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A Cry for Clarity: Pennslyvania's Method of Compensating Unleased Fractional Oil & Gas Owners

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A Cry for Clarity: Pennsylvania's Method of Compensating Unleased Fractional Oil & Gas Owners

Grant T. Martin*

ABSTRACT

Pennsylvania law permits a cotenant of an oil and gas estate to develop that entire oil and gas estate without the consent of other cotenants. This right to develop without the consent of all of the cotenants extends to a lessee-developer, and therefore an oil and gas exploration and development company can lawfully develop an entire oil and gas estate with a lease from just one cotenant.

Pennsylvania law also provides that the developer must compensate, or "account to," the unleased cotenants for their share of the oil or gas produced. Pennsylvania law, however, does not clearly provide how developers should compensate unleased cotenants. No statutes or regulations speak to the issue. Instead, developers are left to discern century-old court opinions, which are extremely vague.

This Comment will provide an analysis of the current state of Pennsylvania law by closely examining each court opinion that has ruled on the proper method of compensating unleased cotenants. The purpose of such an analysis is to guide developers who are plagued with the current, ambiguous state of law regarding unleased cotenant compensation. Next, this Comment will compare different methods of compensation and, ultimately, urge Pennsylvania legislators to unequivocally adopt the net-profits method with a risk penalty.

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^{*} J.D. Candidate, Penn State Dickinson School of Law Class of 2017. The author would like to thank Jeff Kramer and Sarah Black of Range Resources for their help in identifying a current legal issue in the industry, and Professor Ross Pifer of Penn State Law for his guidance and suggestions. The author would also like to thank the members of *Penn State Law Review* for their hard work and edits to this comment, as well as his family for their support.

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I. INTRODUCTION

Pennsylvanians can proudly gloat about the drilling of the world's first successful commercial oil well. In 1859, Edwin Drake brought oil to the surface of the Keystone State. When Drake did, he brought more than just a fossil fuel to the small, rural town of Titusville, Pennsylvania; he brought a reliable source of heat to our homes, fuel to the now booming transportation industry, and countless products to the cosmetics,

^{1.} See Ross H. Pifer, Drake Meets Marcellus: A Review of Pennsylvania Case Law Upon the Sesquicentennial of the United States Oil and Gas Industry, 6 Tex. J. Oil GAS & Energy L. 47, 48 (2011) ("On August 27, 1859, Colonel Edwin L. Drake drilled the first commercially successful oil well near Titusville, Pennsylvania.").

^{2.} Id.

apparel, and technology industries.³ In other words, Drake did more than fuel his own pockets; he shaped the world as we know it.

The Pennsylvania oil wells also gave rise to countless laws, which were designed to protect landowners, encourage development, and facilitate drilling.⁴ In the twentieth century, however, Pennsylvania's oil industry declined.⁵ As a result, "the development of Pennsylvania oil and gas case law slowed considerably throughout the twentieth century."

Now, over a century later, Pennsylvania is experiencing a boom in the natural gas industry⁷ due, in large part, to the pioneering of the Marcellus Shale Formation.⁸ In 2005, Range Resources Appalachia, LLC began to extract natural gas from the Marcellus Shale Formation.⁹ As of 2016—merely one decade later—developers have drilled nearly eight-thousand active natural gas wells in Pennsylvania.¹⁰

With the resurrection of the fossil fuel industry in Pennsylvania, courts, oil and gas attorneys, landmen, and the like are finding themselves dusting off century-old oil and gas law. Since then, Pennsylvania courts have addressed some legal issues relating to oil and gas development. Other legal issues, however, such as the proper method of compensating an unleased cotenant of an oil and gas estate,

^{3.} See Am. Ass'n of Petroleum Geologists, http://www.aapg.org/about/petrol eum-geology/petroleum-technology/petroleum-products (last visited Mar. 11, 2017) (listing some of the less-commonly known products of petroleum, such as detergent, vitamins, plastics, and DVDs).

^{4.} See Pifer, supra note 1, at 48 ("Pennsylvania courts... played an important role in the early development of United States oil and gas law into the late nineteenth century... [and] helped to shape fundamental concepts of oil and gas law.").

^{5.} *Id.*

^{6.} Id.

^{7.} *Id*.

^{8.} Id. at 48–49. The Marcellus Shale is a geologic formation that contains natural gas reserves. See id. at 48. This bountiful formation "traverses Pennsylvania in a southwesterly to northeasterly direction and underlies all or a portion of approximately fifty-five of the state's sixty-seven counties." Id.

^{9.} Id. at 48.

^{10.} Chris Amico et al., *Shale Play: Natural Gas Drilling in Pennsylvania*, STATEIMPACT PENNSYLVANIA, http://stateimpact.npr.org/pennsylvania/drilling (last visted Mar. 11, 2017).

^{11.} See, e.g., T.W. Phillips Gas & Oil Co. v. Jedlicka, 42 A.3d 261, 282 (Pa. 2012) (Saylor, J., dissenting) (noting that, "while initially being at the forefront of [the oil and gas] field, [the Pennsylvania Supreme] Court's jurisprudence has remained largely stagnant for the last 100 years"); see also Pifer, supra note 1, at 49 ("[T]he number of legal issues that are being presented to state and federal courts in Pennsylvania is significantly increasing.").

^{12.} See Pifer, supra note 1, at 49 (discussing several issues of oil and gas law that were addressed by Pennsylvania courts between January 1, 2009, and June 30, 2010).

have not been addressed since the beginning of shale gas development.¹³ Consequently, developers cannot be certain whether they are paying unleased cotenants the correct amount for their portion of the oil and gas developed.¹⁴ Likewise, unleased cotenants, whose oil and gas is being developed as a result of another cotenant's lease, cannot be certain whether they are receiving the appropriate payment for their oil and gas.¹⁵

This uncertainty in Pennsylvania regarding the appropriate method of accounting to unleased cotenants necessitates a careful examination of the case law and demands a sound proposal to eradicate that uncertainty. This Comment provides both. Part II will discuss how, in Pennsylvania, one cotenant is permitted to develop oil or gas without the consent of other cotenants. Part III examines the law—or lack thereof—regarding payment to those nonconsenting, or unleased, cotenants. Part III then proposes that the legislature explicitly adopt one of the accounting methods discussed. Part III then proposes that the legislature explicitly adopt one of the accounting methods discussed.

