Oil in the Netherlands
What is happening?

Guido Hoetz, chief geoscientist EBN B.V.
PROSPEX London 2013
Oil in the Netherlands

- Introduction (& the role of EBN)
- How Oil started
- Recent Developments
- The Future
- Summary
EBN: who, what, where?

- Large E&P player in NL via NOV’s
- Production (equity): 500,000 BOE/day
- 100% owned by Ministry of Economic Affairs
- Focus on oil & gas exploration & production
- Drivers: financial, reliable supply, clean
- Optimise use of assets & subsurface knowledge
(Oil) Drilling activity in the Netherlands

Well drilled (per annum)

Year

Onshore

Offshore

Onshore revd

Domestic oil supply

Historic and future oil production

- Domestic oil supply: ~100,000 bbl/day
- Onshore
- Offshore
- Total resources

Contingent resources are unrisked.
Oil in the Netherlands

- Introduction (& the role of EBN)
- How Oil started
- Recent Developments
- The Future
- Summary
Oilfields in the Netherlands

- 46 proven accumulations
- 8 ceased production
- 15 producing fields
- 3 fields under development
- Schoonebeek: largest onshore oilfield of W-Europe
  (~1 billion bbl STOIIIP)
Oil in the Netherlands

• Introduction (& the role of EBN)
• How Oil started
• Recent Developments
• The Future
• Summary
Schoonebeek Oil Field

- Discovered 1943
- STOIIP: 1000 Mil bbl, produced: ~25% (heavy oil)
- Re-developed in 2010-13
- 3D Seismic & Steam technology (CoGeneration steam & electricity)
- 73 wells (44 producers, 25 injectors)
HIRES Seismic Breakthrough

vertical exaggeration 5x

1993 Post-Stack Time

New HIRES Pre-Stack Depth
Schoonebeek full field, 3D-view from SE

Top Bentheim depth

1 KM

vertical exaggeration 5x
Schoonebeek full field, 3D-view from SE, with wells

Top Bentheim depth

vertical exaggeration 5x
Amstel Oil Field

- Discovered 1961
- Currently being developed
- Enabler: new operator & new ideas
- 4 producers, 1 injector
- L. Cret. Sst in pop-up structure
- STOIIP: 20-35 mil bbl
Hanze Oil Field (F02)

- Discovered: 1996
- Production start: 2001
- Initial production: 32000 bopd
- Current production: 2600 bopd
- STOIIP: 156 Mil bbl
- Recent infill drilling

- 4-way dipclosure on salt diapir
- Depth ca. 1500 m
- Reservoir: Chalk
- Source: Posidonia Shale
- Seal: Tertiary shale
Rijn Oil Field (P15)

- Discovered: 1982
- Produced: 1985 to 1998 (2 platforms)
- Shut-in: 1998 (BP)
- 2009: Recompletion of 10 wells (TAQA)
- Production restarted in 2010
- Developed STOIP: 137 Mil bbl

- Fault bounded anticline
- Depth ca. 2000 m
- Reservoir: Lower Cretaceous - Rijn Mbr
- Source: Posidonia Shale
- Seal: Vlieland Claystone
L05 E Oil Field

- Discovered 1983
- Jurassic Sst in faulted dip closure
- Oil above Triassic gasfield
- 3 appraisal wells drilled in 2013
Promising oil potential in the northern Dutch offshore

“The success of Wintershall’s F17-10 Chalk oil well has put the spotlight back onto this area, where 4 stranded fields are located: Sterling’s Korvet, Brigantine, Fregat and GdFS L05-E”

FODOG 2013
Introduction (& the role of EBN)
• How Oil started
• Recent Developments
• The Future
• Summary

Oil in the Netherlands
Oil exploration portfolio

Offshore oil prospects: POS and MSV

EBN 2013
New prospects: Kingfisher

**F5-Kingfisher**

- Oil prospect updip from shows
- Multiple targets:
  - Tertiary, Chalk, Vlieland, Jurassic Sst
- First 3D coverage
- Open acreage
New prospects: Sea Eagle

F8-Sea Eagle
• Multiple traps: 4-way dipclosure, truncation trap, salt flank trap,
• Multiple targets: Tertiary, Chalk, Vlieland, Jurassic Sst
• Adjacent to mature Posidonia oil kitchen
• First 3D coverage: enhanced structural definition
• Open acreage
Summary

- Rich history (90 years!) of Oil in the Netherlands
- New oil developments ongoing: technology enables!
- Healthy portfolio of re-developments, stranded fields & exploration

More info: WWW.EBN.NL