

Concessions, what are they?

May 12, 2012

There has been some controversy in the past concerning the awarding of “Leasing Concessions” to producers in the Osage. The first ‘Concession’ granted by the Osage Minerals Council (then the Osage Tribal Council) was in 1995 and by June, 2010, 3 or 4 more had been negotiated. The purpose of a leasing concession is to assure the lease owner (producer) that he will not spend several million dollars to do seismic work and geological studies, which is only practical from both a technical and an economic standpoint over a large area, only to have another producer come in and take unfair advantage by leasing up adjacent acreage. Concessions give the holder the opportunity to lease and initially drill these expensive horizontal wells in locations and within the time-frame that is consistent with his planned development strategy for the area. In the following paragraphs, I will attempt to explain what a “horizontal well” is and the need for them, thus the need for concessions.

Once drilled to near the vertical depth desired, a well bore is actually turned gradually until it becomes, for all practical purposes, a horizontal well bore. This horizontal part of the well bore can extend 4 to 5 thousand feet laterally away from the vertical shaft of the well, and even more in some cases.

Osage mineral leases have always been defined as 1 governmental quarter section. Now since a quarter section is 2,640 ft wide and 2,640 ft long, and since it can sometimes take 1000 ft or more just to make the gradual turn from vertical to the horizontal axis, obviously the leases were going to need to be much larger. Consequently, in January, 2012, OMC 2 resolved to offer to “bundle” 2 or more adjacent quarter sections within a concession area into 1 lease for the purpose of drilling horizontal wells only, and charge the appropriate lease rate for 1 quarter section, multiplied by the number of quarters involved, for that bundled lease.

The drilling technology for directional or “horizontal” well bores has been around since the early 1940’s. If you were ever around Huntington Beach or Long Beach, California, you may have noticed great clusters of oil well pumping units along the coast. Most of these wells are “directional” wells, but are not necessarily “horizontal”. The purpose there is to put the pump of the oil well thousands of feet down and out under the ocean or beneath congested areas of the city and into known oil bearing strata, while imposing a very small footprint upon the surface. This technology is also used when drilling many wells from a single offshore platform structure. Most will remember the recent oil spill disaster in the Gulf of Mexico. This same directional technology was used to drill a new well directly into the bore, near the bottom of the ‘out of control’ well. Once the intersection was made, extra heavy drilling mud was pumped into and back up the wild well bore, eventually overcoming the great pressures of the blown out well. You may recall how long that took?

The directional drilling used to drill “horizontal” wells in the Osage can be done just as accurately, as long as the geologist knows where to go with the bit. It is just very slow, and therefore very costly. Where the normal vertical 15 BPD well might be drilled to 2500 feet and completed in 30 feet of pay zone for \$200,000, a typical horizontal well might be completed in that same pay zone but have several thousand feet of well bore exposed to the oil bearing formation, and can easily cost \$2,500,000 to get it on the pump. One of the more active producers now operating in the Osage tells me that they base their projections on an anticipated 20 year productive life of a horizontal well, and they plan on a total production of 150,000 barrels of oil from that well. However, he admits that this is a very conservative projection. Also, new extraction technology and the price of oil 20 years from now could conceivably make production of this well viable for another 20 years.

A horizontal well bore must be designed to accommodate the strata anomalies unique to each well. This involves state of the art geology and geophysics. Casing is run into the well and cemented securely to the walls of the well bore. Typically, the pay zone will be divided into several sections for completion, usually about 500 feet each. Usually the farthest out section will be perforated first, and hydraulic fracturing will be used to break down the formation in this area, thus releasing the oil, gas, and water to flow into the well bore through the perforations. Later, and hopefully years later, when that first section is depleted, the next section will be perforated and frac’ed.

Frac’ing has been receiving a pretty bad rap lately, most of it totally unfounded. The process has been accused of everything from polluting water to causing earthquakes. Some reckless use of frac’ing may or may not have been done, but it has never been an issue here. Over 10,000 wells have been frac’ed in Oklahoma since the 1940’s and there has never been a confirmed problem. One thing is for certain, these horizontal wells in the Osage must be hydraulically fractured before they will produce.

But then comes the matter of salt water disposal. The 15 BPD well we just talked about, also produces 15 to 30 bbl of salt water for each barrel of oil, sometimes more. That’s not too bad. It can, conceivably, be hauled off. But, the source formation of the 200 BPD well is the same source as the 15 bbl well and therefore it can be expected to make as much as 3 to 5 thousand barrels of salt water per day. Luckily, there is a formation under the Osage, anywhere from 3 to 4 thousand feet deep that will accept huge volumes of salt water. So---a disposal well must be drilled before the first barrel of oil can be produced. It ain’t easy, is it?

