North Carolina Department of Environment and Natural Resources

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Governor

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Secretary

MEMORANDUM

TO: Mitch Gillespie
Assistant Secretary, Department of Environment and Natural Resources

FROM: Jim Womack
Chairman of the North Carolina Mining and Energy Commission

SUBJECT: Compulsory Pooling Study Group Report

DATE: September 16, 2013

Pursuant to Session Law 2012-143 Section 2(l), the North Carolina Mining and Energy Commission examined and developed recommendations regarding compulsory pooling with respect to oil and gas development activities. Please consider submission of the attached report as the Commission's fulfillment of requirements under respective session law.

If you have any questions or need additional information, please contact me by phone at (919) 770-4783 or via e-mail at commissioner.womack@gmail.com.

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Final Report of the Compulsory Pooling Study Group
S.L. 2012-143

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Executive Summary

Session Law 2012-143 directed the Mining and Energy Commission, in conjunction with the Department of Environment and Natural Resources and the Consumer Protection Division of the North Carolina Department of Justice, to study the State's current law on the issue of integration or compulsory pooling and other states' laws on the matter. To comply with this legislative mandate, the Mining and Energy Commission created the Compulsory Pooling Study Group.

The Study Group is comprised of four commissioners. There was also a larger resource group that advised the Compulsory Pooling Study Group including staff members of the Department of Environment and Natural Resources, a member of the Consumer Protection Division of the Department of Justice, and representatives from North Carolina State Employees' Credit Union, North Carolina State University, the North Carolina Department of Insurance, the State Energy Office, Lee County Strategic Services, the North Carolina Department of Agriculture and Consumer Services, the North Carolina Conservation Network, Rural Advancement Foundation International, and the North Carolina Real Estate Commission.

The Study Group studied and made recommendations on legal and landowner issues relevant to compulsory pooling in the context of oil and gas exploration, including matters of landowner protection, the extinguishment of dormant mineral estates, cost sharing, and compensation for damages related to oil and gas operations. The following summarizes the final recommendations made by the Study Group. Although these recommendations were informed by the discussions of both the commissioners and the resource group members of the Study Group, the final recommendations presented in this report were voted on only by the four members of the Mining and Energy Commission who were the primary members of the Study Group.

Compulsory Pooling: In the interest of protecting the correlative rights of landowners and minimizing waste, the Study Group recommends that compulsory pooling be allowed where 90% of the owners of the surface acreage of a drilling unit have voluntarily leased or consented to developing their oil and gas rights (see Section I-D and II-B.2).

Landowner Protections: The Study Group recommends as a perquisite to the issuance of a pooling order: (1) a requirement that applicants for a compulsory pooling order show that they have made fair and reasonable offers to owners (see Section II-B.1); (2) a prohibition on surface disturbances without the consent of the mineral interest owner (see Section II-B.2); (3) a surface use agreement is in place prior to filing an application for a pooling order(see Section II-B.2); (4) additional notice requirements to subsurface owners prior to the commencement of

subsurface operations (see Section II-C); (5) additional reporting of production requirements for operators to owners in the drilling unit, including the right to audit (see Section II-D); and (6) time limitations on the pooling order (see Section II-E).

Dormant Minerals: The Study Group recommends further study on the issue of amending current dormant mineral statutes regarding extinguishment and other consumer protection issues related to split estates. The Department of Revenue, county register of deeds offices across the state, and the General Assembly should be consulted before proceeding with further research and recommendations on this topic (see Section III-C).

Cost Sharing: The pooling order will set the terms for sharing of costs and production revenues from the well. There are three general approaches to compulsory pooling and cost sharing: free ride, risk penalty, and surrender of working interest. The Study Group recommends repealing the current free ride provision of the Oil and Gas Conservation Act, G.S. 113-393(a), and adopting a cost sharing statute that allows the compelled owner to elect from various cost sharing options. Those options would include: (1) sharing in cost as a participating owner; (2) surrender of the working interest for reasonable consideration; and (3) carrying the compelled owner for costs and assessing the owner a risk penalty out of production (see Section IV-B).

The Study Group recommends that the risk penalty be capped at a maximum of 200% of costs. The Study Group further recommends establishing an acreage threshold requirement, which would require the Commission to consider assessing no penalty to landowners who own less than 10 acres within a drilling unit (see Section IV-C).

The Study Group recommends that under the risk penalty option, statutes and regulations treat unleased, carried interest owners differently than leased owners. The costs and risk penalty for the unleased owner should be paid from seven-eighths of the carried owner's share of production, while that owner would receive one-eighth of his or her share from the start of production (see Section IV-C).

Compensation for Damages Associated with Exploration and Development: The Study Group recommends providing tort immunity to unleased oil and gas interest owners that are compelled into a pool and do not share in production as participating owners. The Study Group also recommends requiring operators to indemnify such oil and gas interest owners from any property, personal and economic injuries the owners incur as a result of the operators' activities (see Section V).

I. Overview of Compulsory Pooling

In the process of modernizing existing state oil and gas law, the General Assembly directed the Mining and Energy Commission to study current North Carolina law on the issue of integration or compulsory pooling and other states' laws on this same issue.[1] The Mining and Energy Commission formed the Compulsory Pooling Study Group to research the issues and make recommendations regarding compulsory pooling in the context of a modern oil and gas regulatory program.

As defined by Bruce Kramer in his treatise on pooling and unitization, pooling is "the joining together of small tracts or portions of tracts for the purpose of having sufficient acreage to receive a well drilling permit under the state or local spacing laws and regulations."[2] Under certain circumstances, pooling is a mechanism used to compel landowners, who have not elected to participate in a pool or drilling unit voluntarily through private contract, to join the pool. Compulsory pooling is also referred to as integration, forced pooling, or statutory pooling.

Most states, including North Carolina, authorize compulsory pooling through statutes that were developed to address what is known as the "rule of capture."[3] The rule refers to a common law doctrine from England that states that a landowner who extracts or "captures" natural resources from a well within the subsurface of his land owns that resource.[4] That means that if a landowner can extract oil or gas from a well drilled on his property, he owns the resource even if he pulled that resource from the subsurface of his neighbor's property. The rule of capture allows one landowner to profit off the resources he extracted from his neighbor's property.

As a result of the rule of capture, many who feared their resources would be drained from their property began drilling their own wells. In the early 1900s, oil and gas wells littered the landscape in states like Pennsylvania and Texas in a race to capture limited resources.[5] To curb the drilling of wells and promote the equitable distribution of resources, states developed regulatory controls in the form of oil and gas conservation statutes aimed at mitigating the

[1] N.C. S.L. 2012-143, Part III, Section 2.(l) (2012).
[2] Bruce M. Kramer & Patrick H. Martin, The Law of Pooling and Unitization § 1.02 (LexisNexis Matthew Bender 2011).
[3] Sharon O. Flanery & Ryan J. Morgan, Steptoe & Johnson, PLLC, "Overview of Pooling and Unitization Affecting Appalachian Shale Development," (2011) at 5, retrieved from http://www.steptoe-johnson.com.
[4] Id.
[5] Id. at 5-6.

harsh effects of the rule of capture by requiring that all landowners in the pool be compensated based on their proportionate share of acreage contributed to the pool. These state statutes generally authorize an oil and gas conservation commission to develop spacing rules and issue orders that integrate properties into a "drilling unit," commonly defined as an area that can be effectively drained by one well. Pooling is the grouping of rights that lay within a common drilling unit.

A. Objectives of the Compulsory Pooling Study Group

The Compulsory Pooling Study Group was established by the Mining and Energy Commission, at the direction of the General Assembly, as a part of the mandate to create a modern oil and gas regulatory program.[6] The Clean Energy and Economic Security Act of 2012 states:

> "The Mining and Energy Commission, in conjunction with the Department of Environment and Natural Resources and the Consumer Protection Division of the North Carolina Department of Justice, shall study the State's current law on the issue of integration or compulsory pooling and other states' laws on the matter. The Department shall report its findings and recommendations, including legislative proposals, to the Joint Legislative Commission on Energy Policy, created under Section 6(a) of this act, and the Environmental Review Commission on or before January 1, 2013 [amended to October 1, 2013]."[7]

To fulfill this mandate, the Study Group includes Mining and Energy Commission members, DENR staff, and a member from the Consumer Protection Division of the Department of Justice. The Study Group also had the participation of Resource Group members from the North Carolina State Employees' Credit Union, North Carolina State University, the North Carolina Department of Insurance, the State Energy Office, Lee County Strategic Services, the North Carolina Department of Agriculture and Consumer Services, the North Carolina Conservation Network, Rural Advancement Foundation International, and the North Carolina Real Estate Commission.

The Study Group's stated goal is to set up a system that will encourage all parties involved in the development and production of oil and natural gas to negotiate in good faith to develop a working relationship.

[6] N.C. S.L. 2012-143, Part III, Section 2.(l); amended by N.C. S.L 2012-201 (2012).
[7] Id.

B. Current Law on Compulsory Pooling

Soon after the enactment one of the nation's first pooling laws, of the Oklahoma Well Spacing Act, it was challenged as an unconstitutional taking in *Patterson v. Stanolind Oil & Gas Co.*[8] In that case, the Oklahoma Supreme Court held that compulsory pooling was a reasonable use of the state's police power.[9] The United States Supreme Court dismissed an appeal challenging Oklahoma's pooling statute for lack of a substantial federal question, effectively upholding Oklahoma's use of the state police power to prevent waste through compulsory pooling.[10]

The North Carolina Oil and Gas Conservation Act ("Act") dates back to 1945. Voluntary and compulsory pooling are both permitted under the Act.[11] The Act states:

> "[W]hen two or more separately owned tracts of land are embraced within an established drilling unit, the owners thereof may agree validly to integrate their interests and to develop their lands as a drilling unit. Where, however, such owners have not agreed to integrate their interests, the Commission shall, for the prevention of waste or to avoid drilling unnecessary wells, require such owners to do so and to develop their lands as a drilling unit."[12]

For an in depth review of North Carolina's current law and regulations with regard to compulsory pooling, see the North Carolina Department of Justice report on the topic as presented at the January meeting of the Study Group.[13]

C. Policy Rationales for Retaining Compulsory Pooling

The most common policy justifications in favor of compulsory pooling are to protect the correlative rights of landowners, to prevent waste, to avoid the drilling of unnecessary wells, to mitigate harm to natural resources and to maximize the ultimate recovery of oil and gas.

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[8] Brigid R. Landy & Michael B. Reese, *Getting to "Yes": A Proposal for a Statutory Approach to Compulsory Pooling in Pennsylvania*, 41 ELR 11044, 11051 (2011); 1938 Okla. 138, 182 Okla. 155, 77 P.2d 83, *appeal dismissed*, 305 U.S. 576 (1939).
[9] Id.
[10] Id.
[11] N.C. Gen. Stat. § 113-393 (2012).
[12] Id.
[13] North Carolina Department of Justice, Consumer Protection Division, "North Carolina Oil and Gas Study under Session Law 2011-276: Impacts on Landowners and Consumer Protection Issues," [hereinafter "DOJ Report"] (2012), *available at* http://portal.ncdenr.org/c/document_library/get_file?uuid=bdd3a76c-a23c-4930-9b82-66d673a6d116&groupId=8198095.

