

Well no : 6408/04-01

Operator : CONOCO

Coordinates : 64 40 00.22 N
08 15 27.84 E

UTM coord. : 7171698 N
464560 E

Licence no : 133

Permit no : 586

Rig : VINNI

Rig type : SEMI-SUB.

Contractor : DITLEV-SIMONSEN (SDS DRILLING)

Bottom hole temperature : 81 deg.C

Elev. KB : 27 M

Spud. date : 88.09.18

Water depth : 209 M

Compl. date : 88.10.18

Total depth : 2725 M

Spud. class : WILDCAT

Form. at TD : TRIASSIC

Compl. class : P&A. DRY HOLE

Prod. form :

Seisloca : ST 8621 - 417 SP 1660

LICENSEES

50.000000 NORSKE CONOCO 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	340.0	36	346.0	.
SURF.COND.	20	820.0	26	830.0	1.53
INTERM.	13 3/8	1673.0	17 1/2	1692.0	1.75

CONVENTIONAL CORES

Core no.	Intervals cored meters	Recovery M	%	Series
1	1745.0 - 1746.4	1.4	100.0	

MUD PROPERTIES

Depth below KB meter	Mud weigth g/cm3	Viscosity	Mud type
260.000	1.02	0.0	WATER BASED
830.000	1.06	0.0	WATER BASED
830.000	1.20	0.0	WATER BASED
859.000	1.22	0.0	WATER BASED
1433.000	1.36	0.0	WATER BASED
1692.000	1.39	25.0	WATER BASED
1692.000	1.40	25.0	WATER BASED
1692.000	1.42	26.0	WATER BASED
1692.000	1.38	25.0	WATER BASED
1711.000	1.21	15.0	WATER BASED

1746.400	1.20	16.0	WATER BASED
1938.000	1.22	14.0	WATER BASED
2328.000	1.23	17.0	WATER BASED
2725.000	1.21	15.0	WATER BASED
2725.000	1.25	17.0	WATER BASED

DRILL BIT CUTTINGS AND WET SAMPLES

SAMPLE TYPE	INTERVAL BELOW KB	NUMBER OF SAMPLES
Cutting	870-2721	120
Wet Samples	840-2725	120

SHALLOW GAS

Interval below KB	REMARKS

AVAILABLE LOGS

LOG TYPE	INTERVALS	1/200	1/500	Div.
DIFL BHC AC GR	236.000 - 616.000	X	X	
DIFL BHC AC GR	575.000 - 1674.000	X	X	
DIFL BHC AC GR	1673.000 - 2721.000	X	X	
ZCDL GR	820.000 - 1675.000	X	X	
ZCDL CNL GR	1673.000 - 2721.000	X	X	
MWD	236.000 - 2725.000	X	X	
CDM	1673.000 - 2721.000	X		
CDM AP	1673.000 - 2721.000	X	X	
AC CBL VDL GR	240.000 - 1673.000	X		
SPECTRALOG	1673.000 - 2713.000	X	X	
MUD	236.000 - 2725.000		X	
VELOCITY LOG	236.000 - 2720.000	X	X	

(Airgun well velocity and calibr. log data, 1 stk.)
 (Display of well velocity survey records, 1-4 , 4 stk.)
 (Synthetic Seismogram, 10 cm/s 5 stk.)
 (V.S.P, Interpreters composite, 2 stk.)
 (V.S.P, Downgoing wavefield 1 stk.)

MAIN OPERATIONS FOR WELL: 640804 01

Main operation: DRILLING

Sub operations	Minutes	Hrs	% of total
BOP ACTIVITIES	2610	43,5	9,33
BOP/WELLHEAD EQ	420	7,0	1,50
CASING	3240	54,0	11,59
CIRC/COND	1050	17,5	3,76
DRILL	10920	182,0	39,06
HOLE OPEN	2310	38,5	8,26
OTHER	840	14,0	3,00
REAM	810	13,5	2,90
SURVEY	30	0,5	0,11
TRIP	4980	83,0	17,81
WAIT	750	12,5	2,68
Total	27960	466,0	100,00

Main operation: FORMATION EVAL

Sub operations	Minutes	Hrs	% of total
CIRC SAMPLES	90	1,5	1,72
CIRC/COND	60	1,0	1,15
CORE	210	3,5	4,02
LOG	3450	57,5	66,09
OTHER	180	3,0	3,45
RFT/FIT	90	1,5	1,72
TRIP	1140	19,0	21,84
Total	5220	87,0	100,00

