

Well no : 7/12-07 Operator : BP

Coordinates : 57 06 31.92 N UTM coord. : 6329652 N  
 02 52 47.27 E 492718 E

Licence no : 19 Permit no : 583

Rig : VILDKAT EXPLORER Rig type : SEMI-SUB.

Contractor : DITLEV-SIMONSEN (SDS DRILLING)

Bottom hole temperature : 123 deg.C Elev. KB : 25 M

Spud. date : 88.06.20 Water depth : 70 M

Compl. date : 88.07.26 Total depth : 3852 M

Spud. class : APPRAISAL Form. at TD : JURASSIC

Compl. class : SUSP. OIL DISCOVERY Prod. form :

Seisloca : LINE 201 SP 415

## LICENSEES

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57.500000 BP PETROLEUM DEV. OF NORWAY A.S  
 10.000000 CONOCO NORWAY INC.  
 5.000000 KS PELICAN & CO A/S  
 12.500000 DEN NORSKE STATS OLJESELSKAP A.S  
 15.000000 SVENSKA PETROLEUM EXPLORATION 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	32	169.0		670.0	.
INTERM.	13 3/8	1003.0	17 1/2	1008.0	1.89
INTERM.	9 5/8	2649.0	12 1/4	2620.0	1.98
LINER	7	3768.0	8 1/2	3800.0	1.91

## CONVENTIONAL CORES

Core no.	Intervals cored meters	Recovery		Series
		M	%	
1	3800.0 - 3801.6	1.6	100.0	
2	3801.6 - 3810.9	9.2	98.9	
3	3810.9 - 3829.4	18.5	100.0	
4	3829.4 - 3842.6	13.2	100.0	

## MUD PROPERTIES

Depth below KB meter	Mud weight g/cm3	Viscosity	Mud type
145.000	1.51	0.0	OIL BASED
3220.000	1.50	32.6	WATER BASED
3482.600	.91	12.5	OIL BASED

3518.000	1.50	31.6	WATER BASED
3688.000	1.51	60.0	OIL BASED
3797.000	1.52	34.6	WATER BASED
3797.000	1.56	0.0	WATER BASED
3800.000	.90	10.0	OIL BASED
3852.000	.91	13.0	OIL BASED
3852.000	.90	13.4	OIL BASED
3898.000	1.50	33.6	WATER BASED

## DRILL BIT CUTTINGS AND WET SAMPLES

SAMPLE TYPE	INTERVAL BELOW KB	NUMBER OF SAMPLES
Cutting	3290-3798	30
Wet Samples	3290-3798	30

## SHALLOW GAS

Interval below KB	REMARKS
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## AVAILABLE LOGS

LOG TYPE	INTERVALS	1/200	1/500	Div.
DIS BHC GR	90.000 - 349.000	X	X	
DIL BHC GR	250.000 - 2656.000	X	X	
DIL BHC GR	2650.000 - 3790.000	X	X	
DIL BHC GR	3650.000 - 3800.000	X	X	
DIL GR	3771.000 - 3853.000	X	X	
DIL BHC GR	3771.000 - 3844.000	X	X	
RFTB HP GR	3827.000 - 3842.200	X		
RFTB	3797.000 - 3797.000	X		
RFTB HP	3771.000 - 3844.000	X		
LDL CNL GR	3771.000 - 3854.000	X	X	
LDL CNL GR	3771.000 - 3843.500	X	X	
CBL VDL GR	900.000 - 3761.000	X		
RFTB GR	3797.000 - 3797.000	X		
RFTB HP GR	3771.000 - 3843.500	X		
MUD	95.000 - 3852.000			
PRESSURE LOG	95.000 - 3852.000		1:1000	
MWD GR	3304.000 - 3784.000	X		
VELOCITY	1000.000 - 3760.000			

(Syntehic Seismogram, Geogram, 10 cm/s 9 stk.)  
(V.S.P., Power spectrum, Displ, 10 cm/s 2 stk.)

(Frequency test, 10 cm/s

4 stk.)

