

This Month

Optimizing Gathering Systems

Getting the most from your pipelines

Seeking a Senior Engineer

Proven is looking for an experienced addition to our team

MetroPetro

How do analysts come up with this stuff anyway?

Company News

Proven's new corporate website launches!

Optimizing Gathering Systems

In Search of Greater Efficiency

Maria Tjoa

Thousands of oil and gas wells are currently producing in the province of Alberta, with about 90,000 new drilling licenses issued just in the past 5 years. All of this oil and gas is gathered through gathering systems throughout the province,



"Increasing gas throughput in gathering systems"

and then sent by pipelines to refineries.

Proven has found success at increasing gas throughput in gathering systems and cash flow using a simulator to model a multi-phase flow through the pipeline to match the production and pressure data. The simulator will assist in the configuration of optimum surface facilities to enhance gas production by adding compression. The effect of adding more wells to a GS can also be simulated.

Gathering system networks are very complex because changes in pipeline pressure may adversely affect production back at the wellsite. Before reaching a regional treatment facility, oil and gas production may go through field treatment facilities that include free-water knock-out vessels. Production can also be boosted by compressor for enhanced production.

To ensure a gathering system is operating efficiently, it is important to measure pressure drop in the pipeline. An easy pipeline check is to plot pressure versus distance to check the pressure drop per

kilometer. Good pipeline principles state a pressure drop of 20 to 40 kpa/km as a guideline. For instance, if a field produces a high water-gas ratio, the two-phase flow regime may change to slug flow causing a high pressure drop per km. Thus, the operator may choose to de-water the line, as the increased backpressure exerted on the wells can hinder gas production.

A gathering system may not be designed to account for changes in fluid composition, which commonly happens with every well. Most wells produce a two-phase fluid, and as the field gets older, liquid-gas ratio will change. It is necessary to take these changes into account in order to ensure the system is operating efficiently throughout its lifetime.

Monitoring gas and water production rates, pressure within the pipeline and checking the optimum configuration for the compressor can improve economic gains by increasing gas production and decreasing operational costs due to unnecessary compression.



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Proven Reserves Seeking Senior Engineer

Proven Reserves is looking for a senior reservoir engineer to join our team.

We are looking for a P.Eng with 7-15 years of petroleum engineering, excellent computer skills with PEEP, AccuMap, Forgas, and Eclipse. Candidates must enjoy teaching and developing junior engineers, be able to take calculated risks, and have excellent organizational skills.

The successful candidate will be responsible for completing reservoir and production engineering projects, writing applications to regulatory agencies, estimating reserves, and forecasting production.

Proven Reserves is a Calgary-based consulting firm, specializing in Reservoir and Production Engineering for the oil and gas industry. With over 15 years of



experience in economic evaluations, acquisitions, divestitures, and production engineering, Proven Reserves' dynamic team brings a wealth of knowledge and skill to each evaluation project.

For more information about Proven Reserves or the position available, please visit www.proven-reserves.com, or email connie.low@proven-reserves.com.

Company News

Remodeled Proven-Reserves.com Now Online

Proven Reserves' official corporate website has recently undergone some heavy renovations, bringing a more accessible and user-friendly experience to our clients, partners, and friends in and out of the oil and gas industry.

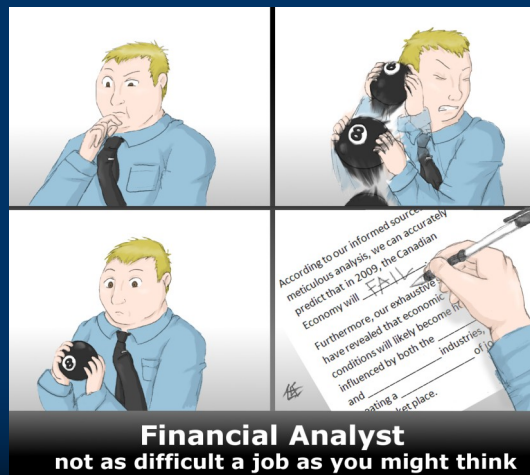
The new Proven-Reserves.com allows users to more easily access information not only on Proven Reserves' corporate practices and poli-

cies, but also aims to keep our clients and partners up to date on the goings on of our ever-changing industry.

With more features in the pipeline, including a personalized client login and regular industry blog, the new Proven-Reserves.com aims to continue with Proven's reputation of quality and accessibility.

We invite you to visit the new site at www.proven-reserves.com.

MetroPetro



Financial Analyst
not as difficult a job as you might think

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Upcoming Events

Technical Luncheon

Full Cycle Costs of Natural Gas
April 8, 2009
Calgary, Alberta
www.cwls.org

Technical Luncheon

Improve Your Timing on A&D Activity
April 14, 2009
Calgary, Alberta
www.petsoc.org

Technical Luncheon

Global Professionals— Re-thinking Our Role in the World
April 16, 2009
Calgary, Alberta
www.apegga.org