

Well no : 30/ 2-02 Operator : STATOIL

Coordinates : 60 49 53.89 N UTM coord. : 6744240
 02 39 51.65 E 481749

Licence no : 51 Permit no : 447

Rig : DYVI DELTA Rig type : SEMI-SUB.

Contractor : DYVI OFFSHORE A/S

Bottom hole temperature : 124 deg.C Elev. KB : 29 M

Spud. date : 84.12.19 Water depth : 123 M

00mpl. date : 85.05.04 Total depth : 4170 M

Spud. class : WILDCAT Form. at TD : JURASSIC

Compl. class : P&A. GAS/COND. DISC. Prod. form : M.JURASSI

Seisloca : L 8330 - 134 SP. 430

LICENSEES

50.000000 DEN NORSKE STATS OLJESELSKAP A.S
 25.000000 TENNECO OIL NORWAY A/S
 25.000000 UNOCAL NORGE A/S

CASING AND LEAK-OFF TESTS

Type	Casing diam.	Depth below KB	Hole diam.	Hole depth below KB	Lot mud eqv. g/cm3
CONDUCTOR	30	214.0	36	214.5	
SURF.COND.	20	1008.0	26	1023.0	1.61
INTERM.	13 3/8	2350.0	17 1/2	2365.0	2.03
INTERM.	9 5/8	3788.0	12 1/4	3802.0	2.14
LINER	7	4170.0	8 1/2	4170.0	

CONVENTIONAL CORES

Core no.	Intervals cored meters	Recovery		Series
		M	%	
1	3908.0 - 3912.4	4.5	90.0	MIDDLE JURASSIC
2	3939.0 - 3957.3	18.3	100.0	MIDDLE JURASSIC
3	3957.3 - 3966.0	8.5	97.7	MIDDLE JURASSIC
4	3966.0 - 3979.8	13.8	100.0	MIDDLE JURASSIC
5	3979.8 - 3987.6	7.2	92.4	MIDDLE JURASSIC
6	3987.6 - 3989.6	2.0	100.0	MIDDLE JURASSIC
7	3989.6 - 3993.5	3.7	95.0	MIDDLE JURASSIC
8	3993.5 - 3997.5	4.0	100.0	MIDDLE JURASSIC
9	4014.0 - 4026.0	11.7	97.5	MIDDLE JURASSIC
10	4026.0 - 4027.8	1.9	62.0	MIDDLE JURASSIC
11	4029.0 - 4031.8	2.6	93.0	MIDDLE JURASSIC
12	4031.8 - 4047.7	15.9	100.0	MIDDLE JURASSIC
13	4047.7 - 4048.9	1.2	100.0	MIDDLE JURASSIC
14	4048.9 - 4052.5	3.4	94.0	MIDDLE JURASSIC
15	4076.0 - 4094.0	17.8	99.0	MIDDLE JURASSIC
16	4094.0 - 4112.3	18.3	100.0	MIDDLE JURASSIC
17	4112.3 - 4130.5	18.2	100.0	MIDDLE JURASSIC
18	4130.2 - 4135.4	5.0	56.8	M/L JURASSIC

MUD PROPERTIES

Depth below KB meter	Mud weight g/cm ³	Plastic viscosity mPa.s	Mud type
214.000	1.05	8.0	WATER BASED
330.000	1.08	7.0	WATER BASED
1670.000	1.11	9.0	WATER BASED
1870.000	1.25	9.0	WATER BASED
1978.000	1.35	10.0	WATER BASED
2122.000	1.45	15.0	WATER BASED
2365.000	1.50	16.0	WATER BASED
2472.000	1.55	18.0	WATER BASED
2533.000	1.60	20.0	WATER BASED
2556.000	1.70	21.0	WATER BASED
2619.000	1.73	22.0	WATER BASED
2704.000	1.77	22.0	WATER BASED
2802.000	1.75	19.0	WATER BASED
2909.000	1.78	22.0	WATER BASED
2980.000	1.79	22.0	WATER BASED
3802.000	1.82	22.0	WATER BASED
3884.000	1.91	25.0	WATER BASED
4012.500	1.94	26.0	WATER BASED