Well, that's not all. Horizontal wells must be pumped with very large submersible pumps, which only run on electricity. This requires that high voltage, 3 phase electrical service be available at each lease. This is hard to find in most areas of rural Osage County. And, power companies aren't that eager to provide this service to such a small customer base. Many producers set up generators, but this is very expensive, and has limited capacity. Some are financing the construction of power lines to their holdings, but only after the production has proved itself to be stable.

And then there's the gas. It's hard for most of us to think of natural gas as a problem, but it can be. First, in most cases, a moderate amount of natural gas is present in many oil and water bearing formations in the Osage. When natural gas prices were \$5 to \$8 per MCF, pipelines could be built and the gas sold, making us all money. Recently, the price of natural gas was below \$2. That won't even pay for a ditch to put the pipe in.

Worse yet, this gas pressure must be relieved from the well so the oil and water can flow into the well bore to be pumped out. Many of the producers are using some of their oil profits to build gas pipelines, just so they can keep their oil flowing. They don't have much choice. Further, the Federal EPA is currently considering banning all venting of methane gas into the atmosphere (which is what some are doing) so it looks like there may be more pipelines being built very soon. Several quite innovative solutions are being bandied about, but nothing has been forthcoming yet.

Then, as if that's not enough, we have a small problem with sour gas. Sour gas is natural gas that contains hydrogen sulfide. H_2S , when present in natural gas, even in small quantities, is quite deadly. Pipeline companies transporting natural gas will not accept gas that contains H_2S . The gas can be cleaned up but it takes a massive processing plant to do this and there must be a lot of sour gas available for it to be economically viable. Sour gas can be used safely to fire boilers in an industrial situation where everyone is aware of the potential hazards involved. Normally, this sour gas is just flared off, which renders it harmless. This was recently being done on 1 horizontal well in western Osage County.

This has been a brief excursion into the production end of the Osage oil business. The purpose here was to possibly give some insight to a few of the problems and the risks and expense involved in producing oil in the Osage, thus the need for some assurance of stability and security for the producers thru the use of concessions.

Most concessions are “Right to Lease” agreements. Once the decision has been made to drill in a specific location within a concession area, the area involved then must be actually leased from the Shareholders, thru the Osage Minerals Council, at bonus and royalty rates specified in the concession agreement.

Concession agreements normally include drilling commitments for a specified number of horizontal wells and vertical wells and disposal wells, and may include commitments for further seismic work, mapping, or other geological studies. All of this new information will be made available to the Minerals Council upon a certain event or date, as stipulated in the concession agreement.

Further, concession agreements, as in any contract, have expiration dates and remedies established for breach of the agreement. Failure to explore or develop any part of the concession area within the time frame specified or failure to pay the royalty due are some things, among others, that can cause re-negotiation or termination of the concession. Termination or expiration of a concession may result in it's immediate release from encumbrance, whereby the Minerals Council may now negotiate with other producers or offer the undeveloped areas in lease sales. Any areas of the terminated or expired concession actually leased and developed by the concession holder, will remain with the producer the same as any other producing lease.

Some of the first concession agreements negotiated in the Osage were far less beneficial to the Mineral Estate Shareholders than those recently done, but we must remember, at the time, the price of oil was about ½ of what it is now. There were not many producers interested in drilling anywhere. This put our Council in a far less than desirable negotiating position and, there was still a lot to be learned. Some of the problems with the first agreements were too few firm drilling commitments, the length of time the concession would be effective, and a lower royalty rate on the production. Hopefully, when these concessions do finally expire, much better deals can be worked out. Maybe we should just consider these first concessions to be an “experiment” that turned out somewhat successful and one that is being continually improved upon.

There has been some legitimate criticism of concessions. Some long time, smaller independent producers say that awarding large concessions is preventing them from expanding their stake in the Osage. This concern no doubt has much merit. The current Minerals Council has addressed this issue several times in recent meetings. It seems that they are very aware of the problem and are trying to come up with a solution that works for everybody. Some of them have

expressed a great concern that “we shouldn’t turn our back on those who have produced millions upon millions of dollars for the Osage Shareholders in the past.”

However, we must remember that “business is business.” Anytime there is an opportunity to double the income for the Shareholders in a relatively short period of time, this may be the price that must be paid. And we must also remember, most of these leases had been laying idle and un-leased and fully available for many years. These new concession holders are spending a lot of money exploring and drilling and as a result, they are finding oil. This makes these properties now much more desirable.

One possible solution to this issue might be to make any leases coming available due to termination or expiration of a concession, be subject to nomination for bidding at the next ensuing lease sale before renegotiating any extension of that concession. This would give the small producer a fair and equal opportunity to acquire the properties. This process would also be a very reliable indicator of the fair market value of any leases in the immediate vicinity, a useful tool to be used when negotiating future leases or concessions.

All things considered, leasing concessions have clearly been a good thing for the Osage Shareholders. The high production rates possible, coupled with very strong oil prices, and leasing concessions have given producers the confidence to bring the very latest, cutting edge geophysical, geological, and drilling technology to the Osage, where others had long ago given up on us.

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