II. BACKGROUND

Development of oil and gas normally occurs through the execution of an oil and gas lease between a developer and a landowner.¹⁹ These oil and gas leases, which transfer the rights to explore for and produce oil and gas, are typically executed because a landowner lacks the capital or expertise to explore for and develop the oil and gas, while the producing company generally has both the capital and expertise.²⁰ In return for the grant of development rights, the landowner-lessor ordinarily receives a

^{13.} See Owen L. Anderson & Michael D. Cuda, The Nonconsenting Cotenant in Oil and Gas Development: The Oil Patch Version of the "Little Red Hen", ENERGY & MINERAL LAW FOUND. 1, 4 (1991), http://www.emlf.org/clientuploads/directory/whitepaper/Anderson_Cuda_91.pdf ("In Pennsylvania, the manner of accounting for oil and gas development has not been clarified.").

^{14.} See Michael K. Vennum & Kristin M. McCormish, Ownership of Abandoned or Dormant Minerals: A Comparison of Pennsylvania and Ohio Law, 1 OIL, GAS, AND MINING 2, 4–5 (2014), https://www.oilgasandmining.com/volume1/issue2/88-v1n2-vennum.

^{15.} See id.

^{16.} See infra Part II.

¹⁷ See infra Part III.A.

^{18.} See infra Part III.B.

^{19.} See 2-18 EUGENE KUNTZ, A TREATISE ON THE LAW OF OIL AND GAS § 18.1 (Matthew Bender ed., 2016) ("The oil and gas lease is the basic instrument under which oil and gas exploration and development is ordinarily conducted.").

^{20.} See JOHN S. LOWE ET AL., CASES AND MATERIALS ON OIL AND GAS LAW 178 (West Publishing Co. eds., 6th ed. 2013).

lease-signing bonus,²¹ rights to delay rentals,²² landowner's royalties,²³ and shut-in royalties.²⁴ The developer-lessee, on the other hand, obtains a "working interest" in the oil and gas, in which it bears all of the costs of exploration and production and retains for profit only the value of production that is in excess of the development costs.²⁵

Although lease execution between a developer and a sole owner of an oil and gas estate is relatively straightforward, "[s]pecial problems may arise when the [oil and gas] estate is owned by two or more persons." Such joint-ownership in oil and gas interests is common because owners "fail to designate mineral interests by will, so... they pass from generation to generation under intestacy laws." Therefore, when a developer attempts to lease with cotenants of an oil and gas estate, "identifying and locating all co-owners may be difficult or impossible because of the widespread fractionalization of mineral interests." And even if all of the co-owners are located, they might not agree upon development of the minerals. For example, one cotenant might support development for the economic benefits, while another cotenant of the same oil and gas estate might refuse development because of environmental concerns.

^{21.} See JOHN S. LOWE, OIL AND GAS LAW IN A NUTSHELL 442 (West ed., 5th ed. 2009) [hereinafter NUTSHELL] (defining a bonus as a "payment to induce a lessor to execute the lease").

^{22.} See id. at 445 (defining a delay rental as a "payment from the lease holder to the lessor to maintain the lease from period to period . . . without drilling").

^{23.} See id. at 452 (defining a landowner's royalty as the "share of production or production revenues or value, free of costs of production, provided for the lessor in the royalty clause of the oil and gas lease").

^{24.} See id. at 463 (defining a shut-in royalty clause as a "lease provision permitting the lessee to maintain the lease while there is no production from the premises because wells capable of production are not producing").

^{25.} See id. at 466 (defining a working interest as "[t]he rights to the mineral interest granted by an oil and gas lease, so-called because the lessee acquires the right to work on the leased property to search, develop and produce oil and gas (and the obligation to pay costs)").

^{26.} Lowe, supra note 20, at 429; see also Kuntz, supra note 19, § 5.1 ("It is possible for more than one person to own undivided interests in oil and gas rights in a single tract of land.").

^{27.} NUTSHELL, *supra* note 21, at 86. For a discussion of the concerns relating to widespread fractionalization in the United States, see *Managing Mineral Interests*: *Solving the "Fractionalization" Puzzle*, NAT'L ASS'N OF DIV. ORDER ANALYSTS, http://bit.ly/1LmP3kO (last visited Mar. 12, 2017).

^{28.} Lowe, supra note 20, at 429.

^{29.} See id.

^{30.} For a discussion of the positive and negative effects of oil and gas development, which may give rise to controversy between cotenants, see Ross H. Pifer, What a Short, Strange Trip it's Been: Moving Forward After Five Years of Marcellus Shale Development, 72 U. PITT. L. REV. 615, 625 (2011).

In situations where one or more cotenants of an oil and gas estate is either missing or does not support development, a developer must consider the following: (1) whether a cotenant has a right to develop jointly-owned oil and gas without the consent of the other cotenant, and (2) if so, whether the developing cotenant has a duty to compensate, or "account to," the unleased cotenant.³¹

A. The Majority of States, including Pennsylvania, Allow Development Without the Consent of Every Cotenant

When considering whether a cotenant has a right to develop jointly-owned oil and gas without the consent of other cotenants, the law among the states is not uniform. This lack of uniformity stems from the varying interpretations of an English statute, the Statute of Westminster II of 1285, which was uniformly adopted by every state. This statute, and those modeled after it, gave rise to the common law of cotenancy in American jurisdictions and provided that action may lie by a Writ of Waste in the case of a cotenant. Relying on these statutes, cotenants would attempt to enjoin other cotenants from developing the jointly-owned minerals by claiming that development of the minerals without the cotenant's consent was "waste." Because waste was not defined in the English statute or in any of the states' statutes modeled after it, however, courts came to different conclusions as to what was considered waste. Relying on these statutes modeled after it, however, courts came to different conclusions as to what was considered waste.

The minority of states, which includes West Virginia,³⁸ Michigan,³⁹ Illinois,⁴⁰ and Louisiana,⁴¹ have held that it is waste for a cotenant to

^{31.} See Lowe, supra note 20, at 429 ("In instances where known owners cannot agree on development and other owners cannot be located, can one cotenant produce the oil and gas over the objection of the other owners? . . . If production does occur, what are the producer's obligations to account?").

^{32.} KUNTZ, supra note 19, § 5.2.

^{33.} Statute of Westminster II 1285, 13 Edw. 1 ch. 22.

^{34.} See generally 2-5 PATRICK H. MARTIN AND BRUCE M. KRAMER, WILLIAMS & MEYERS, OIL AND GAS LAW § 502 (Matthew Bender ed., 2016) [hereinafter WILLIAMS & MEYERS] (recognizing the states' uniform adoption of the law of waste found in the Statute of Westminster II).

^{35.} See id. ("Since the Statute of Westminster II, . . . a cotenant has been subject to the law of waste.").

^{36.} KUNTZ, *supra* note 19, § 5.2.

^{37.} See id.

