

Well no : 9/02-01 Operator : STATOIL

Coordinates : 57 49 58.10 N UTM coord. : 6411261 N  
 04 31 27.92 E 590526 E

Licence no : 114 Permit no : 538

Rig : WEST DELTA Rig type : SEMI-SUB.

Contractor : DYVI OFFSHORE A/S

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

Spud. date : 87.02.21 Water depth : 98 M

Compl. date : 87.04.28 Total depth : 3756 M

Spud. class : WILDCAT Form. at TD :

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

Seisloca : ST 8626 - 212 SP 160

### LICENSEES

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10.000000 DEMINEX (NORGE) A/S  
 10.000000 NORSK OCCIDENTAL A/S  
 15.000000 SAGA PETROLEUM A.S.  
 15.000000 A/S NORSKE SHELL  
 50.000000 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 <sup>3</sup>
CONDUCTOR	30	189.0	36	318.0	.
INTERM.	13 3/8	757.0	17 1/2	788.0	1.54
INTERM.	9 5/8	2571.0	12 1/4	2603.0	1.95
LINER	7	3324.0	8 1/2	3756.0	.

### CONVENTIONAL CORES

Core no.	Intervals cored meters	Recovery		Series
		M	%	
1	3111.0 - 3123.0	12.5	100.0	
2	3174.0 - 3202.0	29.0	100.0	
3	3202.0 - 3215.8	13.8	100.0	
4	3231.0 - 3259.0	28.0	100.0	
5	3259.0 - 3287.0	28.0	100.0	

### MUD PROPERTIES

Depth below KB meter	Mud weight g/cm <sup>3</sup>	Viscosity	Mud type
768.000	1.05	0.0	WATERBASED
788.000	1.02	0.0	WATER BASED
1028.000	1.09	14.0	WATERBASED
2317.000	1.10	13.0	WATERBASED
2600.000	1.11	12.0	WATER BASED
2600.000	1.12	13.0	WATER BASED

2888.000	1.13	12.0	WATER BASED
2992.000	1.16	18.0	WATER BASED
3085.000	1.20	15.0	WATER BASED
3117.000	1.22	15.0	WATER BASED
3130.000	1.25	8.0	WATER BASED
3139.000	1.22	15.0	WATER BASED
3175.000	1.25	17.0	WATER BASED
3202.000	1.22	14.0	WATER BASED
3202.000	1.23	14.0	WATER BASED
3263.000	1.25	15.0	WATER BASED
3340.000	1.26	14.0	WATER BASED
3340.000	1.25	14.0	WATER BASED
3340.000	1.26	12.0	WATER BASED
3340.000	1.25	12.0	WATER BASED
3386.000	1.26	20.0	WATER BASED
3756.000	1.25	18.0	WATERBASED

### DRILL STEM TEST

#### INTERVALS AND PRESSURES

Test no	interval meter	Choke size	Pressure (PSI)		
			WHP	BTHP	FFP
1.0	3245.000 - 3263.000	12.7	0.1	3.5	0.0
2.0	3220.000 - 3236.000	12.7	0.0	2.8	0.0
3.0	3177.000 - 3210.000	14.3	0.0	2.8	0.6
3.1	3177.000 - 3210.000	9.5	1.1	2.8	0.8
3.2	3177.000 - 3210.000	11.1	1.1	3.4	0.4

#### RECOVERY

Test no.	Oil Sm <sup>3</sup> /d	Gas Sm <sup>3</sup> /d	Oil grav. g/cm <sup>3</sup>	Gas grav. rel. air	GOR m <sup>3</sup> /m <sup>3</sup>
1.0	0	0	0.000	0.000	0
2.0	3	0	0.834	0.000	0
3.0	850	0	0.835	0.803	24
3.1	580	0	0.825	0.845	25
3.2	660	0	0.829	0.845	28

### DRILL BIT CUTTINGS AND WET SAMPLES

SAMPLE TYPE	INTERVAL BELOW KB	NUMBER OF SAMPLES
Cutting	793-3756	700
Wet Samples	793-3756	560

