Well no:

1/2-1

Operator:

PHILLIPS

Coordinates:

56° 53' 16.07" N

02° 28' 35.70" E

UTM coord.

Permit no:

Rig type:

630515919 N 46810652 E

SEMI-SUB.

Licence no:

Rig:

143

ROSS ISLE

Contractor: Bottom hole temp: TRANSNOR RIG AS 123°C

Spud. date: Compl. date: 89.03.20 89.06.04

Spud. class: Compl. class: Seisloca:

WILDCAT

P&A. OIL/GAS DISC. PW 8303A - 10 SP. 290 Elev. KB: Water depth:

24 M 70 M

Total depth: 3576 M Form. at TD

CRETACEOUS

Prod.form.:

LICENSEES

26,625000 9,375000 BP PETROLEUM DEV. OF NORWAY AS

5,000000

CONOCO NORWAY INC. **NORSKE MOECO A/S**

4,000000

KS PELICAN & CO A/S

50,000000

DEN NORSKE STATS OLJESELSKAP A.S

5,000000

NORSKE AEDC 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	170,0	36	171,0	
INTERM.	20	645,0	26	648,0	1,69
INTERM.	13 3/8	1524,0	17 1/2	1531,0	1,82
INTERM.	9 5/8	3052,0	12 1/4	3056,0	1,88
LINER	7	3569,0	8 1/2	3576,0	

CONVENTIONAL CORES

Core no.	Intervals cored			Recover	y	
	meters			M	%	
1	3111,4	_	3112,3	0,3	33,3	
2	3113,8	-	3119,6	5,2	89,7	
4	3126,0	-	3134,9	9,1	102,2	
5	3135,2	-	3153,5	18,3	100,0	
8	3160,2	-	3168,7	8,2	96,5	
7	3160.2	_	3163.8	3.0	83,3	

MUD

Depth	Mud weight	Visc.	Mud type	
651,400	1,05	14,0	WATER BASED	
1196,900	1,16	62,0	WATER BASED	
1783,100	1,44	20,0	WATER BASED	

Depth	Mud	Visc.	Mud type
	weight		
2198,500	1,50	23,0	WATER BASED
2503,900	1,53	20,0	WATER BASED
2906,300	1,58	19,0	WATER BASED
3049,800	1,62	11,0	WATER BASED
3056,200	1,64	13,0	WATER BASED
3056,200	1,62	14,0	WATER BASED
3056,200	1,64	13,0	WATER BASED
3056,200	1,62	15,0	WATER BASED
3056,200	1,64	12,0	WATER BASED
3056,200	1,62	15,0	WATER BASED
3056,200	1,64	13,0	WATER BASED
3070,900	1,61	15,0	WATER BASED
3113,800	1,64	16,0	WATER BASED
3116,600	1,61	18,0	WATER BASED
3124,800	1,64	19,0	WATER BASED
3126,000	1,63	19,0	WATER BASED
3144,000	1,61	21,0	WATER BASED
3153,500	1,62	20,0	WATER BASED
3185,200	1,09	6,0	WATER BASED
3247,000	1,58	23,0	WATER BASED
3319,900	1,56	22,0	WATER BASED
3360,700	1,57	22,0	WATER BASED
3360,700	1,57	21,0	WATER BASED
3360,700	1,56	22,0	WATER BASED
3384,200	1,57	21,0	WATER BASED
3460,400	1,56	19,0	WATER BASED
3488,400	1,57	21,0	WATER BASED
3517,400	1,38	14,0	WATER BASED
3517,400	1,44	14,0	WATER BASED
3517,400	1,38	13,0	WATER BASED
3517,400	1,59	17,0	WATER BASED
3517,400	1,44	14,0	WATER BASED
3517,400	1,38	12,0	WATER BASED
3517,400	1,59	17,0	WATER BASED
3517,400	1,44		WATER BASED
3517,400	1,38	16,0	WATER BASED
3528,700	1,56	18,0	WATER BASED
3573,800	1,59	21,0	WATER BASED

DRILL STEM TEST

INTERVALS AND PRESSURES

Test	Interval		Choke	Pressure			
no.	meter		size	(PSI)	BTHP	FFP	
				WHP			
1.0	3122,300	- 3137.000	25.4			COLUMN TO THE PARTY OF THE PART	

