General information

Wellbore name	25/7-2
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Discovery	25/7-2
Well name	25/7-2
Seismic location	CN 8525 - 6 SP 390
Production licence	103
Drilling operator	Conoco Norway Inc.
Drill permit	628-L
Drilling facility	DYVI STENA
Drilling days	161
Entered date	08.02.1990
Completed date	18.07.1990
Release date	18.07.1992
Publication date	17.12.2003
Purpose - planned	WILDCAT
Reentry	NO
Content	GAS/CONDENSATE
Discovery wellbore	YES
1st level with HC, age	LATE JURASSIC
1st level with HC, formation	INTRA DRAUPNE FM SS
2nd level with HC, age	MIDDLE JURASSIC
2nd level with HC, formation	HUGIN FM
Kelly bushing elevation [m]	25.0
Water depth [m]	124.0
Total depth (MD) [m RKB]	4850.0
Final vertical depth (TVD) [m RKB]	4847.0
Maximum inclination [°]	12.9
Bottom hole temperature [°C]	163
Oldest penetrated age	MIDDLE JURASSIC
Oldest penetrated formation	SLEIPNER FM
Geodetic datum	ED50
NS degrees	59° 16' 28.59'' N
EW degrees	2° 12' 26.09'' E
NS UTM [m]	6571051.25

EW UTM [m]	454816.14
UTM zone	31
NPDID wellbore	1494

Wellbore history

General

Norwegian Continental Shelf Block 25/7 is located west of the Utsira basement High on the eastern flank of the Southern Viking Graben. The location is 5.3 km southwest of 25/7-1 which drilled into basement after the Cretaceous section without penetrating any Jurassic sediments and thus failed to test its target, Late Jurassic sandstones. With the 25/7-2 location further to the west one expected to penetrate a complete Brae analogue sequence. The main objectives of the well were to test the hydrocarbon potential of the Late Jurassic sands, the hydrocarbon potential of a structural closure at the Middle Jurassic sand level, and the hydrocarbon bearing potential of the Paleocene Heimdal sands. Trapping at Late and Middle Jurassic was assumed by sealing basement rocks to the east, and by dip closure elsewhere. Events interpreted as possible gas bearing sands occur between 200 and 300 m below sea level.

Operations and results

Wildcat well 25/7-2 was spudded 8 February 1990by the semi-submersible rig Dyvi Stena, and completed 18 July 1990 at a depth of 4850 m in the Middle Jurassic Sleipner Formation. The well was drilled with Seawater and hi-vis pills down to 1220 m and with KCl Polymer WBS/200 mud from 1220 m to TD. Drilling took 131 days from spud and 142 days from taking over the rig. A further 29 days were used to log, test, and plug and abandon the well. The rig was on contract for a total of 171 days. One hundred and thirty days were used for planned operations while wait-on-weather, fishing operations, and equipment trouble accounted for the NPT. No indications of shallow gas were observed.

Forty-seven metres of Cenomanian sand was encountered in the well. A gross thickness of 174 meters of hydrocarbon bearing Late Jurassic conglomerates and sandstones were encountered in the well. The Late Jurassic conglomerates and sandstones represent deposition by debris-flows, slumps and slides and minor turbidites on a fault-scarp submarine slope apron. The sequence had poor reservoir properties in the 25/7-2 location. Sedimentological interpretation and modelling as well as the DST analysis have shown the reservoir to be of limited size. It was therefore concluded that the 25/7-2 well encountered the Upper Jurassic conglomerate/sandstone sequence in a non-producible reservoir facies. The Middle Jurassic Hugin formation was 206 meters thick and was composed of sands deposited in an overall transgressive coastal barrier system. Hydrocarbons were present down to the base of the sands; however, the reservoir quality was extremely poor. The sandstones were intensely cemented and contained large amounts of fibrous illite. The Middle Jurassic Sleipner Formation had a very low sand/shale ratio. The FMS evaluation showed the sandstones to be intensely cemented. No net sand was interpreted from the log analysis.

A total of 210 sidewall cores were attempted and 91 were recovered. Four conventional cores were cut in the interval from 4125 to 4169.2 m, and two in the interval from 4345 to 4488 m. No fluid samples were taken on wire line. The well was permanently plugged and abandoned on 18 July 1990 as gas and condensate discovery.

