St. Mary's Law Journal

Volume 34 | Number 1 Article 2

1-1-2002

Browning Oil Co. v. Luecke: Has Texas Illuminated a Dark Distinction between Vertical and Horizontal Drilling.

Stephen Taylor Dennis

COMMENTS

BROWNING OIL CO. v. LUECKE: HAS TEXAS ILLUMINATED A DARK DISTINCTION BETWEEN VERTICAL AND HORIZONTAL DRILLING?

STEPHEN TAYLOR DENNIS

I. INTRODUCTION

Horizontal drilling technology continues to revitalize the oil and gas industry by creating opportunities to extract hydrocarbons economically in areas once thought incapable of production.[1] However, with the rapid expansion of horizontal technology use, many of the legal concepts governing oil and gas law have failed to keep pace.[2] For example, questions arise when legal principles adopted for vertical wells are applied to production from horizontal wells.

Recently, the Third Court of Appeals of Texas addressed that issue. In *Browning Oil Co. v. Luecke*,[3] the court determined "how the anti-dilution clauses affect pooling of land traversed by horizontal drainholes."[4] The pooling clause involved was created prior to the horizontal boom meaning the parties most likely did not contemplate the use of horizontal technology.[5] However, the express language of the clause did not exclude horizontal technology.[6] This omission required the court to address

1. *See* Paula C. Murray & Frank B. Cross, *The Case for a Texas Compulsory Unitization Statute*, 23 ST. MARY'S L.J. 1099, 1137 (1992) (expressing that horizontal drilling has turned marginal wells and dry holes into commercially viable producers).

2. *See* Christy M. Schweikhardt, Note, *Horizontal Perspective: Texas Oil & Gas Law in Light of Horizontal Drilling Technology*, 34 S. TEX. L. REV. 329, 334-35 (1993) (explaining that the sudden increase in horizontal drilling has challenged traditional oil and gas law and that there are many unanswered questions as to how horizontal drilling will be regulated); *see also* Patricia A. Moore, *Horizontal Drilling—New Technology That Will Raise New Issues About "Old" Law*, *in* 15 STATE BAR OF TEXAS SECTION REPORT OIL, GAS AND MINERAL LAW, Mar. 1990, at 1, 2 (detailing the many challenges that horizontal drilling will raise regarding established oil and gas principles).

3. 38 S.W.3d 625 (Tex. App.—Austin 2000, pet. denied).

4. Browning Oil Co. v. Luecke, 38 S.W.3d 625, 640 (Tex. App.—Austin 2000, pet. denied).

5. *Id.* at 638.

6. *Id.* at 640.

whether principles applied to vertical wells also applied to horizontal wells.[7]

More specifically, the *Luecke* court addressed the following issues: (1) whether antidilution pooling provisions apply to vertical and horizontal wells when the clause fails to mention either in the lease;[8] (2) whether compliance with field rules precludes the formation of pooled units in accordance with antidilution provisions;[9] (3) whether the implied covenant to develop and protect the pooled unit requires the lessee to exceed their pooling authority under the antidilution clause;[10] (4) whether the rule of capture applies to horizontal wells when a pooling provision is breached entitling the lessor to royalties on all production produced from the illegally pooled unit;[11] and (5) whether public policy dictates that the rule of capture should apply to horizontal wells.[12]

The *Luecke* court generally answered these questions by stating "the rule of capture as applied to vertical wells to claim royalties . . . does not apply to production from horizontal wells."[13] As the court noted, the issue was one of first impression in Texas as well as the first attempt to create a legal distinction between horizontal and vertical wells.[14] The court's opinion is significant because Texas is a major player in horizontal drilling.[15] Therefore, this opinion provides a guide not only for Texas, but one that could potentially influence other states.

---

7. *Id.* at 638, 640.

8. *Id.* at 640.

9. *Id.* at 640-41.

10. *Luecke*, 38 S.W.3d at 641.

11. *Id.* at 643.

12. *Id.* at 646.

13. *Id.* at 649.

14. *Id.*

15. *See* Allen D. Cummings, *Horizontal Drilling—Title and Other Issues*, 11 TEX. OIL & GAS L.J. 51, 52 (1997) (reporting that 3818 horizontal wells were completed in Texas between 1984 and 1995). In Texas, the Austin Chalk formation generates an incredible amount of horizontal drilling activity. *See* Bruce Wells, *Angling for Higher Production; Independent Oil and Gas Producers*, PETROLEUM INDEP., May 1995, at 20, 1995 WL 12510281. In 1994, the Austin Chalk formation accounted for 4,835 of the 5,801 completed horizontal wells in the United States. *Id.* In other words, over 83% of horizontal wells are drilled in Texas's Austin Chalk formation. *Id.* (dividing 4,835 by 5801 to calculate this percentage); *see also* William T. Maloy, *Horizontal Wells Up Odds for Profit in Giddings Austin Chalk*, OIL & GAS J., Feb. 17, 1992, at 68 (reporting that the Texas Austin chalk fields "accounted for 60% of all worldwide horizontal activity in 1990"); G. Alan Petzet, *U.S. Operators Expand Horizontal Programs*, OIL & GAS J., Oct. 22, 1990, at 36 (emphasizing that although many oil and gas producing states have multiple completed horizontal wells, "the South Texas Cretaceous Austin chalk play is not likely to be matched soon by any other horizontal play in number of wells and production").

The purpose of this Comment is to analyze the legal distinction between vertical and horizontal drilling that the *Luecke* court recognized and to provide some drafting recommendations for oil and gas leases that will avoid conflicts caused by these two district drilling techniques. Part II of this Comment discusses the fundamental concepts of oil and gas law that apply to vertical drilling as addressed in *Luecke*. This foundation provides an appropriate lens for analyzing the assertions made by the *Luecke* court. Part III addresses the implications of the *Luecke* court's distinction between vertical and horizontal wells when an antidilution clause is included as part of a voluntary pooling agreement. Part IV proposes that, to avoid future disputes over antidilution clauses, the lessor should try to negotiate an anticipatory breach clause. The anticipatory breach clause would provide stipulated damages to the lessor in the event the lessee breaches the antidilution clause. Additionally, the parties should create a pooling clause that specifies the method of royalty allocation in the event the pooling clause is breached. By specifying the method of royalty production, both parties can better anticipate royalty allocation upon breach. Finally, Part V concludes that in order to avoid needless litigation, antidilution clauses should address not only vertical drilling issues, but horizontal as well.

II. TRADITIONAL OIL AND GAS CONCEPTS

Historically, the primary source of oil and gas extraction dealt with vertical drilling.[16] Consequently, traditional oil and gas concepts focused on the regulation of vertical drilling technology.[17] It is critical, therefore, to have a basic understanding of legal concepts designed for production from vertical wells before analyzing horizontal drilling issues. These vertical concepts include: the practical aspects of vertical drilling, the rule of capture, Railroad Commission of Texas (hereinafter Commission) regulations, pooling requirements, and antidilution clauses.

---

16. *See* 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 9.8, at 245-0 (1995) (emphasizing that the statutory structure regulating oil and gas in Texas was designed to support vertical production).

17. *Id.* Texas rules for oil and gas production were not originally created for horizontal wells. *Id.* In fact, the amendment of Rule 11 and the adoption of Rule 86 in 1990 constituted the first regulatory recognition of horizontal drilling. *Id.* In addition, case law has been very limited in the area of horizontal drilling. Christy M. Schweikhardt, Note, *Horizontal Perspective: Texas Oil & Gas Law in Light of Horizontal Drilling Technology*, 34 S. TEX. L. REV. 329, 335 (1993). One commentator noted that a LEXIS search of "horizontal within 10 drilling" did not locate any cases which examine the legal effect of the different technology and operating practices of horizontal drilling on the rights, duties, and obligations of mineral, royalty, and leasehold owners. *Id.* at 335 n.41.

A. *Vertical Drilling*

As the name describes, vertical drilling is a method of creating an oil and gas well by digging a hole straight into the ground at approximately ninety degrees.[18] Vertical wells are created at various depths and are most productive when they reach broad reservoirs of oil and gas rather than small fractured areas.[19] The advantages of vertical wells over other methods of drilling include low cost and a long regulatory history.[20] However, the disadvantages of vertical wells include the inability to effectively drain oil and gas from certain types of rock formations[21] and a slower pay out rate.[22] For example, vertical wells are not equipped to drain oil and gas from the skinny sections of chalky limestone located in central Texas.[23]

---

18. *See* 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 9.8, at 247 (1992) (providing a diagram showing basic vertical drilling procedures). While there are several methods of vertical drilling, two of the more prevalent methods are percussion and rotary. NATURAL GAS INFO. & EDUC. RES., *Onshore Drilling*, *at* http://www.naturalgas.org/ONSHORE_DRILL.HTM (last visited Aug. 24, 2002). Percussion describes a process by which a large metal bit is repeatedly raised and dropped, thus pounding a hole into the earth. *Id.* Rotary describes a process by which a complex system is used to rotate a drill bit into the earth and dig a hole. NATURAL GAS INFO. & EDUC. RES., *Rotary Drilling*, *at* http://www.naturalgas.org/ROTARY_DRILL.HTM (last visited Sept. 3, 2002).

19. *See* NATURAL GAS INFO. & EDUC. RES., *Rotary Drilling*, *at* http://www.naturalgas.org/ROTARY_DRILL.HTM (last visited Sept. 3, 2002) (explaining that the drilling equipment is adjusted depending on the desired depth of the well).

20. *See* Taylor Reid & John W. Morrison, *Doing the Lateral Lambada: Negotiating the Technical and Legal Challenges of Horizontal Drilling*, 43 ROCKY MTN. MIN. L. INST. 16-1, 16-3 (1997) (explaining that horizontal drilling costs are significantly more than those for vertical wells); *see* Christy M. Schweikhardt, Note, *Horizontal Perspective: Texas Oil & Gas Law in Light of Horizontal Drilling Technology*, 34 S. TEX. L. REV. 329, 335 (1993) (stating that there is virtually no case law addressing the issues of horizontal drilling and implying that most case law and statutory regulation has been devoted to vertical drilling).

21. Peggy Williams, *Chalk Redux*, OIL AND GAS INVESTOR, Mar. 2001, at 100, 101.

22. *See* Christy M. Schweikhardt, Note, *Horizontal Perspective: Texas Oil & Gas Law in Light of Horizontal Drilling Technology*, 34 S. TEX. L. REV. 329, 333 (1993) (pointing out that the payout for a vertical well is generally slower than a horizontal well). Williams and Meyers define payout as "the recovery from production of costs of drilling and equipping a well." HOWARD R. WILLIAMS & CHARLES J. MEYERS, MANUAL OF OIL AND GAS TERMS 788 (9th ed. 1994).

23. *See* Peggy Williams, *Chalk Redux*, OIL AND GAS INVESTOR, Mar. 2001, at 100, 101 (discussing the difficulty of producing commercial volumes in chalky areas that lack significant storage capacity).

B. *The Rule of Capture*

The rule of capture is a bedrock principle in the law of oil and gas.[24] Historically, lacking precedent for oil and gas production, courts turned to the law of "wild animals" to resolve these new controversies. Courts believed that oil and gas was "'supposed to percolate restlessly about under the surface of the earth, even as the birds fly from field to field and the beasts roam from forest to forest.'"[25] While this description of the movement of oil and gas presents a poetic picture, in reality, this belief was never supported by technology. As far back as 1938, A.W. Walker, Jr. stated:

> It is unfortunate that our law as to oil and gas developed before scientific information was available as to the exact nature of oil and gas reservoirs. Throughout all of the earlier decisions are to be found statements indicating the prevailing erroneous opinion that oil and gas in their natural state possessed the quality of free migration.[26]

Even though oil and gas does not move about freely underground, complications still arise because large reservoirs of oil and gas lie beneath the ground.[27] In many instances, this underground lake of oil and gas spreads under several owners' subsurface property.[28] Therefore, when the exploration of oil and gas takes place and a vertical well extracts hydrocarbons, there is great difficulty in determining the origin of the oil and gas produced.[29] The key issue is whether the oil and gas was produced from the reservoir underlying the producer's land or his neighbor's acreage.[30] To resolve these controversies, Texas courts used the rationale that the possessor, like the capturer of wild animals, was entitled to keep the oil and gas.[31]

---

24. *See* Browning Oil Co. v. Luecke, 38 S.W.3d 625, 632 (Tex. App.—Austin 2000, pet. denied) (recognizing that "[t]he rule of capture is an ancient doctrine in oil and gas law that serves as a basis for many statutory and regulatory provisions").

25. *See* A.W. Walker, Jr., *Property Rights in Oil and Gas and Their Effect Upon Police Regulation of Production*, 16 TEX. L. REV. 370, 371 (1938) (quoting Medina Oil Dev. Co. v. Murphy, 233 S.W. 333, 335 (Tex. Civ. App. 1921, writ dism'd).

26. *Id.*

27. *See* 1 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 1, at 5 (1994) (explaining the difficulties of defining possession of oil and gas due to its fugacious nature, which allows the same substance to be removed by multiple property owners).

28. *Id.*

29. *Id.*

30. *See id.* § 1.1, at 6 (indicating that one of the first legal doctrines developed in the oil and gas industry was the rule of capture).

31. *Id.* (citing Bender v. Brooks, 103 Tex. 329, 127 S.W. 168, 170 (1910)); *see also* Brown v. Humble Oil & Ref. Co., 126 Tex. 296, 83 S.W.2d 935, 940 (1935) (using the

While courts later rejected the wild animal analogy, the rule of capture has remained intact, subject to certain limitations discussed later.[32] One legal commentator succinctly stated the premise behind the rule of capture in Texas as when "[t]he owner of a tract of land acquires title to the oil or gas which he produces from wells drilled thereon, though it may be proved that part of such oil or gas migrated from adjoining lands."[33] This definition embraces the underlying policy of encouraging the exploration of gas by assuring that the risk or reward borne by the producer would not be abrogated by a second party who maintained an interest in the common oil and gas pool.[34] In light of this goal, the rule is viewed today as a rule of nonliability and not a rule of property; it does not give a producer the right to drain his neighbor's reservoir, but rather refuses to impose liability for draining oil and gas.[35]

The neighbor's remedy is to benefit from the rule of capture and "go and do likewise."[36] Indeed, because landowners did follow the rule of capture's mandate of "go and do likewise," the rule led to problems. Specifically, wells were spaced too closely, which led to overproduction, damage to reservoirs, and plummeting prices.[37] To address these problems, states imposed regulatory schemes that modified the role of the rule of

---

rationale behind the rule of capture as applied to wild animals to support the rule of capture for possession of oil and gas); Lone Star Gas Co. v. Murchison, 353 S.W.2d 870, 875-78 (Tex. Civ. App.—Dallas 1962, writ ref'd n.r.e.) (reviewing the history of the wild animal analogy in Texas oil and gas jurisprudence).

