The Greater Britannia Area – History, Integration and Beyond

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SPE Aberdeen Evening Dinner Meeting 25 January 2017
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January 26, 2017
Geographic overview
Area infrastructure

History

BOL Integration

Beyond

Gas Export Routes
- SAGE
- CATS
- Gassled-Langeled

Liquids Export Routes
- Forties
- FPSO
Greater Britannia Area overview

- Legacy asset with infill potential and exploration prospect
  - 2nd largest gas producer in UKCS
  - Excellent safety and operational performance
  - Further Britsats opportunities

- Challenges
  - Offset production decline
  - Thrive in volatile price environment

- External Factors
  - Britannia strongest gas hub in area
  - Dedicated infrastructure for gas and liquids
  - Co-venture alignment
Greater Britannia Area assets

**Alder**
- First production Nov 2016
- Single well development
- 27 km 16”/ 10” tie-back to 800T module on BLP

**Brodgar**
- First production July 2008
- 2 subsea wells initially
- H3 currently producing
- 12” tie-back to BLP, 42 km
- Continuous MEG injection

**Enochdhu**
- First production June 2015
- Single well development
- 8 km tie-back to Callanish

**Brittenia & BLP Platforms**
- First production in Aug 1998
- Hub Processing and Export Facility
- 36 well slots
  - 47 wells drilled
  - 2/3 on production
- 3-Phase separation plus gas and liquid processing to export specification
- Design export capacity
  - 815 MMSCFD gas
  - 72,000 bpd oil/condensate
- Export routes
  - Gas via dedicated line to SAGE
  - Liquids to FPS
- Offshore POB 184

**Britannia Subsea**
- First production 1998
- 14 well slot manifold, 10 drilled; 4 still producing
- Tied back to Britannia via a 37” carrier / 14” production pipeline
Britannia timeline

- Discovered by Conoco (15/70-1 Well)
- Approval well 15/76
- Appraisal well in 15-26 seraphinbock fish, Encite (Abu)
- Confirmed to be one accumulation in 1990 by 15/76-21 & 21x
- Field named Britannia with joint Conoco and Chevron
- Equities agreed, Field Development/Approval
- Operatorship
- Predelivery and Field construction
- Subsea Production manifolds
- First Production
- Bridge Linker Platform
- Long-Term Compression
- Early well abandonments
- Conoco shuffles/Operator Alter

Life of Field
Britannia field development history – Exceeding expectations
**Britsats timeline**

<table>
<thead>
<tr>
<th>Discovery</th>
<th>Year</th>
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<tr>
<td>Brodgar</td>
<td>1985</td>
</tr>
<tr>
<td>Callanish</td>
<td>1999</td>
</tr>
<tr>
<td>Enochdhu</td>
<td>2005</td>
</tr>
<tr>
<td>Alder</td>
<td>1975</td>
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**GBA Area**

**History**

**BOL Integration**

**Beyond**

- Brodgar Discovery Well 1985
- Callanish Discovery Well 1999
- Enuchdhu Discovery Well 2005
- Alder Discovery Well 1975

- Gas Rate
- Oil / Condensate

**Integration**

- Britannia first gas
- Chevron-Texaco Merger
- Enuchdhu Discovery Well
- BLP Jacket + Subsea Installation

**Enuchdhu on-line**

**Alder on-line**
1994 – 2015

- Britannia Operator Limited created 1994
- Two shareholders (COP, CVX)
- 370 onshore staff
  - 1/3 ConocoPhillips / Chevron
  - 2/3 Contract (Petrofac, AMEC, Lockheed Martin etc.)

2016 and beyond ......

- ConocoPhillips operated assets*
- Reducing complexity
- Retain equity model

* Chevron operates Alder
Why Integrate?

- Seek further efficiency improvements
- Larger pool of resources available where and when required
- Reduce headcount and OPEX

Integration Objectives

- Maintain safe and reliable operations
- Achieve sustainable cost reductions
- Successfully incorporate secondees

Driver

Method

- Management Of Change
- No external support
- Dedicated integration team

Identify risks, issues, actions by function
Agree required actions, owners, due dates
Define launch state for Day 1
Execute integration actions for Day 1
Execute integration actions for full integration
• State of the Art Onshore Operating Centre
• One Operating Model
  - Reduce Risk
  - Improve Efficiency
• Through
  - Collaboration
  - Innovation & Technology
  - Simplification & Standardisation
Britannia – the key gas hub in the region

### Field Status

<table>
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<tr>
<th>Field Status</th>
<th>Number of Fields</th>
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<tr>
<td>On-stream</td>
<td>37</td>
</tr>
<tr>
<td>Under Development</td>
<td>2</td>
</tr>
<tr>
<td>Ceased Production</td>
<td>13</td>
</tr>
<tr>
<td>Abandoned</td>
<td>7</td>
</tr>
<tr>
<td>Contingent</td>
<td>30</td>
</tr>
<tr>
<td>Probable Development</td>
<td>2</td>
</tr>
<tr>
<td>Good Technical</td>
<td>2</td>
</tr>
<tr>
<td>Total number of fields &lt;60KM from Britannia</td>
<td>93</td>
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### Reserves Produced

- 6,684
- 852

### Onstream/Under development

- 536

### Contingent/Probable dev/Good technical

- 316

- **Forties:** ~50%
- **Britannia:** ~10%
- **Other Fields >100mmboe:** Alba, Scott Andrew, Telford Area, Everest, Fleming, Balmoral

- **Forties & Britannia still largest remaining volumes**

- **Currently no C/P/GT fields above 50 mmboe**

Source: Wood Mackenzie
Greater Britannia Area next steps

- Evaluate further infill drilling
- Screen area for ILX opportunities
- Aligned with OGA and supporter of the MER principle
- Strong hub for equity and third party production
Thank You

Questions?