

## LIFECYCLE PARTNER

"Practical experiences of Ageing Assets and Decommissioning"

**Duncan Hart** 



## **DECOMMISSIONING**

**Our Experience** 

Stork is a leading provider of integrated decommissioning support services to the offshore oil and gas industry.

We partner with Operators throughout the three decommissioning phases, from preparing to cease production to process and utilities separation, specialist cleaning and decontamination to disconnection, removal and disposal.



## SAFETY IS OUR CORE VALUE

REACH Beyond Zero is our vision to activate everyone to REACH further, to think and do more to improve our HSEQ culture and performance.

As an organisation we REACH Beyond Zero by functioning as one team, with shared values driving action to transform our HSEQ culture and performance.

The REACH Beyond Zero vision is our catalyst to impact thinking, provide direction and to stimulate action for positive and lasting change at Stork. REACH Beyond Zero provides a communication platform to strengthen our HSEQ culture, connecting all activities to raise visibility, add value and drive continual improvement at all levels.

Our innovative programme, REACH Beyond Zero adds value for our clients by:

- 1 Engaging with and positively impacting their HSEQ culture
- Improving HSEQ performance on their assets
- Transparent HSEQ reporting
- 4 Enhancing communication through sharing information, lessons learned, best practices and alerts
- 5 Leading topical debate, discussion and knowledge-sharing

For more information visit the Stork website: www.stork.com/reachsafety



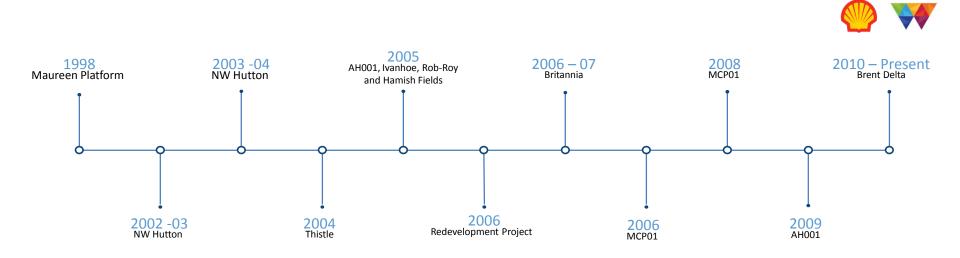
## **DECOMMISSIONING TRACK RECORD**

### Highlights

Brent Delta, Maureen, NW Hutton, Thistle, Valhall, Britannia, MCP01, AH001, Ivanhoe, Rob-Roy and Hamish

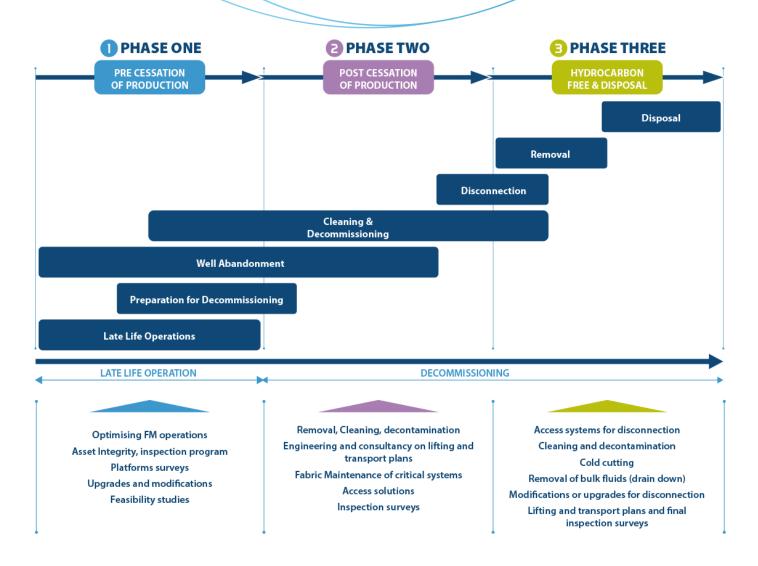
Specialist Cleaning & Support | Fabric Maintenance | Decommissioning Studies

De-activation Cleaning Studies | Cessation Projects | Infrastructure Removal | Inspection





## THE DECOMMISSIONING THATE LINE





## **DECOMMISSIONING MINDSET**

**Focus Areas** 

We need to think differently about delivering cost effective and predictable decommissioning projects



Collaboration

The closer we work together the more effective we are



Tax payer is paying and there is no production revenue



Gains in the critical path have a significant impact. Flexible and agile planning crucial



Safety risks - non operational

Do the same performance standards apply?



