



Installation of the BP Atlantis Flowlines and Risers By HMC

IPLOCA 2008



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Date: 7 October 2008

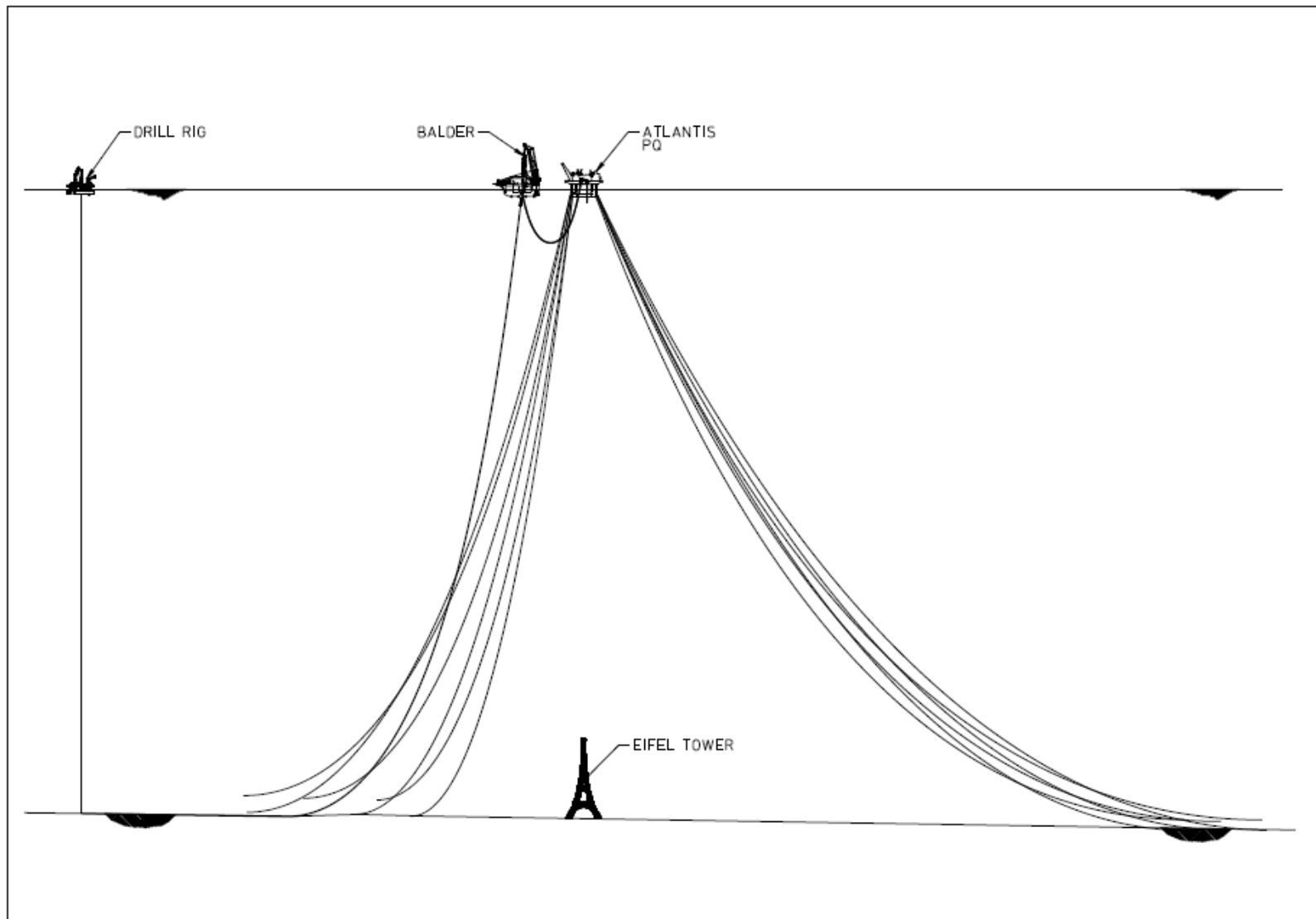
A HEEREMA GROUP COMPANY

HMC SOW highlights of the Atlantis Installation Projects



- *Semi Submersible Production Quarters (PQ) installed by HMC*
- *24 inch export oil line and a 16 inch export gas line, installed by HMC*
- HMC flow line scope; transport and installation of work 5 PIP lines and one water injection line from drill centre to PQ offshore Gulf of Mexico
 - Water Depth +2 km (7000 ft)
 - Length ~2 km Flowline and ~3 km Riser
 - 16 inch x 10.75 inch PIP

