Gas and Oil in Western PA

On behalf of Dornish Law Offices, PC | Oct 1, 2008 | All, Real Estate Practice

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Recently, as natural gas and oil prices have continued to climb, and concerns over energy independence grow ever larger, Pennsylvania, and particularly Western Pennsylvania, has become the new hotbed of energy speculation in the U.S.

This should not be surprising, because the first commercial oil well in the country was in 1859, in nearby Titusville, Pa. Pennsylvania produced one half of the WORLD's supply of oil from 1859 to 1901. Even by 1937, Pennsylvania wells produced almost 20 million barrels of oil.

And while oil production from Pennsylvania wells has declined, production of natural gas has increased. In 1946, only 80 million Mcf (an Mcf is a thousand cubic feet of gas) were produced. By 1990, the year of the first production from Marcellus shale, 177 million Mcf were produced in Pennsylvania, including over 75 thousand Mcf from Marcellus. (Figures from PA DEP Fact Sheets)

Recent estimates put the amount of natural gas in the Marcellus formation below Pennsylvania, Maryland, New York and surrounding areas at 295 trillion cubic feet to 500 trillion cubic feet. How much gas is this? Our residential gas bills are in Ccf, or hundreds of cubic feet, and my last bill showed that to cook, heat water and heat my home for a year, I used under 1000 Ccf, or under 100 Mcf. The bill also indicated the cost of gas, separate from transportation, surcharges and other components of the bill, at $1.43 per Ccf, or $14.30 per Mcf.

So, even at the low end, if all the gas is recoverable, that would be 295 billion Mcf, or enough gas to serve a million homes like mine for 295 years, if my math is correct. Even more staggering, at today's retail price, assuming comparable quality of gas, the gas would be worth over four hundred trillion dollars.

But if this gas were easy to get, well operators would have drilled for it and we would have been using it long ago. Instead, it is very difficult to reach, being trapped in shale a mile below the ground.

It takes a million dollar well to reach the shale, and then pump huge amounts of water mixed with sand down the well to "hydrofracture" the shale, leaving particles of sand to hold open the cracks made by the high pressure water. When the water is pumped back to the surface, the natural

gas seeps out of the shale and follows the well up to the surface. And the most successful wells run down a mile, then take a sharp 90 degree turn, and run horizontally for up to half a mile through the shale layer. Although these wells cost several million dollars to drill, they have advantages for both landowners and operators. Drilling on a single well disturbs only a small area of property, several acres, but reaches gas under a large pooled area. Once completed, the footprint for continuing operations is smaller than a cell phone tower requires, and can be very productive, generating over a million cubic feet of gas per day. This translates into hundreds of thousands of dollars in royalties each year for the owners of the land made part of the pool.

Pennsylvania requires operators to pay at least one eighth, or 12.5% royalties on gas from wells on leased property. The royalties can be more, and some operators are paying up to 18% for prime properties in Allegheny and Butler counties. Pennsylvania law does not mandate the amount to be paid in upfront fees to landowners. Personally, I have seen offers from five dollars per acre to $2500 per acre. We have heard of offers as high as $3000 per acre, but it appears that the leasing frenzy of July and August slowed in September as natural gas prices dropped somewhat, and the well operators had far more land under contract than they could possibly drill over the next few years. Each well can take months to complete, and the major companies each report fewer than a dozen drill rigs for Marcellus gas in Western Pa.

Although the Marcellus Shale is thicker in northeast Pennsylvania than here, Southwestern Pennsylvania has the infrastructure of natural gas pipelines running through the area, which were once used to feed the huge gas demands of the steel industry. Because the pipelines are in place, it will take less time and money to connect the new wells here to the pipelines than to connect wells in Northeast Pennsylvania and Southeast New York. Those pipelines will be built, and that gas will be transported, but it will take a few years to get the infrastructure we have in Southwest Pennsylvania right now. One of the major well operators here, Range Resources, recently reported that it is ahead of schedule on bringing its new wells here online, and will have some ready to transport gas by fourth quarter of this year.

