TURNING CRISIS INTO OPPORTUNITY

DET NORSKE OLJESELSKAP

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The Big Picture

A challenging, but necessary crisis?

Upstream costs have nearly tripled over the last 10 years, similar to oil prices

Full cycle cost vs brent oil price

Source: IHS, Morgan Stanley Research, BCG
Spending and costs are decreasing as a response to challenges.

E&Ps changed their plans mid-way through...

- Reached the ambition to reduce 2015 expenditures by USD 100 million

E&P spending estimates for next year vs. actuals

Source: Pareto Securities Research E&P Survey 2015

From Det norske’s Q4 presentation, 25 February 2015
RESERVES AND PRODUCTION OUTLOOK

In a strong position to benefit in the longer term...

Pro-forma P50 reserves, end 2014

Indicative production profile

- Johan Sverdrup (pro-forma): 271 mmboe
- Alvheim: 89
- Vilje: 10
- Volund: 12
- Bøyla: 15
- Aasen incl. Hanz: 71
- Other; Gina Krog: 7
- Gina Krog: 7
- Other: 477 mmboe

Reserves  Upsides

2015  2020  2025
... but we continuously work to improve

We are already a top performer...
- Alvheim achieved top quartile performance in 2014, and Ivar Aasen is on track

... but we work improve
- Initiating a long-term improvement programme to cover all parts of the business
- Ambition to improve long term competitiveness in the current market environment
- Will work to:
  - Increase cost efficiency and improve work processes
  - Explore ideas to radical change to business model
  - Work to enhance the performance culture throughout the organization

STRATEGIC PRIORITIES
Drive execution and build optionality

Drive execution

- Deliver Ivar Aasen
- Maximise value from the Alvheim area
- Optimize Johan Sverdrup execution and unitisation

Build optionality

- Continue to optimize the capital structure
- Deliver on cost efficiency
- Long-term reserve replacement strategy
PRODUCTION AND DEVELOPMENTS

Concentrated in two core areas

**Utsira High**

- Det norske partner
- Det norske operator

**Greater Alvheim area**

- Det norske partner
- Det norske operator
PRODUCTION AND DEVELOPMENTS

High activity level with high performance

Day 1 of Newco  Last roll-up IA jacket  Drilling of geopilots on IA  Jacket sailed from Sardina  KB3 workover  Lifting and installation of IA jacket  IA LQ stacked  IAVG pipelines  Boa manifold

OCT 14  JAN 15  APR 15  JUL 15  SEP 15

RBL in place  Skandic Arctic on Bøyla  Bøyla starts producing  Stacking of decks on IA  Drilling of Bøyla M2  L4 starts producing  Funding and hedged oil prices  Started IA production drilling  Bøyla M2 starts producing  Drilling of K6
BUSINESS DEVELOPMENT

Acquisition of Svenska Petroleum Exploration AS

- Cash consideration of USD 75 million
- Increased ownership in attractive assets with resource upside potential
- 13 licenses and 15 employees
  - Krafla/Askja (25%), Garantiana (20%), Frigg Gamma Delta (40%) and Fulla/Lille-Frigg (25%) discoveries in the North Sea
  - Four exploration licenses in the Norwegian Sea
- Tax effect from fiscal year 2015
  - After-tax value of tax loss carry forward of NOK 130 million (end 2014)
- Closed in November
BUSINESS DEVELOPMENT

Acquisition of Premier Oil Norge AS

- Cash consideration of USD 120 million
- Increased optionality at an attractive price
- 10 licenses and 26 employees
  - Operator of the Vette (50%) development with adjacent Macrel and Herring discoveries (50%)
  - Partner in Frøy field (50%)
  - Seven exploration licenses in the North Sea
- Tax losses carry forward, undepreciated tax balances and exploration tax refunds estimated to be approx. NOK 1.0 billion
- Closing expected by year-end 2015
PDO for Ivar Aasen was approved on May 21, 2013
- Gross P50 reserves of 204 mmboe
- Production to reach ~67,000 boepd at plateau
- Final processing and export of oil and gas from the Edvard Grieg platform
- Oil export to Sture via the Grane pipeline
- Gas to St Fergus via the SAGE pipeline
- Project within budget and on track for first oil in Q4 ’16

