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## Coalbed Methane: Recent Court Decisions Leave Ownership Up in the Air, But New Federal and State Legislation Should Facilitate Production

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# COALBED METHANE: RECENT COURT DECISIONS LEAVE OWNERSHIP “UP IN THE AIR,” BUT NEW FEDERAL AND STATE LEGISLATION SHOULD FACILITATE PRODUCTION

JEFF L. LEWIN\*

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## I. INTRODUCTION

Variously known as "firedamp," "coalbed gas," or "coal seam gas," coalbed methane or "CBM" is a toxic and highly combustible gas that must be ventilated from coal mines to protect miners from disastrous explosions.<sup>1</sup> The potential value of this gas has long been recognized, but serious efforts to develop the vast stores of CBM in American coal reserves did not begin until the energy crisis of the early 1970s. It is now understood that extraction of methane from mineable coal enhances mine safety and productivity, conserves a significant energy resource, and contributes to environmental policy by reducing emissions of this potent greenhouse gas. CBM production in

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1. Despite extensive safety regulations, CBM remains a deadly threat to miners. In March of 1992, a CBM explosion killed four persons at the surface of a sealed mine in West Virginia. *Unexplained Explosion Kills 4 at Idle Mine in W. Virginia*, N.Y. TIMES, Mar. 20, 1992, at A12. In December of 1992, a CBM explosion killed eight miners at an underground mine in Virginia. Sandra Evans, *U.S. Says Mine Operator Set Stage for Va. Blast, Miner Set It Off*, WASH. POST, May 27, 1993, at A22.

the United States has grown dramatically in recent years,<sup>2</sup> and CBM now accounts for roughly 5% of our proven gas reserves.<sup>3</sup> Nevertheless, development of this resource has been seriously impeded by uncertainty about its ownership.<sup>4</sup>

Two years ago, this law review published a lengthy analysis of legislative and judicial solutions to the problem of the indeterminacy of CBM ownership.<sup>5</sup> Significant judicial decisions and legislation since that time warrant a re-examination of this topic. First, a decision will soon be forthcoming in litigation that will determine ownership of CBM in coal under lands owned by the federal government.<sup>6</sup> Second, a Montana trial court defied expectations by ruling that coal owners<sup>7</sup> have title to CBM;<sup>8</sup> the Montana legislature responded by passing a statute declaring that CBM was included in the definition of gas and

2. CBM production in this country totalled 0.5 bcf (billion cubic feet) in 1980, 11 bcf in 1985, 41 bcf in 1988, 92 bcf in 1989, 197 bcf in 1990, 350 bcf in 1991, and 550 bcf in 1992. DINA W. KRUGER, U.S. ENVTL. PROTECTION AGENCY, THE ENVIRONMENTAL AND ECONOMIC BENEFITS OF COALBED METHANE DEVELOPMENT IN THE APPALACHIAN REGION 6 (April 1994). Preliminary estimates place 1993 production at 730 bcf. Richard J. Schraufnagl, Results of GRI 10 Years of Coalbed Methane Research, Address to the North American Coalbed Methane Forum, Pittsburgh, PA, April 12, 1994. Most of the 1992 production came from three regions: 436 bcf (79%) from the San Juan Basin (Colorado and New Mexico); 91.8 bcf (17%) from the Black Warrior Basin (Alabama); 10.5 bcf (2%) from the Central Appalachian Basin (primarily Virginia). *Coalbed Methane—State of the Industry*, 11 QUARTERLY REV. OF METHANE FROM COAL SEAMS TECH., No. 1, Aug. 1993, at 1, 3.

3. *Oil and Gas Profits Down for the First 6 Months of 1992*, U.S. Energy Information Administration press release EIA-92-09 (Sept. 8, 1992), reprinted in ENERGY INFORMATION ADMINISTRATION NEWS RELEASES at 1, 2 (Nov. 1992).

