

Well no : 2/04-13 X Operator : SAGA

Coordinates : 56 41 03.98 N UTM coord. : 6282409 N
 03 08 44.53 E 508926 E

Licence no : 146 Permit no : 588

Rig : TREASURE SAGA Rig type : SEMI-SUB.

Contractor : WILHELMSSEN OFFSHORE SERVICES

Bottom hole temperature : 65 deg.C Elev. KB : 26 M

Spud. date : 88.09.04 Water depth : 69 M

Compl. date : 88.10.06 Total depth : 2518 M

Spud. class : WILDCAT Form. at TD :

Compl. class : JUNKED Prod. form :

Seisloca : LINE NS - 5 - 235 SP 585

LICENSEES

10.000000 AMERADA HESS NORGE A/S
 20.000000 ELF AQUITAINE NORGE A/S
 20.000000 SAGA PETROLEUM A.S.
 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/cm3
CONDUCTOR	30	214.0	36	218.0	.
SURF.COND.	20	906.0	26	922.0	1.82
INTERM.	13 3/8	2503.0	17 1/2	2518.0	.

MUD PROPERTIES

Depth below KB meter	Mud weigth g/cm3	Viscosity	Mud type
215.000	1.07	0.0	WATER BASED
218.000	1.05	0.0	WATER BASED
560.000	1.13	4.0	WATER BASED
1185.000	1.20	14.0	WATER BASED
1720.000	1.35	28.0	WATER BASED
1984.000	1.50	20.0	WATER BASED
2216.000	1.55	23.0	WATER BASED
2518.000	1.60	23.0	WATER BASED

DRILL BIT CUTTINGS AND WET SAMPLES

SAMPLE TYPE	INTERVAL BELOW KB	NUMBER OF SAMPLES
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 Cutting

SHALLOW GAS

Interval
below KB

REMARKS

AVAILABLE LOGS

LOG TYPE	INTERVALS	1/200	1/500	Div.
LS BHC AC CDL GR	906.000 - 2516.000	X	X	
DLL GR	906.000 - 2516.000	X	X	
4-ARM CALIPER	100.000 - 2475.000	X	X	
AC CBL VDL GR	95.000 - 2475.000	X	X	
MWD	225.000 - 925.000	X	X	

VELOCITY, V.S.P., SYNTHETIC SEISMOGRAM LOGGER ETC. ER KJØRT
SAMMEN MED 2/4-14, OG BLIR FRIGITT MED DENNE BRØNNEN
31.01.94.

MAIN OPERATIONS FOR WELL: 000204 13

Main operation: DRILLING

Sub operations	Minutes	Hrs	% of total
BOP ACTIVITIES	270	4,5	0,96
BOP/WELLHEAD EQ	2220	37,0	7,86
CASING	3900	65,0	13,80
CIRC/COND	2580	43,0	9,13
DRILL	9750	162,5	34,50
OTHER	360	6,0	1,27
PRESS DETECTION	270	4,5	0,96
REAM	420	7,0	1,49
SURVEY	330	5,5	1,17
TRIP	5670	94,5	20,06
UNDERREAM	1470	24,5	5,20
WAIT	1020	17,0	3,61
Total	28260	471,0	100,00

Main operation: FORMATION EVAL

Sub operations	Minutes	Hrs	% of total
LOG	1290	21,5	100,00
Total	1290	21,5	100,00

Main operation: INTERRUPTION

Sub operations	Minutes	Hrs	% of total
FISH	1530	25,5	10,02
MAINTAIN/REP	12630	210,5	82,71
OTHER	720	12,0	4,72
WAIT	390	6,5	2,55
Total	15270	254,5	100,00

Main operation: MOVING

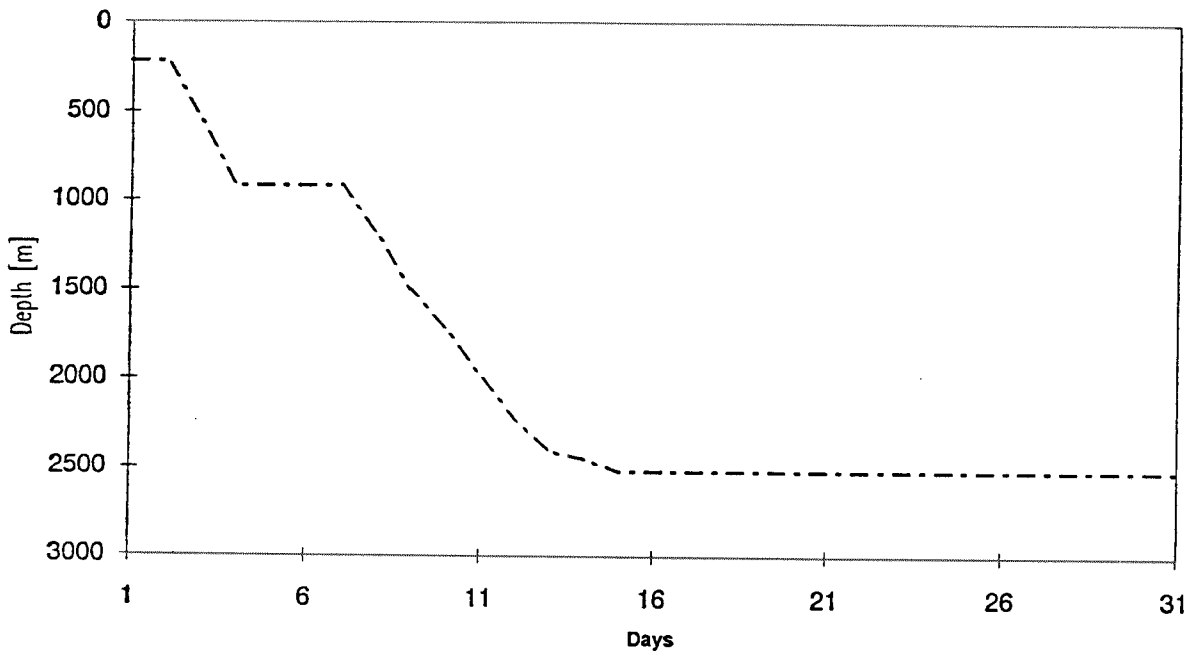
Sub operations	Minutes	Hrs	% of total
ANCHOR	360	6,0	6,35
POSITION	210	3,5	3,70
TRANSIT	5100	85,0	89,95
Total	5670	94,5	100,00