Once the well is connected to the transmission pipelines, the royalties will start coming in for the landowners. Well operators pool the land from which each well receives gas, and the owners receive their royalties based

on the ratio of the owner's land to the total pool. So if you own three acres in an eighty acre pool, you would get 3.7 percent of the royalties on that pool.

Right now, Huntley & Huntley out of Monroeville is actively seeking leases in Southern Butler and Northern Allegheny counties, Term Oil is seeking leases in Northern Butler County and Range Resources is drilling in several locations. Chesapeake Energy Corporation is drilling in West Virginia and moving into Southwest Pennsylvania. Atlas Energy of Pittsburgh has almost a quarter million acres leased in Western Pennsylvania, including substantial acreage in Fayette County. Rex Energy of State College is actively drilling 3 wells in Westmoreland County, and seeking more leases there.

XTO Energy spent $600 million dollars on Marcellus leases in Southwest Pennsylvania in April, and is expected to be expanding.

Talking to the right operator at the right time is critical for the best deal. If you sign up too soon, you may not receive the best price for your land. But if you wait too long when the opportunity comes along, your land may not be included in the pool, and you won't get your royalties. That means it is important to follow information about the companies and their holdings on the internet, go to the courthouse and find out which areas the title searchers are searching for gas rights, and pay attention when land agents come around in your community.

Some land agents represent the major players, and others are independents who make a big profit by getting you to sign a lease for less of a down payment than they know the major companies will pay them to assign your lease. Know who the land agent is, who he represents, and the prices being paid in your area before you sign.

Next, you have to know the key parts of a gas lease. There are eight major provisions of the lease, and each must be understood so you don't give up more than you should.

First, the Granting Clause lays out the specific rights the landowner gives to the lessee. Typically, the rights include exploring for oil and gas, the right to put in facilities for drilling, including roads, ponds and pipelines, the right to use water from the property, and the right to store gas on the property. An issue in this clause is what rights the lessee has to place pipelines across the property to transport gas from other properties without much if any, additional compensation to the landowner. This can also interfere with the use of the surface of the land if too much is given.

Next, there is a Habendum Clause. This covers the term of the lease, or how long the gas company has to exercise its rights under the lease. Usually, there are two time periods involved. The primary term is the term within which the well operator has the option to do testing and drill. The secondary term begins when drilling starts, and usually continues as long as oil or gas is produced from the property.

The third major clause is the Delay Rental Clause. This is the amount paid to the landowner from the time of leasing until drilling is started. Most leases used to have annual delay rental, but with the higher amounts being paid up front on new Marcellus leases, there are not usually additional payments until royalties start from gas produced.

The Royalties Clause usually follows the Delay Rental Clause. The royalties are usually a percentage of gas produced from the leased premises. As mentioned above, the royalty must be at least one eighth, or 12.5%, but can be as high as 16 to 18 percent. Sometimes, there is also a Shut In Royalty, which covers times when the well is not producing, for example in the summer when gas demand is lower, or if gas prices fall to a level where it is uneconomical for the well operator to keep the well producing.

Pooling and Unitization is the next major provision. As mentioned above, most leases are pooled with other properties from which gas is drawn at a single well. Unitization takes this one step further, and combines leases or wells in a field into a single production unit.

Most new leases also have clauses to prevent automatic termination, which was common in older leases when an operator didn't pay or do what it was supposed to under the lease. Current lease forms usually require that when the lessee breaches the lease, the owner must give written notice of the breach, and an opportunity to cure. Knowing these requirements is essential to enforcing your rights if everything doesn't go as planned.

The final major provision in a normal lease is a Surrender Clause. This clause gives the operator the right to terminate the lease at any time it determines the lease is not productive. Since the landowner gets to keep the upfront payment, most landowners accept the Surrender Clause at the lessee's discretion. A provision to watch for is partial surrender, where the lessee can split the leasehold into two parts, surrender one and pool only part of the property in a productive well. This could lower the percentage of royalties applicable to the owner's property.

The final advice I can give on understanding and navigating your negotiations and lease form is to get the help of a lawyer who understands

oil and gas leases. This is a situation where a little money spent up front can protect you in the long run and keep you from giving away more than you should.

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