Main operation: INTERRUPTION

Sub operations	Minutes	Hrs	% of total
FISH	210	3,5	4,64
MAINTAIN/REP	330	5,5	7,28
OTHER	720	12,0	15,89
WAIT	3270	54,5	72,19
Total	4530	75,5	100,00

Main operation: MOVING

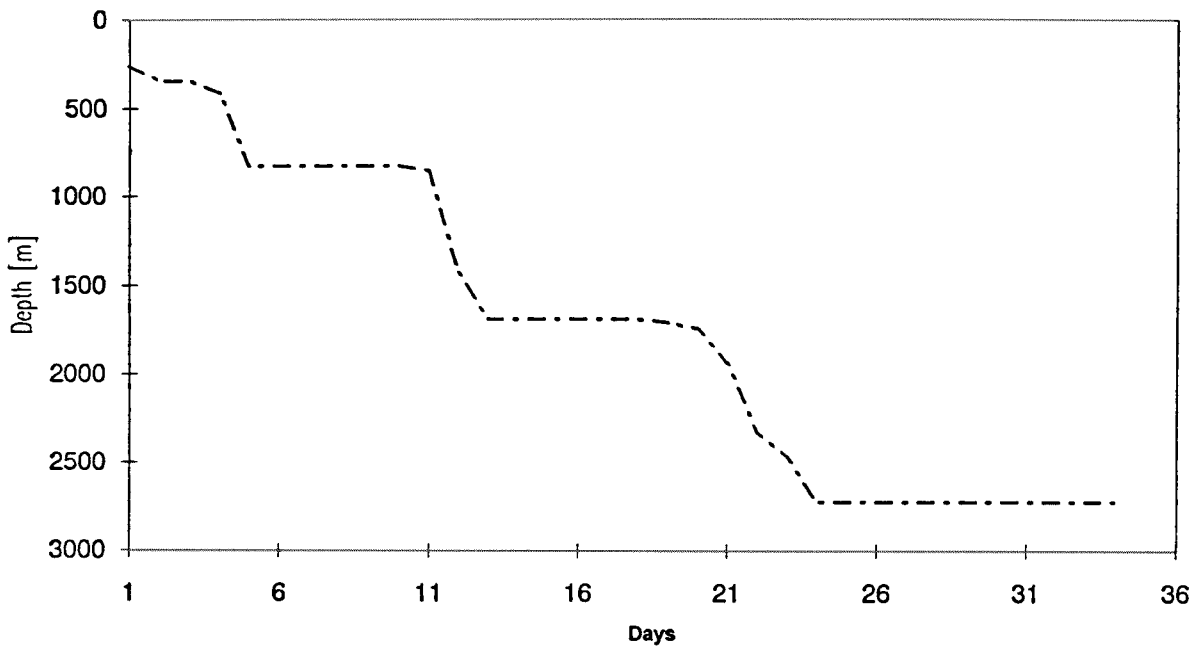
Sub operations	Minutes	Hrs	% of total
ANCHOR	1260	21,0	20,69
TRANSIT	4830	80,5	79,31
Total	6090	101,5	100,00

