

Well no : 35/08-03

Operator : GULF

Coordinates : 61 21 06.10 N  
03 32 2.50 EUTM coord. : 6802240 N  
528564 E

Licence no : 58

Permit no : 580

Rig : TREASURE SCOUT

Rig type : SEMI-SUB.

Contractor : WILHELMSSEN OFFSHORE SERVICES

Bottom hole temperature : 78 deg.C

Elev. KB : 23 M

Spud. date : 88.07.05

Water depth : 373 M

Compl. date : 88.10.15

Total depth : 3944 M

Spud. class : WILDCAT

Form. at TD : M.JURASSIC

Compl. class : P&amp;A. DRY HOLE

Prod. form :

Seisloca : LINE 79 - 2 - 30 SP 590

## LICENSEES

30.000000 NORWEGIAN GULF EXPLOTATION COMPANY A/S  
 50.000000 DEN NORSKE STATS OLJESELSKAP A.S  
 20.000000 TEXACO EXPLORATION NORWAY II 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	531.0	36	845.0	.
SURF.COND.	20	818.5	26	1022.0	1.42
INTERM.	13 3/8	2159.5	17 1/2	2174.0	1.65
INTERM.	9 5/8	3545.5	12 1/4	3560.0	1.84

## CONVENTIONAL CORES

Core no.	Intervals cored meters	Recovery M	%	Series
1	3830.0 - 3848.0	18.0	100.0	

## MUD PROPERTIES

Depth below KB meter	Mud weigth g/cm3	Viscosity	Mud type
440.000	1.32	11.0	WATER BASED
1474.000	1.14	14.0	WATER BASED
1786.000	1.15	15.0	WATER BASED
1974.000	1.18	15.0	WATER BASED
2023.000	1.32	13.0	WATER BASED
2043.000	1.32	13.0	WATER BASED
2320.000	1.18	12.0	WATER BASED
2474.000	1.20	10.0	WATER BASED

2500.000	1.32	13.0	WATER BASED
2524.000	1.20	12.0	WATER BASED
2974.000	1.25	9.0	WATER BASED
3166.000	1.26	13.0	WATER BASED
3292.000	1.27	11.0	WATER BASED
3371.000	1.32	15.0	WATER BASED
3377.000	1.29	11.0	WATER BASED
3426.000	1.32	17.0	WATER BASED
3435.000	1.03	13.0	WATER BASED
3450.000	1.61	20.0	WATER BASED
3463.000	1.32	18.0	WATER BASED
3467.000	1.30	13.0	WATER BASED
3492.000	1.31	12.0	WATER BASED
3560.000	1.32	16.0	WATER BASED
3610.000	1.48	20.0	WATER BASED
3944.000	1.61	20.0	WATER BASED

### DRILL BIT CUTTINGS AND WET SAMPLES

SAMPLE TYPE	INTERVAL BELOW KB	NUMBER OF SAMPLES
Cutting	840-3944	420
Wet Samples	840-3944	875

### SHALLOW GAS

Interval below KB	REMARKS
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### AVAILABLE LOGS

LOG TYPE	INTERVALS	1/200	1/500	Div.
DIL LSS GR CAL SP	819.000 - 2141.000	X		
DIL LSS GR SP	2160.000 - 3560.000	X		
LSS GR	3545.000 - 3944.000	X		
DIS LSS GR	819.000 - 3944.000		X	
LDL CNL GR	2160.000 - 3561.500	X	X	
LDL CNL GR	3546.000 - 3946.000	X	X	
DLL MSFL SP	3300.000 - 3556.000	X	X	
DLL MSFL GR SP	3546.000 - 3941.000		X	
CDM AP/SHDT	3550.000 - 3947.000	X	X	
MUD	396.000 - 3944.000		X	
VELOCITY	825.000 - 3945.000		X	
(V.S.P, Checkshot,				1 stk)
(V.S.P, Zero Phase , 10 cm/s,				2 stk)
(Frequency Test Phase , 10 cm/s				2 stk)

## MAIN OPERATIONS FOR WELL: 003508 03

### Main operation: DRILLING

Sub operations	Minutes	Hrs	% of total
BOP ACTIVITIES	5820	97,0	6,25
BOP/WELLHEAD EQ	4140	69,0	4,45
CASING	7320	122,0	7,86
CIRC/COND	4770	79,5	5,12
DRILL	40590	676,5	43,59
HOLE OPEN	2640	44,0	2,84
OTHER	2970	49,5	3,19
REAM	3900	65,0	4,19
SURVEY	2070	34,5	2,22
TRIP	18090	301,5	19,43
WAIT	810	13,5	0,87
Total	93120	1552,0	100,00

### Main operation: FORMATION EVAL

Sub operations	Minutes	Hrs	% of total
CIRC/COND	150	2,5	1,20
CORE	390	6,5	3,13
LOG	6030	100,5	48,32
OTHER	150	2,5	1,20
RFT/FIT	1680	28,0	13,46
TRIP	4080	68,0	32,69
Total	12480	208,0	100,00

