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NEGOTIATING OIL & GAS LEASES FOR HORIZONTAL DRILLING IN A VERTICAL WELL PARADIGM

Selected Oil & Gas Lease Provisions and Horizontal Well Operations

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Introduction

In 1990, it was estimated that only 300 horizontal wells would be drilled worldwide.[1] In 2018, the Railroad Commission of Texas (the "RRC") issued 13,307 new well permits.[2] While it is difficult to distinguish with exact certainty the number of vertical wells versus horizontal wells, a search of horizontal well drilling permits approved by the RRC during 2018 returns 12,263 records. During that same time, approximately 6,577 horizontal oil or gas wells were placed into production.[3] On February 8, 2019, Baker Hughes reported that 923 drilling rigs out of a total 1,049 active rigs are classified as "Horizontal".[4] By even these rudimentary yardsticks, there can be little doubt that horizontal wells have clearly become the norm rather than the exception. Yet, many oil and gas practitioners and their clients continue to advocate for provisions that might be appropriate when considering only vertical means of production, but which are in fact counterproductive to horizontal well development. This paper is intended as an illustration of a practical approach to negotiating oil and gas leases in a horizontal well paradigm.

I. Ethical Considerations in Representing A Client, Understand the Business.

Comment 6 to Rule 1.01 of the Texas Rules of Professional Conduct, Competent and Diligent Representation, advises that "a lawyer should act with competence, commitment and dedication to the interest of the client and with zeal in advocacy upon the client's behalf."[5] In the context of negotiating an oil and gas lease on behalf of a client, the lawyer must understand the client's goals. That is, what benefits does the client expect to receive in exchange for granting an oil and gas lease? Where the client is the mineral owner, in the first instance, the lawyer must understand whether the client is primarily interested in just the bonus paid up front or whether the client is equally or more interested in the long term benefits from successful development and the receipt of royalties over many years. Where the client is the potential operator, the lawyer must understand something about the client's business and how the particular lease

[1] T. Burgess & P. Van De Slijke, *Oilfield Review*, Vol. 2, issue 3, pp. 22-33, 22 (Schlumberger July 31, 1990).
[2] Railroad Commission of Texas, online (https://www.rrc.state.tx.us/media/49754/annual2018.pdf).
[3] This number was obtained through a search utilizing www.Drillinginfo.comwebsite application and is intended to be statistically representative rather than absolutely precise. Different search parameters will necessarily generate different results.
[4] Baker Hughes North America Rig Count, Feb. 8, 2019, online (http://phx.corporate-ir.net/phoenix.zhtml?c=79687&p=irol-reportsother).
[5] Tex. R. Prof. Conduct, 1.01, Comment 6.

transaction fits into the overall plan. In either event, before the lawyer can successfully negotiate an oil and gas lease on behalf of the lawyer's client, the lawyer must understand both sides of the negotiation. As technology has rapidly shifted the direction of oil and gas development from conventional vertical drilling to an industry focused primarily on horizontal drilling in unconventional reservoirs or resource plays, the oil and gas lawyer representing mineral owners is significantly challenged to understand the critical factors important to operators. This challenge is not surprising given the rapid pace of technology development. What follows will attempt to illustrate the current state of factors influencing decision making by oil and gas operators in the hope that this information will be useful to practitioners on both sides of a negotiation.

II. Overview of Drilling & Development Factors.

A. Drilling and Completion Costs.

Like all other business undertakings, companies engaged in oil and gas exploration and production are in business to generate a profit. The significant cash outlay required by the horizontal well paradigm makes elevates cash management to a high level of importance. Generally, one modern horizontal drilling rig can drill an "average" horizontal well in about 20 days from spud to rig release, with the exact days depending upon lateral length, true vertical depth and assuming no unexpected drilling problems. This equates to roughly 18 wells in a one year time period. With the current cost of drilling and completing a typical horizontal well in the Permian Basin running anywhere from $5.5 million to $8.5 million, the capital commitment for a single rig drilling program is between $100 million and $153 million per year.[6] Included in these costs are expenses for moving the drilling rig from well to well. Those costs can easily range from $50,000 to "walk" a drilling rig from one well to another well on the same pad, up to $250,000 to move the rig to another lease several miles away. With 18 rig moves occurring in the space of a year, operators seek to avoid or minimize rig moves wherever possible. In addition, there is a significant benefit to be realized by keeping operations in a single spot as long as possible. Deploying the many service providers, securing water supply and disposal during drilling, and having all personnel, equipment and supplies in one place for as many separate operations as possible creates an intangible efficiency that will almost always result in real dollar cost savings. In order to control costs, there is every incentive to drill multi-well pads and stacked laterals whenever possible.[7]

B. Ideal Development Planning -- Timing of Development Wells.

[6] These figures do not include surface facilities, e.g. tank batteries, production takeaway, measurement and storage, and the like, which will typically cost between $2 million and $4 million per facility depending upon the number of wells to be served, drilling timing and other factors. In this author's experience, surface facilities are no longer included in the drilling and completion authority for expenditure ("AFE"), but are proposed pursuant to a separate, specific AFE.

[7] Drilling and completion costs fluctuate rapidly, both up and down. The values used in this paper are based on current costs and values experienced by the author's employer company, Henry Resources LLC, Midland, Texas.

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