^{38.} See Law v. Heck Oil Co., 145 S.E. 601, 602 (W. Va. 1928); see also KUNTZ, supra note 19, § 5.4 ("In West Virginia, acts which would constitute waste on the part of a life tenant are also waste if done by a cotenant in the fee.").

^{39.} See Campbell v. Homer Ore Co., 16 N.W.2d 125, 125 (Mich. 1944). But see MICH. COMP. LAWS SERV. § 319.101 (LexisNexis 2016) (providing that cotenants holding a majority interest are authorized to develop and remove the oil or gas).

^{40.} See, e.g., Murray v. Haverty, 70 Ill. 318, 318 (Ill. 1873).

develop oil and gas without the consent of the other owners.⁴² Accordingly, in these states, a cotenant does not have the right to develop or to execute an oil and gas lease without the consent of the other cotenants.⁴³ Under the minority rule, if a cotenant proceeds without consent from all of the cotenants, the developing cotenant could be held liable for trespass, the oil and gas lease could be deemed void, and the nonconsenting cotenant may have a right to enjoin the development.⁴⁴

In the vast majority of states, 45 however, the law of waste is not applied to the extraction of jointly-owned oil and gas; therefore, one cotenant—even one who owns the smallest of fractional interests—may legally develop all of the oil and gas without the consent of the other cotenants. 46 Moreover, under the majority rule, a non-consenting

^{41.} See Gulf Refining Co. v. Carroll, 82 So. 277, 277 (La. 1919). But see LA. STAT. ANN. § 31:166 (2016) (providing that a lessee of a mineral interest may develop with "consent of co-owners owning at least an undivided eighty percent interest in the land...").

^{42.} See KUNTZ, supra note 19, § 5.4; LOWE, supra note 20, at 431; NUTSHELL, supra note 21, at 88.

^{43.} See KUNTZ, supra note 19, § 5.4.

^{44.} See id. It should be noted, however, that the minority rule is subject to an exception that permits development, even without consent from cotenants, when the oil or gas is being drained into a neighboring property's well. See, e.g., Law v. Heck Oil Co., 145 S.E. 601, 602 (W. Va. 1928) (allowing development with either consent of the cotenant or proof that development is "necessary to protect the oil and gas under such land from drainage through wells on adjoining lands . . .").

^{45.} See, e.g., White v. Smyth, 214 S.W.2d 967, 975 (Tex. 1948); Byrom v. Pendley, 717 S.W.2d 602, 602 (Tex. 1986); Earp v. Mid-Continent Petro. Corp., 27 P.2d 855, 861 (Okla. 1933); Marias River Syndicate v. Big West Oil Co., 38 P.2d 599, 601 (Mont. 1934); Stephens v. Click, 287 S.W.2d 630, 630 (Ky. 1955); Prewett v. Van Pelt, 235 P. 1059, 1060–61 (Kan. 1925); Slade v. Rudman Resources, Inc., 230 S.E.2d 284, 284 (Ga. 1976); P&N Inv. Corp. v. Florida Ranchettes, Inc., 220 S.2d 451, 451 (Fla. Dist. Ct. App. 1969); Dabney-Johnston Oil Corp. v. Walden, 52 P.2d 237, 246–47 (Cal. 1935).

^{46.} See Kuntz, supra note 19, § 5.3; Lowe, supra note 20, at 436. The policy behind the majority rule, which is based on the fugacious nature of oil and gas, was aptly explained by the Texas Supreme Court as follows:

The peculiar circumstances of a cotenancy in [oil] warrant one cotenant to proceed and utilize the oil, without the necessity of the other cotenants concurring. Oil is a fugitive substance and may be drained from the land by well on adjoining property. It must be promptly taken from the land for it to be secured to the owners.

Byrom, 717 S.W.2d at 605 (citing Burnham v. Hardy Oil Co., 147 S.W. 330, 335 (Tex. Civ. App. 1912)). Recognizing the urgency involved in the extraction of the oil or gas, a Virginia judge, also supporting the majority view, stated that "[w]ithout such a rule, the majority's interest in otherwise valuable mineral rights could be absolutely destroyed on the whim of one recalcitrant co-owner." Chosar Corp. v. Owens, 370 S.E.2d 305, 310 (Va. 1988) (Thomas, J., dissenting).

fractional owner does not have the authority to prevent the other cotenants from developing the minerals.⁴⁷

Under the majority rule, the right to develop one's mineral interest without the consent of other cotenants extends to a lessee.⁴⁸ That is, a fractional owner of a mineral interest may lease his right to develop the minerals, and the other cotenants have no legal right to prevent the third-party lessee from developing the property.⁴⁹

Pennsylvania has long been "among the majority of states permitting 'a cotenant in the fee . . . to explore for and produce oil and gas without consent of his cotenants." As in the other majority states, "[t]he analysis [in Pennsylvania] is not changed by the cotenant's choice to lease his or her exploration and production rights to another." In Pennsylvania, therefore, one cotenant has the right to lease to a developer the rights to the entire oil and gas estate. 52

This long-standing Pennsylvania law allowing development without the consent of all of the cotenants does not, however, stand for the proposition that the unleased cotenants are owed nothing. Rather, the producing cotenant must account to the other cotenants for their proportionate share of the oil or gas.⁵³ The manner in which these

^{47.} See Kuntz, supra note 19, § 5.3; see Williams & Meyers, supra note 34, § 502 ("The non-consenting cotenant is legally disabled from enjoining the drilling cotenant's operations in exploring for, and producing, hydrocarbons.").

^{48.} See Prairie Oil & Gas Co. v. Allen, 2 F.2d 566, 572 (8th Cir. 1924) (stating that a cotenant's "lessee upon entry will become for the time being a tenant in common with the other owners and entitled to the same rights in relation to the other cotenants that his lessor had").

^{49.} See Kuntz, supra note 19, § 5.3 ("To the extent that a mineral owner is privileged to extract minerals, he may execute an oil and gas lease and confer such right upon his lessee.").

^{50.} Markowicz v. Swepi LP, 940 F. Supp. 2d 222, 228 (M.D. Pa. 2013) (citing KUNTZ, supra note 19, § 5.3); see also WILLIAMS & MEYERS, supra note 34, § 502 (including Pennsylvania among "a majority of the producing states [in which] a concurrent owner... has been given the power to lease and develop his interest in the land concurrently owned" and explaining that the "non-consenting cotenant is legally disabled from enjoining the drilling cotenant's operations"); Lichtenfels v. Bridgeview Coal Co., 496 A.2d 782, 785 (Pa. Super. Ct. 1985) ("Another special rule relating to the mineral estate is that a tenant cannot restrain a cotenant with an undivided interest in the land from realizing the value of the estate by producing or consuming the underlying minerals.").

