Mature Basins – Leading the Recovery


Henry Morris
Agenda

- Global exploration strategy trends
- Why the UKCS?
- Company Introduction
  - & UK examples
Global Exploration Strategy Trends
Global exploration strategy trends (2014-2016)

Focus shift to near-term, lower risk and mature basins

<table>
<thead>
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Source: Wood Mackenzie (Feb 2016)
Global exploration strategy trends (2014-2016)

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**Source:** Wood Mackenzie (Feb 2016)
Global high-impact exploration drilling

REP40 by play maturity

- Proportion of wells drilled in emerging plays reducing, but switching to drilling bigger prospects in more mature basins

Source: Richmond Energy Partners (2016)
NORTH SEA CASH COLLAPSE

A prolonged and slow decline is likely in the UK North Sea, warns Oil & Gas UK, an industry body.

Source: Tethra Energy (Feb 2016)
Why the UK Continental Shelf?
UKCS 2015 Exploration Highlights

Highest E & A success rate in over 10 years

- Highest average **commercial** success rate (46%) since 2002
- Approximately **165 MMboe** found through exploration, plus over **100 MMboe** progressed through Appraisal

“UKCS targeting Quality rather than Quantity”

Source: Hannon Westwood
UKCS 2015 Exploration Highlights

UK overtakes Norway

- UK performance improving and overtakes Norway in 2015
- Increasing commercial success rates and volumes discovered from the UK

Source: Richmond Energy Partners
UK North Sea rig market

Well costs down 50% since 2013 and falling….

- Fourth generation Semi-Submersible currently on market for sub $150k/day
- Industry targeting **50% reduction** in 2016 through ‘Oil & Gas UK 50% Challenge Group’

**Daily rig rates for Mobile Drilling Units ($’000/day)**

**Average cost per exploration well (£MM)**

*Source: North Sea Reporter, Oil & Gas UK*
Why the UK Continental Shelf?

Excellent Fiscal Terms / Supportive Government

Oil prices and UK fiscal reforms

“The government designs the fiscal regime to support its twin objectives of maximizing the economic recovery of hydrocarbon resources whilst ensuring a fair return on those resources for the nation.”

HM Treasury (2016)
Why the UK Continental Shelf?

Significant remaining potential

- The UKCS has a set of world class petroleum systems with a total of 43 billion barrels of oil equivalent recovered to date and a remaining 10-20 billion barrels of oil equivalent yet to be recovered (Oil & Gas UK).

- This includes 2-6 billion barrels of oil equivalent of yet-to-find resources (Oil & Gas UK).

On a global comparison, the UK is a must have within a global E&P company’s portfolio. Global analysis highlights that during lower oil price environments, the UK provides one of the best $/boe return-on-investment.
Who are we?
The Funding: - Seacrest Capital Group

International offshore oil and gas investment group

Seacrest

1 Licence, 2 blocks

3 licences, 33 blocks

14 licences, 24 blocks

6 licences, 12 blocks

25 licences, 48 blocks

2 licences, 2 blocks
Licence Portfolio Summary

De-risked material exploration portfolio

- Total of 14 Licences (5 operated)
- Contingent & Prospective Resources
  - Net Mean Unrisked Resources 1,151 MMboe
  - Net Mean Risked Resources 288 MMboe
- Portfolio assets types
  - 4 Discoveries
  - 17 Prospects
  - 11 Leads
- Average Licence Interest is 57%

Resource Type

- 108, 9%
- 1043, 91%

Fluid Type

- 110, 10%
- 1041, 90%

Seismic database
- MC3D Geostreamer
- Other Conventional
- MegaSurvey Plus
- MegaSurvey

(1) Q2 2016 Resource Report
(2) Net Mean Unrisked Resources (MMboe)
Company Evolution

Rapid organic & inorganic growth over the last 2 years

- **February 2014:** Launch of Azinor Catalyst
- **September 2014:** Acquisition of Licence P.1763 - drilled successful ‘AGAR’ discovery
- **April 2015:** Acquisition of Licence P.1946 ‘ZETA’
- **December 2015:** Acquisition of Licence P.1989 ‘PARTRIDGE’

