

## Expro Excellence

# Ultra-high rate, single train Well Test solution enables safe and efficient well clean-up

## Well Flow Management



### Objectives and background

- The customer needed to perform development and clean-up testing for all their wells at an ultra-high rate to:
  - Obtain valuable well flow data to assist in characterizing the reservoir and optimizing long-term production of the wells
  - Verify the integrity of the completions
  - Remove fluids which were left over from the drilling and completions phase to ensure minimal disruptions once the wells are brought online
- The development of the field is paramount to the customer in the future development and continued operations of a mega-scale LNG project which is key to the supply of the low-emission LNG/LPG to the APAC market
- Expro was engaged by the customer to provide a bespoke, ultra high-rate well test package that was designed for a maximum rate of 135MMscf/d with high Condensate Gas Ratios (CGR)

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- A ultra-high rate, single train package that integrated industry leading process safety best-practices is deployed whilst minimizing the footprint of the package
- Expro was selected as the partner of choice as the ultra-high rate, single train solution implemented translated into decreased operational complexity, risks, costs and crew headcount over a conventional dual-train solution proposed by other service companies
- The bespoke package consisted of the following core equipment:
  - **MegaFlow™ Ultra-High Rate Test Separator**
  - Large Bore SSV and Choke Manifold fitted with dual pressure balanced production chokes
  - Dual Pot Solids Management System
  - Dual-Vessel Multi-Tube High-Efficiency Heat Exchanger
  - SIL Rated Electronic – ESD system

### Expro Excellence

- The MegaFlow™ Ultra-High Rate Test Separator was paired with a MultiTube High-Efficiency Heat Exchanger to ensure efficient and complete separation of the different phases
- The bespoke single train, ultra-high rate well test package was just one element of the broader integrated project management offering from Expro that encompassed an API 17G compliant, high temperature/debris tolerant Expro Landing String Assembly (ELSA) subsea safety system and a suite of metering, sampling, and analysis package inclusive of multi-phase mercury metering and a custom built high-rate/temperature/pressure wet gas meter

### Value to the client

- The project has been successfully executed to date with 23 wells completed thus far
- The enhanced throughput of our Megaflow™ Ultra-High Rate Test Separator allowed the customer to shorten the time required to clean-up their wells, saving high value rig time and reducing overall GHG emissions from the operation, whilst simultaneously increasing the radius of investigation and allowing for improved reservoir characterization to optimize production in the long term
- Deployment of the single train, ultra-high rate package translated into twice the capacity of a conventional package whilst utilizing our compact design to improve the ease/speed of the rig-up and allowed the overall headcount required to operate the package to be reduced
- Expro's best-in-class integrated safety system was deployed during this project which has translated to exceptional HSE performance over 23 wells and 250,000 man hours on the project thus far

#### Ultra-High Gas Rate



#### QHSE



#### Time savings



#### Contact

For further information please contact:  
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