DRILL STEM TEST

INTERVALS AND PRESSURES

Test no.	interval meter	Choke size	Pressure (PSI)		
			WHP	BTHP	FFP
1.0	4071.000 - 4076.000	19.1		5003.8	
2.0	4011.000 - 4042.000	19.1		5235.9	
3.0	3935.000 - 3974.000	19.1		2001.5	

RECOVERY

Test no.	Oil Sm ³ /d	Gas Sm ³ /d	Oil grav. g/cm ³	Gas grav. rel. air	GOR m ³ /m ³
1.0	NO RESPONSE FROM FORMATION				
2.0	NO RESPONSE FROM FORMATION				
3.0	105*	226	0.808	0.734	2160

* - CONDENSATE

DRILL BIT CUTTINGS AND WET SAMPLES

SAMPLE TYPE	INTERVAL BELOW KB	NUMBER OF SAMPLES
Cutting	160 - 4172	840
Wet Samples	220 - 4172	510

SHALLOW GAS

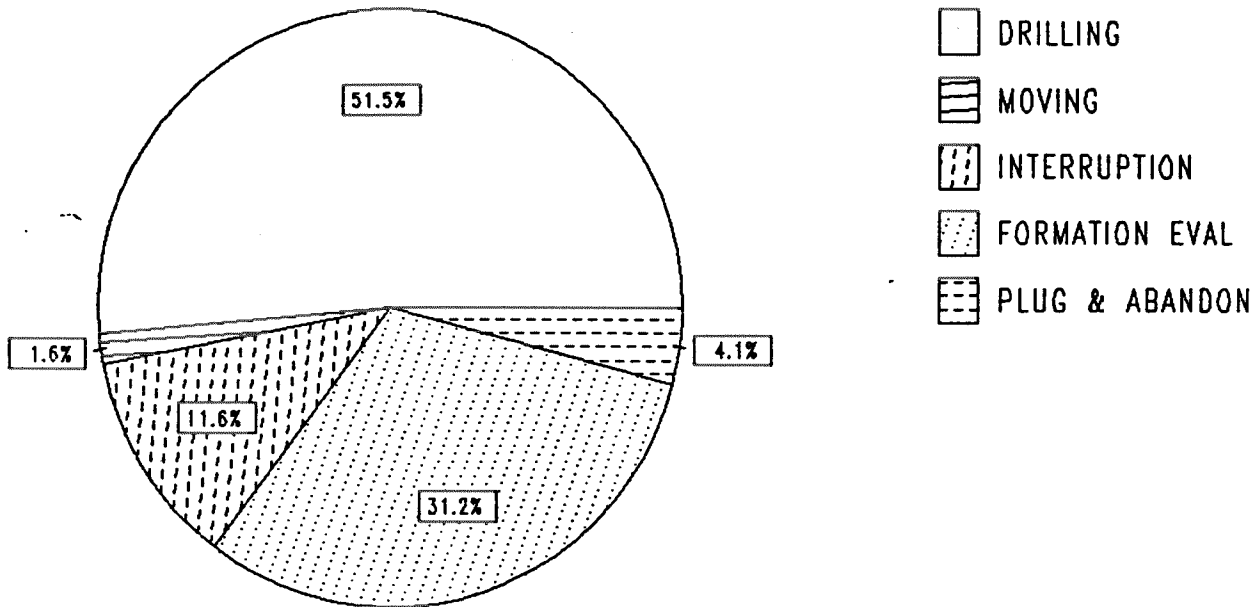
Interval below KB	REMARKS
	NONE

AVAILABLE LOGS

LOG TYPE	INTERVALS	1/200	1/500
DIL BHC SONIC GR	214 - 1017	X	X
DIL BHC SONIC	1006 - 2365	X	X
DIL BHC SONIC	2345 - 3799	X	X
DIL BHC SONIC	3783 - 4027	X	X
ISF DDBHC MSFL	3788 - 4172	X	X
DIL BHC SONIC	3788 - 4172	X	X
DIL BHC SONIC	3783 - 4164	X	X
CDL CNL	214 - 1014	X	X
CDL CNL	1006 - 2365	X	X
CDL CNL	2345 - 3800	X	X
LDL CNL NGL	3665 - 3800	X	X
CDL CNL	3783 - 4173	X	X
CDL CNL	4110 - 4164	X	
DLL MSFL	2345 - 2718	X	X
NGT RATIOS	3665 - 4173	X	X
SELECTIVE FMT	3938 - 4110	X	
MUD	220 - 4172		X
VELOCITY	216 - 4173		X
(+ Synthetic Seismogram, 10 cm/s,			4 stk)
(+ V.S.P., 10 + 20 cm/s,			14 stk)
(+ Two Way Travel Time, 10 cm/s,			1 stk)

