

Well no : 15/ 9-15 Operator : STATOIL

Coordinates : 58 18 07.35 N UTM coord. : 6462991 N
01 55 19.28 E 436817 E

Licence no : 046 Permit no : 330

Rig : ROSS RIG

Contractor : ROSS DRILLING CO. A/S

Bottom hole temperature : 97 deg.C Elev. KB : 25 M

Spud. date : 82.05.28 Water depth : 83 M

Compl. date : 82.08.01 Total depth : 3200 M

Spud. class : WILDCAT Form. at TD : TRIASSIC

Compl. class : P&A. GAS/COND. DISC. Prod. form :

Seisloca : 8122 - 726 SP 147

LICENSEES

 40,000 ESSO NORGE A.S
 10,000 NORSK HYDRO PRODUKSJON A.S
 50,000 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
CONDUCTOR	30	171,5	36	171,5	
SURF.COND.	20	498,0	26	515,0	1,65
INTERM.	13 3/8	1178,0	17 1/2	1192,0	1,68
INTERM.	9 5/8	2463,0	12 1/4	2478,0	1,87
LINER	7	3199,0	8 1/2	3200,0	

CONVENTIONAL CORES

Core no.	Intervals cored meters	Recovery M %	Series
1	2805.0 - 2823.3	18.3 100.0	E.JURASSIC
2	2823.3 - 2841.6	18.3 100.0	E.JURA/TRIASSIC
3	2841.6 - 2859.9	18.3 100.0	E.JURA/TRIASSIC
4	2859.9 - 2878.2	18.3 100.0	E.JURA/TRIASSIC

DRILL STEM TEST									
TEST NO	DEPTH BELOW KB	CHOKE SIZE mm	RECOVERY					PRESS. (psi)	
			OIL Sm ³ /d	GAS M Sm ³ /d	OIL GRAV. g/cm ³	GAS GRAV. rel. air	GOR m ³ /m ³	BHFP	WHP
1	2880 - 2890	19.05	177 *	418	0.718*	0.770	2366	3147	
		25.00	188 *	467	0.770*	0.736	2551	2857	
2	2830 - 2850	17.46	213 *	439	0.710*	0.767	2057	3698	
		22.00	202 *	510	0.767*	0.740	2507	3379	

* = CONDENSAT

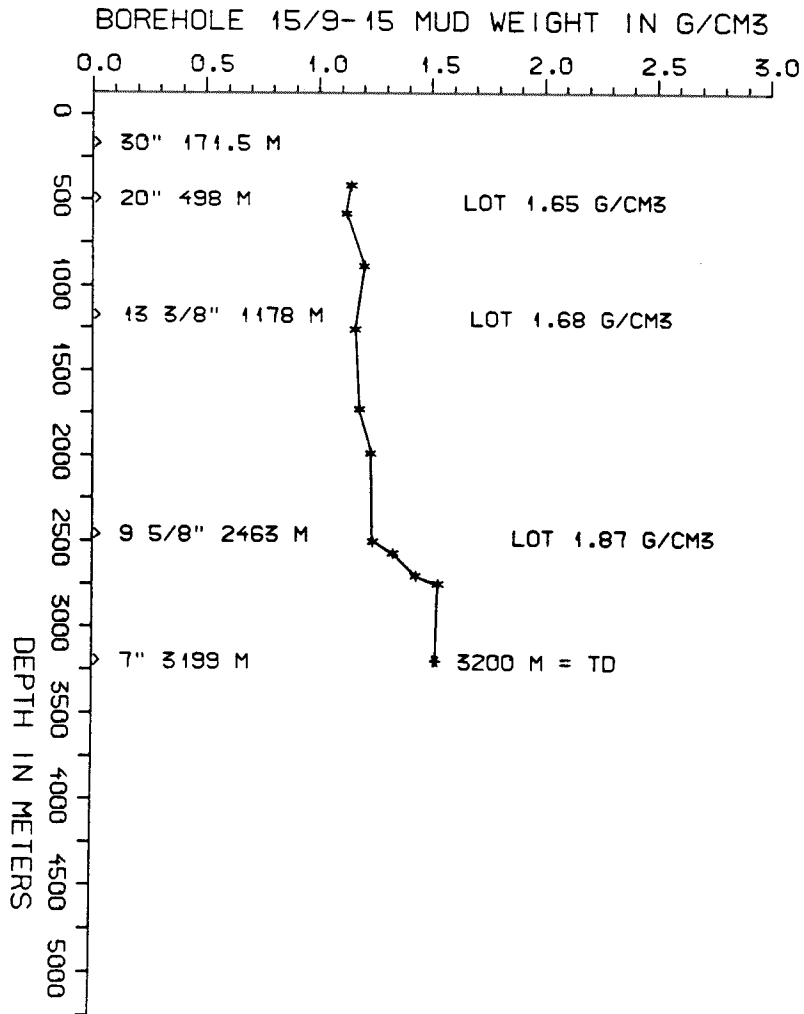
AVAILABLE LOGS			
LOG TYPE	INTERVALS	1/200	1/500
ISF SONIC GR	172 - 512	x	
ISF SONIC	498 - 1191	x	
ISF SONIC	1178 - 2471	x	
ISF SONIC	2463 - 2879	x	
ISF SONIC	2800 - 3201	x	
ISF SONIC GR	172 - 3200		x
LDL	498 - 1191	x	x
LDL CNL	1178 - 2470	x	x
LDL CNL	2462 - 3205	x	x
DLL MSFL	2800 - 3201	x	x
CDM AP	2464 - 3202	x	x
GEODIP	2800 - 2950	1:40	
RFT (TEST 1-41)			x ?
CBL	100 - 1172		x
CBL	1050 - 2463	x	
CBL	2300 - 3139	x	
MUD	200 - 3200		x
VELOCITY (S.C.L.)	171 - 3200		x