Main operation: PLUG & ABANDON

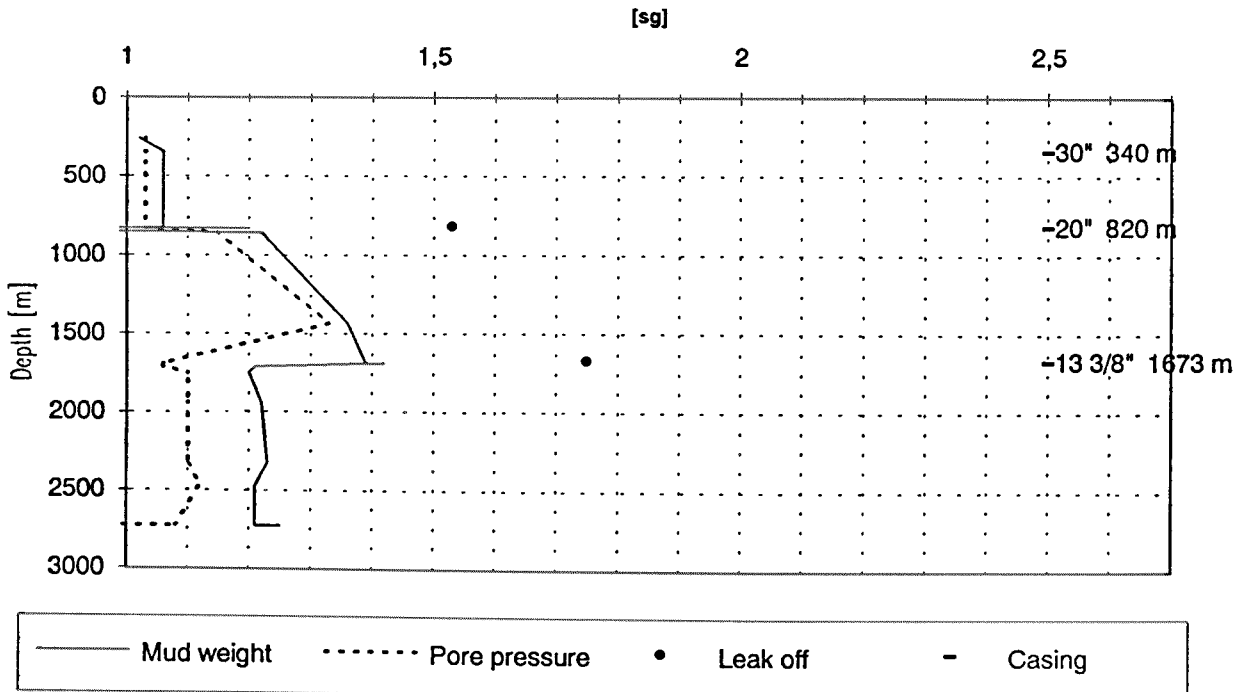
Sub operations	Minutes	Hrs	% of total
CEMENT PLUG	1020	17,0	19,77
CUT	390	6,5	7,56
EQUIP RECOVERY	990	16,5	19,19
OTHER	1320	22,0	25,58
PERFORATE	180	3,0	3,49
TRIP	900	15,0	17,44
WAIT	360	6,0	6,98
Total	5160	86,0	100,00

Total time used 816 hrs (34 days)

Depth v.s. time plot for well: 640804 01



Composite plot for well: 640804 01



Well History 6408/4-1

GENERAL:

Block 6408/4 is situated at the edge of the Trøndelag Platform, a relatively stable and undeformed area, which is separated from the highly structured Halten Terrace to the west by a major fault zone. The fault zone was active during Middle Jurassic to Early Cretaceous, and produced only minor effects on the Trøndelag Platform. The structure of the well 6408/4-1 is a large, gently dipping structure that is bounded by a southeast dipping fault with dip closure in all other directions.

The well had the following objectives:

- To test for the development of the Late Jurassic Rogn sands and their hydrocarbon potential.
- To test for hydrocarbons in the Middle Jurassic Fangst sands.

OPERATIONS:

Wildcat well 6408/4-1 was spudded 18 September 1988 by Sverre Ditlev Simonsen Drilling A/S semi-submersible rig Vinni and completed 18 October 1988 at a depth of 2725 m in Triassic rocks.

No shallow gas was encountered. There were certain problems with hole stability down to approx. 830 m. The drill string was twisted off at 370 m and had to be fished up.

During logging the tool did not get past 622 m, and due to this there is a lack of conventional log between 622 - 830 m. Further drilling went without any significant problems.

The prognosed sand in the Rogn Formation was not developed. A change from high gamma-response shale to lower gamma-response at approx. 1734 m could be Melke Fm. or shaly development of the Rogn Fm. The reservoir sections in Middle and Early Jurassic was water-bearing.

One core was cut between 1745 - 1746.4 m and a second core was attempted without success.

The well was plugged and abandoned as dry.

TESTING:

No DST tests were performed in this well.

GEOLOGICAL TOPS

WELL: 6408/4-1

Depth m (RKB)

<i>Nordland Group</i>	236.0
<i>Hordaland Group</i>	774.0
<i>Brygge Fm.</i>	774.0
<i>Rogaland Group</i>	1313.0
<i>Tare Fm.</i>	1313.0
<i>Tang Fm.</i>	1374.0
<i>Shetland Group</i>	1619.0
<i>Springar Fm.</i>	1619.0
<i>Cromer Knoll Group</i>	1636.0
<i>Lange Fm.</i>	1636.0
<i>Lyr Fm.</i>	1666.0
<i>Viking Group</i>	1702.0
<i>Spekk Fm.</i>	1702.0
<i>Melke Fm.</i>	1797.0
<i>Fangst Group</i>	1825.0
<i>Garn Fm.</i>	1825.0
<i>Not Fm.</i>	1924.0
<i>Ile Fm.</i>	1968.0
<i>Båt Group</i>	2015.0
<i>Ror Fm.</i>	2015.0
<i>Tilje Fm.</i>	2157.0
<i>Åre Fm.</i>	2323.0
<i>Undefined</i>	2634.0
<i>T.D.</i>	2725.0