4. For a recent story, see Rick Teaff, *Bursting at the seams: Methane gas is big business in other states, while Pennsylvania resource crippled by ownership fights*, PITTSBURGH BUSINESS TIMES & J., Sept. 20, 1993, at Sec. 1, p. 1, available in LEXIS, Nexis Library.

5. Jeff L. Lewin, Hema J. Siriwardane, Samuel Ameri and Syd S. Peng, *Unlocking the Fire: A Proposal for Judicial or Legislative Determination of the Ownership of Coalbed Methane*, 94 W. VA. L. REV. 563 (1992) (hereinafter referred to as the "earlier article").

6. *Southern Ute Indian Tribe v. Amoco Production Co.*, No. 91-B-2273 (D. Colo. filed Dec. 31, 1991).

7. For ease of presentation, the holders of coal rights and gas rights are referred to as "coal owners" and "gas owners," regardless of whether their rights are derived from deeds, leases, or licenses.

8. *Carbon County v. Baird*, No. DV 90-120, 1992 WL 464786 (Dist. Ct., Carbon County Mont. Dec. 14, 1992).

not in the definition of coal.<sup>9</sup> Third, and most surprisingly, the Supreme Court of Alabama has ruled that gas owners have title to gas produced in conjunction with longwall mining and that they are entitled to a share of the profits from its sale.<sup>10</sup> Fourth, Congress enacted forced pooling legislation for CBM in Section 1339 of the National Energy Policy Act of 1992, which will go into effect in 1995.<sup>11</sup> Finally, West Virginia broke the historic deadlock between the coal and gas industries to enact forced pooling legislation that will go into effect this year.<sup>12</sup>

In order to explain the significance of these developments, presentation of the necessary background will require some recapitulation of material from the earlier article. In the interest of brevity, many details and most of the references have been omitted, and interested readers may wish to refer to the earlier article.

Familiarity with the technology of CBM production is essential to understanding the uncertainty of the law governing ownership of CBM. A brief summary of this technology appears in Part II.

Our earlier article on CBM ownership identified six possible rules that a court might apply in deciding ownership of CBM. Part III summarizes these six rules in relation to the few cases that had been decided as of the time that article was written.

Part IV describes and analyzes developments in litigation subsequent to publication of our 1992 article. The recent decision of the Alabama Supreme Court receives an extensive critique because the unexpected holding and the curious underlying reasoning create ambiguities and problems that may impede future CBM development in that state.

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9. 1993 Mont. Laws ch. 379, § 1, MONT. CODE ANN. § 82-1-111 (Supp. 1993).

10. *NCNB Texas Bank, N.A. v. West*, 631 So. 2d 212 (Ala. Oct. 8, 1993), *modified on denial of reh'g*, Dec. 10, 1993.

11. Pub. L. No. 102-486, § 1339, 106 Stat. 2986 (codified at 42 U.S.C. § 13368 (Supp. 1993)).

12. H.B. 4371, enacted March 13, 1994, to be codified as W. VA. CODE Ch. 22, Art. 21.

Part V describes the new federal and state legislation that seeks to facilitate CBM development through forced pooling and escrow of disputed claims. It analyzes the controversial issues that must be addressed in any forced pooling program, comparing the relevant provisions of Section 1339 of the National Energy Policy Act of 1992 with the Virginia and West Virginia legislation.

## II. THE TECHNOLOGY OF CBM PRODUCTION<sup>13</sup>

A variety of techniques exist for the production of CBM from coal seams and associated strata. Vertical degasification wells involve adaptations of traditional gas industry technology and are similar to conventional gas wells. They can be used to produce CBM from coal seams in "stand alone" operations independent of mining, or to degasify coal in advance of mining.

