

**General information**

|                                    |                                  |
|------------------------------------|----------------------------------|
| Wellbore name                      | 34/10-18                         |
| Type                               | EXPLORATION                      |
| Purpose                            | WILDCAT                          |
| Status                             | P&A                              |
| Factmaps in new window             | <a href="#">link to map</a>      |
| Main area                          | NORTH SEA                        |
| Well name                          | 34/10-18                         |
| Seismic location                   | ST 8214 - 402 SP 190             |
| Production licence                 | <a href="#">050</a>              |
| Drilling operator                  | Den norske stats oljeselskap a.s |
| Drill permit                       | 382-L                            |
| Drilling facility                  | <a href="#">ROSS ISLE</a>        |
| Drilling days                      | 46                               |
| Entered date                       | 16.07.1983                       |
| Completed date                     | 30.08.1983                       |
| Release date                       | 30.08.1985                       |
| Publication date                   | 30.09.2011                       |
| Purpose - planned                  | WILDCAT                          |
| Reentry                            | NO                               |
| Content                            | SHOWS                            |
| Discovery wellbore                 | NO                               |
| Kelly bushing elevation [m]        | 22.0                             |
| Water depth [m]                    | 141.0                            |
| Total depth (MD) [m RKB]           | 3025.0                           |
| Final vertical depth (TVD) [m RKB] | 3024.0                           |
| Maximum inclination [°]            | 5.7                              |
| Bottom hole temperature [°C]       | 90                               |
| Oldest penetrated age              | EARLY JURASSIC                   |
| Oldest penetrated formation        | STATFJORD GP                     |
| Geodetic datum                     | ED50                             |
| NS degrees                         | 61° 14' 22.48" N                 |
| EW degrees                         | 2° 3' 18.83" E                   |
| NS UTM [m]                         | 6790001.13                       |
| EW UTM [m]                         | 449285.34                        |
| UTM zone                           | 31                               |
| NPDID wellbore                     | 23                               |



## Wellbore history

### General

Well 34/10-18 is located in the Tampen Spur area, south of the Vigdis Field and west-north-west of the Gullfaks Field. The primary objective was the Brent Group sandstones of Middle Jurassic age. Secondary objectives were Early Jurassic Cook and Statfjord Formation sandstones.

### Operations and results

Wildcat well 34/10-18 was spudded with the semi-submersible installation Ross Isle on 17 July 1983. A 12 1/4" pilot hole was drilled from the 30" casing shoe to 765 m to check for shallow gas. No shallow gas was seen, but lost circulation occurred in shallow sand lenses when the pilot was underreamed to 26". A 17 1/2" hole was drilled and logged to 2024 m. Two joints of 13 3/8" casing were dropped in the hole. The hole was cemented back to 1882 m and sidetracked from 1900 m and drilled without significant problems to TD at 3025 m in the Early Jurassic Statfjord Formation. The well was drilled with spud mud down to 765 m and with gel/Lignosulphonate mud from 765 m to TD.

No live oil was seen in the well, but a 3.5 m unproductive oil-zone was encountered in a, sandy/marly and cemented limestone at the base of a very thin Cromer Knoll sequence (Mime Formation). The average porosity was 24.3% and the average water saturation was 53.4%, but due to tight formation the RFT was not able to obtain any pressure points in this zone. The permeability range was 0.1 to 1 mD. Only residual hydrocarbons were encountered in the Brent sandstones. Here, the logs indicated an average water saturation of 95% and an average porosity of 24.2% in the net sand. The RFT plot suggested a water gradient of 1.00 g/cc in the Brent Group. Weak oil shows typically described as "hydrocarbon fluorescence in sandy tuffaceous material" were recorded in the Balder Formation.

Three cores were cut in the well. Core 1 was cut in the Early Cretaceous and into the Upper Jurassic and core 2 in the Late Jurassic Heather Formation. Core 3 was cut in the Middle Jurassic Tarbert Formation. No wire line fluid samples were taken.

The well was permanently abandoned on 30 August 1983 as a well with shows.

