

Well no : 7121/ 5-01

Operator : STATOIL

Coordinates : 71 35 54.88 N  
21 24 21.78 E

UTM coord. : 7944421  
514306

Licence no : 110

Permit no : 468

Rig : WEST VANGUARD

Rig type : SEMI-SUB.

Contractor : A/S SMEDVIK DRILLING CO.

Bottom hole temperature : 83 deg.C

Elev. KB : 22 M

Spud. date : 85.06.07

Water depth : 336 M

Compl. date : 85.09.28

Total depth : 3200 M

Spud. class : WILDCAT

Form. at TD : TRIASSIC

Compl. class : P&A. OIL/GAS DISC.

Prod. form : JURA/TRIA

Seisloca : ST 8310 - 377 SP. 1090

## LICENSEES

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5.000000 AMERADA HESS NORGE A/S  
10.000000 NORSKE CONOCO A/S  
20.000000 ELF AQUITAINE NORGE A/S  
5.000000 NORSKE FINA A/S  
10.000000 NORSK HYDRO PRODUKSJON A.S  
50.000000 DEN NORSKE STATS OLJESELSKAP A.S

## CASING AND LEAK-OFF TESTS

Type	Casing diam.	Depth below KB	Hole diam.	Hole depth below KB	Lot mud eqv. g/cm <sup>3</sup>
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CONDUCTOR	30	419.5	36	419.5	
SURF.COND.	20	849.5	26	865.0	1.43
INTERM.	13 3/8	1912.0	17 1/2	1925.0	1.59
INTERM.	9 5/8	2739.0	12 1/4	2755.0	1.74
LINER	7	3163.0	8 1/2	3200.0	

## CONVENTIONAL CORES

Core no.	Intervals cored meters	Recovery		Series
		M	%	
1	2371.0 - 2392.0	21.0	100.0	M/L JURASSIC
2	2392.0 - 2400.4	8.4	100.0	LOWER JURASSIC
3	2400.4 - 2428.3	28.0	100.0	LOWER JURASSIC
4	2428.3 - 2442.1	13.8	100.0	LOWER JURASSIC
5	2442.1 - 2470.0	27.9	100.0	LOWER JURASSIC
6	2470.0 - 2498.0	28.0	100.0	LOWER JURASSIC
7	2498.0 - 2509.0	11.0	100.0	LOWER JURASSIC
8	2509.0 - 2509.4	0.4	100.0	LOWER JURASSIC
9	2509.4 - 2536.4	27.0	100.0	LOWER JURASSIC
10	3082.0 - 3103.0	21.0	100.0	UPPER TRIASSIC

## MUD PROPERTIES

Depth below KB meter	Mud weight g/cm <sup>3</sup>	Plastic viscosity mPa.s	Mud type
877.000	1.06	6.0	WATER BASED
885.000	1.10	15.0	WATER BASED
1393.000	1.11	15.0	WATER BASED
1723.000	1.12	15.0	WATER BASED
1925.000	1.14	17.0	WATER BASED
2083.000	1.15	15.0	WATER BASED
2353.000	1.30	19.0	WATER BASED
2453.000	1.34	18.0	WATER BASED
2540.000	1.23	12.0	WATER BASED
2548.000	1.34	17.0	WATER BASED
2792.000	1.16	17.0	WATER BASED
2802.000	1.23	15.0	WATER BASED
2855.000	1.16	17.0	WATER BASED

## DRILL STEM TEST

### INTERVALS AND PRESSURES

Test no	interval meter	Choke size	Pressure (PSI)		
			WHP	BTHP	FFP
1.0	2802.000 - 2820.000	12.7	5002.5		
2.0	2436.000 - 2439.000	12.7	517.6	2359.6	
3.0	2394.000 - 2403.000	12.7			

### RECOVERY

Test no.	Oil	Gas	Oil grav.	Gas grav.	GOR
	Sm <sup>3</sup> /d	M Sm <sup>3</sup> /d	g/cm <sup>3</sup>	rel. air	m <sup>3</sup> /m <sup>3</sup>
1.0	NO RESPONSE FROM FORMATION				
2.0	229.1	27.2			119
3.0	NO RESPONSE FROM FORMATION				

## DRILL BIT CUTTINGS AND WET SAMPLES

SAMPLE TYPE	INTERVAL BELOW KB	NUMBER OF SAMPLES
Cutting	420 - 3200	360
Wet Samples	420 - 3197	900