## MAIN OPERATIONS FOR WELL: 000712 07

### Main operation: DRILLING

Sub operations	Minutes	Hrs	% of total
BOP ACTIVITIES	540	9,0	1,38
BOP/WELLHEAD EQ	1995	33,3	5,11
CASING	5115	85,3	13,10
CIRC/COND	3810	63,5	9,76
DRILL	16185	269,8	41,45
OTHER	1170	19,5	3,00
PRESS DETECTION	45	0,8	0,12
REAM	180	3,0	0,46
SURVEY	90	1,5	0,23
TRIP	9660	161,0	24,74
WAIT	255	4,3	0,65
Total	39045	650,8	100,00

### Main operation: FORMATION EVAL

Sub operations	Minutes	Hrs	% of total
CIRC SAMPLES	285	4,8	3,68
CORE	1005	16,8	12,96
LOG	6465	107,8	83,37
Total	7755	129,3	100,00

### Main operation: INTERRUPTION

Sub operations	Minutes	Hrs	% of total
MAINTAIN/REP	600	10,0	88,89
OTHER	75	1,3	11,11
Total	675	11,3	100,00

### Main operation: MOVING

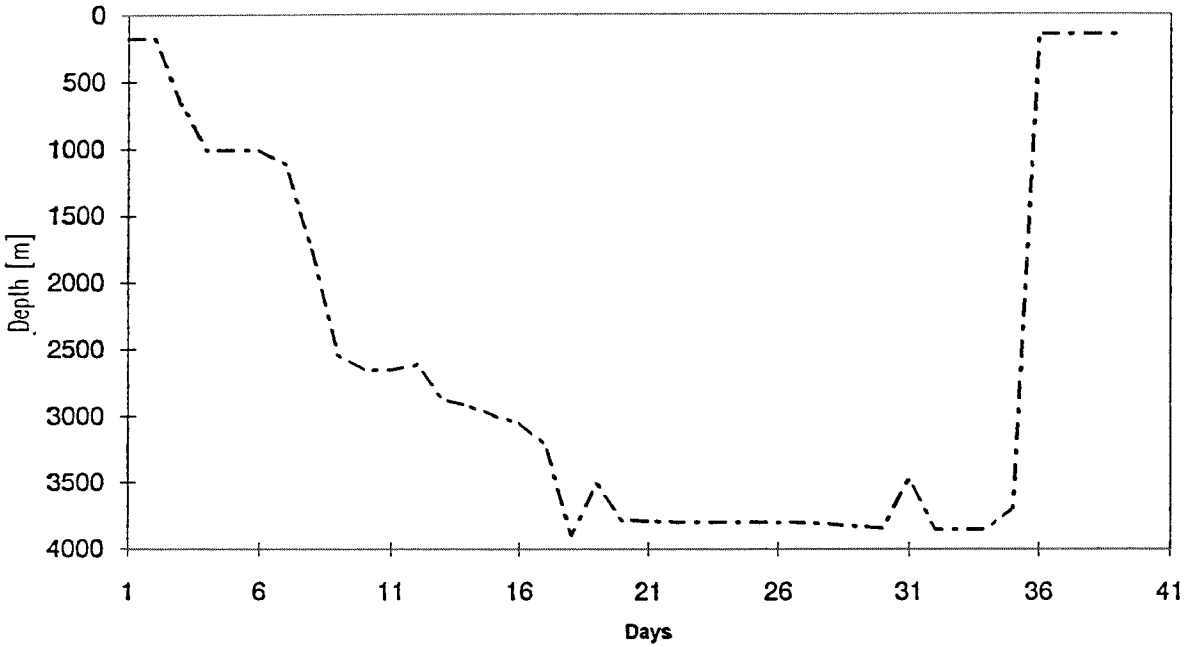
Sub operations	Minutes	Hrs	% of total
ANCHOR	1515	25,3	25,77
POSITION	15	0,3	0,26
SKID	4350	72,5	73,98
Total	5880	98,0	100,00

