Calgary-Headquartered Gas Processing Management Inc. Has eight principals, all with professional designations and more than 25 years of industry experience. They are (standing, from left): **DAVE ESAU, JOHN KINGSBURY, BART VAN SCHAAYK** *and* **BOB CHILD**.

Seated (from left): **GERRY GOOBIE, TERRY JOUBERT, BILL ARMSTRONG** *and* **IB MOLLER**.

NATURAL GAS LIQUIDS ARE WHERE IT'S HAPPENING

Ask almost any natural gas producer in North America today what they are targeting, and the answer is likely to be liquids-rich gas.

Why? Because recently natural gas liquids proceeds have become a much larger component of a producer's total revenue stream.

As they chase rich gas, it is interesting to note that many producers claim to have the best reserve quality, land position, well productivities, gas richness, etc. (pick which ever you like).

These claims are often combined with very aggressive production growth plans. If we were able to add up all these plans, the total would likely exceed all the infrastructure capacity in North America.

Clearly, not all of these production plans can occur at the same time. And we know that not every producer can be number one (although apparently many believe they are). So, what is a realistic outlook for natural gas and NGL production?

And what does that portend for the gas processing business in Western Canada?

We have witnessed a fundamental change in the petroleum industry in recent years. Crude oil and natural gas prices spiked in 2008. Since that time, WTI prices have settled in the $90/bbl to $100/bbl range, while shale gas developments have pushed natural gas prices down to the $2/MMBtu to $4/MMBtu range.

A simple but useful indicator that captures these changes is the Oil/Gas Price Ratio (simply WTI crude in $/bbl divided by Henry Hub gas in $/MMBtu) (see fig. 1)

Prior to 2008, the Oil/Gas Price Ratio was, with a few brief exceptions, always between 6 and 10. Now it appears likely that we won't experience a sub-10 Oil/Gas Price Ratio any time in the foreseeable future.

What does the Oil/Gas Price Ratio tell us about NGL prices?

Over the last few years, butane and pentanes-plus prices have remained closely correlated to crude prices, while the propane correlation has deteriorated with increased supply and weak demand.

Nevertheless, the implication of a high Oil/Gas Price Ratio is that NGL values can be expected to be significantly higher than gas prices for some time

to come. Clearly, many producers believe this, and consequently, they target rich gas.

Several factors have, and will continue to, influence the Oil/Gas Price Ratio.

First, crude oil is an internationally traded commodity, subject to global supply and demand influences. North America remains a supply-constrained market for crude oil. However, domestic natural gas production is still largely confined to North American markets (although this can be expected to change with future LNG developments).

With respect to natural gas and NGLs, North America has become a demand-constrained market as a result of rapidly increasing supply and weak demand. This is a very different world than the one we experienced prior to 2008.

Unfortunately for those producers with aggressive production growth plans, the old strategy of produce it and markets will come doesn't necessarily work any more.

These market changes have created an interesting paradox. In Western Canada, as natural gas prices declined, gas-oriented drilling and gas production declined as well. This has resulted in a large quantity of underutilized gas transportation and gas processing capacity. This is especially true on the TransCanada Mainline as well as at straddle plants and many of the vintage large field gas processing plants in Western Canada.

Unfortunately, much of that capacity still has to be paid for. Meanwhile, many producers want to build their own processing capacity to capture all the liquids' upside rather than share it with existing processors. So, in spite of large amounts of existing underutilized capacity, producers want to build more new capacity.

But what about markets? Who are producers going to sell their gas and NGLs to in a demand-constrained world?

Remember that in Western Canada, NGL markets are somewhat opaque. The business is dominated by a handful of large players who will defend their positions as they struggle with the harsh realities of demand-constrained markets. The barriers to entry into the NGL business are high. Do E&P companies really want to participate in downstream gas and NGL markets?

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What is the resolution of all these competing issues?

As the old adage goes, if we really knew the answers to these questions — well, you fill in the rest. However, it is clear that there are many challenges ahead over the next few years. We are in uncharted territory — you actually have to go back to the early 1960s to get similarly high Oil/Gas Price Ratios.

How do you proceed? Stick to the fundamentals. Keep your costs down.

Western Canada is a very high cost environment and we are a long way from markets. This is likely to be the biggest challenge we will face over the next few years.

But there are also great opportunities. If you are an E&P company, think very carefully about getting into the NGL business. It is a good (some would say great) business if done correctly, but beware, there are numerous pitfalls.

If you decide to go down that road, engage good advisors. It will be worth it in the long run.

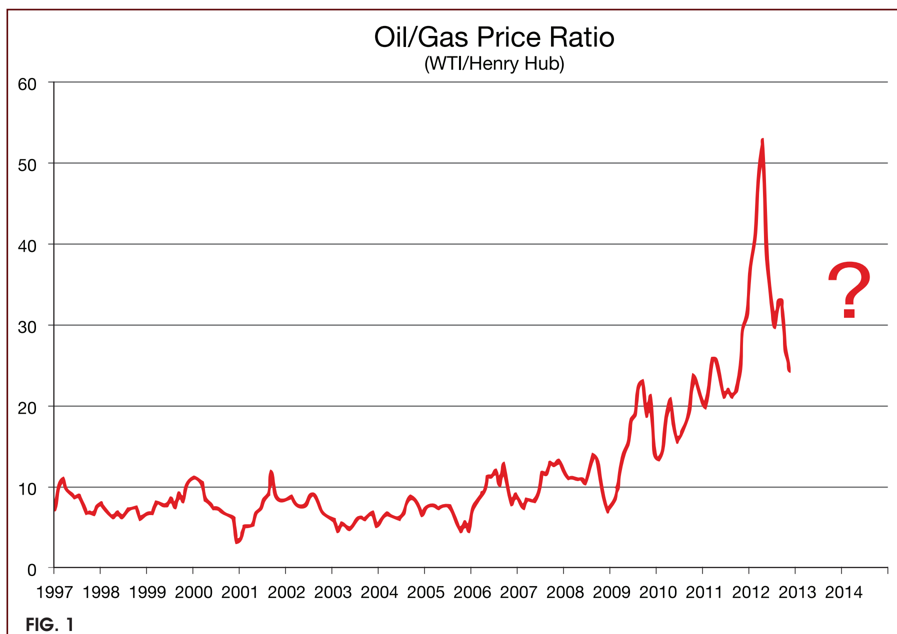

FIG. 1