



# Phoenix's Marketing Tips of the Month



April, 2008

Volume 2, Number 4

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## Pricing Information

AECO/NIT Gas - <http://www.ngx.com>

NYMEX Futures – <http://quotes.ino.com/>

Historical Industry Pricing –  
<http://www.phoenixenergymarketing.com>

## "My Favourite Web Sites"

Master's Golf Tournament (April 10-13<sup>th</sup>) @  
<http://www.masters.org> or <http://www.augusta.com>

ATCO Pipelines @ <http://www.atcopipelines.com>

HeavyOil Info @ <http://www.heavyoilinfo.com>

## Upcoming Marketing Seminars

[www.phoenixenergymarketing.com/seminars.htm](http://www.phoenixenergymarketing.com/seminars.htm)

*New Staff? Need a Career Change? Have a  
Professional Development Goal for 2008?*

*Introduction to Crude Oil Marketing – April 21-22<sup>nd</sup>*

*Introduction to Gas Marketing – June 10-12<sup>th</sup>*

*Introduction to NGL Marketing – October 14<sup>th</sup>*

## Welcome to the Phoenix Marketing Tips of the Month!

The objectives of this publication are to inform readers about marketing trends and developments that may impact their future business, as well as provide an educational supplement to the Phoenix marketing seminars you may have attended, by providing gas, oil, NGL, sulphur and power marketing tips.

## Natural Gas Marketing Tip - "Part 1"

Spring has sprung and every good gas marketer's thoughts naturally and automatically turn to golf, love (of golf) and firm vs. IT transportation risk/reward optimization...What's that, you say?

As the winter drilling season wraps up and new discoveries are tied in, the prudent marketer will assess the risks and rewards of replacing interruptible transportation ("IT") capacity with firm transportation ("FT", "FSR", "FTR") contracts. The use of IT capacity, when available, to transport the "flush" production from new gas wells makes good sense. Once the well's production rate has dropped off and the decline rate has started to stabilize (hopefully!), the risk of contracting for FT capacity for a portion of the production is reduced significantly. This initial flush production period may take from 2-6 months depending upon the type of reservoir that the gas is being produced from.

## Quote of the Month:

**"Despite the pivotal role which oil is playing during the early years of the 21<sup>st</sup> century we are, without a doubt, entering the twilight of the Oil Age."**

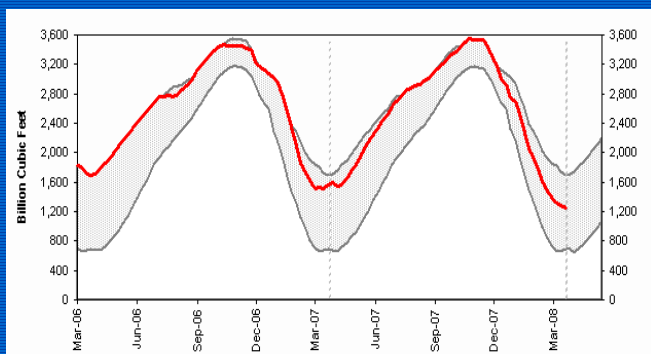
(Dr. Gary Kendall, physical chemist and Senior Energy Business & Policy Analyst at the World Wildlife Fund's European office, during an interview about his study "Plugged In: The End of the Oil Age", Calgary Herald - April 2, 2008)



**"Keep playing like that and you'll strike oil!"**

## "Quick Facts"

U.S. Gas Storage - 1,248 Bcf at Mar. 28/08



Source: EIA - U.S. Gas Storage

Once this information is available, the next steps for the gas marketing department are as follows:

1. Determine whether FT capacity is available from the connecting pipeline system at both the receipt meter station and the lateral.
2. Is there a cost savings in using FT vs. IT?
3. How long a term of contract is required and/or what length of termination notice is required to cancel or reduce the FT obligation?
4. Is there a plant turnaround planned this year and, if so, when and for how long?
5. Is there a downstream pipeline maintenance outage planned this summer that might affect availability of IT and possibly curtail FT? If so, when, for how long and how severe?
6. Are there other shippers at this receipt point that we could obtain FT on more favourable terms, or assign FT to if our production drops off unexpectedly below our FT capacity?
7. Can we transfer unused FT capacity to other receipt points temporarily and/or permanently?
8. Do we have firm upstream gathering and processing capacity to get the gas production to the receipt meter station, or do we run the risk of being shut-in by the plant operator due to lack of processing capacity, thereby incurring unutilized demand charges ("UDC's")?
9. Is there a firm gas (and NGL?) marketing obligation to a buyer at or downstream of the delivery point to meet?
10. What are the implications of a production shut-in? Is there a risk that the well will be damaged and not come back onstream? Is the gas produced from an oil well that would have to be shut-in, thereby interrupting the cash flow from two or more (oil, gas, NGL, sulphur) sources?

