Pugh Clauses and Shale-Gas Activity

By Peter Staas

In the July 11 issue of *The Energy Letter*, The Future of Shale Gas Is International, I explored why the biggest integrated energy companies continue to invest heavily in North American shale-gas plays. One name was conspicuously absent from the discussion: **Chevron** (NYSE: CVX).

That's not to suggest the firm doesn't have exposure to this segment. The company holds acreage in Colorado's Piceance Basin and the Haynesville Shale in east Texas. Chevron also added about 200,000 acres to its leasehold in western Canada, though the energy giant has yet to reveal the exact location.

Why hasn't Chevron made a bigger splash in North American shale gas? During last year's third-quarter conference call Vice Chairman George Kirkland indicated that an oversupply of natural gas had prompted management to curtail its drilling activity in the Lower 48 states.

Kirkland elaborated on this decision during a recent conference call to discuss Chevron's second-quarter results: "We like unconventional gas where we can make reasonable returns…[Our US holdings] don't presently make development sense because the gas price and the market conditions with oversupply in the U.S. just doesn't make it attractive."

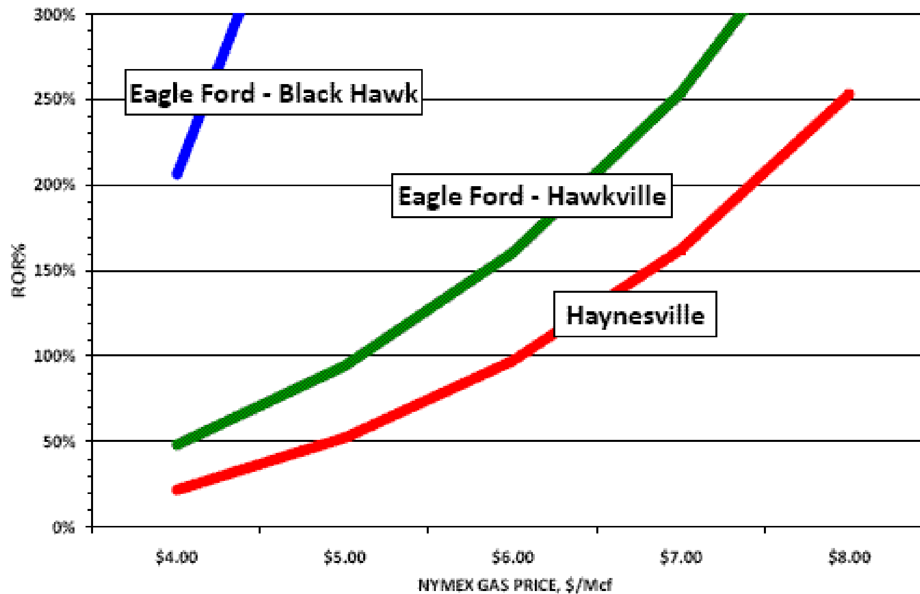
This statement reflects an apparent anomaly in the domestic market for natural gas: Drilling activity in unconventional plays remains robust despite depressed natural gas prices--a puzzling disconnect that prompts many investors to steer clear of shale-gas producers.

Attractive economics in some of the nation's hottest shale plays partially explain why producers continue to ramp up production, even as the seasonally weak "shoulder" period approaches.

As my colleague Elliott Gue explains at some length in Why Some Natural Gas Is Worth $7.28, producers in the Eagle Ford and Marcellus, two shale plays rich in natural gas liquids (NGL), continue to enjoy solid profit margins. NGLs such as propane, butane and ethane tend to command a higher price that tracks crude oil; for many producers, the natural gas is almost an afterthought.

But NGLs don't explain why drilling activity remains strong in the Haynesville Shale, a dry-gas play in Louisiana and east Texas. Although profit margins aren't as attractive as in liquids-rich areas, producers can still eke out positive returns because the play is so prolific.