### SHALLOW GAS

Interval below KB	REMARKS

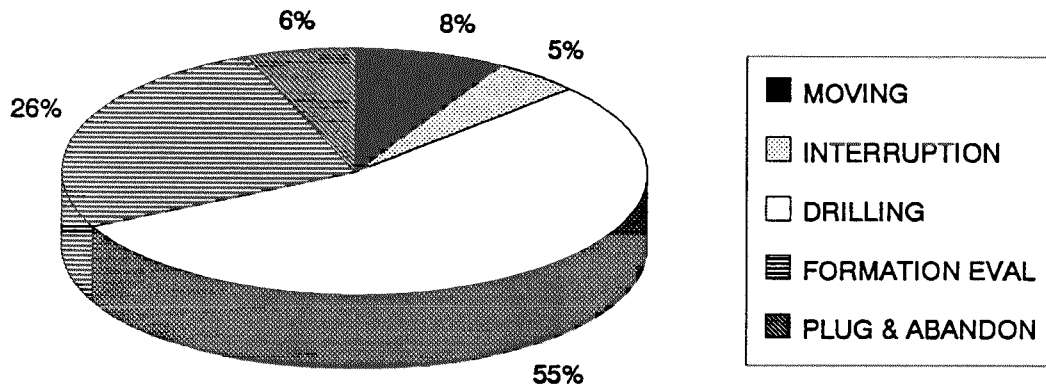
### AVAILABLE LOGS

LOG TYPE	INTERVALS	1/200	1/500	Div.

DIFL BHC AC GR	757.000 - 3743.000	X	X
DIFL BHC AC GR	2571.000 - 3743.200	X	X
CDL GR	757.000 - 2599.800	X	X
CDL CNL GR	2571.000 - 3741.400	X	X
DLL MLL GR	3150.000 - 3400.000	X	X
SHDT	2975.000 - 3744.000	X	
CDM AP/SHDT 4-ARM	2975.000 - 3744.000	X	X
FMT HP CRYSTAL	3178.000 - 3579.000		X
ACBL VDL	1780.000 - 2571.000	X	
ACBL VDL	2392.000 - 3284.000	X	
DRILLING DATA PRESS	128.000 - 3756.000		X
MUD	99.000 - 3756.000		X
VELOCITY	757.000 - 3743.000	1000	X
(Display of well velocity records			1 stk.)
(Airgun well velocity & calibratet log data			1 stk.)
(Two-way travel time , 10cm/s			1 stk.)
(VSP,10cm/s			5 stk.)
(Synthetic seismogram marine, 10cm/s			6 stk.)

# DAILY DRILLING REPORT SYSTEM

MAIN OPERATIONS FOR WELL: 09/02-01



Main operation	Minutes	Hrs	% of total
MOVING	8730	145,5	8,42
INTERRUPTION	5070	84,5	4,89
DRILLING	56250	937,5	54,25
FORMATION EVAL	27450	457,5	26,48
PLUG & ABANDON	6180	103,0	5,96
<i>Total</i>	103680	1728,0	100,00

## SUB OPERATIONS FOR WELL: 09/02-01

### MAIN OPERATION: MOVING

Sub operation	Minutes	Hrs	% of total
TRANSIT	5550	92,5	63,57
ANCHOR	3180	53,0	36,43
<i>Total</i>	8730	145,5	100,00

### MAIN OPERATION: INTERRUPTION

Sub operation	Minutes	Hrs	% of total
MAINTAIN/REP	1380	23,0	27,22
FISH	3630	60,5	71,60
OTHER	60	1,0	1,18
<i>Total</i>	5070	84,5	100,00

### MAIN OPERATION: DRILLING

Sub operation	Minutes	Hrs	% of total
DRILL	28020	467,0	49,81
TRIP	13230	220,5	23,52
OTHER	120	2,0	0,21
CIRC/COND	3210	53,5	5,71
HOLE OPEN	510	8,5	0,91
SURVEY	60	1,0	0,11
CASING	7770	129,5	13,81
REAM	840	14,0	1,49
WAIT	30	0,5	0,05
BOP/WELLHEAD EQ	1920	32,0	3,41
BOP ACTIVITIES	540	9,0	0,96
<i>Total</i>	56250	937,5	100,00

