

Well no :	30/9-10	Operator :	HYDRO
Coordinates :	60° 23' 23.20" N 02° 47' 13.16" E	UTM coord. :	669499750 N 48825820 E
Licence no :	104	Permit no :	646
Rig :	VILDKAT EXPLORER	Rig type :	SEMI-SUB.
Contractor :	TRANSNOR RIG AS		
Bottom hole temp:	123 °C	Elev. KB :	25 M
Spud. date :	90.07.31	Water depth :	95 M
Compl. date :	90.09.21	Total depth :	3649 M
Spud. class :	WILDCAT	Form. at TD	E.JURASSIC
Compl. class :	SUSPENDED. OIL DISC.	Prod.form. :	M.JURASSIC
Seisloca :	NH 8502-332 X-OVER NH 8502-430		

LICENSEES

5,000000	CONOCO PETROLEUM NORGE A/S
5,000000	DNO OLJE A/S
30,000000	NORSK HYDRO PRODUKSJON A.S
5,000000	SAGA PETROLEUM A.S.
50,000000	DEN NORSKE STATS OLJESELSKAP A.S
5,000000	NORSK AGIP 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	209,0	36	210,0	
INTERM.	13 3/8	1040,0	17 1/2	1059,0	1,87
INTERM.	9 5/8	2701,0	12 1/4	2716,0	1,87
LINER	7	2996,0	8 1/2	3649,0	

CONVENTIONAL CORES

Core no.	Intervals cored meters	Recovery	
		M	%
1	2725,0 - 2725,1	0,1	100,0
2	2726,0 - 2729,0	3,0	100,0
3	2730,0 - 2732,1	2,1	100,0
4	2747,0 - 2771,0	24,0	100,0
5	2774,5 - 2824,1	49,6	100,0
6	2825,0 - 2871,2	46,2	100,0
7	2872,5 - 2895,0	22,5	100,0

MUD

Depth	Mud weight	Visc.	Mud type
124,000	1,20		WATER BASED
350,000	1,16	11,0	WATER BASED
1132,000	1,20	10,0	WATER BASED

Depth	Mud weight	Visc.	Mud type
1984,000	1,40	29,0	WATER BASED
2306,000	1,41	29,0	WATER BASED
2465,000	1,40	26,0	WATER BASED
2716,000	1,42	25,0	WATER BASED
2730,000	1,27	16,0	WATER BASED
2825,000	1,28	22,0	WATER BASED
2873,000	1,27	19,0	WATER BASED
2895,000	1,90	19,0	WATER BASED
2895,000	1,26	19,0	WATER BASED
3002,000	1,22	22,0	WATER BASED
3002,000	1,15	11,0	WATER BASED
3002,000	1,22	18,0	WATER BASED
3002,000	1,15	11,0	WATER BASED
3002,000	1,16	11,0	WATER BASED
3002,000	1,15	11,0	WATER BASED
3002,000	1,22	18,0	WATER BASED
3002,000	1,15	11,0	WATER BASED
3002,000	1,22	22,0	WATER BASED
3649,000	1,27	21,0	WATER BASED

DRILL STEM TEST

INTERVALS AND PRESSURES

Test no.	Interval meter		Choke size	Pressure (PSI) WHP	BTHP	FFP
1,0	2757,000	-	2776,000	15,9	632,3	2574,0
2,0	2757,000	-	2824,000	19,1	1171,8	3701,0

Test temperature: N/A

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
1,0	379	42100	,861	,754	111
2,0	986	84800	,861	,754	86

DRILL BIT CUTTINGS AND WET SAMPLES

Sample type	Interval below KB	Number of samples
WET SAMPLES	1070 - 3642	420
CUTTINGS	1072 - 3640	450