Testing

A single drill stem test was conducted over the hydrocarbon-bearing interval of the Late Jurassic Intra Draupne and Intra Heather -Formation Sandstone. The perforated intervals were 4148 m to 4173 m, 4194 m to 4219 m, and 4248 m to 4273 m. Contribution to flow was from the Intra Draupne Formation Sandstone in the upper set of perforations (4148 ? 4173 m). Initial flow rates through a 40/64" choke were 255700 Sm3 gas, 228 Sm3 condensate, and 2.7 Sm3 water pr day through a 15.9 mm choke. Initial GOR was 1121 Sm3/ Sm3. Pressure and flow rates declined while GOR increased during the test. Separator condensate density was 0.784 g/cm3 (at 15°C) while separator gas gravity was 0.710 (air = 1). From PVT analyses the stock tank oil density was found to be 0.775 g/cm3 and the stock tank gas gravity 0.756 (air = 1).

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
1230.00	4850.00

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	4125.0	4136.3	[m]
2	4136.2	4145.7	[m]
3	4145.7	4154.6	[m]
4	4154.7	4169.2	[m]
5	4345.0	4347.4	[m]
6	4461.5	4488.6	[m]

Total core sample length [m]	73.7
Cores available for sampling?	YES

Core photos


4125-4130m


4130-4135m


4135-4136m


4136-4141m


4141-4145m


4145-4150m


4150-4154m


4154-4159m


4159-4164m


4164-4169m

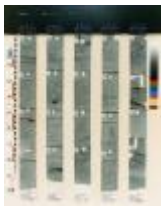

4169-4347m


4461-4466m


4466-4471m


4471-4476m


4476-4481m


4481-4486m


4486-4488m

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
4109.0	[m]	DC	RRI
4115.0	[m]	DC	RRI
4125.1	[m]	C	RRI
4127.4	[m]	C	RRI
4162.6	[m]	C	RRI
4163.3	[m]	C	RRI
4164.4	[m]	C	RRI
4226.0	[m]	C	RRI
4245.0	[m]	C	RRI
4265.0	[m]	C	RRI

Oil samples at the Norwegian Offshore Directorate

Test type	Bottle number	Top depth MD [m]	Bottom depth MD [m]	Fluid type	Test time	Samples available
DST		4148.00	4273.00		11.07.1990 - 00:00	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
149	NORDLAND GP
446	UTSIRA FM
651	UNDIFFERENTIATED
687	HORDALAND GP
687	SKADE FM
1003	NO FORMAL NAME
2098	ROGALAND GP
2098	BALDER FM
2185	SELE FM
2216	HERMOD FM
2222	SELE FM
2258	LISTA FM
2318	HEIMDAL FM
2470	LISTA FM
2529	TY FM
2698	SHETLAND GP
2698	EKOFISK FM
2749	JORSALFARE FM
2925	KYRRE FM
3060	TRYGGVASON FM
3260	BLODØKS FM
3295	SVARTE FM
3399	NO FORMAL NAME
3447	SVARTE FM
3714	CROMER KNOLL GP
3714	RØDBY FM
3875	SOLA FM
3948	ÅSGARD FM
4056	VIKING GP
4056	DRAUPNE FM
4119	INTRA DRAUPNE FM SS
4212	HEATHER FM
4247	INTRA HEATHER FM SS
4293	HEATHER FM
4407	VESTLAND GP
4407	HUGIN FM
4613	SLEIPNER FM

Composite logs

Document name	Document format	Document size [MB]
1494	pdf	0.71

Geochemical information

Document name	Document format	Document size [MB]
1494_1	pdf	1.26
1494_2	pdf	0.91

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

Document name	Document format	Document size [MB]
1494_01_WDSS_General_Information	pdf	0.25
1494_02_WDSS_completion_log	pdf	0.27

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

Document name	Document format	Document size [MB]
1494_25_7_2_COMPLETION_REPORT_AND_LOG	pdf	34.48

Drill stem tests (DST)

Test number	From depth MD [m]	To depth MD [m]	Choke size [mm]
1.0	4148	4273	15.9

Test number	Final shut-in pressure [MPa]	Final flow pressure [MPa]	Bottom hole pressure [MPa]	Downhole temperature [°C]
1.0	9.000			129

