

Well no : 15/ 3-05 Operator : ELF

Coordinates : 58 47 13.04 N UTM coord. : 6517057 N
 01 50 34.11 E UTM zone 31 433105 E

Licence no : 025 Permit no : 397

Rig : BYFORD DOLPHIN Rig type : SEMI-SUB.

Contractor : DOLPHIN SERVICES A/S

Bottom hole temperature : 115 deg.C Elev. KB : 25 M

Spud date : 83.12.28 Water depth : 103 M

Compl. date : 84.05.13 Total depth : 4130 M

Spud class. : WILDCAT Age at TD : JURASSIC

Compl. class. : P&A. OIL DISCOVERY

Seis. loc. : EL 8206 - 418 A SP 726

LICENSEES

53.200 ELF AQUITAINE NORGE A/S
 10.000 NORSK HYDRO PRODUKSJON A.S
 15.000 LASMO NORGE A/S
 21.800 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
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CONDUCTOR	30	196.0	36	196.0	
SURF.COND.	20	962.0	26	977.0	1.28
INTERM.	13 3/8	2798.0	17 1/2	2813.0	1.72
INTERM.	9 5/8	3816.0	12 1/4	3832.0	
OPEN HOLE			8 1/2	4130.0	

CONVENTIONAL CORES

Core no.	Intervals cored meters	Recovery		Series
		M	%	
1	3971.0 - 3989.0	17.8	98.9	MIDDLE JURASSIC
2	3989.0 - 4003.0	11.7	83.6	MIDDLE JURASSIC
3	4020.0 - 4029.0	8.5	94.4	MIDDLE JURASSIC

MUD PROPERTIES

Depth below KB meter	Mud weigh g/cm ³	Plastic viscosity mPa.s	Mud type
180.0	1.03	26.0	WATER BASED
210.0	1.11	26.0	WATER BASED
1040.0	1.15	15.0	WATER BASED
1170.0	1.17		WATER BASED
1245.0	1.18	25.0	WATER BASED
1530.0	1.19	24.0	WATER BASED
1790.0	1.21	21.0	WATER BASED
2160.0	1.26		WATER BASED
2605.0	1.28	21.0	WATER BASED
3010.0	1.29	35.0	WATER BASED
3070.0	1.30	35.0	WATER BASED
3530.0	1.33	36.0	WATER BASED
3660.0	1.37	36.0	WATER BASED
3710.0	1.41	48.0	WATER BASED
3740.0	1.43	48.0	WATER BASED
3785.0	1.45	40.0	WATER BASED
3850.0	1.60		WATER BASED
3930.0	1.61	42.0	WATER BASED
3970.0	1.70		WATER BASED

DRILL STEM TEST

NO DST'S WERE PERFORMED IN THIS WELL

DRILL BIT CUTTINGS AND WET SAMPLES

<i>SAMPLE TYPE</i>	<i>INTERVAL BELOW KB</i>	<i>NUMBER OF SAMPLES</i>
<i>CUTTINGS</i>	<i>200 - 4130</i>	<i>200</i>
<i>WET SAMPLES</i>	<i>200 - 4130</i>	<i>642</i>

SHALLOW GAS

<i>INTERVAL BELOW KB</i>	<i>REMARKS</i>
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NONE