^{51.} Markowicz, 940 F. Supp. 2d at 228 (citing McIntosh v. Ropp, 82 A. 949, 954 (Pa. 1912), where the Supreme Court of Pennsylvania stated that "[t]he fact that the actual operations were carried on by third parties under a lease, and not directly by [the cotenant], would not serve to make the [lessees] trespassers, or to cause them to be regarded other than as cotenants.").

^{52.} See id.

^{53.} See Kuntz, supra note 19, § 5.6 ("In those jurisdictions which recognize that a cotenant has the right to enter and extract oil and gas without the consent or over the

unleased cotenants are accounted to, however, is unclear in Pennsylvania. Given the lack of clarity, before examining Pennsylvania's case law, a closer look at other jurisdictions' more definite and concrete methods of accounting to unleased cotenants is warranted.

B. The Prevailing Methods of Accounting to Unleased Cotenants: The Net-Profits Method and the Royalty Method

Outside of Pennsylvania, courts have developed two methods to account to unleased cotenants.⁵⁴ The majority of courts use the netprofits method of accounting,⁵⁵ while the minority of courts use the royalty method of accounting.⁵⁶

Under the net-profits method, the developer must account to the unleased cotenants for their portion of the net profits from the oil and gas produced.⁵⁷ To illustrate, assume Co-Owner A and Co-Owner B are cotenants of Blackacre, each owning fifty percent. Assume also that a developer signs a lease with Co-Owner A, while Co-Owner B is unwilling to sign a lease. This developer, under the terms of the lease, has the right to develop all of Blackacre's gas.⁵⁸ If this developer produces one hundred dollars of gas from Blackacre and undergoes fifty dollars of expenses to produce that gas, the gas well nets fifty dollars of profit. Because Co-Owner B owns fifty percent of Blackacre, however, Co-Owner B is entitled to fifty percent of that profit, or twenty-five dollars. Under the net-profits method, therefore, the developer would retain only twenty-five dollars, the remaining profit, less the royalty payments to Co-Owner A per the terms of the lease.

Significantly, under the net-profits method, if the venture results in a loss instead of a profit, the developer is not entitled to recover from the

protest of his cotenants, although the entry and extraction of such substances is not wrongful, the operating cotenant is required to account to his cotenants.").

^{54.} See F. G. Madara, Annotation, Basis of Computation of Cotenant's Accountability for Minerals and Timber Removed from the Property, 5 A.L.R.2D 1368, 2 (1949).

^{55.} See Lowe, supra note 20, at 436. Accord Howard R. Williams, The Effect of Concurrent Interests on Oil and Gas Transactions, 34 Tex. L. Rev. 519, 523 (1956) ("The clear weight of authority in this country in the states which permit one concurrent owner to develop minerals without the consent or joinder of his co-owners is that the non-joining concurrent owner is entitled to a proportionate share of the proceeds of development less a proportionate share of the reasonable and necessary costs of development and production.").

^{56.} See Lowe, supra note 20, at 438 (providing that a royalty basis is supported by only "limited [judicial] authority"); Williams, supra note 55, at 523.

^{57.} See Prairie Oil & Gas Co. v. Allen, 2 F.2d 566, 573 (8th Cir. 1924).

^{58.} See infra Part II.B.

unleased cotenant.⁵⁹ Instead, "[i]f the operations are unsuccessful... the entire burden falls upon the [the developer]...." In the above example, if the gas well cost fifty dollars but produced only twenty-five dollars, the developer would lose twenty-five dollars; Co-Owner B, the unleased party, would lose nothing. Under the net-profits method, therefore, the developer assumes all of the risk in exploration and development.⁶¹

As an alternative to the net-profits method of accounting, a few courts have adopted the royalty method of accounting to unleased cotenants. Under this method, the unleased cotenants, similar to the leased cotenants, are paid a royalty based upon the production, not the profitability, of the oil or gas well. That is, the unleased cotenant is accounted to immediately upon the commencement of production, even before the well becomes profitable. Therefore, even if the well is producing at a loss, an unleased cotenant will receive payments based on a fraction of the value of the oil or gas brought to the surface and sold. On the other hand, if the well becomes hugely profitable, the unleased cotenant continues to receive only a small fraction of production based on the royalty.

An obvious problem with the royalty method is determining the appropriate royalty amount. The unleased cotenant's royalty could be calculated a number of ways. For example, the royalty could mirror the royalty in the lessor-cotenant's lease, essentially forcing the unleased cotenant into that same lease. Alternatively, the unleased cotenant's royalty could be set by a statutory minimum. Courts that have adopted the royalty method have not provided much guidance as to the appropriate royalty amount. This lack of definitiveness in the royalty method is likely the consequence of its rare application. For example, in Kentucky, the royalty method's application is limited only to

^{59.} See LOWE, supra note 20, at 436.

^{60.} WILLIAMS & MEYERS, supra note 34, § 504.

^{61.} See id.

^{62.} See id.

^{63.} Royalty payments in oil and gas are typically "provided by the oil and gas lease royalty clause[,]" which reserves for the lessor a "royalty, measured as a percentage of production or its proceeds or value, *free of costs of production*." LOWE, *supra* note 20, at 298–99 (emphasis added).

^{64.} See id.

^{65.} See id.

^{66.} See infra Part III.B.1.

^{67.} See infra Part III.B.1.

^{68.} See, e.g., Gillispie v. Blanton, 282 S.W. 1061, 1064-65 (Ky. 1926).

^{69.} See id.

circumstances where the developer believed, in good faith, that the entire interest was subject to the lease.⁷⁰

As discussed, courts have adopted two methods of accounting to unleased cotenants—the net-profits method and the royalty method. The vast majority of courts have adopted the net-profits method, and those courts that have applied the royalty method have, for the most part, limited its application.

III. ANALYSIS: PUTTING THE PIECES TOGETHER: THE CURRENT, CONVOLUTED STATE OF PENNSYLVANIA CASE LAW REGARDING ACCOUNTING TO UNLEASED COTENANTS

In Pennsylvania, the duty to account to unleased cotenants has been recognized,⁷¹ but the proper method of accounting to those cotenants is not clear. Pennsylvania has no statutes or regulations dictating the compensation of unleased cotenants, and the only relevant court opinions, most of which are over a century old, are ambiguous.⁷² In analyzing these Pennsylvania court opinions, some commentators have stated that the weight of authority leans toward a net-profits method.⁷³ Other commentators, however, have stated that Pennsylvania courts have adopted the royalty method.⁷⁴

In light of the uncertainty, this Part of the Comment will provide an analysis of the Pennsylvania cases that address the compensation of cotenants. First, Subpart A will address the cases that adopt the royalty method. Next, Subpart B will address the cases that commentators have relied upon in asserting that courts have adopted the net-profits method. Ultimately, this Comment finds that the relevant Pennsylvania

^{70.} See id.

