Well no : 25/ 1-08 S Operator : ELF

Coordinates	: 59 54 03.28 N 02 06 9.79 E	UTM coord.	: 6640871 449800
Licence no	: 24	Permit no	: 466
Rig	: BYFORD DOLPHIN	Rig type	: SEMI-SUB.
Contractor	: DOLPHIN SERVICES A/S		
Bottom hole temperature	: 65.5 deg.C	Elev. KB	: 25 M
Spud. date	: 85.05.28	Water depth	: 102 M
Compl. date	: 85.07.25	Total depth	: 2650 M
Spud. class	: APPRAISAL	Form. at TD	: PALEOCENE
Compl. class	: SUSP. CONTROL HOLE	Prod. form	:
Seisloca	: L 73 - 59 - 54 SP. 1105		

LICENSEES

41.420000	ELF AQUITAINE NORGE A/S
32.870000	NORSK HYDRO PRODUKSJON A.S
5.000000	DEN NORSKE STATS OLJESELSKAP A.S
20.710000	TOTAL MARINE NORSK A.S

CASING AND LEAK-OFF TESTS

Type	Casing diam.	Depth below KB	Hole diam.	Hole depth below KB	Lot mud eqv. g/cm3
CONDUCTOR	30	187.5	36	190.0	
INTERM.	13 3/8	1015.0	17 1/2	1030.0	1.44
INTERM.	9 5/8	1910.0	12 1/4	1921.0	1.69
LINER	7	2201.0	8 1/2	2650.0	1.40

CONVENTIONAL CORES

Core no.	Intervals cored meters		Recovery M	Recovery %	Series
1	1939.0 -	1948.9	9.9	100.0	EOCENE
2	1950.0 -	1953.2	3.2	100.0	EOCENE
3	1953.2 -	1968.3	16.8	93.0	EOCENE
4	1971.0 -	1996.5	25.5	100.0	EOCENE
5	1997.8 -	1999.0	2.8	100.0	EOCENE
6	2025.0 -	2055.0	30.0	100.0	EOCENE
7	2055.0 -	2082.5	27.5	100.0	EOCENE
8	2082.5 -	2094.5	12.0	100.0	EOCENE
9	2094.4 -	2110.5	16.0	100.0	EOCENE

MUD PROPERTIES

Depth below KB meter	Mud weigth g/cm3	Plastic viscosity mPa.s	Mud type
165.000	1.07		WATER BASED
190.000	1.04		WATER BASED
527.000	1.08	21.0	WATER BASED
594.000	1.07	19.0	WATER BASED
897.000	1.09	21.0	WATER BASED
1030.000	1.10	24.0	WATER BASED
1072.000	1.11	30.0	WATER BASED
1279.000	1.12	33.0	WATER BASED
1451.000	1.14	12.0	WATER BASED
1587.000	1.16	32.0	WATER BASED
1908.000	1.20	23.0	WATER BASED
1921.000	1.23	26.0	WATER BASED
1925.000	1.04	17.0	WATER BASED
1927.000	1.05	18.0	WATER BASED
1929.000	1.06	27.0	WATER BASED
1950.000	1.07	24.0	WATER BASED
1970.000	1.08	24.0	WATER BASED
2098.500	1.10	28.0	WATER BASED
2650.000	1.12	30.0	WATER BASED

DRILL STEM TEST

NO DST's WERE PERFORMED IN THIS WELL

DRILL BIT CUTTINGS AND WET SAMPLES

SAMPLE TYPE	*INTERVAL BELOW KB*	*NUMBER OF SAMPLES*
Cutting		
Wet Samples	*200 - 2650*	*280*