## SHALLOW GAS

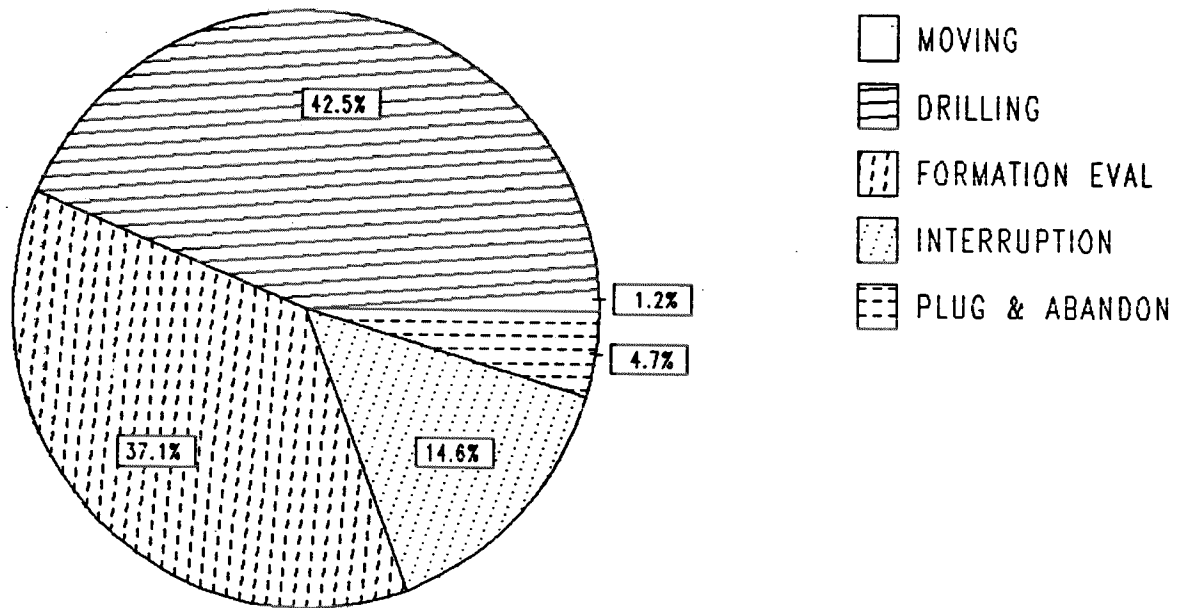
Interval below KB	REMARKS
	NONE

## AVAILABLE LOGS

LOG TYPE	INTERVALS	1/200	1/500
ISF BHC MFSL GR	419 - 876	X	X
ISF BHC MFSL	848 - 1922	X	X
ISF BHC	1913 - 2533	X	X
ISF BHC MSFL	2456 - 2757	X	X
ISF BHC MSFL	2741 - 3200	X	X
ISF SONIC	419 - 3200	1:1000	
LDL CNL	419 - 877	X	X
LDL CNL	848 - 1924	X	X
LDL CNL NGS	1913 - 2534	X	X
LDL CNL NGS	2500 - 2759	X	X
LDL CNL NGS	2741 - 3201	X	X
DLL MSFL SP	2349 - 2585	X	X
CDM AP/SHDT	848 - 1921	X	X
CDM AP/SHDT	1912 - 2759	X	X
CDM AP/SHDT	2742 - 3179	X	X
SHDT	848 - 1921	X	
SHDT	1913 - 2759	X	
SHDT	2740 - 3180	X	
NGS	1913 - 2534	X	X
NGS	2500 - 2759	X	X
NGS	2741 - 3201	X	X
TEMPERATURE	1000 - 2000		X
RFT HP	2370 - 2518	X	
RFT HP	2370 - 2507		
HP	2508 - 2662		
RFT HP	2803 - 3118		
CBL VDL	475 - 1908	X	
CBL VDL	1468 - 2724	X	
MUD	425 - 3200		X
VELOCITY	424 - 3188		X
(+ Synthetic Seismogram, plot 8a-11b, 10 cm/s,			8 stk)
(+ V.S.P., Zero Offset, 4 + 5 + 10 + 20 cm/s,			11 stk)
(+ Two Way Travel Time, 10 cm/s,			1 stk)