**Flexibility** 

Planning, multi-skilled teams, execution and how we approach workscopes.



In process and technology. We need to do things differently to achieve the same outcome



## **CASE STUDY ONE**

#### **Brent Delta**

#### THE CHALLENGE

Stork's knowledge and experience of decommissioning and insight into North Sea assets provides the right mindset for complex projects

- Platform commissioned in 1970's
- Stork was involved in the hook up and now is in the decommissioning
- Brent Delta is a single lift decommissioning project
- Challenges faced include 30 + years of operations, the need to retrofit lifting points, re-enforce structure and removal of obstructions for lifting
- Maintaining a strong focus on safety, a key element driving project delivery

<u>ALL</u> whilst maintaining the integrity of the platform for personnel working on board



## **CASE STUDY TWO**

### **Brent Delta**

#### **COATINGS**

#### Result

Reduction in time spent coating with multi-skilled teams, reducing POB and delivering cost efficiencies

- Platform integrity still needs to be maintained during decommissioning
- Coating specifications challenged due to the known end of platform life and restricted POB.
   A decommissioning standard was then agreed with the client
- A two-coat solution (primer and top coat) with reduced surface preparation was implemented
- Coating systems no longer required to last 15-25 years but circa 5 years
- Non-operational platform that is hydrocarbon free



# CASE STUDY THREE Brent Delta

#### **UNDERDECK SCAFFOLDING**

#### Result

Workscope finished on time and on budget, ensuring critical path was not delayed and workscopes could proceed to plan

- Single lift vessel (SLV) points are located underdeck and significant steelwork, HVAC and pipework needed to be removed
- Surface preparation prior to hot work to remove historical toxic coatings
- Restricted weather window and POB meant scaffold crews were minimised and changes had to be made to the workscope
- Use of aluminium scaffold, alloy beams and system steps allowed for safe, quick installation (45 mins) to meet targets



# CASE STUDY FOUR Brent Delta

#### **FLARE TOWER GRATINGS**

#### Result

Work completed in 3 days rather than 10 days

- Flare tower gratings to be removed due to a MCDR raised with a Dropped Object potential.
   Due to COP, it was no longer a requirement for the platform to remain at the flare tip
- Project team closely managed location, logistics, drop zone exclusion and weather window during engineering and planning
- Project Management on and offshore was critical
- Plan was flexible to optimise removal and working procedures challenged to take into account the non-operational platform and increased exclusion zone



## **DECOMMISSIONING IN SUMMARY**

The platform is no longer operational and and the reservoir is hydrocarbon free

Procedures and norms for an operational platform may no longer apply, therefore it is important to challenge the norm and think differently

The earlier you involve key partners the better

Optimisation planning and mitigation of risk to help drive predictability of delivery

No production revenue

Focus is now on mitigating potential risks, maintaining outstanding HSEQ work performance and driving significant cost savings for all workscopes

**Controlling cost is critical** 

An option which initially looks expensive may provide greater savings in terms of time, reduced POB and delivery. Management of change is essential

**Innovation** is key

The most advanced cutting, cleaning, inspection and access solutions throughout the decommissioning process can deliver greater results (e.g. ERBAS and Cyberhawk). Consider how innovative thinking will deliver results

Decommissioning needs to be a partnership/collaboration

Shell, Wood Group and Stork project teams are all in the same office improving communication, building a strong team ethic and ensuring teamwork is at the heart of the project



## FINAL THOUGHT