SHALLOW GAS

Interval below KB	*REMARKS*
	NONE

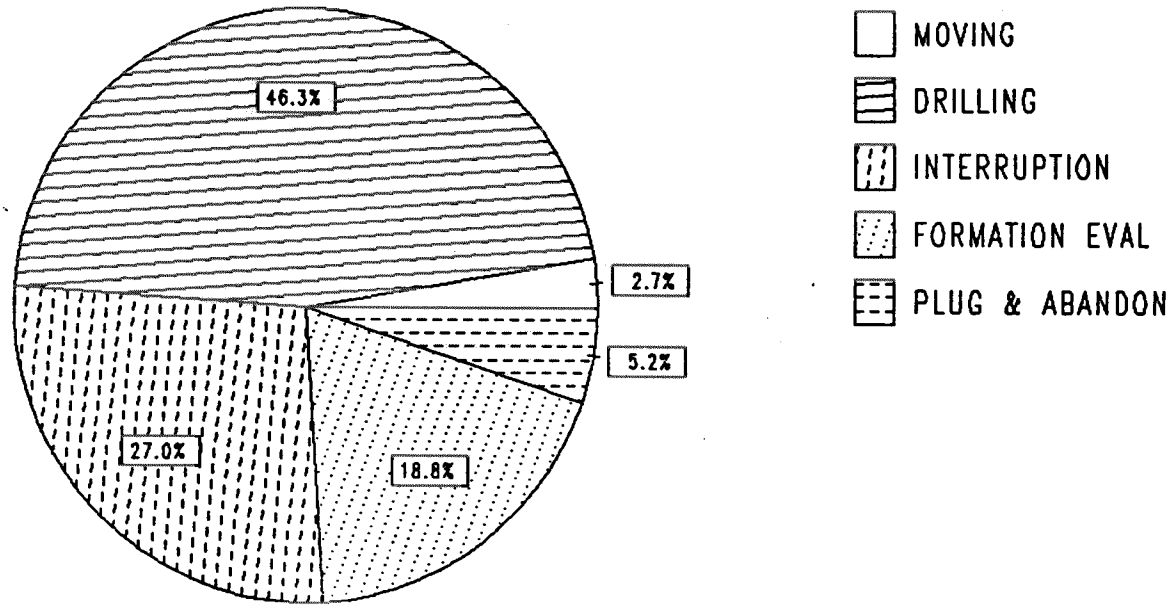
AVAILABLE LOGS

LOG TYPE	INTERVALS	1/200	1/500
ISF LSS GR	187 - 1016	X	X
ISF LSS	1015 - 1895	X	X
DIL LSS	1913 - 2109	X	X
DIL LSS	1913 - 2644	X	X
ISF LSS	187 - 1016	1:1000	
ISF LSS	1015 - 1895	1:1000	
DIL LSS	1913 - 2109	1:1000	
DIL LSS	1913 - 2644	1:1000	
LDL	187 - 1009	X	X
LDL	1015 - 1896	X	X
LDL CNL	1913 - 2644	X	X
DLL MSFL	1913 - 2150	X	X
SHDT	1913 - 2646	X	
NGL	1913 - 2634	X	X
TEMPERATURE	187 - 1000		X
TEMPERATURE	1015 - 1886		X
TEMPERATURE	1913 - 2631		X
TEMPERATURE	1913 - 2635		X
RFT HP GAUGE	1941 - 2103		
RFT HP GAUGE	1931 - 2240		
RFT HP GAUGE	1941 - 2509		
CBL VDL	125 - 1015	X	X
CBL	748 - 1866	X	X
CBL	697 - 1913	X	X
CBL VDL	1750 - 2117	X	X
VELOCITY	187 - 2644	1:1000	X

(+ Airgun Well Velocity Survey and Calibr. data, 1 stk)
(+ Synthetic Seismogram, Marine, 10 cm/s, 13 stk)
(+ Synthetic Seismogram, Marine, 40 cm/s, 13 stk)
(+ Synthetic Seismogram, Geogram, 10 cm/s, 6 stk)
(+ V.S.P., Rigshot, 10 + 20 + 40 cm/s, 9 stk)
(+ V.S.P., Vertical Incidence, 10 + 20 + 40 cm/s, 11 stk)
(+ Two Way Travel Time, 5 cm/s, 1 stk)
(+ Two Way Travel Time, 10 cm/s, 1 stk)
(+ Two Way Travel Time, 40 cm/s, 1 stk)