A correlative right refers to the landowner's opportunity to develop his or her equitable share of the oil or gas in a pool. As discussed above, the rule of capture could have unfair consequences, and compulsory pooling laws were developed to ensure landowners receive fair compensation for drainage of oil and gas from their land. Oil and gas conservation laws can provide a mechanism for all landowners to be included in the development by allowing either an operator developing a pool or a landowner interested in joining a pool to petition the state for a compulsory pooling order.

Waste can refer to physical or economic waste.[14] For example, the drilling of unnecessary wells may constitute waste, as a pool is not being efficiently and economically drained if two wells are drilled in an area that can be effectively drained by one well. Unnecessary wells also cause environmental degradation. In addition, efficient well development through spacing regulations and integration maximizes the ultimate recovery of oil and gas by reducing physical surface waste and preventing oil and gas from becoming stranded.

Furthermore, where there are split estates, compulsory pooling helps balance the interests of surface and subsurface owners by reducing the number of wells and the attendant infrastructure such as access roads, piping, and utilities. This reduces overall surface use and the disruption to surface estates owners.

Despite these policy objectives, pooling is not favored by all landowners, particularly those who oppose the development and production of oil and gas on their property. Any new legal and regulatory framework adopted in North Carolina should aim to ensure that all landowners—both those that participate willingly and those that may be compelled to participate—are treated on fair and reasonable terms.

D. Compulsory Pooling in North Carolina and Other States

Current North Carolina law authorizes the voluntary and compulsory pooling of the rights of landowners in order to develop their lands as a drilling unit. The General Assembly enacted the Oil and Gas Conservation Act in 1945 to allow pooling to prevent waste of oil and gas in the state.[15] Significantly, in 2012, the General Assembly did not repeal this provision of the Oil and Gas Conservation Act but rather directed the Department to make recommendations for a modern regulatory regime, based on guidance from the Mining and Energy Commission.

[14] For the definition of waste as provided in the North Carolina Oil and Gas Conservation Act *see* Appendix I: Definitions.
[15] N.C. Gen. Stat. § 113-393.

Compulsory pooling is a mechanism currently utilized in established oil and gas producing states.[16] Notably, Kansas does not have pooling at the state level but does allow municipalities to pool.[17] Although Pennsylvania law authorizes the practice below certain depths, compulsory pooling is not authorized for development of the Marcellus Shale.[18] Pennsylvania, however, recently passed a bill allowing for pooling for operators who have a lease in the Marcellus Shale, unless the terms of the lease expressly prohibit pooling.[19] Pennsylvania still does not allow the pooling of the rights of landowners in the Marcellus Shale that have not leased their rights to operators. Proponents of compulsory pooling have also attempted to pass legislation in West Virginia, which also authorizes pooling only in Deep Wells, but the West Virginia General Assembly has failed to pass such legislation.[20]

Recommendation on Compulsory Pooling

In the interest of protecting the correlative rights of landowners and minimizing waste, the Study Group recommends that compulsory pooling be allowed where 90% of the owners of the surface acreage have voluntarily leased or consented to developing their oil and gas rights. [21]

E. Unitization

Pooling and unitization are two distinct doctrines that are often referred to interchangeably. To pool is to combine tracts into a unit. This report defines a drilling unit as the area which may be efficiently and effectively drained by one well.[22] Pooling is a process used to create a drilling unit, while unitization is "the consolidation of mineral or leasehold interests covering all or part of a common source of supply" in order to create a geographic unit to be explored or developed for production.[23]

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[16] Marie C. Baca, "Forced Pooling: When Landowners Can't Say No to Drilling," Propublica (May 18, 2011), http://www.propublica.org/article/forced-pooling-when-landowners-cant-say-no-to-drilling. The article states 39 states have some type of forced pooling law. Id.

[17] Kramer & Martin, *supra* note 2, § 10.01; Kan. Stat. Ann. § 55-1610-1613.

[18] Baca, *supra* note 16. Both states have general compulsory pooling laws that apply to deeper wells. 58 Pa. Stat. Ann. § 406, *et seq.* (2012); W. Va. Code § 22C-9-7 (2012).

[19] S.B. 259, Regular Session 2013-2014 (Pa. June 30, 2013), *available at* http://www.legis.state.pa.us/cfdocs/billInfo/billInfo.cfm?sYear=2013&sInd=0&body=S&type=B&bn=259.

[20] Natural Gas Horizontal Well Control Act, W. Va. S.B. 424 (Feb. 4, 2011).

[21] For a discussion on minimum voluntary agreement, see *infra* Part II-B(2).

[22] See Appendix I; Definitions.

[23] Kramer, *supra* note 2, § 1.02.

Unitization refers to the field or reservoir development, which is a broader concept than pooling around a single well. The Mining and Energy Commission, however, has assigned the development of regulations regarding drilling units to the Administration of Oil and Gas Committee which may decide to define drilling units independently of the standard definition as the area drained by one well.

The primary goal of unitization is to maximize production by efficiently draining the whole reservoir.[24] With the exception of Texas, every major oil and gas producing state has a compulsory unitization statute.[25] Many statutes require that a certain percentage of both the working and royalty interest owners consent to the unitization and to a unit operating agreement.[26] The working interest owner is an owner who pays into the costs of drilling the well, usually the operator, and the royalty interest owner is an owner who owns a right to a part of the income. These terms are usually defined by the statute and can be found in Appendix I of this report.[27]

Recommendation on Unitization

The Mining and Energy Commission is given the authority to "establish unit or units for each pool."[28] Due to the specialized technical expertise needed to determine the appropriate parameters of a unit, such as acreage and boundary, the Study Group recommends that the rules regarding unitization should be developed by the Administration of Oil and Gas Committee of the Mining and Energy Commission consistent with rationales made on recommendations for compulsory pooling found in this report.

[24] Id.
[25] Id. § 18.01.
[26] Id.
[27] *See* Appendix I: Definitions.
[28] N.C. Gen. Stat. § 113-392(b).

II. Landowner Protections Associated with Compulsory Pooling

The Study Group has conducted an in depth investigation of the challenges and complexities of regulating compulsory pooling in other states while also considering the context unique to North Carolina, including the local geography and the relative absence of oil and gas development in the State to date. In light of its investigation, the Study Group has determined that additional policy issues must be considered and laws and regulations adopted to protect landowners and the State's natural resources in conjunction with updating North Carolina's pooling law. Specifically, the Study Group examined other states' laws and regulations related to: ensuring good faith negotiation with landowners; requiring a minimum amount of voluntarily pooled acreage prior to compulsory pooling; and requiring landowner consent for surface operations. The laws and regulations of Arkansas, Colorado, Ohio, and Texas are particularly instructive on these issues.

The Study Group also found that additional rules and regulations regarding notice of subsurface entry and reporting on production would be necessary. Current law can be interpreted not to address the issue of notice of subsurface entry for both surface owners and mineral owners. Providing notice to these owners will allow time for preparation and promote good relations between owners and operators. Additionally, current law does address reporting of production by operators but does not specifically require a number of elements that are essential for determining proper payment. The Study Group made recommendations to fill these gaps in notice and reporting.

A. Landowner Protections in Various States

1. Arkansas

i. Good Faith Negotiation

Arkansas regulations require that oil and gas operators make a good faith attempt at negotiating a voluntary agreement with landowners before applying for a compulsory pooling order. Accordingly, an application for a pooling order must include a statement that "bona fide efforts to reach an agreement commenced at least sixty days prior to the date of the hearing; and that there are sufficient contacts to show that the Applicant has exhausted all reasonable efforts to reach an agreement."[29]

[29] Ark. Oil & Gas Comm. Rule A-3(b)(2)(G)(i) (2012).

ii. Minimum Voluntarily Pooled Acreage

In addition, to apply for a pooling order for an exploratory well, the operator must have the voluntary agreement of 50 percent of the owners of the acreage for gas within the drilling unit.[30] If it is an established unit as opposed to an exploratory unit, however, there is no minimum percentage of voluntary agreement needed to apply for an order. Shane Khoury, Deputy Director and General Counsel for the Commission, described the difference between an exploratory unit and established unit as follows:

> "In order for a unit to be established as opposed to exploratory, it is either in the confines of a field for which the Commission has established field rules; or if it is in the area covered by General Rule B-43 (Fayetteville Shale area) or General Rule B-44 (portion of the Arkoma Basin), then it is established if a well is drilled in any of the eight contiguous or adjacent units."[31]

iii. Compulsory Pooling in Arkansas

According to the Commission's Hearings archive, in 2011 there were 124 orders issued for established units and 9 orders issued for exploratory units.[32] Since the requirement for 50% voluntary agreement of the surface acreage only applies to exploratory units, the vast majority of compulsory pooling orders issued did not require any minimum percentage of voluntary agreement.

2. Colorado

i. Good Faith Negotiation

The Colorado Oil and Gas Commission may not enter into a pooling order over the protest of an owner unless it is shown that the owner has "been tendered a reasonable offer to lease upon terms no less favorable than those currently prevailing in the area," and has "been furnished in writing such owner's share of the estimated drilling and completion costs of the well, the location and objective depth of the well," and the estimated start date of operations.[33] An unleased owner will be deemed a nonconsenting owner if he has failed or refused a reasonable

[30] Ark. Code Ann. § 15-72-302(e) (2012).
[31] Shane Khoury, Deputy Director/General Counsel, Arkansas Oil & Gas Comm., email correspondence, Nov. 27, 2012.
[32] "Hearings: Orders Archive 2011," Arkansas Oil & Gas Comm., retrieved from http://www.aogc.state.ar.us/Hearing_Orders_Archive.htm (last accessed Nov. 27, 2012).
[33] Colo. Rev. Stat. § 34-60-116(7)(d).

offer to lease.[34] When determining what a reasonable offer is, the Commission is required to consider the following lease terms for the proposed lease and all cornering and contiguous units: "(1) date of lease and primary term or offer with acreage in lease; (2) annual rental per acre; (3) bonus payment or evidence of non-availability; (4) mineral interest royalty; and (5) such other lease terms as may be relevant."[35]

The Colorado Reasonable Accommodation Doctrine, which was codified into law in 2007, directs oil and gas operators to conduct operations in a manner that accommodates surface owners and minimizes intrusion upon and damage to surface lands.[36] Under the statute, minimizing intrusion and damage to land means "selecting alternative locations for wells, roads, pipelines, or production facilities, or employing alternative means of operation, that prevent, reduce, or mitigate the impacts of the oil and gas operations on the surface, where such alternatives are technologically sound, economically practicable, and reasonably available to the operator."[37]

To enforce the Reasonable Accommodation standard, any surface owner may object to the placement of wells. According to the agency regulations, if a party objects to a location and cannot reach an agreement, the operator may apply for a hearing before the Commission for an exception to the setback rules for the well location.[38]

ii. Minimum Voluntarily Pooled Acreage

Colorado law does not specify any minimum percentage of voluntary agreement to obtain a statutory pooling order.

