Expro Excellence

Compact solution for multiphase flow measurement on wet gas wells

Acumen Metering Solutions / Fluids

Objectives and background

- The customer has a lean gas asset with over 40 production wells across multiple fields
- The operator was looking for a cost-effective and small-footprint alternative to a Multiphase Flow Meter (MPFM) package to provide gas, condensate, and water flow rates at line conditions for wells and manifold lines across the field
- A high turndown testing solution was required with minimal pressure drop
- A low liquid production rate measurement was critical to identify potential liquid loading and water influx in individual wells
- Remote wellheads with limited access

Expro Excellence

- Expro provided a flareless and non-radioactive customized testing skid solution with non-intrusive SONAR and MultiTrace technology for the multiphase measurement
- SONAR Flow Meters provide accurate gas volumetric rates unaffected by wetness when compared to other non-intrusive Meters
- MultiTrace provides a direct measurement of the condensate and water flow rates utilizing a non-radioactive tracer dilution technique
- Additional clamp-on SONAR Flow Meters were also installed directly onto the wellhead pipework on some wells to verify existing Venturi Meters
- High turndown measurement solution for multi-rate testing at different chokes with liquid rate measurement down to a few barrels per day

Value to the client

- Non-radioactive and accurate Multiphase Flow Measurement testing as compared to conventional Gamma source based MPFMs in lean gas wells
- Expro provided a flareless testing solution with minimal leak paths which helped the customer deliver on environmental commitments
- Low back pressure solution was deployed directly on the wellheads to measure the actual flowline process conditions
- Accurate and direct measurements for the condensate and Water rate measurements independent from any PVT or WC computation
- Cost-effective alternative to conventional testing due to a smaller crew and equipment footprint

Environment

Contact

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