

**General information**

|                                    |                                       |
|------------------------------------|---------------------------------------|
| Wellbore name                      | 16/5-8 S                              |
| Type                               | EXPLORATION                           |
| Purpose                            | WILDCAT                               |
| Status                             | P&A                                   |
| Press release                      | <a href="#">link to press release</a> |
| Factmaps in new window             | <a href="#">link to map</a>           |
| Main area                          | NORTH SEA                             |
| Discovery                          | <a href="#">16/5-8 S (Goddo)</a>      |
| Well name                          | 16/5-8                                |
| Seismic location                   | LN12M02R16. Inline 2805 Xline 2924    |
| Production licence                 | <a href="#">815</a>                   |
| Drilling operator                  | Lundin Norway AS                      |
| Drill permit                       | 1755-L                                |
| Drilling facility                  | <a href="#">LEIV EIRIKSSON</a>        |
| Drilling days                      | 46                                    |
| Entered date                       | 08.07.2019                            |
| Completed date                     | 22.08.2019                            |
| Plugged and abandon date           | 22.08.2019                            |
| Release date                       | 22.08.2021                            |
| Publication date                   | 10.11.2021                            |
| Purpose - planned                  | WILDCAT                               |
| Reentry                            | NO                                    |
| Content                            | OIL                                   |
| Discovery wellbore                 | YES                                   |
| 1st level with HC, formation       | BASEMENT                              |
| Kelly bushing elevation [m]        | 25.0                                  |
| Water depth [m]                    | 104.0                                 |
| Total depth (MD) [m RKB]           | 2468.0                                |
| Final vertical depth (TVD) [m RKB] | 2093.0                                |
| Geodetic datum                     | ED50                                  |
| NS degrees                         | 58° 43' 37.32" N                      |
| EW degrees                         | 2° 21' 11.7" E                        |
| NS UTM [m]                         | 6509987.84                            |
| EW UTM [m]                         | 462547.56                             |
| UTM zone                           | 31                                    |
| NPDID wellbore                     | 8704                                  |



## Wellbore history

### General

Well 16/5-8 S was drilled to test the Goddo prospect on the Utsira High in the North Sea. The primary objective was to prove hydrocarbons in porous/fractured basement below base Cretaceous and to verify pressure communication with the nearby Rolvsnes discovery.

### Operations and results

Wildcat well 16/5-8 S was spudded with the semi-submersible installation Leiv Eiriksson on 8 July 2019 and drilled to TD at 2468 m (2093 m TVD) 268 m into granitic Basement rock. No shallow gas was identified in the site survey or while drilling the well. Operations proceeded without significant problems. The well was drilled with seawater and hi-vis pills down to 196 m, with KCl/polymer mud from 196 m to 620 m, and with BaraHib ECO water-based mud from 620 m to TD.

Top Basement was penetrated at 2201.7 m (1889.4 m TVD), underlying Valanginian age Åsgard Fm marls. The basement is porous and fractured with a ca 20-25 m oil column. Pressure data shows that the Goddo discovery is not in pressure communication with the Rolvsnes oil discovery. There were no oil shows outside of the hydrocarbon bearing fractured basement zone in the well.

Five continuous cores were cut in the interval 2192 to 2229.8 m. Recovery was 99 to 100% for all cores except core no 2 from 2201 to 2206 m, which had a recovery of 79.2%. The average core to log shift is estimated to +2.03 m with +1.76 m at the BCU /top Basement level in core no 1. Wire line FTNG fluid samples were taken at 2202.64 m (oil), 2205.38 m (oil), 2205.71 m (oil), 2246.16 m (water), and 2251.46 m (water). PVT analysis of the oil samples gave GOR around 150 Sm<sup>3</sup>/Sm<sup>3</sup> and an oil density of ca 0.872 g/cm<sup>3</sup>.

The well was permanently abandoned on 22 August 2019 as an oil discovery.

### Testing

No drill stem test was performed.

## Cuttings at the Norwegian Offshore Directorate

| Cutting sample, top depth [m] | Cutting samples, bottom depth [m] |
|-------------------------------|-----------------------------------|
| 210.00                        | 2468.00                           |

|                                  |     |
|----------------------------------|-----|
| 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                  | 2192.0                  | 2200.9                     | [m ]                    |



|   |        |        |      |
|---|--------|--------|------|
| 2 | 2201.0 | 2205.0 | [m ] |
| 3 | 2206.0 | 2211.9 | [m ] |
| 4 | 2211.9 | 2222.0 | [m ] |
| 5 | 2222.0 | 2229.8 | [m ] |

|                               |      |
|-------------------------------|------|
| Total core sample length [m]  | 36.6 |
| Cores available for sampling? | YES  |