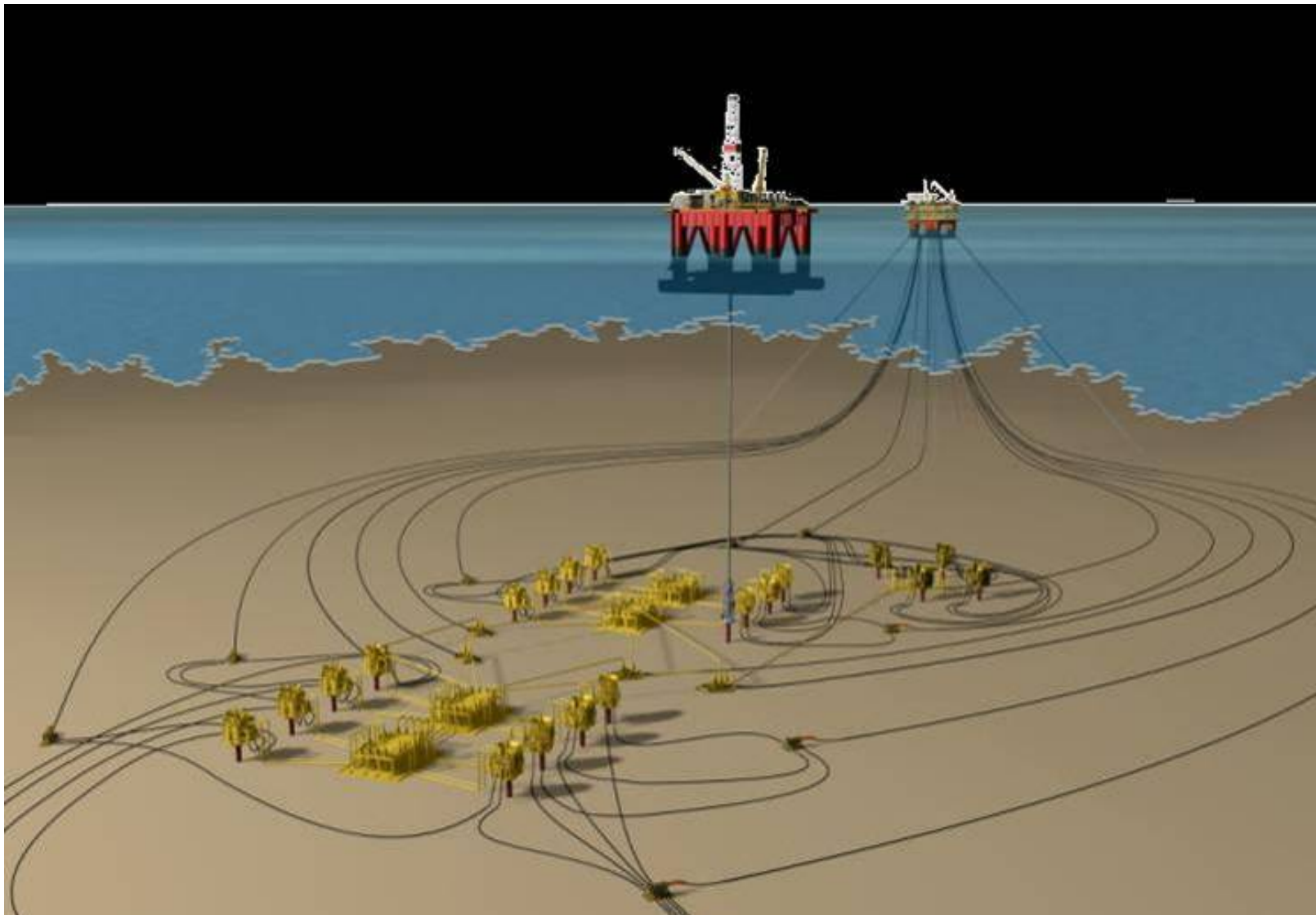
The Atlantis Field



MARINE
CONTRACTORS



The Atlantis Field

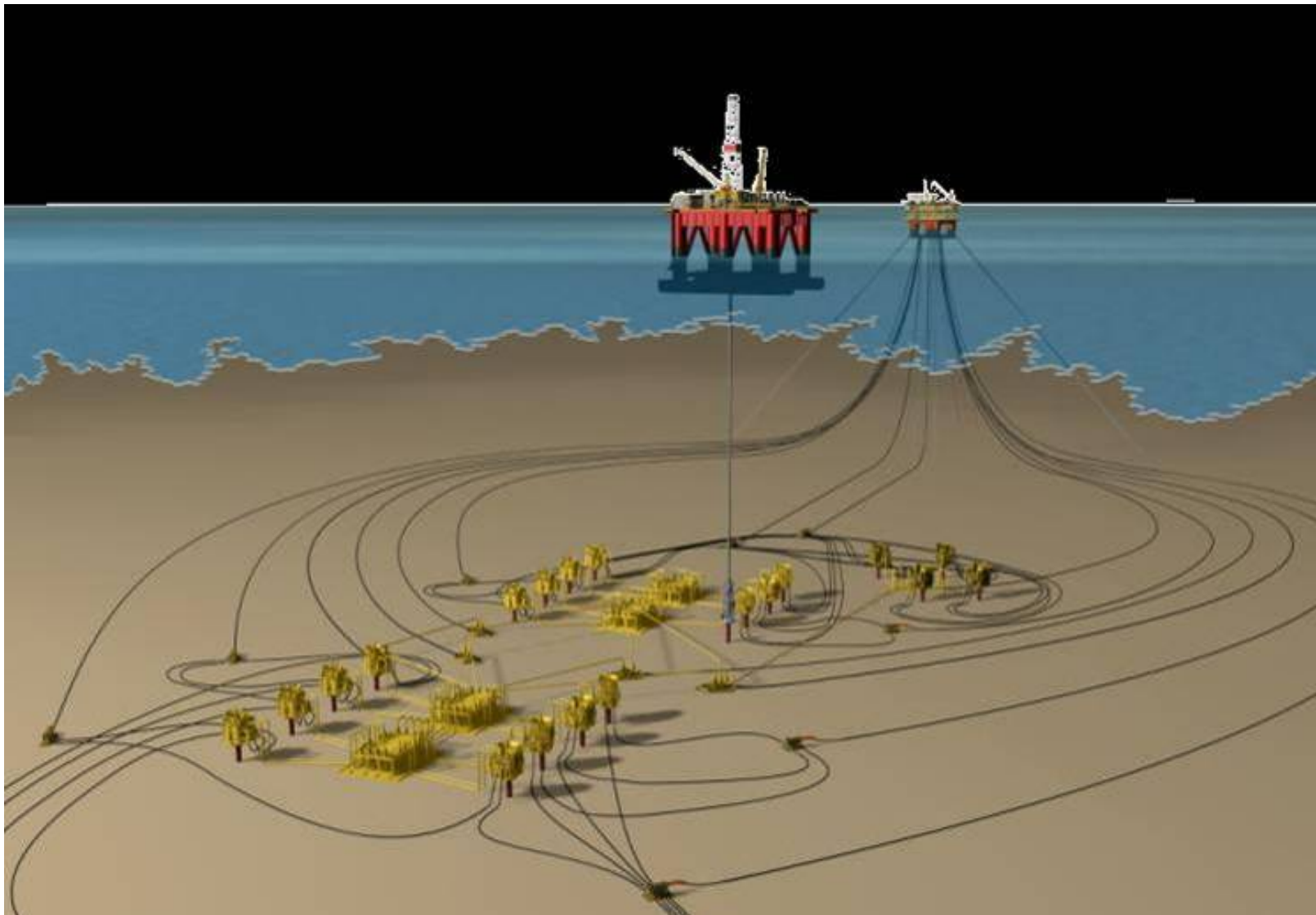


Onshore Scope of Work



- Pipeline Design
- Procurement
- Fabrication
- SCR pull-in equipment on the Atlantis Floater
- System Integration Testing
- Load out onto HMC provided Barges

The Atlantis Field



Onshore Fabrication – Bayou, New Iberia



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Onshore Fabrication – Spool Piece Load out



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System Integration Testing



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SCR Pull-in Chain Jack on Atlantis PQ



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The Spread: Transportation Barge

