



## Generell informasjon

|                                          |                                   |
|------------------------------------------|-----------------------------------|
| Brønnbane navn                           | 30/3-9                            |
| Type                                     | EXPLORATION                       |
| Formål                                   | WILDCAT                           |
| Status                                   | P&A                               |
| Faktakart i nytt vindu                   | <a href="#">lenke til kart</a>    |
| Hovedområde                              | NORTH SEA                         |
| Funn                                     | <a href="#">30/3-9</a>            |
| Brønn navn                               | 30/3-9                            |
| Seismisk lokalisering                    | Crossline 1515- Inline 877 St98M7 |
| Utvinningstillatelse                     | <a href="#">052</a>               |
| Boreoperatør                             | Den norske stats oljeselskap a.s  |
| Boretillatelse                           | 972-L                             |
| Boreinnretning                           | <a href="#">WEST ALPHA</a>        |
| Boredager                                | 69                                |
| Borestart                                | 24.04.2000                        |
| Boreslutt                                | 01.07.2000                        |
| Frigitt dato                             | 01.07.2002                        |
| Publiseringsdato                         | 18.12.2002                        |
| Opprinnelig formål                       | WILDCAT                           |
| Gjenåpnet                                | NO                                |
| Innhold                                  | GAS/CONDENSATE                    |
| Funnbrønnbane                            | YES                               |
| 1. nivå med hydrokarboner, alder         | MIDDLE JURASSIC                   |
| 1. nivå med hydrokarboner, formasjon.    | NESS FM                           |
| Avstand, boredekk - midlere havflate [m] | 18.0                              |
| Vanndybde ved midlere havflate [m]       | 123.0                             |
| Totalt målt dybde (MD) [m RKB]           | 4015.0                            |
| Totalt vertikalt dybde (TVD) [m RKB]     | 4010.0                            |
| Maks inklinasjon [°]                     | 10.74                             |
| Temperatur ved bunn av brønnbanen [°C]   | 142                               |
| Eldste penetrerte alder                  | EARLY JURASSIC                    |
| Eldste penetrerte formasjon              | DRAKE FM                          |
| Geodetisk datum                          | ED50                              |
| NS grader                                | 60° 47' 34.27" N                  |
| ØV grader                                | 2° 41' 43.29" E                   |



|                      |            |
|----------------------|------------|
| NS UTM [m]           | 6739912.52 |
| ØV UTM [m]           | 483415.22  |
| UTM sone             | 31         |
| NPDID for brønnbanen | 4053       |

## Brønnhistorie

### General

The purpose of well 30/3-9 was to prove minimum economical volumes of hydrocarbons in the Brent Group within the C-prospect, and to possibly identify a down flank hydrocarbon/water contact within the Brent Group. The C-prospect is situated within an easterly dipping terrace, north of the Oseberg platform. The 30/3-9 well was the first well drilled on this structural segment.

### Operations and results

Wildcat well 30/3-9 was spudded on 24 April 2000 with the semi-submersible installation "West Alpha" and drilled to a total depth of 4015 m in the Early Jurassic Drake Formation. No shallow gas was encountered. The well was drilled with seawater with hi-vis pills and bentonite mud down to 1027 m, and with KCl/polymer/glycol mud ("Glydril" with 3.5 % glycol) from 1027 m to 2466 m. The well was then displaced to oil based "VersaPro" mud and drilled with this mud through the 12 1/4" section to 3712 m. Circulation was lost at 3644 m and 294 m<sup>3</sup> "VersaPro" was lost to the formation. The 8 1/2" section (3712 m to TD) was drilled with KCl/polymer/glycol mud ("Glydril" with 2.5 % glycol). Thin gas-charged stringers were encountered at 2113 m (sandstone in the Lista Formation), 2526 m and 2541 m (limestone in the Jorsalfare Formation). The reservoir of the Brent Group was expected to comprise a complete set of formations. However, only the Ness and Oseberg Formations were conclusively present. The absence of the Tarbert Formation is due to erosion. From the image log (FMI), a fault zone was recognized within the Brent Group in the interval between 3900 m and 3909 m. The absence of the Etive/Rannoch Formations (and possibly, the upper part of the Oseberg Formation) is due to faulting. It is possible that the uppermost 3 m of the 19 m thick lower sand (from 3904 to 3907 m) in the reservoir represents the Etive Formation. However, this is not conclusive and the sands are thus assigned to the Oseberg Formation in this report.

The uppermost sandstone layer in the Ness Formation, from 3815 m to 3819 m, contained gas/condensate. This was confirmed by MDT sampling. The remaining sandstones in Ness/Oseberg Formations were water wet. MDT fluid sampling gave water in the Oseberg Formation (3909.3 m), water in the Ness Formation (3838.5 m), and gas/condensate in the Ness Formation (3816.0 m). One core was cut from 3899 m in the Ness Formation. The core jammed after 1 m. 30/3-9 was permanently abandoned on July 1 2000 as a gas/condensate discovery.