iii. Compulsory Pooling in Colorado

According to the online hearings archive on the Colorado Oil and Gas Commission's website, there were 139 applications for pooling orders in 2011.[39]

3. Ohio

The Ohio compulsory pooling law was significantly updated by the passage of Senate Bill 165 in 2010.[40] In accordance with the law, if a tract of land is of insufficient size or shape to meet the

[34] Colo. Oil & Gas Comm. Rule 530(c) (2012).
[35] Id.
[36] Colo. Rev. Stat. § 34-60-127 (1).
[37] Id. § 34-60-127(1)(b).
[38] Id. Rule 318 (c).
[39] "Hearings," Colorado Oil and Gas Conservation Comm., cogcc.state.co.us (last accessed Nov. 19, 2012).

requirements for drilling a well and the owner has been unable to form a drilling unit by agreement, the owner may submit an application to the Ohio Department of Natural Resources Division of Oil and Gas Resources to obtain a pooling order.[41]

i. Consent for Surface Use

The pooling law requires that the owner of the tract making a pooling application also own the mineral interest.[42] Furthermore, the law prohibits surface operations or disturbances to the surface of the land from occurring on a tract pooled by an order without the written consent of the owner that approves of the operations or disturbances.[43] The application fee for each mandatory pooling order is $5,000 and each individual or operator is limited to a maximum of five applications per year.[44]

ii. Good Faith Negotiations

The permit application for a compulsory pooling petition requires the submission of sworn affidavits that must include the following: (1) an explanation of why a mandatory pooling order is needed and what acreage and or distance is involved; (2) a statement detailing the attempts to obtain a lease and form a voluntary pooling agreement; and (3) copies of any correspondence sent to the affected individual.[45] In order for an application to be granted, there must be no other obvious alternate location for the drilling unit.[46]

iii. Minimum Voluntary Agreement

While Ohio law does not specify that a minimum percentage of surface acreage must be leased before a pooling order will issue, the Division has an unofficial minimum requirement that 90 percent of the surface acreage must be leased before an application for pooling will be considered. [47] Ninety percent is a high requirement compared to the laws of other states and perhaps explains the relatively low number of pooling applications received by the Division.

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[40] Ohio Substitute Senate Bill 165, 128th General Assembly (June 30, 2010).
[41] Ohio Rev. Code § 1509.27.
[42] Id.; See also Ohio Legislative Service Comm., "Final Analysis Substitute Senate Bill 165, 128th General Assembly," (June 30, 2010) at 23, retrieved from http://www.lsc.state.oh.us/analyses128/10-sb165-128.pdf.
[43] Ohio Rev. Code Ann. § 1509.27.
[44] Id.
[45] Ohio Division of Mineral Resources Management, "Mandatory Pooling Procedural Outline," (June 10, 2010) at 1, retrieved from http://www.ohiodnr.com/portals/11/oil/pdf/mandatory_pooling_procedural_outline.pdf.
[46] Id.
[47] Id.

iv. Compulsory Pooling in Ohio

According to the Division, it received 12 applications for compulsory pooling in 2011; 11 were approved and one was tabled.[48] In 2012, the number of compulsory pooling applications dropped to three and all were approved.[49]

4. Texas

i. Minimum Voluntary Agreement

The Mineral Interest Pooling Act authorizes compulsory pooling in Texas.[50] The law does not specify any minimum voluntary agreement requirements, but it does encourage landowners and operators to reach a voluntary agreement.

ii. Good Faith Negotiations

In order to file an application for compulsory pooling, the Act states:

> "(a) The applicant shall set forth in detail the nature of voluntary pooling offers made to the owners of the other interests in the proposed unit; (b) The commission shall dismiss the application if it finds that a fair and reasonable offer to pool voluntarily has not been made by the applicant, [and] (c) An offer by an owner of a royalty or any other interest in oil or gas within an existing proration unit to share on the same yardstick basis as the other owners within the existing proration unit are then sharing shall be considered a fair and reasonable offer." [51]

Furthermore, a pooling offer or pooling order is not considered "fair and reasonable" if it has any of the following terms:

> "(1) preferential right of the operator to purchase mineral interests in the unit; (2) a call on or option to purchase production from the unit; (3) operating charges that include any part of district or central office expense other than

[48] Jocelyn Kozlowski, Public Information Officer, Ohio Dept. of Natural Resources, Division of Oil and Gas Resources Management, e-mail correspondence, Nov. 29, 2012 and August 14, 2013.
[49] Id.
[50] Tex. Nat. Res. Code § 102.001, *et seq* (2012).
[51] Id. § 102.013.

reasonable overhead charges; or (4) prohibition against nonoperators questioning the operation of the unit."[52]

iii. Compulsory Pooling in Texas

Since the Mineral Interest Pooling Act law was first enacted in 1965, the Texas Railroad Commission has approved approximately 100 pooling applications.[53] It is likely the reason so few orders have been issued is because the Railroad Commission disfavors compulsory pooling as a matter of policy.[54]

B. Recommendations on Landowner Protections

After reviewing the laws of various states, the Study Group made the following recommendations for mineral owners subject to a pooling order. The purpose of the recommendations below is to provide protections to owners who may be pooled and to encourage voluntary agreement among all owners and operators in a drilling unit.

1. Good Faith Negotiation

A number of states, including Arkansas, Colorado, and Texas, require evidence that a fair and reasonable offer is made before issuing a pooling order.[55] The Study Group recommends that the Mining and Energy Commission also require evidence that operators demonstrate good faith attempts at voluntary agreement by making fair and reasonable offers to all owners in the pool.[56]

2. Minimum Voluntarily Agreement on Pooled Acreage

Many states require that a certain percentage of the pool voluntarily agree to pool their interests before the operator can apply for a compulsory pooling order. This percentage is generally calculated by surface acreage and varies greatly from state to state. For example, Kentucky requires 51% agreement of the owners of the surface acreage to agree to develop the

[52] Id. § 102.015.
[53] Brent G. Sonnier, "Oil and Gas Development and Unitization Laws in Various States," (March 2010) at 36, *available at* www.hadoa.org/.../2010/04%20-%20UnitznPaper_V2NADOA.doc.
[54] Id. ("It [compulsory pooling] appears to be infrequently used just as a matter of Railroad Commission policy, with voluntary pooling (or else likely none at all) the norm.").
[55] Ark. Oil & Gas Comm. Rule A-3(b)(2)(G)(i); Colo. Rev. Stat. § 34-60-116(7)(d); Tex. Nat. Res. Code § 102.013.
[56] The Study Group recommends the following language based on Colorado's statue: "No order pooling an unleased nonconsenting oil and gas interest owner shall be entered by the Commission until the Commission has received evidence the unleased oil and gas owner was tendered a reasonable offer to lease upon terms no less favorable than those currently prevailing in the area at the time that application for such order was made."

unit before the applicant can apply for a pooling order.[57] Only 25% of the owners of the surface acreage must agree in Virginia.[58] Ohio has unofficial requirement of 90% agreement of owners of the surface acreage.[59]

Recommendation

The Study Group recommends a minimum voluntary agreement minimum requirement of 90% of the owners of the surface acreage. Appendix III shows maps of how a standard natural gas parcel of 320 acres and one of 640 acres would look in Lee County, given different percentages of voluntary agreement.[60] The regulations for a drilling unit have yet to be determined. Assuming the drilling unit will be a square mile or 640 acres is only a hypothetical. The Administration of Oil and Gas Committee of the Mining and Energy Commission will determine future drilling unit regulations.

3. Landowner Consent for Surface Use

Ohio and West Virginia provide that surface operations or well placement requires the consent of the mineral interest owner.[61] The Study Group recommends that unleased mineral owners who are compulsory pooled should have to give consent to use of the surface. That is, surface operations should be prohibited without the express agreement of the unleased mineral interest owner subject to the pooling order.[62]

Additionally, the Study Group recommends that prior to applying for a pooling application, the applicant should have a surface use agreement in place.

C. Notice of Subsurface Entry

Current North Carolina law requires that gas operators provide the surface owner with notification at least 30 days in advance of entering a property to initiate any activity that will disturb the surface.[63] It provides that gas operators provide a 14-day notice in advance of

[57] Ky. Rev. Stat. Ann. § 353.630(2)(2012).
[58] Va. Code Ann. § 45.1-361.21(C)(3)(2012).
[59] "Mandatory Pooling Overview," *supra* note 44 (the Ohio percentage is not a statutory requirement but guidance provided by their environmental agency).
[60] Don Kovasckitz of Lee County Strategic Services prepared the maps found in Appendix II.
[61] Ohio Rev. Code § 1509.27; W. Va. Code § 22C-9-7 (b)(1)(2012).
[62] The Study Group recommends the following language: "No surface operations or disturbances to the surface of the land shall occur on a tract pooled by an order without the written consent of or a written agreement with the owner of the tract that approves the operations or disturbances."
[63] N.C. Gen. Stat. § 113-420(b).

entering a property to initiate activities that will not disturb the surface.[64] The latter provision could be read to require a notice be provided in the case of an entry to the subsurface. However, it seems more likely that the provision was intended and would be understood by a court to mean that a 14-day notice be provided prior to an entry onto the surface to conduct a non-surface-disturbing activity such as surveying. As a result, current law appears to fail to address the issue of notice of subsurface entry that is part of the drilling process.

Surface owners would benefit significantly from receiving notice of subsurface entry to provide them the opportunity to complete any water quality or other environmental testing that they wish to complete in addition to the baseline testing required by the State. Mineral rights owners also would benefit because it would provide them an indication that drilling is imminent, allowing them to become attentive to receiving payments from the gas production and to monitoring reporting of their contribution to well costs. For owners of compelled mineral rights and for surface owners who own the surface above these compelled mineral estates and the remaining subsurface rights, these benefits are even greater. Such surface owners and compelled mineral rights owners are likely to have had less time to make such preparations than their neighbors who leased their mineral rights months if not years before the pooling order was issued.

Providing advance notice to landowners and mineral rights owners also is not likely to place any appreciable burden on industry. Operators likely will have surface and mineral rights owners' names and addresses from their leasing efforts and their research for preparing the plats for their applications to designate production units. Even if not, the availability of this information online or at a central location within each county would make gathering it administratively easy.

Finally, providing and receiving notice promotes good relations between operators and surface owners or mineral rights owners in the production unit, which will facilitate resolution of any later disputes. While entry to the subsurface may not be as apparent as a surface entry to a general observer, to many landowners, particularly those who have been compelled into the unit, it will feel just as intrusive.

[64] Id. § 113-420(a).

Recommendation

The Study Group recommends that all operators within a drilling unit shall provide written notice between 30 days and six months prior to initiating drilling in the production unit containing the compelled mineral estate to the following parties:

1. owners of compelled mineral rights who were required to be provided notice of the compulsory pooling process;
2. owners of surface estates above the compelled mineral rights whose names are recorded as surface owners with the county register of deeds at the time that the application for a compulsory pooling order was filed;
3. owners of surface estates above the compelled mineral rights that provide the operator with a request for notice subsequent to a pooling order;
4. each holder of a mortgage lien against the compelled property that has recorded the lien with the county register of deeds at the time that the application for a mandatory pooling order was filed; and
5. each mortgage lien holder against a compelled property that subsequent to a pooling order requests a notice and provides the operator a copy of a recorded lien against the compelled property.