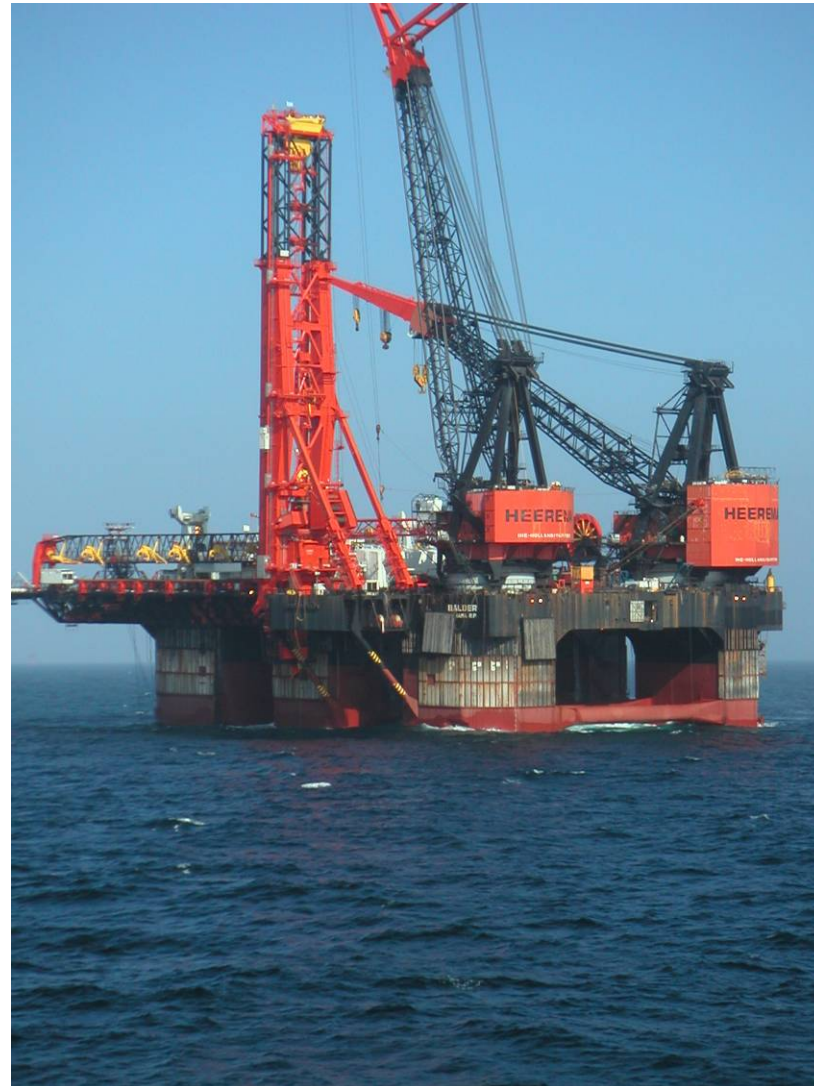


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Keys to Success

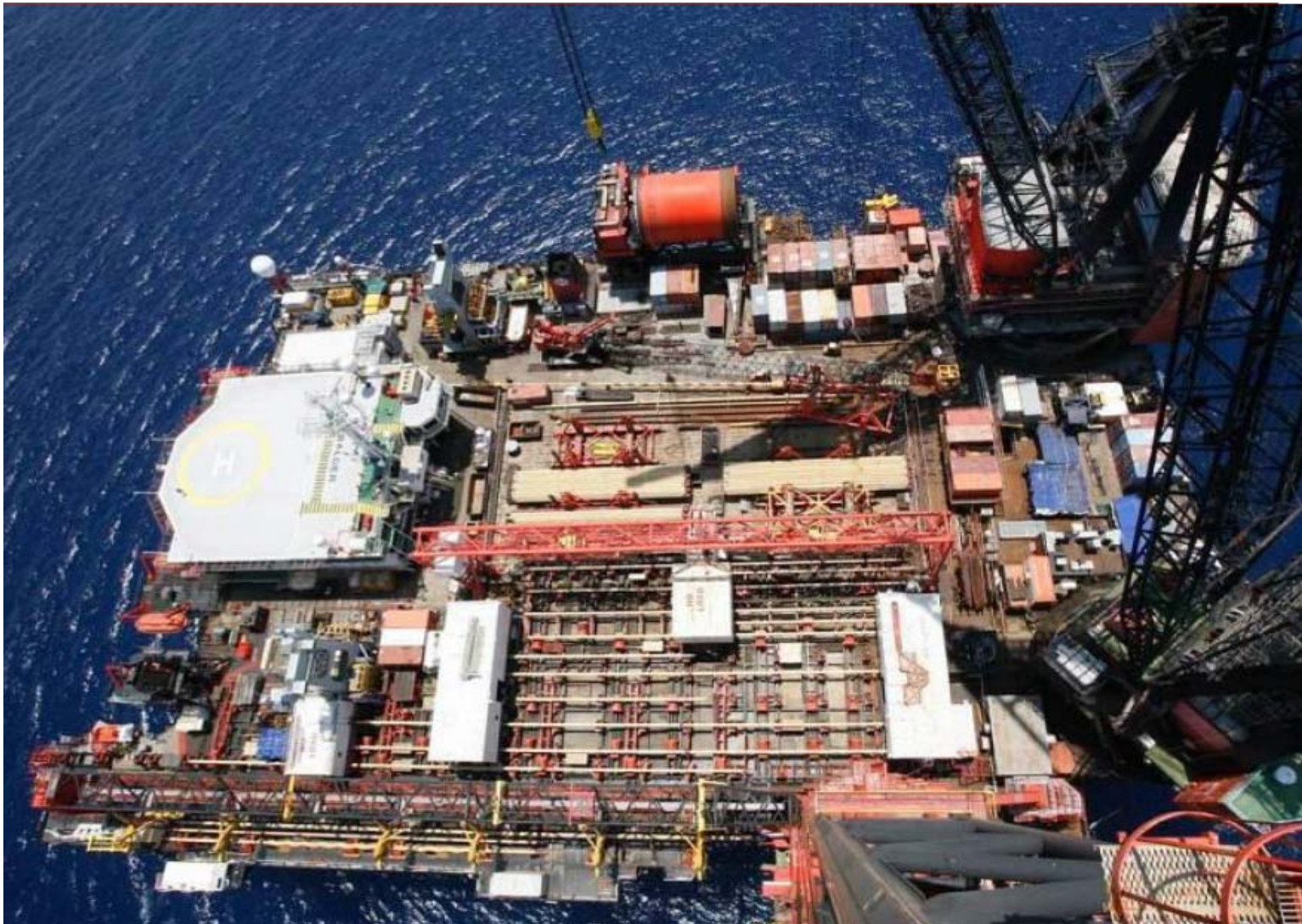
- **The Team!**
- Detailed Onshore Preparation
- DCV Balder; The Proper Equipment for the Work an Inherently flexible vessel
- Excellent Crew and interfaces with Client and SIMOPS
- Flexibility to manage schedule and procedures (using MOC processes)