### Testing

No drill stem test was performed

## Borekaks i Sokkeldirektoratet

|                               |                               |
|-------------------------------|-------------------------------|
| Borekaksprøve, topp dybde [m] | Borekaksprøve, bunn dybde [m] |
| 1040.00                       | 4015.00                       |



|                                        |     |
|----------------------------------------|-----|
| Borekaks tilgjengelig for prøvetaking? | YES |
|----------------------------------------|-----|

### Borekjerne i Sokkeldirektoratet

| Kjerneprøve nummer | Kjerneprøve - topp dybde | Kjerneprøve - bunn dybde | Kjerneprøve dybde - enhet |
|--------------------|--------------------------|--------------------------|---------------------------|
| 1                  | 3899.0                   | 3900.0                   | [m ]                      |

|                                       |     |
|---------------------------------------|-----|
| Total kjerneprøve lengde [m]          | 1.0 |
| Kjerner tilgjengelig for prøvetaking? | YES |

### Kjernebilder



3899-3900m

### Palynologiske preparater i Sokkeldirektoratet

| Prøve dybde | Dybde enhet | Prøve type | Laboratorie |
|-------------|-------------|------------|-------------|
| 3807.0      | [m]         | SWC        | WESTLB      |
| 3807.0      | [m]         | SWC        | WESTLB      |
| 3813.0      | [m]         | SWC        | WESTLB      |
| 3824.0      | [m]         | SWC        | WESTLB      |
| 3925.0      | [m]         | SWC        | WESTLB      |

### Oljeprøver i Sokkeldirektoratet

| Test type | Flaske nummer | Topp dyp MD [m] | Bunn dyp MD [m] | Væske type  | Test tidspunkt | Prøver tilgjengelig |
|-----------|---------------|-----------------|-----------------|-------------|----------------|---------------------|
| DST       |               | 0.00            | 0.00            | CONDE NSATE |                | YES                 |



Litostratigrafi

| Topp Dyb<br>[mMD RKB] | Litostrat. enhet                |
|-----------------------|---------------------------------|
| 141                   | <a href="#">NORDLAND GP</a>     |
| 747                   | <a href="#">UTSIRA FM</a>       |
| 930                   | <a href="#">HORDALAND GP</a>    |
| 1613                  | <a href="#">GRID FM</a>         |
| 1641                  | <a href="#">NO FORMAL NAME</a>  |
| 1968                  | <a href="#">ROGALAND GP</a>     |
| 1968                  | <a href="#">BALDER FM</a>       |
| 2045                  | <a href="#">SELE FM</a>         |
| 2065                  | <a href="#">LISTA FM</a>        |
| 2228                  | <a href="#">SHETLAND GP</a>     |
| 2228                  | <a href="#">JORSALFARE FM</a>   |
| 2550                  | <a href="#">KYRRE FM</a>        |
| 3236                  | <a href="#">TRYGGVASON FM</a>   |
| 3460                  | <a href="#">BLODØKS FM</a>      |
| 3469                  | <a href="#">SVARTE FM</a>       |
| 3619                  | <a href="#">CROMER KNOLL GP</a> |
| 3619                  | <a href="#">RØDBY FM</a>        |
| 3632                  | <a href="#">SOLA FM</a>         |
| 3637                  | <a href="#">ÅSGARD FM</a>       |
| 3718                  | <a href="#">VIKING GP</a>       |
| 3718                  | <a href="#">DRAUPNE FM</a>      |
| 3735                  | <a href="#">HEATHER FM</a>      |
| 3815                  | <a href="#">BRENT GP</a>        |
| 3815                  | <a href="#">NESS FM</a>         |
| 3904                  | <a href="#">OSEBERG FM</a>      |
| 3923                  | <a href="#">DUNLIN GP</a>       |
| 3923                  | <a href="#">DRAKE FM</a>        |

Spleisede logger

| Dokument navn        | Dokument format | Dokument størrelse [KB] |
|----------------------|-----------------|-------------------------|
| <a href="#">4053</a> | pdf             | 0.54                    |





## Geokjemisk informasjon

| Dokument navn          | Dokument format | Dokument størrelse [KB] |
|------------------------|-----------------|-------------------------|
| <a href="#">4053_1</a> | pdf             | 1.45                    |

## Dokumenter - rapportert av utvinningstillatelsen (frigitt ihht til regelverk)

| Dokument navn                                 | Dokument format | Dokument størrelse [KB] |
|-----------------------------------------------|-----------------|-------------------------|
| <a href="#">4053_30_3_9_COMPLETION_LOG</a>    | .PDF            | 64.73                   |
| <a href="#">4053_30_3_9_COMPLETION_REPORT</a> | .PDF            | 52.50                   |