(Geogram Synthetic Seismogram, n/r. pol.,
m/z phase, 10 cm/s, 5 stk)

MUD PROPERTIES			
DEPTH BELOW KB m	WEIGHT g/cm ³	FUNNEL VISC. sec	FILTRATE LOSS cm ³
350	1.11		
515	1.09		
820	1.17		
1190	1.13		
1660	1.15		
1920	1.20		
2435	1.21		
2500	1.30		
2630	1.40		
2680	1.50		

DRILL BIT CUTTINGS AND WET SAMPLES		
SAMPLE TYPE	INTERVAL BELOW KB	NUMBER OF SAMPLES
CUTTINGS	170 - 3200	600
WET SAMPLES	170 - 2769	650

SHALLOW GAS	
DEPTH INTERVAL m KB	REMARKS
	NONE



WELL HISTORY - 15/9-15

GENERAL :

Well 15/9-15 was a wildcat designed to test possible hydrocarbon accumulations in Paleocene and Mesozoic sandstones in the 15/9-My structure. The Paleocene sandstones were missing in this well. The Mesozoic sandstones produced gas and condensate.

OPERATIONS :

Well 15/9-15 was spudded 28.05.82 by the drilling rig "Ross Rig". No problems occurred while drilling the 36" and 26" sections. Some problems were however experienced with the BOP stack after the 20" casing was set. Drag was experienced on trips in the 17 1/2" section, but tight hole did not cause any problems. During drilling the 12 1/4" section a significant volume of mud was lost at 2200 m. The thief zone was most probably in the Frigg sand. 3 days were spent locating the zone and pumping LCM pills. Tight hole down to 2478 m. was also experienced. Four cores were taken in the 8 1/2" section.

TESTING :

Two tests were performed on this well in sandstones of Jurassic age. The well produced small amounts of sand during DST no.1 immediately after increasing to a one inch choke, but stabilized soon after. 5 sets of PVT-samples were taken from the separator during this test. DST no.2 produced gas and condensate, as did DST no.1, without sand. Four sets of PVT-samples were taken from the separator during this test. Neither test produced water. The CO₂ content in the gas was approx. 0.5 % in both tests. H₂S was not reported in either test. One segregated sample was taken during each of the three RFT runs made in this well. Sampling was not attempted in the water zone.

GEOLOGICAL TOPS

WELL: 15/9-15

	Depth m (RKB)
Nordland Group	108 m
Utsira Fm	883,5 m
Hordaland Group	1220 m
Marstein Fm	1284 m
Frigg Fm	2027 m
Rogaland Group	2208 m
Balder Fm	2208 m
Sele Fm	2243 m
Lista Fm	2332 m
Chalk Group	2418 m
Tor Fm	2418 m
Hod Fm	2606 m
Plenus Marl Fm	2672 m
Cromer Knoll Group	2719 m
Viking Group	2751 m
Draupne Fm	2751 m
Heather Fm	2806 m
"Triassic Group"	2821 m
Skagerrak Fm	2946 m
Smith Bank Fm	3091 m

TD = 3200 m