Well no : 2/11-06 Operator : AMOCO

| | | | |
|---|---|---|---|
| Coordinates | : 56 10 35.50 N<br>03 27 36.72 E | UTM coord. | : 6225959 N<br>528572 E |
| Licence no | : 033 | Permit no | : 305 |
| Rig | : SEDCO 703 | | |
| Contractor | : SEDCO INC. | | |
| Bottom hole temperature | : 99 deg.C | Elev. KB | : 26 M |
| Spud. date | : 81.09.03 | Water depth | : 72 M |
| Compl. date | : 82.02.28 | Total depth | : 4076 M |
| Spud. class | : APPRAISAL | Form. at TD | : E.CRET. |
| Compl. class | : SUSP. OIL DISCOVERY | Prod. form | : |
| Seisloca | : ANO 75 - 13 SP. 333 | | |

LICENSEES

*25,000 AMERADA HESS (NORWAY) LIMITED*
*25,000 AMOCO NORWAY OIL COMPANY*
*25,000 NORWEGIAN OIL CONSORTIUM A/S & CO*
*25,000 TEXAS EASTERN NORWEGIAN INC.*

## CASING AND LEAK-OFF TESTS

| Type | Casing diam. | Depth below KB | Hole diam. | Hole depth below KB | Lot mud eqv. g/cm |
|---|---|---|---|---|---|
| CONDUCTOR | 30 | 167,0 | 36 | 167,0 | |
| SURF.COND. | 20 | 353,0 | 26 | 358,0 | 1,38 |
| INTERM. | 13 3/8 | 1453,0 | 17 1/2 | 1461,0 | 1,90 |
| INTERM. | 9 5/8 | 3593,0 | 12 1/4 | 3601,0 | 1,97 |
| LINER | 7 | 4072,0 | 8 1/2 | 4076,0 | |

*STOCK PIPE AFTER 3790 M, PLUGGED AND SIDETRACKED FROM 3630 M.*

## CONVENTIONAL CORES

| Core no. | Intervals cored meters | Recovery M | Recovery % | Series |
|---|---|---|---|---|
| 1 | 3693.0 - 3702.0 | 4.2 | 46.7 | L. CRETACEOUS |
| 2 | 3702.0 - 3709.5 | 5.1 | 68.0 | L. CRETACEOUS |
| 3 | 3709.5 - 3715.5 | 2.7 | 45.0 | L. CRETACEOUS |
| 4 | 3715.5 - 3720.0 | 2.7 | 60.0 | L. CRETACEOUS |
| 5 | 3720.0 - 3724.5 | 3.7 | 82.2 | L. CRETACEOUS |
| 6 | 3724.5 - 3733.0 | 4.1 | 48.2 | L. CRETACEOUS |
| 7 | 3733.0 - 3741.0 | 7.1 | 88.8 | L. CRETACEOUS |

**DRILL STEM TEST**

| TEST NO | DEPTH BELOW KB | CHOKE SIZE mm | RECOVERY | | | | | PRESS. (psi) | |
|---|---|---|---|---|---|---|---|---|---|
| | | | OIL Sm3 /d | GAS M Sm3 /d | OIL GRAV. g/cm3 | GAS GRAV. rel. air | GOR m3/m3 | FBHF | WHP |
| 1 | 3875 - 3900 | 3.20 | 364 | 38.5 | | | 105.2 | | 2665 |
| 2 | 3685 - 3706 | 7.9 | 223 | 23.6 | 0.863 | 0.714 | 105.8 | | |
| | 3713 - 3735 | 19.05 | 779 | 100.9 | | | 129.5 | | |
| | | 19.05 | 921 | 87.2 | | | 94.6 | | |

**AVAILABLE LOGS**

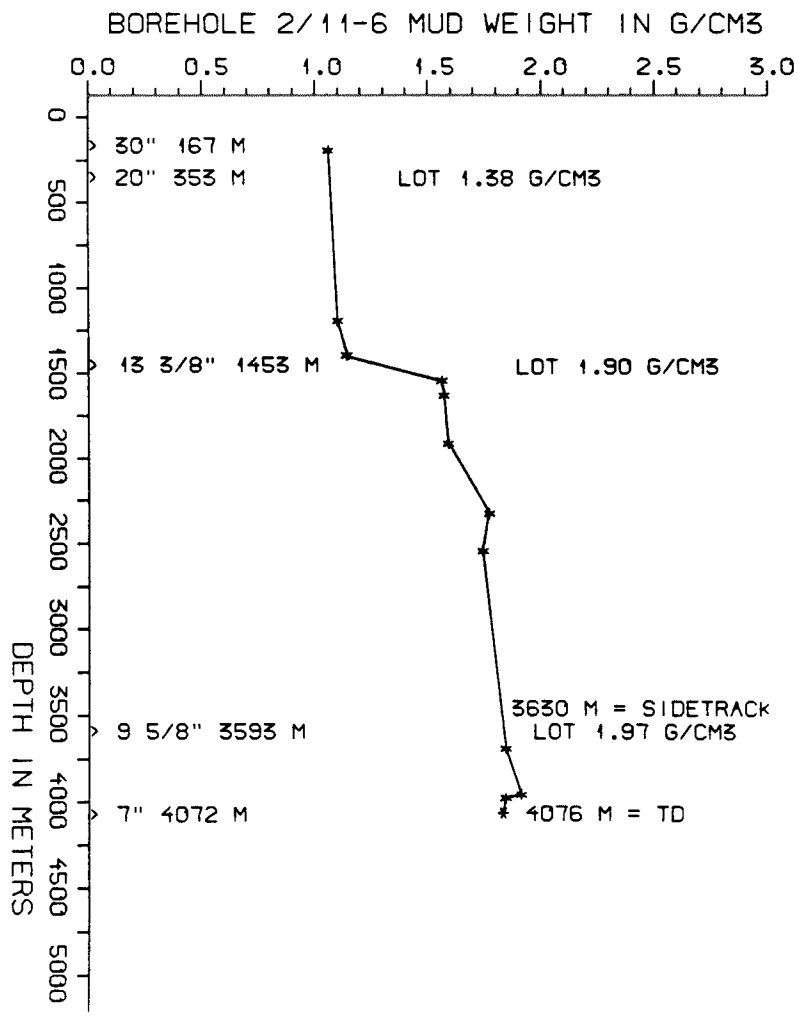
| LOG TYPE | INTERVALS | 1/200 | 1/500 |
|---|---|---|---|
| ISF BHC GR | 167 - 356 | x | x |
| DIS LSS | 352 - 694 | x | x |
| DIS LSS | 1451 - 3600 | x | x |
| DIS LSS | 3589 - 3790 | x | x |
| DIS BHC NGT | 3589 - 4076 | x | x |
| LDL CNL | 3589 - 3791 | x | x |
| LDL CNL | 3589 - 4077 | x | x |
| GR | 85 - 1420 | | x |
| CDM | 3589 - 4079 | x | |
| CDM AP | 3592 - 4077 | x | x |
| RFT | 3589 - 3952 | x | |
| TEMPERATURE | 3440 - 4028 | x | x |
| WAVEFORM | 3589 - 3789 | x | |
| NGT | 3589 - 4076 | x | x |
| CBL VDL | 353 - 1408 | x | |
| CBL VDL | 950 - 3552 | x | |
| CBL VDL | 3386 - 4038 | x | x |
| MUD | 110 - 4076 | | x |
| VELOCITY | 352 - 4076 | | x |

