

U-466

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BA-87-26-2.  
31 MARS 1987  
**REGISTRERT**  
OLJEDIREKTORATET

WELL 25/1-8 R

RE-ENTRY REPORT

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date: 26-02-87

Reviewed by: B. Legris

% JL Deraing



date: 26-02-87

Approved by: C. Berthinier



date: 27-2-87

## SUMMARY

1. Dispatch list
2. Position map and general well data
3. Well historic and status before re-entry
4. Purpose of the re-entry
5. chronology of re-entry operations
6. Reservoir report
7. Well status after re-entry operations

D I S P A T C H L I S T

* AUTHORITIES		
- NPD	= DRILLING SECTION	2
* PARTNERS	Dispatch by Explo. Division or Res. Dept.	
* SNEA(P)	= DIG.EUROPE T. ELF	2
	DIV.FORAGE PARIS T. ELF	1
	DIV.FORAGE BOUSSENS(Service boues)	1
	DIV.EXPLOITATION PARIS T. ELF	1
	DIV.GISEMENT PARIS T. ELF	1
	SID PARIS	1
	DIR. EXPLORATION	1
	MANAGING DIRECTOR	1
* EAN	= FIELDS OPERATION DIVISION	1
	EXPLORATION DIV.	2
	RESERVOIR DEPT.	1
	DRILLING AND COMPLETION DEPT.	
	- Well File 14.2.2	1 (+ ORIGINAL)
	- Programme File 5.3	1
	- Drilling Engineer	1
	- Rig Superintendent	1

2. POSITION MAP AND GENERAL WELL DATA

GENERAL WELL DATA

1/2	IDENTIFICATION/NAME	:	25/1-8
3	GEOGRAPHICAL AREA	:	NORWEGIAN CONTINENTAL SHELF
4	GEOLOGICAL BASIN	:	VIKING GRABEN
5	FIELD STRUCTURE	:	FRIGG FIELD
6	BLOCK	:	25/1
7	LICENCE	:	024
			ELF AQUITAINE NORGE A/S 41.42 %
			NORSK HYDRO PROD A/S 32.87 %
			TOTAL MARINE NORSK A/S 20.71 %
			STATOIL 5.00 %
9	OPERATOR	:	ELF AQUITAINE NORGE A/S
10	REFERENCE WELLS	:	10/1-4, 10/1-5, 25/-1-1
11	STATUS	:	REMOTE CONTROL WELL
12	COORDINATES (UTM ED50)	:	X = 449800.9
		:	Y = 6640871.3
			Lat = 59°54'03.29"N
			Long= 02°06'09.80"E
13	.WATER DEPTH	:	102 m
	.RKB/MSL	:	25 m
	.RKB/ML	:	127 m