32. *See* Elliff v. Texon Drilling Co., 146 Tex. 575, 210 S.W.2d 558, 562 (1948) (explaining that no oil and gas producing states follow the *animae naturae* analogy because modern technology has shown that oil and gas generally remain in a static condition); *see also* Stephens County v. Mid-Kansas Oil & Gas Co., 113 Tex. 160, 254 S.W. 290, 292 (1923) (reaffirming the rule of capture and its application to oil and gas law in Texas); Laura H. Burney, *A Pragmatic Approach to Decision Making in the Next Era of Oil and Gas Jurisprudence*, 16 J. ENERGY NAT. RESOURCES & ENVTL. L. 1, 9 (1996) (explaining that the Supreme Court in *Ohio Oil Co. v. Indiana*, 177 U.S. 190 (1900) departed from the use of the wild animal analogy).

33. Robert E. Hardwicke, *The Rule of Capture and Its Implications As Applied to Oil and Gas*, 13 TEX. L. REV. 391, 393 (1935).

34. JOSEPH SHADE, PRIMER ON THE TEXAS LAW OF OIL AND GAS 4-5 (2d ed. 1998).

35. 1 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 1.1, at 6 (1994).

36. Barnard v. Monongahela Natural Gas Co., 65 A. 801, 801-02 (Pa. 1907); Laura H. Burney, *A Pragmatic Approach to Decision Making in the Next Era of Oil and Gas Jurisprudence*, 16 J. ENERGY NAT. RESOURCES & ENVTL. L. 1, 9 (1996).

37. *See* EUGENE O. KUNTZ ET AL., CASES AND MATERIALS ON OIL AND GAS LAW 54 (3d ed. 1998) (citing D. YERGIN, THE PRIZE 86-87 (1990) (explaining that a glut of oil caused the price of oil to drop to three cents per barrel in the summer of 1901)); *see also* Rance L. Craft, *Of Reservoir Hogs and Pelt Fiction: Defending the* Ferae Naturae *Analogy Between Petroleum and Wildlife*, 44 EMORY L.J. 697, 712 (1995) (showing that the rule of capture led to overdrilling and waste during the 1920s).

capture.[38] In Texas, these regulatory schemes are monitored by the Texas Railroad Commission.

C. *Pertinent Texas Railroad Commission Conservation Requirements in Vertical Drilling for Oil and Gas*

The Commission was originally created in 1891 for the express purpose of regulating the railroad industry.[39] However, in 1917, with an increased focus on oil and gas conservation, Texans adopted a constitutional amendment that forever modified the mission of the Commission.[40] The amendment expressly granted the Texas Legislature the ability to enact legislation for "the preservation and conservation of all such natural resources of the State."[41]

In 1919, the Commission was granted the power by the Texas legislature to regulate the conservation of oil and gas.[42] The Commission's new role, however, was coldly received and endured its first test with the discovery of the East Texas Field in 1930.[43] The East Texas Field's oil reservoir was so vast that it produced over a billion barrels of oil during a ten-year period.[44] The existing powers of the Commission were inadequate to meet the mad frenzy of production sending oil and gas prices spiraling downward.[45] In order to bring stability to the industry, Governor Ster-

---

38. *See* Ana Boswell Schepens, Comment, *Prospecting for Oil at the Courthouse: Recovery for Drainage Caused by Secondary Recovery Operations*, 50 ALA. L. REV. 603, 605 (1999) (pointing out that the pure rule of capture encourages wasteful behavior and that a need arose to require state conservation statutes and correlative rights).

39. 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 8.1, at 7 (1989). *See generally* CONSERVATION OF OIL & GAS (Blakely M. Murphy ed., 1972) (explaining the historical concepts of oil and gas conservation throughout the United States); James R. Norvell, *The Railroad Commission of Texas; Its Origin and Relation to the Oil and Gas Industry*, 40 TEX. L. REV. 230 (1961) (providing a detailed account of the historical background of the Railroad Commission of Texas).

40. *See* 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 8.1, at 10 (1996) (commenting on the impact of the amendment to spur the Commission's role over the regulation of oil and gas).

41. TEX. CONST. art. XVI, § 59(a); Frank Douglass & H. Philip Whitworth, Jr., *Practice Before the Oil and Gas Division of the Railroad Commission of Texas*, 13 ST. MARY'S L.J. 719, 721 (1982).

42. Railroad Commission of Texas, *An Informal History Compiled for Its Centennial (April 1991)*, *at* http://www.rrc.state.tx.us/history/centennial/hcentog.html (last visited Aug. 15, 2002).

43. *See id.* (explaining that waste, pollution, and transportation issues gave rise to the need for the Railroad Commission of Texas to intervene and regulate the oil and gas industry).

44. James R. Norvell, *The Railroad Commission of Texas; Its Origin and Relation to the Oil and Gas Industry*, 40 TEX. L. REV. 230, 239 (1961).

45. *Id.*

ling declared martial law until adequate powers could be formulated and delegated to the Commission.[46] In 1931 and 1932, the Texas Legislature passed laws greatly expanding the authority of the Commission.[47] Consequently, the Commission was able to conserve oil and gas by exercising control over drilling and production.[48]

Currently, the Commission maintains enforcement powers to ensure the prevention of oil and gas waste.[49] The pertinent enforcement powers include the ability to control well spacing, well density, production allowables, and voluntary pooling.[50] By creating these regulations, the Commission has decreased the likelihood of waste attributed to drainage, but has also diminished the force of the rule of capture.[51]

1. Rule 37—Statewide Spacing Rule

One of these regulations is the "infamous" Rule 37.[52] This rule stipulates minimum distances between wells and property lines.[53] An opera-

---

46. *Id.*

47. *Id.* at 240. The two pertinent parts of the 1932 Act stated that if:

> the Commission shall find that waste is taking place, or is reasonably imminent, the Commission shall make such rule, regulation or order as in its judgment is reasonably required to correct, prevent or lessen such waste. . . . In the event any such rule, regulation or order which the Commission may adopt provides for the limitation or fixing of the production of crude petroleum oil, or of natural gas from wells producing gas only, in any common pool or portion thereof, the Commission shall distribute, prorate, or otherwise apportion or allocate, the allowable production among the various producers on a reasonable basis.

See id. at 240-41 (citing Act of Nov. 12, 1932, 42d Leg., 4th C.S., ch. 2, § 7, 1931 Tex. Gen. Laws 3).

48. *See* James R. Norvell, *The Railroad Commission of Texas: Its Origin and Relation to the Oil and Gas Industry*, 40 TEX. L. REV. 230, 244 (1961) (citing R.R. Comm'n of Texas v. Rowan & Nichols Oil Co., 310 U.S. 573, 579-80 (1940)). In addition, Justice Frankfurter noted that the Commission has a difficult task of balancing the delicate interest of business and conservation. *Rowan & Nichols Oil*, 310 U.S. at 580. In performing this task, it is expected that the Commission's use of power will be litigated frequently. *Id.* These "cases are only episodes in the evolution of adjustment among private interests and in the reconciliation of all these private interests with the underlying public interest in such a vital source of energy for our day as oil." *Id.*

49. 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 8.3, at 32 (1992).

50. Browning Oil Co. v. Luecke, 38 S.W.3d 625, 633 (Tex. App.—Austin 2000, pet. denied).

51. *Id.*

52. 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 9.3, at 126 (1992).

53. 16 TEX. ADMIN. CODE § 3.37 (2002) (Tex. R.R. Comm'n, Statewide Spacing Rule); 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 9.3, at 126 (1994).

tor is required to comply with the spacing requirements outlined in Rule 37 and must await approval by the Commission before commencing drilling.[54] The area designated by the well-spacing regulation for permit purposes is termed a drilling unit.[55]

Rule 37 was initially promulgated in 1919 and its overall purpose was to reduce both the economic waste created by over-drilling and the physical waste created by excessive and disproportionate rates of drainage where wells were clustered.[56] The original rule prohibited drilling a well within 150 feet of any property line and required that individual wells remain at least 300 feet apart.[57] In modern times, however, distance requirements have expanded, requiring that oil and gas wells be drilled at least 1200 feet apart and 467 feet from any property line.[58] The primary purpose for the expansion of the distance requirements is to encourage the conservation of oil and gas.[59] However, the Commission recognizes that a broad statewide rule is not appropriate in every case, thus allowing modifications to Rule 37 statewide spacing requirements.[60] The Commis-

---

54. 16 TEX. ADMIN. CODE § 3.37(f) (2002) (Tex. R.R. Comm'n, Statewide Spacing Rule). Aside from compliance with Rule 37, an operator must comply with Rules 38, 39 and 40 in order to complete an application for a drilling permit. 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 9.1, at 117 (1996). Without approval of a drilling permit, an operator cannot begin drilling operations. *Id.*

55. HOWARD R. WILLIAMS & CHARLES J. MEYERS, MANUAL OF OIL AND GAS TERMS 319 (9th ed. 1994).

56. 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 9.3, at 126 (1994). Physical waste refers to "the loss of oil or gas that could have been recovered and put to use," e.g., "flaring of gas and storage of oil in earthen pits." HOWARD R. WILLIAMS & CHARLES J. MEYERS, MANUAL OF OIL AND GAS TERMS 1196 (9th ed. 1994). Economic waste is regarded as the unrestricted production of oil in excess of market demand. *Id. See generally* TEX. NAT. RES. CODE ANN. § 85.046(a)(1)-(11) (Vernon 2001) (codifying eleven definitions of the term "waste" in an oil and gas context).

57. 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 9.3, at 127 (1994).

58. 16 TEX. ADMIN. CODE § 3.37(a)(1) (2002) (Tex. R.R. Comm'n, Statewide Spacing Rule).

59. *See* 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 9.3, at 127 (1994) (explaining that 150 feet and 300 feet spacing requirements encouraged over drilling and wasted over 100 million dollars a year in Texas between 1947 and 1952).

60. 16 TEX. ADMIN. CODE § 3.37(a)(1) (2002) (Tex. R.R. Comm'n, Statewide Spacing Rule); *see* Robert E. Hardwicke, *Oil-Well Spacing Regulations and Protection of Property Rights in Texas*, 31 TEX. L. REV. 99, 103 (1952) (acknowledging that it is common practice for the Railroad Commission to make spacing exceptions to meet the varying oil and gas reservoir conditions in Texas); *see also* Gulf Land Co. v. Atl. Ref. Co., 134 Tex. 59, 131 S.W.2d 73, 80 (1939) (defining confiscation for Rule 37 purposes as "depriving the owner or lessee of a fair chance to recover the oil and gas in or under his land, or their equivalents in kind").

sion uses this modification power in one of two ways: (1) field rules and (2) Rule 37 exceptions.[61]

a. Field Rules

Field rules are either temporary or permanent.[62] Temporary field rules are governed by Rule 43 and go into effect after a first well is completed in a new field.[63] Additionally, temporary field rules are established based on the time that it will take to secure data to support permanent rules.[64] Ultimately, permanent field rules are developed using data that establishes the drainage characteristics of the field that is drilled.[65] The effect of temporary or permanent field rules is to supersede the statewide spacing requirements.[66] The penalty for not complying with the special field provisions is the plugging of the well.[67]

b. Rule 37 Exceptions

Rule 37 exceptions are another tool that the Commission uses to modify statewide spacing requirements.[68] These exceptions are granted when it "is necessary to prevent waste or to prevent the confiscation of property."[69] Similar to field rules, Rule 37 exceptions are created in order to

---

61. *See* 16 TEX. ADMIN. CODE § 3.37(d) (2002) (Tex. R.R. Comm'n, Statewide Spacing Rule) (promulgating that special field rules and exceptions apply for the common purpose of preventing waste and preventing confiscation of property); *see also* R.R. Comm'n v. Rio Grande Valley Gas Co., 405 S.W.2d 304, 309 (Tex. 1966) (asserting that the term "field" is defined differently depending on the context, for instance, it could mean "a certain geographical area from which oil is produced or . . . a particular reservoir").

62. *See* 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 9.3, at 132-33 (1994) (providing examples of temporary and permanent field rule requirements).

63. *See id.* (interpreting the statutory requirements of Rule 43); *see generally* 16 TEX. ADMIN. CODE § 3.43 (2002) (Tex. R.R. Comm'n, Application for Temporary Field Rules) (promulgating the statutory framework for temporary field rules).

64. 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 9.3, at 133 (1996). It is possible for temporary rules to expire, thus reverting the spacing requirements to existing statewide rules. *Id.* However, it is also possible to reissue temporary rules until adequate information can be analyzed establishing permanent field rules. *Id.*

65. *Id.*

66. Frank Douglass & H. Philip Whitworth, Jr., *Practice Before the Oil and Gas Division of the Railroad Commission of Texas*, 13 ST. MARY'S L.J. 719, 722 (1982).

67. *See id.* at 723 (citing 16 TEX. ADMIN. CODE § 3.37(e) (2002) (Tex. R.R. Comm'n, Statewide Spacing Rule)).

68. 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 9.4, at 141 (1994).

69. Gulf Land Co. v. Atl. Ref. Co., 134 Tex. 59, 131 S.W.2d 73, 80 (1939). *See generally* Frank Douglass & H. Philip Whitworth, Jr., *Practice Before the Oil and Gas Division of*

maintain efficient use of oil and gas reserves.[70] Unlike field rules, however, Rule 37 exceptions are capable of modifying both statewide rules and field rules.[71]

2. Rule 38—Well Densities

While Rule 37 spacing requirements outline the minimum distances between oil and gas wells and property lines, and oil and gas wells from other oil and gas wells, Rule 38 density requirements specify the minimum acreage encompassing a single oil and gas well.[72] Currently, the statewide density requirement is a minimum of forty acres per well.[73] The purpose of the density regulation is to ensure conservation of the reservoir by maintaining efficient drainage.[74]

As with well spacing requirements, operators cannot drill a well unless they comply with the density requirements.[75] However, field rules and Rule 38 exceptions may come into play and modify the density requirements.[76] Generally, the Commission grants exceptions at its discretion to prevent waste and confiscation of property.[77] In deciding whether to grant an exception, the Commission evaluates the efficient drainage area of the unit and the appropriate density acreage. To determine the above

---

the Railroad Commission of Texas, 13 ST. MARY'S L.J. 719, 721-32 (1982) (providing a detailed discussion on Rule 37 exceptions).