License: PL001B/242/457 (Unit), PL028B (Hanz)
Discovery year: 2008
Reservoir: Paleocene, Heimdal fm.
End 2014 2P reserves (net): 70.9 mmboe
Production start: Q4 2016
Wells: 15 wells, eight producers and seven water injection wells (incl. Hanz 2)

\[1 \text{ License: PL001B/242/457, 35\% in Hanz PL 028B}\]
PROJECT OVERVIEW

History

- **1965-69**: Esso operator for PL 001/PL 028
- **1997**: Hanz discovered – PL 0028
- **1999**: Esso operator for PL 001B/028B/242
- **2004**: West Cable discovery in PL 242
- **2005**: Det norske acquires PL 001B/028B/242
- **2008: April**: Det norske as operator discovers Draupne (Ivar Aasen) in PL 001B
- **2012**: Selects joint development solution with Edvard Grieg (Lundin)
- **2012**: Plan for Development and Operation submitted 23 December
- **2013**: Plan for Development and Operation approved by the Storting on 21 May
- **2013**: All major contracts awarded
- **2013**: November – first steel cut in Sardinia and Singapore
- **2014**: Aasen is growing – unitisation with PL 457 and PL 338
PROJECT OVERVIEW

Strong partnership

Partners:

- Det norske: 34.7862% (operator)
- Statoil: 41.4730%
- Bayerngas Norge: 12.3173%
- Wintershall Norge: 6.4651%
- VNG Norge: 3.0230%
- Lundin Norway: 1.3850%
- OMV Norge: 0.5540%
PROJECT OVERVIEW

A global project

- Hokksund: Mechanical couplings and pipeline (Aasen-Grieg)
- Oslo: Pipelines and cables
- Stord: Living quarters
- London: Engineering
- Sens/France: Wellhead and X-mas trees
- Sardinia: Jacket
- Trondheim: Project management
- Trondheim: Operations
- Trondheim/Oslo: EICT
- Kuala Lumpur: Engineering process
- Singapore: Drilling rig
- Singapore: Topsides
- Singapore: Floatel
HSE
Health, safety and the environment comes first

Our commitment and that of our partners:
- Zero HSE incidents
- Engaged and committed leadership
- Work actively with HSE
- Open and honest culture

The right to stop unsafe work
- Responsibility and authority to intervene
- Respect rules
- Taking good care of ourselves
Extensive operational activities in 2015
- Drilling, Jacket installation, pipeline installation, trenching and rock-dumping, Topsides- and LQ construction
- Man-hours year to date (cut-off October); 7.15 mill
- Man-hours last 12 months (cut-off October); 8.13 mill

Building HSE Awareness and HSE culture

Preventive actions and campaigns are conducted
- Toolbox meetings
- HSE Summit
- SAFE moment in all meetings
- PSI camps (Personal Safety Involvement)
- Dropped object prevention campaigns
- Stand down for safety

No major HSE incidents in 2015
PROJECT ACHIEVEMENTS IN 2015

On track to secure first oil Q4 2016

Drilling of geopilots on IA
Jacket sailed from Sardinia
IA LQ stacked
Jacket installation
Rock installation and trenching 2015 Campaign completed
Topside Onshore Commissioning commenced
Topside Looptesting commenced

JAN 15
APR 15
MAY 15
JUN 15
JUL 15
AUG 15
SEP 15
OCT 15
NOV 15
DEC 15

Stacking of IA Topside decks
IA/EG Stalk fabrication
Offshore personnel recruitment completed
Start pre-drilling over Jacket
Ivar Aasen /Edvard Grieg pipelines installed
Choice of Topside Installation window decided
PROJECT STATUS