# POSITION MAP



BLOCK : 25/1  
 WELL : 25/1-8  
 OWNER : FRIGG UNIT

Scale 1 2500 000

Date

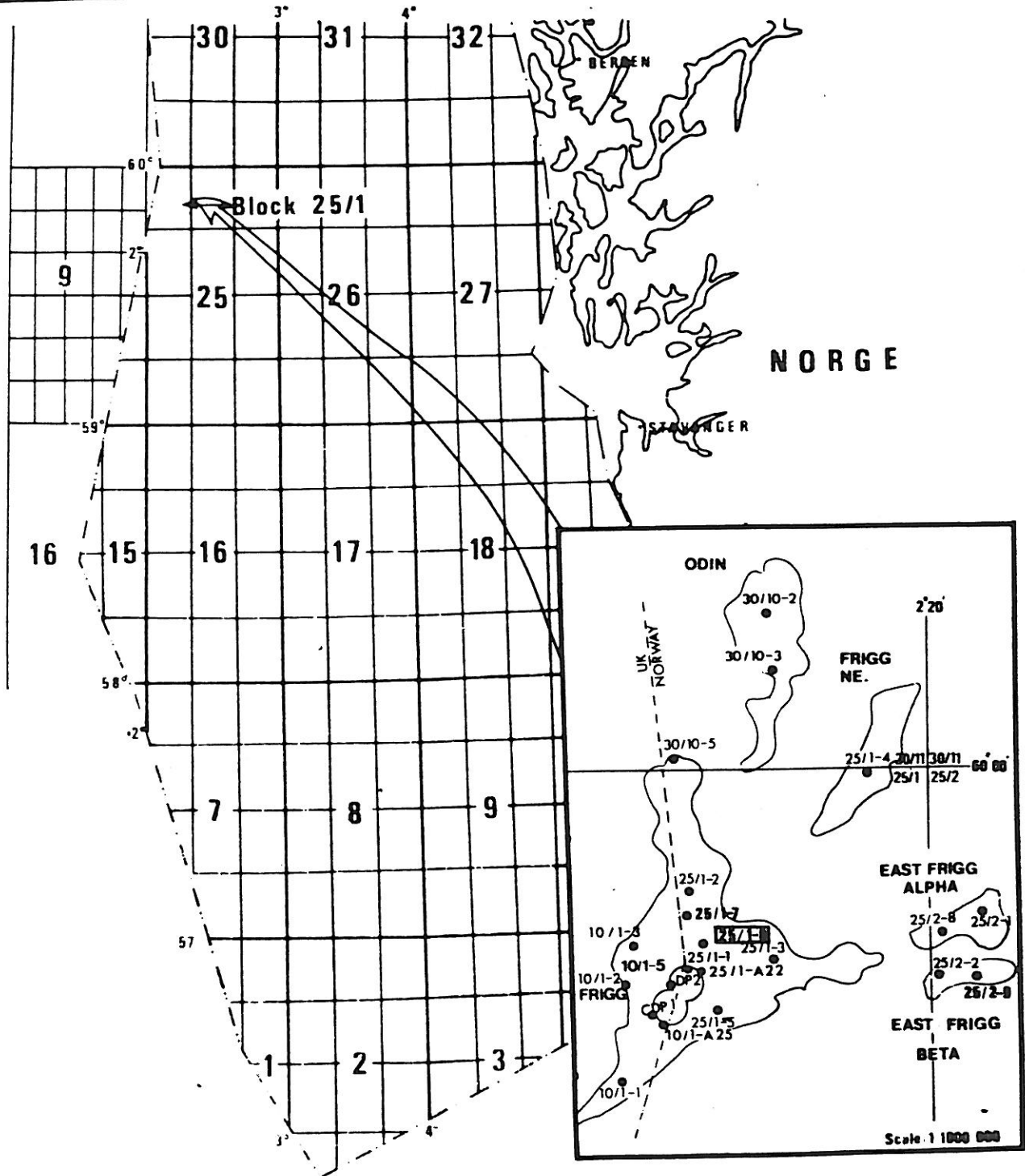


Fig.1

EXPLORATION DIVISION

3. WELL HISTORIC AND STATUS BEFORE RE-ENTRY

## WELL HISTORIC AND STATUS

Well 25/1-8 is a deviated control well drilled to 2650 m RKB on the Frigg Field from the semi-submersible "Byford Dolphin".

This well was spudded at 16.00 hrs the 28.05.85 and the drilling was finished at 18.00 hrs the 21.07.85.

### Casing status:

30" Casing - 309.7 lb/ft - X52 - Vetco ST2 shoe at 187.5 m,  $\Delta = 0.40^\circ$ .

13 3/8" Casing - 68 lb/ft - K55 - BTC at 190.03 m.

13 3/8" Casing - 72 lb/ft - N80 - BTC shoe at 1015 m,  $\Delta = 19.10^\circ$ .

9 5/8" Casing - 53.5 lb/ft - P110 - Vam shoe at 1910 m,  $\Delta = 13.10^\circ$ .

7" Casing - 29 lb/ft - L80 - Vam shoe at 2201.5 m,  $\Delta = 19.30^\circ$ .

### Abandonment status:

After final logging, three cement plugs filled open hole from 2650 to 2215.5 m. The 7" casing was set at 2201.5 m and cemented in turbulent flow with neat cement up to 1805 m. (Top cement inside 7" casing at 2145.5 m).

A 7" bridge plug was set at 383 m.

A 13 5/8" diverless corrosion cap (Vetco design 112.784) was installed (Running box arrangement parted from main body during installation).

A special protection structure with SIMRAD transponder has been run onto P.G.B.