DAILY DRILLING REPORT SYSTEM

Main operation : 30/02-02



Total : 3288 HRS

Main operation	Minutes	Hours	% of total
DRILLING	101520	1692.00	51.46
MOVING	3240	54.00	1.64
INTERRUPTION	22890	381.50	11.60
FORMATION EVAL	61470	1024.50	31.16
PLUG & ABANDON	8160	136.00	4.14

MAIN OPERATIONS WELL : 30/02-02

MAIN OPERATION: DRILLING

Sub operations	Min	Hrs	% of total
DRILL	47970	799.50	47.25
SURVEY	1080	18.00	1.06
CASING	14100	235.00	13.89
TRIP	20250	337.50	19.95
CIRC/COND	5010	83.50	4.93
REAM	2490	41.50	2.45
BOP/WELLHEAD EQ	4020	67.00	3.96
HOLE OPEN	2130	35.50	2.10
BOP ACTIVITIES	3150	52.50	3.10
WAIT	480	8.00	0.47
PRESS DETECTION	780	13.00	0.77
OTHER	60	1.00	0.06
TOTAL	101520	1692.00	

MAIN OPERATION: MOVING

Sub operations	Min	Hrs	% of total
POSITION	30	0.50	0.93
ANCHOR	3210	53.50	99.07
TOTAL	3240	54.00	

MAIN OPERATION: FORMATION EVAL

Sub operations	Min	Hrs	% of total
LOG	8700	145.00	14.15
CIRC/COND	1380	23.00	2.24
TRIP	11250	187.50	18.30
CIRC SAMPLES	810	13.50	1.32
OTHER	720	12.00	1.17
CORE	6630	110.50	10.79
DST	31980	533.00	52.03
TOTAL	61470	1024.50	

MAIN OPERATION: INTERRUPTION

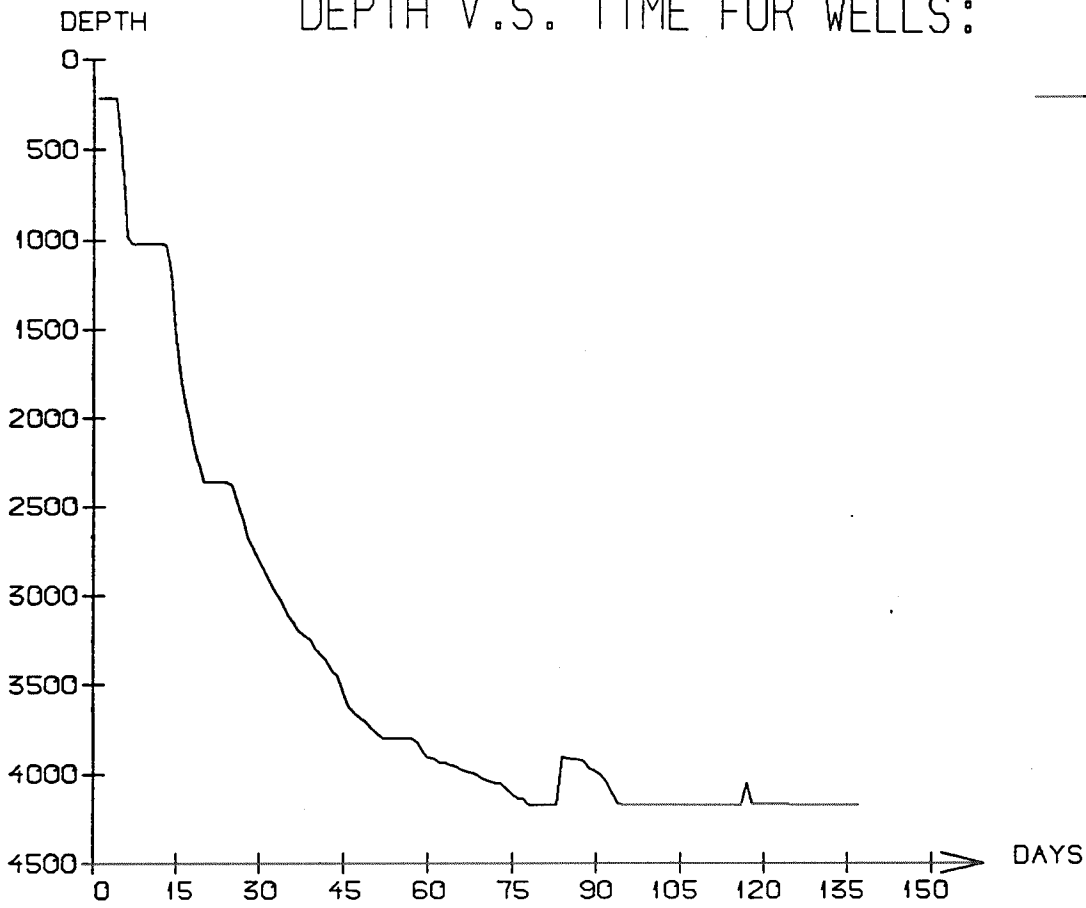
Sub operations	Min	Hrs	% of total
WAIT	6570	109.50	28.70
MAINTAIN/REP	2220	37.00	9.70
FISH	5100	85.00	22.28
SIDETRACK	9000	150.00	39.32
TOTAL	22890	381.50	

