Decommissioning in the GoM and the UKCS
Topics

- Who is Marathon Oil?
- Where are we on our decommissioning journey?
  - UKCS Overview
  - GoM Overview
- Status of decommissioning programs
- Compliance
- Collaboration
- Contracting
Comparison of decommissioning in the UK and the US?

- That might work very well in “X”, but it will not work here!
- When in the UK, substitute “X” with “Houston”
- When in the US, substitute “X” with “Aberdeen”
- Perfect alignment
- Being an optimist I took this as a very strong foundation on which to build
Our Decommissioning Goals?

- We wish no harm to people
- We wish no harm to the environment
- We wish no harm to our reputation

Given the above;
  - We wish decommissioning to be as cost effective as possible
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Who is Marathon Oil?

- 1887  Formed as the Ohio Oil Company
- 1905  Moved headquarters to Findlay, Ohio
- 1926  Discovered the Yates Field in West Texas
- 1962  75th anniversary and name change to Marathon Oil Company
- 1967  Development of world’s first purpose built LNG tankers, exporting from Alaska
- 1983  Brae Alpha in the UK comes on stream
- 1990  Headquarters moved to Houston, TX
- 2007  First LNG cargo from Equatorial Guinea
- 2010  Entered Eagle Ford shale play in Texas
- 2011  Marathon Oil Corporation becomes independent upstream company
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Where are we on the decommissioning journey?

- We are relatively new to offshore decommissioning
- We have been asking ourselves many questions
  - We have only discovered a few answers
- We feel we are living in a price based environment
- We have been looking for the game changer(s) that would improve efficiency and drive down costs
- We still have many questions but we feel we have made some progress
Brae Field Decommissioning Programme – Statistics

- **Steel Jacket Platforms to be removed**
  - Platform drilled wells to plug and abandon: 85
  - Total weight of topsides to remove: 87,000 tonnes
  - Total weight of jackets to remove: 46,000 tonnes

- **Subsea Installations to be removed**
  - Subsea drilled wells to plug and abandon: 19
  - Total weight manifolds/templates to remove: 1,000 tonnes
  - Total length of flowlines to abandon: 75 kilometres
  - Total length of umbilicals to abandon: 38 kilometres

- **Pipelines/Submarine Cables to abandon**
  - 6 pipelines, 3 cables
  - Total length of pipelines to abandon: 195 kilometres
  - Total length of submarine cables to abandon: 57 kilometres
Gulf Of Mexico Decommissioning Program

- Marathon has nine properties that will soon require well P&A programs and/or facilities removal projects.
- Five of the nine are operated by Marathon.
- Four have platform facilities, all others being subsea only.
- The water depth varies considerably, with the shallowest at 173 feet, and the deepest at over 6,200 feet.
- There are four assets at approximately 3,000 feet.
- In addition to these production assets, there are a number of other exploratory wells that require final abandonment.
- The program started in 2013 and will continue steadily beyond 2026.
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**UKCS**
- Decommissioning team formed in 2010-2011
- Initial focus was on a single platform decommissioning project
- Changes in CoP dates mean we now have a field programme
- Well P&A ready to commence in 2015
- Earliest platform CoP forecast in 2018
- Completion forecast for removal is approximately 2032

**GoM**
- Nine facilities to be decommissioned
- Four have platform facilities, all others being subsea only
- Initial approach was facility by facility approach
- Defined as a program in 2014
- Well P&A underway
- Estimated completion of these assets by 2026
We now have two programs

- This creates the potential to manage the areas as single integrated effort
- Increase the attractiveness of participation to the supply chain
- Improve planning and preparation activities
- Enjoy synergies and economies of scale

We are actively sharing across the geographies

- Two teams, working as part of a global effort
- Shared processes, practices and tools
- Single integrated information management system

Three key areas of consistency

- Compliance
- Collaboration
- Contracting
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We believe that decommissioning needs to be managed differently from traditional capital investment projects.

The traditional stage gate approach for projects of Appraise, Select, Define and Execute does not, in our minds, adequately address the unique features of decommissioning.

We have introduced the “Retire” phase to our project management process.

This is a new phase in the asset life cycle, rather than a new project.

This distinction, while seemingly small, has enabled us to look at things quite differently and we believe it is helping us better plan, communicate, prepare for and manage the effort.
Decommissioning: The Retire Phase

Phased transition versus single stage gate
The Retire Phase - Overview

- Recognizes the transition from:
  - Operate, to
  - Late Life Asset Management, to
  - Decommissioning

- Illustrates that not all elements mature at the same time or pace
  - Some are complete prior to CoP
  - Some occur years after CoP

- Accommodates multiple, targeted assessments of readiness
  - Enhances decision making quality

- Increases awareness of decommissioning as a part of asset life cycle
  - In design, construct and operate, as well as in retire
Compliance - External

- Decommissioning projects are compliance projects
  - We have to do them; we have signed up to do them

- We are actively seeking early and ongoing interaction and dialogue with the regulators
  - We invited an employee of DECC to work in our office, along side our team, to help us both better understand priorities, goals and concerns
  - We have ongoing dialogue with BSEE ahead of the dates for facility removal and permit submittal for the same reasons

- We believe it is critical to have clear understanding and application of the regulations to ensure effective planning, strong alignment and predictability

- We would prefer to engage in these discussions as part of an industry effort rather than simply as Marathon
  - This is but one example of potential industry collaboration
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We believe decommissioning encourages collaboration

- As an Owner, we see no competitive advantage over other Owners
- We recognize there are differences within the supply chain, but still feel collaboration is possible

The question is “how do we best collaborate?”; not “should we collaborate?”

We ensure we are very active in industry forums and with our peers

We do not have much decommissioning experience, but
- We have a significant near term global portfolio

We are happy to share what we know, but
- We learn more when we listen than when we talk
Collaboration Progress

- View on collaboration has changed
- We are currently pursuing a small multi-owner group
- This group will approach the supply chain as a collective
- Degree of collaboration will vary by work type
  - Continuum from sharing of information to joint programs
Collaboration Opportunities

- Multi-owner, multi year subsea well P&A programs
  - This has worked in the past

- Multi-owner, multi year facility removal programs
  - This can work in the future

- Standard processes and tools designed to
  - Improve performance and efficiency
  - Improve communication with the supply chain
  - Lower costs

- We are keen to hear of, and discuss, other opportunities

- We believe collaboration will only be effective if we engage with the supply chain
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Contracting

- We would like to increase contractor’s margins and pay for this out of overall project cost savings

- To do this we need innovation and ideas from the contracting community
  - We do not have a monopoly on good ideas

- Ideally, we wish our contract relationships to be
  - Open
  - Trusting
  - Successful and long term, and
  - Continuously improving

- Our contractor selection process for key contracts will focus on dialogue, the relationship and strive for solutions where we all can win
  - Challenging but worth it
"Marathon Oil", the blue wave and combinations thereof are registered trademarks of Marathon Oil Company.”