

WDSS Report

Date: 04/03/98

PB/SKR

Page: 1 / 1

Well no:	Operator:
31/02-18	HYDRO

Well

Coordinates :	60° 54' 10.49" N 03° 34' 41.79" E	UTM coord. :	6752271.73 N 531373.19 E
License no :	54	Permit no :	741
Rig :	TREASURE SAGA	Rig type :	SEMI-SUB.
Contractor :	WILRIG A/S		
Bottom hole temp:	58 °C	Elev. KB :	25 M
Spud. date :	92.09.15	Water depth :	364 M
Compl. date :	92.10.07	Total depth :	1711 M
Spud. class :	APPRAISAL	Form. at TD :	JURASSIC
Compl. class :	P&A. OIL/GAS	Prod.form. :	E.JURASSIC
Seisloca :	NH 9101, ROW 1146, COL. 2042		

Licenses

3.105000 ELF PETROLEUM NORGE AS
 4.900000 NORSK HYDRO PRODUKSJON AS
 25.900000 A/S NORSKE SHELL
 58.800000 DEN NORSKE STATS OLJESELSKAP A.S
 1.000000 TOTAL NORGE AS
 6.295000 NORSKE CONOCO A/S

Casing and Leak-off Tests

Type	Casing diam	Depth below KB	Hole diam.	Hole depth below KB	Lot mud eqv. g/cm ³
CONDUCTOR	30	453.0	36	453.0	
INTERM.	18 5/8	921.0	24	940.0	1.73
INTERM.	9 5/8	1450.0	12 1/4	1465.0	1.64
OPEN HOLE		1711.0	8 1/2	1711.0	

WDSS Report

Date: 04/03/98

PB/SKR

Page: 2 / 2

Well no:	Operator:
31/02-18	HYDRO

Conventional Cores

Core no.	Intervals cored meters	Recovery m	%
1	1498.0 - 1516.0	18.0	100.0
2	1516.0 - 1534.0	17.5	100.0
3	1534.0 - 1552.0	17.5	100.0
4	1552.0 - 1570.0	18.0	100.0
5	1570.0 - 1588.0	18.0	100.0
6	1588.0 - 1599.0	11.0	100.0
7	1599.0 - 1608.9	9.9	100.0
8	1610.5 - 1627.1	16.6	100.0
9	1628.5 - 1638.5	9.6	100.0
10	1638.5 - 1653.3	14.7	100.0
11	1654.0 - 1666.5	12.5	100.0
12	1666.5 - 1678.5	12.0	100.0

Mud

Depth	Mud weight	Visc.	Mud type
453.0	1.05		WATER BASED
518.0	1.05		WATER BASED
940.0	1.35	13.0	WATER BASED
940.0	1.35	14.0	WATER BASED
1344.0	1.35		WATER BASED
1350.0	1.18	28.0	WATER BASED
1435.0	1.35	24.0	WATER BASED
1465.0	1.18	13.0	WATER BASED
1503.0	1.18	27.0	WATER BASED
1534.0	1.18	28.0	WATER BASED
1570.0	1.18	27.0	WATER BASED
1610.0	1.18	27.0	WATER BASED
1639.0	1.18	28.0	WATER BASED
1678.0	1.18	27.0	WATER BASED
1711.0	1.18	29.0	WATER BASED

Drill Stem Test (intervals and pressures)

Test no.	Test interval meter	Choke size	Pressure (psi) WHP	BTHP	FFP
-------------	------------------------	---------------	-----------------------	------	-----

WDSS Report

Date: 04/03/98

PB/SKR

Page: 3 / 3

Well no:	Operator:
31/02-18	HYDRO

Drill Stem Test (recovery)

Test no.	Oil Sm ³ /d	Gas Sm ³ /d	Oil grav. g/cm ³	Gas grav. rel. air	GOR m ³ /m ³

Drill Bit Cuttings and Wet Samples

Sample type	Interval below KB	Number of samples
WET SAMPLES	950 - 1710	101
CUTTINGS	950 - 2005	60

Shallow Gas

Interval below KB	Remarks

Available Logs

Log type	Intervals logged	1/200	1/500	
AIT NGS FFL	1450.0 - 1693.0			
CALIBRATED SONIC	500.0 - 1700.0			
DLL MSFL DSI GR AMS	1450.0 - 1706.0			
DLL MSFL LSS GR SP	365.0 - 1706.0			
DSI GR	1450.0 - 1692.0			
FMI	1510.0 - 1704.0			
GASCHROMATOLOG	940.0 - 1711.0			
LDL	365.0 - 938.0			
LDL	921.0 - 1447.0			
LDL CNL GR	365.0 - 1708.0			
LDL CNL NGS AMS	1450.0 - 1708.0			
LSS GR AMS	365.0 - 938.0			
LSS GR AMS	921.0 - 1447.0			