DAILY DRILLING REPORT SYSTEM

Main operation : 25/01-08 S



Total : 1416 HRS

Main operation	*Minutes*	*Hours*	*% of total*
MOVING	*2280*	*38.00*	*2.68*
DRILLING	*39330*	*655.50*	*46.29*
INTERRUPTION	*22950*	*382.50*	*27.01*
FORMATION EVAL	*15960*	*266.00*	*18.79*
PLUG & ABANDON	*4440*	*74.00*	*5.23*

MAIN OPERATIONS WELL : 25/01-08S

MAIN OPERATION: DRILLING

Sub operations	Min	Hrs	% of total
TRIP	8310	138.50	21.13
DRILL	12060	201.00	30.66
CASING	9420	157.00	23.95
BOP/WELLHEAD EQ	1470	24.50	3.74
UNDERREAM	30	0.50	0.08
CIRC/COND	1680	28.00	4.27
SURVEY	1020	17.00	2.59
REAM	1290	21.50	3.28
BOP ACTIVITIES	3900	65.00	9.92
OTHER	150	2.50	0.38
TOTAL	39330	655.50	

MAIN OPERATION: MOVING

Sub operations	Min	Hrs	% of total
ANCHOR	1980	33.00	86.84
TRANSIT	300	5.00	13.16
TOTAL	2280	38.00	

MAIN OPERATION: FORMATION EVAL

Sub operations	Min	Hrs	% of total
LOG	6480	108.00	40.60
CIRC/COND	930	15.50	5.83
TRIP	5040	84.00	31.58
CORE	2040	34.00	12.78
RFT/FIT	1470	24.50	9.21
TOTAL	15960	266.00	