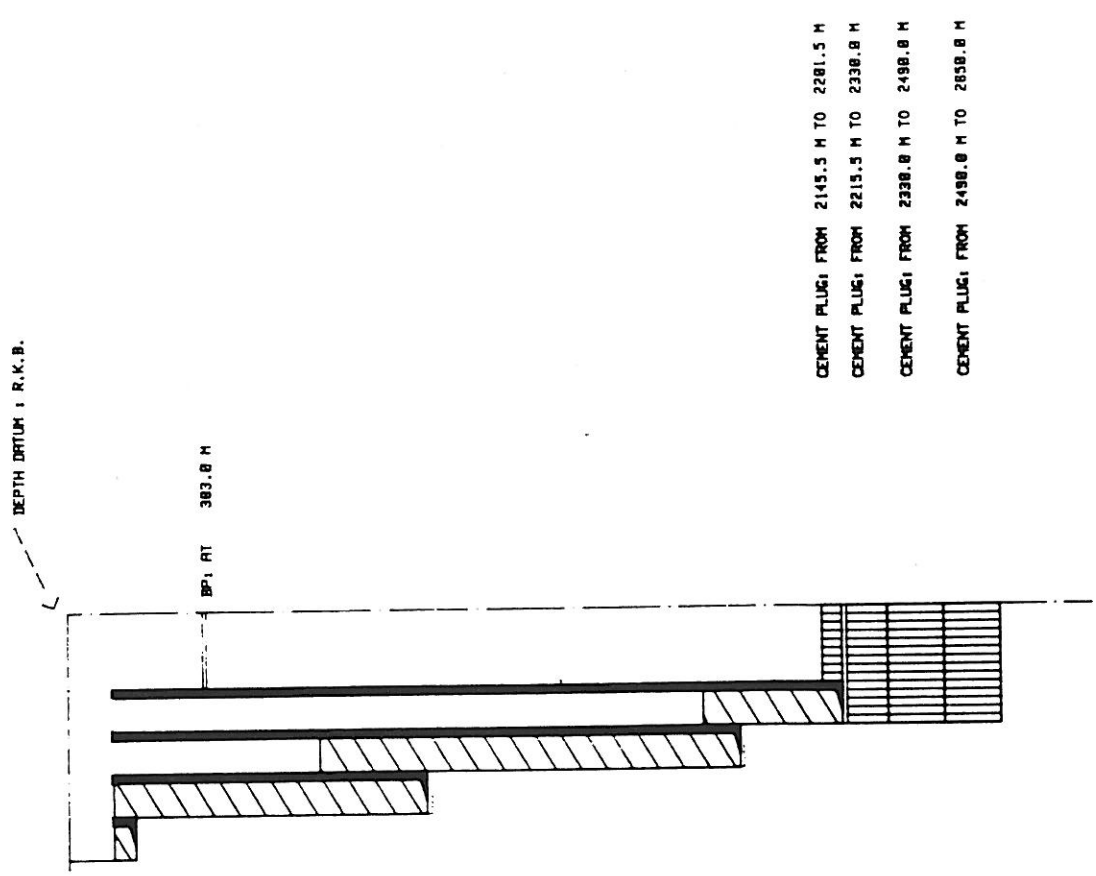
The four guide posts were recovered.

No wear- bushing in the well-head.



F3H' WELL COMPLETION STATUS

WELL : 25/1-8



-INTERVAL: 48"  
-CASING : 38"  
-DEPTH : 198.8 M  
-SHOE DEPTH: 187.5 M  
-CEMENT TOP : 127.8 M

-INTERVAL: 17'1/2"  
-CASING : 13'3/8"  
-DEPTH : 1838.8 M  
-SHOE DEPTH: 1815.8 M  
-CEMENT TOP : 127.8 M

-INTERVAL: 12'1/4"  
-CASING : 9'5/8"  
-DEPTH : 1821.8 M  
-SHOE DEPTH: 1818.8 M  
-CEMENT TOP : 715.8 M

-INTERVAL: 8'1/2"  
-CASING : 7"  
-DEPTH : 2658.8 M  
-SHOE DEPTH: 2281.5 M  
-HANGER : 123.1 M  
-CEMENT TOP : 1885.8 M

CEMENT PLUG: FROM 2145.5 M TO 2281.5 M  
CEMENT PLUG: FROM 2215.5 M TO 2338.8 M  
CEMENT PLUG: FROM 2338.8 M TO 2498.8 M  
CEMENT PLUG: FROM 2498.8 M TO 2858.8 M

ABANDONED EQUIPMENT : SET 13 5/8 DIVERLESS CORROSION CAP, (VETCO P/N 112784), RUNNING TOP BOX PRINTED FROM MAIN BODY, MINERAL OIL "BP HPL 32" PUMPED IN PLACE, 13 5/8 WELLHEAD WITHOUT WEAR BUSHING, PROTECTION CAP SET ON PGR H/"SIGNAL" TRANSPONDER 5 YEARS LIFE, RECOVERED "LOCK ON POSTS", DROPPED LIGHT RUDY ON LOCATION.

4. PURPOSE OF THE RE-ENTRY

4.1 Objectives:

The main objective to re-entry the remote control well 25/1-8 was to monitor the water rise at some distance from the platform areas.