Other techniques have been developed by the mining industry and the U.S. Bureau of Mines to extract CBM in conjunction with coal mining. Horizontal boreholes can be drilled into a coal seam from "multipurpose boreholes," which are large vertical holes drilled into virgin coal several years in advance of mining; these boreholes later serve as airshafts during active mining. "In-mine drainage" employs horizontal boreholes drilled from outside entryways into an undeveloped area of the mine or at an angle ahead and slightly to the side of an area of projected development. "Cross measure boreholes" can be used to drain CBM from the roof or upper seams.

With longwall mining, CBM can be produced from vertical boreholes known as "gob wells," which drain methane from the "gob zone," the area of fractured rock created as the overburden caves into the unsupported mined-out void. These fractures may extend hundreds

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13. This section is condensed from Lewin et al., *supra* note 5, at 576-83; see also WILLIAM P. DIAMOND, METHANE CONTROL FOR UNDERGROUND COAL MINES, IN HYDROCARBONS FROM COAL 237 (Ben E. Law & Dudley D. Rice eds., 1993); U.S. DEP'T OF INTERIOR, METHANE CONTROL RESEARCH: SUMMARY OF RESULTS 1964-80 (BOM Bulletin 687) (Maurice Deul and Ann G. Kim, eds., 1988); C.M. BOYER, II, ET AL., U.S. ENVTL. PROTECTION AGENCY, METHANE EMISSIONS FROM COAL MINING: ISSUES AND OPPORTUNITIES FOR REDUCTION (1990).

of feet above and below the mined-out seam, releasing vast quantities of methane into the gob zone from the "super-fracture" of thin coal seams and other gas-bearing strata in the overburden and below the mine floor. To prevent this methane from migrating to the mine face, gob wells are drilled in advance of mining to a depth just above the primary seam; gas production begins soon after the longwall face passes below the borehole and the overburden collapses into the mined-out area.

The methane and other gases in the gob zone are generally referred to as "gob gas." Gob gas may include methane released from any of three distinct sources: (1) CBM released from residual coal in the primary seam, from thin coal seams in the roof and floor, or from nearby mine workings; (2) "strata gas" that escaped from coal seams prior to mining activity and was trapped in non-coal strata; and (3) natural gas that originated in non-coal strata. As explained in Part III, our earlier article concluded that ownership of gob gas may be separate and distinct from ownership of CBM within unmined coal. And in the first case to address ownership of gob gas, the Alabama Supreme Court has reached a similar conclusion.<sup>14</sup>

### III. THE INDETERMINACY OF CBM OWNERSHIP AS OF MID-1992<sup>15</sup>

A person who holds the undivided "fee simple title" to the surface and to all coal, gas, and other mineral rights in a property underlain with gas-bearing coal strata undoubtedly has title to the CBM. This complete fee simple ownership interest can be divided or "severed" through separate sale or lease of the surface, the coal rights, the gas rights, and rights to other minerals. The question of CBM ownership arises whenever a transfer of mineral interests has resulted in separate ownership or "severance" of the coal rights from the gas rights.

In much of the Eastern United States, the surface ownership has been severed from the coal rights, and in some instances, there have

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14. *NCNB Texas Bank, N.A. v. West*, 631 So. 2d 212 (Ala. Oct. 8, 1993), *modified on denial of reh'g*, Dec. 10, 1993. See discussion *infra* notes 55-93.

15. This section is a condensed version of the analysis in Lewin et al., *supra* note 5, at 613-61.

been separate deeds or leases of individual coal seams. Severance of gas rights from the surface is also common, and on occasion, there have been separate conveyances of gas in distinct strata. Whenever coal and gas rights are owned by different persons, the ownership of CBM is uncertain, for coal owners and gas owners each can claim title to CBM.