Test number	Oil [Sm3/day]	Gas [Sm3/day]	Oil density [g/cm3]	Gas grav. rel.air	GOR [m3/m3]
1.0	228	255700	0.781	0.732	1121

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CST	1225	2691
CST	3952	4121
CST	4176	4310
CST	4300	4340
CST	4365	4839
DIL GR SLS SP AMS	3911	4851
DIL LSS MSFL GR SP AMS	1210	2963
DIL SLS GR SP AMS	3911	4344
DLL MSFL GR SP	4050	4849
DLL MSFL NGS CAL SP	3911	4012
DLL MSFL NGS CAL SP	3911	4340
FMS GR	4010	4852
LDL CNL GR CAL	3911	4345
LDL CNL NGL CAL	4050	4852
LDL DIL LSS GR CAL SP AMS	259	1925
LDL DIL SLS MSFL GR CAL AMS	2969	3918
LDL GR CAL	1210	2964
MWD DPR	3914	4345
MWD RGD	265	1030
MWD RGD	3589	3914
MWD RGD	4349	4850
MWD RGD-M	1030	3440
RFT	4138	4292
RFT	4255	4567

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	259.0	36	265.0	0.00	LOT
INTERM.	20	1210.5	26	1220.0	1.57	LOT

INTERM.	13 3/8	2965.0	17 1/2	2974.0	1.94	LOT
INTERM.	9 5/8	3906.0	12 1/4	3914.0	1.96	LOT
LINER	7	4850.0	8 1/2	4850.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
195	1.92	26.0	12.0	WATER BASED	17.07.1990
195	1.92	22.0	11.0	WATER BASED	17.07.1990
265	1.07			WATER BASED	12.02.1990
265	1.06			WATER BASED	09.02.1990
342	1.07			WATER BASED	12.02.1990
1030	1.07			WATER BASED	12.02.1990
1030	1.08			WATER BASED	13.02.1990
1050	1.08			WATER BASED	14.02.1990
1050	1.08			WATER BASED	15.02.1990
1218	1.08			WATER BASED	16.02.1990
1220	1.08			WATER BASED	19.02.1990
1220	1.20	17.0	20.0	WATER BASED	20.02.1990
1220	1.20	17.0	11.5	WATER BASED	21.02.1990
1220	1.02	19.0	11.5	WATER BASED	23.02.1990
1220	1.20	18.0	10.5	WATER BASED	26.02.1990
1220	1.20	19.0	11.5	WATER BASED	26.02.1990
1220	1.20	19.0	11.0	WATER BASED	27.02.1990
1220	1.20	19.0	10.5	WATER BASED	28.02.1990
1220	1.20	18.0	12.0	WATER BASED	22.02.1990
1220	1.20	18.0	11.5	WATER BASED	26.02.1990
1250	1.20	16.0	10.0	WATER BASED	01.03.1990
1476	1.25	15.0	9.5	WATER BASED	02.03.1990
1684	1.29	19.0	9.0	WATER BASED	06.03.1990
1938	1.35	21.0	9.5	WATER BASED	06.03.1990
1938	1.39	21.0	9.5	WATER BASED	06.03.1990
1938	1.39	21.0	9.5	WATER BASED	06.03.1990
1940	1.41	22.0	9.5	WATER BASED	07.03.1990
1940	1.41	21.0	8.5	WATER BASED	08.03.1990
1958	1.41	24.0	8.0	WATER BASED	09.03.1990
2005	1.41	27.0	9.0	WATER BASED	12.03.1990
2113	1.25	29.0	13.5	WATER BASED	12.03.1990