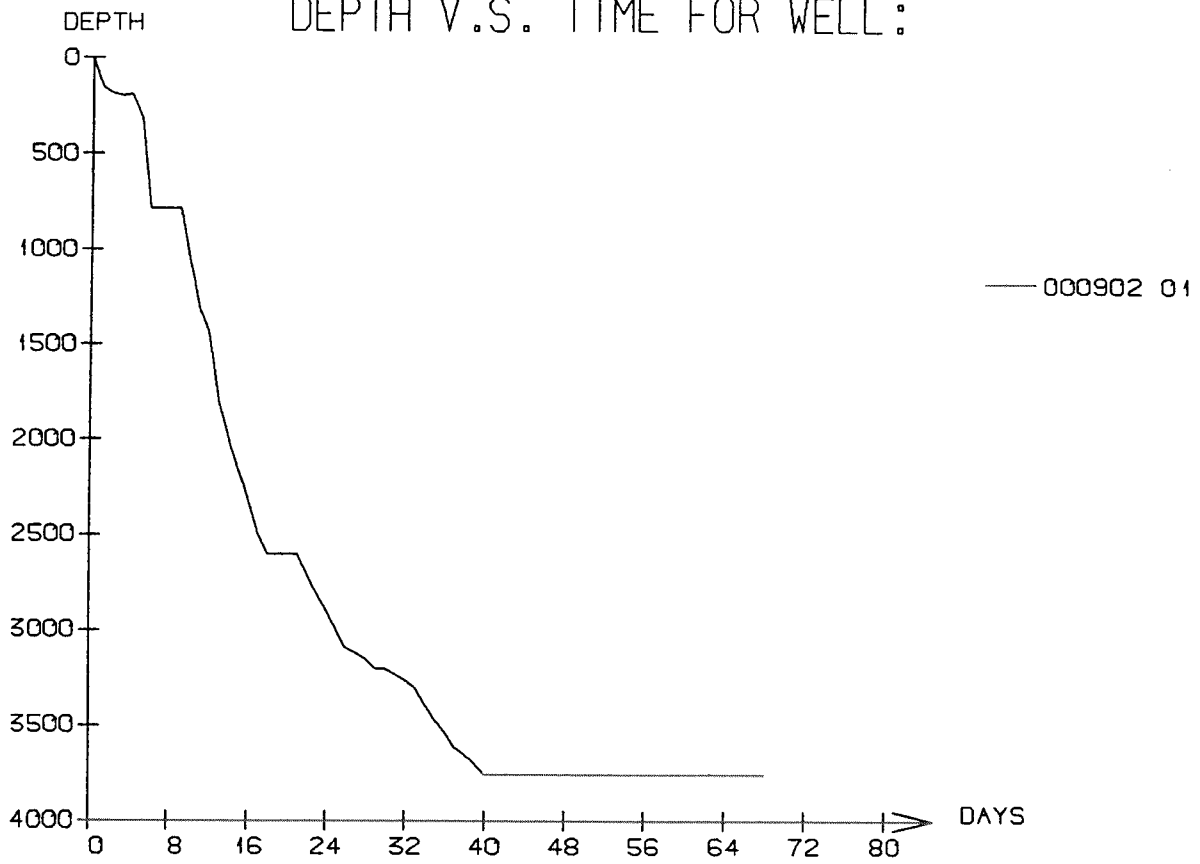
### MAIN OPERATION: FORMATION EVAL

Sub operation	Minutes	Hrs	% of total
LOG	5760	96,0	20,98
TRIP	5280	88,0	19,23
CIRC/COND	720	12,0	2,62
CORE	2580	43,0	9,40
OTHER	180	3,0	0,66
DST	12930	215,5	47,10
<i>Total</i>	27450	457,5	100,00