D. Reporting on Production

Current North Carolina law requires that gas operators report the following production information to parties from whom they have leased gas and oil rights: "the time period for which the royalty payment is made, the quantity of product sold within that period, and the price received, at a minimum."[65] It also provides that "[u]pon written request, the lessor shall be entitled to inspect and copy records of the oil or gas developer or operator related to production and royalty payments associated with the lease."[66] Current law makes no provision regarding the reporting requirements to parties who have retained a working interest.

Except for the information provided by the operator of their production unit, mineral rights owners will have no information about the royalty payments and other funds that they are due from the production of their oil and gas. To ensure that they are being properly compensated, mineral rights owners need sufficient information to be able to determine independently that

[65] Id. § 113-423(c).
[66] Id.

they are receiving the proper payment for the proper share of the production from the proper well.

While current North Carolina law requires in general terms that operators provide some information needed to calculate well royalties, it does not specifically require a number of elements that are essential for confirming proper payment. Providing such information to mineral rights owners should not burden operators because it is the same information that operators require to calculate an individual mineral rights owner's payments. The Study Group has proposed the recommendations below to ensure all relevant information will be reported to all appropriate parties.

Recommendations

Operators should be required to provide the following information in a clearly written statement accompanying each royalty payment or working interest share payment:

Identification Information:

1. Name of oil and gas rights owner (lessor or working interest owner);
2. Owner's identification number (account number or payee number utilized by producer); and
3. Lease number (if applicable), property name, API well number, and well name.

Payment Calculation Information:

1. Total volume sold of oil (in barrels), of gas (in MMBtu (1000's of Btus)), of natural gas liquids (NGL) (in gallons or barrels), and of other products (in relevant units);
2. Price per unit of oil, gas, NGL, and other products sold;
3. Month and year of sale (to confirm price);
4. Owner's interest in sale expressed as a decimal;
5. Owner's share in dollars before deductions and adjustments;
6. Each deduction including severance, production, and other taxes, transportation, line loss, compression, processing, treatment, marketing, gathering, third party charges and a key explaining each deduction; and
7. Owner's share in dollars after deductions and adjustments.

Contact Information to be included with every payment:

1. Address;
2. Telephone number; and

3. Email address where additional information may be obtained and questions answered.

The following persons should receive the report:

1. Each recipient of well production proceeds who is compelled into a production unit;
2. Each holder of a mortgage lien against the compelled property that has recorded the lien with the county register of deeds at the time that the application for a compulsory pooling order is filed; and
3. Each mortgage lien holder against a compelled property that subsequent to a pooling order provides the operator a copy of a recorded lien against the compelled property.

Records subject to review include records containing the source of information identified in the above recommendation and should include, at a minimum, the following information necessary to verify those records: third party evidence of pricing (e.g., purchase contract), wellhead charts, master meter readings, and meter calibration reports. In addition, mineral rights owners should have the right to audit any records used or relied upon by the operator in determining well production or calculating payments.

E. Dissolution of the Drilling Unit

Once a unit is established, there may be instances in which the unit should be dissolved automatically. This will protect landowner rights by freeing the property for other uses and development where the oil and gas exploration has failed to commence in a timely manner. It will also provide incentive for oil and gas companies to begin exploration where a unit has been established.

Recommendation

Consistent with Texas law on the dissolution of the drilling unit, the Study Group recommends that a drilling unit be automatically dissolved if no production occurs one year after the pooling order has been issued, six months after the completion of a dry hole, or six months after production has ended, whichever occurs first.[67]

[67] Tex. Nat. Res. Code § 102.082. The Study Group recommended language identical to the Texas law as follows: "A unit is automatically dissolved: (1) one year after its effective date if no production or drilling operations have been had on the unit; (2) six months after the completion of a dry hole on the unit; or (3) six months after cessation of production from the unit." Id.

III. Clarification of Mineral Rights Ownership

"Under long established principles of property law, the minerals in place underneath the surface of the earth, including oil and gas, can be owned separately and distinctly from the surface of the property."[68] That is, the minerals in the subsurface are capable of being a separate estate from the surface estate. When the oil, gas, or mineral rights are separately conveyed, the rights are said to have been severed, and the estate is called a severed or split estate.[69] In order to be recognized as valid under principles of real property law, mineral rights and oil and gas rights must be created and conveyed in writing and should be recorded in the county register of deeds office.[70]

A. Oil and Gas Interests as Distinct from Mineral Rights

Case law with regard to split estates often refers to the mineral estate generally in distinguishing it from the surface estate.[71] North Carolina statutes, however, may be interpreted to distinguish oil and gas rights as distinct from mineral rights. Oil and gas is not included in the definition of "mineral" in The Mining Act of 1971. The Mining Act defines "mineral" to mean "soil, clay, coal, stone, gravel, sand, phosphate, rock, metallic ore, and any other solid material or substance of commercial value found in natural deposits on or in the earth."[72] The Act defines "mining" as follows:

> "a. The breaking of the surface soil in order to facilitate or accomplish the extraction or removal of minerals, ores, or other solid matter.
> b. Any activity or process constituting all or part of a process for the extraction or removal of minerals, ores, soils, and other solid matter from their original location.
> c. The preparation, washing, cleaning, or other treatment of minerals, ores, or other solid matter so as to make them suitable for commercial, industrial, or construction use."[73]

[68] DOJ Report, *supra* note 13, at 11. For more information, the DOJ Report provides a thorough legal analysis of mineral and surface rights issues.
[69] Id.
[70] Id.
[71] Id. at 12.
[72] N.C. Gen. Stat. § 74.49(6).
[73] Id. §74.49(7).

While the Mining Act does not expressly include oil and gas rights in the definition of minerals or mining, the Oil and Gas Conservation Act applies to all "common sources of supply of natural gas."[74]

Mineral deeds will often convey the rights to all minerals and may specify oil and gas rights in addition to mineral rights. In *Frye v. Arrington*,[75] a deed from 1946 listed a reservation of "oil, gas and minerals in and under the surface of said lands and all rights and ownership therein…"[76] When a deed does not address oil and gas rights as distinct from mineral rights, the terms of the conveyance and the intent of the parties at the time of the conveyance are used to determine whether a reservation of the mineral estate alone would include oil and gas rights.[77]

B. Dormant Mineral Statutes

The practice of severing the mineral estate from the surface estate combined with generations of conveyance, devise, and descent has resulted in estates with numerous mineral owners. Owners of such interests may be absent from the locality or unaware they own the interest. In order to address these issues and encourage development, the General Assembly enacted laws known as the "dormant minerals" statutes to address fractured property interests and allow owners to merge a severed estate if certain conditions are met.[78]

In North Carolina, there are ten dormant mineral statutes: nine statutes that cover individual counties and one statute that applies to the remaining counties. All the statutes share similar language as excerpted below from G.S. § 1-49:

> "Where it appears on the public records that the fee simple title to any oil, gas or mineral interests in an area of land has been severed or separated from the surface fee simple ownership of such land and such interest is not in actual course of being mined, drilled, worked or operated, or in the adverse possession of another, and that the record titleholder of any such oil, gas or mineral interests has not listed the same for ad valorem tax purposes in the county in which the same is located for a period of five years prior to January 1, 1986, any person, having the legal capacity to own land in this State, who has on January 1, 1986, an unbroken chain of title of record to the surface estate of the area of

[74] Id. § 113-387.
[75] 58 N.C. App. 180, 292 S.E.2d 772 (N.C. App. 1982).
[76] DOJ Report, *supra* note 13, at 12.
[77] Id.
[78] Id. at 13, citing N.C. Gen. Stat. § 1-42.1 – § 1-42.9.

> land for at least 30 years and provided the surface estate is not in the adverse possession of another, shall be deemed to have a marketable title to the fee estate[.]"[79]

Additionally, North Carolina law provides for extinguishment by abandonment or adverse possession of both surface and subsurface rights.[80] In order to be subject to extinguishment, the resource cannot be in use as of the effective date or the subsurface interest cannot be in adverse possession. Actual mining is required to establish adverse possession of oil, gas, and mineral rights. Mere lapse of time and nonpayment of taxes are not sufficient to establish abandonment.[81]

In accordance with the statutes, the county in which an extinguishment is being sought must have given notice of the statute in a newspaper on or before January 1986.[82] It is not clear which counties did or did not give proper notice, which leaves an open question as to whether these notice provisions were properly satisfied.

Additionally, dormant minerals statutes similar to North Carolina's have been challenged in other states as an unconstitutional taking of private property rights without notice and compensation. In 1982, the United States Supreme Court weighed in on the issue and declared an Indiana dormant minerals statute constitutional.[83] In *Texaco Inc. v. Short*, the Court held that an Indiana law which allowed extinguishment of mineral interests after 20 years without the occurrence of an event to preserve those interests was rationally related to a legitimate state interest in generating tax revenue, encouraging mineral development, and identifying the owners of the mineral estates.[84] The Indiana statute did not require notice prior to the interest being extinguished.[85]

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[79] N.C. Gen. Stat. § 1-49(a).
[80] Ted Feitshans, CLE: Representing Landowners in Oil and Gas Leasing Transactions, at II-14, North Carolina Bar Association (Dec. 8, 2011).
[81] Id. at II-16.
[82] Id.; "The board of county commissioners shall publish a notice of this section in a newspaper published in the county or having general circulation in the county once a week for four consecutive weeks prior to January 1, 1986." N.C. Gen. Stat. § 1-49(e).
[83] Texaco, Inc. v. Short, 454 U.S. 516 (1982).
[84] Id. at 529.
[85] Roy A. Powell, et al., United States: Dormant Minerals Acts and the Marcellus and Utica Shale Plays, Jones Day (April 22, 2013), http://www.mondaq.com/unitedstates/x/234980/Oil+Gas+Electricity/Dormant+Minerals+Acts+and+the+Marcellus+and+Utica+Shale+Plays. The current language of the statute: "An interest in coal, oil and gas, and other minerals, if unused for a period of twenty (20) years, is extinguished and the ownership reverts to the owner of the

In *Texaco*, the Supreme Court avoided the takings issue by finding that the statute was not a government action, but rather based on the inaction of the mineral interest owner.[86] The North Carolina Court of Appeals favorably cited *Texaco* in a 2008 decision, *Rowlette v. State*.[87] In *Rowlette*, the plaintiffs brought a challenge under the Unclaimed Property Act.[88] The court ruled in favor of the State, citing *Texaco* in finding that "the State does not take possession of private property through any overt action on its part. Rather, the State comes into possession of the property as a result of the owner's neglect which causes the property to be unclaimed for the prescribed period of time, and thus deemed abandoned."[89]

However, an older North Carolina Supreme Court case concerning a state railroad extinguishment statute was held unconstitutional for lack of due process.[90] The statute at issue in the case *McDonald's Corp. v. Dwyer* created a presumption that title to an abandoned railroad easement would vest in an adjacent property owner if the railroad did not file an action within a year to rebut the presumption.[91]

The Court distinguished the statute at issue in *Texaco*, stating:

> "The Supreme Court in *Texaco* held that the statute fulfilled due process requirements because 'it is the owner's failure to make any use of the property – and not the action of the State – that causes the lapse of the property right...'

