

Well no : 30/ 2-01 Operator : STATOIL

Coordinates : 60 52 05.42 N UTM coord. : 6748314 N  
02 38 49.16 E 480827 E

Licence no : 051 Permit no : 0328

Rig : DYVI DELTA

Contractor : DYVI OFFSHORE A/S

Bottom hole temperature : 152 deg.C Elev. KB : 29 M

Spud. date : 82.05.17 Water depth : 125 M

Compl. date : 82.10.12 Total depth : 4243 M

Spud. class : WILDCAT Form. at TD : JURASSIC

Compl. class : SUSP. GAS/COND. DISC Prod. form :

Seisloca : 701 162 SP 840

#### LICENSEES

50,000 DEN NORSKE STATS OLJESELSKAP A.S  
25,000 TENNECO OIL COMPANY NORSK A/S  
25,000 UNOCAL NORGE A/S

#### CASING AND LEAK-OFF TESTS

Type	Casing diam.	Depth below KB	Hole diam.	Hole depth below KB	Lot mud eqv. g/cm
CONDUCTOR	30	216,0	36	219,0	
SURF.COND.	20	1020,0	26	1035,0	1.70
INTERM.	13 3/8	2152,0	17 1/2	2155,0	1,94
INTERM.	9 5/8	3491,0	12 1/4	3501,0	1,99
LINER	7	3834,0	8 1/2	3836,0	2.05
OPEN HOLE			6	4243,0	

#### CONVENTIONAL CORES

Core no.	Intervals cored meters	Recovery		Series
		M	%	
1	1952.0 - 1954.0	2.0	100.0	PALEOCENE
2	1954.0 - 1969.5	14.1	91.0	PALEOCENE
3	3696.0 - 3701.0	4.8	96.0	M. JURASSIC
4	3701.0 - 3712.0	7.3	66.4	M. JURASSIC
5	3712.0 - 3717.0	4.4	88.0	M. JURASSIC
6	3717.0 - 3733.6	16.6	100.0	M. JURASSIC
7	3733.6 - 3735.8	1.0	45.5	M. JURASSIC
8	3735.8 - 3751.5	15.7	100.0	M. JURASSIC
9	3751.5 - 3758.0	6.5	100.0	M. JURASSIC
10	3758.0 - 3776.0	18.0	100.0	M. JURASSIC
11	3776.0 - 3794.0	18.0	100.0	M. JURASSIC

DRILL STEM TEST									
TEST NO	DEPTH BELOW KB	CHOKE SIZE mm	RECOVERY					PRESS. (psi)	
			OIL Sm3 /d	GAS M Sm3 /d	OIL GRAV. g/cm3	GAS GRAV. rel. air	GOR m3/m3	FSIP	WHP
			1	3785 - 3792	12.7	307 *	677		
2	3761 - 3771	19.05	417 *	1030	0.807	0.695	2470	3520	
3	3720 - 3728	19.05	396 *	1016	0.814	0.692	2565	3490	

