

Well no : 6507/3-1 Operator : STATOIL

Coordinates : 65° 58' 29.85" N UTM coord. : 731780372 N
 07° 49' 31.52" E 44663744 E

Licence no : 159 Permit no : 635
 Rig : ROSS RIG Rig type : SEMI-SUB.
 Contractor : TRANSNOR RIG AS
 Bottom hole temp: 144 °C Elev. KB : 23 M
 Spud. date : 90.05.12 Water depth : 369 M
 Compl. date : 90.10.26 Total depth : 4757 M
 Spud. class : WILDCAT Form. at TD E.JURASSIC
 Compl. class : P&A. GAS/COND. DISC. Prod.form. :
 Seisloca : NRGS 84-446 SP 1077

LICENSEES

10.000000 DNO OLJE A/S
 50.000000 DEN NORSKE STATS OLJESELSKAP A.S
 10.000000 TOTAL NORGE A.S
 30.000000 BP PETROLEUM DEV. OF NORWAY AS

CASING AND LEAK-OFF TESTS

Type	Casing diam.	Depth below KB	Hole diam.	Hole depth below KB	Lot mud eqv. g/cm3
CONDUCTOR	30	453.0	36	455.0	
INTERM.	20	881.0	25	885.0	1.43
INTERM.	13 3/8	1846.0	17 1/2	1850.0	1.78
INTERM.	9 5/8	3168.0	12 1/4	3171.0	1.94
LINER	7	3953.0	8 1/2	4080.0	2.05

CONVENTIONAL CORES

Core no.	Intervals cored meters	Recovery	
		M	%
1	3612.0 - 3635.0	23.0	100.0
2	3635.0 - 3660.7	25.7	100.0
3	3769.0 - 3797.0	27.9	99.6
4	3797.0 - 3825.0	28.0	100.0
5	3825.0 - 3857.9	32.9	100.0
6	3994.0 - 4022.0	28.0	100.0
7	3671.0 - 3698.2	27.2	100.0

MUD

Depth	Mud weight	Visc.	Mud type
903.000	1.15	17.0	WATER BASED
1353.000	1.15	15.0	WATER BASED
1740.000	1.25	15.0	WATER BASED

Depth	Mud weight	Visc.	Mud type
1860.000	1.37	18.0	WATER BASED
1982.000	1.55	19.0	WATER BASED
2050.000	1.65	19.0	WATER BASED
2183.000	1.65	20.0	WATER BASED
2353.000	1.55	21.0	WATER BASED
3114.000	1.65	20.0	WATER BASED
3168.000	1.30	17.0	WATER BASED
3182.000	1.65	20.0	WATER BASED
3183.000	1.65	19.0	WATER BASED
3192.000	1.30	21.0	WATER BASED
3202.000	1.30	22.0	WATER BASED
3204.000	1.52	30.0	WATER BASED
3270.000	1.30	16.0	WATER BASED
3307.000	1.52	28.0	WATER BASED
3509.000	1.30	18.0	WATER BASED
3516.000	1.52	30.0	WATER BASED
3519.000	1.30	19.0	WATER BASED
3606.000	1.52	35.0	WATER BASED
3607.000	1.47	15.0	WATER BASED
3609.000	1.41	19.0	WATER BASED
3611.000	1.90	27.0	WATER BASED
3612.000	1.44	23.0	WATER BASED
3658.000	1.47	24.0	WATER BASED
3671.000	1.52	33.0	WATER BASED
3690.000	1.42	14.0	WATER BASED
3698.000	1.52	30.0	WATER BASED
3712.000	1.47	17.0	WATER BASED
3730.000	1.52	31.0	WATER BASED
3743.000	1.40	14.0	WATER BASED
3768.000	1.47	15.0	WATER BASED
3783.000	1.42	14.0	WATER BASED
3797.000	1.47	16.0	WATER BASED
3840.000	1.47	16.0	WATER BASED
3878.000	1.52	35.0	WATER BASED
3907.000	1.52	34.0	WATER BASED
3953.000	1.40	13.0	WATER BASED
3974.500	1.52	28.0	WATER BASED
3975.000	1.52	17.0	WATER BASED
4757.000	1.34	13.0	WATER BASED

DRILL STEM TEST

INTERVALS AND PRESSURES

Test no.	Interval meter	Choke size	Pressure (PSI) WHP	BTHP	FFP
1.A	3783.0	-	3798.0		
1.B	3743.0	-	3764.0		
2.0	3690.0	-	3724.0		
3.0	3611.0	-	3636.0	25.4	