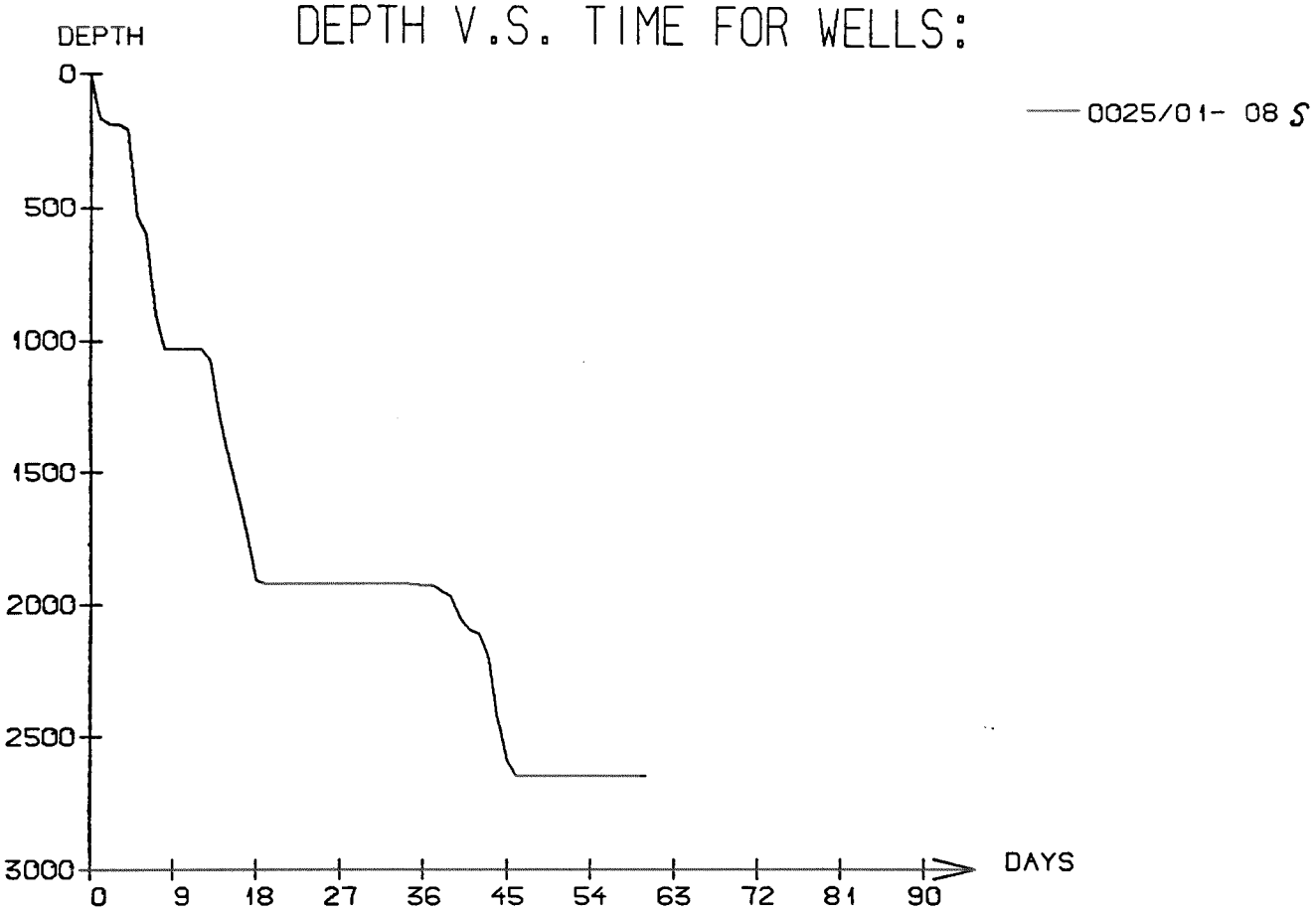
MAIN OPERATION: INTERRUPTION

Sub operations	Min	Hrs	% of total
MAINTAIN/REP	2220	37.00	9.67
WAIT	15540	259.00	67.71
OTHER	660	11.00	2.88
FISH	4530	75.50	19.74
TOTAL	22950	382.50	