- Contingency and Emergency response planning
- Safety Management



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Balder Deck During The Atlantis Project



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SIMOPS in Action



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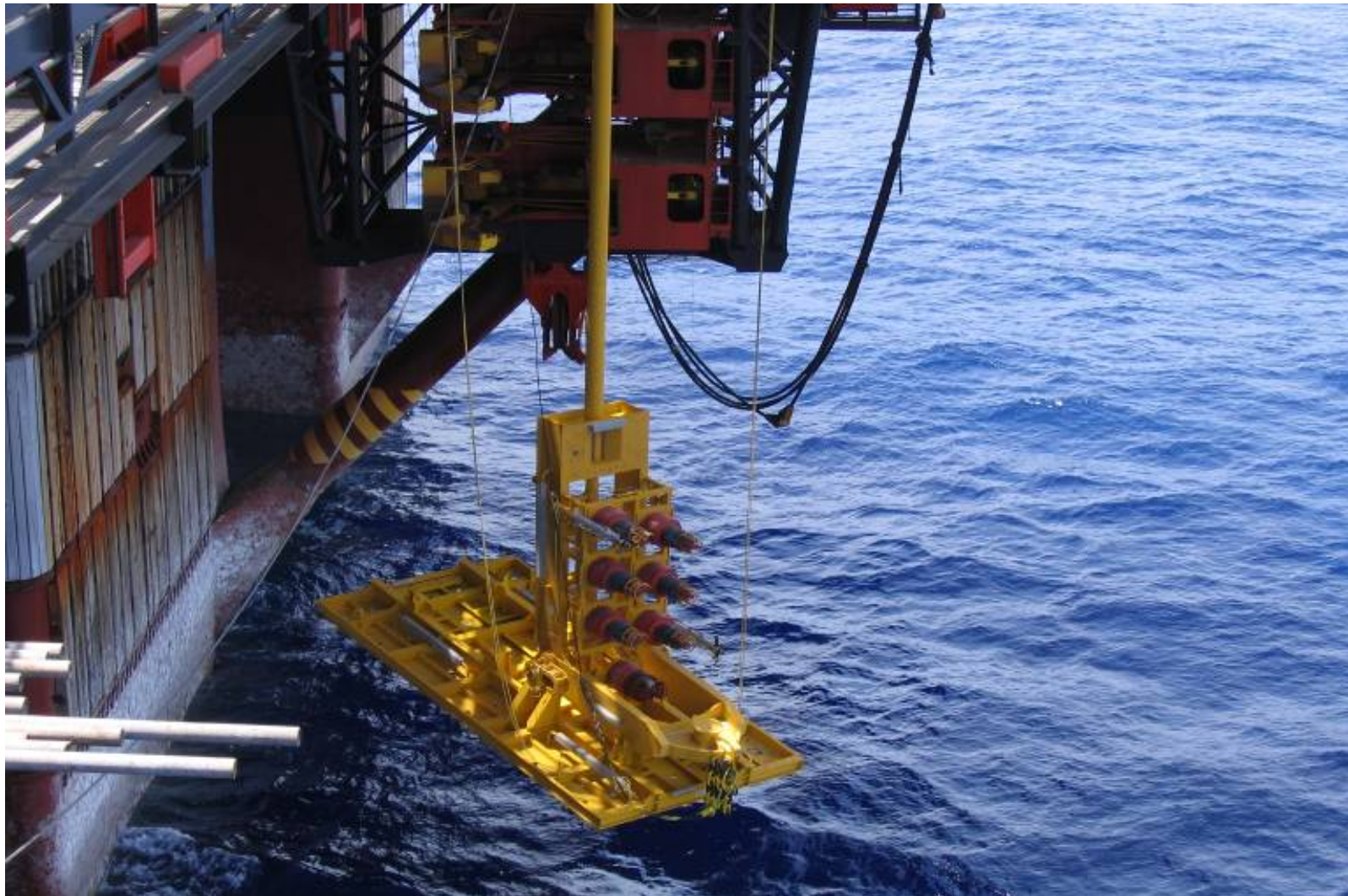
Team Continuity and Achievement



