Well no:

6407/6-4

Operator:

MOBIL

Coordinates:

64° 37' 36.77" N

07° 40' 56.25" E

43699617 E

654

UTM coord.: 716770521 N

Licence no: Rig:

**ROSS RIG** 

TRANSNOR RIG AS

Contractor: Bottom hole temp: Spud. date: Compl. date:

103 °C 90.10.31 90.12.13

Spud. class: Compl. class: Seisloca:

**WILDCAT** P&A. SHOWS

8402 - 114 SP. 1420

Rig type: SEMI-SUB.

Permit no:

Elev. KB: 24 M Water depth: 220 M Total depth: 3126 M Form. at TD E.JURASSIC

Prod.form.:

#### **LICENSEES**

40.000000 50.000000 MOBIL DEVELOPMENT NORWAY AS DEN NORSKE STATS OLJESELSKAP A.S

10.000000

BRITOIL NORGE A/S

#### CASING AND LEAK-OFF TESTS

Type	Casing	Depth	Hole	Hole depth	Lot mud
	diam.	below KB	diam.	below KB	eqv. g/cm3
CONDUCTOR	30	353.0	36	357.0	eranden en e
INTERM.	20	1079.0	26	1085.0	1.73
INTERM.	13 3/8	2492.0	17 1/2	2500.0	1.91
INTERM.	9 5/8	3126.0	12 1/4	3126.0	

#### **CONVENTIONAL CORES**

Core no.	Intervals cored			Recover	у	
	meters			M	%	
1	2658.0	-	2686.0	28.0	100.0	-
2	3082.0	-	3095.0	13.0	100 0	

#### **MUD**

Depth	Mud weight	Visc.	Mud type
356.000	1.02	15.0	WATER BASED
507.000	1.01	15.0	WATER BASED
1082.000	1.02	15.0	WATER BASED
1085.000	1.06	14.0	WATER BASED
1088.000	1.02	15.0	WATER BASED
1426.000	1.37	24.0	WATER BASED
1770.000	1.55	28.0	WATER BASED
2042.000	1.60	24.0	WATER BASED
2514.000	1.62	18.0	WATER BASED
3126.000	1.20	18.0	WATER BASED

# DRILL BIT CUTTINGS AND WET SAMPLES

Sample type	Interval	Number of
	below KB	samples
WET SAMPLES	1090 - 3126	300
CUTTINGS	2985 - 3126	60

## **SHALLOW GAS**

Interval below KB Remarks

## **AVAILABLE LOGS**

Log type	Intervals	
AMS	2100.0	- 3107.0
CBL VDL	243.0	- 2496.0
CDM SHDT	2496.0	- 3129.0
DIL LSS GR SP	1079.0	- 2503.0
DIL LSS SP GR	1079.0	- 3128.0
DIL LSS SP GR	2496.0	- 3128.0
LDL CALI GR	1079.0	- 2482.0
LDL CNL CALI GR	1079.0	- 3129.0
LDL CNL GR	2496.0	- 3129.0
MUD	242.0	- 3126.0
MWD	243.0	- 3082.0
PRESSURE EVALUATION	242.0	- 3126.0
RFT HP AMS GR	2661.0	- 2965.0
SHDT GR	2496.0	- 3129.0
SYNTHETIC SEISMOGRAM		
VELOCITY LOG	1105.0	- 3130.0
ZERO OFFSET VSP	400.0	- 3120.0
VSP	400.0	- 3120.0

Main operations for well: 6407/6-4

Main ope	ration:	DRIL	LING
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Sub operation:	Minutes:	Hours:	% of total:			
BOP ACTIVITIES	2250	37,5	4,96			
BOP/WELLHEAD EQ	1500	25,0	3,31			
CASING	6090	101,5	13,43			
CIRC/COND	150	2,5	0,33			
DRILL	21640	360,7	47,71			
HOLE OPEN	1500	25,0	3,31			
OTHER	90	1,5	0,20			
REAM	1051	17,5	2,32			
TRIP	11089	184,8	24,45			
Total	45360	756,0	100,00			
Main operation: FORMATION EVAL						
Sub operation:	Minutes:	Hours:	% of total:			
CIRC SAMPLES	60	1.0	0.89			

Sub operation:	Minutes:	Hours:	% of total:
CIRC SAMPLES	60	1,0	0,89
CORE	390	6,5	5,78
LOG	4260	71,0	63,11
TRIP	2040	34,0	30,22
Total	6750	112,5	100,00

#### Main operation: INTERRUPTION

Sub operation:	Minutes:	Hours:	% of total:
FISH	510	8,5	33,33
MAINTAIN/REP	60	1,0	3,92
WAIT	960	16,0	62,75
Total	1530	25,5	100,00

