

Perth Gas Pipeline Relocation project



Gyro Module & ParaTrack2

Location: Perth, WA, Australia

Distance: Crossing #1 = 250m, Crossing #2 = 320m

Depth: 8m below entry point ground level

Ground: Bassendean Sands and Ferricrete lenses

Pipeline: 6" Steel Pipe

Technique: Jetting

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The job required the drilling of 2 crossings using jetting technique and steering with ParaTrack Gyro Module (PGM) which was a requirement from the project owner. Particular care and caution was taken as drilling was within 1m (at its closest point) of an existing gas pipeline, overhead power lines, railway tracks, as well as, other underground communication services lines posed a magnetic challenge.

Not being affected by Magnetic interference being a specific advantage of the Gyro Module this was an ideal project for the Gyro Module & ParaTrack combination. ParaTrack monitored how close we were to an existing pipe.

To enable the use of Gyro Module to work with a smaller drill rig, we used our 4-3/4" OD modified Non-Magnetic tooling.

Due to a moderate risk of hydraulic fracturing near the exit points of each crossing annular pressure was monitored using a PGM compatible PWD (Pressure While Drilling) module. As an additional request due to a moderate risk annular pressure was had to be monitored due to a moderate risk of hydraulic fracturing near the exit points of each crossing, for that reason we used the PWD (Pressure While Drilling) module compatible with PGM. No hydraulic fracturing occurred thanks to the close monitoring of the pressure and drilling performance.

Both crossings were completed in 6 days and our client was satisfied with the results and was pleased to have Prime Horizontal as their partner in their initial experience using magnetic guidance systems and the Gyro Module.