70. *See* JOSEPH SHADE, PRIMER ON THE TEXAS LAW OF OIL AND GAS 90 (2d ed. 1998) (recognizing that geological reasons, prevention of drainage, and the protection of small tract owners are circumstances that will likely be sufficient to allow a Rule 37 exception permit).

71. *See* 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 9.4, at 141 (1994) (stating that Rule 37 "[e]xceptions are often sought to field rules rather than to the statewide rules").

72. *See* 16 TEX. ADMIN. CODE §§ 3.37, 3.38 (2002) (describing the well spacing and acreage requirements); 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 9.3, at 129 (1991).

73. 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 9.3, at 129 (1991).

74. *Id.*

75. 16 TEX. ADMIN. CODE § 3.38(b)(1) (2002) (Tex. R.R. Comm'n, Well Densities).

76. *See* 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 9.3, at 129 (1991) (explaining that an operator must either be granted an exception to drill on less than the required acreage or pool adequate acreage together to meet the requirement).

77. *Id.* Exceptions may also be given when surplus acreage exists and tolerance provisions allow the excess acreage to increase the production allowable. 16 TEX. ADMIN. CODE § 3.38(c)(1)-(3) (2002) (Tex. R.R. Comm'n, Well Densities).

factors, the Commission looks at porosity, permeability, and fracturing of the unit.[78]

3. Proration Units and Production Allowable

Proration units are divisions among the various fields across the state containing producing wells and are created in order to determine the amount of production allowable attributed to a specific well.[79] In creating a proration unit, the operator assigns specific acres to the unit and certifies that these acres are productive.[80] Subsequently, allocation formulas are used to determine the production allowable.[81] The purpose of proration units is to protect correlative rights and prevent waste by creating an efficient rate of production.[82] Because proration units alone were not effective in achieving this goal, they are now coupled with spacing and density requirements.[83]

The Commission recognized that not all field reservoirs are alike and has implemented two systems determining a production allowable: (1) Maximum Efficient Rate of Production (MER) and (2) market demand.[84] MER is based on engineering studies of a particular field and considers factors such as rock porosity, permeability, and thickness to determine the highest rate of production that is allowable without damaging the specific field.[85] The Commission uses this allocation formula when demand for oil and gas is high.[86] However, when conditions are more stable the Commission uses the market demand system, which restricts the production of oil and gas to meet the demand of the market.[87] In

78. TEX. NAT. RES. CODE ANN. § 86.089(c) (Vernon 2001); 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 9.3, at 129 (1991). "[P]orosity measures the capacity of the rock to hold oil, gas, and water." HOWARD R. WILLIAMS & CHARLES J. MEYERS, MANUAL OF OIL AND GAS TERMS 824 (9th ed. 1994). Permeability measures "the resistance offered by rock to the movement of fluids through it." *Id.* at 794. Fracturing is "[a] process of opening up underground channels in hydrocarbon-bearing formations, by force, rather than by chemical action such as acidizing." *Id.* at 432.

79. 16 TEX. ADMIN. CODE § 3.38(a)(3) (2002) (Tex. R.R. Comm'n, Well Densities); ROBERT E. SULLIVAN, HANDBOOK OF OIL AND GAS LAW § 163, at 311 (1955).

80. 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 10.1, at 259-0 (1994).

81. *Id.*

82. ROBERT E. SULLIVAN, HANDBOOK OF OIL AND GAS LAW § 163, at 311 (1955).

83. *Id.* at 312.

84. TEX. NAT. RES. CODE ANN. § 86.089(c) (Vernon 2001); 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 10.1, at 255 (1991).

85. 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 10.1, at 255 (1991).

86. *Id.*

87. *Id.* at 256.

other words, if a well's MER is 50,000 barrels a day, but its market demand is only 30,000 barrels, then the operator will only be allowed to produce 30,000 barrels.

4. Pooled Units

In addition to spacing and density rules and production allowables, the Commission also exercises jurisdiction over pooling. Pooling is the joining of small pieces of land to create acreage that is sufficient in size to obtain a well permit.[88] Generally, a lessee combines properties leased from multiple lessors to create a pooling unit.[89] Pooling is often wrongly confused with unitization, which refers to the combination of field-wide interests, rather than an individual lessor's interest.[90]

In addition, pooling cannot occur unless it is contractually expressed either through a community lease, pooling agreement, or through the Mineral Interest Pooling Act.[91] For example, pooling will occur if the following express language is included in the lease:

---

88. HOWARD R. WILLIAMS & CHARLES J. MEYERS, MANUAL OF OIL AND GAS TERMS 821 (9th ed. 1994). In order to obtain a drilling permit, a producer must comply with Rule 37 (Statewide Spacing Requirements) and Rule 38 (Well Densities), unless special field wide rules dictate other requirements. 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 9.4, at 143 (1994). Thus, a producer who creates a pooled unit will also be required to follow spacing and density requirements or special field-wide rules provided no exceptions are applicable. *Id.* at 144.

89. RICHARD W. HEMINGWAY, THE LAW OF OIL AND GAS § 7.13, at 427 (3d ed. 1991).

90. *See id.* (stating that unitization is utilized for operations with "the purpose of causing products to migrate across lease lines"). Unitization is generally used for secondary-recovery while pooling is used for primary drilling to meet well-spacing requirements. 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 11.1, at 428 (1989).

91. 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 10.1, at 259-1 (1994); *see also* Knight v. Chicago Corp., 144 Tex. 98, 188 S.W.2d 564, 566 (1945) (holding that absent express authority or consent from lessor to lessee, the lessee has no right to pool the lessor's estate interests with the interests of other lessors); JOSEPH SHADE, PRIMER ON THE TEXAS LAW OF OIL AND GAS 101 (2d ed. 1998) (defining community lease, separate pooling agreement, and lease pooling clause). A community lease is another pooling interest aside from an express pooling agreement:

> A community lease may arise from the execution of a single lease by the several owners of separate tracts or by the execution of separate but identical leases by the owners of separate tracts individually when each lease purports to cover the entire consolidated acreage. The usual result of the execution of a community lease is to cause the apportionment of royalties in proportion to the interests owned in the entire leased premises as a consequence of the judicially ascertained intent of the parties.

HOWARD R. WILLIAMS & CHARLES J. MEYERS, MANUAL OF OIL AND GAS TERMS 184 (9th ed. 1994).

> Lessee is granted the right, power and option at any time or times to pool and combine the land covered by this lease or any portion thereof with any other land, lease or leases in the vicinity thereof when in the Lessee's judgment it is necessary or advisable to do so. Such pooling may include all oil, gas and other minerals or may be limited to one or more such substances and may extend to all such production or may be limited to any one or more zones or formations.[92]

In oil and gas jurisprudence, express language or statutory mandates are not the only way to create pooling agreements. Judicially imposed or equitable pooling can occur even though the parties did not contemplate combining their mineral interests.[93] However, the doctrine of equitable pooling is not recognized in Texas.[94] Therefore, without the doctrine of equitable pooling, Texas mineral interest owners rely on written agreements known as pooling clauses.

Historically, pooling clauses developed in order to maximize the benefits of an oil and gas lease between the lessor and lessee.[95] Often, if an operator was unable to meet the Commission's acreage minimums to prevent waste and protect correlative rights, voluntarily pooling land was a positive option.[96] For example, if a lessee has a twenty-five-acre lease

---

92. HOWARD R. WILLIAMS & CHARLES J. MEYERS, MANUAL OF OIL AND GAS TERMS 822 (9th ed. 1994).

93. J. Patrick Murphy, Address at the 41 Annual Institute for Professional Landmen (Apr. 13, 2000) (on file with the *St. Mary's Law Journal*); *see also* HOWARD R. WILLIAMS & CHARLES J. MEYERS, MANUAL OF OIL AND GAS TERMS 355 (9th ed. 1994) (explaining that equitable pooling derived from "a series of Mississippi cases, which held that spacing regulations based on general conservation statutes, lacking compulsory pooling provisions, had the legal effect of pooling the land included in a drilling unit").

94. Ryan Consol. Petroleum Corp. v. Pickens, 155 Tex. 221, 285 S.W.2d 201, 207 (1955).

95. *See* J. Patrick Murphy, Address at the 41 Annual Institute for Professional Landmen (Apr. 13, 2000) (on file with the *St. Mary's Law Journal*) (describing the inefficient drilling practices that were encouraged by the common law "rule of capture").

96. *Id.*; *see also* RICHARD W. HEMINGWAY, THE LAW OF OIL AND GAS § 7.13, at 428 (3d ed. 1991) (discussing voluntary formation of drilling units to ensure sufficient size to comply with spacing requirements and the provisions in lease pooling royalties and working interests). Another consideration is whether the pooling is voluntary or compulsory. *Id.* The scope of this Comment deals with voluntary pooling, which is the consensual transaction between two parties to pool their interests. J. Patrick Murphy, Address at the 41 Annual Institute for Professional Landmen (Apr. 13, 2000) (on file with the *St. Mary's Law Journal*). However, Texas does have a compulsory pooling provision. TEX. NAT. RES. CODE §§ 102.001-.112 (Mineral Interest Pooling Act) (Vernon 2001). *See generally* Ernest E. Smith, *The Texas Compulsory Pooling Act*, 43 TEX. L. REV. 1003 (1965) (addressing the Mineral Interest Pooling Act and explaining its structure and implications on the future of oil and gas leases).

and a fifteen-acre adjoining lease, both leases independently may not satisfy the density requirement set out by the Commission. However, if the two leases are combined, the forty-acre tract should be compliant with density regulations and allow the commencement of drilling.[97]

A pooling agreement is generally created with an express pooling clause.[98] A pooling clause normally grants the lessee the power to combine all or part of the leased acreage to create a single production unit.[99] An express pooling clause commonly covers the following areas: (1) authority and extent to which a lessee may modify the lessor's rights by pooling tracts of land; (2) designation of acreage pooled; (3) what effects production will have within the unit on the lease; and (4) allocation of production.[100]

Under an express pooling clause, lands are generally designated as pooled when a "Declaration of Pooling" is executed and filed.[101] The declaration allows a cross-conveyance of interests between the parties, which creates a joint interest in the pooled unit.[102] In addition, production from any part of the unit is deemed as production on all of the tracts of land forming the unit.[103] The consequences of this approach regarding

---

97. *See* 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 9.3, at 129 (1991) (noting that current density who require a minimum of forty aces per well). *But see id.* § 9.4, at 145 (noting that there are times when the strict enforcement of the statewide spacing rule of forty acres would be unrealistic). Although pooling to meet governmental regulations is a dominating factor in the decision to combine tracts of land, other reasons exist, e.g., peculiar geological formations, better use of scarce equipment, and controlling the density of drilling. 4 EUGENE KUNTZ, A TREATISE ON THE LAW OF OIL AND GAS § 48.3, at 187 (1990). An additional factor that propelled the voluntary pooling agreement into acceptance was the need during World War II to conserve steel by reducing the amount of wells drilled. Allen D. Cummings, *Pooling Issues—Avoiding Pitfalls*, *in* STATE BAR OF TEXAS ADVANCED OIL, GAS AND MINERAL LAW COURSE E, E-1 (1995). This conservation effort allowed for surplus steel to help in the war effort abroad. *Id.*

98. RICHARD W. HEMINGWAY, THE LAW OF OIL AND GAS § 7.13, at 429 (3d ed. 1991).

99. 4 EUGENE KUNTZ, A TREATISE ON THE LAW OF OIL AND GAS § 48.3, at 187-88 (1990). Again, an express pooling clause is based on a voluntary agreement. J. Patrick Murphy, Address at the 41 Annual Institute for Professional Landmen (Apr. 13, 2000) (on file with the *St. Mary's Law Journal*). Other examples of pooling may arise under the Mineral Interest Pooling Act. *Id.*

100. RICHARD W. HEMINGWAY, THE LAW OF OIL AND GAS § 7.13, at 430-31 (3d ed. 1991).

101. *Id.* at 440.

102. *See id.* at 440-41 (explaining that Texas views pooling as an actual cross-conveyance of title unless express language in the agreement shows otherwise).

103. Mathews v. Sun Oil Co., 425 S.W.2d 330, 333 (Tex. 1968); Sabre Oil & Gas Corp. v. Gibson, 72 S.W.3d 812, 818 (Tex. App.—Eastland 2002, pet. denied); Shown v. Getty Oil Co., 645 S.W.2d 555, 560 (Tex. App.—San Antonio 1982, writ ref'd).

production on a pooled unit are three-fold: (1) delay rentals on other tracts of land within the unit are excused;[104] (2) the secondary term on other tracts of land within the unit are extended;[105] and (3) royalties are distributed based on a pro rata acreage basis even if the tract owner's acreage did not produce oil or gas.[106]

Naturally, the terms of an oil and gas lease can vary widely regarding the three factors above, thus different lease provisions will create different pooling outcomes.[107] Therefore, to accomplish the desired pooling objectives, parties should draft a pooling clause addressing their goals.[108] One clause parties may use to meet their pooling intentions is the antidilution clause.

5. Antidilution Clauses

There is little case law or reference material describing the characteristics of an antidilution clause in an oil and gas lease.[109] As *Luecke* described, the purpose of an antidilution clause is to ensure that the lessor's

---

104. *See* Standard Oil Co. v. Donald, 321 S.W.2d 602, 605 (Tex. Civ. App.—Fort Worth 1959, writ ref'd n.r.e.) (quoting Southland Royalty Co. v. Humble Oil & Ref. Co., 151 Tex. 324, 249 S.W.2d 914, 916 (1952)).

