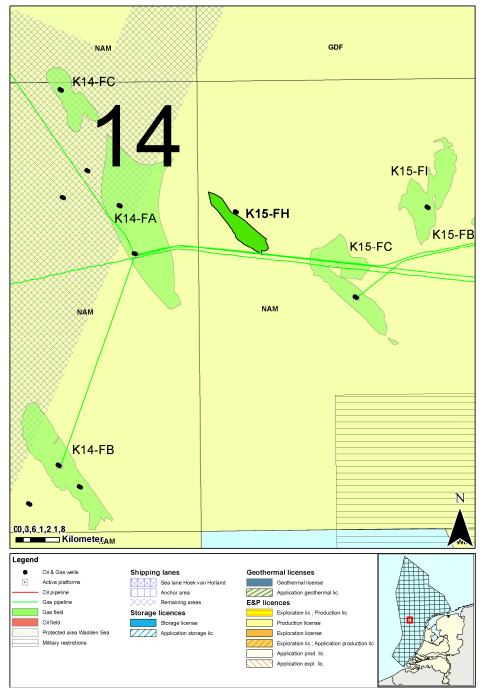




TNO Built Environment and Geosciences Geological Survey of the Netherlands

Fact sheet K15-FH

Stranded fields - Q4 2009



Location map of the K15-FH gas field

General information

The K15-FH gas field was discovered in 1992 by NAM by well K15-13. It is situated in the K15 production license (NAM). The field is located in the Broad Fourteens Basin. The gas is trapped in the sandstones of the Slochteren Formation (ROSL), beneath the Zechstein salt.

The structure consists of a tilted Rotliegend fault block and is situated beneath a large Zechstein salt dome. The Slochteren sandstones (ROSL) reservoir comprises mainly aeolian sediments and fluvial sediments. The field has not been developed and currently lies in NAM acreage.

Sequence of events

| Date | Event |
|---------------|--|
| 04-10-1977 | Production license K15 effective (NAM) |
| 28-10-1991 | Spud date K15-13 |
| 16-12-1991 | TD reached 3576 m ah |
| 20-01-1992 | Sidetrack #1 (Kickoff 2938 m ah) |
| 03-02-1992 | TD reached 3700 m ah |
| 16/19-02-1992 | Production tests (ROSL) |

Reservoir data

| Geological unit | Тор | Base | Net | N/G | Porosity |
|--------------------------------|------|------|------|-----|----------|
| RGD & NOGEPA (1993) | m ah | m ah | m ah | % | % |
| Rotliegend Formation (ROSL) | 3513 | 3545 | 32 | 100 | |

Taken from well log

Hydrocarbon specifications

| Reservoir | CH4 % | CO ₂ % | N2 % | H ₂ S % | GHV MJ/m ³ |
|--------------------------------|-------|--------------------------|------|--------------------|-----------------------|
| Slochteren Formation (ROSL) | 90,7 | 4,45 | 2,15 | 0 | 41 |

Volumes

| Reservoir | GIIP 10^9 m^3 | Reserves 10 ⁹ m ³ | | | |
|--------------------------------|--------------------------------|--|----------|----------|--|
| | | Proven | Expected | Possible | |
| Slochteren Formation (ROSL) | 0,5 - 1,0 | | | | |

Productivity

| Stratigraphic interval | Interval TVD | Reservoir pressure in bar abs | CGR m ³ / 10 ⁶ m ³ | WGR m ³ / 10 ⁶ m ³ | Q well production at s.c. m ³ /d | Drawdown bar |
|--------------------------------|------------------------|-------------------------------------|---|---|--|------------------------|
| Slochteren Formation (ROSL) | 3386 - 3418,5 | | | | $603\ 000 \rightarrow$ $321\ 000^*$ | 50 |

^{*}Flowrate gradually decreased from 603 000 m^3 /day to 321 000 m^3 /day

Well status

K15-13-s1: Plugged and abandoned

Infrastructure

The nearest platform is: K14-A-1 of NAM, about four kilometers to the west. The nearest pipeline is located on the southern boundary of the field.

Public References

RGD & NOGEPA 1993, Stratigraphic nomenclature of the Netherlands, Mededelingen Rijks Geologische Dienst, Nr. 50

NAM 1992: Composite well log, K15-13/13A. On open file

For more information stranded Oil&Gas fields in the Netherlands: http://www.nlog.nl/nl/reserves/reserves/stranded.html
For released Well data and Seismic data contact DINOloket: http://www.dinoloket.nl
For geological maps of the deep subsurface of the Netherlands: http://www.nlog.nl/nl/pubs/maps/geologic_maps/NCP1.html

Liability

Facts and figures supplied on this fact sheet have been compiled carefully. Great care has been taken to ensure correct coverage of all information. TNO and the Ministry of Economic Affairs do not accept any liability for any direct or indirect damage of any kind ensuing from the use of information published on this sheet.