SHALLOW GAS

Interval below KB	Remarks

AVAILABLE LOGS

Log type	Intervals		1/200	1/500	Div.
AMS	1041,0	- 2674,0		X	
AMS	2702,0	- 2868,0		X	
CBL VDL GR CCL	2125,0	- 2690,0	X		
CBL VDL GR CCL	2490,0	- 2935,0	X		
CDM AP/SHDT	2703,0	- 3652,0	X	X	
DIL LSS GR SP	1041,0	- 2705,0	X	X	
DIL SDT GR SP	2702,0	- 3651,0	X	X	
DLL MSFL CGR CALS	2702,0	- 2891,0	X	X	
FMS GR AMS	2702,0	- 3652,0	X		
LDL CNL CALI	1041,0	- 2685,0	X	X	
LDL CNL SGR CALI	2702,0	- 2880,0	X	X	
LDL CNL SGR CALI	2820,0	- 3652,0	X	X	
MUD	124,0	- 3649,0		X	
MWD	124,0	- 3566,0		X	
NGS	2820,0	- 3643,0	X	X	
NGS RATIO	2702,0	- 2871,0	X	X	
VELOCITY	1041,0	- 3651,0		X	
RFT HP GR AMS	2758,0	- 3634,0		X	
RFT HP GR AMS	2763,0	- 2868,0			
SYNTHETIC SEISMOGRAM	10 cm/s				2
V.S.P,	10 cm/s	20 cm/s			2
V.S.P,	2200,0	- 3650,0			1
V.S.P, Zero Offset,	10 cm/s	1053,0 - 3650,0			1

Main operations for well: 30/9-10

Main operation: DRILLING

Sub operation:	Minutes:	Hours:	% of total:
BOP ACTIVITIES	2040	34,0	7,51
CASING	6060	101,0	22,30
CIRC/COND	510	8,5	1,88
DRILL	12300	205,0	45,25
HOLE OPEN	570	9,5	2,10
OTHER	180	3,0	0,66
REAM	90	1,5	0,33
TRIP	5430	90,5	19,98
Total	27180	453,0	100,00

Main operation: FORMATION EVAL

Sub operation:	Minutes:	Hours:	% of total:
CIRC SAMPLES	60	1,0	0,18
CIRC/COND	600	10,0	1,75
CORE	4620	77,0	13,50
DST	17970	299,5	52,50
LOG	4620	77,0	13,50
OTHER	240	4,0	0,70
RFT/FIT	1620	27,0	4,73
TRIP	4500	75,0	13,15
Total	34230	570,5	100,00

Main operation: INTERRUPTION

Sub operation:	Minutes:	Hours:	% of total:
LOST CIRC	1680	28,0	15,73
MAINTAIN/REP	6510	108,5	60,96
OTHER	570	9,5	5,34
WAIT	1920	32,0	17,98
Total	10680	178,0	100,00