105. *See* Spradley v. Finley, 157 Tex. 260, 302 S.W.2d 409, 412 (1957) (supporting the proposition that production from one tract of a pooled unit extends the lease beyond the primary term for all tracts within the pooled unit); *see also Southland*, 249 S.W.2d at 916 (detailing various legal consequences involved in a unitized lease where there is no contrary express agreement).

106. *Southland*, 249 S.W.2d at 916; *see* Mengden v. Peninsula Prod. Co., 544 S.W.2d 643, 647-48 (Tex. 1976) (noting that "a consequence of pooling is apportionment of production regardless of where the well is located").

107. *See* Jones v. Killingsworth, 403 S.W.2d 325, 327 (Tex. 1965) (holding that the pooling clause of an oil and gas lease provides the ultimate structure of how pooling will be implemented between parties).

108. *See* Doug J. Dashiell, Address at the 25 Annual Oil, Gas and Mineral Law Institute (Mar. 26, 1999) (copy on file with the *St. Mary's Law Journal*) (recognizing the different issues that are involved in a pooling clause and emphasizing the importance of a well drafted pooling clause).

109. After a thorough search of primary and secondary sources, little information is available on the use of antidilution clauses in oil and gas leases. For example, the following treatises provided no information on an antidilution clause: EARL A. BROWN ET AL., THE LAW OF OIL AND GAS LEASES (2d ed. 2000); 4 EUGENE O. KUNTZ, A TREATISE ON THE LAW OF OIL AND GAS (1990); 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS (1991); HOWARD R. WILLIAMS & CHARLES J. MEYERS, MANUAL OF OIL AND GAS TERMS (9th ed. 1994). However, the 2001 Cumulative Pocket Part of WEST'S TEXAS FORMS basically takes the interpretation of an antidilution clause from the *Browning Oil* court and states that "[a]n anti-dilution clause is intended to protect the lessor against the possibility that only small portions of his/her property will be included in a pooled unit." 6 JOHN S. LOWE, WEST'S TEXAS FORMS: MINERALS, OIL & GAS § 3.65 cmt. (3d ed. Supp. 2001).

share of royalties in production is not reduced to a negligible amount by including only a small portion of lessor's acreage in a large pooled unit.[110] In other words, a lessor may include in the oil and gas lease a provision that requires the pooled unit to include a minimum percentage of lessor's land.[111] In effect, this antidilution provision guarantees that if production occurs on the pooled unit, the lessor will receive adequate royalties according to the agreement between the two parties.

III. *Browning Oil Co. v. Luecke*: Traditional Oil and Gas Principles Not Applied to Horizontal Wells

The *Luecke* case provides an appropriate setting to examine how the traditional oil and gas rules reviewed above apply to horizontal drilling. This section explores the *Luecke* opinion's assertions and discusses how their implications can offer guidance in drafting leases addressing both horizontal and vertical wells.

A. *A Definition of Horizontal Drilling*

As the name suggests, vertical drilling is a method of creating an oil and gas well by digging a hole straight into the ground at approximately ninety degrees.[112] In contrast, horizontal drilling requires drilling vertically, then deviating the drill bit toward a production target point.[113] The

---

110. Browning Oil Co. v. Luecke, 38 S.W.3d 625, 637 (Tex. App.—Austin 2000, pet. denied).

111. *Id.* The following is an example of an antidilution provision: "if any pooled unit is created with respect to any well drilled on the land covered hereby, at least sixty percent (60%) of such pooled unit shall consist of the land covered hereby." *Id.*

112. *See* 2 Ernest E. Smith & Jacqueline Lang Weaver, Texas Law of Oil and Gas § 9.8, at 247 (1994) (providing an illustration of vertical drilling); Natural Gas Info. & Educ. Res., *Onshore Drilling*, *at* http://www.naturalgas.org/ONSHORE_DRILL.HTM (last visited Aug. 24, 2002) (reporting that cable-tool, or percussion drilling, is accomplished by the continual raising and dropping of a metal bit, pounding a hole into the ground)

113. 2 Ernest E. Smith & Jacqueline Lang Weaver, Texas Law of Oil and Gas § 9.8, at 247 (1992). Horizontal wells typically come in three forms: short radius, medium radius and long radius wells. Allen D. Cummings, *Horizontal Drilling—Title and Other Issues*, 11 Tex. Oil & Gas L.J. 51, 52 (1997). Commonly, horizontal wells that are drilled onshore use the medium radius technique. *Id.* Medium radius wells go from vertical to horizontal at the rate of ten to twenty degrees per 100 feet, requiring approximately 250 to 600 feet to attain horizontal drilling. *Id.* However, new techniques are being developed. For example:

> A new technique finding application in horizontal drilling is the use of continuous coiled tubing, rather than conventional 30-foot sections of drill pipe. The drill string is replaced by a continuous steel tube, which is flexible enough to be coiled up on a reel several feet in diameter, carrying a drill bit driven by a downhole motor. When it is

point where the deviation begins is called the kickoff point.[114] Deviated drilling takes place from the kickoff point until the drilling angle has reached 180 degrees and is generally parallel with the surface.[115] The penetration point is termed as the point at which the drill bit hits 180 degrees and begins horizontal drilling.[116]

Technically, horizontal drilling takes place from the penetration point to the terminus.[117] The area between the penetration point and terminus is the horizontal drainhole, while the distance between the two points is defined as the horizontal drainhole displacement.[118] After successful drilling has taken place, a horizontal drainhole well is created.[119] The Commission has defined a horizontal drainhole well as "[a]ny well that is developed with one or more horizontal drainholes having a horizontal drainhole displacement of at least 100 feet."[120]

---

time to change the bit, it can be drawn up by rewinding the tubing onto the reel, thus reducing the time ordinarily needed for a drill bit trip on a conventional rotary rig.

Id.

114. Allen D. Cummings, *Horizontal Drilling—Title and Other Issues*, 11 TEX. OIL & GAS L.J. 51, 52 (1997).

115. *Id.*; *see* HOWARD R. WILLIAMS & CHARLES J. MEYERS, MANUAL OF OIL AND GAS TERMS 285 (9th ed. 1994) (defining deviation as "[a] divergence or deflection from the vertical in the drilling of a well").

116. 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 9.8, at 247 (1992). *See also* 16 TEX. ADMIN. CODE § 3.86(a)(5) (2002) (Tex. R.R. Comm'n, Horizontal Drainhole Wells) (defining "penetration point" as "[t]he point where the drainhole penetrates the top of the correlative interval").

117. 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 9.8, at 247 (1992) (providing a graphical display of the terminus and its relation with other distinguishing points on a horizontal well). The terminus is defined as "[t]he farthest point required to be surveyed along the horizontal drainhole from the penetration point and within the correlative interval." 16 TEX. ADMIN. CODE § 3.86(a)(6) (2002) (Tex. R.R. Comm'n, Horizontal Drainhole Wells).

118. 16 TEX. ADMIN. CODE § 3.86(a)(2)-(3) (2002) (Tex. R.R. Comm'n, Horizontal Drainhole Wells); 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 9.8, at 247-48 (1992); Allen D. Cummings, *Horizontal Drilling—Title and Other Issues*, 11 TEX. OIL & GAS L.J. 51, 53 (1997).

119. 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 9.8, at 247 (1992).

120. 16 TEX. ADMIN. CODE § 3.86(a)(4) (2002) (Tex. R.R. Comm'n, Horizontal Drainhole Wells). *See generally* Jennifer K. Lipinski, *Legal and Regulatory Implications from Horizontal Drilling and Completion*, *in* STATE BAR OF TEXAS ADVANCED OIL, GAS, AND MINERAL LAW COURSE P (1989) (giving a detailed explanation of the various legal aspects that pertain to horizontal drilling).

B. *Historical Development of Horizontal Drilling in Texas*

Horizontal drilling is not a new concept. In fact, the basic technology was patented in 1919[121] and first utilized in Texas in 1929.[122] However, the technology of horizontal drilling did not fully advance until 1984 when the Atlantic Richfield Corporation (ARCO) drilled a horizontal well in Texas with a drainhole displacement of over 1,000 feet.[123] Aside from ARCO's great technological advance in 1984, additional factors have led to an increased use of horizontal technology. For example, in central Texas it has been said that "the Chalk play is undergoing yet another revival."[124] The importance of this statement is that the chalky limestone of central Texas provides an abundance of oil and gas.[125] In addition, the disputed lease in *Luecke* is geographically located in the Austin Chalk formation.[126] Unfortunately, chalky limestone is not very conducive to vertical drilling because it is highly fractured leaving only very thin oil and gas reservoirs.[127] Consequently, in the 1970s and early 1980s, oil and gas producers were unable to generate commercial volumes because the primary method used to extract oil and gas was vertical drilling.[128]

In search of profits, oil and gas producers turned to horizontal drilling techniques.[129] This technology proved to be successful, but was not widely developed because the oil and gas prices of the 1990s were low.[130] However, as oil and gas prices began to increase throughout the 1990s, a renewed enthusiasm to implement horizontal drilling techniques arose.[131]

---

121. Allen D. Cummings, *Horizontal Drilling—Title and Other Issues*, 11 TEX. OIL & GAS L.J. 51, 51 (1997); Christy M. Schweikhardt, Note, *Horizontal Perspective: Texas Oil & Gas Law in Light of Horizontal Drilling Technology*, 34 S. TEX. L. REV. 329, 329 (1993).

122. *See* Rex Burford, *Legal and Developmental Issues Involving Horizontal Drilling in the Appalachian Basin*, 12 E. MIN. L. INST. § 21.01, at 21-23 (1991).

123. Christy M. Schweikhardt, Note, *Horizontal Perspective: Texas Oil & Gas Law in Light of Horizontal Drilling Technology*, 34 S. TEX. L. REV. 329, 329 (1993).

124. Peggy Williams, *Chalk Redux*, OIL AND GAS INVESTOR, Mar. 2001, at 100, 103.

125. *See id.* at 101 (providing examples of several operators who have successfully drilled in the Austin Chalk formation and its sister fractured limestone plays); *see also* Jason J. Lundquist, *Historical Development of Stratigraphic Concepts*, ¶ 2, *at* http://home.houston.rr.com/lundquist/Field_Trip/Information/Extra.html (describing the chalky limestone of central Texas) (last visited Aug. 24, 2002).

126. *See* Browning Oil Co. v. Luecke, 38 S.W.3d 625, 636 n.11 (Tex. App.—Austin 2000, pet. denied) (explaining that the Luecke's land in the disputed lease is located "in the Giddings (Austin Chalk 3) Field").

127. Peggy Williams, *Chalk Redux*, OIL AND GAS INVESTOR, Mar. 2001, at 100, 101.

128. *Id.*

129. *Id.*

130. *Id.*

131. *Id.* The posted price per barrel for West Texas Intermediate crude oil has varied dramatically from 1970-2000. OIL & GAS JOURNAL ENERGY DATABASE, POSTED PRICE

For example, while only twenty-nine horizontal wells were completed worldwide in 1987, over 5,000 horizontal well permits were issued by 1996 in Texas, which resulted in 3,818 completed wells.[132]

Another factor spurring the use of horizontal drilling is its accessibility to the independent producer.[133] Previously, only major producers could afford horizontal drilling, but improved drilling efficiency, through enhanced formation data recovery, has extended the availability of this technique to producers with fewer resources.[134] In addition, reduced operator drilling time and improved hole stability for longer periods of time has augmented accessibility to smaller independent producers.[135] Consequently, the number of operators drilling horizontal wells has risen.[136]

C. *Statewide Rule 86 and Other Commission Rules Involved in Horizontal Drilling*

In response to the marked increase in horizontal drilling, the Commission enacted "Statewide Rule 86."[137] According to the Commission, the

---

PER BARREL FOR WEST TEXAS INTERMEDIATE CRUDE OIL, 1970-2000, *at* http://www.mrm.mms.gov/Stats/pdfdocs/w_texas.pdf (last visited Aug. 13, 2002). It maintained a low of $3.35 in 1970 to a high of $37.38 in 1980. *Id.* From 1986 to 1999, the average annual price per barrel did not rise above $24 per barrel. *Id.* However, the average annual price per barrel in 2000 was $29.04. *Id.* The price of United States natural gas at the wellhead has also varied dramatically. U.S. DEP'T OF ENERGY, U.S. NATURAL GAS PRICES, *at* http://www.eia.doe.gov/oil_gas/natural_gas/info_glance/prices.html (last visited Aug. 13, 2002). In 1976, the high price per one thousand cubic feet (Mcf) was $0.64, while the high price per Mcf in the 1980s was $2.71. *Id.* The 1990s varied from a low of $1.26 per Mcf to a high of $3.26 per Mcf. *Id.* The new millennium, however, has brought increasingly higher prices. *Id.* The low has been $2.14, while the high has hit $8.06. *Id.*; *see also* Judon Fambrough, *Letter of the Law Oil and Gas Law Cases*, TIERRA GRANDE, Jan. 2001, http://recenter.tamu.edu/tgrande/vol8-1/1445.html (noting that the recent rise in prices for oil and gas has caused a revival in "oil and gas exploration and production").

132. Allen D. Cummings, *Horizontal Drilling—Title and Other Issues*, 11 TEX. OIL & GAS L.J. 51, 51-52 (1997).

133. Bruce Wells, *Angling for Higher Production; Independent Oil and Gas Producers*, PETROLEUM INDEP., May 1995, at 20, *available at* 1995 WL 12510281.

134. *Id.*

135. *Id.*; *see also* Michael Dan Reese, *The Evolution of Horizontal Drilling Regulations in Texas*, 5 TEX. OIL & GAS L.J. 1, 1 (1990) (indicating that poor economic conditions have not dampened the success of horizontal drilling because the technology has resulted in considerably reduced costs).

136. *See* Bruce Wells, *Angling for Higher Production; Independent Oil and Gas Producers*, PETROLEUM INDEP., May 1995, at 20, *available at* 1995 WL 12510281 (expressing that independent operators are starting to focus their efforts on horizontal drilling projects).