Test temperature: N/A

RECOVERY

Test no.	Oil Sm3/d	Gas Sm3/d	Oil grav. g/cm3	Gas grav. rel. air	GOR m3/m3
3.0	320	1,07 Mill.	.800	.710	3343

DRILL BIT CUTTINGS AND WET SAMPLES

Sample type	Interval below KB	Number of samples
WET SAMPLES	900 - 4755	570

SHALLOW GAS

Interval below KB	Remarks
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AVAILABLE LOGS

Log type	Intervals	1/200	1/500	Div.
CBL VDL GR CCL	392.0 - 1845.0	X		
CDM AP/SHDT	1853,0 - 3170,0	X	X	
CDM AP/SHDT	3172,0 - 3959,0	X	X	
CDM AP/SHDT	3956,0 - 4580,0	X	X	
SHDT	1848,0 - 3172,0	X		
SHDT	3172,0 - 3959,0	X		
SHDT	3955,0 - 4505,0	X		
DIL LSS GR SP	881.0 - 1836.0	X	X	
DIL LSS GR SP	1848.0 - 3183.0	X	X	
DIL LSS CALI GR SP	3172.0 - 3962.0	X	X	
DIL LSS CALI GR	3168.0 - 3608.0	X	X	
DIL CALI GR SP	3172.0 - 3854.0	X	X	
DIL LSS GR SP	3955.0 - 4504.0	X	X	
DIL LSS GR SP	4437.0 - 4516.0	X	X	
DLL MSFL GR SP	3550.0 - 3852.0	X	X	
LDL CALI	881.0 - 1837.0	X	X	
LDL CNL	3172.0 - 3840.0	X	X	
LDL CNL AMS	3955.0 - 4504.0	X	X	
LDL CNL NGS	1848.0 - 3182.0	X	X	
MUD	394.0 - 4080.0		X	
MWD	460.0 - 3705.0		X	
NGS PLAY BACK	3050.0 - 3150.0	X		
PRESSURE EVALUATION	394.0 - 4080.0			1:1000

Log type	Intervals		1/200	1/500	Div.
PRESSURE EVALUATION	3177.0 - 4757.0				1:1000
RFT HP GR	2939.2 - 2946.8				
RFT HP GR	3609.0 - 3815.0				
VELOCITY	881.0 - 4516.0			X	
SYNTHETIC SEISMOGRAM	10 cm/s				4
V.S.P., walkaway	10 cm/s - 20 cm/s		30 cm/s		21
V.S.P., composite display	10 cm/s				2
V.S.P., vertical raypath	10 cm/s				1
V.S.P.,	10 cm/s				8
V.S.P., run 2	395.0 - 3945.0				1
V.S.P., run 3	700.0 - 4500.0				1

Main operations for well: 6507/3-1**Main operation: DRILLING**

Sub operation:	Minutes:	Hours:	% of total:
BOP ACTIVITIES	5910	98,5	4,39
BOP/WELLHEAD EQ	5520	92,0	4,10
CASING	24240	404,0	18,00
CIRC/COND	2970	49,5	2,20
DRILL	61230	1020,5	45,46
HOLE OPEN	1710	28,5	1,27
OTHER	3360	56,0	2,49
PRESS DETECTION	420	7,0	0,31
REAM	2460	41,0	1,83
SURVEY	690	11,5	0,51
TRIP	24900	415,0	18,49
WAIT	1290	21,5	0,96
Total	134700	2245,0	100,00

Main operation: FORMATION EVAL

Sub operation:	Minutes:	Hours:	% of total:
CIRC/COND	5750	95,8	8,05
CORE	2610	43,5	3,66
DST	33610	560,2	47,07
LOG	17010	283,5	23,82
OTHER	210	3,5	0,29
RFT/FIT	2310	38,5	3,24
TRIP	7680	128,0	10,76
WAIT	2220	37,0	3,11
Total	71400	1190,0	100,00

Main operation: INTERRUPTION

Sub operation:	Minutes:	Hours:	% of total:
FISH	8670	144,5	46,92
SIDETRACK	9810	163,5	53,08
Total	18480	308,0	100,00