WDSS Report

Date: 04/03/98

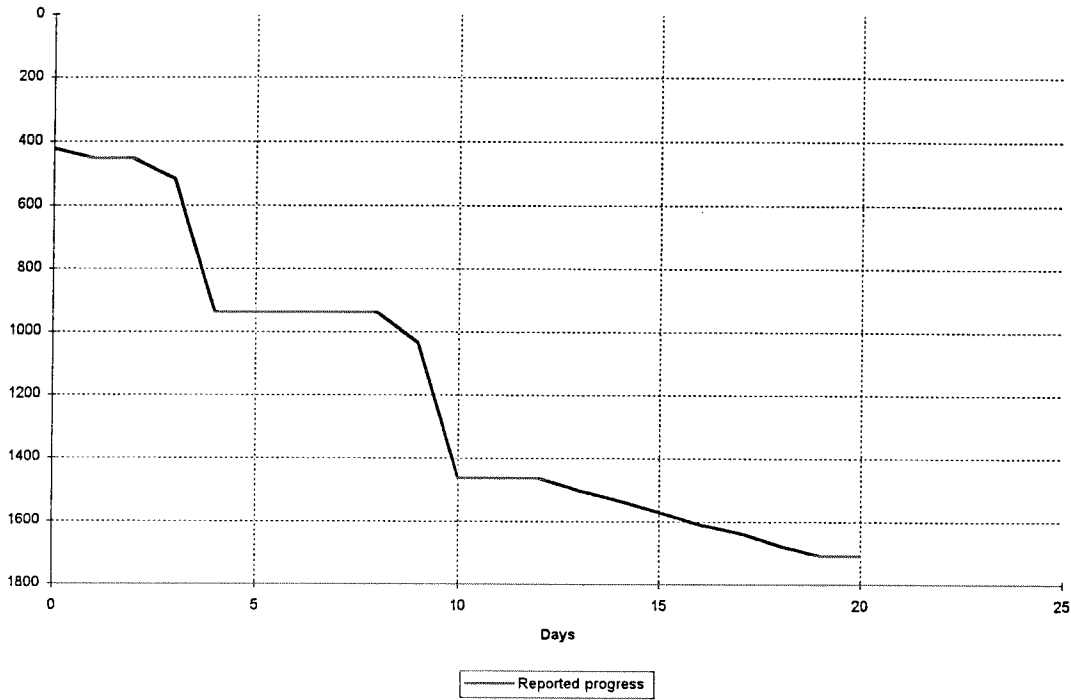
PB/SKR

Page: 4 / 4

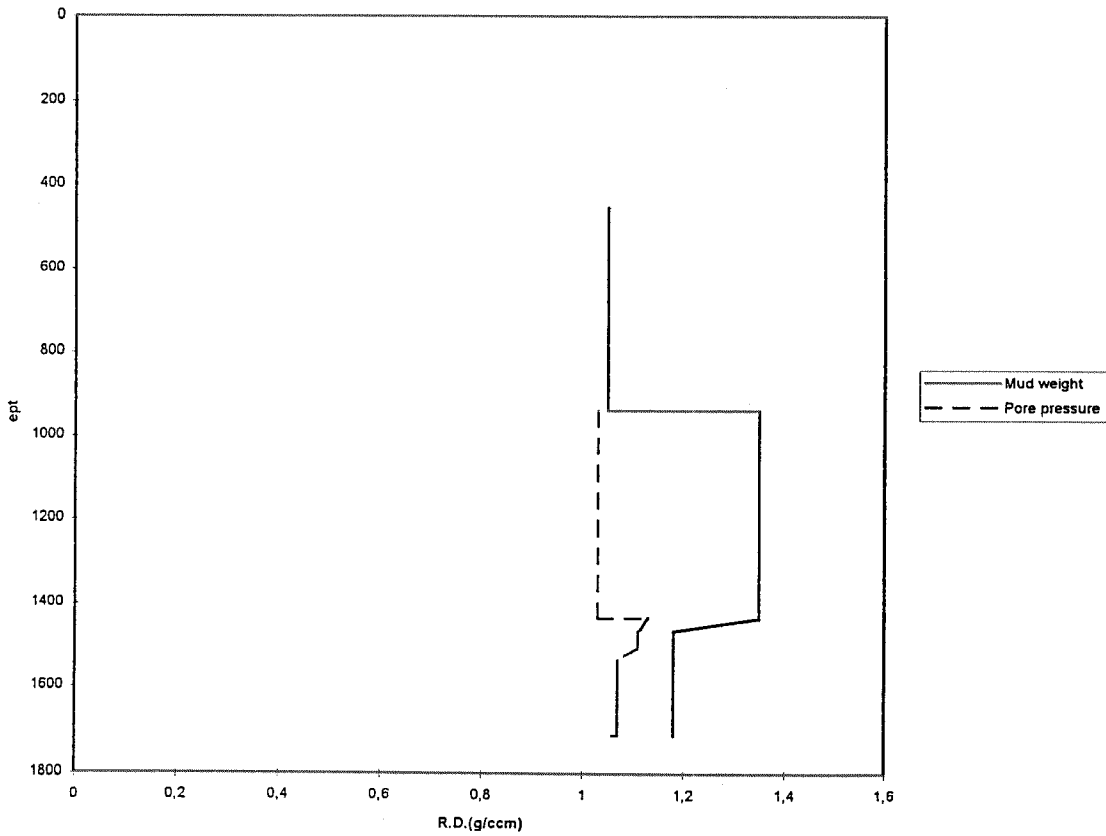
Well no:	Operator:
31/02-18	HYDRO

MWD LOG	372.0 - 1499.0			
RFT	1522.0 - 1687.5			
SITE SURVEY	364.0 - 1200.0			
SITE SURVEY INTER- SYNTHETIC SEISMOGRAM				
TWO WEAY TRAVEL TIME				
VSP				

Depth v.s. time plot for well: 31/2-18



Composite plot for well: 31/2-18



Main operations for well: 31/2-18**Main operation: DRILLING**

Sub operation:	Minutes:	Hours:	% of total:
BOP ACTIVITIES	870	14,5	4,86
BOP/WELLHEAD EQ	2160	36,0	12,06
CASING	6240	104,0	34,84
CIRC/COND	1350	22,5	7,54
DRILL	3810	63,5	21,27
HOLE OPEN	810	13,5	4,52
TRIP	2670	44,5	14,91
Total	17910	298,5	100,00

Main operation: FORMATION EVAL

Sub operation:	Minutes:	Hours:	% of total:
CIRC/COND	900	15,0	8,20
CORE	1560	26,0	14,21
LOG	2160	36,0	19,67
OTHER	990	16,5	9,02
RFT/FIT	1290	21,5	11,75
TRIP	4080	68,0	37,16
Total	10980	183,0	100,00

Main operation: INTERRUPTION

Sub operation:	Minutes:	Hours:	% of total:
LOST CIRC	150	2,5	4,00
MAINTAIN/REP	2160	36,0	57,60
OTHER	330	5,5	8,80
WAIT	1110	18,5	29,60
Total	3750	62,5	100,00

Main operation: MOVING

Sub operation:	Minutes:	Hours:	% of total:
ANCHOR	1290	21,5	47,25
TRANSIT	1440	24,0	52,75
Total	2730	45,5	100,00

Main operation: PLUG & ABANDON

Sub operation:	Minutes:	Hours:	% of total:
CEMENT PLUG	60	1,0	1,27
CIRC/COND	330	5,5	7,01
CUT	90	1,5	1,91
EQUIP RECOVERY	1350	22,5	28,66
OTHER	60	1,0	1,27
TRIP	2820	47,0	59,87
Total	4710	78,5	100,00

Total time used: Hours

WELL HISTORY 31/2-18

GENERAL:

