CASE STUDY

GWD70 PROVIDES WELLBORE COLLISION RISK MITIGATION IN RISERLESS DRILLING APPLICATION OFFSHORE INDONESIA

TECHNOLOGY

- GyroGuide™ GWD70

APPLICATION

- Wellbore placement
- Collision risk mitigation
- Riserless drilling

LOCATION

- West Java, Indonesia

INDUSTRY CHALLENGE + OBJECTIVE

An operator was drilling a 26-in. hole section from a jack-up off the coast of the West Java province and needed to ensure wellbore placement and collision risk mitigation. The application was expected to be particularly challenging due to the lack of a drilling riser, as noise and QC issues could be caused by lateral movement in the string during survey collection. To accomplish their objectives, the operator implemented our GyroGuide GWD70 surveying system.

TECHNOLOGY + SERVICE SOLUTION

- Our GWD70 system provided data for advanced collision avoidance and real-time knowledge of wellbore position, enhancing performance and safety.
- 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

- The GWD70 system was incorporated into the third-party service company's motor-assisted BHA.
- The system's survey delay and tool mode were customized to adapt to riserless operations, ensuring there was sufficient time available to reduce noise from subsea current during survey collection.
- As there were several adjacent wells, this project required precise verticality from mudline to kickoff point (almost 500 ft) to avoid collision. There was a soft formation near the mudline, and it was necessary to reduce pump cycles for GWD surveys to ensure that the well path was vertical.
- We successfully drilled through the 26-in. section with the GWD70 system until reaching section TD at 1,572 ft, which was the 20-in. casing point, and three consecutive MWD surveys were free from magnetic interference. All operator objectives were achieved.

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