### Main operation: INTERRUPTION

Sub operations	Minutes	Hrs	% of total
FISH	11880	198,0	52,38
OTHER	330	5,5	1,46
SIDETRACK	9450	157,5	41,67
WAIT	1020	17,0	4,50
Total	22680	378,0	100,00

### Main operation: MOVING

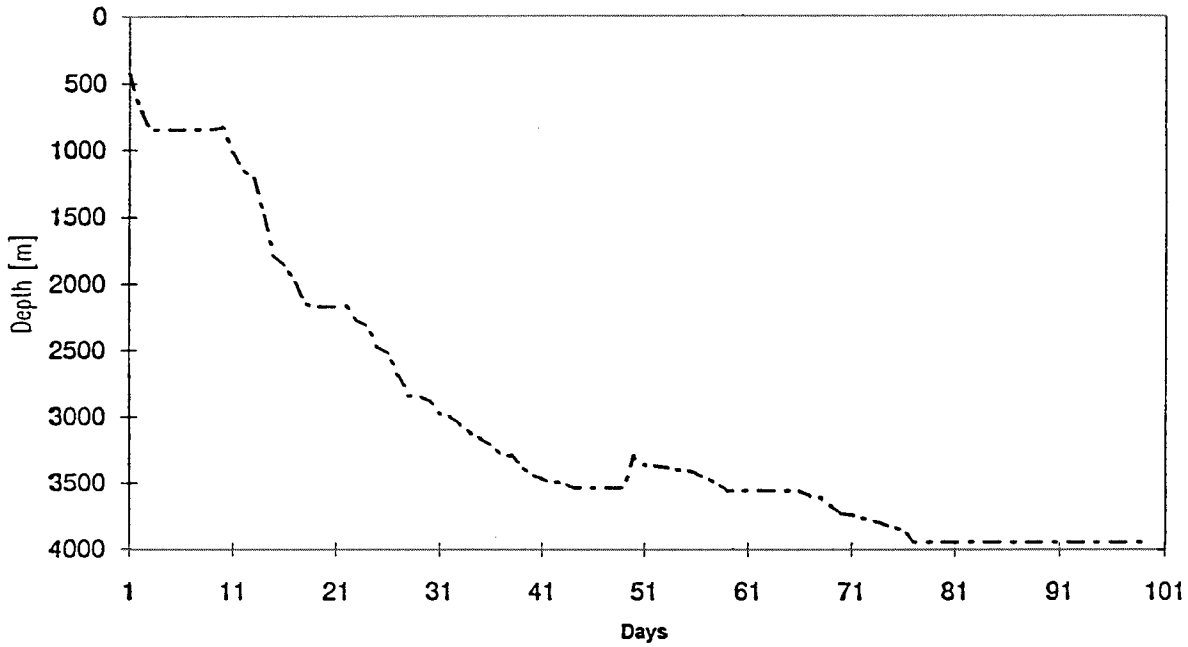
Sub operations	Minutes	Hrs	% of total
ANCHOR	150	2,5	100,00
Total	150	2,5	100,00

### Main operation: PLUG & ABANDON

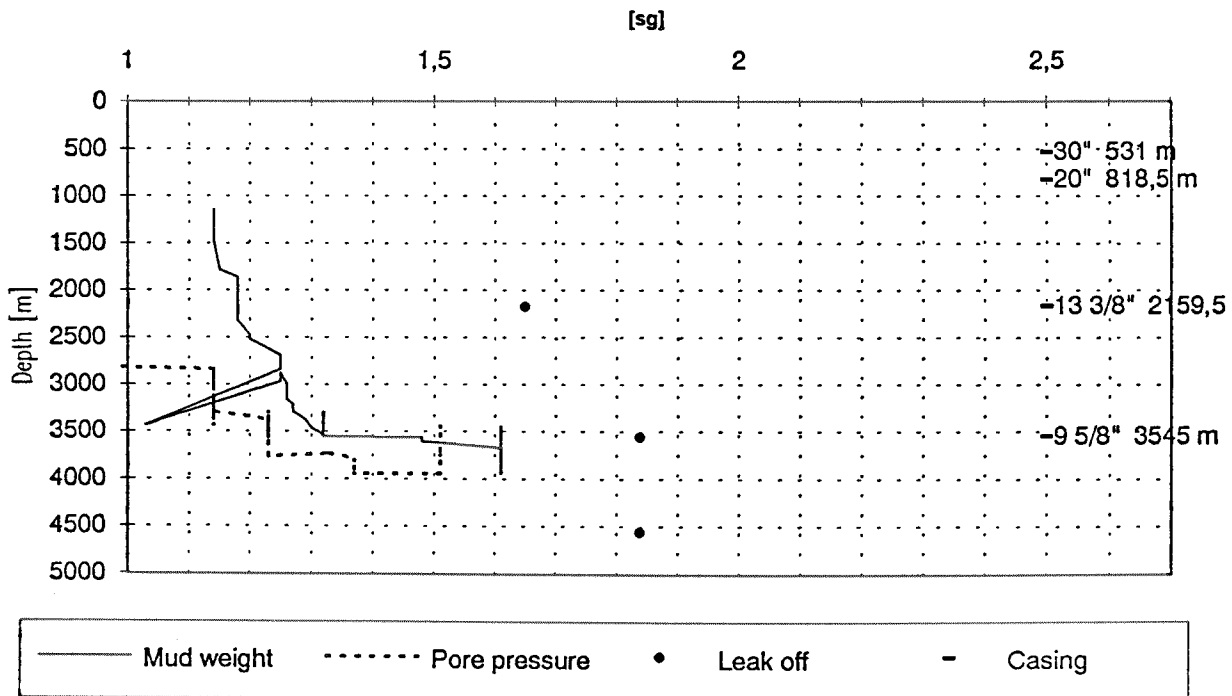
Sub operations	Minutes	Hrs	% of total
CEMENT PLUG	870	14,5	6,16
CIRC/COND	1050	17,5	7,43
CUT	420	7,0	2,97
EQUIP RECOVERY	1920	32,0	13,59
MECHANICAL PLUG	1440	24,0	10,19
OTHER	1380	23,0	9,77
PERFORATE	1500	25,0	10,62
SQUEEZE	900	15,0	6,37
TRIP	3450	57,5	24,42
WAIT	1200	20,0	8,49
Total	14130	235,5	100,00