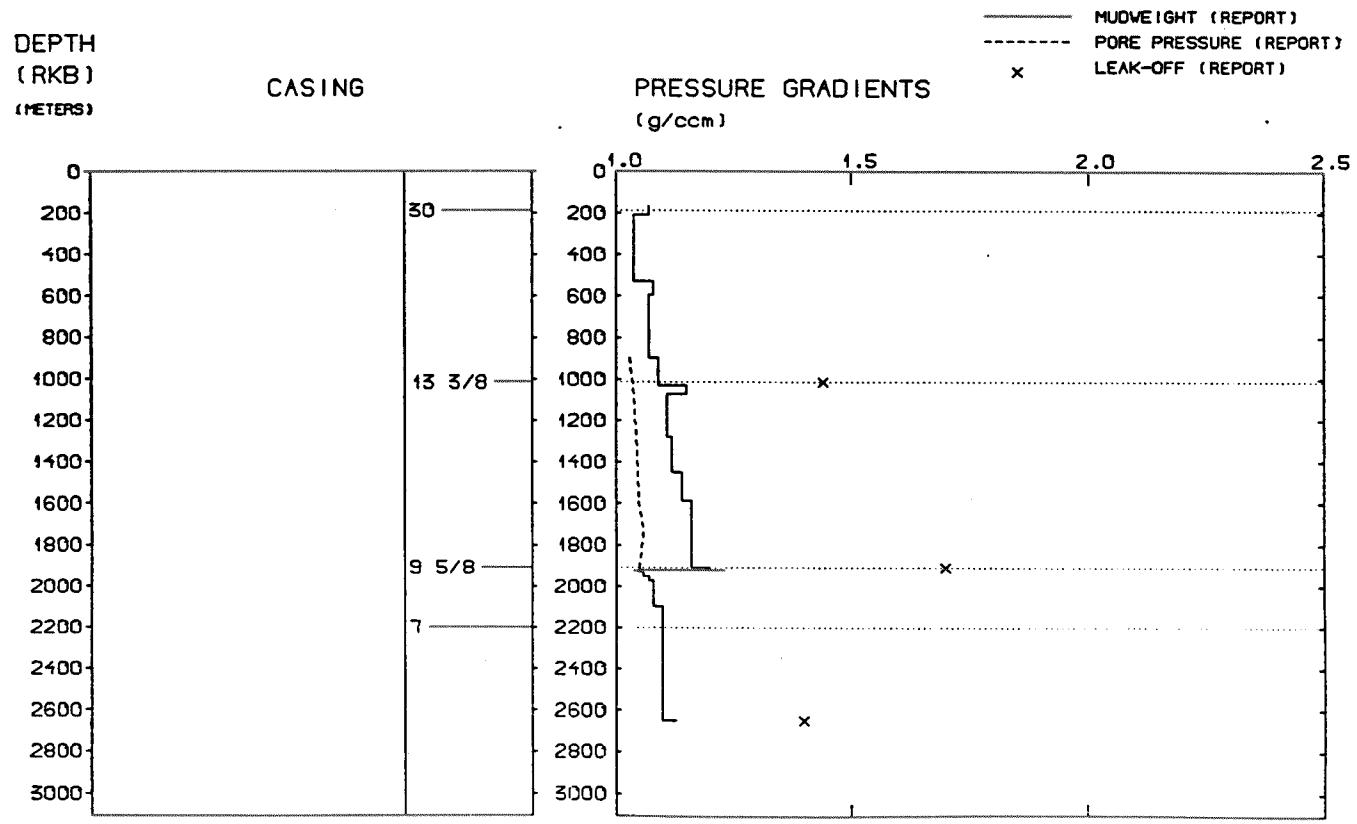
MAIN OPERATION: PLUG & ABANDON

Sub operations	Min	Hrs	% of total
TRIP	1170	19.50	26.35
CIRC/COND	30	0.50	0.68
CEMENT PLUG	840	14.00	18.92
WAIT	210	3.50	4.73
OTHER	1500	25.00	33.78
MECHANICAL PLUG	270	4.50	6.08
EQUIP RECOVERY	420	7.00	9.46
TOTAL	4440	74.00	

DEPTH V.S. TIME FOR WELLS:



WELL: 002501 08S PRESSURE COMPOSITE PLOT



Well History 25/1-8 S

General:

Well 25/1-8 S was designed as a second remote control well on the main Frigg Field. Due to the close proximity to the Odin pipeline, the well had to be drilled with a sligth deviation.

The prognosed depth for the Frigg Formation was 1865 +/- 15 m, gas/oil contact at 1947 +/- 5 m and T.D at 2587 m. The main objectives was the Frigg sands, aquifers and Barrier zone.

Operations:

Appraisal well 25/1-8 S was spudded 28 May 1985 by Dolphin Services A/S semi-submersibel rig Byford Dolphin and completed 25 July 1985 at a depth of 2650 m in Paleocene rocks, e.i. a shaly equivalent to the Heimdal Formation.

Top gas zone came in at 1927.2 m RKB, and top Frigg Formation at 1934 m RKB. Gas/water contact was encountered at 1980.3 m RKB. Residual gas/water contact came in at 1988.2 m RKB, and original gas/water contact at 2027.8 m RKB. A total of 9 cores were cut in the interval between 1939- and 2112 m RKB, covering the whole Frigg gas sand including the fluid contacts.

The well was temporarly abandoned and will be used as an observation well for monitoring the reservoir parameters.

Testing:

No DST tests were performed in this well.

GEOLOGICAL TOPS

WELL: 25-1-8-S

	Depth m (RKB)
Nordland Group	*160*
Hordaland Group	*380*
Frigg Fm.	*1930*
Rogaland Group	*2242*
Balder Fm.	*2242*
Sele Fm.	*2330*
Lista Fm.	*2533*
T.D.	*2650*