The primary purpose of well 31/2-18 was to appraise the structure and oil bearing potential of a fault block in the northern part of the Troll West Gas province (TWGP). In summary, the main objectives for drilling well 31/2-18 were:

- Evaluate the structure for future development of oil producing wells in the TWGP-North area.
- Determine the degree of development required to efficiently develop the oil reservoir in the TWGP-North area

OPERATION:

Well 31/2-18 was spudded by the semi submersible rig "Treasure Saga" on 15th September 1992, and reached a total depth of 1711m on 4th October 1992 in the Fensfjord Formation.

The lower part of Våle Formation, from 1519.9m to the base of the unit at 1528.8m consist of sandstone which proved to be gas bearing, and continuation with the underlying Sognefjord Formation. The Sognefjord Formation was encountered over the interval 1528.8m – 1642.7m and was found gas bearing down to 1571.2 mMD. A thin oil leg was identified, with an oil-water contact at 1582.0 mMD. 16 good RFT pressure measurements, including one segregated sample were taken in one run over the interval 1522m – 1689.5m. After running wireline logs, the well was plugged back to the 9 5/8" casing shoe and side tracked as well 31/2-18A. After well 31/2-18A had been logged, it was subsequently plugged back to the 9 5/8" casing shoe, where upon the well status reverted to 31/2-18.

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

TESTING:

No DST tests were performed in this well.

Geological Tops.

Well: 31/2-18.

	Depth m (RKB).
Nordland Group	366.0
Hordaland Group	670.0
Rogaland Group	1216.0
Balder Fm	1216.0
Sele Fm	1266.0
Lista Fm	1337.0
Våle Fm	1497.0
Viking Group	1528.0
Sognefjord Fm	1528.0
Heather Fm	1642.7
Fensfjord Fm	1688.0
T.D.	1711.0