137. *See* 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 9.8, at 245-0 (1995) (indicating that the horizontal boom was met with statewide rules that were intended for vertical drilling, thus, the rules had to be amended to accom-

purpose of promulgating Rule 86 was to promote "the orderly development of oil and gas reservoirs" utilizing horizontal drainholes.[138] Statewide Rule 86, governing horizontal drainhole wells, was adopted by the Commission and became effective June 1, 1990.[139] Rule 86 is the guideline for drilling and producing oil and gas from horizontal wells.[140] As with vertical wells, horizontal wells must also comply with Rule 37 (Statewide Spacing Rule) and Rule 38 (Well Densities Rule).[141] Moreover, horizontal wells may also be subject to special field rules, which modify spacing, density, and production requirements.[142]

Although Rule 86 specifically addresses horizontal wells, Rule 11, Rule 37, and Rule 38 were drafted with vertical wells in mind. The Commission has addressed this disparity. For example, Rule 11 requires that "[a]ll wells shall be drilled as nearly vertical as possible."[143] Clearly, a horizontal well's entire purpose is to create production by initially drilling vertically, but continually deviating until the drilling becomes horizontal.[144] Thus, under the original Rule 11, horizontal drilling would be in conflict with the Commission's regulations.[145] Therefore, the Commission amended Rule 11 and now permits horizontal drainholes, provided

---

modate horizontal drilling); *see also* Michael Dan Reese, *The Evolution of Horizontal Drilling Regulations in Texas*, 5 TEX. OIL & GAS L.J. 1, 5 (1990) (emphasizing that the increase in horizontal drilling was the primary purpose that instigated the Commission to develop procedures for issuing horizontal drainhole drilling permits).

138. Michael Dan Reese, *The Evolution of Horizontal Drilling Regulations in Texas*, 5 TEX. OIL & GAS L.J. 1, 9 (1990).

139. Sel Graham, Jr., *Railroad Commission Issues: Horizontal Drilling*, 6 TEX. OIL & GAS L.J. 89, 91 (1992).

140. 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 9.8, at 245-0 (1995).

141. 16 TEX. ADMIN. CODE § 3.86(b)(3), (c) (2002) (Tex. R.R. Comm'n, Horizontal Drainhole Wells); 2 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 9.8, at 245-1 to 247 (1997).

142. Allen D. Cummings, *Horizontal Drilling—Title and Other Issues*, 11 TEX. OIL & GAS L.J. 51, 54 (1997) (stating that thirteen fields used special field rules for horizontal drilling in 1997). The fields were located in Brazos, Burleson, Fayette, Frio, Georgetown, Gonzales, Grimes, Jasper, Lee, Leon, Madison, Newton, Nolan, Polk, Sabine, San Augustine, Wilson, and Winkler counties. *Id.*

143. 16 TEX. ADMIN. CODE § 3.11(a) (2002) (Tex. R.R. Comm'n, Inclination and Directional Surveys Required).

144. *See* Allen D. Cummings, *Horizontal Drilling—Title and Other Issues*, 11 TEX. OIL & GAS L.J. 51, 52 (1997) (indicating that a horizontal well starts vertically, but by using special equipment, the well bore is turned in to drill horizontally).

145. *See* 15 Tex. Reg. 644 (1990), *adopted* 15 Tex. 2634 (1990) (codified at 16 TEX. ADMIN. CODE § 3.11) (approving an amendment that permits the drilling of a horizontal drainhole as "an acceptable basis for intentionally deviating a well").

that a special permit is obtained and a directional survey is filed with the commission.[146]

Additionally, Rule 86 modifies Rule 37 by stating that the surface location of the well is not important for determining spacing requirements.[147] In contrast, Rule 86 requires that the point at which the horizontal well penetrates the correlative interval must be used as the basis to determine compliance with spacing requirements.[148] Therefore, where Rule 37 requires the vertical well itself to be no closer than 1,200 feet from any other well and at least 467 feet from any property line, Rule 86 requires that the penetration point at the correlative interval be no closer than 1,200 feet from any other well and at least 467 feet from any property line.[149]

Finally, the density requirements under Rule 38 remain unchanged for purposes of determining the minimum acreage requirements for a well.[150] In other words, a proration unit for a vertical well is initially the same size as a horizontal well.[151] However, Rule 86 preempts Rule 38 and maintains that as the horizontal displacement of a well becomes larger, the proration unit can be increased in size.[152] As a result, a horizontal

---

146. 16 TEX. ADMIN. CODE § 3.11(c) (2002) (Tex. R.R. Comm'n, Inclination and Directional Surveys Required); Allen D. Cummings, *Horizontal Drilling—Title and Other Issues*, 11 TEX. OIL & GAS L.J. 51, 54 (1997). A directional survey is "[a] well survey that measures the degree of departure of a hole from the vertical and the direction of departure. Thus, it may be determined whether a well trespasses on the land of another, for the bottom may be accurately determined." HOWARD R. WILLIAMS & CHARLES J. MEYERS, MANUAL OF OIL AND GAS TERMS 289 (9th ed. 1994).

147. Allen D. Cummings, *Horizontal Drilling—Title and Other Issues*, 11 TEX. OIL & GAS L.J. 51, 54 (1997).

148. *Id.* at 53. Correlative interval is defined as "[t]he depth interval designated by the field rules, by new field designation, or, where a correlative interval has not been designated by the commission, by other evidence submitted by the operator showing the producing interval for the field in which the horizontal drainhole is completed." 16 TEX. ADMIN. CODE § 3.86(a)(1) (2002) (Tex. R.R. Comm'n, Horizontal Drainhole Wells).

149. 16 TEX. ADMIN. CODE § 3.86(b)(1)-(2) (2002) (Tex. R.R. Comm'n, Inclination and Directional Surveys Required); Allen D. Cummings, *Horizontal Drilling—Title and Other Issues*, 11 TEX. OIL & GAS L.J. 51, 54 (1997).

150. Allen D. Cummings, *Horizontal Drilling—Title and Other Issues*, 11 TEX. OIL & GAS L.J. 51, 55 (1997).

151. *Id.*; Judy Epperson, *Conference Briefs*, NALTA NEWS (Nat'l Ass'n of Lease and Title Analysts), Jan. 2001, at 8, http://www.nalta.org/newsletters/newsletter.htm.

152. Allen D. Cummings, *Horizontal Drilling—Title and Other Issues*, 11 TEX. OIL & GAS L.J. 51, 54 (1997). The following is an example of how a horizontal well may be given a greater production allowable than its vertical counterpart:

> For Fields with a Density Rule of 40 Acres or Less: 20 acres may be added for each 585 feet of horizontal displacement in excess of 100 feet. For example, on statewide spacing, the proration or drilling unit which may be assigned for a 2000-foot horizontal drainhole displacement is 120 acres.

drainhole well may qualify for a higher allowable due to the larger proration unit.[153] As described below, in *Luecke* these rules and the broad language of the parties' lease created the dispute that eventually reached the court of appeals.

D. Browning Oil Co. v. Luecke*: The Facts*

The Lueckes entered into three oil and gas leases in 1979 with Humble Exploration Co., which Humble subsequently assigned to Browning Oil Co.[154] The leases covered three separate tracts of land including the following acreage: (Tract 1) 150.000 acres, (Tract 2) 88.120 acres, and (Tract 3) 193.735 acres.[155] Mr. Luecke and his mother owned the entire mineral estate for tracts one and three, while Mr. Luecke only owned fifty percent of the mineral estate in tract two.[156]

Each lease carried an identical pooling provision and antidilution clause.[157] In sum, the 1979 pooling provision provided that: (1) lessee

---

Id. (emphasis omitted); Judy Epperson, *Conference Briefs*, NALTA NEWS (Nat'l Ass'n of Lease and Title Analysts), Jan. 2001, at 8, http://www.nalta.org/newsletters/newsletter.htm (discussing the additional acreage allowed by Rule 86).

153. Doug J. Dashiell, Address at the 25 Annual Oil, Gas and Mineral Law Institute (Mar. 26, 1999) (copy on file with the *St. Mary's Law Journal*).

154. Browning Oil Co. v. Luecke, 38 S.W.3d 625, 636 (Tex. App.—Austin 2000, pet. denied).

155. *Id.* at 636 n.12.

156. *Id.* at 636 n.13.

157. *Id.* at 636-37. The actual pooling provision reads as follows:

> 4. Lessee, at its option, is hereby given the right and power to pool or combine the acreage covered by this lease or any portion thereof as to oil and gas, or either of them, with any other land covered by this lease, and/or with any other land, lease or leases in the immediate vicinity thereof to the extent hereinafter stipulated. . . . For the purposes of computing the royalties to which owners of royalties and payments out of production and each of them shall be entitled on production of oil and gas, or either of them, from the pooled unit, there shall be allocated to the land covered by this lease and included in said unit . . . a pro rata portion of the oil and gas, or either of them, produced from the pooled unit after deducting that used for operations on the pooled unit. Such allocation shall be on an acreage basis—that is to say, there shall be allocated to the acreage covered by this lease and included in the pooled unit . . . that pro rata portion of the oil and gas, or either of them, produced from the pooled unit which the number of surface acres covered by this lease . . . and included in the pooled unit bears to the total number of surface acres included in the pooled unit. Royalties hereunder shall be computed on the portion of such production, whether it be oil and gas, or either of them, so allocated to the land covered by this lease and included in the unit just as though such production were from such land.
>
> . . . .
>
> 14. Notwithstanding paragraph number four (4) hereof, if any pooled unit is created with respect to any well drilled on the land covered hereby, at least sixty percent (60%) of such pooled unit shall consist of the land covered hereby.

has the power to pool its Luecke-leased acreage with other acreage in the immediate vicinity and (2) any pooled unit must contain at least sixty percent of Luecke-leased land.[158] The Lueckes and Browning Oil subsequently agreed to amend the pooling clause in 1984.[159] The substantive effects of the amendments were: (1) if the lessee is unable to comply with the sixty percent requirement, then the lessee must use additional Luecke-owned land, until all of the Luecke-owned land is exhausted; (2) the lessee can use non-Luecke land for pooling purposes in order to comply with Commission field rules; and (3) if the Commission allows the lessee to use units of various sizes, then the lessee must use the smaller spacing requirements, thus decreasing the chance that non-Luecke land would be needed.[160]

In 1994, Browning Oil sought to amend the pooling provision once again "'to clarify' the pooling authority for horizontal wells."[161] How-

---

Id. at 637.

158. *Luecke*, 38 S.W.3d at 637.

159. Id. The 1984 amendment reads as follows:

> In the event a well is drilled on a tract of insufficient size to contribute sixty percent (60%) of the unit acreage, Lessee will pool all of the drillsite leased acreage and when available, will pool only acreage from other Lessor owned land under lease to Lessee, provided however, that Lessee may pool other acreage not owned by Lessor if required to meet established field rules. In this event, only that acreage necessary to make the unit meet the applicable field rules will be included.
> In the event that Lessee shall have an option to utilize a greater or lesser spacing requirement with respect to any producing well and or producing formation or horizon, then Lessee affirmatively covenants and agrees to utilize the lesser spacing requirement. For example, in the event that the field rules specify that in connection with the production from the Chalk Formation, the Lessee may utilize either a One Hundred Sixty (160) acre spacing requirement and/or an optional Eighty (80) acre spacing requirement, then Lessee shall utilize the lesser Eighty (80) acre spacing requirement.

Id. at 637-38.

160. *Id.* at 637.

161. *Luecke*, 38 S.W.3d at 638. The 1994 amendment reads as follows:

> In addition to the provisions for pooling, combining or unitizing as contained in Paragraph 4 of the Lease, in the event Lessee, its successors or assigns, should exercise its right and power, in its sole option and discretion, to pool, unitize or combine the lease premises or any portion thereof with other lands in order to form a unit or pooled unit containing a well with a horizontal drainhole, as defined herein, such unit or pooled unit may, within the discretion of Lessee, its successors or assigns, contain the greatest acreage allowable to the extent prescribed or permitted by the Railroad Commission of Texas or other governmental authority having jurisdiction, including, without limitation, Statewide Rule 86 . . . and any amendments or supplements thereto. . . . For the purposes of the lease and for the purpose of exercising the above described rights, a horizontal well or horizontal drainhole is defined as any well in which the horizontal component of the gross completion interval is, at a minimum, one hundred (100) feet.

ever, the Lueckes rejected the proposed amendment because it would nullify the antidilution clause and allow Browning Oil to pool Luecke acreage in any size unit allowable under Rule 86.[162] Regardless of the failed ratification, Browning Oil created two pooled units in 1995 and began operations with two wells on the Lueckes' three tracts of land.[163]

Well Number One consisted of 839.18 pooled acres, which included 268.68 acres (thirty-two percent) from Luecke land.[164] In addition, tract two was the site of the vertical portion of Well Number One and was also the only Luecke land actually traversed by the horizontal well.[165] Well Number Two consisted of 346.625 pooled acres, which included 114.86 (thirty-three percent) from Luecke leases.[166] The horizontal well traversed both tract one and tract three of Luecke land.[167]

The Lueckes, claiming that the antidilution clause was breached, brought suit against Browning Oil to recover damages.[168] The main issues were: (1) whether a general pooling and antidilution clause applies to horizontal and vertical wells;[169] (2) whether compliance with field rules precludes the formation of pooled units in accordance with antidilution provisions;[170] (3) whether the rule of capture applies to horizontal wells when a pooling provision is breached, thereby entitling the lessor to royalties on all production produced from the illegally pooled unit;[171] and (4) whether public policy dictates that the rule of capture should apply to horizontal wells.[172] In answering these questions, the court provided the first indication of how traditional oil and gas principles are applied to horizontal wells.[173]

Id. (emphasis omitted).

162. Browning Oil Co. v. Luecke, 38 S.W.3d 625, 638 (Tex. App.—Austin 2000, pet. denied).

163. *Id.*

164. *Id.* Well One included 115.82 acres of Tract 1, 87.68 acres of Tract 2, and 65.18 acres of Tract 3. *Id.* at 638.

165. *Id.*

166. *Luecke*, 38 S.W.3d. at 638-39. The Weyand Hays Well included 36.24 acres of Tract 1 and 78.62 acres of Tract 3. *Id.* at 639.

167. *Id.* at 638.

168. *Id.* at 639.

169. *Id.* at 640.

170. *Luecke*, 38 S.W.3d. at 640-41.

171. Browning Oil Co. v. Luecke, 38 S.W.3d 625, 638 (Tex. App.—Austin 2000, pet. denied).

172. *Id.* at 646.