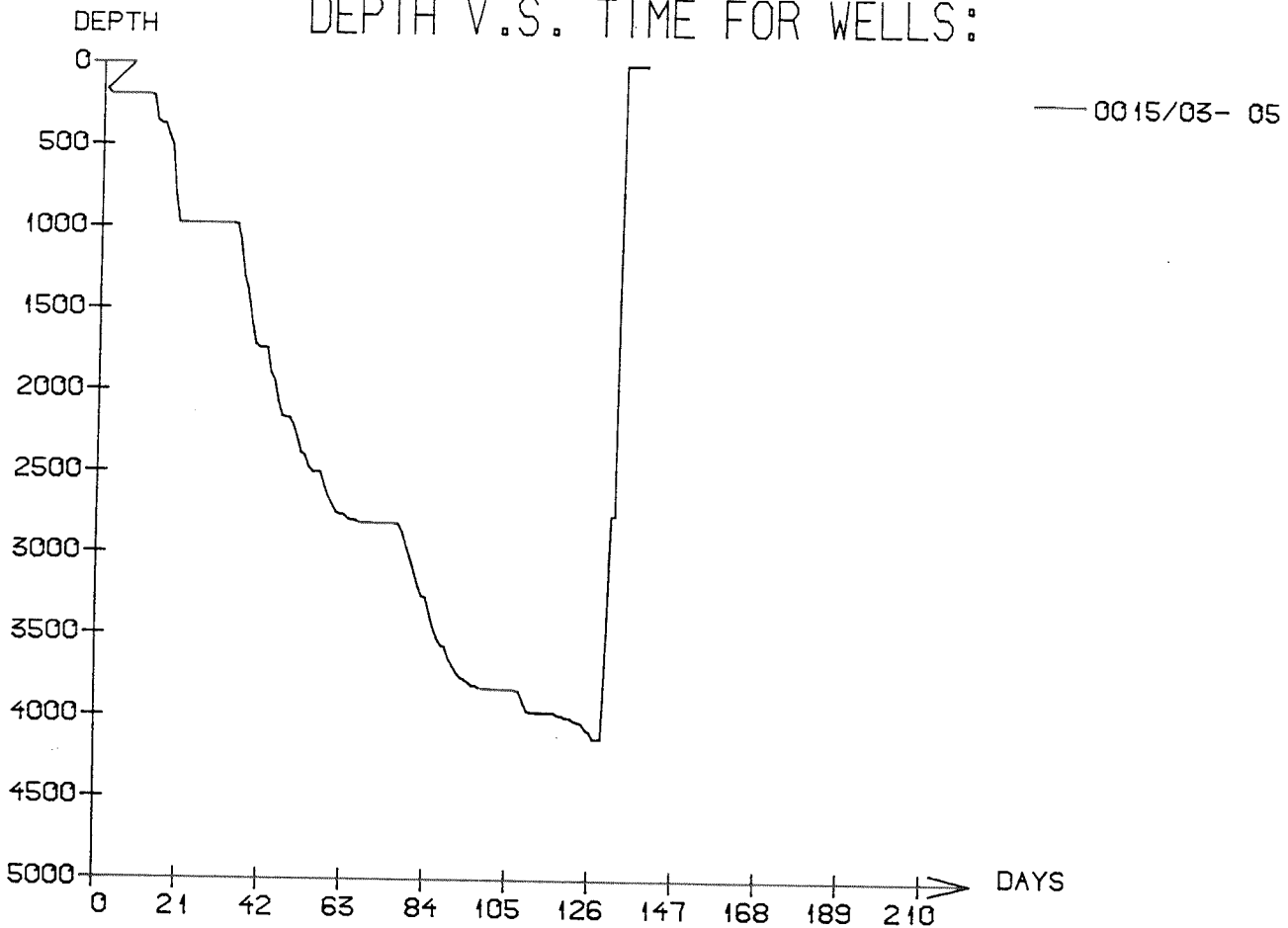
AVAILABLE LOGS

LOG TYPE	INTERVALS	1/200	1/500
ISF SONIC GR	135 - 973	X	X
ISF SLS	962 - 2808	X	X
*ISF BHC	2797 - 3831	X	1000+X
ISF SLS	3816 - 4003	X	X
ISF SLS	3816 - 4133	X	X
LDT	194 - 967	X	X
LDL CAL	962 - 2808	X	X
LDL NGL	2797 - 3816	X	X
LDL CAL	3816 - 4003	X	X
LDL CNL NGL	3815 - 4135	X	X
DLL MSFL	3816 - 4133	X	X
SHDT/CDM	2797 - 3830	X	
SHDT/CDM	3815 - 4135	X	
SHDT/AP	2801 - 3828	X	X
SHDT/AP	3815 - 4135	X	X
SHDT	2797 - 3830	X	
SHDT	3815 - 4135	X	
NGL PLAYBACK	2797 - 3816	X	X
NGL RATIO PLAYBACK	3815 - 4135	X	X
BGT	962 - 2800	X	
TEMPERATURE	2445 - 3775	X	X
RFT	3960 - 4116	1:100	
CBL VDL	1000 - 2793	X	
CBL VDL	2600 - 3810	X	
MUD	196 - 4130		X
VELOCITY	197 - 4125	1:1000	X

(+ Airgun Well Velocity Survey and Calibr. log data, 1 stk)
 (+ Synthetic Seismogram, Marine, 10 cm/s, 1 stk)
 (+ Synthetic Seismogram, 10 cm/s, 2 stk)
 (+ V.S.P., 10 cm/s, 7 stk)

* BOTH 1:500 AND 1:1000 ON SAME LOG

DEPTH V.S. TIME FOR WELLS:



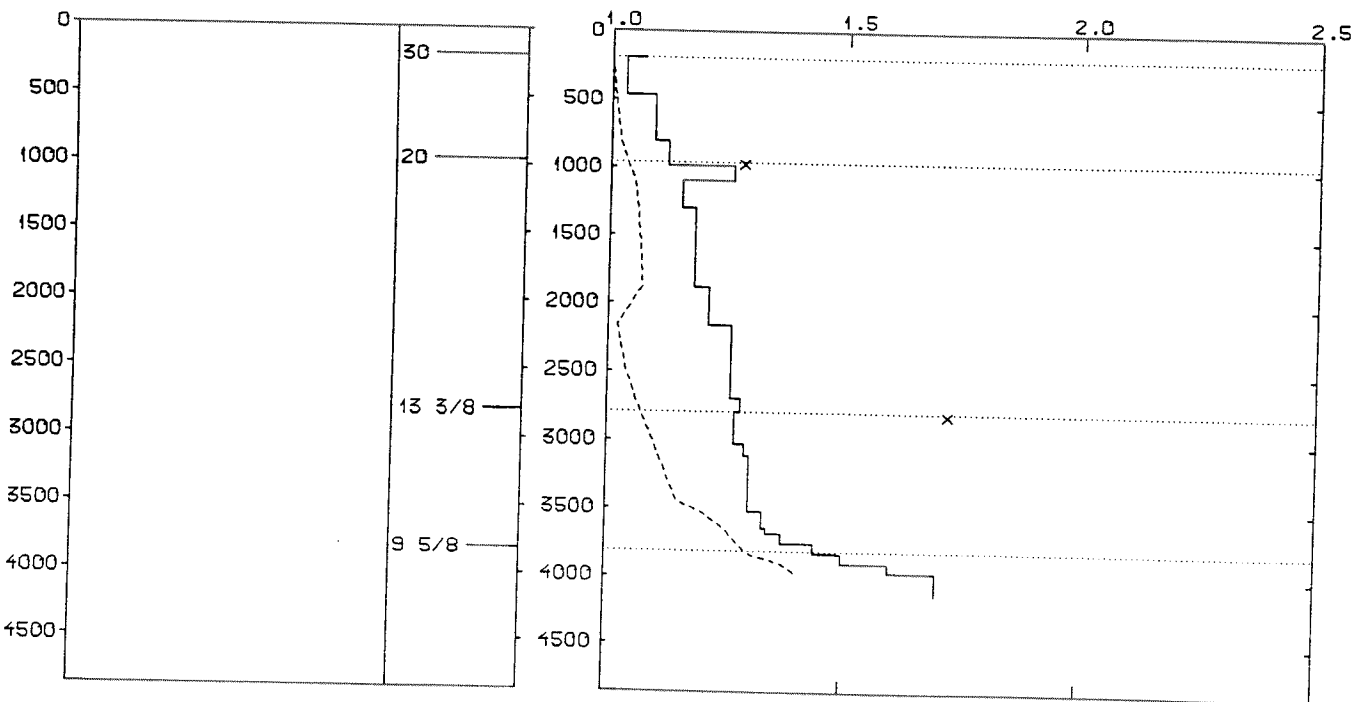
WELL: 001503 05 PRESSURE COMPOSITE PLOT

DEPTH
(RKB)
(METERS)

CASING

PRESSURE GRADIENTS
(g/ccm)

— MUDWEIGHT (REPORT)
 - - - PORE PRESSURE (REPORT)
 x LEAK-OFF (REPORT)



WELL HISTORY - 15/3-5

GENERAL:

The wildcat 15/3-5 was drilled in a downdip position of a structure explored by the well 15/3-4 (See WDSS vol. 13), where oil bearing reservoirs of Middle Jurassic age were tested. The main objectives of 15/3-5 were to find the extension of these reservoirs and to define a hydrocarbon-water contact. The well encountered five thinner reservoir zones in the Sleipner Formation. Three of them were hydrocarbon bearing.

OPERATIONS:

The well was spudded 28.12.83 by the semi-submersible rig Byford Dolphin. Three cores were cut in the Middle Jurassic sequence. The well was re-spudded 06.01.84 due to bad weather, reaming had to be done due to waiting on weather. Some technical problems with the BOP occurred after setting of the 20" and 13 3/8" casings. A seat protector got stuck in the riser during drilling of the 17 1/2" hole. Drilling breaks occurred at 3943 m, 3954 m, 4018 m, 4032 m and at 4041-4043 m in the 8 1/2" hole section. The well was drilled using water based mud.

TESTING:

No DST's were performed in 15/3-5.

GEOLOGICAL TOPS

WELL: 15/ 3-05

	<i>Depth m (RKB)</i>
<i>Nordland Group</i>	<i>135.000</i>
<i>Utsira Fm</i>	<i>702.000</i>
<i>Hordaland Group</i>	<i>958.000</i>
<i>Frigg Fm</i>	<i>1596.000</i>
<i>Rogaland Group</i>	<i>2236.000</i>
<i>Balder Fm</i>	<i>2236.000</i>
<i>Sele Fm</i>	<i>2294.000</i>
<i>Ty/Heimdal Fm</i>	<i>2350.000</i>
<i>Shetland Group</i>	<i>2680.000</i>
<i>Ekofisk Fm</i>	<i>2680.000</i>
<i>Jorsalfare Fm</i>	<i>2803.000</i>
<i>Kyrre Fm</i>	<i>3063.000</i>
<i>Tryggvason Fm</i>	<i>3339.000</i>
<i>Blodøks Fm</i>	<i>3401.000</i>
<i>Svarte Fm</i>	<i>3486.000</i>
<i>Cromer Knoll Group</i>	<i>3623.000</i>
<i>?Rødby Fm</i>	<i>3623.000</i>
<i>Viking Group</i>	<i>3808.000</i>
<i>Draupne Fm</i>	<i>3808.000</i>
<i>Heather Fm</i>	<i>3881.000</i>
<i>Vestland Group</i>	<i>3935.000</i>
<i>Sleipner Fm</i>	<i>3935.000</i>
<i>TD =</i>	<i>4130.000</i>