Total time used 2376 hrs ( 99 days)

Depth v.s. time plot for well: 003508 03



Composite plot for well: 003508 03



# Well History 35/8-3

## GENERAL:

Well 35/8-3 was drilled as the third obligatory exploration well in production licence 058. The well was located 140 km Northwest of Bergen, Norway. It was drilled on the Alpha structure in the middle of the block. The prospect is a normally faulted horst block.

The primary objective of the well was to assess the hydrocarbon potential of the Brent Group sandstones which flowed gas-condensate in wells 35/8-1 and 35/8-2. The Brent Group was expected to be 212 m thick and to be encountered at a depth of 3631 m subsea. Secondary objectives were the Heather sandstones, Late Jurassic, and possible Intra-Lower Cretaceous sandstones.

## OPERATIONS:

Wildcat well 35/8-3 was spudded 5 July 1988 by Wilh. Wilhelmsen semi-submersible rig Treasure Scout and completed 15 October 1988 at a depth of 3944 m in Middle Jurassic rocks.

There were no indications of shallow gas. Drilling down to 3539 m went without any problems. At this depth the drill string got stuck and could not be loosened below 3458 m. The hole was plugged back and a technical sidetrack was made at 3371 m 29 August 1988. After logging at 3927 m the pipe got stuck at 3944 m. The pipe was successfully loosened after 5 days of fishing, and the hole was therefore terminated at this depth.

Top Late Jurassic sand was encountered at 3440 m. Logs and RFT indicated that the sand was gas-bearing. The porosity was calculated to be in the vicinity of 14 - 18 %, but the permeability seemed to be relatively low. Middle Jurassic reservoir was encountered at 3808 m. There were no signs of hydrocarbons. One core was cut in the interval 3830 - 3848.4 m.

The well was plugged and abandoned as dry.

## TESTING:

No DST tests were performed in the well.

# GEOLOGICAL TOPS

WELL: 35/8-3

Depth m (RKB)

<i>Hordaland Group</i>	820.0
<i>Grid Fm.</i>	990.0
<i>claystone sequence</i>	1427.0
<i>Rogaland Group</i>	1468.0
<i>Balder Fm.</i>	1468.0
<i>Sele Fm.</i>	1530.0
<i>Lista Fm.</i>	1624.0
<i>Hermod Fm.</i>	1662.5
<i>Lista Fm.</i>	1710.0
<i>Heimdal Fm.</i>	1782.0
<i>Shetland Group</i>	1793.0
<i>Jorsalfare Fm.</i>	1793.0
<i>Kyrre Fm.</i>	1960.0
<i>Tryggvason Fm.</i>	2750.0
<i>Blodøks Fm.</i>	3122.0
<i>Svarte Fm.</i>	3127.0
<i>Cromer Knoll Group</i>	3140.0
<i>Rødby Fm.</i>	3140.0
<i>Sola Fm.</i>	3216.2
<i>Åsgard Fm.</i>	3244.0
<i>Viking Group</i>	3318.0
<i>Draupne Fm.</i>	3318.0
<i>Heather Fm.</i>	3395.0
<i>Brent Group</i>	3810.0
<i>Tarbert Fm.</i>	3810.0
<i>Ness Fm.</i>	3824.0
<i>Etive Fm.</i>	3848.0
<i>Rannoch Fm.</i>	3896.0
<i>T.D.</i>	3944.0