This graphic from **Petrohawk Energy Corp** (NYSE: HK), a leading producer in the Eagle Ford and Haynesville tells the tale, though readers should note that these margins are company-specific and don't apply across the board.



Source: *Petrohawk*

Why then is Chevron's Vice Chairman down on the US natural gas market? The answer relates to the Pugh Clause, a term contained in most of the leases that producers sign with landowners in parts of the US.

Louisiana attorney Lawrence Pugh pioneered the clause in the 1940s to ensure that energy companies developed leased land within a reasonable amount of time.

Although these clauses vary slightly, they generally require the operator to make the well commercially viable within a certain period. Producers that fail to comply with these requirements run the risk of losing their lease--and a substantial amount of money.

Chevron doesn't pay royalties on its holdings in Colorado's Piceance Basin, and its position in the Haynesville Shale is "held by production" (HBP)--that is, the company produced commercially viable wells within the allotted time frame. In other words, Chevron has the flexibility to curtail drilling activity without fear of forfeiting its acreage.

Many producers aren't in this boat. The case of the Haynesville Shale is particularly instructive, as the returns aren't as compelling as those offered by the Eagle Ford and other liquids-rich plays.

Producers began snatching up acreage in earnest in 2007 and 2008, primarily under three-year terms; most management teams readily acknowledge that ensuring that these leaseholds are HBP is a top priority.

Consider these comments from Aubrey McClendon, CEO of **Chesapeake Energy** (NYSE:

CHK) at Bentek Energy LLC's Benposium earlier this summer: "If I had my druthers we'd be running no more than a couple [rigs]…You'd be surprised how much drilling is not voluntary today."

This urgency to complete leaseholds afflicts many in the industry and explains why drilling costs have increased dramatically over the past year. According to one of the most cost-effective producers in the Haynesville Shale, fracturing costs have increased 35 to 40 percent in 2010, further squeezing margins. I discussed rising service costs in shale-gas plays in the Aug. 17 issue of *The Energy Letter*, Big Fracking Deals: Investing in Shale Gas Production.

This confluence of factors has prompted a wave of joint ventures (JV) and acquisitions in the unconventional gas space as independent producers scramble to secure leaseholds. Indeed, transactions involving shale-gas reserves loomed large in the second quarter, accounting for $12.9 billion. The list below provides a sample of these deals.

Marcellus Shale:

- **Royal Dutch Shell** (NYSE: RDS.A) acquired East West Resources for $4.7 billion;
- **Atlas Energy** (NasdaqGS: ATLS) and India's **Reliance Industries** (Bombay: 500325) announced a JV worth $1.7 billion; and
- **Exco Resources** (NYSE: XCO) inked a JV with **BG Group** (LSE: BG, OTC: BRGYY) for $950 million.

Eagle Ford Shale:

- Reliance Industries committed $1.3 billion to **Pioneer Natural Resources** (NYSE: PXD) in a JV; and
- Private-equity firm Kohlberg Kravis & Co. and Hilcorp Energy announced a JV worth an estimated $400 billion.

Many producers are also raising cash by selling noncore assets in shale plays with less attractive economics. These divestments not only bring in funds, but they also enable the seller to shift capital expenditures to core holdings.

Pressing deadlines to secure leaseholds and an influx of cash from JVs and asset sales also explain why producers continue to drill at a frenzied pace despite lower natural gas prices.

At the same time, the disconnect between gas prices and drilling activity offers investors an attractive opportunity to pick up best-in-class names at cheap prices. The bearish outlook for natural gas prices continues to weigh on related stocks.

We recommend focusing on companies that have high-quality acreage in the most economic plays, especially those that continue to lower production costs through innovative drilling techniques. Names that will secure their leaseholds before the competition will also have the flexibility to scale back operations and shift capital expenditures to promising, oil-rich plays.

Given the bearish sentiment surrounding the sector, opportunities abound for clear-headed investors.

On the other side of the coin, investors might consider shorting natural gas producers that own less-attractive acreage.