#### A. *The Six Leading Common-Law Rules*

Analyzing principles of mineral law and existing judicial decisions, our earlier article identified six rules that a court might apply in determining ownership of CBM.<sup>16</sup> For simplicity, we assigned the following numbers and short-hand labels to these six possible judicial solutions to the ownership question:

- \* *Rule #1: "CBM is Gas."* Gas owners have title to CBM.
- \* *Rule #2: "CBM is Coal."* Coal owners have title to CBM.
- \* *Rule #3: "Priority at Severance."* The grantee or purchaser in the severing transaction generally gets title to CBM.
- \* *Rule #4: "Case-by-Case."* Title to CBM depends on interpretation of the documents in the severing transaction on a case-by-case basis.
- \* *Rule #5: "Successive Ownership."* Coal owners have title to CBM *within* coal, but gas owners have title to *escaped* gas in the gob zone.
- \* *Rule #6: "Mutual Simultaneous Rights."* Gas owners have title to CBM, but coal owners have the right to produce CBM and gob gas in conjunction with mining as an "incidental mining right."

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16. Several other conceivable rules were rejected because they were extremely unlikely to accurately describe the law of CBM ownership in any jurisdiction. First, it is inconceivable that CBM would be retained by a surface owner who had conveyed away all mineral rights. Second, we rejected the theoretical possibility that CBM could be viewed as a unique mineral, distinct from either gas or coal, that would only pass by an express conveyance of CBM or with a general conveyance of all mineral rights, but not with a conveyance of gas or coal. Third, courts are not likely to hold that CBM is an unowned mineral subject to a right of capture by anyone having a right to drill into or through the coal. Lewin et al., *supra* note 5, at 616-20.



We were the first commentators to identify and discuss Rules #5 and #6. Despite their apparent novelty, these rules may have the strongest support in principle and precedent. In the remainder of this part, we explain the six possible common law rules in greater detail and evaluate the principle and precedent supporting their adoption.

### 1. Rule #1: CBM is Gas

Rule #1 takes a definitional approach, stating that CBM is a gas and is necessarily encompassed within the ordinary meaning of the terms “gas” or “natural gas” in standard mineral conveyances. CBM certainly is a “natural” gas insofar as it arises from natural processes without any human intervention. CBM is far more similar to ordinary natural gas than are such naturally-occurring *non*-hydrocarbon gases as helium, hydrogen sulfide, and carbon dioxide, all of which have been treated as “natural gas” in decisions interpreting mineral leases or federal statutes and regulations.<sup>17</sup>

The Solicitor of the Interior Department of United States has issued two opinions declaring that ownership of CBM on federal and Indian trust lands is governed by the “CBM is gas” rule.<sup>18</sup> Most development in the Western United States has proceeded in reliance on these two opinions. The Solicitor’s opinions are not binding on the courts, however, and they have been challenged in a lawsuit recently filed by an Indian tribe that owns certain coal rights.<sup>19</sup>

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17. See, e.g., *Scott Paper Co. v. Taslog, Inc.*, 638 F.2d 790 (5th Cir. 1981) (hydrogen sulfide included in lease of gas); *Northern Nat. Gas Co. v. Grounds*, 441 F.2d 704 (10th Cir. 1971) (helium included in lease of oil and gas); *Navajo Tribe of Indians v. United States*, 364 F.2d 320 (Ct. Cl. 1966) (helium included in lease reference to oil and gas deposits); *Exxon Corp. v. Lujan*, 730 F. Supp. 1535 (D. Wyo. 1990) (carbon dioxide included within term “natural gas” in Mineral Leasing Act). See Lewin et al., *supra* note 5, at 620.

18. M-36935, 88 Interior Dec. 538 (1981); M-36970, 98 Interior Dec. 59 (1990). Many commentators, myself included, have erroneously attributed these legal opinions to the office of the Solicitor General of the United States. See, e.g., Lewin et al., *supra* note 5, at 570 n.23, 621, 624 n.286, etc. My thanks to Tom Shipps for pointing out this mistake.

19. *Southern Ute Indian Tribe v. Amoco Production Co.*, No. 91-B-2273 (D. Colo. filed Dec. 31, 1991). See discussion *infra* part IV.A.