MAIN OPERATION: PLUG & ABANDON

Sub operations	Min	Hrs	% of total
TRIP	3210	53.50	39.34
CEMENT PLUG	1710	28.50	20.96
PERFORATE	1260	21.00	15.44
MECHANICAL PLUG	270	4.50	3.31
CUT	270	4.50	3.31
EQUIP RECOVERY	900	15.00	11.03
CIRC/COND	540	9.00	6.62
TOTAL	8160	136.00	

DEPTH V.S. TIME FOR WELLS:

— 0030/02- 02



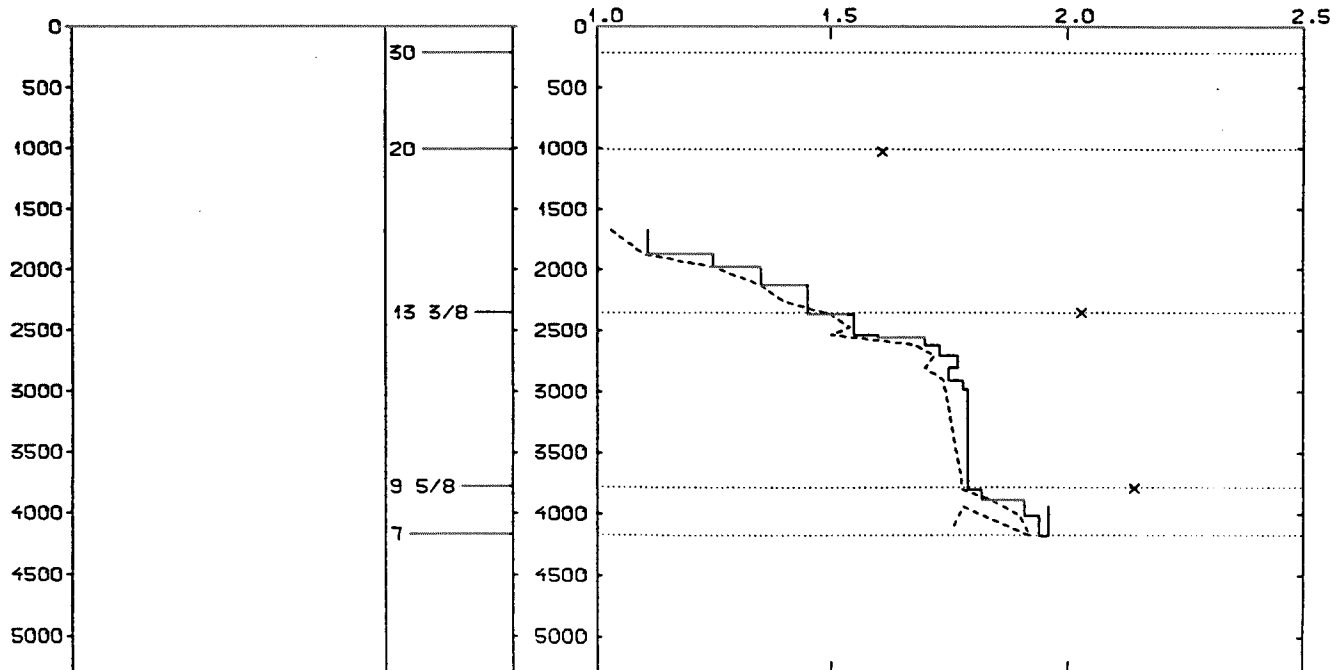
WELL: 003002 02 PRESSURE COMPOSITE PLOT

DEPTH
(RKB)
(METERS)

CASING

PRESSURE GRADIENTS
(g/ccm)

— MUDWEIGHT (REPORT)
- - - PORE PRESSURE (REPORT)
x LEAK-OFF (REPORT)



WELL HISTORY 30/2-2

GENERAL:

Wildcat well 30/2-2 was drilled on the Huldra-structure very close to the borderline of block 30/3. It is situated on a structural high which is separated by north-south running faults to the east and west.

The Huldra-structure is crossed by a number of smaller faults, oriented NNE-SSW and NW-SE, and are considered not to be sealing. Therefore a common gas/water, possibly a gas/oil or oil/water contact for the entire Huldra field, was expected to be found.

Well 30/2-1, located to the north-northeast of 30/2-2, and separated from this by significant faults, encountered a 119 m gas column in the Brent Group, but did not establish the gas/water or gas/oil contact.

Well 30/2-2 was drilled down dip in relation to 30/2-1, and top Brent Formation was expected to come in 74 m deeper than the bottom of the gas column in this well.

The objective of 30/2-2 was to test possible hydrocarbon accumulations in the Huldra Field, with the Brent Group as the main target.

OPERATIONS:

The well was spudded 19 December 1984 by the semi-submersible rig Dyvi Delta. The drilling operation proceeded without any significant problems down to a depth of 4029 m.

