

1 1982

Denne rapport  
tilhører

**STATOIL**

**L&U DOK. SENTER**

L. NR. 12483030071

KODE Well 30/2-1 nr-102

Returneres etter bruk



føring til annen låner

etter utsatt til rett til å bruke

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RFT REPORT

1982

WELL 30/2-1

PL 051

ENGINEER: B. HULTBERG

**Den norske stats oljeselskap a.s**



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## CONTENTS

	Page
General Well Data	1
General	2
RFT Runs	3
RFT Sampling Data	4,5
Results	6
Conclusion	6
Tables - RFT Data	7,8
Curves - RFT Pressures vs. Depth	9
RFT and DST Pressures vs. Depth for 30/2-1 and 30/3-1	10



General Well Data

Licence : PL 051  
Well : 30/2-1  
Location : 60° 52' 05.42" N  
          : 02° 38' 49.16" E  
Rig : Dyvi Delta  
Spudded : 17/5-82  
Rig released : 14/10-82  
RKB elevation : 30 m  
Water depth : 125 m  
Total depth : 4243 driller  
              : 4245 logger  
Objectives : Middle and lower Jurassic sandstones

RFT Logging Dates

run 1: 820607  
run 2: 820723  
run 3: 820804  
run 4: 820907  
run 5: 820911

Status : Temporarily plugged and abandoned



General

Well 30/2-1 was the first well drilled on this block.

The well was drilled to a TD of 4243 m RKB.

Logging and testing of the well showed gas accumulations under high pressure. Five RFT-runs were performed; two of these gave good results while the others failed.

Three sampling chambers were recovered with formation fluids from Etive and Rannoch.



RFT RUNS

RFT Run No. 1

A total of 11 pressure points were run between 1941 m - 1972 m (Paleocene) and all points were considered tight.

RFT Run No. 2

A total of 10 pressure tests were performed in this run (3675 - 3685, Ness). Out of these 7 failed and 3 were regarded as useful.

RFT Run No. 3

Twentyone pressure tests were carried out in this run (3682 m - 3791, Brent). 18 were reported as succesful while 3 failed.

Sampling was carried out at 3791 m (Rannoch). One 2 3/4 gallon and one 1 gallon chamber were filled, and at 3763 m (Etive) one 2 3/4 gallon was filled.

Sampling at 3707 m (Ness) failed.

RFT Run No. 4

In this run (3966 m - 4157 m, Cook and Statfjord) 13 pressure points were attempted which all failed due to either seal failure or tight formation.

RFT Run No. 5

15 pressure tests were performed in this run (3966 m - 4160 m, Cook and Statfjord). Also here they all failed due to either tight formation or seal failure.



RFT Sampling Data

Date : 4.8.82  
Run no. : 6  
Sample no. : 1  
Depth : 3791 m  
Type of sample : segregated  
Max. recorded temp.: 134.4° C

2 3/4 Gallon Chamber

Flowing time : 230 sek.  
Minimum flowing pressure : 330 bar  
Shut in pressure : 672.5 bar  
Opening pressure : 97.5 bar  
Recoveries : 9500 cc filtrate, 0.137 m<sup>3</sup> gas

The gas was analysed on the rig and contained:

C<sub>1</sub>: 91%, C<sub>2</sub>: 6%, C<sub>3</sub>: 2.2%, IC<sub>4</sub>: 0.5%, NC<sub>4</sub>: 0.3%

1 Gallon Chamber

Flowing time : 220 sek.  
Minimum flowing pressure: 290.5 bar  
Shut-in pressure : 672 bar  
Opening pressure : 75 bar  
Recoveries : 3265 cc filtrate



RFT Sampling Data

Date : 4.8.82  
Run no. : 6  
Sample no. : 2  
Depth : 3763 m

2 3/4 Gallon Chamber

Flowing time : 485 sek.  
Minimum flowing pressure: 663 bar  
Shut-in pressure : 673 bar  
Opening pressure : 230 bar  
Recoveries : 850 cc condensate





Results

It was only possible to get good pressure values in the Brent formation.

In the Paleocene, Cook and Statfjord formations all the pressure points failed due to either tight spots or the tool failed to seal off properly.