173. *See Luecke*, 38 S.W.3d at 649 (recognizing that declining to apply the rule of capture to horizontal drilling is a decision of first impression in Texas). *See generally* Arthur J. Wright et al., *Case and Legislative Summaries*, 25 STATE BAR OF TEXAS SECTION REPORT OIL, GAS AND MINERAL LAW, Dec. 2000, at 49, 51-52 (providing an additional summary of the facts in the *Luecke* case).

1. Whether a General Pooling and Antidilution Clause Applies to Horizontal and Vertical Wells

To unravel the complex legal differences between vertical and horizontal wells, the court began by examining the oil and gas lease between the two parties. The court found the lease troublesome because it failed to expressly state whether the antidilution clause applied to vertical or horizontal wells.[174] Therefore, the court had to determine the intentions of the parties.[175] Applying basic rules of document interpretation, the court examined the four corners of the lease to determine the parties' intent.[176] Accordingly, the court noted that "[t]he intent of the parties was to authorize pooling, but to prevent the dilution of the Lueckes' royalties, whether the royalties represented production from vertical wells or horizontal wells."[177] Stated differently, it appears the court concluded that if an antidilution clause fails to limit its application to vertical wells, then it is implicit that the parties intended the antidilution provision to apply to either horizontal or vertical wells.

Although the court's conclusion certainly furthers the public policy of encouraging horizontal drilling, under rules of document interpretation the court could have restricted the clause to vertical wells. Specifically, the court could have focused on the typical drilling technique used at the time the lease was executed, which was vertical, not horizontal drilling. Previously, the Texas Supreme Court has used this approach. In *Sun Oil Co. v. Madeley*,[178] the court turned to the "surrounding circumstances" of the execution of a contract to determine whether a "working interest oil" royalty provision should also extend to a "working interest gas" royalty.[179]

The *Madeley* lease required the lessee to "maintain books reflecting all receipts and revenues attributable to oil and gas production."[180] However, the section covering royalty obligations only made reference to the

174. *Luecke*, 38 S.W.3d at 638.

175. *Id.* at 640.

176. *Id.*; *see also* Heritage Resources, Inc. v. NationsBank, 939 S.W.2d 118, 121 (Tex. 1996) (indicating that in an unambiguous oil and gas lease, the court's responsibility is to "examine the entire document and consider each part with every other part so that the effect and meaning of one part on any other part may be determined"); Sun Oil Co. v. Madeley, 626 S.W.2d 726, 727-28 (Tex. 1981) (asserting that the court must determine the intent of the parties as expressed in the lease); McMahon v. Christmann, 157 Tex. 403, 303 S.W.2d 341, 344 (1957) (affirming that the intention of the parties should be determined by examining all the provisions in the lease).

177. *Luecke*, 38 S.W.3d at 640.

178. 626 S.W.2d 726 (Tex. 1981).

179. Sun Oil Co. v. Madeley, 626 S.W.2d 726, 727 (Tex. 1981).

180. *Id.* at 733.

working interest in oil.[181] The lessee argued that because the royalty clause made no mention of a working interest in gas, no such benefit existed.[182] Conversely, the lessors argued that since the lease "makes no distinction between working interest oil and working interest gas, . . . none was intended elsewhere in the lease."[183] Therefore, a royalty payment should exist for both oil and gas.[184] The court, using rules of interpretation, had to decide the intent of both parties to resolve the dispute.[185] As the court explained, courts can look at evidence of surrounding circumstances to determine if a contract is ambiguous as a matter of law.[186] If the court decides it is ambiguous, then all extrinsic evidence, including subsequent conduct, is considered.[187] However, if the court determines that it is unambiguous, the court must confine its examination to the written contract.[188]

Applying this analysis, the *Madeley* court looked at the "surrounding circumstances" in the creation of the lease.[189] For example, because an attorney drafted the lease, the court "assume[d] that he understood the difference in the terms oil, gas, casing head gas, and condensate."[190] Additionally, the lease was drafted in 1932 when gas was not a valuable commodity.[191] Therefore, the surrounding circumstances of the lease showed that the focus of the lease was on oil and not gas.[192] Ultimately, the court held that the lease was unambiguous and that the lease did not reserve any interest in the gas to the lessors.[193]

Similarly, in *Friedrich v. Amoco Production Co.*,[194] a "Pugh" clause was in dispute and the court addressed whether the intention of the parties allowed the clause to apply to both vertical and horizontal severances

---

181. *Id.*
182. *Id.* at 730.
183. *Id.* at 729.
184. *Madeley*, 626 S.W.2d at 729.
185. *Id.* at 727.
186. *Id.* at 731.
187. *Id.*
188. *Id.*
189. *Madeley*, 626 S.W.2d. at 732; *see* Mark K. Glasser & Keith A. Rowley, *On Parol: the Construction and Interpretation of Written Agreements and the Role of Extrinsic Evidence in Contract Litigation*, 49 BAYLOR L. REV. 657, 666 (1997) (discussing *Sun Oil Co. v. Madeley* and concluding that "'surrounding circumstances' may include the course of dealing between the parties, operative usages of trade, or the course of the parties' performance of the contract").
190. Sun Oil Co. v. Madeley, 626 S.W.2d 726, 732 (Tex. 1981).
191. *Id.*
192. *Id.*
193. *Id.* at 733.
194. 698 S.W.2d 748 (Tex. App.—Corpus Christi, 1985, writ ref'd n.r.e.).

of the land.[195] In its analysis, the court applied the "customary application" rule to determine what type of severance a broad Pugh clause covers.[196] According to the court, the "customary application" rule provides that when it is possible to have two interpretations of a provision, the one that is customary applies.[197]

Using this analytical framework, the court quoted *Rogers v. Westhoma Oil Co.*[198] stating that "[i]t is common knowledge that leases are divided both vertically and horizontally."[199] Subsequently, the court turned to *Rist v. Westhoma Oil Co.*[200] noting that "[t]here is nowhere contained any language that purports to recognize or show intention that these terms are to apply or even recognize other than the customary application of vertical severance."[201] Under this interpretation, the *Friedrich* court held that a Pugh clause customarily applies to vertical severances and therefore, the lease does not apply to horizontal severances.[202]

---

195. Friedrich v. Amoco Prod. Co., 698 S.W.2d 748, 752 (Tex. App.—Corpus Christi, 1985, writ ref'd n.r.e.). A "Pugh" clause, also known as a "freestone rider clause," modifies the language in a pooling clause. 6 JOHN S. LOWE, WEST'S TEXAS FORMS: MINERALS, OIL & GAS § 3.2, at 134 (3d ed. Supp. 2001). It provides "that drilling operations on or production from a pooled unit will not preserve the whole lease." *Id.* An example is as follows:

> 'Notwithstanding anything to the contrary herein contained, drilling operations on or production from a pooled unit or units established under the provisions of paragraph 4 [the pooling clause] hereof or otherwise embracing land covered hereby and other land shall maintain this lease in force only as to land included in such unit or units. The lease may be maintained in force as to the remainder of the land in any manner herein provided for, provided that if it be by rental payment, rentals shall be payable only on the number of acres not included in such unit or units.'

Id. § 3.2, at 135.

196. *Friedrich*, 698 S.W.2d at 753.

197. *Id.*

198. 291 F.2d 726 (10th Cir. 1961).

199. *See Friedrich*, 698 S.W.2d at 753 (quoting Rogers v. Westhoma Oil Co. 291 F.2d 726 (10th Cir. 1961)).

200. 385 P.2d 791 (Okla. 1963).

201. *See Friedrich*, 698 S.W.2d at 753 (quoting Rist v. Westhoma Oil Co., 385 P.2d 791 (Okla. 1963)).

202. *Compare id.* at 754 (adopting the rule in *Rist v. Westhoma Oil Co.*, 385 P.2d 791, 795 (Okla. 1963), which states that a "Pugh" clause only applies to vertical severances), *with* Rogers v. Westhoma Oil Co., 291 F.2d 726, 731-32 (10th Cir. 1961) (holding that a "Pugh" clause applies to both vertical and horizontal severances). More specifically, Circuit Judge Breitenstein explains his reasoning for applying a "Pugh" clause to both vertical and horizontal severances as follows:

> The Pugh clauses are for the protection of the lessors to prevent lease continuation as to ununitized portions which are nonproducing. We find nothing in the leases which confines the application of the Pugh clauses to surface areas and vertical divisions. It is common knowledge that leases are divided both vertically and horizontally and that unitization is ordinarily on the basis of a common source of supply . . . . Considering

Even though the *Luecke* court could have followed the *Madeley* and *Friedrich* courts' approach and restricted the clause to vertical drilling, the flexible nature of rules of document interpretation support the *Luecke* court's broad interpretation that the word "well" covers both horizontal and vertical wells. For example, courts admonish that lease clauses cannot be rewritten, and refuse to imply terms into a lease.[203] In this case, a court would refuse to limit the term "well" to vertical wells only, without that express limitation appearing in the lease. Moreover, writers have noted that courts frequently interpret documents to further worthy public policy goals.[204]

Another argument supporting the *Luecke* conclusion to refuse to limit the term "well" to vertical wells only, is that restricting the word "well" to vertical wells provides an unjust result. For example, under the vertical well only interpretation, the antidilution clause in *Luecke* would only apply to vertical wells because the lease failed to mention horizontal wells. Thus, Browning Oil would not be restricted by the antidilution clause in creating pooled units for horizontal drilling purposes and could pool the Lueckes' land at its discretion. The Lueckes would no longer have a cause of action and the case would end. Prospectively, this outcome is undesirable because it provides an unfair result for the lessor. Justice Smith recognized this and asserted that the parties' agreement and subsequent attempts to amend indicate that the antidilution clause applied to both vertical and horizontal wells.[205] More practically, it would be unbal-

---

> these leases as a whole, we believe that a reasonable interpretation requires the conclusion that it was the intent of the parties to prohibit lease continuation as to unproductive portions without a consolidation whether such portions were the result of horizontal or vertical divisions.

Rogers, 291 F.2d at 731-32.

203. *See* Yzaguirre v. KCS Res., Inc., 53 S.W.3d 368, 372 (Tex. 2001) (examining the "plain terms of the lease" to interpret the parties' intentions regarding an oil royalty clause); W.T. Carter & Bro. v. Oryx Energy Co., 5 S.W.3d 704, 708 (Tex. App.—San Antonio 1999, pet. denied) (using the plain meaning of "with a third party" to interpret the intentions of the parties in an oil and gas lease).

204. JOHN D. CALAMARI & JOSEPH M. PERILLO, THE LAW OF CONTRACTS § 3-16, at 177 (3d ed. 1987).

> There is no unanimity as to the content of the parol evidence rule or the process called interpretation . . . It would, however, be a mistake to suppose that the courts follow any of these rules blindly, literally or consistently. As often as not they choose the standard or the rule that they think will give rise to a just result in the particular case. We have also seen that often under a guise of interpretation a court will actually enforce its notions of "public policy" which is "nothing more than an attempt to do justice."

Id.

205. Browning Oil Co. v. Luecke, 38 S.W.3d 625, 640 (Tex. App.—Austin 2000, pet. denied).

anced to apply the antidilution clause to a vertical well and then not apply it to a horizontal well. For example, in order to meet a 40-acre state spacing requirement for a vertical well, the antidilution clause would limit the lessee's ability to create a pooled unit. However, the lessee could circumvent the intention of the parties by creating a horizontal well.

Recognizing that antidilution clauses apply to horizontal wells absent express designation of horizontal or vertical application appears to be a rule that promotes an efficient drilling practice without prejudicing the rights of the lessor or lessee. After *Luecke*, lessors and lessees will understand that if an oil and gas lease has an antidilution clause, the courts will likely interpret it to apply to both horizontal and vertical wells absent express intentions otherwise.[206] Therefore, a lessee needs to be particularly careful in signing a lease with an antidilution clause because it potentially limits the lessee's ability to pool, as demonstrated by the court's treatment of that clause.[207]

2. Field Rules, Implied Covenants, or Express Provisions: Which Is Champion in the Formation of Pooled Units?

Both parties in *Luecke* agreed that the antidilution clause was not properly followed.[208] However, the lessee believed that even though they had not fully complied with the clause, field rules trumped the lease providing the lessee an appropriate excuse for violating the antidilution clause.[209] Further, the lessee asserted "that no reasonably prudent operator would have drilled a horizontal well on an eighty acre unit."[210] The lessee relied on *Southeastern Pipe Line Co. v. Tichacek*,[211] which held "that the lessors may not premise recovery for drainage on their own pooling preferences, as reflected in their experts' hypothetical unit, when the lessee's formation of a different unit is made in good faith."[212] However, the *Luecke* court quickly dismissed the holding of *Tichacek*.[213] In

206. *See id.* (holding that antidilution provisions apply to horizontal wells).

207. *Id.* at 637. An antidilution clause limits the lessee's ability to pool the lessor's land by requiring that a certain minimum percentage of lessor's land be included in the pooled unit. *Id.* This minimum percentage guarantees that the lessor's royalty will not be diluted beyond the antidilution agreement. *Id.*

208. *Luecke*, 38 S.W.3d. at 640.

209. *Id.* at 641.

210. *Id.*

211. 997 S.W.2d 166 (Tex. 1999).

212. Southeastern Pipe Line Co. v. Tichacek, 997 S.W.2d 166, 168 (Tex. 1999).

213. *Luecke*, 38 S.W.3d at 641; *see also Tichacek*, 997 S.W.2d at 170 (exploring the question of pooling in bad faith and its relation to the implied covenant of protection against drainage). The court in *Browning Oil* then dispelled the use of *Tichacek* as precedent by concluding that no language in its holding mandates "the inclusion of acreage from existing units when designating new, adjacent pooled units." *Luecke*, 38 S.W.3d at 641.

fact, the court found that *Tichacek* extinguished the lessee's arguments.[214] First, the *Luecke* court noted:

> [l]essees have failed to demonstrate how the inclusion of acreage from existing vertical units prevented them from creating a pooled unit consisting of at least sixty percent of Luecke-owned land. . . . In other words, the purported units appear to include non-Luecke acreage beyond what may be required by the rules they have created. *Tichacek* does not excuse the violation of the anti-dilution provisions in these leases.[215]

In addition, the *Luecke* court maintained that the lessee should have sought the regulatory power of the Commission in order to convince them that eighty-acre spacing allotments were imprudent, or successfully renegotiated an agreement with the lessor that adequately expanded its pooling authority.[216] For example, if the lessee had taken regulatory action and convinced the Commission to dispense with eighty-acre units, then the eighty-acre units would no longer be an option, and under the lease the lessee could have used 160-acre spacing allotments.[217] However, having failed to take regulatory action, the lessee was obligated to follow the pooling authority granted to them.[218] Because the lessee ex-

---

214. *See id.* at 641-42 (concluding first that *Tichacek* does not support the lessee's arguments and then following up with assertions on how *Tichacek* runs counter to the lessee's position).