# DAILY DRILLING REPORT SYSTEM

Main operation : 7121/05-01



Total : 2760 HRS

Main operation	Minutes	Hours	% of total
MOVING	1950	32.50	1.18
DRILLING	70323	1172.05	42.47
FORMATION EVAL	61440	1024.00	37.10
INTERRUPTION	24147	402.45	14.58
PLUG & ABANDON	7740	129.00	4.67

MAIN OPERATIONS WELL : 7121/05-01

MAIN OPERATION: DRILLING

Sub operations	Min	Hrs	% of total
TRIP	12603	210.05	17.92
OTHER	1077	17.95	1.53
DRILL	29070	484.50	41.34
CIRC/COND	3123	52.05	4.44
HOLE OPEN	810	13.50	1.15
CASING	8700	145.00	12.37
BOP/WELLHEAD EQ	4170	69.50	5.93
UNDERREAM	4320	72.00	6.14
SURVEY	3540	59.00	5.03
REAM	1530	25.50	2.18
BOP ACTIVITIES	1380	23.00	1.96
<b>TOTAL</b>	<b>70323</b>	<b>1172.05</b>	

MAIN OPERATION: MOVING

Sub operations	Min	Hrs	% of total
TRANSIT	240	4.00	12.31
ANCHOR	1710	28.50	87.69
<b>TOTAL</b>	<b>1950</b>	<b>32.50</b>	

MAIN OPERATION: FORMATION EVAL

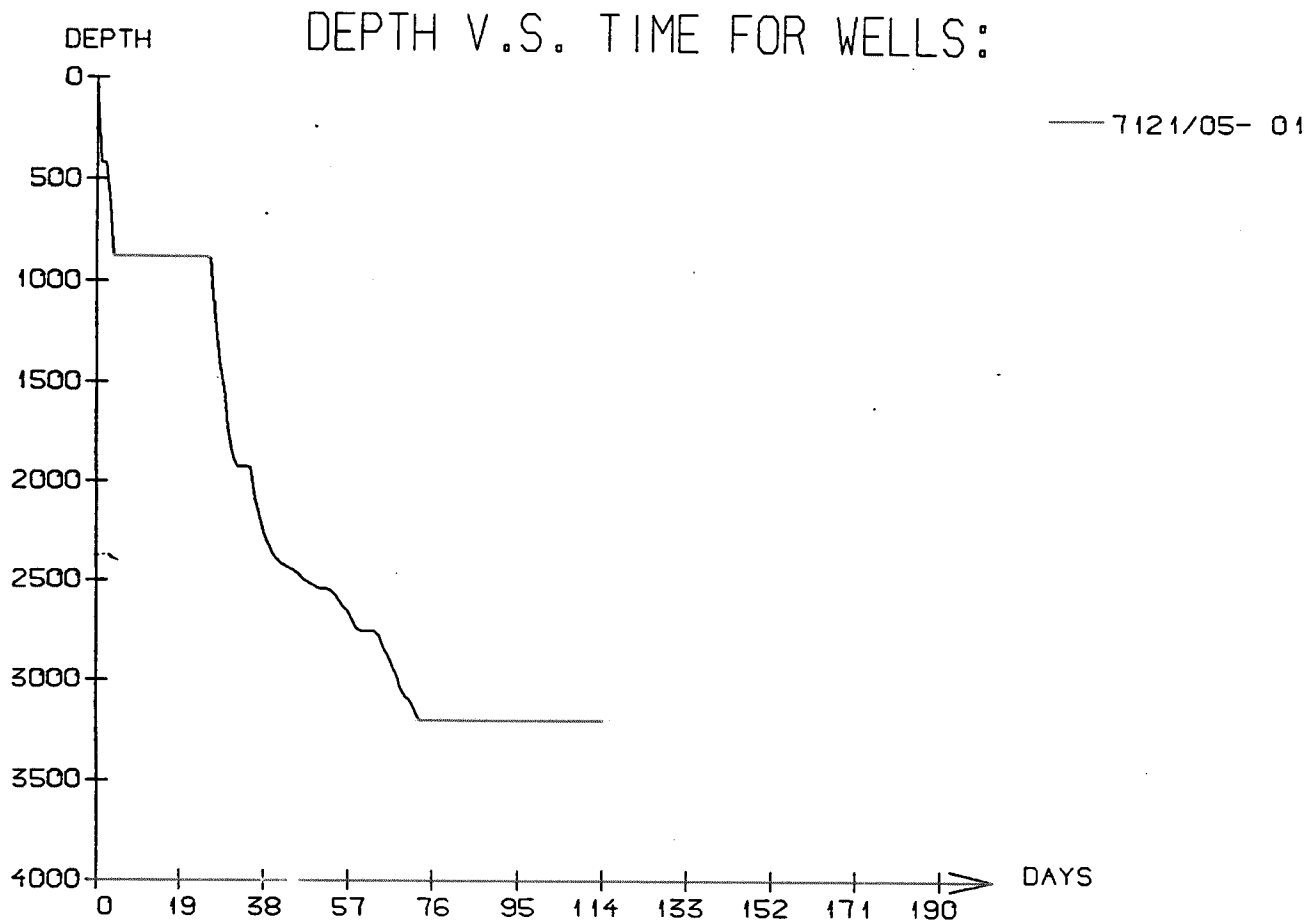
Sub operations	Min	Hrs	% of total
LOG	10830	180.50	17.63
OTHER	360	6.00	0.59
CIRC SAMPLES	270	4.50	0.44
TRIP	12450	207.50	20.26
CORE	7170	119.50	11.67
CIRC/COND	2550	42.50	4.15
DST	27810	463.50	45.26
<b>TOTAL</b>	<b>61440</b>	<b>1024.00</b>	