RECOVERY

Test	Oil	Gas	Oil grav.	Gas grav.	GOR
no.	Sm3/d	Sm3/d	g/cm3	rel. air	m3/m3
1.0	859	57000	0,81		

DRILL BIT CUTTINGS AND WET SAMPLES

Sample type	Interval	Number of
	below KB	samples
WET SAMPLES	658,4 - 3573,8	240

SHALLOW GAS

Interval

Remarks

below KB

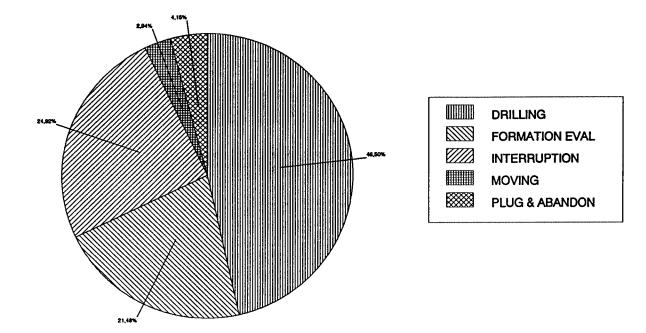
AVAILABLE LOGS

Log type	Intervals			1/200	1/500	Div.
CBL VDL GR	9716,0	-	11538,0	X		
CDM AP/SHDT	10028,0	-	11733,0	X	X	
LDL CNL	2116,0	-	5027,0	X	X	*
LDL CNL	5000,0	-	10018,0	X	X	*
LDL CNL NGS	10014,0	-	11731,0	X	X	*
DIL SFL SONIC	2116,0	-	5024,0	X	X	*
SLS/WF GR	10014,0	-	11725,0	X	X	* .
DIL SFL SONIC	5000,0	-	10013,0	X	X	*
DLL MSFL GR SP	10014,0	-	11720,0	X	X	*
MWD	308,0	-	10314,0		X	
NGS RATIO	10014,0		11703,0	X	X	*
RFT GR	10038,0	-	11736,0		X	
VELOCITY	2116,0	-	11731,0		X	
MUD	561,0	-	11725,0		X	
GEOGRAM SYNTH.SEISMO VSP PLOT 1-10	10 cm/s 10 cm/s	-	20 cm/s 20 cm/s			2 10

^{*}BOTH 1:200 AND 1:500 ON THE SAME LOG

DEPTH-INTERVAL IN FEET..

Daily Drilling Report System (DDRS) Operations for well: 1/2-1

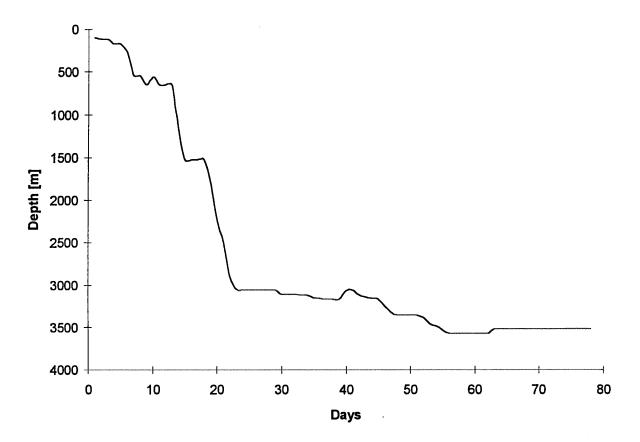


Main operations	Minutes	Hours	% of total
DRILLING	55760	929,33	46,50
FORMATION EVAL	25760	429,33	21,48
INTERRUPTION	29890	498,17	24,92
MOVING	3530	58,83	2,94
PLUG & ABANDON	4980	83,00	4,15
Total	119920	1998,67	100,00