Main operation: MOVING

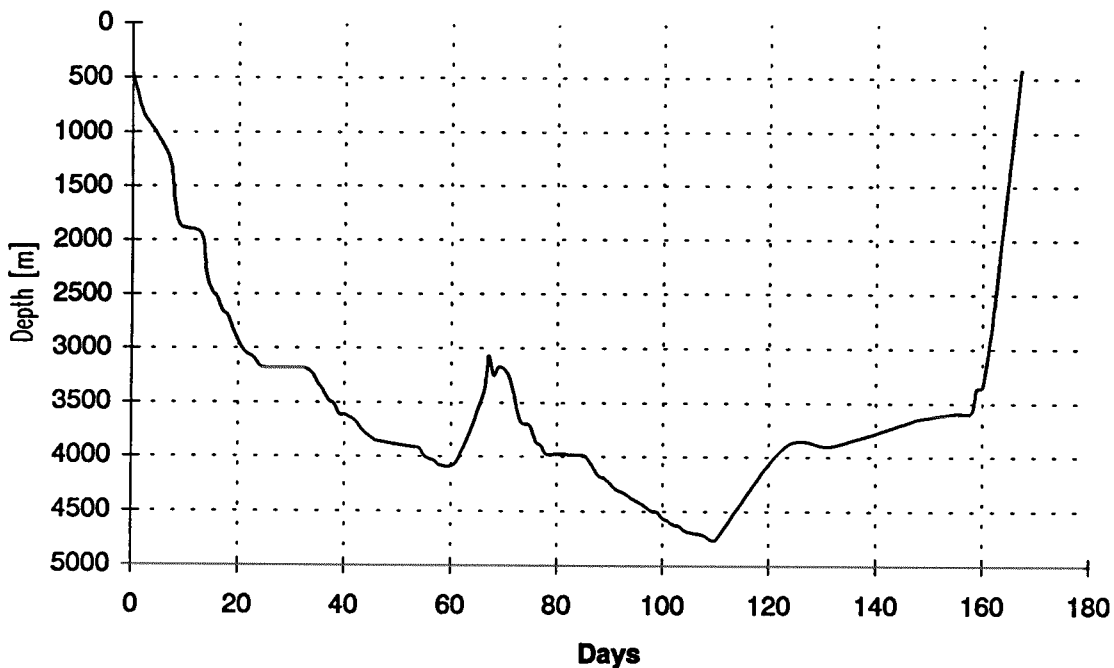
Sub operation:	Minutes:	Hours:	% of total:
ANCHOR	1320	22,0	33,33
TRANSIT	2640	44,0	66,67
Total	3960	66,0	100,00

Main operation: PLUG & ABANDON

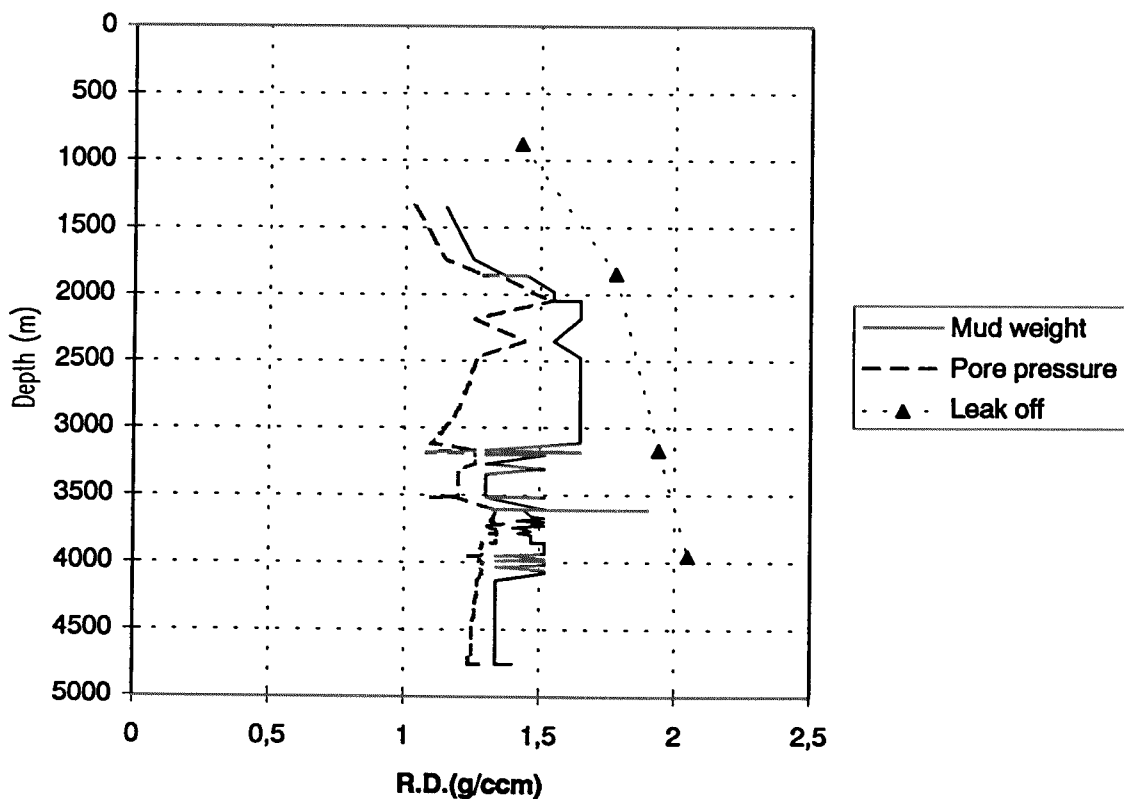
Sub operation:	Minutes:	Hours:	% of total:
CEMENT PLUG	510	8,5	5,12
CIRC/COND	1440	24,0	14,46
EQUIP RECOVERY	3360	56,0	33,73
MECHANICAL PLUG	600	10,0	6,02
OTHER	600	10,0	6,02
SQUEEZE	60	1,0	0,60
TRIP	3300	55,0	33,13
WAIT	90	1,5	0,90
Total	9960	166,0	100,00