### Testing

No drill stem test was performed.

## Cuttings at the Norwegian Offshore Directorate

| Cutting sample, top depth [m] | Cutting samples, bottom depth [m] |
|-------------------------------|-----------------------------------|
| 230.00                        | 3025.00                           |

|                                  |     |
|----------------------------------|-----|
| Cuttings available for sampling? | YES |
|----------------------------------|-----|

## Cores at the Norwegian Offshore Directorate



| Core sample number | Core sample - top depth | Core sample - bottom depth | Core sample depth - uom |
|--------------------|-------------------------|----------------------------|-------------------------|
| 1                  | 2344.0                  | 2357.0                     | [m ]                    |
| 2                  | 2361.0                  | 2368.0                     | [m ]                    |
| 3                  | 2376.5                  | 2394.0                     | [m ]                    |

|                               |      |
|-------------------------------|------|
| Total core sample length [m]  | 37.5 |
| Cores available for sampling? | YES  |

### Core photos



2343-2347m



2347-2351m



2351-2355m



2355-2357m



2361-2365m



2365-2368m



2376-2380m



2380-2384m



2384-2388m



2388-2392m



2392-2395m

### Palynological slides at the Norwegian Offshore Directorate

| Sample depth | Depth unit | Sample type | Laboratory |
|--------------|------------|-------------|------------|
| 2362.0       | [m]        | C           | GEOCH      |
| 2362.5       | [m]        | C           | GEOCH      |
| 2362.8       | [m]        | C           | GEOCH      |
| 2363.5       | [m]        | C           | GEOCH      |
| 2364.0       | [m]        | C           | GEOCH      |



|        |     |   |       |
|--------|-----|---|-------|
| 2364.5 | [m] | C | GEOCH |
| 2365.0 | [m] | C | GEOCH |
| 2365.5 | [m] | C | GEOCH |
| 2365.9 | [m] | C | GEOCH |
| 2366.4 | [m] | C | GEOCH |
| 2366.8 | [m] | C | GEOCH |
| 2367.0 | [m] | C | GEOCH |
| 2367.3 | [m] | C | GEOCH |
| 2367.6 | [m] | C | GEOCH |

**Lithostratigraphy**

| Top depth<br>[mMD RKB] | Lithostrat. unit                |
|------------------------|---------------------------------|
| 163                    | <a href="#">NORDLAND GP</a>     |
| 983                    | <a href="#">UTSIRA FM</a>       |
| 994                    | <a href="#">HORDALAND GP</a>    |
| 1180                   | <a href="#">NO FORMAL NAME</a>  |
| 1246                   | <a href="#">NO FORMAL NAME</a>  |
| 1406                   | <a href="#">NO FORMAL NAME</a>  |
| 1470                   | <a href="#">NO FORMAL NAME</a>  |
| 1690                   | <a href="#">ROGALAND GP</a>     |
| 1690                   | <a href="#">BALDER FM</a>       |
| 1750                   | <a href="#">LISTA FM</a>        |
| 1878                   | <a href="#">SHETLAND GP</a>     |
| 1878                   | <a href="#">JORSALFARE FM</a>   |
| 2107                   | <a href="#">KYRRE FM</a>        |
| 2337                   | <a href="#">CROMER KNOLL GP</a> |
| 2337                   | <a href="#">RØDBY FM</a>        |
| 2340                   | <a href="#">MIME FM</a>         |
| 2351                   | <a href="#">VIKING GP</a>       |
| 2351                   | <a href="#">DRAUPNE FM</a>      |
| 2355                   | <a href="#">HEATHER FM</a>      |
| 2373                   | <a href="#">BRENT GP</a>        |
| 2373                   | <a href="#">TARBERT FM</a>      |
| 2412                   | <a href="#">NESS FM</a>         |
| 2495                   | <a href="#">ETIVE FM</a>        |
| 2524                   | <a href="#">RANNOCH FM</a>      |
| 2595                   | <a href="#">BROOM FM</a>        |
| 2604                   | <a href="#">DUNLIN GP</a>       |



|      |                              |
|------|------------------------------|
| 2604 | <a href="#">DRAKE FM</a>     |
| 2688 | <a href="#">COOK FM</a>      |
| 2785 | <a href="#">BURTON FM</a>    |
| 2843 | <a href="#">AMUNDSEN FM</a>  |
| 2978 | <a href="#">STATFJORD GP</a> |