Main operation: MOVING

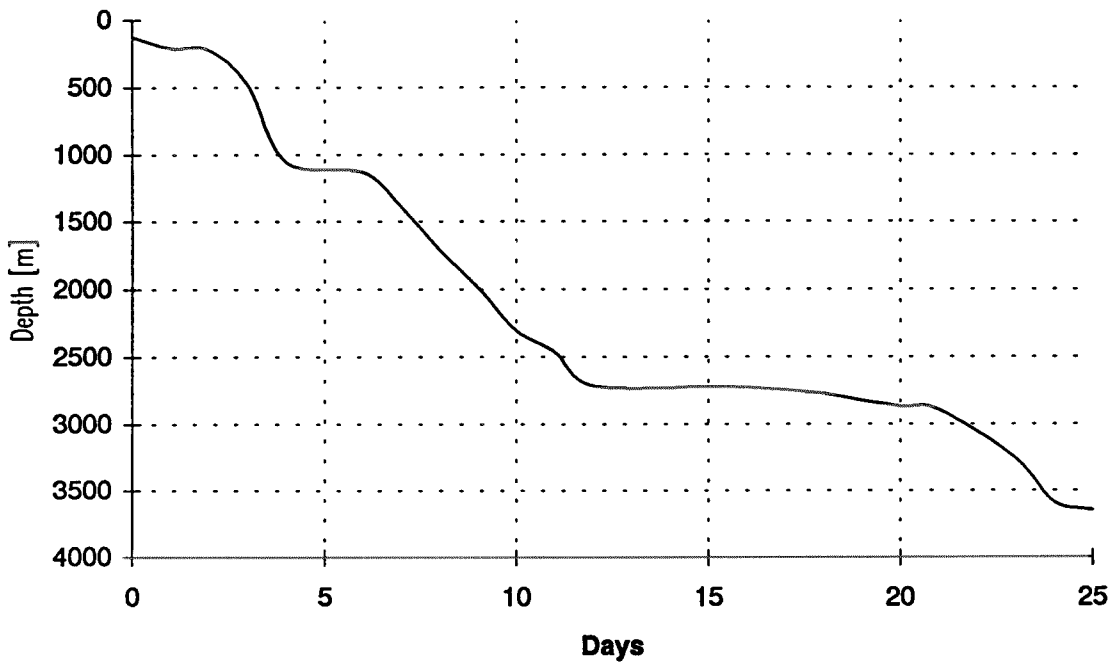
Sub operation:	Minutes:	Hours:	% of total:
ANCHOR	1080	18,0	24,66
TRANSIT	3300	55,0	75,34
Total	4380	73,0	100,00

Main operation: PLUG & ABANDON

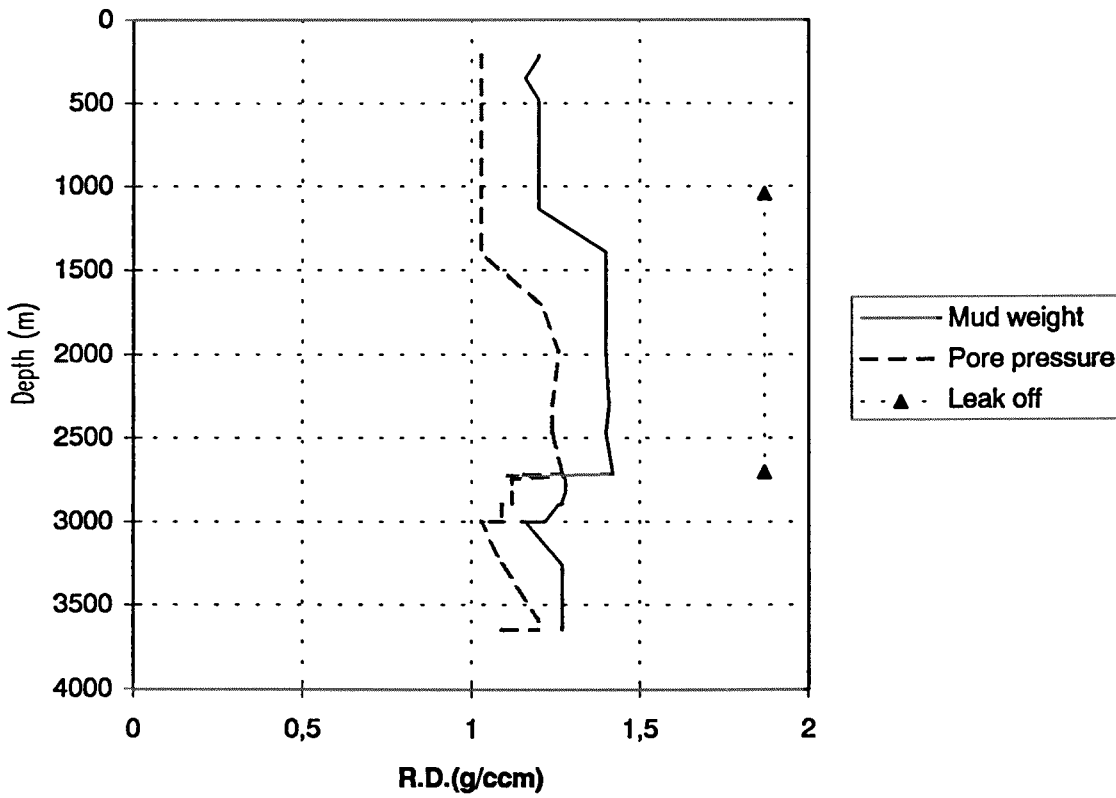
Sub operation:	Minutes:	Hours:	% of total:
CEMENT PLUG	420	7,0	15,38
CIRC/COND	90	1,5	3,30
EQUIP RECOVERY	810	13,5	29,67
OTHER	240	4,0	8,79
TRIP	1170	19,5	42,86
Total	2730	45,5	100,00