The principal objections to Rule #1 are that coal owners must vent the gas in order to mine the coal and that allowing ownership rights to gas owners inevitably will lead to extraction-related conflicts. These objections are practical, not legal, and they do not in themselves negate the gas owners' claims. Were it not for the coal owners' equally compelling claims to CBM ownership, the gas owners' definitional argument would justify adoption of Rule #1.

## 2. Rule #2: CBM is Coal

The coal owners' claims to ownership of CBM always are premised on the fact that CBM is physically intermixed with the coal and therefore must be encompassed within any grant or reservation of coal rights. While the arguments for this rule have been variously expressed, a majority of the commentators believe that coal owners should have title to CBM, and all of the decided court cases as of mid-1992 had ruled in the coal owners' favor.

The first definitive ruling came from the Pennsylvania Supreme Court in *United States Steel Corp. v. Hoge*.<sup>20</sup> In *Hoge*, the court declared that CBM is subject to the "ownership-in-place" rule applicable to natural gas. Under this rule, a property owner has title to all gas located within the property, but does not retain title to gas that escapes to other property. Applying this rule, the court concluded that CBM belongs to the coal owner "so long as it remains within his property and subject to his exclusive dominion and control."<sup>21</sup>

Despite its support for the claims of coal owners, *Hoge* does not necessarily support the absolute title of coal owners under Rule #2. As explained below, the court's logic and language are in fact more consistent with the successive ownership theory of Rule #5.

The primary theoretical and practical problems with the absolute ownership claims of the coal owners under Rule #2 arise from the fact that much of the CBM released in high extraction mining does not

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20. 468 A.2d 1380 (Pa. 1983), *rev'g*, 450 A.2d 162 (Pa. Super. Ct. 1982), *aff'g* No. 682 (C.P. Greene County, Pa. March 24, 1980).

21. 468 A.2d at 1383.

have its origins in the primary seam that is being mined, but instead migrates from other strata that are stressed or fractured as the gob zone collapses. Two distinct questions can be raised about the ownership of gob gas.

First, assuming that under Rule #2 the coal owner retains the right to capture CBM after it escapes into the gob zone, the coal owners rights, which derive from the presence of CBM within the coal, would not seem to include any right to methane that migrated to the gob zone from non-coal strata. In particular, the coal owners under Rule #2 would not appear to have any claim to "natural gas" released from ordinary gas reservoirs or to "strata gas" that had escaped from coal seams to non-coal strata in the distant past. If the rights of the coal owners under Rule #2 were limited to capture of CBM released from coal seams, then ownership of gob gas would have to be apportioned between coal owners and gas owners, and possibly among the separate owner of the primary coal seam and the owners of secondary coal seams in the overburden or floor.

A second and more fundamental question is whether coal owners have a right to *any* of the gob gas, regardless of its source. Insofar as the ownership claims of coal owners are based on the presence of CBM *within* the coal, their ownership rights arguably would be lost as soon as the CBM escaped into the gob zone. The notion that coal owners have no title to CBM in the gob zone forms the basis for the rule of successive ownership, Rule #5, which is discussed below.

### 3. Rule #3: Priority at Severance

Several commentators have suggested that the resolution of competing claims by gas and coal owners may depend on the order in which their interests were created.<sup>22</sup> By applying the rule of interpretation that resolves ambiguities in favor of the grantee (the buyer or lessee) and against the grantor (the seller or lessor), a court could award ownership of CBM to whichever party was the grantee in the

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22. Norman E. Mutchler & Harry R. Sachse, *Legal Aspects of Coalbed Gas*, 33 PETROLEUM TECH. 1861, 1863 (1980); Sarah K. Farnell, *Methane Gas Ownership: A Proposed Solution for Alabama*, 33 ALA. L. REV. 521, 525 (1982).

severing transaction. Under a rule of priority at severance, title to CBM would pass to the gas owner with any deed or lease of gas rights and to the coal owner with any deed or lease of coal rights.<sup>23</sup> In comparison with a rule that systematically favored either gas owners or coal owners, a priority at severance rule would seem arbitrary, turning on the fortuity of which mineral was severed first and whether the severing transaction was a grant or reservation.