2130	1.41	29.0	11.0	WATER BASED	12.03.1990
2178	1.41	27.0	9.5	WATER BASED	13.03.1990
2315	1.25	32.0	11.0	WATER BASED	14.03.1990
2437	1.40	30.0	11.5	WATER BASED	16.03.1990
2440	1.40	31.0	11.0	WATER BASED	16.03.1990
2504	1.40	39.0	12.0	WATER BASED	20.03.1990
2545	1.40	29.0	12.5	WATER BASED	20.03.1990
2545	1.40	29.0	11.0	WATER BASED	20.03.1990
2566	1.40	27.0	13.0	WATER BASED	20.03.1990
2630	1.40	27.0	13.0	WATER BASED	21.03.1990
2695	1.40	33.0	11.0	WATER BASED	22.03.1990
2707	1.40	26.0	9.0	WATER BASED	23.03.1990
2707	1.40	27.0	9.0	WATER BASED	26.03.1990
2707	1.40	26.0	9.0	WATER BASED	26.03.1990
2707	1.40	22.0	10.0	WATER BASED	26.03.1990
2737	1.40	30.0	11.5	WATER BASED	27.03.1990
2747	1.40	35.0	12.5	WATER BASED	28.03.1990
2747	1.40	30.0	11.0	WATER BASED	29.03.1990
2747	1.40	29.0	11.0	WATER BASED	30.03.1990
2747	1.40	28.0	11.0	WATER BASED	02.04.1990
2747	1.40	27.0	10.5	WATER BASED	02.04.1990
2811	1.40	23.0	11.5	WATER BASED	02.04.1990
2843	1.40	27.0	11.5	WATER BASED	05.04.1990
2843	1.40	22.0	10.0	WATER BASED	04.04.1990
2864	1.41	29.0	10.0	WATER BASED	06.04.1990
2895	1.40	28.0	10.5	WATER BASED	09.04.1990
2924	1.40	32.0	12.0	WATER BASED	10.04.1990
2958	1.40	27.0	12.0	WATER BASED	10.04.1990
2974	1.40	27.0	10.5	WATER BASED	11.04.1990
2974	1.40	28.0	11.0	WATER BASED	18.04.1990
2974	1.40	26.0	10.0	WATER BASED	18.04.1990
2974	1.40	22.0	9.0	WATER BASED	18.04.1990
2974	1.34	16.0	2.5	WATER BASED	18.04.1990
2974	1.40	21.0	8.5	WATER BASED	18.04.1990
2974	1.40	28.0	11.0	WATER BASED	10.04.1990
2974	1.40	26.0	10.0	WATER BASED	18.04.1990
3034	1.34	22.0	7.5	WATER BASED	18.04.1990
3135	1.34	21.0	8.5	WATER BASED	19.04.1990
3250	1.34	23.0	12.0	WATER BASED	23.04.1990
3349	1.34	25.0	12.5	WATER BASED	23.04.1990

3422	1.44	26.0	13.0	WATER BASED	23.04.1990
3440	1.44	26.0	12.0	WATER BASED	24.04.1990
3445	1.44	26.0	12.0	WATER BASED	25.04.1990
3506	1.44	19.0	9.0	WATER BASED	26.04.1990
3561	1.47	21.0	10.0	WATER BASED	27.04.1990
3589	1.47	22.0	10.0	WATER BASED	30.04.1990
3642	1.51	24.0	11.5	WATER BASED	30.04.1990
3713	1.92	20.0	5.0	WATER BASED	16.07.1990
3912	1.65	21.0	6.5	WATER BASED	03.05.1990
3914	1.65	16.0	6.0	WATER BASED	08.05.1990
3914	1.65	16.0	5.5	WATER BASED	08.05.1990
3914	1.65	20.0	5.5	WATER BASED	04.05.1990
3920	1.68	17.0	4.5	WATER BASED	08.05.1990
3969	1.76	18.0	5.5	WATER BASED	08.05.1990
4031	1.87	21.0	6.0	WATER BASED	09.05.1990
4079	1.92	21.0	7.0	WATER BASED	10.05.1990
4120	1.92	18.0	7.5	WATER BASED	11.05.1990
4125	1.92	19.0	9.5	WATER BASED	15.05.1990
4131	1.92	17.0	8.0	WATER BASED	15.05.1990
4136	1.92	18.0	5.5	WATER BASED	15.05.1990
4146	1.92	17.0	5.0	WATER BASED	15.05.1990
4155	1.92	16.0	4.5	WATER BASED	16.05.1990
4169	1.92	18.0	5.5	WATER BASED	18.05.1990
4195	1.92	17.0	6.0	WATER BASED	21.05.1990
4240	1.92	15.0	7.0	WATER BASED	21.05.1990
4302	1.94	16.0	8.0	WATER BASED	21.05.1990
4342	1.98	14.0	7.5	WATER BASED	22.05.1990
4345	1.95	15.0	7.0	WATER BASED	23.05.1990
4345	1.92	14.0	7.0	WATER BASED	25.05.1990
4345	1.92	14.0	7.5	WATER BASED	29.05.1990
4345	1.92	14.0	7.0	WATER BASED	29.05.1990
4345	1.92	14.0	7.5	WATER BASED	29.05.1990
4345	1.92	13.0	6.0	WATER BASED	30.05.1990
4345	1.92	13.0	11.0	WATER BASED	01.06.1990
4345	1.92	15.0	9.0	WATER BASED	06.06.1990
4345	1.92	14.0	9.0	WATER BASED	06.06.1990
4345	1.98	14.0	8.0	WATER BASED	22.05.1990
4345	1.92	14.0	7.5	WATER BASED	25.05.1990
4345	1.92	14.0	4.5	WATER BASED	31.05.1990
4345	1.92	14.0	9.0	WATER BASED	05.06.1990