Total time used: Hours

Depth vs time for well: 30/9-10



Composite plot for well: 30/9-10



Well History 30/9-10.

General:

Well 30/9-10 is located in the northern part of the 104 license area, in the southern part of the Omega structure. This structure is located between the Gamma structure to the east and the B structure to the west, and extends northwards into the 079 license area. The Omega structure is defined at top Brent Group level as a NNW/SSE elongated fault-bounded block with an eastward rotation. The western uptilted portion is truncated by the Base Cretaceous Unconformity. The main target for the well was the sandstones of the Tarbert formation in the Middle Jurassic Brent Group. The primary objectives of the well were to:

- prove the extension of the Omega oil column into the Omega South structure, Tarbert Formation.
- prove the fluid contacts.
- define the extent of reservoir units, properties and pressure.
- test communication and reservoir relationship with the Omega North and B prospects.
- verify the structural mapping and geological model.

Secondary objective was to test the potential within the Cook and Statfjord formations.

Operations:

Wildcat well 30/9-10 was spudded 31 July 1990 by the semi-submersible rig Vildkat Explorer, and completed 21 September 1990 at a depth of 3649 m RKB into rocks of Early Jurassic age, sandstones of the Statfjord formation. The expected shallow gas zone at 329 m RKB was not encountered. A total of seven cores were cut in the Draupne- Tarbert- and Ness formations over the intervals 2727 - 2732 m RKB and 2747 - 2894.5 m RKB. The Draupne formation and the Late Tarbert formation were found to be oil bearing, Early Tarbert contain non movable hydrocarbons. An oil/water contact was not proven. A total of 60 sidewall cores were attempted, and 54 were recovered. Drilling went on without any significant difficulties to TD. The well was temporary plugged and abandoned with oil shows.

Testing:

One DST test was performed in two runs:

No 1A in the interval 2757 - 2776 m RKB, choke 15.9 mm, oil/cond flow 379 Sm³/d gas flow 42.100 Sm³/d, GOR 111 m³/m³.

No 1B in the intervals 2757 - 2776 and 2779.7 - 2824.7 m RKB, choke 19.1 mm, oil/cond flow 986 Sm³/d, gas flow 84.800 Sm³/d, GOR 86 m³/m³.

Geological Tops.

Well:30/9-10

	Depth m (RKB).
Nordland Group	125,0
Utsira Fm	635,0
Hordaland Group	848,0
Rogaland Group	2057,0
Balder Fm	2057,0
Sele Fm	2131,0
Lista Fm	2200,0
Våle Fm	2365,0
Shetland Group	2372,0
Hardråde Fm	2372,0
Kyrre Fm	2609,0
Tryggvason Fm	2675,0
Cromer Knoll Group	2689,0
Viking Group	2717,0
Draupne Fm	2717,0
Farsund Fm	
Haugesund Fm	
Brent Group	2783,5
Tarbert Fm	2783,5
Ness Fm	2870,5
Etive/Rannoch Fm	3096,0
Oseberg Fm	3113,5
Dunlin Group	3122,0
Drake Fm	3122,0
Cook Fm	3404,0
Burton Fm	3424,0
Amundsen Fm	3501,5
Statfjord Fm	3621,5
T.D.	3649,0