Courts are unlikely to adopt a priority at severance rule. Instead of adopting Rule #3, a court that was unable to choose between Rule #1 and Rule #2 would be more likely to try to determine the actual intentions of the parties on a case-by-case basis under Rule #4.

#### 4. Rule #4: Case-by-Case

If CBM ownership can pass with either gas rights or coal rights, priority at severance may not be the only factor relevant to the determination of which mineral owner obtained the rights to extract CBM. Other pertinent factors would include the language of particular documents, the state of knowledge concerning CBM at the time the documents were signed, and any other evidence that would tend to reveal the actual intentions of the parties. Under the pure case-by-case approach envisioned under Rule #4, a court would decide each case on its own facts, without any underlying presumption about which side should win in the absence of convincing evidence on either side.

Further explanation is necessary to distinguish between the case-by-case approach of Rule #4 and the other five rules that would treat ownership of CBM as a question of law. None of the rules that treat ownership of CBM as a question of law would preclude consideration of the language of the particular deeds or leases. Rather, these rules create legal presumptions that apply in the absence of expression of a contrary intent.<sup>24</sup>

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23. Under another possible variant, any ambiguity could be resolved against the party that drafted the deed or lease.

24. For example, although the decision in *Hoge* was based in part on the language of the deed, it would be incorrect to say that the court employed a case-by-case approach to CBM ownership. The court began its opinion by analyzing the legal principles applicable to

Because the parties can bargain for a different result than the law otherwise would provide, any legal rule will necessitate some degree of case-by-case analysis insofar as it would be virtually impossible to ascertain ownership of CBM solely on the basis of a title search and without a careful reading of the documents relative to contemporary understandings about CBM. Most lawyers who have handled transactions involving CBM are convinced that ownership of CBM is virtually certain to be determined on a case-by-case basis in this sense, regardless of whether the decided cases purport to determine ownership as a matter of law.

Under the pure case-by-case approach of Rule #4, however, the court would consider *only* the transaction between the two parties and would not employ any legal presumption as a starting point for analysis. The decision in *Rayburn v. USX Corp.*<sup>25</sup> provides an example of a pure case-by-case approach in the sense envisioned by Rule #4. In *Rayburn*, the parties had sought a more general ruling, but the court expressly declined to decide as a matter of law whether CBM was generally included with coal rights or gas rights.<sup>26</sup> Instead, the court's ruling that the CBM passed with the conveyance of coal was based entirely on an interpretation of the 1960 coal severance deed in light of the parties' contemporaneous understandings about CBM.<sup>27</sup>

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ownership of the gas, which established a presumption that the coal owner had title to CBM; only then did the court examine the deed to determine whether the coal owner had relinquished these rights. Based on the evidence that CBM *was* believed to be a nuisance with little commercial value, the court in *Hoge* held that the reservation of gas rights in the deed did not encompass CBM. The dissenters in *Hoge* agreed with the majority about the applicable legal principles, but they believed that CBM was encompassed in the reservation of gas rights.

25. No. 85-G-2661-W, 1987 U.S. Dist. LEXIS 6920 (N.D. Ala. July 29, 1987), *aff'd mem.*, 844 F.2d 796 (11th Cir. 1988).

26. 1987 U.S. Dist. LEXIS at \*5.

27. The court emphasized that the deed included a "requirement that all coal seams located in said lands penetrated in such exploration or drilling operations shall be encased or grouted off, except those which may be specifically exempted by United States Steel Corporation in writing." *Id.* at \*2. The court said that this requirement essentially precluded any access of the grantors to gas within the coal seam. *Id.* at \*8. The court ignored a possible alternative explanation of this provision, under which the requirement of casing and grouting would have applied only to drilling "through" the coal to lower strata, a requirement that existed under applicable safety regulations even in the absence of this provision

Even a pure case-by-case approach eventually would establish its own legal presumptions through the accumulation of precedent. The *Rayburn* opinion, for example, functions as precedent for other cases with respect to the court's interpretation of the clause requiring that all gas wells in coal seams be cased and grouted, and it also made factual findings and legal conclusions about the relevance of contemporary expectations about the commercial potential of CBM. Eventually, the case law under Rule #4 could be sufficiently well developed for a pattern of sub-rules to emerge, and these rules would themselves serve as presumptions governing future cases.

