

50% OF DUC PRODUCTION

# The Halfdan Hub

Halfdan contributes almost 50% of the total daily oil production in Danish Underground Consortium.

#### **Production**

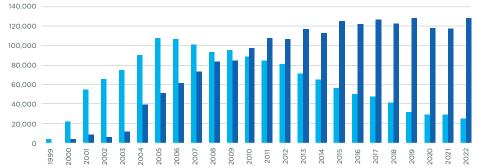
Oil and gas is recovered from the Halfdan field using long, alternate horizontal production and water injection wells, with parallel well trajectories. Varying the injection pressure in the well causes the rock to fracture. This generates a continuous water front along the length of the well, which drives the oil towards the production wells.

\*2020 production numbers.

# Halfdan Oil and Water Production 1999-2022

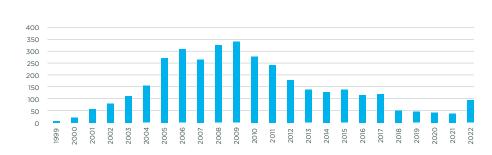
2022: 24,794 barrels of oil per day





### Halfdan Gas Production 1999-2022

2022: 82 million standard cubic feet of gas per day



# Block

5505/13 and 5504/16

#### Licence

Sole Concession

#### Location

210 km west of Esbjerg

# Discovered

1999

#### Production start 1999, 2004 and 2007

**Producing wells** 

55

# Water injection wells

# Reservoir depth 2,100 m

# Field delineation

# Reservoir rock

#### Chalk

**Geological age**Danian and Upper Cretaceous

WATER DEPTH

43m

# The Halfdan Hub

#### Main platform built

Singapore (Halfdan BA)

#### **Complex**

two main centres and one unmanned satellite

#### Latest field development

Halfdan B process module, 2010

#### **Connections to other platforms**

- the oil produced is transported to Dan F (From Halfdan B to Halfdan A to Dan F)
- water injection is supplied from Dan
- the gas produced is temporarily transported to Shore (NL) through the Dan facilities

#### Installation dates

• Halfdan DA 1999	1999
• Halfdan BA 2001	2001
<ul> <li>Halfdan DB, DC 2003</li> </ul>	2003
<ul> <li>Halfdan BB, BC, CA 2007</li> </ul>	2007
Halfdan BD	2009

## Halfdan A

#### Accommodation

32 beds

#### Helicopter deck

ves

#### Walls

35 (20 producers and 15 water injectors)

#### **Platforms**

one combined process module and wellhead (DA), one accommodation (DB) and one flare tower (DC)

## **Bridges**

connect the platforms (approx. 100 m long) and have walkways on two levels

## Halfdan B

#### Accommodation

80 beds

#### Helicopter deck

yes

#### Wells

40 (25 producers and 15 water injectors)

#### **Platforms**

one process module (BD), two wellheads (BA, BB) and one accommodation (BC)

#### **Bridges**

connect the platforms (approx. 100 to 140 m long) and have walkways on two levels

## Halfdan C

#### Accommodation

unmanned satellite

## Helicopter deck

no

#### Wells

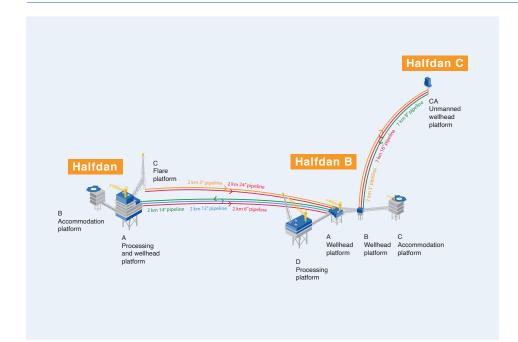
10 producers

#### **Platforms**

one wellhead (CA)

#### **Bridges**

none



Oil and Gas Production in Denmark 2012, p. 58, Danish Energy Agency

#### **Distance**

- 2 km from Halfdan DA to Halfdan BA
- 7 km from Halfdan BB to Halfdan CA

## **Total weight**

62,853 tonnes