**Lithostratigraphy**

| Top depth<br>[mMD RKB] | Lithostrat. unit                 |
|------------------------|----------------------------------|
| 129                    | <a href="#">NORDLAND GP</a>      |
| 129                    | <a href="#">NAUST FM</a>         |
| 394                    | <a href="#">UNDIFFERENTIATED</a> |
| 803                    | <a href="#">UTSIRA FM</a>        |
| 984                    | <a href="#">UNDIFFERENTIATED</a> |
| 1074                   | <a href="#">HORDALAND GP</a>     |
| 1074                   | <a href="#">SKADE FM</a>         |
| 1350                   | <a href="#">NO FORMAL NAME</a>   |
| 1765                   | <a href="#">NO FORMAL NAME</a>   |
| 1853                   | <a href="#">ROGALAND GP</a>      |
| 1853                   | <a href="#">BALDER FM</a>        |
| 1877                   | <a href="#">SELE FM</a>          |
| 1915                   | <a href="#">LISTA FM</a>         |
| 1976                   | <a href="#">VÅLE FM</a>          |
| 1991                   | <a href="#">SHETLAND GP</a>      |
| 1991                   | <a href="#">EKOFISK FM</a>       |
| 2016                   | <a href="#">TOR FM</a>           |
| 2125                   | <a href="#">HOD FM</a>           |
| 2161                   | <a href="#">CROMER KNOLL GP</a>  |
| 2161                   | <a href="#">RØDBY FM</a>         |
| 2184                   | <a href="#">SOLA FM</a>          |
| 2189                   | <a href="#">ÅSGARD FM</a>        |
| 2202                   | <a href="#">BASEMENT</a>         |

**Logs**



| Log type                         | Log top depth [m] | Log bottom depth [m] |
|----------------------------------|-------------------|----------------------|
| CMR NEXT XPT GR                  | 2009              | 2468                 |
| FMI MSIP GR                      | 129               | 2468                 |
| FTNG GR                          | 2201              | 2252                 |
| LWD - GR PWD RES DIR             | 171               | 604                  |
| LWD - GR PWD RES DIR AC          | 556               | 1411                 |
| LWD - GR RES PWD DIR             | 2009              | 2192                 |
| LWD - PWD GR DIR                 | 128               | 184                  |
| LWD - RES GR PWD DIR D C N R IMG | 2168              | 2468                 |
| LWD - RES GR PWD DIR DEN C NE AC | 1313              | 2006                 |
| UBI HRLA PEX HNGS GR             | 2009              | 2463                 |
| VSI GR                           | 406               | 2464                 |
| XLR GR                           | 2018              | 2446                 |

### 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                  | 194.0            | 42                | 194.5          | 0.00                     |                     |
| SURF.COND.  | 20                  | 620.0            | 26                | 620.0          | 1.50                     | FIT                 |
| INTERM.     | 13 3/8              | 1422.0           | 17 1/2            | 1422.0         | 1.90                     | FIT                 |
| LINER       | 9 5/8               | 2010.0           | 12 1/4            | 2010.0         | 1.87                     | LOT                 |
| OPEN HOLE   |                     | 2468.0           | 8 1/2             | 2468.0         | 0.00                     |                     |

### Drilling mud

| Depth MD [m] | Mud weight [g/cm3] | Visc. [mPa.s] | Yield point [Pa] | Mud type                | Date measured |
|--------------|--------------------|---------------|------------------|-------------------------|---------------|
| 1            | 1.04               | 10.0          |                  | PHB                     |               |
| 1            | 1.39               | 16.0          |                  | Displacement / Kill mud |               |
| 141          | 1.04               | 10.0          |                  | PHB                     |               |
| 170          | 1.39               | 16.0          |                  | Displacement / Kill mud |               |
| 190          | 1.04               | 10.0          |                  | PHB                     |               |
| 194          | 1.39               | 16.0          |                  | Displacement / Kill mud |               |
| 197          | 1.16               | 9.0           |                  | WBM                     |               |



|      |      |      |  |         |  |
|------|------|------|--|---------|--|
| 255  | 1.23 | 17.0 |  | WBM     |  |
| 460  | 1.25 | 14.0 |  | WBM     |  |
| 513  | 1.30 | 25.0 |  | WBM     |  |
| 620  | 1.27 | 16.0 |  | WBM     |  |
| 620  | 1.37 | 16.0 |  | WBM     |  |
| 704  | 1.30 | 31.0 |  | WBM     |  |
| 1422 | 1.48 | 32.0 |  | WBM     |  |
| 1422 | 1.30 | 38.0 |  | WBM     |  |
| 1427 | 1.47 | 29.0 |  | WBM     |  |
| 1754 | 1.31 | 31.0 |  | WBM     |  |
| 1754 | 1.30 | 25.0 |  | WBM     |  |
| 1780 | 1.30 | 25.0 |  | WBM     |  |
| 1780 | 1.14 | 18.0 |  | WBM     |  |
| 2010 | 1.20 | 24.0 |  | WBM     |  |
| 2010 | 1.48 | 21.0 |  | WBM     |  |
| 2015 | 1.21 | 24.0 |  | WBM     |  |
| 2191 | 1.14 | 16.0 |  | WBM     |  |
| 2191 | 1.20 | 23.0 |  | WBM     |  |
| 2212 | 1.14 | 16.0 |  | BaraHib |  |
| 2212 | 1.14 | 18.0 |  | WBM     |  |
| 2468 | 1.14 | 18.0 |  | WBM     |  |