**Geochemical information**

| Document name        | Document format | Document size [MB] |
|----------------------|-----------------|--------------------|
| <a href="#">23_1</a> | pdf             | 1.09               |
| <a href="#">23_2</a> | pdf             | 0.10               |
| <a href="#">23_3</a> | pdf             | 2.46               |
| <a href="#">23_4</a> | pdf             | 11.53              |
| <a href="#">23_5</a> | pdf             | 15.17              |
| <a href="#">23_6</a> | pdf             | 16.23              |
| <a href="#">23_7</a> | pdf             | 12.20              |

**Documents - older Norwegian Offshore Directorate WDSS reports and other related documents**

| Document name                                  | Document format | Document size [MB] |
|------------------------------------------------|-----------------|--------------------|
| <a href="#">23_01_WDSS_General_Information</a> | pdf             | 0.18               |
| <a href="#">23_02_WDSS_completion_log</a>      | pdf             | 0.30               |

**Documents - reported by the production licence (period for duty of secrecy expired)**

| Document name                                                      | Document format | Document size [MB] |
|--------------------------------------------------------------------|-----------------|--------------------|
| <a href="#">23_34_10_18_Completion_log</a>                         | pdf             | 1.75               |
| <a href="#">23_34_10_18_Completion_Report</a>                      | PDF             | 22.91              |
| <a href="#">23_34_10_18_Formation_Evaluation</a>                   | pdf             | 4.68               |
| <a href="#">23_34_10_18_Geokjemisk_Analyse</a>                     | pdf             | 0.06               |
| <a href="#">23_34_10_18_Stratigraphical_Paleontological_Report</a> | pdf             | 10.07              |
| <a href="#">23_34_10_18_Wellsite_Gas_Analysis</a>                  | pdf             | 0.10               |

**Logs**





| Log type        | Log top depth [m] | Log bottom depth [m] |
|-----------------|-------------------|----------------------|
| CBL VDL         | 162               | 2007                 |
| CST             | 2108              | 3008                 |
| ISF LSS MSFL GR | 155               | 3024                 |
| LDL CNL GR CAL  | 227               | 3025                 |
| RFT             | 2330              | 2543                 |
| SHDT            | 2007              | 3025                 |

**Casing and leak-off tests**

| Casing type | Casing diam. [inch] | Casing depth [m] | Hole diam. [inch] | Hole depth [m] | LOT/FIT mud eqv. [g/cm3] | Formation test type |
|-------------|---------------------|------------------|-------------------|----------------|--------------------------|---------------------|
| CONDUCTOR   | 30                  | 226.5            | 36                | 227.5          | 0.00                     | LOT                 |
| SURF.COND.  | 20                  | 747.0            | 26                | 765.0          | 1.57                     | LOT                 |
| INTERM.     | 13 3/8              | 2008.0           | 17 1/2            | 2024.0         | 1.80                     | LOT                 |
| OPEN HOLE   |                     | 3025.0           | 12 1/4            | 3025.0         | 0.00                     | LOT                 |

**Drilling mud**

| Depth MD [m] | Mud weight [g/cm3] | Visc. [mPa.s] | Yield point [Pa] | Mud type   | Date measured |
|--------------|--------------------|---------------|------------------|------------|---------------|
| 270          | 1.05               | 47.0          |                  | waterbased |               |
| 750          | 1.09               | 50.0          |                  | waterbased |               |
| 1780         | 1.11               | 62.0          |                  | waterbased |               |
| 2050         | 1.32               | 54.0          |                  | waterbased |               |
| 2330         | 1.65               | 45.0          |                  | waterbased |               |
| 2660         | 1.58               | 48.0          |                  | waterbased |               |