Upcoming milestones

- **JAN 16**: Topside Loop/N2He-test Complete
- **MAR 16**: Topside MC Complete
- **MAY 16**: Topsides Loadout/Sailaway
- **SEP 16**: Flotel Safe Zephyrus
- **NOV 16**: First Oil Target
- **DEC 16**: Continue production drilling
PROJECT STATUS

Jacket installed on the field last summer

- The steel jacket was constructed by Saipem on Sardinia, Italy
- The jacket was lifted in place on the seabed 112 meters below sea level on 10 June
- Piling and grouting activities were concluded and the jacket installation finished in mid July
SURF

SURF scope on track

■ 2015 scope completed
  • Installation of three pipelines between Ivar Aasen and Edvard Grieg were completed in September
  • Rock installation on Ivar Aasen completed
  • Metrology, pre-commissioning and trenching are completed

■ 2016 scope of work
  • Installation of power cable
  • Spool and cover installation
  • Trenching power cable
  • Finalize rock installation
  • Commissioning pipelines and power cable

Lewek Express at spool base
PROJECT STATUS

Drilling and Wells progress

<table>
<thead>
<tr>
<th>Drilling and well planned vs actuals</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Planned</td>
<td>Actual</td>
</tr>
<tr>
<td>Geopilot wells</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Deep set conductors</td>
<td>27,5 days</td>
<td>13,8 days</td>
</tr>
<tr>
<td>Well 16/1-D-10</td>
<td>62,7 days</td>
<td>46,6 days</td>
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<tr>
<td>Remaining wells before Topside installation:</td>
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<td></td>
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<tr>
<td>Well 16/1-D-11</td>
<td>53,0 days</td>
<td>41,7 days</td>
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<tr>
<td>Well 16/1-D-14</td>
<td>64,6 days</td>
<td>31,4 days</td>
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<td>Well 16/1-D-16</td>
<td>56,2 days</td>
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<td>Well 16/1-D-1</td>
<td>55,0 days</td>
<td></td>
</tr>
<tr>
<td>Well 16/1-D-8</td>
<td>61,0 days</td>
<td></td>
</tr>
</tbody>
</table>
Drilling of production wells

- Initiated drilling of production wells through jacket in mid-July
  - Batch set five conductors
  - Three producers drilled and completed by mid-November

- World class drilling performance
  - Rig move and preparations for drilling completed in six days
  - Batch setting of five conductors well ahead of plan and budget
  - Top drilling and completion performance

- Targeting further performance improvements

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1 Source: Rushmore/Det norske
PROJECT STATUS

Topside

**Minimizing offshore hook-up & commissioning scope**

- Integrated Design Review to verify the design
- Timely delivery of EICT inputs to Construction and Commissioning
- Close co-operation to obtain right quality
- Secure documentation in all phases
- Construction and Commissioning actively involved in handover process to Commissioning
- Mitigation of risks to secure first oil including:
  - Interface with Edvard Grieg
  - Construction Manning
  - Safety systems
  - Fire or sabotage at construction site

**M40 Module on Berth 14**

![M40 Module on Berth 14](image)
PROJECT STATUS

Topside - Construction progress photos

Berth 14 – M40 module valve installation

M00 M120 HV room. Raised floor installation
PROJECT STATUS

Topside - Construction progress photos

M00 Module Deck crane cable installation

M00 Module – M120 Compressor package
PROJECT STATUS

Topside - Construction progress photos

Berth 9 – M50 module removal from M00

Inspection of Hose Loading Station
PROJECT STATUS

Living Quarters

Status Living Quarters EPC contract

- Overall progress 93%

- Good HSE status

- Engineering activities
  - Follow up of construction and documentation (as-built and LCI)
  - Verification activities

- Procurement activities
  - Factory acceptance test and delivery of life boats

- Construction activities
  - Mechanical Completion and handover of sub-systems to Commissioning
PROJECT STATUS

