



/ Expro Excellence Meters

Expro's sonar meters are deployed on mature gas condensate fields, enabling debottlenecking and saving Marathon in excess of \$250,000 (USD) per testing campaign



Objectives

- Marathon has undertaken several projects in the East Brae Field to maximise production, balancing the need for periodic well testing and the requirement to optimise production from the fields low pressure wells
- To enhance production, Marathon modified its production facilities to allow its test separator to be operated at reduced pressure for the fields low pressure wells; however this precluded use of the separator for well testing and production surveillance
- Marathon required a well testing solution that would allow it to continue to produce all wells at the optimum production rates during well testing periods

Expro Excellence

- Expro proposed sonar surveillance services that could be used in place of the test separator for well testing – allowing gas production rates to be accurately measured without the need to shut-in low pressure wells
- A trial of ActiveSONAR[™] and PassiveSONAR[™] was successfully completed for wellhead production surveillance

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• Fast installation: each meter was installed in less than one hour - supported by one engineer, the kit is packaged appropriately for convenient transport by helicopter

Value to client

- Expro's automated well test reporting tools were used to generate a clear, concise and accurate well test report for Marathon – results showed very close agreement with the recent test separator values for the predominant gas phase
- As a result of working with Expro, Marathon has the potential to save over £150,000 for each test campaign



Expros' PassiveSONAR uses passive listening technology to determine volumetric flow rates. It is well suited for high rates and high liquid loadings.

The ActiveSONAR meter uses pulsed-array sensors to track the speed of coherent flow structures. The technology offers enhanced performance for surveillance applications where low flow rates and thick-walled pipes present measurement challenges for traditional clamp-on meters.

The trial of Expro's meters on the East Brae Field

- Confirmed meters can determine well performance (accuracy +/- 10%)
- Proved the applicability of the flow meters with a wide range of gas/liquid ratios
- Evaluated the merits of both the ActiveSONAR and PassiveSONAR flow meters
- Minimised the production loses associated with traditional well testing

Contact

For further information, please visit: www.exprometers.com/contact or call +1 (203) 303-5686.

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