^{71.} See Vennum & McCormish, supra note 14, at 5 ("The duty to account is not statutorily created in Pennsylvania, but it was initially established as an equitable means by the Pennsylvania Supreme Court in App. Of Fulmer, 18 A. 493 (Pa. 1889).").

^{72.} See infra Part III.A-C.

^{73.} See Vennum & McCormish, supra note 14, at 5 ("Although there are some Pennsylvania cases to the contrary, the overall weight of authority favors the argument that a prudent operator should suspend the net profits attributable to the unleased cotenant's proportional interest.").

^{74.} See Lowe, supra note 20, at 438 (citing two cases, Germer v. Donaldson, 18 F.2d 697, 697 (3d Cir. 1927) and McIntosh v. Ropp, 82 A. 949, 949 (Pa. 1912) as "authority for granting the carried cotenant a royalty on his share of production rather than a net profits interest"); WILLIAMS & MEYERS, supra note 34, § 504 (citing McIntosh as "authority that a cotenant (or his lessee) may develop minerals in a tract without the consent of his concurrent owners and account to them by payment of the usual royalty"); KUNTZ, supra note 19, § 5.6 (citing McIntosh) (stating that, "[i]n Pennsylvania, the view has been taken that the value of the oil and gas in place is best measured by the value of the privilege of removing it represented by the royalty").

^{75.} See infra Part III.A.

^{76.} See infra Part III.B.

court opinions are strongly in favor of the royalty method and that the cases relied upon for the net-profits method barely, if at all, support an adoption of the net-profits method.⁷⁷ In light of these findings, this Part of the Comment concludes by explaining how oil and gas developers should proceed.⁷⁸

A. Pennsylvania Cases That Support the Royalty Method of Accounting

1. *McIntosh v. Ropp*: The Pennsylvania Supreme Court Case that Ruled in Favor of the Royalty Method of Accounting

Commentators that believe Pennsylvania courts have adopted the royalty method rely primarily on the century-old Pennsylvania Supreme Court case of *McIntosh v. Ropp.* ⁷⁹ In *McIntosh*, a life tenant executed an oil and gas lease for his property, a 128 acre farm in Butler County, Pennsylvania, at a one-eighth royalty. ⁸⁰ At the time of the life tenant's death, the two remainder-men to the property were Edward McIntosh and Addie McIntosh. ⁸¹ Edward had ratified the lease, but Addie had not. ⁸² After the life tenant's death, the developer paid the royalty to both Edward and Addie in equal proportions, with each of these cotenants receiving one-half of the royalty. ⁸³

Addie McIntosh then instituted an action against the developer, praying for an accounting for her share of the oil, gas, and other byproducts, less the royalty that she had already received. She contended that the measure of her damages was "the market value of the oil after it had been severed from the land less the expense of production and the royalty paid by the defendant." Essentially, Addie McIntosh was claiming that she was entitled to an accounting under the net-profits basis. In response, the defendant developer argued for using the royalty method, contending that "the only proper measure was the value of the oil in place as represented by the royalty already paid." 86

The Supreme Court of Pennsylvania held that "the plaintiff could only recover her one-half interest in the land subject to the right of the

^{77.} See infra Part III.A-B.

^{78.} See infra Part III.C.

^{79.} McIntosh v. Ropp, 82 A. 949 (Pa. 1912); see Lowe, supra note 20, at 438; WILLIAMS & MEYERS, supra note 34, § 504; KUNTZ, supra note 19, § 5.6. (citing McIntosh, 82 A. at 949).

^{80.} See McIntosh, 82 A. at 952.

^{81.} See id.

^{82.} See id. at 953-54.

^{83.} See id.

^{84.} See id.

^{85.} *Id.* at 953.

^{86.} Id.

defendant to continue to operate under the lease on paying her a [proportion of the] one-eighth *royalty*."⁸⁷ Although the court seemingly adopted the royalty method by ruling in favor of the defendant, the court was far from explicit when it reasoned as follows:

In every case of this character the measure of damage must depend largely upon the peculiar circumstances, but compensation is the usual rule where there are no facts showing intentional wrong; and as between tenants in common such compensation may be measured by the fair market value of the mineral in place, which may be figured on the basis of the royalty to be obtained for the privilege of removing such mineral, in view of all the circumstances.⁸⁸

The court, therefore, did rule in favor of the royalty method under the specific facts of the case, but it stated two separate times that the method of accounting depends upon the "circumstances" of the case. Thus, a fair interpretation of the rule stated in *McIntosh* can be summarized as follows: (1) unleased cotenants are compensated for the "fair market value" of the oil or gas "in place," and (2) depending on the circumstances, the fair market value of oil or gas in place "may" be equivalent to a royalty payment. 90

2. Germer v. Donaldson: Seemingly Cementing the Royalty Method into Pennsylvania Case Law

Fifteen years after *McIntosh*, the Court of Appeals for the Third Circuit adopted the royalty method. In *Germer v. Donaldson*, two oil and gas co-owners, Donaldson and Germer, executed a lease that gave them the right to participate in oil or gas wells drilled if they paid the lessee-developer for half of the drilling expenses. Germer exercised his right, paid his share of drilling costs, and thereafter received his share of net profits. Donaldson, however, supposedly forgetting his interest, did

^{87.} Id. at 954 (emphasis added).

^{88.} Id. (emphasis added).

^{89.} See id.

^{90.} McIntosh, 82 A. at 954. The most recent case-on-point citing to McIntosh is the federal case Markowicz v. Swepi LP, 940 F. Supp. 2d 222, 228 (M.D. Pa. 2013). In Markowicz, the court reiterated the first premise from McIntosh, stating that the unleased cotenant is "simply compensate[d] (according to his interest)... for the fair value of the minerals extracted by the lessee." Id. (emphasis added) (citing McIntosh, 82 A. at 954). Because the issue of compensation was ultimately unnecessary for the holding in Markowicz, however, the opinion failed to clarify whether the "fair value" of the oil or gas in place is equivalent to royalties or net profits.

^{91.} See Germer v. Donaldson, 18 F.2d 697, 699 (3d Cir. 1927).

^{92.} Germer v. Donaldson, 18 F.2d 697 (3d Cir. 1927).

^{93.} See id. at 698.

