

Well no : 31/ 2-09 Operator : SHELL

Coordinates : 60 52 54.34 N UTM coord. : 6749867 N
 03 28 3.43 E 525386 E

Licence no : 054 Permit no : 0344

Rig : BORGNY DOLPHIN

Contractor : DOLPHIN SERVICES A/S

Bottom hole temperature : 46 deg.C Elev. KB : 25 M

Spud. date : 82.08.29 Water depth : 339 M

Compl. date : 82.10.01 Total depth : 1770 M

Spud. class : APPRAISAL Form. at TD : L.JURASSIC

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

Seisloca : 79403 SP 435

LICENSEES

 5,000 CONOCO NORWAY INC.
 5,000 NORSK HYDRO PRODUKSJON A.S
 5,000 MOBIL DEVELOPMENT NORWAY A/S
 35,000 A/S NORSKE SHELL LETE-OG UTVINNINGSAVDELINGEN
 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	450,0	36	460,0	
SURF.COND.	20	808,0	26	816,0	1,47
INTERM.	13 3/8	1498,0	17 1/2	1509,0	1,54
OPEN HOLE			12 1/4	1770,0	

CONVENTIONAL CORES

Core no.	Intervals cored meters	Recovery		Series
		M	%	
1	1554.0 - 1563.0	9.0	100.0	L.JURASSIC
2	1563.0 - 1573.0	8.3	83.0	L.JURASSIC
3	1573.0 - 1591.5	18.5	100.0	L.JURASSIC
4	1591.5 - 1610.0	16.2	87.6	L.JURASSIC
5	1610.0 - 1628.0	17.6	97.8	L.JURASSIC

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	FSIP	WHP

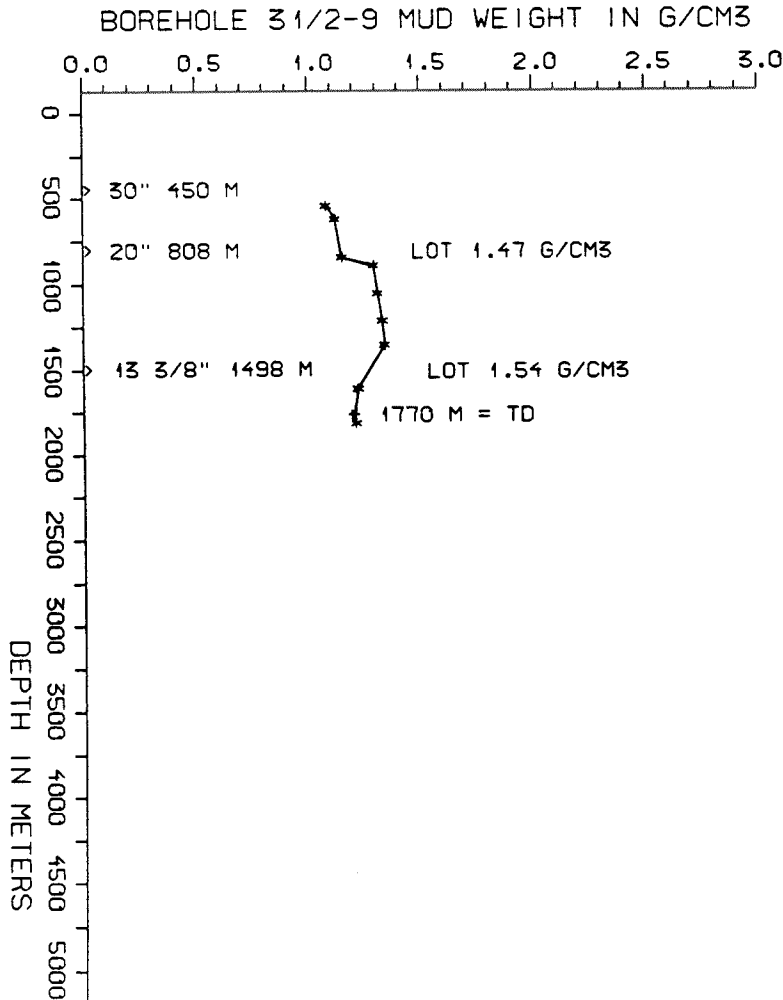
AVAILABLE LOGS				
LOG TYPE	INTERVALS	1/200	1/500	
ISF BHC GR	350 - 813	x	x	
ISF BHC	808 - 1406	x	x	
ISF BHC	1406 - 1501	x	x	
ISF BHC	1498 - 1769	x	x	
LDL CNL	450 - 814	x	x	
LDL CNL	808 - 1502	x	x	
LDL CNL NGS	1498 - 1770	x	x	
DLL MSFL	1498 - 1767	x	x	
CDM	1498 - 1770	x		
CDM AP	1499 - 1770	x	x	
CDM SP(SCHMIDT PL.	1549 - 1770			
CDM PP(POLAR PLOT)	1549 - 1770			
NGT	1498 - 1770	x	x	
RFT SAMPLES #1-2	1550 - 1752	x		
RFT SAMPLES #3-4	1550 - 1752	x		
RFT GR PRETESTS	1550 - 1752	x		
HP GR PRETESTS	1550 - 1752	x		
CBL VDL	520 - 1500	x		
MUD	450 - 1770		x	
VELOCITY (S.C.L.)	465 - 1769		x	

(Geogram Synthetic Seismogram, 20 cm/s, n/r. pol., z/m phase, 4stk)
(Velocity Survey log, 776 - 1769m, 1stk)
(Seislook, 776 - 1769m, 1stk)

MUD PROPERTIES			
DEPTH BELOW KB m	WEIGHT g/cm ³	FUNNEL VISC. sec	FILTRATE LOSS cm ³
480	1.05		
560	1.09		
780	1.12		
830	1.26		
990	1.28		
1150	1.30		
1290	1.31		
1550	1.19		
1750	1.18		

DRILL BIT CUTTINGS AND WET SAMPLES		
SAMPLE TYPE	INTERVAL BELOW KB	NUMBER OF SAMPLES
CUTTINGS		
WET SAMPLES	470 - 1768	190

SHALLOW GAS	
DEPTH INTERVAL m KB	REMARKS
	NONE



WELL HISTORY - 31/2-9

GENERAL :

The main objectives of well 31/2-9 were to establish the extent of a previously proven thick oil column province in the Troll Field and to complete the well near the OWC in order to follow the development of water-coning. The well was located northeast of the well 31/2-7 (see elsewhere in this volume). The well proved hydrocarbons; apprx. 14 m. oil overlain by gas. This oil column was thinner than previously expected.

OPERATIONS :

Well 31/2-9 was spudded 29.08.82 by the drilling rig "Borgny Dolphin". The hole was drilled to 1770 m without incident apart from technical problems. 5 cores were taken in the 12 1/4" section.

TESTING :

The well was not tested. Four RFT runs were made and 5 samples were obtained.

GEOLOGICAL TOPS

WELL: 31/2-9

	Depth m (RKB)
Nordland Group	364 m
Hordaland Group	766,5 m
Rogaland Group	1292 m
Balder Fm	1292 m
Sele Fm	1356 m
Lista Fm	1401 m
Montrose Group ?	1526 m
Maureen Fm ?	1526 m
Viking Group	1539,5 m
Draupne Fm	1539,5 m
Sognefjord Fm	1549 m
Middle Heather Fm	1600 m
Fensfjord Fm	1708 m

TD = 1770 m