Total time used: Hours

Depth vs time for well: 6507/3-1



Composite plot for well: 6507/3-1



Well History 6507/3-1.

General:

Well 6507/3-1 was designed to drill the Alpha prospect in block 6507/3 in the southern part of the Nordland II area. The northeast- southwest trending Revfallet fault complex separates the block in two structural provinces - the Nordland Ridge and the Dønna Terrace. The Alpha structure is defined as a horst structure oriented in a northeast - southwest direction on the Dønna Terrace, west of the Nordland Ridge in the northern part of the block. The northern part of the structure extends into block 6607/12. The well was expected to penetrate rocks of Cenozoic-, Cretaceous-, and Jurassic age. TD was expected to be in rocks of Triassic age. The primary objectives of the well were:

- to test potential hydrocarbons in the Fangst Group.(Garn- and Ile formations).

- to test potential hydrocarbon bearing sandstones in the Early Jurassic Båt Group.

- improve the geological, structural and sedimentological understanding of the area.

Secondary objectives were to test possible reservoirs in the Early Cretaceous (Cromer Knoll Group) and the Rogn formation Equivalent which may be present interbedded in the Spekk formation. In addition the geophysical data will be important for future work in connection with re-processing seismic data. The commitment of the well was to drill into rocks of Triassic age or to 5000 m.

Operations:

Wildcat well 6507/3-1 was spudded 12 May 1990 by the semi-submersible rig Ross Rig, and completed 26 October 1990 at a depth of 4757 m RKB in rocks of Early Jurassic / Late Triassic age. A total of seven cores were cut in this well, in Garn-, Not-, Ror-, Tilje-, Åre- and Ile Formations. A total of 255 side wall cores were attempted, and 139 were recovered. Due to severe drilling conditions the well was sidetracked from 3177 m RKB and drilled to TD. Hydrocarbons were encountered in sandstones of the Fangs- and Båt Groups. After having set the 9 5/8" casing with shoe at 3167 m RKB, a 8 1/2" hole was drilled to 4080 m RKB. This hole, especially the Melke formation, became very unstable and caused serious drilling problems. After having worked with stucked pipe and fish, the hole was finally plugged back to the 9 5/8" casing shoe and sidetracked, (a technical bypass). The well was finally permanently plugged and abandoned as a gas/condensate discovery.

Testing:

Four DST tests were performed in this well:

- No 1A perforated from 3783 to 3798 m RKB in the Tilje formation.

- No 1B perforated from 3743 to 3764 m RKB in the Tofte formation.

- No 2 perforated from 3690 to 3724 m RKB in the Ile formation.

- No 3 perforated from 3611 to 3636 m RKB in the Garn formation.

Geological Tops.

Well:6507/3-1.

	Depth m (RKB).
Nordland Group	392,5
Naust Fm	672,0
Kai Fm	1305,0
Hordaland Group	1610,0
Brygge Fm	1610,0
Rogaland Group	1886,5
Tare Fm	1886,5
Tang Fm	1923,0
Shetland Group	1983,5
Springar Fm	1983,5
Nise Fm	2106,0
Kvitnos Fm	2809,0
Cromer Knoll Group	2844,5
Lange Fm	2824,5
Lyr Fm	3018,0
Viking Group	3088,0
Spekk Fm	3088,0
Melke Fm	3122,0
Fangst Group	3608,0
Garn Fm	3608,0
Not Fm	3635,0
Ile Fm	3665,0
Båt Group	3723,0
Ror FM	3723,0
Tofte.Fm	3743,0
Ror Fm	3763,0
Tilje Fm	3776,0
Åre Fm	3976,0
T.D.	4757,0