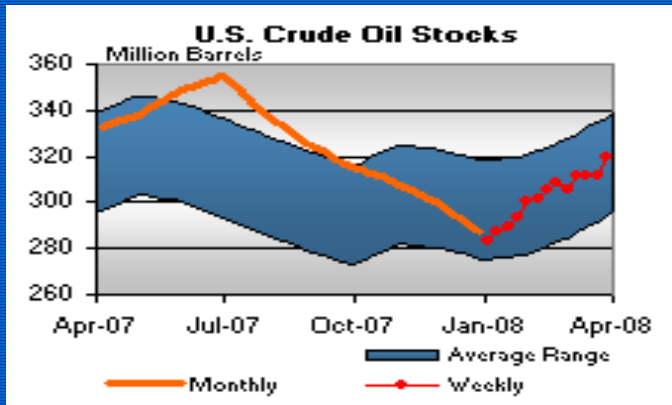
While the foregoing checklist is reasonably comprehensive, there are a number of other factors specific to each producer and each area to consider in making this assessment. Producers dealing solely with marketing companies will often struggle with the question of who is responsible for this function and how thoroughly and regularly is it being addressed?

***"Keep your eye on the ball and your head in the game." (Author Unknown)***

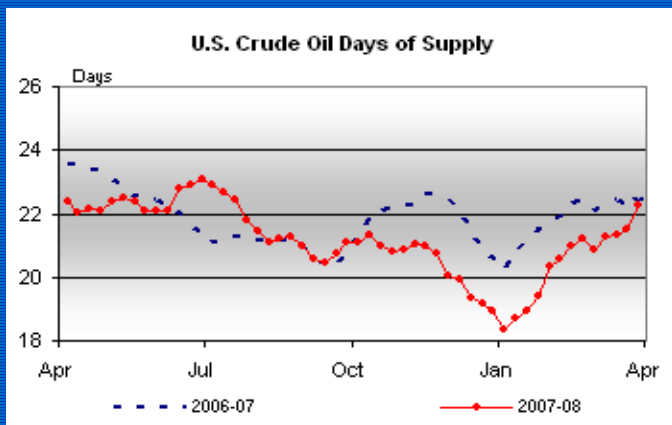
## Natural Gas Marketing Tip - "Part 2"

One interesting FT/IT transportation optimization opportunity that producers should be looking at right

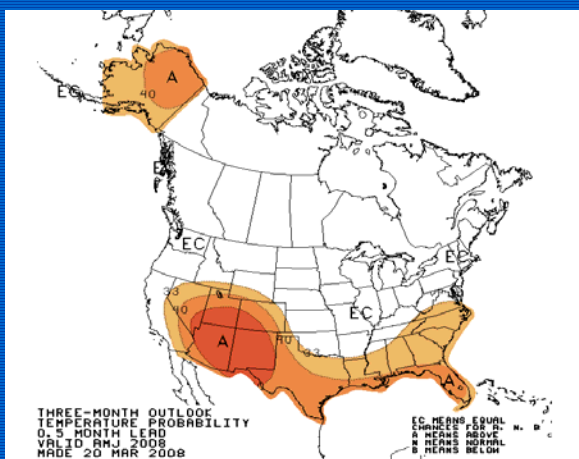
U.S. Crude Oil Stocks - 319.2 mmbbls at Mar. 28/08



Source: EIA - U.S. Crude Oil Stocks



Source: NOAA - NWS Climate Prediction Center



now affects gas production tied into the ATCO pipeline systems in Alberta. ATCO Pipelines operates two transmission pipeline systems in central Alberta; ATCO North Pipeline services the Edmonton area, while ATCO South Pipeline services the Calgary area. ATCO's systems have 236 receipt points and ship about 1.3 Bcf/day of production. There are 269 shippers using these systems, which deliver up to 3.7 Bcf/day to consumers.

ATCO North's transportation rates for IT in the summer months (June 1 to September 30) increase from \$0.072/GJ to \$0.257/GJ, while ATCO South's rates are \$0.092/GJ and \$0.254/GJ respectively. Firm transportation under 1-year contracts is \$0.087/GJ for ATCO North and \$0.107/GJ for ATCO South. Consequently, while you save \$0.015/GJ using IT service for 8 months of the year, you pay \$0.15-\$0.17/GJ more for 4 months of the year.

So, let's do the math for a producer tied in to the ATCO North system, assuming the producer has decided to consider FT for 1,000 GJ/day of its 2,000 GJ/day of production (i.e. - 50% FT and 50% IT).

- a) Firm Transportation per year = 1,000 GJ/day x 365 days/year x \$0.087/GJ = \$31,755/year
- b) Interruptible Transportation = (1,000 GJ/day x \$0.072/GJ x 243 days/year) + (1,000 GJ/day x \$0.257/GJ x 122 days/year) = \$48,850/year
- c) **Savings = \$17,000/year**

Doesn't sound like much of a savings? Well, if this was all of the producer's production, saving \$17,000/year equates to an operating cost ("OPEX") reduction of \$0.14/boe. Ask a production engineer what they would need to do to cut OPEX by \$0.14/boe and you will quickly appreciate how significant this idea really is!!