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interest out of which the interest in coal, oil and gas, and other minerals was carved. However, if a statement of claim is filed in accordance with this chapter, the reversion does not occur." Ind. Code § 32-23-10-5 (2002).

[86] 454 U.S. 516, 530 ("It is the owner's failure to make any use of the property — and not the action of the State — the causes the lapse of the property right; there is no "taking" that requires compensation. The requirement that an owner of a property interest that has not been used for 20 years must come forward and file a current statement of claim is not itself a 'taking.'").

[87] 188 N.C. App. 712 (2008).

[88] Id. at 712.

[89] Id. at 732.

[90] McDonald's Corp. v. Dwyer, 338 N.C. 445 (1994).

[91] Id. at 446, citing N.C. Gen. Stat. § 44.1. "Whenever a railroad abandons a railroad easement, all right, title and interest in the strip, piece or parcel of land constituting the abandoned easement shall be presumed to be vested in those persons, firms or corporations owning lots or parcels of land adjacent to the abandoned easement, with the presumptive ownership of each adjacent landowner extending to the centerline of the abandoned easement... Persons claiming ownership contrary to the presumption established in this section shall have a period of one year from the date of enactment of this statute or the abandonment of such easement, whichever later occurs, in which to bring any action to establish their ownership." Id.

> Unlike *Texaco*, here it is only the State's action that causes the lapse. No neglect, failure to use, or abandonment is attributable to defendants."[92]

The North Carolina dormant mineral statutes are consistent with the Indiana statute at issue in *Texaco*, in that it is the owner's failure to make use of the property that leads to extinguishment.

C. Recommendation on the Clarification of Mineral Rights Ownership

The Study Group recommends that the issue of amending the dormant minerals statutes be studied further. It was determined that making a recommendation on this issue is outside the scope of the Study Group. It was further recommended that the Mining and Energy Commission consult with the Department of Revenue and county register of deeds offices on the issue.

One model that may be followed is the process to register rights to submerged lands as provided in N.C. Gen Stat. § 113-205. This statute required that persons claiming submerged land property rights had three years to register claims with the Secretary of the Department of Environment and Natural Resources after notice was given by publication each year.[93]

[92] Id. at 445, quoting 454 U.S. 516, 530.
[93] N.C. Gen. Stat. § 113-205.

IV. Cost Sharing and Compulsorily Pooled Interests

The pooling order will set the terms for sharing of costs and production revenues from the well. There are three general approaches to compulsory pooling and cost sharing: free ride, risk penalty, and surrender of working interest.

The first approach is the free ride statute, which is currently the law in North Carolina.[94] Free ride statutes allow the non-consenting owner to share in the profits of production, and to share in the costs to the extent such costs are covered by revenues, without being responsible for the risks involved with exploration or development. That is, if a well is successful, the non-consenting owner will be entitled to his or her pro rata share of the production, less costs. On the other hand, if the well is a dry hole, or non-producing, the operator and those who voluntarily joined the pool will absorb the whole loss in accordance with their agreement. The non-consenting owner who was compulsory pooled will owe nothing. Other free ride states include Alaska, Arizona, Indiana and Missouri.[95] Experts have noted that free ride statutes can create reverse incentives to hold out; the landowner may be discouraged from joining voluntary pooling agreements when there is no risk or penalty associated with being compulsorily pooled.[96]

The second approach, called the risk penalty approach, was designed in part to address the problem of owners who hold out for a better price or deal through a pooling order. A risk penalty is a percentage of well costs above well costs applied to reimburse the well operator for the risk involved with the development of the well. This approach seeks to eliminate the owner's free ride and to compensate the operator for both the costs and risk associated with drilling. The non-consenting owner would be carried through the drilling phase, and, if the drilling is successful, the operator may withhold the owner's share of costs and the additional percentage of risk penalty. If the well is unsuccessful, the non-consenting owner would not be responsible for costs. Close to half the states with compulsory pooling statutes offer this approach to interest holders.[97]

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[94] N.C. Gen. Stat. 113-393 ("After being reimbursed for the actual expenditures for drilling and equipping and operating expenses incurred during the drilling operations and until the operator is reimbursed, the operator shall thereafter pay to the owner of each tract within the pool his ratable share of the production calculated at the market price in the field at the time of such production less the reasonable expense of operating the well.").
[95] Kramer & Martin, *supra* note 2, § 12.02.
[96] Bruce M. Kramer, *Compulsory Pooling and Unitization: State Options in Dealing with Uncooperative Owner,* 7 J. ENERGY L. & POL'Y 255 (1986).
[97] Kramer & Martin, *supra* note 2, § 12.02.

A third approach, called the surrender of working interest approach, allows the non-consenting owner a chance to assign his interest to the operator. Non-consenting owners who do not want to pay costs upfront or as the well is drilled and do not want to be subject to a risk penalty may elect to surrender their working interest to the operator in exchange for a bonus payment, a royalty interest, or some combination of the two.[98] Essentially this arrangement would operate the same as a lease, except the terms of the lease would be determined by the State.[99] Among other terms, the State would have to determine the duration and extent of the assignment and how to treat other interests carved out of the interest prior to the assignment in a manner that is just and reasonable. The states that follow this approach include Arkansas, Idaho, Illinois, South Dakota and West Virginia.[100]

Some states allow non-consenting owners to choose which approach will best serve their interests by offering a choice of elections that utilizes the approaches described above. A regulatory scheme involving elections for the oil and gas owner allows the non-consenting owner to participate in the well and to share in both the well's risk of failure and the opportunity for profits. Before an order is issued by a state conservation commission, a common process is to send the owner a notice of potential elections he or she can choose from within a designated period of time after a pooling order has been issued.

A. Cost Sharing in Other States

1. Arkansas

The Arkansas Oil and Gas Conservation Act provides that the non-consenting owner who does not elect to share in the costs of operating a well shall assign his or her rights in the unit to those who do participate in the costs of the unit operations.[101] A compulsory pooling order must establish reasonable terms to afford each owner in the unit an opportunity to recover his or her just and reasonable share of oil and gas in the pool.[102] Non-consenting owners in Arkansas also have the option to execute a lease voluntarily or to pay into costs as a working

[98] Landy & Reese, *supra* note 8.
[99] Id. at 11053.
[100] Kramer & Martin, *supra* note 2, § 12.02.
[101] Ark. Code Ann. § 15-72-304(d)(2012).
[102] Id. § 15-72-304(a).

interest owner.[103] If the owner does not wish to participate, the statute takes a surrender of the working interest approach as follows:

> "[A]n owner who does not affirmatively elect to participate in the risk and cost of the operations shall transfer his rights in the drilling unit and the production from the unit well to the parties who elect to participate therein for a reasonable consideration and on a reasonable basis, which in the absence of agreement between the parties, shall be determined by the commission. The transfer may be either a permanent transfer or may be for a limited period pending recoupment out of the share of production attributable to the interest of the nonparticipating owner by the participating parties of an amount equal to the share of the costs that would have been borne by the nonparticipating party had he participated in the operations, plus an additional sum to be fixed by the commission."[104]

If the non-consenting owner chooses not to sign a lease or participate in the drilling, he or she may be carried by the operators for cost. If the well is productive, the operator may retain the revenue allocated to those non-consenting interests until it reaches an amount those parties would have paid for participating, plus an additional sum to be determined by the Arkansas Oil and Gas Commission.[105]

The election rights are different if a producing well already exists at the time the order is issued by the Arkansas Oil and Gas Commission. In that event, the order must designate a time period within which a nonparticipating owner will either reimburse the drilling parties in cash for his or her share of the actual costs or transfer his or her rights in the drilling unit and the production of the well until the parties have received the share of production attributable to the interest in an amount equal to the share of costs that would have been paid had that owner participated.[106]

In the event there is an unleased oil and gas interest, the owner thereof shall be regarded as the owner of a royalty interest of one-eighth of the gas sold.[107] According to the Act, one-eighth of all gas sold shall be considered royalty gas and the net proceeds should be distributed

[103] Charles A. Morgan, The Arkansas Leasing Manual, at 19 (2008), *available at* http://www.geology.ar.gov/pdf/Leasing%20Manual%202008.pdf.
[104] Ark. Code Ann. § 15-72-304 (b)(4).
[105] Id.
[106] Id. § 15-72-304(c).
[107] Id. § 15-72-304(d).

to the owners of marketable title to the royalty interest.[108] Unless all of the royalty owners within the unit agree otherwise, the Act provides the method of distribution.[109]

2. Colorado

In accordance with the Colorado Oil and Gas Conservation Act, a compulsory pooling order must first establish the pro rata share of interest of each owner in the drilling unit and provide that each consenting owner is entitled to receive the share of production attributable to his or her interest.[110] For the non-consenting owner, the order must provide for the proportionate payment of costs to the consenting owners out of the non-consenting owner's share of production costs.[111] A working interest owner that does not consent to the drilling and refuses to pay for costs is subject to a 100% recoupment of the costs of drilling including surface equipment and 200% of the costs of drilling preparation, well drilling, and completion of the well, including wellhead connections.[112] These penalties apply to owners who are oil and gas lessees.[113]

The statute gives unleased non-consenting owners a royalty interest of one-eighth share of production until the consenting owners recover costs out of the other seven-eighths of the non-consenting owner's share of production.[114] After costs are recovered, the unleased non-consenting owner will own its whole 100% share of the well.[115] The Act provides:

> "A non-consenting owner of a tract in a drilling unit which is not subject to any lease or other contract for the development thereof for oil and gas shall be deemed to have a landowner's proportionate royalty of twelve and one-half percent until such time as the consenting owners recover, only out of the non-consenting owner's proportionate seven-eighths share of production... After recovery of such costs, the non-consenting owner shall then own his proportionate eight-eighths share of the well, surface facilities, and production

[108] Id. § 15-72-305(a)(3).
[109] Id.
[110] Colo. Rev. Stat. § 34-60-166(6) (2012).
[111] Id. § 34-60-116(a).
[112] Id. § 30-60-116(7)(b)(I-II).
[113] Id. § 34-60-116(a).
[114] Id. § 34-60-116(7)(c); Landy & Reese, *supra* note 8, at 11054.
[115] Colo. Rev. Stat. § 34-60-116(7)(c).