**March 2014:** Major seismic data licensing transaction

**November 2014:** 28th Round Awards and qualification as operator

**November 2015:** Acquisition of Licence P.1979 ‘CHADWICK’

**June 2016:** Apache farm-in to Licence P.1763 ‘AGAR’ discovery

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**Finding Petroleum – 20th Sept 2016**

(1) Q2 2016 Resource Report
Our Technology Edge

One of the UK’s largest Seismic Databases

- Seismic to underpin future exploration activity
  - Over 26,000 sqkm latest generation Broadband 3D seismic
  - >110,000 sqkm conventional 3D seismic

- Empowers Exploration team to use cutting edge data to de-risk the basin’s prospectivity

Advance Quantitative Interpretation

- Azinor Catalyst has integrated the best Seismic data with Advanced Quantitative Exploration techniques to give them a strategic edge.

- Provides geoscientists and management with a simplified understanding of the Lithology/Porosity and Fluid fill in the subsurface.

- Regional understanding and a local targeted Quantified Focus.
Investing in Technology Upfront

Why Broadband? - Improved imagery, better understanding….

- Reservoir property prediction enhanced by more low frequency information
- With a Broadband approach low frequencies from the wells are less critical
- Increased high frequencies provide better vertical seismic resolution
- Better signal to noise at range of depths
‘Drill-Ready’ Assets

Low Risk Mature Basin Opportunities

119 MMboe / COS 40%

- P1989

126 MMboe / COS 34%

- P2179

95 MMboe / COS 37%

- P2165

32 MMboe / COS 41%

- P2169

Base Cretaceous TWT structure

Gross Pmean/Mid Case Rec. Resources
‘Drill-Ready’ Assets

Low Risk Mature Basin Opportunities

119 MMboe / COS 40%
P1989

126 MMboe / COS 34%
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32 MMboe / COS 41%
P2169

95 MMboe / COS 37%
P2165

Gross Pmean/Mid Case Rec. Resources

Base Cretaceous TWT structure

15 MMboe / COS 52%
P1763

P2165

P1989

P2179

P2169

Finding Petroleum – 20\textsuperscript{th} Sept 2016
Deep imaging enhancements - Boaz (P2165)

Top Chalk

Base Chalk

BCU

Top Sleipner

??

??

BP 1993 Miller 3D

Deep imaging enhancements - Boaz (P2165)

Mean Recoverable – 95 MMboe

PGS 3D Geostreamer 2012 & 2013
‘Drill-Ready’ Assets

Low Risk Mature Basin Opportunities

119 MMboe / COS 40%

126 MMboe / COS 34%

95 MMboe / COS 37%

32 MMboe / COS 41%

Gross Pmean/Mid Case Rec. Resources
‘Partridge’ prospect (P1989)

Historical 2D data (1990’s)

Scapa Sst
Interval: 26 m
Net/gross: 59%
Porosity: 22%
Water-wet
‘Partridge’ prospect (P1989)

3D Geostreamer 2013

Courtesy of PGS
‘Partridge’ prospect (P1989)

3D Geostreamer 2013

Courtesy of PGS
‘Partridge’ prospect (P1989)

Quantitative Fluid & Lithology Prediction

Mean Recoverable - 119 MMboe

TWTT (ms)

Gradient Impedance (GI)

Acoustic Impedance (AI)

Oil
Water
Shale

EKFOSK
HIDRA
RØDBY
SCAPA

Top Valhall

BCU

Partridge

HUMMERIDGE CLAY
Technical Summary

‘Partridge’ Prospect

- Lower Cretaceous Scapa Sst stratigraphic trap
- Oil prone prospect
- Gross recoverable resources
  - P90 case 21 MMboe
  - P\text{mean} case 119 MMboe
  - P10 case 260 MMboe
  - Best Technical 113 MMboe
- Geological Chance of Success 40%
- Reservoir target 2115 m TVDSS (6940 ft)
- Water depth 130 m MSL (425ft)
- Robust economics under a standalone FPSO development
  - Minimum commercial field size of 18 MMboe at $60/bbl
- Dry well cost – $8.2MM
‘Drill-Ready’ Assets