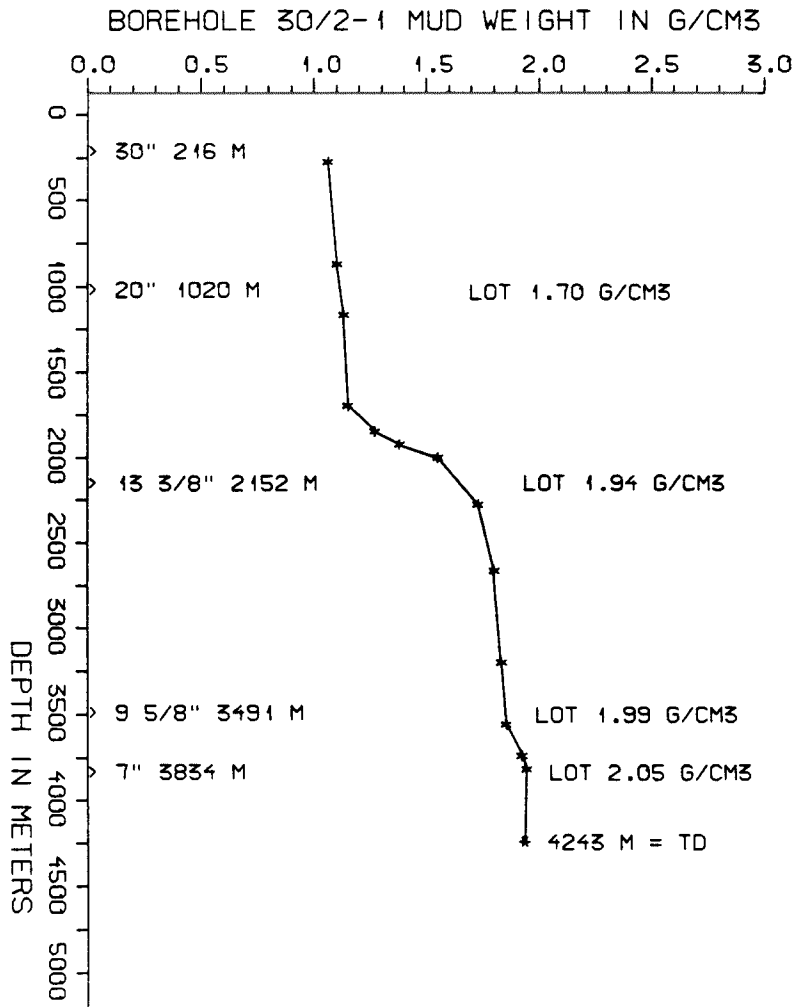
\* = CONDENSAT

AVAILABLE LOGS				
LOG TYPE	INTERVALS	1/200	1/500	
ISF BHC MSFL GR	216 - 1033	x	x	
ISF DDBHC MSFL	1020 - 2017	x	x	
ISF DDBHC MSFL	1900 - 2155	x	x	
ISF DDBHC MSFL	2152 - 3502	x	x	
ISF DDBHC MSFL	3491 - 3700	x	x	
ISF DDBHC MSFL	3700 - 3838	x	x	
ISF DDBHC MSFL	3837 - 4191	x	x	
ISF DDBHC MSFL	3837 - 4243	x	x	
FDC CNL	1020 - 2019	x	x	
FDC CNL	1900 - 2156	x	x	
FDC CNL	2152 - 3503	x	x	
FDC CNL	3491 - 3837	x	x	
FDC CNL	3838 - 4221	x	x	
FDC CNL RECOMPUTED	3838 - 4244	x	x	
DLL	3600 - 3829	x	x	
CDM	3491 - 3831	x		
CDM	3837 - 4244	x		
CDM AP / CYBERDIP	3491 - 3831	x		
CDM AP	3840 - 4244	x	x	
GEODIP	4060 - 4244	1:40		
CDM SP	3624 - 4244			
CDM PP	3624 - 4244			
NGT	3600 - 3834	x	x	
NGS	3600 - 3840	x		(cased hole processing)
RFT (TEST 1-7)	1942 - 1972	1:100		
RFT	3675 - 3685		x ?	
RFT	3682 - 3795	x		
CBL VDL BI	820 - 2152	x		
CBL VDL BI	2350 - 3491	x		
CBL VDL BI	2905 - 3775	x		
CBL VDL BI	3675 - 3793	x		
CBL VDL BI	3775 - 3837	x		
TEMPERATURE DATA	219 - 4243	1:5000		PRESSURE EVALUATION
MUD	219 - 4243		x	DRILLING DATA PRESSURE
VELOCITY (S.C.L.)	216 - 4243		x	WIRELINE DATA PRESSURE
				ALL FROM 219 - 4243 M.
				SCALES 1:5000
(Synthetic Seismogram, 1/2 & 1/1 scale, 2stk)				
(Two Way Travel Time log, 10 cm/s 1stk)				
(Geogram Synthetic Seismogram, min/zero phase normal/reverse polarity, 236 - 4214m, 5stk)				