#### Main operation: MOVING

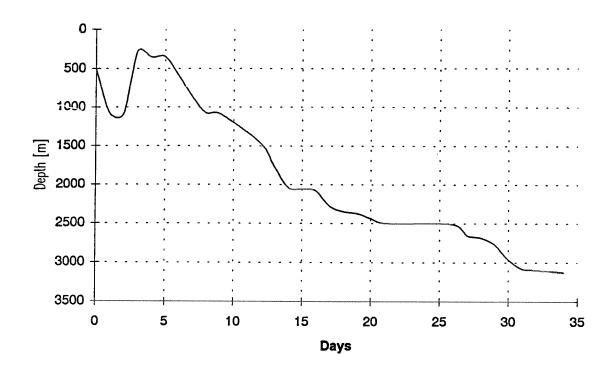
Sub operation:	Minutes:	Hours:	% of total:
ANCHOR	9900	165,0	79,71
TRANSIT	2520	42,0	20,29
Total	12420	207.0	100.00

#### Main operation: PLUG & ABANDON

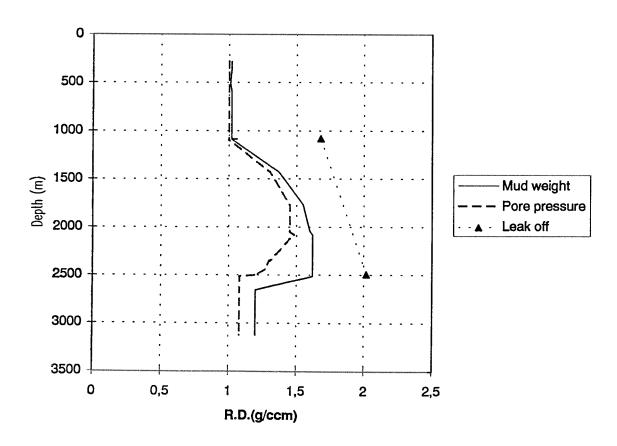
Sub operation:	Minutes:	Hours:	% of total:
CEMENT PLUG	630	10,5	14,00
CUT	1410	23,5	31,33
OTHER	450	7,5	10,00
PERFORATE	270	4,5	6,00
SQUEEZE	270	4,5	6,00
TRIP	1470	24,5	32,67
Total	4500	75,0	100,00

Total time used: 1176,0 Hours

# Depth vs time for well: 6407/6-4



#### Composite plot for well: 6407/6-4



# **Well History 6407/6-4.**

#### General:

Well 6407/6-4 was designed to drill the "Mikkel" Structure that is located in the Bremstein Fault Complex which separates the Trondelag Platform in the east from the Halten Terrace in the west. The "Mikkel" Structure is an anticline straddling blocks 6407/5- and 6 and was formed as a result of detachment caused by apparent salt movement within the Triassic sediments. The structure is aligned north-south along the eastern block boundary of PL-121 and the western boundary of PL-092. The well was planned to reach a total depth of 3150,0 m RKB. There was no anomalous amplitudes at the planned well location, but an indication of possible shallow gas at 401 to 505 m RKB. The purpose of drilling was to test the possibility of a significant oil leg in the southern part of the "Mikkel" Structure. Also to test the communication between the Garn- and Ile formations in the southern part of the structure.

#### **Operations:**

Appraisal well 6407/6-4 was spudded 31 October 1990 by the semi-submersible rig Ross Rig, and completed 13 Desember 1990 at a depth of 3126 m RKB in rocks of Early Jurassic age. Two cores were cut in this well, one in the Garn formation and one in the Åre formation, both with 100% recovery. The Garn formation came in 26 m deeper than prognosed, with good reservoir quality and minor oil shows. A total of 118 sidewall cores were attempted, and 75 were recovered. The well was permanently plugged and abandoned as a dry well.

#### **Testing**

No DST tests were performed in this well.

# Geological Tops.

# Well:6407/6-4.

	Depth m (RKB).
Nordland Group	243,0
Trordiana Group	243,0
Naust Fm	243,0
Kai Fm	1156,0
Hordaland Group	1436,0
Brygge Fm	1436,0
Rogaland Group	1876,0
Tare Fm	1876,0
Tang Fm	1948,0
Shetland Group	2037,0
Springar Fm	2037,0
Nise Fm	2060,0
Kvitnos Fm	2329,0
Cromer Knoll Group	2433,0
Lange Fm	2433,0
Viking Group	2536,0
Spekk Fm	2536,0
Melke Fm	2578,0
Fangst Group	2651,0
Garn Fm	2651,0
Not Fm	2752,0
Ile Fm	2791,0
Båt Group	2881,0
Ror Fm	2881,0
Tilje Fm	2933,0
Åre Fm	3027,0
T.D.	3126,0