^{94.} See id.

not exercise his right to participate.⁹⁵ Instead, Donaldson contacted the lessee after the costs of drilling had been paid and demanded an accounting on the basis of net profits, the same that Germer had received.⁹⁶

Citing *McIntosh*, the Third Circuit held that Donaldson was "not entitled to profits, but only to the customary royalty[,]" which Donaldson admitted was normally one-eighth of oil production.⁹⁷ The Third Circuit reasoned as follows:

In mining and oil operations[,] large expenses and great risks are necessarily incurred. No one can tell in advance what the result or expense will be. Oil or mineral in the ground has only a speculative value. It is therefore inequitable for one joint owner of oil or mineral in place... to refuse to participate in an enterprise, but wait until the other has assumed the expense and risk of success, and then demand his proportional share of the profits.

The Third Circuit went on to state that the rule is not changed by "[t]he fact that a co-owner of oil in place does not know of the operation, or that he knows of it, but refuses to give his consent to the withdrawal of the oil . . . "99 That is, under *Germer*, the knowledge of the nonconsenting cotenant is irrelevant. Whether such cotenant is missing or locatable and withholding consent, the royalty method is an appropriate measure of the value of the oil or gas in place. In short, *Germer* appears to be clear authority for the royalty method under almost any circumstances.

3. Baily Petition: Applying the Royalty Method in Absence of Malice

Another case adding to the analysis, *In re Baily Petition*, ¹⁰² held that the royalty method is appropriate where the developing cotenant acted without malice. ¹⁰³ In *Baily Petition*, John Stewart's father devised to him a 122 acre farm, 72 acres absolutely, and the remaining 50 acres of land for life. ¹⁰⁴ According to the will, if John were to die without living issue, the 50-acre tract was to revert to his three sisters in equal proportion in

^{95.} See id.

^{96.} See id.

^{97.} Id. at 699.

^{98.} Id.

^{99.} Id.

^{100.} See id.

^{101.} See id.

^{102.} In re Baily Petition, 76 A.2d 645 (Pa. 1950).

^{103.} See id. at 647

^{104.} See id. at 646-47.

fee simple.¹⁰⁵ Prior to John's death, however, each of John's sisters conveyed to him their respective one-third interests in the 50 acres.¹⁰⁶ Then, upon John's death, he had no issue.¹⁰⁷ As a result, the court found that only one of the sisters' one-third interests had vested,¹⁰⁸ leaving two-thirds of the tract with the heirs of the remaining two sisters, Maria and Emma.¹⁰⁹

Prior to John's death, he had executed an oil and gas lease covering the entire 122 acres to Peoples Natural Gas Company for a yearly royalty of \$400.¹¹⁰ Because a life tenant typically may not extract minerals or lease mineral rights where a well was not drilled before the life estate accrued, the heirs of Maria and Emma argued that the lease was void.¹¹¹ But the Supreme Court of Pennsylvania held that John was in fact a cotenant who believed, in good faith, that he had the right to the entire tract, and therefore the lease was valid as to Maria and Emma's interests.¹¹²

The Supreme Court of Pennsylvania went on to hold that, "[i]n absence of malice[,]... the damages to the 2/3 interest of the other tenants in common could be fairly measured by the value of the royalties paid which were the usual customary royalties." In affirming the lower court's application of the royalty method, the Supreme Court noted that the lower court had cited to McIntosh. However, the Supreme Court did not further elaborate on McIntosh and failed to discuss the "peculiar circumstances" in which the royalty method applies. But because the court explicitly recognized the absence of malice, a strong inference can be drawn that, if the developing cotenant acts without malice, the royalty method is an appropriate method of accounting to the unleased cotenants. 117

^{105.} See id.

^{106.} See id.

^{107.} See id.

^{108.} To come to this conclusion, the court analyzes the facts under the "doctrine of title by equitable estoppel," which is not relevant to this Comment. See id.

^{109.} See id.

^{110.} See id.

^{111.} Id

^{112.} Baily Petition, 76 A.2d at 646-47.

^{113.} Id. (emphasis added) (citation omitted).

^{114.} See id.

^{115.} See McIntosh v. Ropp, 82 A. 949, 954 (Pa. 1912) ("In every case [involving accounting to unleased cotenants,] the measure of damage must depend largely upon the peculiar circumstances....").

^{116.} See Baily Petition, 76 A.2d at 647.

^{117.} See id.

B. Pennsylvania Cases That Ostensibly Support the Net-Profits Method of Accounting

Although *McIntosh* and subsequent cases interpreting *McIntosh* appear to have solidified the royalty method as the appropriate method of accounting, some commentators have pointed to other Pennsylvania cases as support for the net-profits method. After a closer examination, however, these cases either applied the net-profits method in very limited circumstances or offered no support for the method at all.

1. McGowan v. Bailey: A Pre-McIntosh Case Using Net Profits Where Royalties Were Indeterminable

First, the 1897 Pennsylvania Supreme Court case *McGowan v. Bailey*¹¹⁹ ultimately ruled in favor of the net-profits method, but it appears to have done so solely because this method of accounting was the only one in which a value of the minerals could be ascertained from the evidence presented. ¹²⁰

In *McGowan*, the court stated that the "value of the ore in place" is the only just basis of accounting to the non-developing cotenant. ¹²¹ In other words, the court found that the non-developing cotenant was entitled to the value of the minerals before they were extracted if the development had not occurred. ¹²² Notably, this logic was used later in *McIntosh*. ¹²³ The rule appears to be clear, therefore, that accounting to cotenants must be based on the value of "the minerals in place." ¹²⁴

As the *McGowan* court demonstrated, however, the value of the minerals in place prior to extraction can be difficult to determine. ¹²⁵ In *McGowan*, the court had no evidence of what the ore was worth when it

^{118.} See Vennum & McCormish, supra note 14, at 5 ("Although there are some Pennsylvania cases to the contrary, the overall weight of authority favors the argument that a prudent operator should suspend the net profits attributable to the unleased cotenant's proportional interest."); Lisa McManus, Accounting to the Unleased Cotenant, SLIDESHARE (Oct. 26, 2014), http://www.slideshare.net/LisaMcManusJD/accounting-to-the-unleased-cotenant (citing several cases as supporting a net profits method); Anderson & Cuda, supra note 13, at § 16.03 n.43 (citing several cases as supporting the net profits method).

^{119.} See McGowan v. Bailey, 36 A. 325 (Pa. 1897).

^{120.} See id. at 326.

^{121.} Id. (citing Coleman's Appeal, 62 Pa. 252 (Pa. 1869)) (internal quotation mark omitted).

^{122.} See id.

^{123.} See McIntosh v. Ropp, 82 A. 949, 954–55 (Pa. 1912) (citing McGowan for the proposition that the non-developing cotenant should be compensated based on "the fair market value of the mineral in place").

