

Expro Excellence

Portable low carbon footprint solution for Wet Gas deliverability and production testing

Acumen Metering Solutions | Fluid Sampling and Analysis



Objectives and background

- A major operator in MENA has currently 25+ producing wells in a wet gas development with additional wells being brought into production
- The operator has been utilizing a contracted Well Test provider (test separator, tanks, sand management system and flare system) to conduct testing on newly perforated wells and existing production wells
- They have been exploring more efficient and accurate testing solutions that are more compact which can be cost-efficient and can also help in reducing carbon footprint with less equipment and personnel
- Expro deployed a SONAR MultiTrace® testing solution alongside the existing Well Test package

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- Expro's non-intrusive SONAR MultiTrace® solution was used to measure the gas and liquid flow rates at standard flowing conditions without any piping modification, flow diversion or well shutdown
- This solution provides direct measurement of gas and liquid rates and does not require client PVT inputs. The package included an equilibrium phase sampler which helps to obtain representative multiphase samples at flow line pressure and temperature that is utilized for PVT and compositional analysis
- Expro started measuring the gas and liquid flow rates from the initial period of well start up through the test duration. The required well and fluid parameters such as process pressures, temperatures, water salinity, and densities were also provided throughout the entire testing period
- The separator liquid rate measurement was delayed due to the time needed to stabilize separator pressure and accumulate a steady liquid level within the vessel

Value to the client

- Accurate testing solution which provided robust measurement unaffected by CO₂ or solids
- Early gas rates and liquid rates down to a few barrels/day non-dependent on PVT inputs
- Small footprint solution implemented across the field facilitated a faster deployment, enabling a higher testing frequency
- Lower carbon footprint allows operators to receive the required data as well as meeting mutual environmental goals of reducing CO₂ emissions

Lower carbon footprint



Insight