*"A penny saved is a penny earned."*

**Benjamin Franklin (1706-1790)**

**American Inventor, Statesman & Author**



## Crude Oil Marketing Tip

Christina and I met with a client last week that was interested in the idea of hedging its condensate pricing

Phoenix is an intellectual capital corporation specializing in the optimization of the transportation and marketing of crude oil, natural gas, NGL and sulphur production of junior producers in Western Canada using a trusted advisor/long-term relationship and value-added model. Our team members are:

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in order to further stabilize its revenue and cash flow this year. As there is currently not a condensate futures market available for this purpose, it is necessary to look at other means of creating an effective hedge. By running a regression analysis, Phoenix determined that the monthly average posting for "par" condensate at Edmonton was highly correlated to the calendar month average ("CMA" settlement price of the NYMEX Light Crude Oil futures contract ("WTI"), when expressed in Can.\$, using the noon-day exchange rate from the Bank of Canada.

"Par condensate" is a benchmark quality of condensate that is derived from the stream average quality and applying a weighted average differential factor ("WADF"). Specifically, par condensate has a density of 750 kg/m<sup>3</sup>, butane content of less than 5.0% and a sulphur content of 0.2 wgt%, while the Enbridge average stream quality is about 710 kg/m<sup>3</sup>. It is also industry practice to utilize the most recently available WADF, which is usually the WADF for the month prior to the month of production.

Most condensate sales contracts use the Edmonton par condensate average posting benchmark as the basis of their pricing formulas. Using par posting as the base, the price is then further adjusted by adding/subtracting market premium/discount, quality equalization and transportation costs (trucking, terminalling and tariffs). Assuming that the foregoing adjustments are, more or less, stable over the term of the agreement, it is only the Edmonton par posting that requires price risk management attention.

The correlation between Edmonton average par posting for condensate and WTI-CMA is consistent over various time periods, as illustrated below. Phoenix's regression analysis checked the 12, 24 and 38 month time horizons and found that the correlation was 99.88%, 99.44% and 99.55% respectively. Using the 38 month price history, the formula for modelling Edmonton par condensate prices in Can.\$/bbl is 0.954% WTI + \$1.06/bbl. The standard deviation of error is a mere Can.\$0.83/bbl.

What this all means is that if a producer wants to hedge its condensate prices, it can do so very effectively and safely using NYMEX WTI-CMA futures and options. The correlation is sufficiently high for hedge accounting treatment to be used if desired, with less than 1% subject to fair value accounting rules.

For those heavy oil producers out there purchasing condensate as diluent, take comfort that as long as a portion of your crude oil production is left unhedged, you can create a "natural hedge" if you lock-in the light/heavy differential for your oil, as well as the

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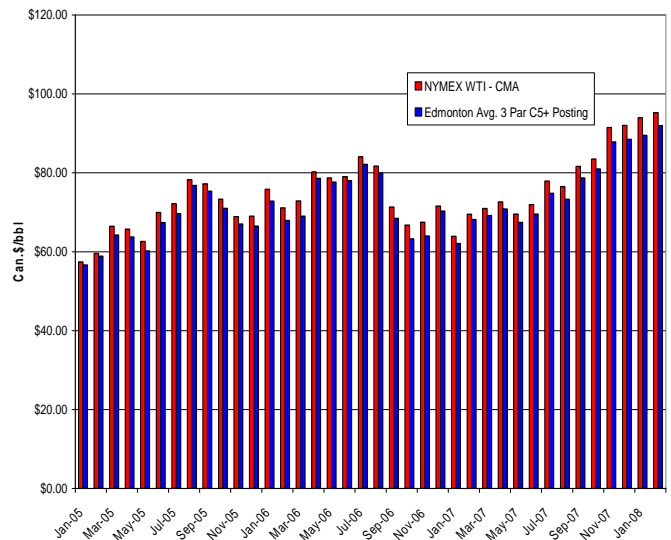
# WANTED!

Junior Producer Clients  
that appreciate the value  
of investing in oil & gas  
marketing through a  
long-term  
collaborative relationship  
with a  
Professional Service  
Firm.



premium/discount paid over/below par posting for your condensate requirements.

WTI vs. Edmonton Par Condensate Postings



***“The invalid assumption that correlation implies cause is probably among the two or three most serious and common errors of human reasoning.”***

**Stephen Jay Gould (1941-2002)**

**Professor of Paleontology, Evolutionary Biologist & Geologist, Harvard University & American Museum of Natural History**



### “Conversion Corner”

$$1 \text{ MMBtu} = 1.055 \ 055 \ 852 \ 62 \ \text{GJ}$$

$$1 \ \text{GJ} = 0.947 \ 817 \ 121 \ \text{MMBtu}$$

$$1 \ \text{Barrel} = 0.158 \ 987 \ \text{m}^3$$

$$1 \ \text{m}^3 = 6.2898 \ \text{Barrels}$$

$$\text{API Density} = (141.5/\text{S.G.}) - 131.5$$

$$\text{Specific Gravity (S.G.)} = 141.5/(\text{API} + 131.5)$$

$$1 \ \text{MMcf} = 28.262 \ 10^3 \ \text{m}^3$$