(Two Way Travel Time, 10 cm/s, 1stk)
(Correlated Synthetic Seismogram Display, 1stk)

| MUD PROPERTIES | | | |
|---|---|---|---|
| DEPTH BELOW KB m | WEIGHT g/cm3 | FUNNEL VISC. sec | FILTRATE LOSS cm3 |
| 130 | 1.03 | 140 | |
| 1125 | 1.07 | 64 | |
| 1325 | 1.11 | 34 | |
| 1475 | 1.53 | 53 | |
| 1565 | 1.54 | 70 | |
| 1850 | 1.56 | 68 | |
| 2260 | 1.74 | 70 | |
| 2475 | 1.71 | 57 | |
| 3630 | 1.81 | 83 | |
| 3900 | 1.88 | 94 | |
| 3920 | 1.81 | 90 | |

| DRILL BIT CUTTINGS AND WET SAMPLES | | |
|---|---|---|
| SAMPLE TYPE | INTERVAL BELOW KB | NUMBER OF SAMPLES |
| CUTTINGS | | |
| WET SAMPLES | 180 - 3970 | 490 |

| SHALLOW GAS | |
|---|---|
| DEPTH INTERVAL m KB | REMARKS |
| 529 | POSSIBLE SMALL |



# WELL HISTORY - 2/11-6

**GENERAL :**

*Well 2/11-6 was drilled to assess the reservoir potential of the Late Cretaceous carbonates of the Tor and Hod formations. The well was drilled through a 12 slot template located between the two structures comprimising the Hod Field. The well was drilled to be a potential future producer.*

**OPERATIONS :**

*Well 2/11-6 was spudded 03.09.81 by the drilling rig "Sedco 703". The drilling of the 36" section went forth without incident. Pipe stuck at 290.5 m in the 26" section which was drilled with a 17 1/2" pilot hole. The pipe was freed and casing set. Various technical problems occured when drilling out of the 20" casing. During operations in the 12 1/4" section accured a loss of apprxm. 3170 BBL's of mud to the formation, both during drilling and running the 9 5/8" casing. It was difficult to increase the deviation angle in this section due to the soft nature of the formation. 7 cores were taken in the 8 1/2" section. Pipe stuck while circulating prior to drilling ahead (3790 m). After several attempts to free the pipe, the fish was left in the hole which was then cemented and sidetracked. This sidetrack was initiated at 3630 m (17/12.1981). Frequent mudlosses occured throughout this section (604 BBL's). Total depth was finally reached 29/12.1981.*

**TESTING :**

*The well was opened on a 6,4 mm choke and flowed for 16 hours before the WHP dropped to zero. After being shut-in the WHP increased to 2915 psig and the well was re-opened. The WHP dropped rapidily. Flow rate during this period is calculated to be 10 $Sm^3$ per day. The well was stimulated with acid before being re-opened for nearly 10 hours. Flow rates from this period can be seen in the table on the previous page. The following build-up lasted nearly 13 hours. 6 sets of bottom hole samples were obtained after the final build-up.*
*DST 2 included an initial flow for 1140 and a 540 minutes build-up period. This was followed by sampling - four bottom hole samples were obtained. After sampling the well was acidized and opened for an initial flow period of 810 minutes, followed by a shut-in period of 1350 minutes. The well was then flowed again for 617 minutes and shut-in for 270 minutes. The well was again opened for flow (540 min.) before the final shut-in period of 440 minutes.*

# GEOLOGICAL TOPS

**WELL:** 2/11-6

| | *Depth m (RKB)* |
|---|---|
| *Hordaland Group* | *1792 m* |
| *Rogaland Group* | *3564 m* |
| *Chalk Group* | *3685 m* |
| *Tor Fm* | *3685 m* |
| *Hod Fm* | *3716 m* |
| *TD =* | *4076 m* |