Living Quarters – Construction progress photos

All major installations completed

Helicopter deck landed
PROJECT STATUS

Living Quarters – Construction progress photos

Furniture for emergency room is delivered

Control room
PREPARATION FOR START-UP

Completion – make platform ready for first oil

- Aibel hired and mobilized as hook-up contractor
- Incentive scheme established
- Detailed planning and preparations commenced
- Integrated team - Aibel people in Singapore
- Mobilisation of offshore work force with 450 bed Floatel as base
- Hook-up onshore support center to be established from summer 2016
PREPARATION FOR START-UP
Activities to start-up

- Edvard Grieg ready for Ivar Aasen summer 2016 as per agreement
  - Integrated plan for tie-in activities to Edvard Grieg established
- Ivar Aasen readiness team established with mandate to secure first oil Q4
  - ‘One team’ approach for effective working and coordination
  - Integrated Tie-in and Start-up plan to manage key interfaces and priorities
  - Assurance and alignment across sub projects and between Ivar Aasen and Edvard Grieg
  - Identify and work any issues related to Ivar Aasen start-up capability
  - Detailed and tested start-up procedures
SCHEDULE BASELINE UPDATE

Main premises

- **Drilling**
  - Pre-drilling of four oil producers and two additional wells prior to topside installation
  - No drilling during topside installation and hook-up phase for minimum 90 days after Hook-up start

- **SURF offshore campaigns**
  - Tie-in flowlines and power cable installation in Q2 2016

- **Onshore Completion**
  - MC Topside Q1 2016
  - MC LQ Q1 2016
  - Sailaway topside modules from Singapore Q2 2016
  - Sailaway living quarters from Stord Q2 2016

- **Transport and Installation**
  - Five topside offshore lifts
  - Topside installation commencement window in July 2016

- **Offshore Completion**
  - Flotel accommodations for seven months
  - Offshore hook-up & commissioning start following offshore installation of topside
  - First sleep living quarters Q3 2016

- **Edvard Grieg progress according to PDO-schedule**

- **Production start**
  - First oil in Q4 2016
Appendix
THE IVAR AASEN PROJECT

The major contracts

- Feed study of design solution by Aker Solutions in London
- Topsides delivered by SMOE and Mustang Engineering.
  - Engineering in Woking/Kuala Lumpur and construction in Singapore and Batam
- Living quarters constructed by Apply Leirvik at Stord
- Steel jacket built by Saipem in Sardinia.
  - Engineering in Kingston
- Saipem awarded the contract for the lifting operations and transport
- Pipelines and cables delivered by EMAS
- Siemens awarded the EICT contract
- Aibel awarded the contract for hook-up, operational support, maintenance and modification
- Prosafe responsible for the living quarters during hook-up and commissioning
- Maersk Drilling to drill the wells with the rig Interceptor
THE IVAR AASEN PROJECT

Facts about the steel jacket

- Water depth: 112.7m
- Top of jacket above MSL: 25.0 m
- Total height of jacket: 137 m
- Weight jacket: 8 900 tonnes
- Capacity heavy lift vessel: 9 300 tonnes
- Design wave height (100 years): 27.7 m
- Design life, years: 25 – 30
- Topside maximum operating load: 22 000 tonnes
- J-tubes: 9
- Caissons: 11
- Risers: 4
THE IVAR AASEN PROJECT

Facts about the topside

- Capacity oil production: 9 000 Sm3
- Capacity water injection: 28 000 Sm3
- Dry weight: 15 000 tonnes
- Operating weight: 19 900 tonnes
- Size: 108 x 38 m
- Design life: 25 years
- Main system:
  - Oil and water separation
  - Water treatment
  - Gas compression
  - Oil and gas metering
  - Oil and gas export
  - Chemical injection
  - Flare system
THE IVAR AASEN PROJECT

Facts about the living quarter

- Built at Leirvik, Stord
- In total 3,267 square metres
- Constructed in aluminium – except lowest level in steel
- Weighs ca 2,000 tonnes
- Includes:
  - 70 cabins
  - Control room
  - Gangway and eating area
  - Recreational area and lobby
  - Hospital
  - Two lifeboats and MOB rescue boat
  - Helicopter deck