1.28	19.0	8.0	seawater	

Thin sections at the Norwegian Offshore Directorate

Depth	Unit
2984.75	[m]
2993.00	[m]
2669.50	[m]

2676.68	[m]
2680.00	[m]
2701.05	[m]
2718.62	[m]
2721.71	[m]
2761.31	[m]
2765.00	[m]
2767.96	[m]
2772.67	[m]
2777.01	[m]
2780.62	[m]

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]
121_Formation_pressure_(Formasjonstrykk)	pdf	0.18