

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	2765 - 2769	25.4	388 *	804		
2	2422 - 2427	25.4	401 *	758	0.76 *	0.702	1891		

* = CONDENSAT

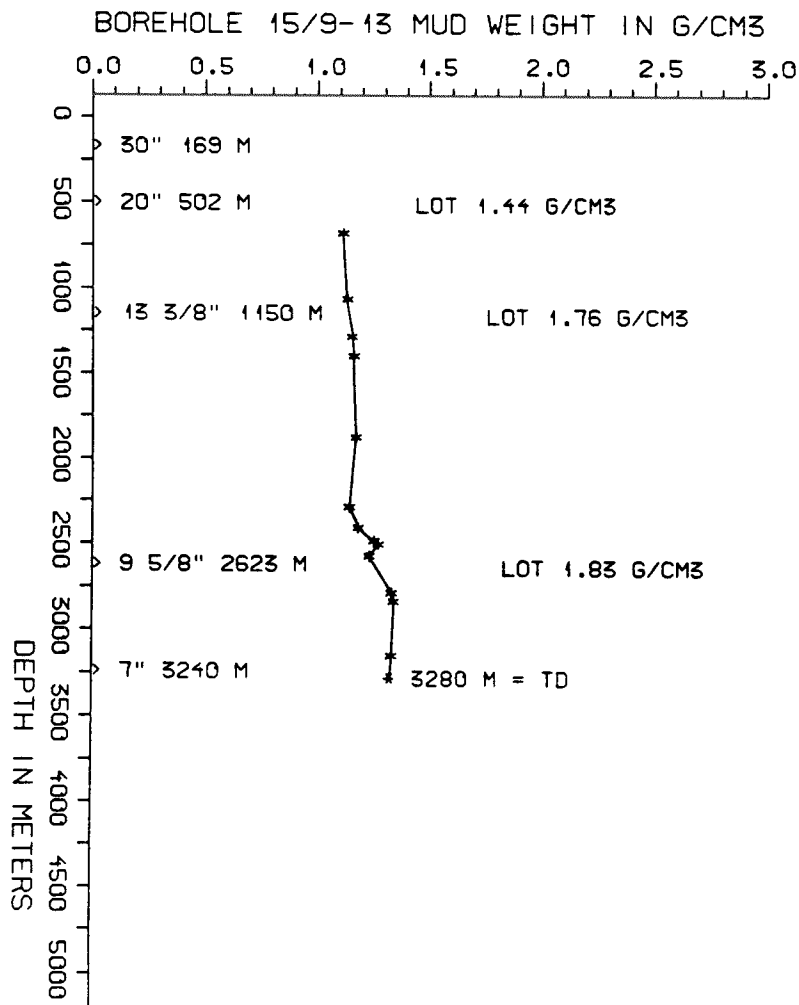
AVAILABLE LOGS			
LOG TYPE	INTERVALS	1/200	1/500
ISF BHC GR	106 - 515	x	x
ISF SONIC	502 - 1164	x	x
ISF SONIC	1151 - 2632	x	x
ISF SONIC	2623 - 2989	x	x
ISF SONIC	2917 - 3272	x	x
LDL	502 - 1164	x	x
LDL CNL	1151 - 2633	x	x
LDL CNL	2623 - 2989	x	x
LDL CNL	2897 - 3273	x	x
BHC CNL	2325 - 2629	x	x
DLL MSFL	2360 - 2476	x	x
DLL MSFL	2725 - 2840	x	x
CDM	2100 - 2632	x	
CDM (INNEH. CYBERDIP)	2623 - 3247	x	
CDM AP	2102 - 2632	x	x
CDM AP	2624 - 3248	x	x
GEODIP	2388 - 2460	1:40	
GEODIP	2715 - 2815	1:40	
RFT (TEST 1-31)	2397 - 2439	x	
RFT (TEST 1-22)	2764 - 2819	x	
CBL VDL	140 - 1139	x	x
CBL VDL	900 - 2613	x	x
CBL VDL	2500 - 3183	x	x
MUD	170 - 3280		x
VELOCITY	106 - 3272	1:1000	x

(Air Gun Well Velocity Data & C.L.D. 1 stk)
(Synthetic Seismogram Marine, 10 cm/s, 1 stk)
(Synthetic Seismogram, b/p-w/t, 10 cm/s, 2 stk)

MUD PROPERTIES			
DEPTH BELOW KB m	WEIGHT g/cm ³	FUNNEL VISC. sec	FILTRATE LOSS cm ³
615	1.08		
1000	1.10		
1215	1.12		
1330	1.13		
1810	1.14		
2220	1.11		
2340	1.15		
2420	1.22		
2440	1.24		
2505	1.20		
2720	1.30		
2765	1.31		
3080	1.30		

DRILL BIT CUTTINGS AND WET SAMPLES		
SAMPLE TYPE	INTERVAL BELOW KB	NUMBER OF SAMPLES
CUTTINGS	180 - 3280	660
WET SAMPLES	180 - 3278	620

SHALLOW GAS	
DEPTH INTERVAL m KB	REMARKS
	NONE



WELL HISTORY - 15/9-13

GENERAL :

15/9-13 was drilled to delineate the hydrocarbon accumulation found in the Heimdal fm. of the 15/9-Gamma structure. Secondary objectives were to test possible hydrocarbons in sandstones of Jurassic/Triassic age. The well proved gas and condensate in the Heimdal fm. and verified results from wells 15/9-9 and 15/9-11 (see Well Data Summary Sheets Vol. 12). Gas and condensate were also encountered in a Jurassic sandstone at 2763 - 2791. No hydrocarbons were found in Triassic sandstones.

OPERATIONS :

"Ross Rig" spudded the well on 21.03.82. The well was completed without any difficulties apart from some problems with the BOP stack.

TESTING :

Two DST's were performed on this well. DST no. 1 tested gas and condensate from the sand in the Jurassic through the 7" liner. DST no. 2 tested gas and condensate from the Heimdal sand through the 9 5/8" casing. 1.9 ppm H₂S was detected in DST no. 1. The CO₂ content was approx. 1 % in DST 1 and 0.1 % in DST 2. Four RFT runs were conducted resulting in two segregated samples from the Heimdal fm. and two from the Jurassic. Pertinent test data is found in the enclosed table.

GEOLOGICAL TOPS

WELL: 15/9-13

	Depth m (RKB)
Nordland Group	106 m
Utsira Fm	847 m
Hordaland Group	1143 m
Marstein Fm	1143 m
Rogaland Group	2198 m
Balder Fm	2198 m
Sele Fm	2246 m
Lista Fm	2330 m
Montrose Group	2395 m
Heimdal Fm	2395 m
Chalk Group	2440 m
Tor Fm	2440 m
Hod Fm	2593 m
Plenus Marl Fm	2650 m
Hidra Fm	2664 m
Cromer Knoll Group	2674 m
Rødby Fm	2674 m
Sola Fm	2690 m
Valhall Fm	2698 m
Viking Group	2741 m
Draupne Fm	2741 m
Heather Fm	2762 m
Vestland Group	2763,5 m
Hugin Fm	2763,5 m
Triassic Fm	2791 m
Smith Bank Fm	2791 m
Zechstein Group	3256 m

TD = 3280 m