While doing the reservoir logging, a radioactive part of the logging tool was lost in the hole. This accident caused the well to be plugged back, and sidetracked from 3894 m. The sidetrack ran parallel with the original hole at a distance of approximately 20 m.

18 cores were cut in the well.

TESTING:

Three Drill Stem Tests were performed in this well.

The test results and core analyses show that Ness Formation and Etive Formation both have low porosity and very low permeability. The result of this is that the production qualities are considerably poorer in this well than those in well 30/2-1.

The poor results are caused by cementing, and the lateral extent of this is a deciding factor in establishing the resources in the field.

The gas bearing Brent sand was encountered at 3935 m, with the gas/water contact somewhere in the interval 3975-80 m.

If there is communication between this well and well 30/2-1, a gas/water contact at 3975 m will leave a 300 m hydrocarbon column in the Huldra-structure.

GEOLOGICAL TOPS

WELL: 30/02-02

	Depth m (RKB)
<i>Nordland Group</i>	153,0
<i>Utsira Fm</i>	785,0
<i>Hordaland Group</i>	882,0
<i>Skade Fm</i>	1270,0
<i>Rogaland Group</i>	1967,0
<i>Balder Fm</i>	1967,0
<i>Sele Fm</i>	2041,0
<i>Lista Fm</i>	2063,0
<i>Shetland Group</i>	2224,0
<i>Cromer Knoll Group</i>	3702,0
<i>Viking Group</i>	3776,0
<i>Draupne Fm</i>	3776,0
<i>Heather Fm</i>	3824,0
<i>Brent Group</i>	3935,0
<i>Tarbert Fm</i>	3935,0
<i>Ness Fm</i>	3955,0
<i>Etive Fm</i>	4018,0
<i>Dunlin Group</i>	4135,0
<i>Drake Fm</i>	4135,0
<i>TD=</i>	4172,0