The reason for all these bad pressure tests is unknown.

The pressure points in the Brent formation gives a gradient of 0.35 g/cc. The pressure gradient does not give any indication of a gas-watercontact in Brent.

Conclusion

The Brent formation contains hydrocarbons with a density of 0.35 g/cc.

No gas-water contact was observed. The Brent formation at the well location is hence filled with hydrocarbons.

Well 30/2-1	RFT DATA	Run no.5 (Schlumb. numeration)
Formation: Brent		

Test no	Depth m	Cor hydr. pr. before test bar	Cor. hydr. pr. before test (g/cc)	Cor. formation pres. bar	Cor. formation pres. (g/cc)	Cor. hydr. pr. after test bar	Cor. hydr. pr. after test (g/cc)	Remarks
1	3675.5	690.01	1.914	-----	-----	689.87	1.913	no seal
2	3681	691.04	1.914	-----	-----	690.97	1.914	no seal
3	3682	691.66	1.915	672.25	1.861	691.25	1.914	good perm.
4	3683	691.11	1.913	672.18	1.861	691.04	1.913	medium perm.
5	3685.5	691.73	1.913	-----	-----	691.52	1.913	no seal
6	3677	689.45	1.912	-----	-----	689.45	1.912	tight
7	3676	690.08	1.914	-----	-----	690.08	1.914	tight
8	3675.5	690.08	1.914	-----	-----	689.94	1.914	no seal
9	3685	691.39	1.913	-----	-----	691.04	1.912	tool unstable
10	3684.5	690.90	1.912	673.22	1.863	690.90	1.912	partially plugged

Well 30/2-1	RFT DATA	Run no. 6 (Schlumberger numbering)
Formation: Brent		

Test no	Depth m	Cor.hydr.pr. before test bar	Cor.hydr.pr. after test (g/cc)	Cor.formation pres. bar	Cor.formation pres. (g/cc)	Cor.hydr.pr. after test bar	Cor.hydr.pr. after test (g/cc)	Remarks
1	3682	688.21	1.905	671.87	1.860	688.21	1.905	good perm.
2	3707	692.70	1.905	672.49	1.850	692.63	1.905	good perm.
3	3709	692.90	1.905	-----	-----	693.11	1.905	poor perm, seal failure
4	3721	695.25	1.905	673.05	1.844	695.25	1.905	good perm.
5	3724	695.66	1.904	673.11	1.843	695.66	1.904	good perm.
6	3727	696.07	1.904	673.25	1.842	695.94	1.904	good perm.
7	3731.5	696.49	1.903	673.25	1.839	696.49	1.903	good perm.
8	3736	697.35	1.903	673.46	1.838	697.35	1.903	good perm.
9	3741	698.25	1.903	674.22	1.837	698.18	1.903	medium perm.
10	3752	700.11	1.902	674.08	1.831	700.11	1.902	good perm.
11	3763	702.04	1.902	674.42	1.827	702.04	1.902	good perm.
12	3766	702.45	1.902	674.56	1.826	702.38	1.901	good perm.
13	3772	703.14	1.900	674.70	1.823	703.00	1.900	good perm.
14	3776	703.69	1.900	674.98	1.822	703.55	1.900	good perm.
15	3783.5	704.93	1.899	676.22	1.822	704.52	1.898	tightish, gas in flowline
16	3791	706.31	1.899	675.67	1.817	706.11	1.899	medium perm.
17	3795	707.28	1.900	-----	-----	-----	-----	tight
18	3791.5	706.04	1.898	-----	-----	-----	-----	tight, no sample
19	3791	705.83	1.898	675.60	1.817	705.35	1.897	sample; 2 3/4 gall. + 1 gall.
20	3763	703.11	1.905	675.67	1.830	703.18	1.905	sample 2 3/4 gall.
21	3707	692.83	1.905	673.80	1.853	692.83	1.905	sampling failed

# WELL 30/2-1

## RFT pressure vs depth

● RUN NO. 2  
▲ RUN NO. 3

GRADIENT 0,35 g/cc

▲ med. permeability

med. perm.  
▲

Depth (m.RKB)

3675

3700

3725

3750

3775

3800

672

673

674

675

BAR