MAIN OPERATION: INTERRUPTION

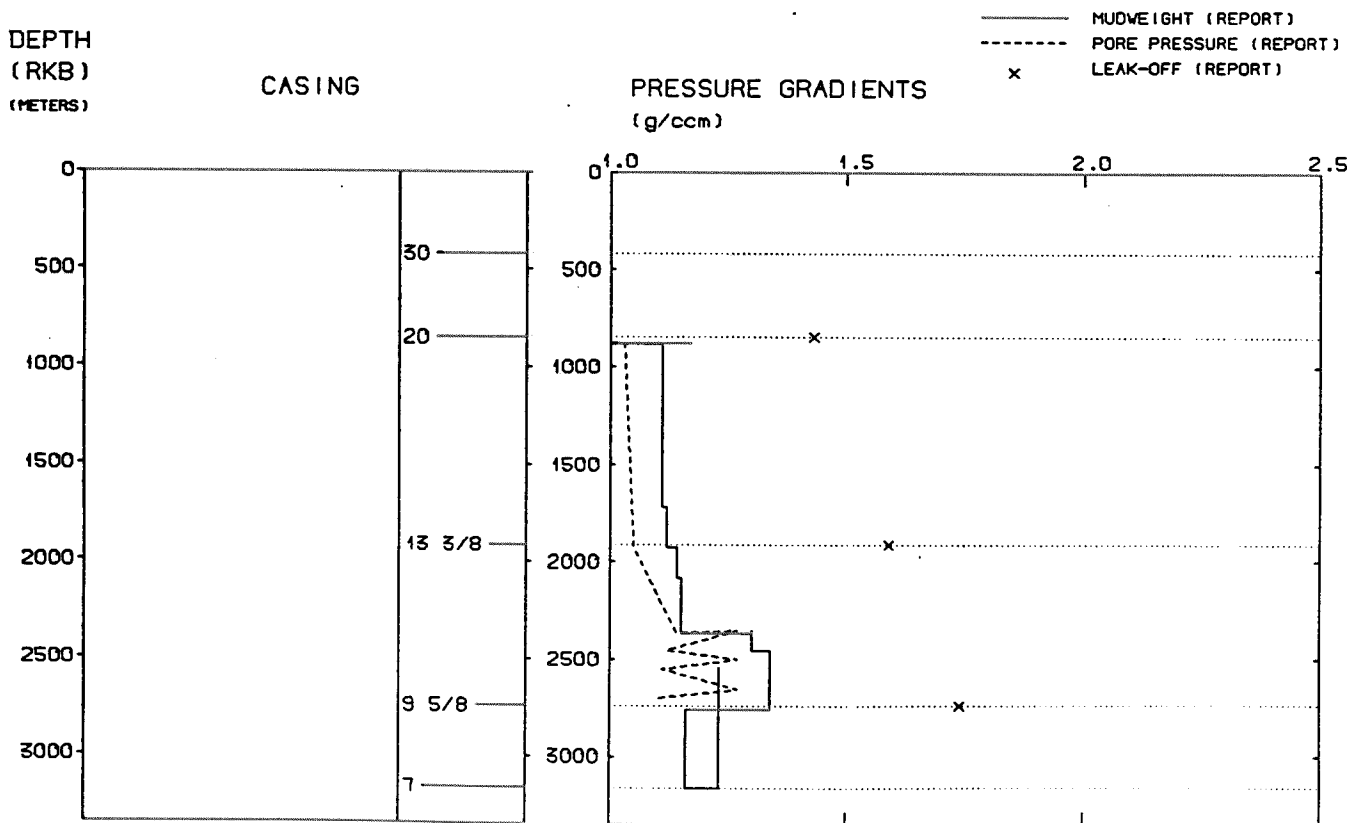
Sub operations	Min	Hrs	% of total
MAINTAIN/REP	267	4.45	1.11
OTHER	22170	369.50	91.81
FISH	480	8.00	1.99
WAIT	1230	20.50	5.09
<b>TOTAL</b>	<b>24147</b>	<b>402.45</b>	