^{124.} See id.

^{125.} See McGowan, 36 A. at 326.

was in the ground. 126 Instead, the only evidence presented pertained to "the value of the ore at the mine's mouth." But such a value, by itself, was not representative of the non-developer's ore in place because the ore is worth more after extraction. 128 Accordingly, the court worked backwards from the value of the ore at the mine's mouth to the value of the ore in place by "deducting the expenses of [getting it to the mouth]." By subtracting extraction costs from the post-extraction value, the court effectively applied the net-profits method.

Although *McGowan* is commonly cited to as authority for the net-profits approach, ¹³⁰ the case appears to be just one example of a situation where circumstances warranted an accounting under the net-profits method. That is, where the aggrieved cotenant's share of the minerals in place cannot be valued in a manner other than the proportionate net profits, the aggrieved cotenant is entitled to such net profits. ¹³¹

In fact, when later cited by *McIntosh*, the Pennsylvania Supreme Court cited *McGowan* for the proposition that the appropriate compensation is the "fair market value of the mineral in place, which may be figured on the basis of the *royalty* to be obtained for the privilege of removing such mineral." Thus, *McGowan* does not contradict *McIntosh*'s holding in favor the royalty approach; it merely provides a different means of compensating the unleased cotenant when the royalty method is not feasible.

2. Bell v. Johnston: Very Weak Support for the Net-Profits Method

Next, commentators have cited to the Pennsylvania Supreme Court case *Bell v. Johnson*¹³³ as support for the net profits basis, ¹³⁴ but questionably so. The *Bell* opinion does not analyze whether a cotenant is entitled to compensation for oil and gas developed. ¹³⁵ Instead, the *Bell* opinion analyzes whether a business partnership existed between two

^{126.} Id.

^{127.} Id.

^{128.} See id.

^{129.} Id. ("[T]hat value was 40 cents per hundred bushels.")

^{130.} See, e.g., Anderson & Cuda, supra note 13, § 16.03 n.43 (citing McGowan as authority for the net-profits approach in Pennsylvania).

^{131.} See McGowan, 36 A. at 326.

^{132.} McIntosh v. Ropp, 82 A. 949, 954 (Pa. 1912) (emphasis added) (citing McGowan).

^{133.} Bell v. Johnston, 126 A. 187 (Pa. 1924).

^{134.} See McManus, supra note 118 (citing Bell as supporting a net-profits method); Anderson & Cuda, supra note 13, § 16.03 n.43 (same).

^{135.} See Bell, 126 A. at 187-89.

cotenants of an oil lease. ¹³⁶ In *Bell*, these cotenants divided profits and losses from development of oil, and one party introduced the evidence of shared profits and losses as evidence that a partnership existed. ¹³⁷

The Pennsylvania Supreme Court held that the "mere fact that the parties were tenants in common in the oil leases, dividing the profits and losses, is not sufficient to justify a finding that Bell and Johnston were [partners]." The court then went on to state, citing *McIntosh*, that "no presumption of [a partnership arises] from the joint ownership of the land[,]... though the tenant in common in an oil and gas lease has the right to recover his share of the profits by suit." In other words, the *Bell* court was stating that, although a cotenant has a right to recover oil and gas profits from another cotenant, such a right is irrelevant to the issue of whether the cotenants have legally formed a partnership. Because this point regarding the right to recover was irrelevant to the court's holding that no partnership existed, this language is dicta. Accordingly, the fact that the court used the word "profits" in dicta does not have a bearing upon the current state of law.

3. *Kelley v. Kelley*: Providing Little, if Any, Support for the Net-Profits Method

Yet another case with questionable relevance, but which commentators use as support for the net-profits method, ¹⁴¹ is the Pennsylvania Supreme Court case *Kelley v. Kelley*. ¹⁴² In *Kelley*, the complainant sought an accounting for her proportionate share of the profits derived from a coal mining operation on lands commonly owned. ¹⁴³

Although the *Kelley* court ruled in favor of the complainant, it did so on grounds unrelated to the proper method of accounting. In *Kelley*, the appellant posed only two questions, "one as to the jurisdiction of the court to grant the relief sought and the other as its jurisdiction of the defendants." In response to the first question raised, the court cited to the following statement from *McIntosh*: "the Act of April 25, 1850, . . . recognizes . . . a right [by a tenant in common against a cotenant] . . . to

^{136.} See id.

^{137.} See id.

^{138.} Id. at 188.

^{139.} Id.

^{140.} See id.

^{141.} See McManus, supra note 118 (citing Kelley as supporting a net-profits calculation); Anderson & Cuda, supra note 13, at § 16.03 n.43 (same).

^{142.} Kelley v. Kelley, 115 A.2d 202 (Pa. 1955).

^{143.} Id. at 206.

^{144.} Id. at 203.

recover a share of the profits of the estate where minerals are held in common....¹⁴⁵ The *Kelley* court, however, was not using this statement with regard to the method of accounting, but instead, the court was merely using the statement to find that it did, in fact, have jurisdiction to compel an accounting. Thus, the notion that *Kelley* is authority for a net profits basis in Pennsylvania is suspect.

C. How Oil and Gas Developers Should Proceed Given the Current State of Law

Pennsylvania courts have consistently held that an unleased cotenant will receive the value of the oil or gas "in place." In other words, Pennsylvania courts find that an unleased cotenant is entitled to the monetary worth of the oil or gas before it was extracted. As demonstrated by the courts, however, valuing the oil or gas before extraction is not a simple task.

Nonetheless, the overall weight of Pennsylvania authority suggests that, where a reasonable royalty is ascertainable, that royalty represents the value of the cotenant's oil or gas "in place." That is, where a developer can produce evidence of a fair royalty value, which it likely can, Pennsylvania court will likely apply the royalty method. Consequently, a developer should compensate unleased cotenants on the basis of a reasonable royalty as production occurs.

Due to the uncertainty in the law, however, a wise developer would also be prepared to pay unleased cotenants for their share of profits from the jointly-owned land. Thus, developers should set aside the unleased cotenants' proportionate share of profits, less any amount of royalties already paid to such unleased cotenants. Doing so will guarantee that the

^{145.} *Id.* at 205 (citing McIntosh v. Ropp, 82 A. 949, 954 (Pa. 1912)).

^{146.} See id.

^{147.} See McIntosh, 82 A. at 949; McGowan v. Bailey, 36 A. 325, 326 (Pa. 1897).

^{148.} See McIntosh, 82 A. at 949; McGowan, 36 A. at 326.