> and then be liable for further costs as if he had originally agreed to drilling of the well."[116]

Unleased owners are treated differently in certain statutes, including the Colorado statute, because they are likely to be private landowners and typically are entitled to a greater share of production because they have not assigned any of their oil and gas rights.[117] Colorado's cost sharing provision ensures a "just and equitable" share of production is allocated to the unleased landowner.[118]

3. Ohio

Section 1509.27 of the Ohio Revised Code provides that if an owner of a tract pooled by an order does not elect to participate in the risk and costs of operating the well, that individual will be designated a nonparticipating owner and will be carried subject to terms and conditions that are just and reasonable as determined by the Chief of the Division.[119] The applicant or operator who bears the cost is entitled to the nonparticipating owner's share of production from the drilling unit, minus that nonparticipating owner's share of the royalty interest, until the applicant or operator has received the share of costs charged to the nonparticipating owner plus an additional percentage of the share of costs as determined by the Chief of the Division.[120] The allocation of production is based on surface acreage.[121]

Furthermore, the additional percentage or the risk penalty cannot exceed 200% of the share of costs charged to the nonparticipating owner.[122] After the costs have been paid to the operator, the nonparticipating owner shall receive a proportionate share of the working interest in the well and a proportionate share of the royalty interest, if any.[123]

4. Texas

The Mineral Interest Pooling Act sets forth the right for non-consenting owners in a pooled unit.[124] Since pooling is discouraged in Texas, the statute's cost allocation scheme is relatively

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[116] Id.
[117] Landy & Reese, *supra* note 8, at 11056.
[118] Id.
[119] Ohio Rev. Code Ann. § 1509.27 (2012).
[120] Id.
[121] Id.
[122] Id.
[123] Id.
[124] Tex. Nat. Res. Code § 102.051 (2012).

simple and has not substantially changed since its enactment in 1965.[125] According to the Act, the production shall be allocated according to the proportion of surface acreage owned in the unit.[126] However, if the Railroad Commission finds that the allocation based on surface acreage is unfair, it must allocate the production so that each tract receives its fair share.[127]

For an owner who does not wish to pay into the costs, the Act takes a risk penalty approach.[128] The Railroad Commission "shall make provision in the pooling order for reimbursement solely out of production, to the parties advancing the costs, of all actual and reasonable drilling, completion, and operating costs plus a charge for risk not to exceed 100 percent of the drilling and completion costs."[129] That is, the non-consenting owner will be responsible for costs and a maximum of a 100% risk penalty. If there is a dispute over costs, the Railroad Commission will have a hearing to determine proper costs and their allocation.[130]

5. West Virginia

West Virginia provides an election scheme for cost sharing in a drilling unit under its Deep Wells Statute.[131] Under the Statute, a non-consenting landowner may elect from two different options as follows:

- Option 1. To surrender such interest or a portion thereof to the participating owners on a reasonable basis and for a reasonable consideration, which, if not agreed upon, shall be determined by the commission; or
- Option 2. To participate in the drilling of the deep well on a limited or carried basis on terms and conditions which, if not agreed upon, shall be determined by the commission to be just and reasonable.[132]

Thus, an owner who did not voluntarily participate in the pool could choose between the surrender of the working interest approach or the risk penalty approach. Under the risk penalty approach, the operating owner is entitled to the share of production from tracts pooled, exclusive of one-eighth of the production attributable to all unleased tracts, until the market

[125] Sonnier, supra note 53, at 37-39.
[126] Id.
[127] Id.
[128] Id. § 102.052.
[129] Id.
[130] Id.
[131] W. Va. Code 22C-9-7(b)(5) (2012).
[132] Id.

value of the non-consenting owner's share equals double the share of costs charged to the interest of the non-consenting owner.[133]

The West Virginia Legislature considered a proposal for cost sharing and compulsory pooling in shallow wells in 2011 Senate Bill 424.[134] Under the proposed bill, the non-consenting unleased party would have had the following options:

- Elect to assign his or her oil and gas ownership interest pursuant to the terms of the lease submitted by the operator with the drilling unit application;
- Elect to become a non-operating working interest owner by participating in the costs and risk of the well; or
- Elect to participate in the operation of the well as a carried interest owner subject to a risk penalty to be determined by the Commission (between 200 and 300%).[135]

The proposed bill provided that the owner had 30 days to make an election after the pooling order issued or be subject to the first option by default.[136] While this bill failed to pass the legislature with the compulsory pooling provision intact, it does offer a modern approach to an elections statute that could be used by other states.

B. Recommendations

In the interest of developing a modern framework for compulsory pooling that is protective of owners who are compulsorily pooled, the Study Group recommends that the General Assembly repeal the free ride provision of N.C. Gen. Stat. § 113-393(a) and adopt a cost sharing statute that allows the compelled owner to choose from various cost sharing options. Experts have noted that free ride statutes can create reverse incentives to hold out; the landowner may be discouraged from joining voluntary pooling agreements where no risk or penalty is associated with being compulsorily pooled.[137] The Study Group recommends the following options for the election of the compelled owner once a pooling order has issued:

a. Share in Costs as a Participating Owner: The oil and gas interest owner pays its share of the costs of drilling, equipping, and operating the well as the costs are incurred.

[133] Id. § 22C-9-7(b)(6).
[134] Natural Gas Horizontal Well Control Act, W. Va. S.B. 424, § 22C-9-7(b)(6)(Feb. 4, 2011).
[135] Id.
[136] Id.
[137] Kramer, *supra* note 96.

b. Surrender of Working Interest: The oil and gas interest owner surrenders its working interest in the well in exchange for reasonable consideration, which may be a combination of a bonus payment and royalty interest.

c. Risk Penalty: The oil and gas interest owner may have its portion of the costs of drilling, equipping, and operating the well carried by the other interest owners until the production stage, but will be charged a risk penalty to be determined by the Mining and Energy Commission.

The Study Group felt that the cost sharing options are designed to ensure that owners receive a fair and equitable share without incentivizing operators or owners to resort to the administrative process. In addition to providing fair and equitable alternatives for owners, the options approach is designed to reduce the administrative burden of reviewing pooling applications and orders by encouraging all parties to come to a voluntary agreement.

C. Additional Recommendations: The Risk Penalty

The Study Group recommends that the operator be required to quantify the risk associated with drilling a well in a pooled unit as part of its application for a pooling order and to recommend a risk penalty for landowners based upon the estimated risk for the Mining and Energy Commission's consideration but that in no instance should the risk penalty exceed 200%. The costs associated with the risk penalty are the costs of drilling, equipping and completing the well.

There was a concern that small landowners would not receive a just and equitable share under the risk penalty provision. Thus, the Study Group further recommended having an acreage threshold requirement that would allow the Commission to set the risk penalty at zero percent for small landowners. The Study Group agreed that a threshold between half an acre and 10 acres would ensure small landowners receive a just and equitable share of production.

The North Carolina Oil and Gas Conservation Act requires that each owner be provided "the opportunity to recover or receive his just and equitable share of the oil and gas in the pool without unnecessary expense."[138] Accordingly, the Study Group recommends that in assigning risk penalties to each landowner, the Mining and Energy Commission take into account that owners of small acreage interests must bear legal and administrative costs similar in size to those borne by larger area landowners but from a significantly smaller share of the pool's revenue. Specifically, the Study Group recommends that in assigning risk penalties to small

[138] N.C. Gen. Stat. § 113-393.

acreage landowners, the Mining and Energy Commission take into consideration the expenses incurred by an owner in retaining legal counsel to evaluate and respond to lease offers as recommended by the State, in defending the owner's rights in responding to the pooling application and participating in the pooling order process, and in monitoring and auditing the payments it receives over the life of the well.

The Study Group further recommends unleased owners be treated differently under the risk penalty option of a cost sharing statute. The unleased owner will have the costs of drilling, equipping, and operating the well carried until the production stage, but will be charged a risk penalty to be determined by the Mining and Energy Commission. The risk penalty will be paid from seven-eighths of the carried interest owner's share of production. The carried interest owner will receive one-eighth of his or her share of production until the share of costs and the risk penalty have been paid.[139]

[139] This is an approach taken in Colorado and Arkansas. *See* Landy & Reese, *supra* note 8, at 11-2011.

V. Compensation to Landowners for Damages Associated with Exploration and Development

Investigating compulsory pooling led the Study Group to consider associated issues, such as mechanisms for ensuring that landowners are held harmless and compensated for damages sustained as a result of exploration and development activities that take place on their property. Based on its review of regulatory frameworks of other states, the Study Group became aware of deficiencies in North Carolina law that should be addressed.

North Carolina law addresses indemnification for all landowners. Section 422 of the North Carolina Oil and Gas Conservation Act, as amended by Session Law 2012-143, states:

> "An oil or gas developer or operator shall indemnify and hold harmless a surface owner against any claims related to the developer's or operator's activities on the surface owner's property, including, but not limited to, (i) claims of injury or death to any person; (ii) for damage to impacted infrastructure or water supplies; (iii) damage to a third party's property that is real or personal property; and (iv) violations of any federal, State, or local law, rule, regulation, or ordinance, including those for protection of the environment."[140]

Recommendations

The purpose of the following recommendations is to expand on the above section and address concerns particular to compulsory pooling. All rights to indemnification should survive dissolution of the unit.[141]

A. Unleased Owners

The Study Group recommends that an unleased owner with involvement in neither exploration for, nor production of, gas, oil, or related resources from said owner's property should have absolute tort immunity from any action arising from any exploration or production activities on or near said owner's property. Mere receipt of payments in lieu of bonus, royalty, or damage payments by an unleased owner should not constitute involvement in either exploration or production activities. An unleased owner should be held harmless in that the production company should have a duty to defend against any third-party actions, including but not limited to private lawsuits and governmental actions of whatever nature, brought against the unleased

[140] N.C. Session Law 2012-143, § 113-422 (2012).
[141] This applies if the recommendation for automatic dissolution is adopted, *see* Part II-E.

owner. The unleased owner should be entitled to indemnification from the production company for any sums ordered paid and expenses, including attorney fees and costs, incurred as the result of any third-party action.

An unleased owner should be entitled to indemnification for any injuries to his or her own property, person, person of a family member or guest, and other economic interests that are not merely speculative. Other interests may include, but are not limited to, loss of value of real or personal property, rollback taxes under the present use value (PUV) tax program, increased taxes as the result of the partial or complete loss of present use value (PUV) tax program eligibility, loss of income from agriculture, forestry, agritourism, or other business resulting from oil and gas exploration and production activities, and losses associated with violations of federal or state conservation programs, provisions of conservation easements, or acceleration or other clauses or provisions in security agreements for which oil and gas exploration or production activities trigger liability. These protections should not be allowed to be waived by contract.[142]

B. Production Companies

Where two or more production companies are compelled to participate in a single production unit, with a single company selected to conduct exploration or production, rights to indemnification, if any, should be governed by the terms of the joint operating agreement, either as agreed upon by the parties or, in the absence of agreement, as imposed by the Mining and Energy Commission.[143]

C. Leased Owners

The rights of a leased owner (lessor) should be determined by the terms of the joint operating agreement, the original lease, or N.C.G.S. §§ 113-421, -422, whichever provides greater protection to the owner.[144]

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[142] Theodore A. Feitshans, Department of Agriculture and Resource Economics, North Carolina State University, Indemnification Proposals at the meeting of Compulsory Pooling Study Group (May 31, 2013), *available at* http://portal.ncdenr.org/c/document_library/get_file?uuid=7ea3cd2b-51d5-48eb-9e52-a434b0ba665b&groupId=8198095). Under the options approach to compulsory pooling, circumstances can be envisioned under which an initially unleased owner should be deemed a leased owner. The line needs to be defined. In general, the determination should be made based upon the extent to which the owner has assumed the risks and benefits of exploration and production. Id.

[143] Id.

