

## Managed Pressure Drilling: **Rig Integration**

EXCEED's Managed Pressure Drilling & Underbalanced Drilling services are designed to enhance drilling performance and increase production, while reducing well-control risks and well construction costs. On-schedule Rig Integration of MPD systems which are fully commissioned and ready for operation, is key to the success of that technology and the achievement of any project's overall drilling objectives.

Our experienced Rig Integration team plans and executes system integration to suit rig operational commitments.

Over the past 10 years our team has deployed MPD systems to rigs of all types in different scenarios, whether drilling in deep water offshore Africa or during scheduled shipyard visits across the globe.

EXCEED provides a complete Rig Integration service; we are your partner every step of the way during your MPD project life cycle.

### **EXCEED are your partners every step of the way during your MPD project life cycle:**

- Rig Integration Management Onshore and Offshore
- Rig Evaluation and Selection
- System Evaluation and Selection
- HAZID / HAZOP Review Process
- Rig Class Approval
- Control Systems Integration
- Crew Training and Competency
- Commissioning and Handover of Fully Functional Systems

**Rig Spec:** Drillship Gusto P10000, 6th generation DNV GL DRILL class vessel

**MPD solution:** Convert to semi-permanent (MPD Ready), Below Tension Ring MPD Riser / RCD, Surface MPD package temporarily installed.

**Location:** Offshore West Africa

**Summary:** Deepwater MPD system to be installed while rig operational West Africa. Individual MPD equipment components to be factory tested at vendor facilities around the globe with integrated commissioning performed on location prior to MPD section.

Accurate laser survey of rig enabled pre-fabrication of structural and piping elements. Phased deployment of multi-disciplined work teams over 8 weeks to suit rig POB restrictions due to operational status. Temporary MPD rig integration base setup onshore to minimise offshore personnel, partially assemble equipment and manage logistics closely. Classification society DNV GL was fully engaged during design, testing, installation and commissioning to ensure DRILL class approval.

**Rig Spec:** Samsung 10,000, ABS CDS class vessel

**MPD solution:** Convert to permanent MPD, Below Tension Ring MPD Riser / RCD, Surface MPD package installed in modular tower capable of being removed if needed.

**Location:** Spanish port, Anchorage

**Summary:** Deepwater MPD system to be installed while rig on anchor for periodic survey. Individual MPD equipment components were factory tested at vendor facilities around the globe with integrated commissioning performed during a 2 day test window using a test flow loop (BOP hanging under two riser sections).

Accurate laser survey of rig enabled full pre-fabrication of modular MPD tower structure and partial pre-fabrication of pipework. Full multi-disciplined work teams were deployed to fast track integration over 4 weeks. Full MPD system rig up commissioning completed using test flow loop. Classification society American Bureau of Shipping was fully engaged during design, testing, installation and commissioning to ensure ABS classification of drilling system (CDS) approval.

---

**Rig Spec:** Drillship Gusto P10000, 6th generation DNV GL DRILL class vessel

**MPD solution:** Convert to permanent MPD, Below Tension Ring MPD Riser / RCD, Surface MPD package installed in modular tower capable of being removed if needed.

**Location:** Turkish Port (quayside).

**Summary:** Deepwater MPD system to be installed while rig moored up alongside for rig reactivation work scopes to be completed. Individual MPD equipment components to be factory tested at vendor facilities around the globe with integrated commissioning performed offshore under DNV GL witness.

Accurate laser survey of rig enabled full pre-fabrication of modular MPD tower structure and partial pre-fabrication of pipework. Multi-disciplined work teams were re-deployed in phases over 10 weeks to coincide with other reactivation work on cranes, top drive systems and mud pumps. Full MPD system rig up commissioning completed using test flow loop offshore. Classification society DNV GL was fully engaged during design, testing, installation and commissioning to ensure DRILL class approval.

---

**Rig Spec:** Deepwater moored Semi-submersible Sedco 700

**MPD solution:** Temporary Above Tension Ring, MPD skids including high capacity mud gas separator sea fastened. MPD flow control skid mounted to BOP trolley.

**Location:** Offshore West Africa

**Summary:** Accurate survey of rig enabled full pre-fabrication of BOP trolley skid enabling MPD manifold to be mounted in the moonpool. Temporary pipework connected the MPD system over several decks including high capacity MGS required for 700 gpm liquid circulation. ATR MPD riser configuration required the rig slip joint to be collapsed for the RCD and MPD slip joint to be connected between the tension ring and upper flex joint.

---

**FOR MORE INFORMATION PLEASE CONTACT:**

Jon Goodenough | MPD Rig Integration Manager +44 (0) 775 363 9764 | [goodenough.j@xcd.com](mailto:goodenough.j@xcd.com)

Jim Doran | MPD Manager +44 (0) 1224 470 341 | [doran.j@xcd.com](mailto:doran.j@xcd.com)

[www.xcd.com](http://www.xcd.com)

