

A pipeline was proposed to connect a natural gas production source with the refining infrastructure on opposite sides of the Congo River seabed canyon. At a minimum of 3 km wide and 400m deep, and constantly shifting due to continuous sediment deposits at the mouth of the river, the only choice was to route this segment of the pipeline under the canyon.

Drilling rigs were placed on each side of the canyon, each rig drilling towards the other, guided to an intersection at an unprecedented 23,000' of total crossing by the Rotating Magnet Ranging System. With the pilot hole successfully completed, the client finished the project with a first-of-a-kind simultaneous push/pull operation where both rigs worked in tandem to complete the casing string.

The stakes for such a technological-challenging project were enormous, with the client trusting the success of the most complex portion of the project to the guidance experts at Vector Magnetics.

Project Highlights

- True Vertical Depth: 4,872'
- Total Crossing Length: 23,000'
- Techniques Used: Intersection

Challenges

- Exceptionally long crossing span made for potentially large positional uncertainty
- Coordination of operations between two rigs miles apart in separate territorial waters

Technology

RMRS

Rotating Magnet Ranging System