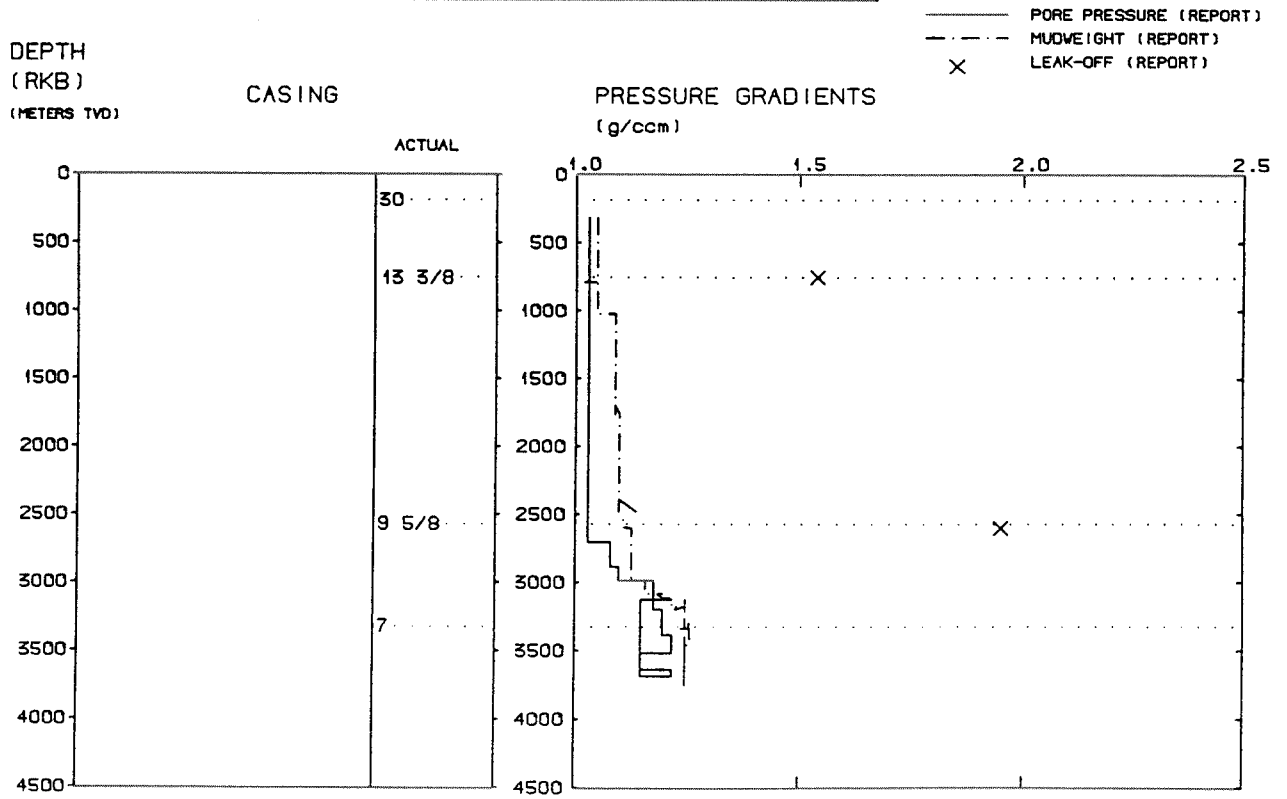
### MAIN OPERATION: PLUG & ABANDON

Sub operation	Minutes	Hrs	% of total
TRIP	2460	41,0	39,81
CIRC/COND	300	5,0	4,85
CEMENT PLUG	570	9,5	9,22
OTHER	540	9,0	8,74
MECHANICAL PLUG	480	8,0	7,77
PERFORATE	120	2,0	1,94
SQUEEZE	90	1,5	1,46
CUT	300	5,0	4,85
EQUIP RECOVERY	1320	22,0	21,36
<i>Total</i>	6180	103,0	100,00

# DEPTH V.S. TIME FOR WELL :



## WELL: 000902 01      PRESSURE COMPOSITE PLOT



## Well History 9/2-1

### GENERAL:

Well 9/2-1 was drilled in a new separate structure and designed to test the hydrocarbon potential of the Egersund Basin. The main target of the well was to test sandstones of Middle Jurassic age. Furthermore, the well was expected to improve the paleontological, the geological and the geochemical understanding of the area.

### OPERATIONS:

Wildcat well 9/2-1 was spudded 21 February 1987 by Dyvi Offshore semi-submersible rig Dyvi Delta and completed 28 April 1987 at a depth of 3756 m in Triassic rocks. The well was drilled with a 36" bit down to 189 m, but the drill bit got stuck due to boulders and the string had to be blown off just above the bit. The well was respudded 23 February 1987 and this time a 17 1/2" pilot hole was drilled before opening to 36". It was drilled to 587 m without a riser. NPD gave suspension from conventional logging through this sequence because the MWD log was of good quality, with continuity and correlatable to other wells in the area. Further drilling proceeded without significant problems.

1 core was cut in the interval 3113 - 3123 m, and 4 cores in the interval 3174 - 3287 m. Top reservoir came in at 3173 m, 178 m deeper than prognosed. There were good shows down to 3240 m and this was expected to be the oil/water contact. The logs indicated a lower oil/water contact at 3263 m. Due to this the interval was tested.

The well was plugged and abandoned as an oil and gas discovery.

### TESTING:

3 DST tests were performed in this well, in the intervals 3245 - 3263 m, 3220 - 3236 m and 3177 - 3210 m.

# GEOLOGICAL TOPS

WELL: 9/2-1

	Depth m (RKB)
<i>Nordland Group</i>	128.0
<i>Hordaland Group</i>	523.5
<i>Rogaland Group</i>	709.5
<i>Balder Fm.</i>	709.5
<i>Sele Fm.</i>	731.0
<i>Lista Fm.</i>	740.0
<i>Våle Fm.</i>	756.0
<i>Shetland Group</i>	765.0
<i>Ekofisk Fm.</i>	765.0
<i>Tor Fm.</i>	829.0
<i>Hod Fm.</i>	1114.0
<i>Blodøks Fm.</i>	1445.0
<i>Hidra Fm.</i>	1467.0
<i>Cromer Knoll Group</i>	1482.0
<i>Sola Fm.</i>	1482.0
<i>Tuxen Fm.</i>	1600.5
<i>Åsgard Fm.</i>	1970.0
<i>Boknfjord Group</i>	2406.0
<i>Flekkefjord Fm.</i>	2406.0
<i>Sauda Fm.</i>	2480.0
<i>Tau Fm.</i>	2993.0
<i>Egersund Fm.</i>	3097.0
<i>Vestland Group</i>	3161.5
<i>Sandnes Fm.</i>	3161.5
<i>Bryne Fm.</i>	3309.0
<i>Fjerritslev Fm.</i>	3601.0
<i>Skagerak Fm.</i>	3685.0
<i>T.D.</i>	3756.0