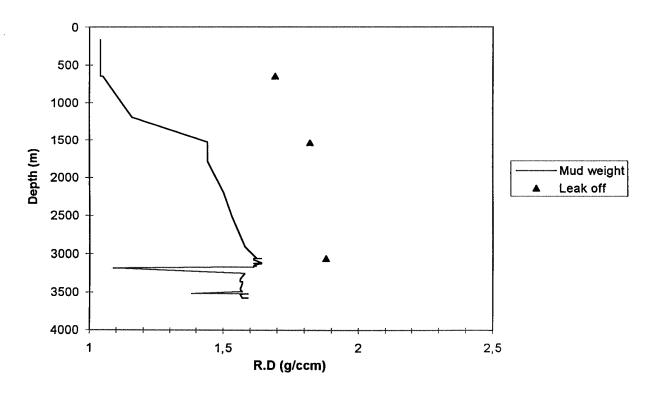
Operations for well: 1/2-1 Main operation: DRILLING

man operation bittelite			
Sub operations	Minutes	Hours	% of total
BOP ACTIVITIES	2830	47,17	5,08
BOP/WELLHEAD EQ	1440	24,00	2,58
CASING	16690	278,17	29,93
CIRC/COND	2260	37,67	4,05
DRILL	19030	317,17	34,13
OTHER	980	16,33	1,76
PRESS DETECTION	190	3,17	0,34
REAM	1390	23,17	2,49
TRIP	9090	151,50	16,30
UNDERREAM	1860	31,00	3,34
Total	55760	929,33	100,00
Main operation: FORMATION	EVAL		
Sub operations	Minutes	Hours	% of total
CIRC SAMPLES	360	6,00	1,40
CIRC/COND	690	11,50	2,68
CORE	1730	28,83	6,72
DST	10810	180,17	41,96
LOG	5160	86,00	20,03
OTHER	50	0,83	0,19
RFT/FIT	600	10,00	2,33
TRIP	6360	106,00	24,69
Total	25760	429,33	100,00
Main operation: INTERRUPTI	ON		
Sub operations	Minutes	Hours	% of total
FISH	13250	220,83	44,33
MAINTAIN/REP	6250	104,17	20,91
OTHER	7860	131,00	26,30
WAIT	2530	42,17	8,46
Total	29890	498,17	100,00
Main operation: MOVING			
Sub operations	Minutes	Hours	% of total
ANCHOR	1250	20,83	35,41
TRANSIT	2280	38,00	64,59
Total	3530	58,83	100,00
Main operation: PLUG & ABA	NDON		
Sub operations	Minutes	Hours	% of total
CEMENT PLUG	530	8,83	10,64
CIRC/COND	480	8,00	9,64
EQUIP RECOVERY	1740	29,00	34,94
MECHANICAL PLUG	1620	27,00	32,53
OTHER	490	8,17	9,84
PERFORATE	120	2,00	2,41
Total	4980	83,00	100,00

Depth vs time for well: 1/2-1



Composite plot for well: 1/2-1



Well History 1/2-1.

General:

The purpose of the 1/2-1 well was to test an undrilled structure in block 1/2 close to the Norwegian - U.K. boundary. The main objective was the Paleocene sands of the Rogaland Group, and a secondary target was the chalk formations, although possible not enough fractured to represent a reservoir. Confirm oil-water contact. Thick Kimmeridgian source rock were thougt to be present, but these would probably be producing gas. Well 1/2-1 encountered hydrocarbons in the Forties formation.

Average porosity is 18.5% and test permeability is measured to 49 mD.

Operations:

Wildcat well1/2-1 was spudded the 20 March 1989 by the semi-submersibel rigg Ross Isle, and completed 5 May 1989 at a depth of 3576 m RKB in rocks of Cretaceous age. No shallow gas was detected in the hole. A total of 8 cores were cut in the well. While cutting of core no 7, the elevators accidentially opened and dropped the string. Two attempts were made to recover the string with no success. The hole was sidetracked from 3078.5 m RKB and core no 8 was cut. Ekofisk formation was encountered at 3406 m RKB, and Tor formation at 3513 m RKB. The well was perforated at 3122.4 m RKB in the reservoir section, and in the water zone from 3145.5 m RKB. The reservoir sandstones showed good to exellent reservoir properties. Plugged and abandoned as an oil/gas discovery.

Testing:

One DST test was performed.

Geological Tops.

Well: 1/2-1.

	Depth m (RKB).
Nordland Group.	94.0
Hordaland Group.	1777.0
•	
Rogaland Group.	3058.0
Balder Fm.	3058.0
Sele Fm.	3066.0
Forties Fm.	3069.0
Lista Fm.	3274.0
Maureen Fm.	3334.0
Shetland Group.	3406.0
Ekofisk Fm.	3406.0
Tor Fm	3513.0
T.D.	3576.0