Low Risk Mature Basin Opportunities

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Gross Pmean/Mid Case Rec. Resources
Bringing ‘Quantitative Predictions’ into Exploration

Burnt Island (P2169) - ‘Raw’ Seismic

Burnt Island

15/12-11S
22m Hugin Water

15/12-18S
<15m Hugin Water

15/12-21
27m Hugin Oil

BCU

Grevling

Courtesy of PGS
Bringing ‘Quantitative Predictions’ into Exploration

Burnt Island (P2169) – ‘Conditioned’ Seismic

Courtesy of PGS
West – East arbitrary line showing Burnt Island and Grevling anomalies. Wet wells do not show an oil response.
‘Drill-Ready’ Assets

Low Risk Mature Basin Opportunities

119 MMboe / COS 40%

P1989

126 MMboe / COS 34%

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95 MMboe / COS 37%

P1763

32 MMboe / COS 41%

P2169

Gross Pmean/Mid Case Rec. Resources

Base Cretaceous TWT structure

P1763 – Agar Discovery

Prospect Technical Summary

• Agar discovery (2014) made by 9/14a-15A

• Drilled 33ft of oil-bearing Frigg sands. No OWC was identified.

• String of pearls style series of amplitude anomalies extending down-dip of the discovery well

• Represent an Eocene deep water channel complex (but possibility remains that it is intruded by injectites)

• Stratigraphic trapping mechanism

• A number of similar prospects on the licence.
Robust Economics

High-graded portfolio assets (Tier 1)

<table>
<thead>
<tr>
<th>Licence</th>
<th>Asset</th>
<th>Well cost (2) $MM</th>
<th>Pre-drill (1) Pmean (P10) MMboe</th>
<th>Breakeven NPV$_{10}$</th>
<th>NPV$_{10}$ (1) $MM</th>
<th>IRR</th>
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<tr>
<td>P1989</td>
<td>Partridge</td>
<td>7.9</td>
<td>119 (260)</td>
<td>$35/bbl</td>
<td>692</td>
<td>34%</td>
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<tr>
<td>P1763</td>
<td>Agar</td>
<td>6.8</td>
<td>15 (52)</td>
<td>$47/bbl</td>
<td>100</td>
<td>38%</td>
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<tr>
<td>P2179</td>
<td>Hinson</td>
<td>21.4</td>
<td>126 (255)</td>
<td>$11/bbl</td>
<td>1,224</td>
<td>73%</td>
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<tr>
<td>P2165</td>
<td>Boaz</td>
<td>19.5</td>
<td>95 (205)</td>
<td>$17/bbl</td>
<td>545</td>
<td>37%</td>
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<tr>
<td>P2169</td>
<td>Burnt Island</td>
<td>10.3</td>
<td>32 (71)</td>
<td>$26/bbl</td>
<td>218</td>
<td>37%</td>
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(1) Gross recoverable resources  (2) Gross dry hole cost
Summary

‘High Impact’ opportunities in a low risk basin

**Significant resource potential**
- High materiality exploration assets
- Multiple opportunities +/- 100 MMboe (mid case)

**Low risk**
- Portfolio de-risked utilising latest generation broadband seismic datasets
- High-graded assets with associated DHIs

**Commercially attractive**
- Low breakeven economics (< $40/boe)
- Benefit from significant industry cost deflation

**Infrastructure led**
- Assets positioned around good quality & easily accessible infrastructure
- Reduced cycle time exploration

**Excellent fiscal terms**
- Highly globally competitive
- 40% marginal tax rate on new projects
“Revitalising UKCS Exploration through the application of advanced technology”