MAIN OPERATION: PLUG & ABANDON

Sub operations	Min	Hrs	% of total
SQUEEZE	360	6.00	4.65
TRIP	3270	54.50	42.25
CEMENT PLUG	390	6.50	5.04
MECHANICAL PLUG	570	9.50	7.36
PERFORATE	600	10.00	7.75
CIRC/COND	360	6.00	4.65
EQUIP RECOVERY	1620	27.00	20.93
CUT	390	6.50	5.04
OTHER	180	3.00	2.33
<b>TOTAL</b>	<b>7740</b>	<b>129.00</b>	



WELL: 712105 01      PRESSURE COMPOSITE PLOT



## Well History 7121/ 5-1.

### General:

The wildcat well 7121/5-1 was drilled about 75 m downflank on the Alpha-structure in the block, and was designed to test the eastern part of the Snøhvit structure which consists of an east-west running horst and a rotated normal faulted block. The horst is related to the graben at the crest of the dome, and is located on the northern flank of the east-west running central dome structure in the Hammerfest Basin, limited by east-west running faults and structural closures. The dome is of Middle Jurassic- to Lower Cretaceous age.

The main objective was to test possible reservoir rocks of Jurassic/ Triassic age as seen in neighbouring wells. Prognosed T.D. at 2792 m.

### Operations:

Well 7121/5-1 was spudded 07 June 1985 by Smedvig semi-submersible rig West Vanguard and completed the 28 September 1985. Drilling proceeded without any significant problems, except for an interruption by work conflict. Top reservoir came in at 2368 m and 9 cores were cut in the interval 2365- to 2523 m RKB, and 1 core in Triassic formations. Gas/oil contact at 2427,5 m and oil/water contact at 2442 m RKB. The well was drilled to an extended T.D. of 3200 m RKB. Logs displayed sands with possible hydrocarbons in Triassic Sst.

Increasing shale downhole reduced porosity/ permeability and DST test confirmed the tightness of the formation. Immature rocks until 2250 m RKB, marginal to significant maturity in Triassic/ Jurassic rocks respectively.

### Testing:

Three drillstem tests were performed. The interval 2484- to 2493 m RKB were perforated and production tested with good results. One test was run in Triassic Sst but was found unproductive.



# GEOLOGICAL TOPS

WELL: 7121/05-01

	Depth m (RKB)
<i>Sotbakken Group</i>	358,0
<i>Torsk Fm</i>	358,0
<i>Nygrunnen Group</i>	1005,0
<i>Kviting Fm</i>	1005,0
<i>Nordvestgrunnen Group</i>	1036,0
<i>Kolmule Fm</i>	1036,0
<i>Kolje Fm</i>	1868,0
<i>Knurr Fm</i>	2268,0
<i>Teistengrunnen Group</i>	2293,0
<i>Hekkingen Fm</i>	2293,0
<i>Fuglen Fm</i>	2360,0
<i>Realgrunnen Group</i>	2368,0
<i>Stø Fm</i>	2368,0
<i>Nordmela Fm</i>	2445,0
<i>Tubåen Fm</i>	2507,0
<i>Fruholmen Fm</i>	2572,0
<i>Ingøydjupet Group</i>	2793,0
<i>Snadd Fm</i>	2793,0
<i>TD=</i>	3200,0