### Main operation: PLUG & ABANDON

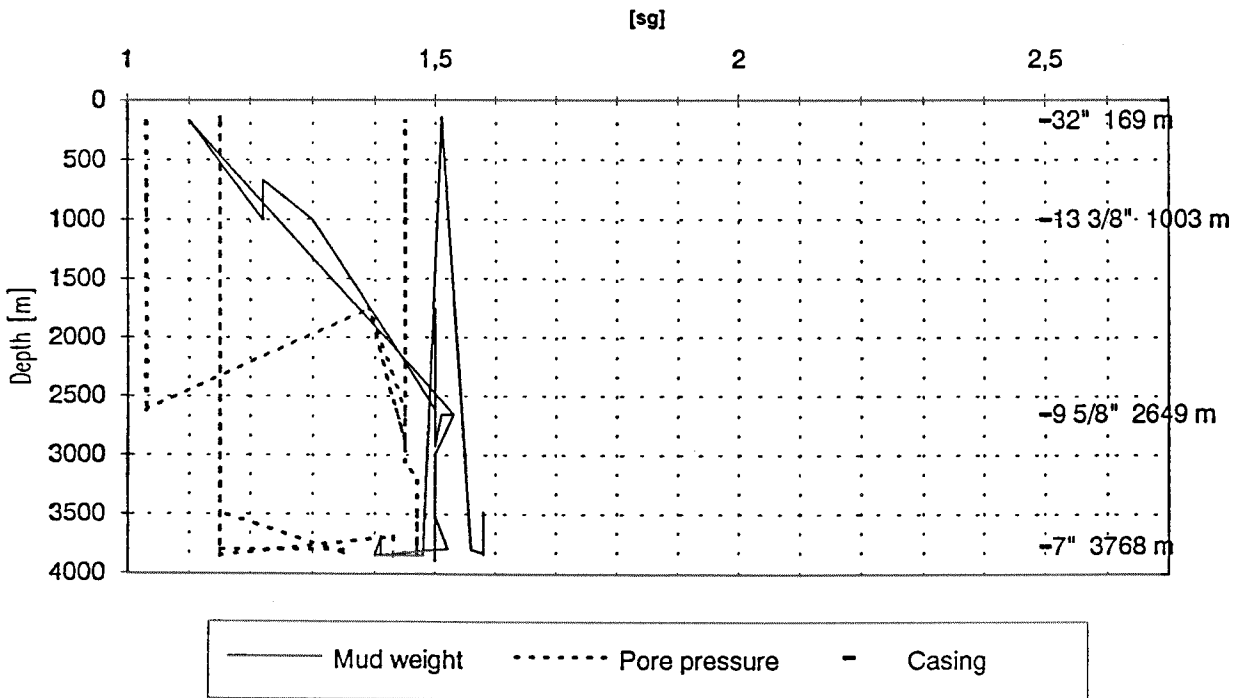
Sub operations	Minutes	Hrs	% of total
CEMENT PLUG	360	6,0	8,48
CIRC/COND	510	8,5	12,01
EQUIP RECOVERY	675	11,3	15,90
MECHANICAL PLUG	180	3,0	4,24
OTHER	30	0,5	0,71
TRIP	1965	32,8	46,29
WAIT	525	8,8	12,37
Total	4245	70,8	100,00

Total time used 960 hrs ( 40 days)

Depth v.s. time plot for well: 000712 07



Composite plot for well: 000712 07



## Well History 7/12-7

### GENERAL:

Well 7/12-7 was located at the South-East flank of the Ula Field. The objective of the well was to identify an optimal location and depth for a planned water-injection well by appraising the oil/water contact in this area.

### OPERATIONS:

Appraisal well 7/12-7 was spudded 20 June 1988 by Ross Offshore A/S semi-submersible rig Vildkat Explorer and completed 26 July 1988 at a depth of 3852 m in Jurassic rock. Drilling proceeded without any significant problems.

4 cores were cut in the well. Two cores were cut in the interval 3800-3810 m and two between 3811-3842 m.

Top reservoir was encountered at 3773 m. The well was drilled to 3797 m and logged. Logs showed that they were still in the oil zone. There were still good shows at the bottom of the last core which consisted of sandstone with good to moderate visible porosity. Intermediate logs showed a zone with high water saturation from 3820 - 3823 m. At first this was assumed to be caused by a tighter reservoir with a higher shale content.

The hole was drilled to 3852 m, in sandstones of the Ula Fm. RFT tests and geochemical analysis showed a division between producible and residual oil to be at 3815 m.

Because of this it was decided to abandon the hole. This decision was also due to an expected problematic overpressure zone. The hole can possibly be used as an injector at a later time, but there are no such plans at the present. The lower border for producible oil at the Ula East is now approx. 290 m deeper than at Ula West.

The well was suspended as an oil discovery.

### TESTING:

No DST tests were performed in this well.

# GEOLOGICAL TOPS

WELL: 7/12-7

Depth m (RKB)

<i>Nordland Group</i>	95.0
<i>Hordaland Group</i>	1504.0
<i>Rogaland Group</i>	2652.0
<i>Balder Fm.</i>	2652.0
<i>Sele Fm.</i>	2692.0
<i>Lista Fm.</i>	2760.0
<i>Maureen Fm.</i>	2791.0
<i>Shetland Group</i>	2857.5
<i>Ekofisk Fm.</i>	2857.5
<i>Tor Fm.</i>	3008.5
<i>Hod Fm.</i>	3211.0
<i>Cromer Knoll Group</i>	3332.0
<i>Rødby Fm.</i>	3332.0
<i>Åsgard Fm.</i>	3439.0
<i>Tyne Group</i>	3662.0
<i>Mandal Fm.</i>	3662.0
<i>Farsund Fm.</i>	3699.0
<i>Vestland Group</i>	3772.0
<i>Ula Fm.</i>	3772.0
<i>T.D.</i>	3852.0