215. Browning Oil Co. v. Luecke, 38 S.W.3d 625, 641 (Tex. App.—Austin 2000, pet. denied).

216. *See id.* (putting the burden on lessee to expand their pooling authority); *see also* Amoco Prod. Co. v. Alexander, 622 S.W.2d 563, 570 (Tex. 1981) (holding that under the implied covenant to protect, manage, or administer the lease, a duty to seek administrative relief exists); *Tichacek*, 977 S.W.2d at 399 (holding that under the implied covenant to prevent drainage, a reasonable lessee may have to seek or negotiate agreements that are not immediately available in order to be in compliance), *rev'd on other grounds*, 997 S.W.2d 166 (Tex. 1999).

217. *Luecke*, 38 S.W.3d at 642. The pertinent part of the lease provided that "[i]n the event that Lessee shall have an option to utilize a greater or lesser spacing requirement . . . then Lessee affirmatively covenants and agrees to utilize the lesser spacing requirement." *Id.* at 637. Therefore, if the only two options available were an eighty-acre allotment or a 160-acre allotment, the lessee would have to choose the smaller eighty-acre allotment. *Id.* at 637-38. However, if the lessee argued to the Commission that an eighty-acre allotment was insufficient under the drilling circumstances of the particular lease and the Commission agreed with the lessee, then only the option of the greater 160-acre allotment would exist. *Id.* at 641-42. Under the terms of the lease, the larger unit would be allowable. *Id.*

218. *Luecke*, 38 S.W.3d at 642; *see also* Jones v. Killingsworth, 403 S.W.2d 325, 327 (Tex. 1965) (holding that sole authority of the lessee to pool lessor's land is stipulated in the oil and gas lease between the two parties); Pampell Interests, Inc. v. Wolle, 797 S.W.2d 392, 394 (Tex. App.—Austin 1990, no writ) (extending the notion that parties to an oil and gas lease are required to strictly comply with its terms to parties that are involved in a

ceeded its authority, it breached the pooling agreement. As the *Luecke* court stated "[t]o allow Lessees to drill any size well and then attempt to comply with the leases *after* the well has been drilled would defeat the intention of the parties to limit pooled units to the smallest unit allowed by the rules."[219]

In addition to relying on regulatory action, the court also determined that the reasonably prudent operator standard applies not to express covenants in a lease but to implied covenants.[220] While *Tichacek* dealt with the breach of an implied covenant to protect against drainage, the dispute in *Luecke* involved an express antidilution clause.[221] According to established case law, implied covenants are trumped by express terms in an oil and gas lease.[222] Consequently, in *Luecke* the express covenant trumps an implied covenant, rendering the reasonably prudent operator standard on the lessee's pooling power irrelevant.[223]

Now it is time to turn to the implications that the court's conclusions will have on future oil and gas jurisprudence. It appears that the *Luecke* court has extended four traditional pooling concepts to pooled units that involve horizontal drilling. First, the pooling agreement is the absolute authority to pool and must be strictly complied with or the lease is breached.[224] Second, if the lease stipulates which field rule governs, the lessee no longer has the option of choosing the field rule that benefits their interest even if an option was otherwise allowed.[225] Third, the reasonably prudent operator standard is used only for implied covenants and may not be used to determine the validity of an express term in an oil and

---

pooling agreement); Sauder v. Frye, 613 S.W.2d 63, 64 (Tex. Civ. App.—Fort Worth 1981, no writ) (declaring that when a lease requires that the formation of a pooled unit be recorded, it must be recorded in order to maintain the pooled unit).

219. *Luecke*, 38 S.W.3d at 642 (alteration in the original).

220. *Id.* at 641 (citing *Tichacek*, 997 S.W.2d at 170).

221. *Tichacek*, 997 S.W.2d at 170; *Luecke*, 38 S.W.3d at 641.

222. *See* HECI Exploration Co. v. Neel, 982 S.W.2d 881, 888-89 (Tex. 2001) (noting that "[a] court cannot imply a covenant to achieve what it believes to be a fair contract or to remedy an unwise or improvident contract"); Exxon Corp. v. Atl. Richfield Co., 678 S.W.2d 944, 947 (Tex. 1984) (holding that clauses in an oil and gas lease that set out the express terms and agreements of the parties cannot be varied by conflicting implied covenants); *see also* Freeport Sulphur Co. v. Am. Sulphur Royalty Co., 117 Tex. 439, 6 S.W.2d 1039, 1042 (1928) (restating that an express stipulation in a contract excludes the possibility of an implied provision on the same issue).

223. *Luecke*, 38 S.W.3d at 641.

224. Browning Oil Co. v. Luecke, 38 S.W.3d 625, 641 (Tex. App.—Austin 2000, pet. denied) (acknowledging that because the lessee exceeded their pooling authority, the lease was breached).

225. *See id.* (citing Jones v. Killingworth, 403 S.W.2d 325, 327 (Tex. 1965) that maintaining a restrictive term in a lease will have priority over field rules as long as the lease does not exceed field rule requirements).

gas lease.[226] Finally, in order to expand the lessee's pooling authority, the lessee should either renegotiate the terms of the pooling agreement or obtain a ruling from the Commission that deletes the undesirable pooling acreage and allows for only the larger unit as an option under the lease.[227]

3. Allocating Royalty on Horizontal Wells: The Rule of Capture As Applied to Horizontal Wells

After analyzing the pooling and antidilution clauses, the court turned to the royalty issues. Specifically, the court determined the role of the rule of capture as applied to horizontal wells. The rule of capture implicitly directs that damages for the breach of a pooling agreement involving a vertical well entitle the lessor, whose land actually contains the well to receive the entire royalty on production, while the other lessors in the illegally pooled unit receive no royalty.[228] The underlying logic behind this principle is that when a unit is illegally pooled it no longer exists as applied to vertical wells, and under the rule of capture, royalties are due only to the mineral owner of the well site.[229] Thus, the lessee will have to give the full royalty on production to the lessor where the oil and gas was actually reduced to possession.[230]

---

226. *See Luecke*, 38 S.W.3d at 641 (citing *Exxon*, 678 S.W.2d at 947).

227. *Id.* at 641-42. The *Luecke* Court cites several commentators who have expressed the importance of securing amendments to oil and gas leases in order to avoid potential problems in drilling horizontal wells. *Id.* at 642 n.22; *see also* 1 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 4.8, at 232 (1994) (encouraging lessee to make sure that they have the authority to pool land for the purpose of horizontal drilling); Patricia A. Moore, *Horizontal Drilling—New Technology Bringing New Legal and Regulatory Challenges*, 36 ROCKY MTN. MIN. L. INST. 15-1, 15-30 (1990) (warning that if the lessee fails to amend a lease that contains specific pooling restrictions, the lessee must abide by the restrictions); Christy M. Schweikhardt, Note, *Horizontal Perspective: Texas Oil & Gas Law in Light of Horizontal Drilling Technology*, 34 S. TEX. L. REV. 329, 336 (1993) (recommending that the lessee should attempt to amend the lease and sell the lessor on the benefits of horizontal drilling).

228. *See Luecke*, 38 S.W.3d at 645 (reiterating that invalid pooling agreements only acknowledge production on the land where the actual production takes place); Southeastern Pipe Line Co. v. Tichacek, 997 S.W.2d 166, 170 (Tex. 1999) (establishing that a unit pooled in bad faith will not extend production to other off-site leases, rather production will be maintained only on the actual site where the well is physically located).

229. *See* 1 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 4.8, at 228 (1995) (noting that absent valid pooling, royalty cannot be distributed among the nonparticipating royalty interests and lessors where there lies no oil or gas well); *see also Killingsworth*, 403 S.W.2d at 328 (explaining that the lessee has no power to pool lessor's property unless lessor has explicitly given permission to do so).

230. 1 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 4.8, at 228 (1995).

The Lueckes asserted that the vertical model used above also applied to horizontal wells.[231] As a result, "either the Lessors are entitled to royalties based on a pro rata share of acreage (if valid pooling has occurred), or they are entitled to a full royalty for all production from both wells (in the absence of pooling)."[232] The Lueckes argued that Browning Oil's breach of the pooling agreement equated to the absence of pooling, entitling the Lueckes to full royalties on every tract of land that the horizontal drainhole touched.[233] By calculating damages in this fashion, the Lueckes determined that they deserved a full royalty on two separate tracts of land and a double royalty on one tract of land that was traversed twice by a horizontal drainhole.[234] In contrast, the lessee argued that royalty should be given only on the amount of production reasonably produced from Luecke land, or in the alternative, that a hypothetical eighty-acre unit should be created to determine damages.[235]

The *Luecke* court reasoned that the intent of the parties as evidenced by the lease was to provide the Lueckes with a one-eighth royalty on oil and gas produced from Luecke land, not to award punitive damages for a

---

231. *Luecke*, 38 S.W.3d at 645 (explaining the Lueckes' reliance on an appropriate remedy for vertical wells).

232. *Id.*

233. *Id.* at 639.

234. *Id.*

235. *Id.* at 644 & n.27. Lessee relies on three cases that used hypothetical units to measure production as support for their theory. *See* Southeastern Pipe Line Co. v. Tichacek, 997 S.W.2d 166, 168 (Tex. 1999) (reporting that lessors had experts testify as to the hypothetical unit that should have been formed); Amoco Prod. Co. v. Alexander, 594 S.W.2d 467, 476 (Tex. Civ. App.—Houston [1st Dist.] 1979) (approving the experts' testimony as to hypothetical wells), *aff'd as modified*, 622 S.W.2d 563 (Tex. 1981); Shell Oil Co. v. Stansbury, 401 S.W.2d 623, 634 (Tex. Civ. App.—Beaumont 1966) (discussing the amount of oil that a hypothetical well would have produced), *aff'd per curiam*, 410 S.W.2d 187 (Tex. 1966). However, the *Luecke* Court noted:

> These three cases involve breach of the implied duty to protect against drainage, not breach of express contract terms. The parties were not relying on provisions in the lease to determine calculation of royalties. Claims of failure to protect against drainage stem from situations in which no production has resulted from the claimants' land; the allegation is that the lessees have recovered oil, gas, or minerals from adjoining tracts of land and have either failed to pool the claimants' land or have failed to drill an offset well to recover minerals that may underlie the claimants' land. When there is no producing well on the claimants' land from which to measure production, it is logical to use a hypothetical well to measure damages. In contrast, this dispute involves the determination of royalties for production from horizontal wells that actually traverse the Lueckes' land. It is undisputed that the Lueckes' land contributes to the total production from the horizontal drainhole. Therefore, it is not necessary to speculate on production from a hypothetical eighty acre well unit.

Luecke, 38 S.W.3d at 644 n.27.

breach of the pooling agreement.[236] In addition, the court stated that improperly pooled land does not create a cross conveyance of property interests and consequently, the Lueckes cannot receive royalties on oil and gas that is not produced on their land.[237] The *Luecke* court also rejected the Lueckes' argument that the rule of capture should apply to horizontal wells giving three broad reasons: (1) the formation's geophysical characteristics, (2) multiple drillsites involved in drilling a horizontal well, and (3) the fractured nature of the formations that horizontal drilling covers.[238] The court noted that due to the highly fractured nature of the formations that horizontal drilling encounters, the purpose underlying the rule of capture and the protection against drainage does not exist.[239] In other words, each point along the drainhole contributes to production.[240] However, unlike vertical drilling where a pool exists that can be naturally drained by a neighboring tract, horizontal drilling encounters skinny fractured formations that do not necessarily drain from a contiguous neighboring tract.[241] Therefore, even though the horizontal well may be collecting oil and gas from the drainhole, it is not necessarily draining neighboring tracts.[242]

After refusing to apply the rule of capture to all lands traversed by horizontal wells, the *Luecke* court considered whether public policy required applying the rule of capture to horizontal wells.[243] In balancing the interests of the two parties, the court determined that the lessee should not be allowed to disregard antidilution provisions and exceed its pooling authority.[244] However, the court also noted that horizontal drilling should be encouraged as a means to reduce waste and recover hydrocarbons more efficiently.[245] In light of these competing interests, the *Luecke* court believed that the better remedy was to allow the lessor to

---

236. Browning Oil Co. v. Luecke, 38 S.W.3d 625, 645 (Tex. App.—Austin 2000, pet. denied).

237. *Id.* at 643.

238. *Id.* at 645.

239. *Id.* at 646.

240. *Id.*

241. *Luecke*, 38 S.W.3d at 646.

242. *Id.*; *see also* Russell v. City of Bryan, 846 S.W.2d 389, 391 (Tex. App.—Houston [14th Dist.] 1992, writ denied) (affirming that land within a pooled unit is not subject to the rule of capture); *cf.* Riley v. Riley, 972 S.W.2d 149, 155 (Tex. App.—Texarkana 1998, no pet.) (stressing that the rule of capture does not apply to production from land within a pooled unit).

243. *Luecke*, 38 S.W.3d at 646-47.

244. *Id.* at 646.

245. *Id.* at 647.

receive the royalty on the amount of production "attributed to their tracts with reasonable probability."[246]

While focusing on the amount of production reasonably attributed to the land appears to be a good test for determining royalties, another model exists that is worth exploring. One commentator has suggested that when a horizontal drainhole crosses multiple properties and no pooling agreement has been entered into, the royalty owners from both pieces of land must share in the royalty.[247] However, how to share the royalty is a more difficult question. The same commentator said that common sense suggests royalties should be allocated on the basis of the horizontal drainhole length underlying each tract of land.[248] This apportionment remedy reflects the rule generally applied to pooling—that royalty owners share on a pro rata basis. However, instead of royalties being based on the proportional amount of acreage in the pooled unit, royalties are based on the proportional amount of drainhole located on the lessor's land.