Main operation: PLUG & ABANDON

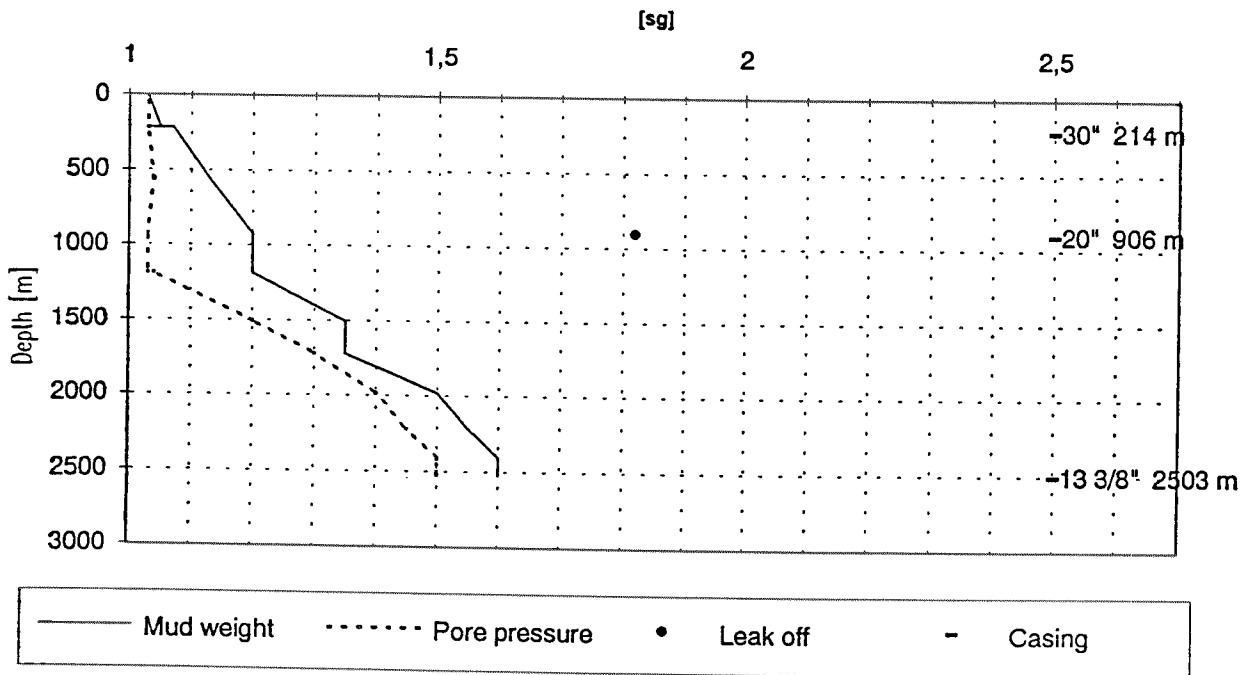
Sub operations	Minutes	Hrs	% of total
CEMENT PLUG	120	2,0	4,30
CUT	720	12,0	25,81
EQUIP RECOVERY	1380	23,0	49,46
TRIP	570	9,5	20,43
Total	2790	46,5	100,00

Total time used 888 hrs (37 days)

Depth v.s. time plot for well: 000204 13



Composite plot for well: 000204 13



Well History 2/4-13 X

GENERAL:

Well 2/4-13 X was drilled on the Steinbit Terrace. The primary purposes of the well were to assess the hydrocarbon potential of the main structure in block 2/4 PL 146 and to test the reservoir potential of the expected Late Jurassic sandstone. The well was drilled in the middle of the Northwest to Southeast trending structure which is a structural/stratigraphic closure on a rotated fault block.

OPERATIONS:

Wildcat well 2/4-13 X was spudded 4 September 1988 by Wilrig semi-submersible rig Treasure Saga and completed 6 October 1988 at a depth of 2518 m.

Thin gas-bearing layers of sand were found at 606 m. Problems with the seal assembly after setting of 9 5/8" casing. 14 days were spent trying to liberate and change this without any success.

The hole was plugged as a junked hole, and 2/4-14 was drilled 50 m from this location.

TESTING:

No DST tests were performed in this well.