^{149.} See, e.g., McGowan, 36 A. at 326 (requiring an accounting on the basis of net profits because this was the only ascertainable valuation of the minerals); see also McIntosh, 82 A. at 955 (distinguishing a West Virginia case that held in favor of the net-profits method because, in that case, "[t]here was no evidence as to the proper royalty to be paid").

^{150.} Vennum & McCormish, supra note 14, at 5.

^{151.} In Pennsylvania, the Guaranty Minimum Royalty Act (GMRA), 58 Pa. Stat. Ann. § 33, provides that a lease shall not be valid if the lease does not guarantee the lessor at least a one-eighth royalty. Royalty payments to unleased cotenants of at least one-eighth, therefore, will likely be considered reasonable.

^{152.} See McManus, supra note 118 (finding that the "[e]stablished law would indicate that a royalty accounting is appropriate, except where no evidence of fair royalty exists, in which case a net-profits accounting is appropriate").

developer has sufficient funds to pay the unleased cotenant if that cotenant files suit and the court applies the net-profits basis.

IV. A PROPOSED SOLUTION: THE PENNSYLVANIA LEGISLATURE SHOULD ADOPT THE NET-PROFITS METHOD WITH A RISK PENALTY

Under the current, convoluted state of Pennsylvania law, a developer cannot guarantee the legality of its method of compensating unleased cotenants. Accordingly, the legislature of Pennsylvania should adopt an explicit method of accounting to unleased cotenants.

The legislature should not adopt what appears to be the judicially-supported method of accounting to unleased cotenants in Pennsylvania—the royalty method. A major problem with the royalty method is that the royalty could be based on a number of metrics, such as the royalty in the cooperating cotenant's lease¹⁵³ or the customary royalty in the area.¹⁵⁴ If based on the cooperating, leased cotenant's royalty, the statute would essentially be forcing the other cotenants into the cooperating cotenant's lease. If based upon the customary royalty, the amount would be extremely uncertain. Thus, the royalty method should not be adopted.

Instead, the legislature should adopt the net-profits method, and it should impose a risk penalty on the amount of profits paid to the unleased cotenant. As Pennsylvania courts have recognized, developers face extraordinary risk when they invest great sums of money into drilling ventures that might not provide returns. Under a net-profits method, a cotenant could refuse to sign a lease, let the developer assume all of the development risks, and wait to see if the venture is profitable. If the well is profitable, the unleased cotenant has the opportunity to join in on the profits, after the fact. If the well is not profitable, the unleased cotenant has lost nothing aside from foregone royalty payments.

^{153.} See In re Baily Petition, 76 A.2d 645, 646–47 (Pa. 1950) (apportioning to the unleased cotenants their share of the royalties that the cooperating, leased cotenant had agreed to in the lease).

^{154.} See Germer v. Donaldson, 18 F.2d 697, 699 (3d Cir. 1927) (holding that the cotenant was "entitled... to the customary royalty[,]" which was one-eighth of production).

^{155.} See, e.g., id. at 699 ("In mining and oil operations[,] large expenses and great risks are necessarily incurred. No one can tell in advance what the result or expense will be. Oil or mineral in the ground has only a speculative value. It is therefore inequitable for one joint owner of oil or mineral in place . . . to refuse to participate in an enterprise, but wait until the other has assumed the expense and risk of success, and then demand his proportional share of the profits.").

^{156.} See supra Part II.B.

^{157.} See supra Part II.B.

^{158.} See supra Part II.B.

Consequently, under a net profits approach, fractional landowners have an incentive to resist leasing. Without the entire leasehold interest, however, a developer will likely avoid the co-owned tract altogether. He developer would avoid the tract because a probable return on investment would not be worth the risk of developing the co-owned tract, as the developer would bear all of the risk of loss, but gain only a proportionate share of the profitability of the well. The cooperating cotenants of these fractionalized tracts, therefore, suffer the consequences of the cotenant refusing to lease because the developer will not lease the tract of land at all.

The solution to the incentive problem inherent in the net-profits method is the implementation of a risk penalty.¹⁶² As its name suggests, the risk penalty would impose a penalty on the unleased cotenants for their refusal to undergo the risk of development.¹⁶³ With a risk penalty in place, before the developer must compensate the unleased cotenants for their share of profits, the developer would be entitled to deduct a set penalty amount, in addition to the amount for reasonable costs of drilling.¹⁶⁴ It follows that, if a cotenant is missing or refuses to lease, the developer is not deterred from developing because it will be compensated for the risk that it assumed.

If the net-profits method is adopted in Pennsylvania, a risk penalty should be imposed on unleased cotenants. Although no state has implemented such a method, the risk penalty has proved to be workable in other areas of oil and gas law, such as forced pooling. Adopting the net-profits method with a risk penalty, therefore, would create a method of accounting to unleased cotenants that is fair for all of the parties involved in development.

^{159.} See supra Part II.B.

^{160.} See NUTSHELL, supra note 21, at 91–92 (explaining that development without the consent of every cotenant makes "little economic sense" because the developer will "bear 100% of the risk loss" but gain only a proportionate share of the well's profitability).

^{161.} See id.

^{162.} The term "risk penalty" originates from forced pooling, a separate but comparable area of oil and gas law. See Brigid R. Landy & Michael B. Reese, Getting to "Yes": A Proposal for a Statutory Approach to Compulsory Pooling in Pennsylvania, 41 ENVIL. L. REP. NEWS & ANALYSIS 11044, 11053 (2011).

^{163.} See id. ("The risk-penalty approach seeks to eliminate a holdout's free ride and to compensate the operator for drilling costs.").

^{164.} For example, similar to the risk penalty imposed under New Mexico's forced pooling statute, N.M. Stat. Ann. § 70-2-17 (1977), here, a risk penalty could allow the developer to recover up to two hundred percent of the unleased cotenant's proportionate share of the costs of development.

^{165.} See id.

V. CONCLUSION

In Pennsylvania, after acquiring a leasehold interest from one cotenant of an oil and gas estate, a developer can legally produce oil and gas from the entire oil and gas estate. Pennsylvania law, however, does not specify how to compensate the unleased cotenants. Overall, the century-old Pennsylvania court opinions that speak to this issue suggest that a developer must compensate unleased cotenants on the basis of a reasonable royalty. But with some cases suggesting otherwise, developers cannot be certain or appropriately budget for development of co-owned oil and gas.

This uncertainty necessitates immediate action. The Pennsylvania legislature should pass a law that explicitly adopts one method of compensating unleased cotenants. The net-profits method is more just from a landowner's perspective, but it can also discourage development. Therefore, the legislature should adopt the net-profits method and impose a risk penalty on unleased cotenants, which will allow the developers to recover more from their investments and, in turn, will encourage development.