[144] Id. An indemnification provision that did not provide at least that contractually agreed upon in a lease might violate the Contract Clause of Article I, section 10 of the U.S. Constitution. Id.

Appendix I: Definitions

Assignment of the lease – transfer of all rights of the lease from the lessee to another party.

Compulsory pooling – mandatory inclusion of oil and gas interests into a drilling unit after the applicant was unable to form a drilling unit through voluntary agreement.

Drilling unit or **spacing unit** – refers to the area which may be efficiently and effectively drained by one well. The unit may dictate both the minimum acreage required to drill a well and the well density over the designated common source of supply.

Duty to defend – duty imposed by law or contract upon one party, to defend a legal action brought against another. The duty may include a right on the part of the one assuming the duty to direct the course of the defense, including the choice of counsel.

Gas – shall mean all natural gas, including casing-head gas, and all other hydrocarbons not defined as oil in subdivision (7). (Subdivision (7): "'Oil' shall mean crude petroleum oil, and other hydrocarbons, regardless of gravity, which are produced at the well in liquid form by ordinary production methods, and which are not the result of condensation of gas after it leaves the reservoir."). (GS § 113-389(3),(7))

Indemnification – restoration of a victim (an indemnitee) of a loss, in whole or in part, by one (an indemnitor) required by law or contract to so. Indemnification includes but is not limited to losses to the indemnitee that result from a legal action by a third party against the indemnitee. Potential losses for which an indemnitee may be indemnified include any economic loss including both losses to the property and person of the indemnitee. Such losses do not generally include non-economic losses or losses that are highly speculative.

Landman – an individual who performs various services for oil and gas exploration companies. According to the website of the American Association of Professional Landmen (AAPL), these services include: negotiating for the acquisition or divestiture of mineral rights; negotiating business agreements that provide for the exploration for and/or development of minerals; determining ownership in minerals through the research of public and private records; reviewing the status of title, curing title defects and otherwise reducing title risk associated

with ownership in minerals; managing rights and/or obligations derived from ownership of interests in minerals; and unitizing or pooling of interests in minerals.[145]

Leased interest owner – an oil and gas owner who has entered into an oil and gas lease.

Lessee – shall mean the person entitled under an oil and gas lease to drill and operate wells. (GS § 113-389(6a))

Lessor – shall mean the owner of subsurface oil or gas resources who has executed a lease and who is entitled to the payment of a royalty on production. (GS § 113-389(6b))

Oil – shall mean crude petroleum oil, and other hydrocarbons, regardless of gravity, which are produced at the well in liquid form by ordinary production methods, and which are not the result of condensation of gas after it leaves the reservoir. (GS § 113-389(7))

Oil and gas developer or operator or **developer or operator** – shall mean a person who acquires a lease for the purpose of conducting exploration for or extracting oil or gas. (GS § 113-389(7a))

Owner – shall mean the person who has the right to drill into and to produce from any pool, and to appropriate the production either for himself or for himself and others. (GS § 113-389(8))

Leased interest owners – those persons who have assigned their oil and gas rights for development.

Partial or absolute tort immunity – partial or complete exemption from tort liability (which may require a motion to dismiss and proof of status within the exempt class).

Pool – shall mean an underground reservoir containing a common accumulation of crude petroleum oil or natural gas or both. Each zone of a general structure which is completely separated from the other zone in the structure is covered by the term "pool" as used herein. (GS § 113-389(10))

Producer – shall mean the owner of a well or wells capable of producing oil or gas, or both. (GS § 113-389(11))

Production cost – cost of drilling, completion, and operating, including raw materials and labor.

[145] Derived from AAPL bylaws. *Bylaws,* American Association of Professional Landmen, http://www.landman.org/about-aapl/bylaws (last visited July 16, 2013).

Risk Penalty – a percentage of well costs above the actual costs of the well applied to reimburse the well operator for the risk involved with the development of the well.

Royalty interest – a share of production, or the value or proceeds of production, free of the costs of production, when and if there is production.[146]

Royalty interest owner – those entitled to a percentage of the proceeds after costs are paid.

Severed estate – split ownership of the surface and subsurface by conveyance of the oil and gas rights from the owner or by reservation of the oil and gas rights by the owner.

Surface owner – means the person who holds record title to or has a purchaser's interest in the surface of real property. (GS § 113-389(12b))

Surface use agreement – an agreement to determine use of the surface by an operator during oil, gas or mineral development and compensation to surface owner for any use or disturbance of the surface.

Unleased interest owners – those persons who have not assigned their oil and gas rights for development.

Unitization – designates a common source of supply, such as a reservoir of oil, for the efficient and economic development of oil and gas.

Waste – in addition to its ordinary meaning, shall mean 'physical waste' as that term is generally understood in the oil and gas industry. It shall include:

a. The inefficient, excessive or improper use or dissipation of reservoir energy; and the locating, spacing, drilling, equipping, operating or producing of any oil or gas well or wells in a manner which results, or tends to result, in reducing inefficiently the quantity of oil or gas ultimately to be recovered from any pool in this State.
b. The inefficient storing of oil, and the locating, spacing, drilling, equipping, operating or producing of any oil or gas well or wells in a manner causing, or tending to cause, unnecessary or excessive surface loss or destruction of oil or gas.
c. Abuse of the correlative rights and opportunities of each owner of oil and gas in a common reservoir due to nonuniform, disproportionate, and unratable withdrawals causing undue drainage between tracts of land.

[146] John S. Lowe, Oil and Gas Law in a Nutshell, West's Law in a Nutshell Series (5th ed. 2009).

d. Producing oil or gas in such manner as to cause unnecessary water channelling or coning.

e. The operation of any oil well or wells with an inefficient gas-oil ratio.

f. The drowning with water of any stratum or part thereof capable of producing oil or gas.

g. Underground waste however caused and whether or not defined.

h. The creation of unnecessary fire hazards.

i. The escape into the open air, from a well producing both oil and gas, of gas in excess of the amount which is necessary in the efficient drilling or operation of the well.

j. Permitting gas produced from a gas well to escape into the air.

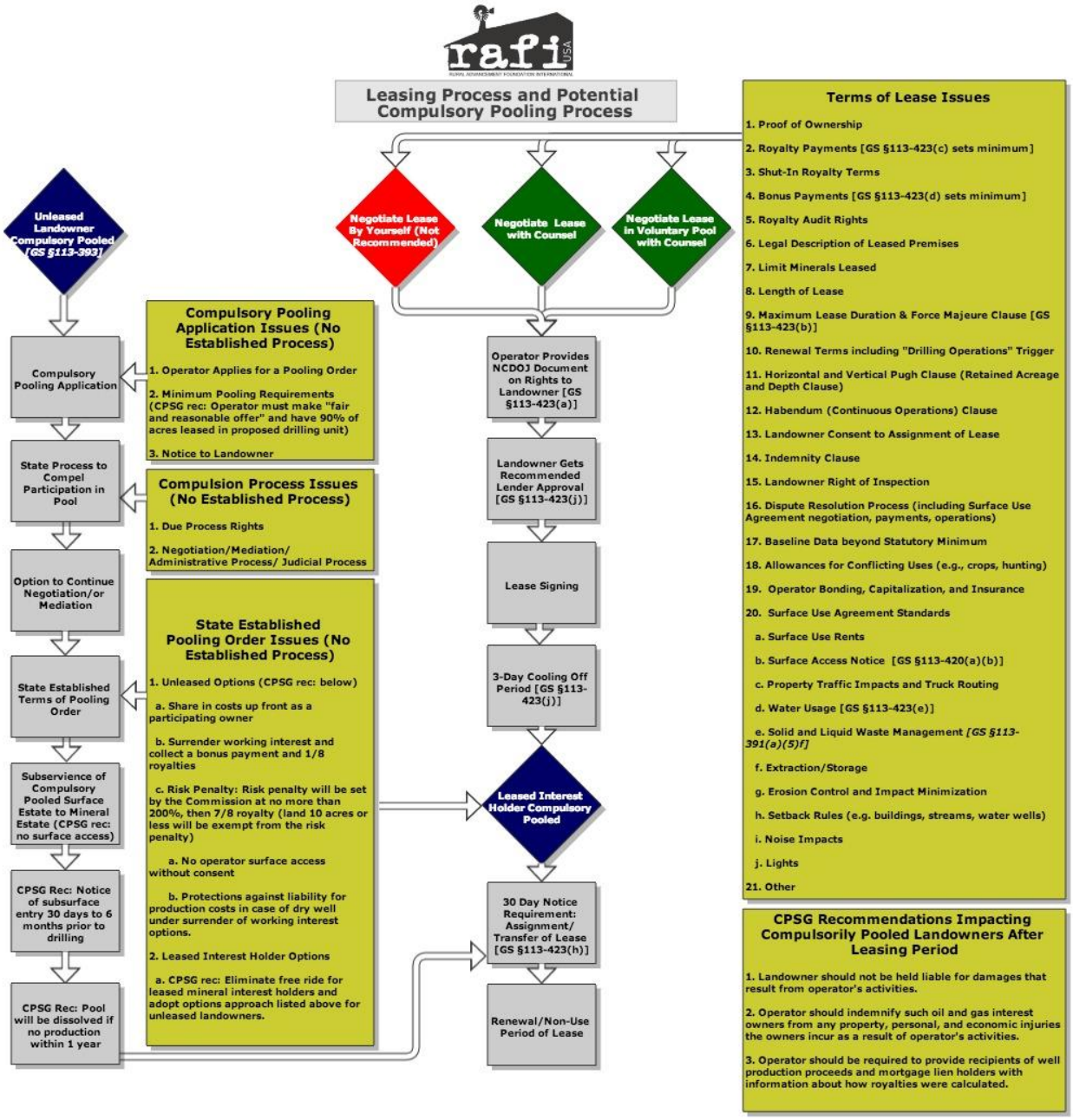
(GS § 113-389(14))

Working interest – the rights to the oil and gas interest granted by an oil and gas lease whereby the developer or operator acquires the right to work on the property to explore, develop, and produce oil and gas and the developer or operator has the obligation to pay all costs.[147]

Working interest owners – those persons who participate in the costs of unit production.

[147] Id.

Appendix II: RAFI Chart[148]



[148] RAFI would like to note that developing this chart is not an endorsement of compulsory pooling in North Carolina. This chart was developed as a tool to help identify issues related to compulsory pooling.

