CASE STUDY

GWD70 SYSTEM ENABLES REMOTE SUPPORT AND WELLBORE COLLISION RISK MANAGEMENT IN CASPIAN SEA

TECHNOLOGY

- GyroGuide™ GWD70 gyro-while-drilling (GWD) system

APPLICATION

- Remote operations
- Wellbore collision risk mitigation
- Wellbore placement

LOCATION

- Caspian Sea

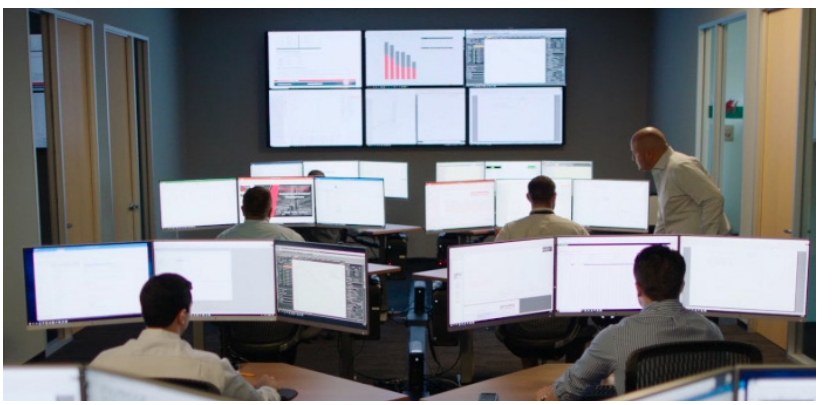
INDUSTRY CHALLENGE + OBJECTIVE

An operator in the Caspian Sea needed to run surveys to obtain high-accuracy wellbore placement data in a crowded field. Due to the high risk of wellbore collision, the operator chose to implement our GWD70 system to take surveys while drilling the challenging wells. Problematically, the ongoing COVID-19 pandemic meant that personnel movement into the region was severely limited. Implementing remote GWD as part of the project ensured that the job would be properly supported by shorebased technical experts, with only one engineer required offshore.

TECHNOLOGY + SERVICE SOLUTION

- Communications protocols, control measures, and operation-specific risk assessments established with the client provide confidence in the process.
- The GWD70 system collects real-time survey data at an inclination up to 70° and in any direction, enabling safer operations and more accurate wellbore positioning.
- Gyro accuracy ensures precise wellbore guidance for collision avoidance, with the GWD tool providing continuous inclination and toolface from vertical while sliding and full surveys on demand.

RESULTS + VALUE DELIVERED



- We performed onshore testing at the client base and provided the toolstring for MWD string testing.
- Field testing, pre-run programming, and measurements were made by the offshore engineer. He was supported by onshore survey specialists in a remote operating center, especially during RSS sidetracks and sections with deep motor kickoffs.
- We successfully supported the operator during a time of intense travel restrictions with no HSE or service quality concerns and without incurring any NPT. Access to real-time rig data was enabled and provided to personnel to ensure optimal communications and system handling.
- Without the combined onshore and offshore personnel working on this operation, the operator would have had to delay or cancel drilling the wells, with an assumed economic impact in the magnitude of tens of millions of dollars.
- We helped reduce the carbon footprint of the operation by minimizing personnel mobilizations both internationally and to the rigsite.
- The in-collar loadout of the GWD probes allowed a reduction in the manual tasks offshore and POB reduction of 50%. Consequently, the capacity for supporting operations on multiple rigs for the operator was doubled.

gyrodata