MUD PROPERTIES			
DEPTH BELOW KB m	WEIGHT g/cm <sup>3</sup>	FUNNEL VISC. sec	FILTRATE LOSS cm <sup>3</sup>
210	1.03	100	
260	1.06	70	
1100	1.10	33	
1630	1.12	42	
1780	1.24	41	
1860	1.35	51	
1935	1.52	56	
2210	1.70	58	
2600	1.77	59	
3130	1.80	51	
3490	1.82	52	
3670	1.89	58	
3750	1.91	55	

DRILL BIT CUTTINGS AND WET SAMPLES		
SAMPLE TYPE	INTERVAL BELOW KB	NUMBER OF SAMPLES
CUTTINGS	220 - 4243	780
WET SAMPLES	220 - 4243	1310

SHALLOW GAS	
DEPTH INTERVAL m KB	REMARKS
	NONE



## WELL HISTORY - 30/2-1

### GENERAL :

The primary objective of well 30/2-1 were sandstones of Middle Jurassic age. Secondary objectives were sandstones of Paleocene and Late/Early Triassic age. The well encountered hydrocarbons in the Brent Group. The well reached TD at 4243 m in the Statfjord formation.

### OPERATIONS :

Well 30/2-1 was spudded 17.05.82 by the drilling rig "Dyvi Delta". Drilling of the 36", 26" and 17 1/2" holes were without incident. The 13 3/8" casing got stuck at 1998 m while running in. In the 12 1/4" section problems were encountered with high gas readings and tight hole. The pipe stuck at 3486 m. 9 cores were taken in the 8 1/2" section. Circulation was lost while drilling below 3688 m. It was decided to pull out of the hole and run a 7" liner. An influx occurred when running in to 3180 m. After this problem was solved the drill string got stuck. A total of 9 days were spent on hole problems in this section. The 6" hole was drilled to 4243 m with minor problems with tight hole and sticking in the lower part of the hole. The hole was temporarily abandoned after 3 successful DST's.

### TESTING :

Three DST's were performed in this well. All three tests produced gas and condensate. 2 % CO<sub>2</sub> was measured during DST no. 1. H<sub>2</sub>S was not encountered.<sup>2</sup> The well was flowed initially for one minute before the initial build-up which lasted 68 minutes. After an eleven minute clean-up flow, the well flowed for 668 minutes and was shut-in 1450 minutes. DST no. 2 consisted of a 826 minute flow with various chokes and a 1598 minute build-up. The CO<sub>2</sub> content was measured to 4 %. DST no. 3 consisted of a 778<sup>2</sup> minute flow with various chokes followed by a 1457 minute build-up period. 6 ppm H<sub>2</sub>S and 4 % CO<sub>2</sub> were measured during this test. Sand production was not observed on any of the tests. 5 RFT runs were made resulting in 3 sample chambers being recovered.

# GEOLOGICAL TOPS

WELL: 30/2-1

	Depth m (RKB)
Nordland Group	154 m
Utsira Fm	847 m
Hordaland Group	957 m
Rogaland Group	1917 m
Balder Fm	1917 m
Sele Fm	1993 m
Lista Fm	2105 m
Shetland Group	2159 m
Cromer Knoll Group	3605 m
Viking Group	3636 m
Draupne Fm	3636 m
Heather Fm	3657 m
Brent Group	3675 m
Ness FM	3675 m
Etive Fm	3720 m
Rannoch Fm	3778 m
Dunlin Group	3793 m
Drake Fm	3793 m
Cook Fm	3962 m
Burton Fm / Amundsen Fm	4000 m
Statfjord FM	4110 m

TD = 4243 m