



### Application note

## Optimize water injection efficiency and cost

Panametrics clamp-on ultrasonic non-invasive flow meters are the ideal solution for water injection for Enhanced Oil Recovery (EOR)



Measuring water injection flow rate and total injected quantities reliably and accurately is crucial to optimize the process efficiency and operation cost.

Tough process conditions like high pressure, high salinity, oil residuals, entrained gas, particles and wax are challenging for traditional meters like DP, turbine, electromagnetic flow meters and may lead to inaccurate measurement, malfunctioning or total damage of the meters.

Panametrics clamp-on ultrasonic non-invasive flow meter represent an ideal solution to get cost effective, reliable and accurate measurement for water injection enabling optimization of process efficiency and operation cost.

- Cost effective, non-invasive flow measurement
- NO tapping, NO pipe cutting/welding, NO shutdown
- One meter fits all: Same meter can be used for a wide range of line sizes, schedules and materials
- Cost effective, easy to Install and program under operating conditions
- Portable (battery operated) or permanent transmitters
- 1-2% accuracy of the reading and 0.5% accuracy with site calibration
- Wide measuring range (1:40 turndown ratio)
- No pressure drop and no risk of leakage
- Multi variable outputs: Volume, mass flow rate, totalizers
- No regular maintenance or recalibration required
- Meter's integrity and functioning is not impacted by harsh process conditions
- Meter can detect the increased oil presence in injected water

Panametrics, a Baker Hughes Business, provides solutions in the toughest applications and environments for moisture, oxygen, liquid and gas flow measurement. Experts in flare management, Panametrics technology also reduces flare emissions and optimizes performance.

With a reach that extends across the globe, Panametrics' critical measurement solutions and flare emissions management are enabling customers to drive efficiency and achieve carbon reduction targets across critical industries including: Oil & Gas; Energy; Healthcare; Water and Wastewater; Chemical Processing; Food & Beverage and many others.

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