Applying principles developed for vertical wells to horizontal wells can be problematic. For instance, apportionment is not a viable option for nonpooled acreage because absent valid pooling, royalties belong only to the drill-site owner; in other words, there is nothing to apportion.[249] The same can also be said for illegally pooled horizontal units.[250] Conversely, apportionment based on the length of the horizontal drainhole where no pooling agreement exists is a workable alternative. For example, suppose there is a 1500-foot horizontal drainhole that traverses three different tracts. On tract one, the horizontal drainhole traverses 400 feet, tract two traverses 800 feet, and tract three traverses 300 feet. Absent a valid pooling agreement where the royalty is apportioned according to acreage,

---

246. *Id.* The Lueckes argued that there is no way to prove with reasonable certainty the amount of gas produced from their land due to the fugacious nature of oil and gas. *Id.* at 646. However, the court cited *Ortiz Oil Co. v. Luttes*, 141 S.W.2d 1050, 1053 (Tex. Civ. App.—Texarkana 1940, writ dism'd by agr.) (noting that the inability to come to a precise determination of the amount of oil produced is not a reason to deny recovery based on a jury's estimate). Browning Oil Co. v. Luecke, 38 S.W.3d 625, 647 (Tex. App.—Austin 2000, pet. denied).

247. Jennifer K. Lipinski, *Legal and Regulatory Implications from Horizontal Drilling and Completion*, *in* STATE BAR OF TEXAS ADVANCED OIL, GAS AND MINERAL LAW COURSE P, P-17 to P-18 (1989).

248. *Id.*

249. *See* 1 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 4.7, at 219 (1990) (explaining that the typical pooling clause allows apportionment of royalties based on surface acreage).

250. *See Luecke*, 38 S.W.3d at 646 (applying the legal principle to horizontal wells that if a pooled unit is invalid, then production cannot be allocated among lessors where there is no wellsite).

tract one would receive 400/1500 of the royalty with 800/1500 to tract two, and 300/1500 to tract three, respectively.

Other commentators have suggested that wellbore length is an inappropriate measure to determine the allocation of production.[251] They argue that horizontal production occurs in highly fractured formations and consequently production will be uneven along the length of the wellbore.[252] Further, the horizontal length of the wellbore "under a tract is only relevant to the extent that it increases or decreases the number of fractures penetrated."[253] However, where fractures are widely spaced, horizontal distance "may be irrelevant to the amount of production occurring from a given tract."[254] In addition, not all tracts are necessarily penetrated by the wellbore; yet the tracts that do not contain the wellbore may "contribute to production if they contain a fracture penetrated by the wellbore under a different tract."[255]

IV. PROPOSALS

As demonstrated by *Luecke*, traditional oil and gas principles do not perfectly coincide with horizontal drilling. Specifically, when horizontal drilling causes a lessee to breach an antidilution clause in a broad pooling agreement, the rule of capture as applied to vertical wells is not applica-

---

251. *See* J. Robert Goldsmith, Jr. et al., *Pooling for Horizontal Wells*, *in* STATE BAR OF TEXAS ADVANCED OIL, GAS AND MINERAL LAW COURSE J, J-6 (1992) (finding the surface acreage method predominant).

252. *Id.*

253. *Id.*

254. *Id.*

255. *Id.* The commentator expresses a belief that the surface acreage method is even of greater importance in a horizontal unit than in the case for a traditional vertical unit for purposes of allocation:

> Logically, the case for a surface acre allocation formula is greater in a horizontal unit than a traditional vertical unit, since the horizontal extension of the wellbore is open to production under a much greater area of the unit. The observation has been made that, since all tracts in a horizontal unit are contributing to its allowable, all should be given proportionate shares of production.

J. Robert Goldsmith, Jr. et al., *Pooling for Horizontal Wells*, *in* STATE BAR OF TEXAS ADVANCED OIL, GAS AND MINERAL LAW COURSE J, J-6 (1992). However, the surface acreage method would not work under current case law because Texas follows the non-apportionment rule. Ryan Consol. Petroleum Corp. v. Pickens, 266 S.W.2d 526, 530 (Tex. Civ. App.—Texarkana 1954), *aff'd*, 155 Tex. 221, 285 S.W.2d 201 (1955). This rule states:

> to the effect that absent an express covenant or supervening valid regulations, the owner of mineral interests under a portion of land subject to an oil and gas lease is entitled to all of the rents and royalties accruing from the production of oil or gas from that land, even though the lease may cover other tracts.

Id. (citing Republic Natural Gas Co. v. Baker, 197 F.2d 647, 648 (10th Cir. 1952)).

ble to determine royalties.[256] Rather, the court held that the royalty should be based on the actual production attributed to the lessor's land.[257]

Although the court chose the "production reasonably attributed" standard, commentators have discussed using other methods for determining royalties when horizontal drilling breaches a pooling agreement. Despite commentators' differing opinions regarding the distribution of royalties, they are unified on one position—even without case law, attorneys should use special attention when drafting oil and gas leases that may involve horizontal drilling and pooling.[258] However, with *Luecke*, case law now provides a snapshot of the consequences of failing to adequately address horizontal drilling in pooling agreements.[259] This precedent should encourage parties to existing oil and gas leases to amend their leases to reflect their intentions on horizontal drilling and pooling. Likewise, parties to new oil and gas leases should also express their intentions concerning vertical and horizontal drilling. Absent express language covering both horizontal and vertical implications, litigation is likely.

A. *Parties to Oil and Gas Leases Must Recognize the Difference Between Vertical and Horizontal Drilling in Pooling Agreements or Face the Consequences*

One source of conflict in *Luecke* is the use of the antidilution clause. The parties failed to express whether the clause applied to vertical wells and horizontal wells.[260] With the increased use of horizontal drilling, it is no longer safe to use a broad clause that fails to distinguish between horizontal or vertical drilling. This omission is easily remedied by stating the parties' intentions in the clause. A sample clause reads as follows: "Notwithstanding paragraph number [__] hereof [the pooling clause], if any

256. Browning Oil Co. v. Luecke, 38 S.W.3d 625, 649 (Tex. App.—Austin 2000, pet. denied).

257. *Id.* at 647.

258. *See* Christy M. Schweikhardt, Note, *Horizontal Perspective: Texas Oil & Gas Law in Light of Horizontal Drilling Technology*, 34 S. TEX. L. REV. 329, 336 (1993) (recommending that the lessee should attempt to amend the lease and sell the lessor on the benefits of horizontal drilling). *See generally* 1 ERNEST E. SMITH & JACQUELINE LANG WEAVER, TEXAS LAW OF OIL AND GAS § 4.8, at 232 (1994) (encouraging lessee to make sure that they have the authority to pool land for the purpose of horizontal drilling); Patricia A. Moore, *Horizontal Drilling—New Technology Bringing New Legal and Regulatory Challenges*, 36 ROCKY MTN. MIN. L. INST. §§ 15.01[3], 15.04 (1990) (warning that if the lessee fails to amend a lease that contains specific pooling restrictions, the lessee must abide by the restrictions).

259. *See Luecke*, 38 S.W.3d at 646-47 (showing that absent expression of whether an antidilution clause applies to vertical or horizontal drilling, both may be implied).

260. *Id.* at 638.

pooled unit is created with respect to any well drilled on the land covered hereby, at least sixty percent (60%) of such pooled unit shall consist of the land covered hereby. [It is the intention of the parties that this clause {the antidilution clause} be applied to both vertical and horizontal wells.]"[261] If parties desire an antidilution clause that applies only to vertical wells or horizontal wells, the language can be easily modified to reflect those intentions.

B. *Anticipatory Breach Clauses and Pooling Clauses (Expressly Stipulating How Royalties Will Be Allocated) Should Be Used to Avoid Litigation*

Even if the antidilution clause was written as suggested, problems will still arise concerning the allocation of royalties. One way to avoid this conflict is to stipulate damages in the event of a breach by using an anticipatory breach clause.[262] In other words, if the lessee realizes that it will not be able to comply with the antidilution clause, the lessee is contractually obligated to pay stipulated damages and is then forced to renegotiate the oil and gas lease. The following is an example of an anticipatory breach clause:

> In the event that, after the execution of this Agreement, [Lessee, Lessee's Agent, or Lessee's] Designated Representative indicates or states that [Lessee] is unwilling or will be unable to [comply with the anti-dilution clause] hereinabove defined, and such failure is not excusable under Paragraph [__, Lessee agrees to pay lessor one-hundred dollars ($100.00) per leased acre.] . . . . Any breach or

---

261. *Id.* at 637; 6 JOHN S. LOWE, WEST'S TEXAS FORMS: MINERALS, OIL & GAS § 3.65 (3d ed. Supp. 2001).

262. *See* Humphrey v. Placid Oil Co., 142 F. Supp. 246, 252 (E.D. Tex. 1956), *aff'd*, 244 F.2d 184 (5th Cir. 1957) (recognizing the doctrine of anticipatory breach in Texas). The following is an example of what an anticipatory breach is and how it becomes effective in an oil and gas context:

> The doctrine of allowing a recovery from an anticipatory breach of a contract is recognized in Texas. The repudiation of a contract by one of the parties to it before the time of performance by the repudiating party has arrived amounts to a tender of breach of the entire contract, and, if it is accepted by the other party, it constitutes what is known in law as an anticipatory breach of such contract as a whole, and in such event the injured party is at liberty to treat the contract as terminated and to at once demand his damages for such breach. In order for there to be such a repudiation of a contract the declaration of an intention not to perform the contract in the future must be positive and unconditional in its terms. Such an anticipatory breach or repudiation has been committed when one party to the contract demands of the other a performance to which he has no right under the contract and states definitely that unless his demand is complied with he will not render his promised performance.

Id.

> anticipatory breach of this Agreement by [Lessee] shall be deemed a material breach.[263]

Obviously, the amount of damages stipulated is negotiable and likely will not reflect actual damages. The purpose of this clause, however, is to prevent the lessee from disregarding the antidilution clause, and providing the lessor with some security in the event that the lessee is unwilling or unable to comply with the antidilution provision.

While the anticipatory breach clause focuses on penalizing a party for breaching the pooling clause, it does not take into consideration the allocation of royalties on production from the pooling that breached the agreement. Therefore, parties should fully protect themselves by including language in the pooling clause that expressly stipulates how royalties will be allocated. This provision could be located directly in the pooling clause. The following is an example of a pooling clause with this protective language:

> Lessee may pool or communitize all or any part or parts of said lands with other lands to comprise one or more development units of not more than _____ acres each, and [vertical or horizontal] drilling operations or production on any such unit shall constitute compliance herewith to the same extent as though such operations or production were on the lands hereby leased. Lessor shall participate in the royalty from any such unit in the proportion that the number of acres owned by him within the unit bears to the total number of acres therein. Lessee shall at all times keep Lessor informed of the lands embraced in any unit of which the lands hereby leased form a part. [In the event lessee drills a horizontal well in violation of this pooling agreement, thus nullifying the pooled unit, it is stipulated that royalties for oil and gas production will be allocated {by using the ratio of the length of the horizontal drainhole underlying each tract of land}].[264]

As discussed earlier, use of the length of the horizontal drainhole for allocation of royalties has drawbacks.[265] However, its certainty assures that the parties will know what method to use in allocating royalties upon breach of the pooling agreement. The parties to an oil and gas lease can

---

263. *E.g.*, UNIV. OF CA., *Performance Agreement*, Form UBUS 102-9, ¶ 13 (Rev. 10/95), *at* http://www.abs.uci.edu/depts/purchas/performance.rtf (last visited Aug. 23, 2002).

264. 4 HOWARD R. WILLIAMS & CHARLES J. MEYERS, OIL AND GAS LAW § 668 (2001), LEXIS 4-6 OGASL @ 668.

265. *See* J. Robert Goldsmith, Jr. et al., *Pooling for Horizontal Wells*, *in* STATE BAR OF TEXAS ADVANCED OIL, GAS AND MINERAL LAW COURSE J, J-6 (1992) (arguing that horizontal well bore length may be an irrelevant factor in determining the actual oil and gas production attributed to the lessor's mineral estate).

use other creative methods for determining the allocation of royalties that fit their needs best. Using the anticipatory breach clause as a penalty for breaching the pooling clause and combining the pooling clause with the certainty of royalty allocation provides a more predictable environment for the parties to a lease.

V. CONCLUSION

Horizontal drilling is an exciting technology that has vastly improved the efficiency of extracting hydrocarbons and has substantially reduced waste associated with traditional drilling techniques.[266] In order to encourage this type of drilling, both state and federal courts need to continue to foster a positive judicial environment. One way to achieve this goal is to ensure that the lessor and lessee to an oil and gas agreement receive the benefit of their bargain. Although worthy royalty remedies exist other than the method adopted by the *Luecke* court, the *Luecke* royalty distribution method still lays the foundation for encouraging horizontal drilling while providing a fair remedy to a lessor who has been wronged by the lessee.

Additionally, *Luecke* sheds light on the murky distinction between the application of broad clauses, drafted with vertical wells in mind, to horizontal wells. The *Luecke* court recognizes that there are obvious differences between the two types of drilling and that traditional oil and gas principles, like the rule of capture, may not be appropriate in a horizontal context.[267] Therefore, lessors and lessees need to be aware that dangers exist in not incorporating or expressly eliminating horizontal drilling features in an oil and gas lease. More specifically, it is important that parties to an oil and gas agreement specify their intentions when they pool interests involving horizontal wells and take precautionary measures, such as anticipatory breach agreements and the inclusion of protective language in the pooling clause, in case the pooling agreement fails.

---

266. *See* Paula C. Murray & Frank B. Cross, *The Case for a Texas Compulsory Unitization Statute*, 23 ST. MARY'S L.J. 1099, 1137 (1992) (quoting G. Alan Petzet, *U.S. Operators Make Wider Use of Horizontal Drilling Technology*, OIL & GAS J., Apr. 11, 1988, at 15).

267. *Luecke*, 38 S.W.3d at 649.

MAKING SENSE OF PRETEXT: AN ANALYSIS OF EVIDENTIARY REQUIREMENTS FOR SUMMARY JUDGMENT LITIGANTS IN THE FIFTH CIRCUIT IN LIGHT OF *REEVES v. SANDERSON PLUMBING PRODUCTS*, AND A PROPOSAL FOR CLARIFICATION

ERIC S. RIESTER
1968-2002