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PLET PULL IN ANIMATION



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SLIDING PIP On Balder Deck and in Tower



INNER PIPE PULL OUT



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Tower welding

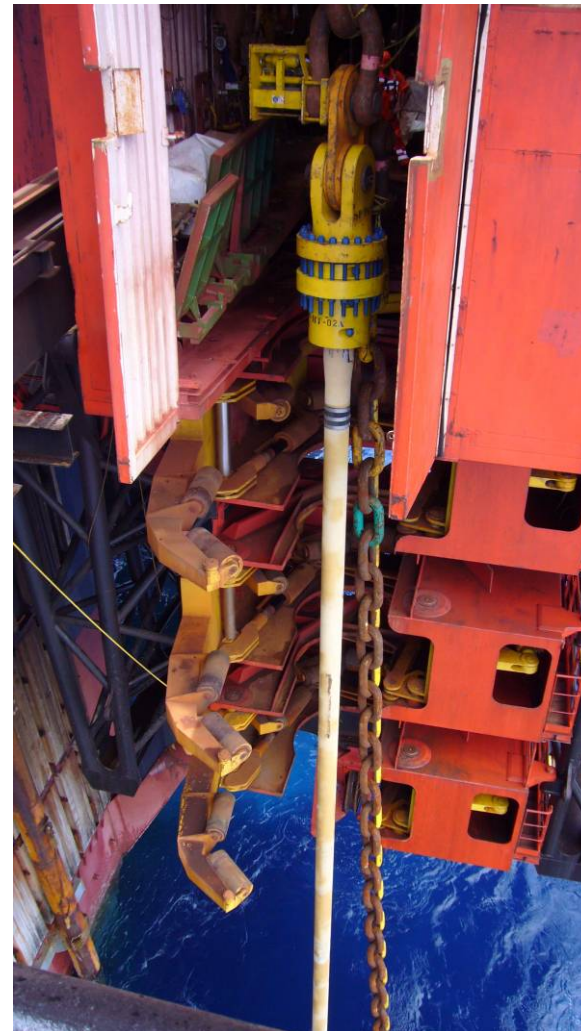


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RISER TRANSFER - ANIMATION

- Riser Transfer of 750 mT dry Load
- Transfer with three systems, Crane A&R and Chain Jack
- Spool piece installed on Balder No divers required



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Lessons Learned



- Integrated team (BP and HMC) to work issues
- Team continuity and team approach is essential to success – recognise the need for team career development over long projects
- Three years of onshore engineering/planning ensured smooth offshore execution
- Understand the technical complexity – resource accordingly
- Plan for SIMOPS