## Logger

| Type logg            | Topp dyp for logg [m] | Bunn dyp for logg [m] |
|----------------------|-----------------------|-----------------------|
| DITE DSI LDT ACTS GR | 2452                  | 3719                  |
| DLT MSFL LDT CNT GR  | 3712                  | 4023                  |
| DSI CSI (VSP) GR     | 1816                  | 3925                  |
| DSI LDL LEH QT GR    | 1020                  | 2459                  |
| FMI GR               | 3687                  | 3949                  |
| MDT GR               | 3809                  | 3919                  |
| MSCT GR              | 3807                  | 3925                  |
| MWD - ARC            | 3712                  | 4015                  |
| MWD - CDR            | 203                   | 3712                  |
| VSP                  | 1860                  | 4000                  |

## Foringsrør og formasjonsstyrketester

| Type utforing | Utforing diam. [tommer] | Utforing dybde [m] | Brønnbane diam. [tommer] | Brønnbane dyp [m] | LOT/FIT slam eqv. [g/cm3] | Type formasjonstest |
|---------------|-------------------------|--------------------|--------------------------|-------------------|---------------------------|---------------------|
| CONDUCTOR     | 30                      | 201.0              | 36                       | 201.0             | 0.00                      | LOT                 |
| INTERM.       | 20                      | 1019.0             | 26                       | 1019.0            | 1.60                      | LOT                 |
| INTERM.       | 13 3/8                  | 2452.0             | 17 1/2                   | 2454.0            | 1.91                      | LOT                 |
| INTERM.       | 9 5/8                   | 3707.0             | 12 1/4                   | 3707.0            | 2.05                      | LOT                 |
| OPEN HOLE     |                         | 4015.0             | 8 1/2                    | 4015.0            | 0.00                      | LOT                 |





## Boreslam

| Dybde MD [m] | Egenvekt, slam [g/cm <sup>3</sup> ] | Viskositet, slam [mPa.s] | Flytegrense [Pa] | Type slam | Dato, måling |
|--------------|-------------------------------------|--------------------------|------------------|-----------|--------------|
| 180          | 1.03                                |                          |                  | DUMMY     |              |
| 730          | 1.60                                | 15.0                     |                  | GLYDRILL  |              |
| 737          | 1.82                                | 22.0                     |                  | GLYDRILL  |              |
| 748          | 1.60                                | 16.0                     |                  | GLYDRILL  |              |
| 905          | 1.82                                | 23.0                     |                  | GLYDRILL  |              |
| 950          | 1.82                                | 25.0                     |                  | GLYDRILL  |              |
| 1027         | 1.20                                |                          |                  | DUMMY     |              |
| 1328         | 1.24                                | 12.0                     |                  | GLYDRILL  |              |
| 1879         | 1.45                                | 18.0                     |                  | GLYDRILL  |              |
| 2113         | 1.60                                | 26.0                     |                  | GLYDRILL  |              |
| 2123         | 1.60                                | 24.0                     |                  | GLYDRILL  |              |
| 2159         | 1.58                                | 19.0                     |                  | GLYDRILL  |              |
| 2460         | 1.60                                | 24.0                     |                  | GLYDRILL  |              |
| 2463         | 1.61                                | 21.0                     |                  | GLYDRILL  |              |
| 2542         | 1.75                                | 50.0                     |                  | VERSAPRO  |              |
| 2542         | 1.78                                | 50.0                     |                  | VERSAPRO  |              |
| 2885         | 1.75                                | 50.0                     |                  | VERSAPRO  |              |
| 3438         | 1.78                                | 51.0                     |                  | VERSAPRO  |              |
| 3457         | 1.78                                | 50.0                     |                  | VERSAPRO  |              |
| 3536         | 1.81                                | 53.0                     |                  | VERSAPRO  |              |
| 3707         | 1.82                                | 48.0                     |                  | VERSAPRO  |              |
| 3712         | 1.82                                | 48.0                     |                  | VERSAPRO  |              |
| 3718         | 1.89                                | 26.0                     |                  | VERSAPRO  |              |
| 3808         | 1.91                                | 31.0                     |                  | GLYDRILL  |              |
| 3810         | 1.91                                | 26.0                     |                  | GLYDRILL  |              |
| 3899         | 1.91                                | 28.0                     |                  | GLYDRILL  |              |
| 3909         | 1.91                                | 32.0                     |                  | GLYDRILL  |              |
| 3926         | 1.91                                | 29.0                     |                  | GLYDRILL  |              |
| 3975         | 1.91                                | 30.0                     |                  | GLYDRILL  |              |
| 4015         | 1.91                                | 28.0                     |                  | GLYDRILL  |              |

## Trykkplott

Porertrykksdataene kommer fra logging i brønnen hvis ingen annen kilde er oppgitt. I noen brønner der trykk ikke er logget, er det brukt informasjon fra formasjonstester eller brønnspar. Trykkdataene er rapportert inn til Oljedirektoratet og videre prosessert og kvalitetssikret av IHS Markit.







| Dokument navn                                             | Dokument format | Dokument størrelse [KB] |
|-----------------------------------------------------------|-----------------|-------------------------|
| <a href="#">4053 Formation pressure (Formasjonstrykk)</a> | pdf             | 0.22                    |