Appendix III: GIS Maps

Figure 1. 320 Acres- 80%

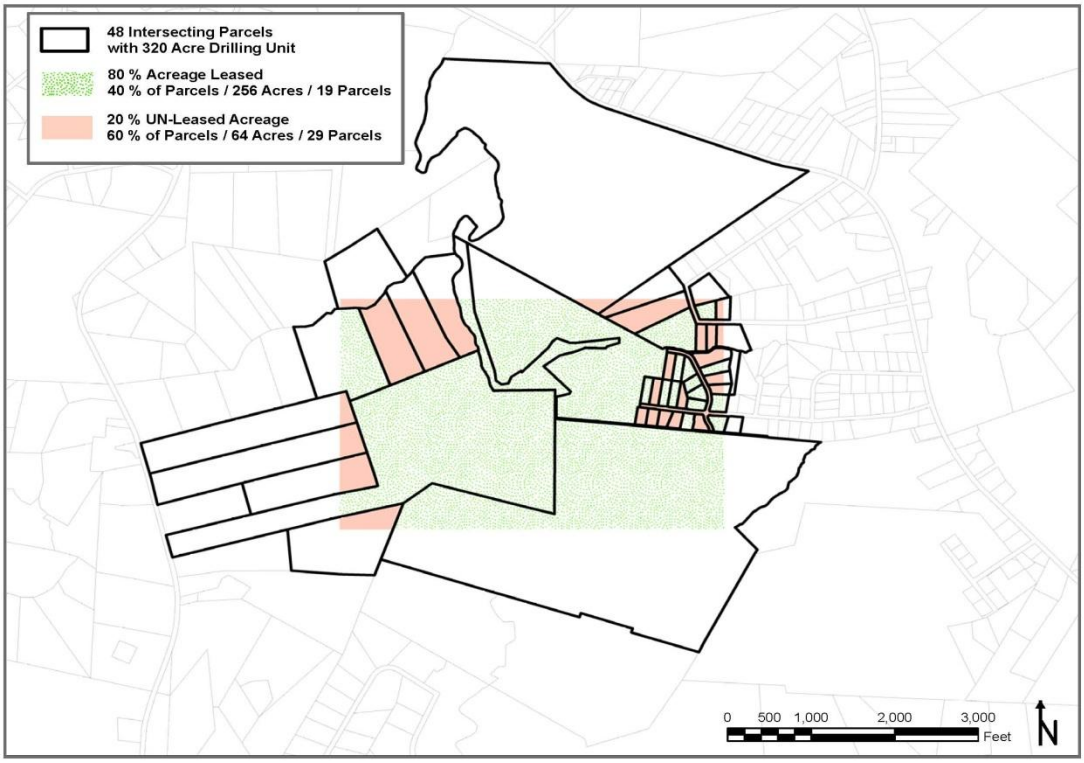


Figure 1 shows a hypothetical drilling unit of 320 acres in Sanford, Lee County with 80% of the surface acreage leased.

Figure 2. 640 acres – 80%

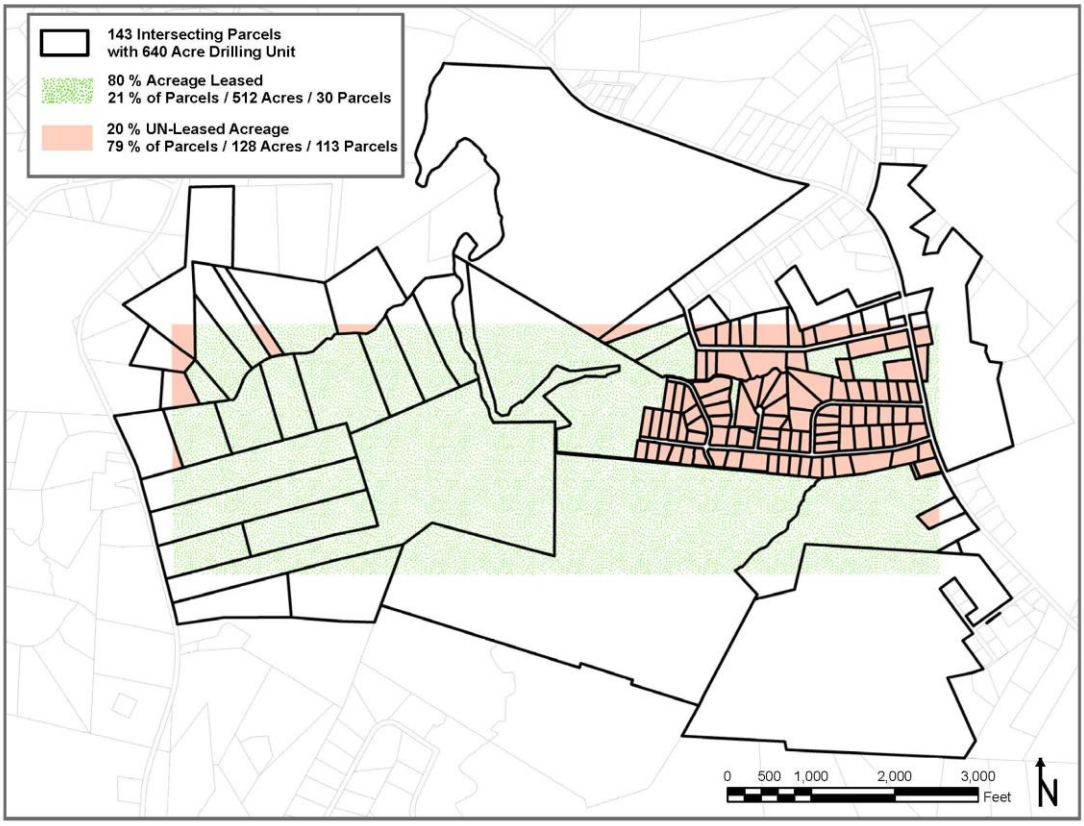


Figure 2 shows a hypothetical drilling unit of 640 acres in Sanford, Lee County with 80% of the surface acreage leased.

Figure 3. 320 acres – 90%

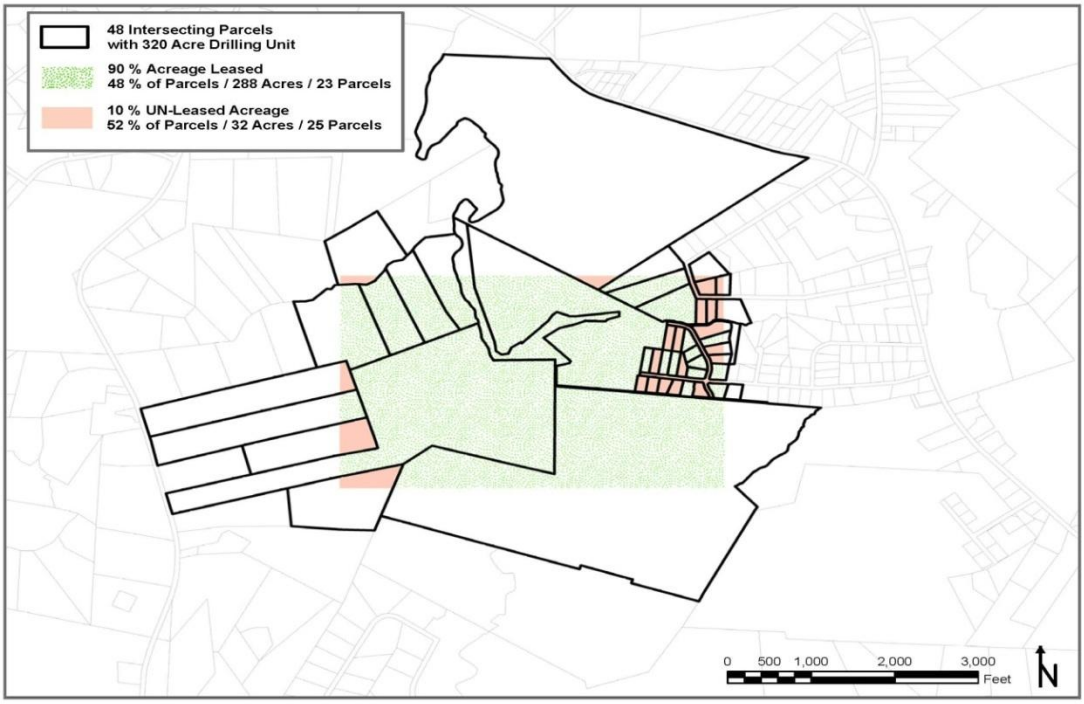


Figure 3 shows a hypothetical drilling unit of 320 acres in Sanford, Lee County with 90% of the surface acreage leased.

Figure 4. 640 acres – 90%

Figure 4 shows a hypothetical drilling unit of 640 acres in Sanford, Lee County with 90% of the surface acreage leased.

Figure 5. 320 acres – 95%

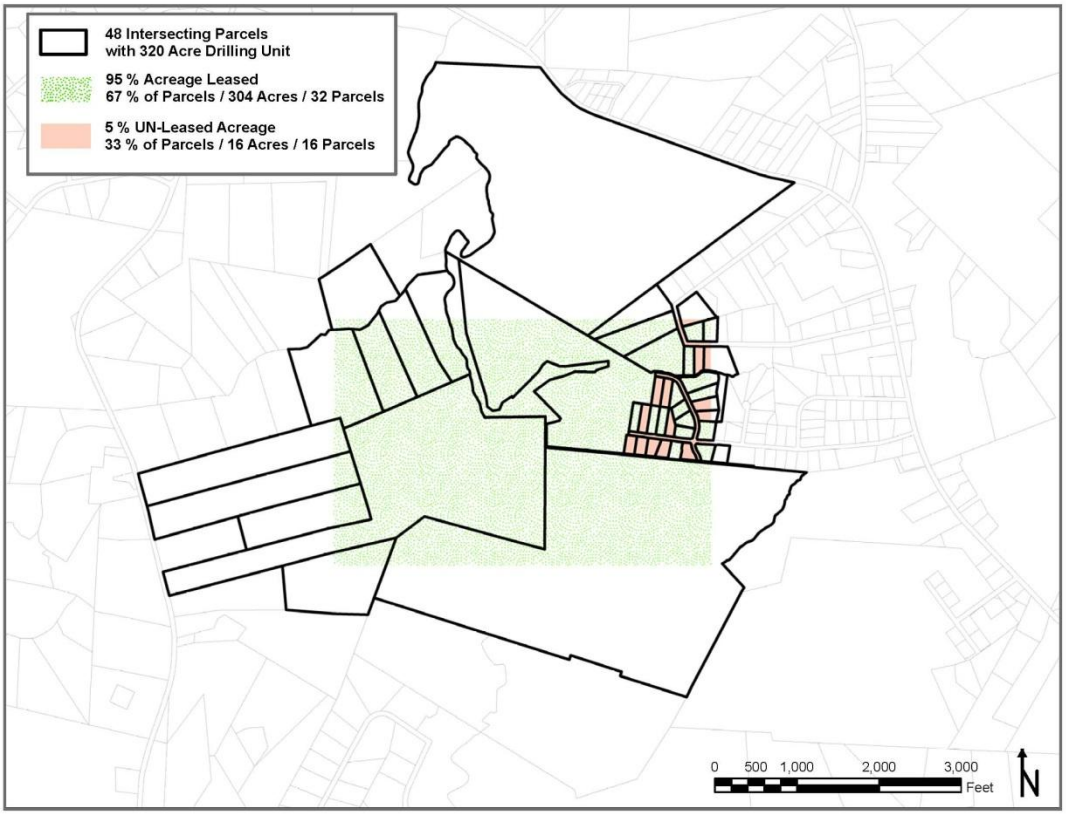


Figure 5 shows a hypothetical drilling unit of 320 acres in Sanford, Lee County with 95% of the surface acreage leased.

Figure 6. 640 acres – 95%

Figure 6 shows a hypothetical drilling unit of 640 acres in Sanford, Lee County with 95% of the surface acreage leased.