4349	1.92	15.0	10.0	WATER BASED	06.06.1990
4349	1.92	15.0	10.0	WATER BASED	07.06.1990
4349	1.92	14.0	10.0	WATER BASED	08.06.1990
4398	1.92	18.0	14.0	WATER BASED	08.06.1990
4462	1.92	17.0	12.0	WATER BASED	08.06.1990
4489	1.92	16.0	13.0	WATER BASED	12.06.1990
4495	1.92	16.0	11.0	WATER BASED	12.06.1990
4520	1.92	16.0	10.0	WATER BASED	12.06.1990
4624	1.92	17.0	12.0	WATER BASED	12.06.1990
4643	1.92	17.0	15.0	WATER BASED	13.06.1990
4727	1.92	17.0	7.5	WATER BASED	14.06.1990
4739	1.92	10.0	11.0	WATER BASED	15.06.1990
4769	1.92	15.0	5.0	WATER BASED	19.06.1990
4802	1.92	14.0	6.0	WATER BASED	19.06.1990
4809	1.92	16.0	8.5	WATER BASED	19.06.1990
4812	1.92	12.0	5.0	WATER BASED	05.07.1990
4812	1.93	12.0	5.0	WATER BASED	09.07.1990
4812	1.92	13.0	5.0	WATER BASED	10.07.1990
4812	1.92	10.0	5.0	WATER BASED	10.07.1990
4812	1.92	11.0	6.0	WATER BASED	02.07.1990
4812	1.92	11.0	5.5	WATER BASED	02.07.1990
4812	1.92	12.0	5.5	WATER BASED	03.07.1990
4812	1.92	12.0	5.0	WATER BASED	10.07.1990
4812	1.92	12.0	7.0	WATER BASED	16.07.1990
4830	1.92	14.0	7.5	WATER BASED	19.06.1990
4850	1.92	14.0	7.0	WATER BASED	20.06.1990
4850	1.92	14.0	7.5	WATER BASED	21.06.1990
4850	1.92	13.0	7.5	WATER BASED	25.06.1990
4850	1.92	12.0	7.5	WATER BASED	25.06.1990
4850	1.92	13.0	6.5	WATER BASED	27.06.1990
4850	1.92	14.0	5.5	WATER BASED	28.06.1990
4850	1.92	12.0	5.5	WATER BASED	04.07.1990
4850	1.92	10.0	5.0	WATER BASED	10.07.1990
4850	1.92	8.0	14.0	WATER BASED	11.07.1990
4850	1.92	12.0	7.5	WATER BASED	12.07.1990
4850	1.92	20.0	7.0	WATER BASED	02.07.1990
4850	1.92	13.0	6.5	WATER BASED	02.07.1990
4850	1.92	12.0	7.5	WATER BASED	13.07.1990
4850	1.92	15.0	6.5	WATER BASED	22.06.1990
4850	1.92	12.0	8.0	WATER BASED	25.06.1990

4850	1.92	12.0	5.5	WATER BASED	26.06.1990

Thin sections at the Norwegian Offshore Directorate

Depth	Unit
4131.00	[m]
4146.25	[m]
4148.25	[m]
4152.75	[m]
4160.25	[m]
4166.00	[m]
4168.00	[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]
1494_Formation_pressure_(Formasjonstrykk)	pdf	0.22