



/ Expro Excellence Meters

Using Expro's sonar flow meters as part of an integrated well intervention strategy



Objectives

- Well intervention offers the potential to improve and/or extend the production profile of a well in production
- Expro Meters aims to help operators increase safety and minimise the cost of intervention whilst improving well economics
- Decisions on intervention programmes are often made with limited and outdated production data

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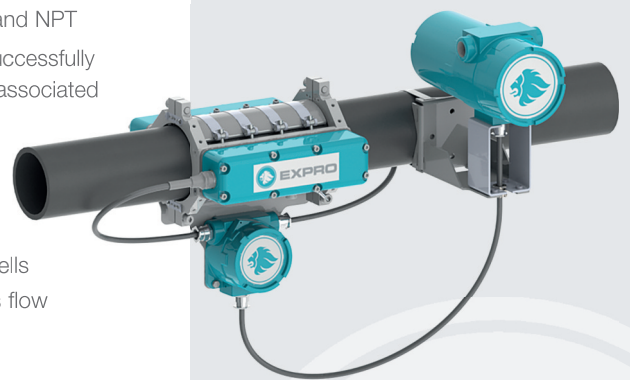
- Technology used: SonarTest™; ActiveSONAR™ flow meter; PassiveSONAR™ flow meter; Well Test Studio™
- Sonar meters deployed using Expro's SONARTest service: small footprint of kit and ancillary equipment
- Expro Meters field technicians deployed to install meters, obtain data, report preliminary rates at the well site and produce a full well test report pre and post intervention operations
- Non-intrusive – clamp-on and requires no modification of the surface flow lines

- Sonar meters have been successfully deployed in intervention campaigns employing the following intervention techniques:
 - Water wash halite removal
 - Batch foam treatment
 - Coiled tubing nitrogen lift gas well deliquification
 - Tubing plug zonal isolation
 - Cement squeeze zonal isolation

Value to client

- Cost-effective individual well surveillance
- Data gives the wells team the opportunity to evaluate individual well performance and feed the preliminary data into the intervention planning process
- Ability to avoid the unexpected and develop targeted campaigns for each well
- Minimises the number of well intervention operations – reducing costs and NPT
- Expro's sonar meters have successfully diagnosed falling production associated with:
 - ESP failure
 - Storm choke failure
 - Halite build up
 - Liquification of gas wells
 - Packer failure – cross flow between zones

- Non-intrusive design
- Real-time measurement
- No process shut down
- No modification of the surface flow lines
- Cost effective to implement and minimises costly well intervention
- Accurate
- Optimisation of operations



Using sonar flow meters throughout the process has significant benefits

Pre-intervention	Measures base line production rates, prioritise and select intervention options
During intervention	Collects real-time production rates and optimises well site operations
Post-intervention	Measures production rates in order to quantify and validate the success of the intervention procedure

Contact

For further information, please visit:
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