## 5. CHRONOLOGY OF RE-ENTRY OPERATIONS

Date	Report n°	Chronology of operations
14.02.87	1 D	<p>Under tow from 25/1-7 R to 25/1-8 R.            Anchor handling: anchor #5 on bottom at 5 H 50, anchor #8 on bottom at 7 H 15, anchor #4 on bottom at 7 H 40, anchor #7 on bottom at 8 H 10, anchor #3 on bottom at 8 H 50, anchor #6 on bottom at 9 H 05, anchor #2 on bottom at 9 H 50.            Tested anchors # 1, 2, 4, 5, 6, 7, 8, to 160 tons. OK. Anchor #3 slipped. Reset anchor#3. Tested all anchors to 160 T. OK. Ballasted rig to operating draft at 21.34 m. Installed the four guide posts. Retrieved protection cage and corrosion cap. Prepared to run 13 5/8" BOP stack.</p>
15.02.87	1 C	<p>Run BOP to wellhead. Pressure tested kill and choke lines to 35 bars (5') and 206 bars (10'). Leakage when tested 2 last riser joints. Changed lipseals on last connections. Retested. OK. Found all 4 retrievable guide posts loose from PGB. Recovered lock pins with ROV. Repaired damaged lock pins. Installed guide posts and locked pins # 1, 2, 3, 4. Landed BOP' and Pick up test 15 T, OK. Installed diverter and tested kill and choke lines to 35 and 206 bars. Pressure tested BOP stack, all functions using yellow POD according to programme, function test all functions using blue POD on remote control panel. Function tested acoustic system on upper pipe rams. OK.</p>
16.02.87	2 C	<p>Pulled out test tool. Set 7" wear bushing. Made up BHA#1, picked up 4 3/4" DC and 3 1/2" DP. Tagged bridge plug at 383 m. Milled out bridge plug. Pushed plug to 400 m. Pulled out with mill to wellhead. Circulated two riser volumes. POOH. Run 6" bit to 1000 m. Circulated, Continued picking up 3 1/2" DP and run to bottom at 2143 m. Circulated and conditioned mud. POOH in progress.</p>
17.02.87	3 C	<p>Finished POOH. Logging: Run #1. TDT from 2144 to 1910 m, from 2085 to 1910 m and from 2000 to 1900m. Run gauge ring to 400 m. Set bridge plug at 371 m. Pressure tested same up to 70 bars. OK. Laid down 3 1/2" DP and 4 3/4" DC. Retrieved wear - bushing. Disconnected and pulled out 13 5/8 BOP stack.</p>
18.02.87	4 C	<p>Finished pulling out BOP. Set corrosion cap. Installed and locked protection cage. Recovered guide posts. Seabed inspection: found buoy and dead weight lost on location earlier, recovered same with ROV. Deballasted rig and anchor handling:            Anchor #7 on bolster at 11 H 40            Anchor #3 on bolster at 12 H 00            Anchor #6 on bolster at 13 H 00            Anchor #2 on bolster at 14 H 00            Anchor #8 on bolster at 14 H 30            Anchor #1 off bottom at 14 H 40            Anchor #4 on bolster at 15 H 50            Anchor #5 on bolster at 16 H 40            End of re-entry operations at 16 H 30.</p>

## 6. RESERVOIR REPORT

### 6.1 Introduction

This report summarizes the main results from the logging in the re-entry well 25/1-8.

### 6.2 Main results:

<u>Date</u>	<u>gas liquid m RKB</u>	<u>contact (GLC) m MSL</u>	<u>GLC rise (m)</u>	<u>water riser (m)</u>
23.07.85	1980	1901.5	46.5	55.3
17.02.87	1976.7	1898.3	49.7	58.5

#### Comments

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For this well the oil ring was already swept when the well was logged the 23.07.85. The gas/liquid contact therefore corresponds to the gas/water contact.

The water rise since last logging is only 3.2 m during 19 months. A thin shaly layer at 1979 m RKB has probably stopped the water movement for some time. However, the homogeneous sandstone layer (2-3 m thick) above this shale layer is now being swept.

7. WELL STATUS AFTER RE-ENTRY OPERATIONS

The re-entry operations have been performed with the S/S NORTRYM from February 14th at 03 H 00 to February 18th at 16 H 30.

The 25/1-8 R remote control well is temporary abandoned by means of a 7" bridge plug Baker N1 set at 371 m RKB.

Casing status is unchanged.

A 13 5/8" diverless corrosion cap (Vetco design N° 112784) is installed on the 13 5/8" SG1 housing. (No wear bushing in the wellhead)

The protection cage has been re-run and locked on the PGB.

The four guide posts were recovered.

A Simrad transponder Frequency code "X" 25188 HZ is installed on the protection cage.