#### 5. Rule #5: Successive Ownership

Rule #5, successive ownership, posits that coal owners have title to CBM adsorbed within coal but that they lose title to CBM when it escapes into the gob zone created by longwall mining. Although no previous commentators have recognized the possible existence of this rule, it has strong support from principle and precedent.

Under the ownership-in-place theory applicable to natural gas, the owner of the tract has the exclusive right to drill for gas within the tract, but ownership is lost if the gas migrates or is drained away through wells on adjacent tracts. In *Hoge*, the Pennsylvania Supreme Court applied the ownership-in-place theory to CBM, declaring that the coal owner had title to CBM that was present within the coal.<sup>28</sup> Under this theory, the coal owner's right would be lost as soon as the gas was liberated from the coal seam and escaped into non-coal strata. The *Hoge* decision involved the question of title to CBM in virgin coal, and the court was not called upon to address the ownership of gob gas. Nevertheless, in explaining why the coal owner has title to CBM within coal, the court implied that a coal owner would *not* own gob gas:

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in the deed, and would *not* require casing and grouting when drilling "into" the coal seam for CBM.

28. United States Steel Corp. v. Hoge, 468 A.2d 1380 (Pa. 1983); *see also supra* part III.A.2.

In accordance with the foregoing principles governing gas ownership, therefore, such gas as is present in coal must necessarily belong to the owner of the coal, so long as it remains within his property and subject to his exclusive dominion and control. *The landowner, of course, has title to the property surrounding the coal, and owns such of the coalbed gas as migrates into the surrounding property.*<sup>29</sup>

The best interpretation of *Hoge* is that the court implicitly adopted Rule #5, successive ownership.

Coal owners may counter by arguing that CBM in the gob zone has not really escaped and remains subject to extraction via gob wells. Nevertheless, it is questionable whether mine operators retain *exclusive* control over gob gas as a matter of law, because gas owners could drill competing gob wells to siphon off gob gas, and they could do so without penetrating the coal or directly interfering with mining operations. Insofar as coal owners do not have exclusive dominion and control over gob gas, they would not have title to gob gas under the ownership-in-place theory applied in *Hoge*, and the gas owners would have title to CBM that escaped into the gob zone.

#### 6. Rule #6: Mutual Simultaneous Rights

Under Rule #6, mutual simultaneous rights, gas owners would have title to CBM, but coal owners would have the right to capture CBM in the process of removing methane from their mines in the exercise of "incidental mining rights." Every transfer of mineral rights is said to include, by implication, any incidental rights and privileges that are fairly and reasonably necessary in order to extract the mineral. "It is a general rule of law that, when anything is granted, all the means of attaining it and all the fruits and effects of it are also granted."<sup>30</sup> The basis for recognizing an implied incidental mining right to capture CBM is the coal owners' responsibility to ventilate the mines and comply with mine safety statutes.

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29. 468 A.2d at 1383 (emphasis added).

30. *Armstrong v. Maryland Coal Co.*, 69 S.E.2d 195, 203 (W. Va. 1910) (quoting DANIEL M. BARRINGER & JOHN S. ADAMS, *THE LAW OF MINES AND MINING IN THE UNITED STATES* 576 (1900)).

Judicial opinions in analogous situations provide persuasive support for the proposition that coal owners who do not own CBM have an implied right to capture it in conjunction with mining. For example, a Pennsylvania case from the mid-19th century ruled that a lessee of salt rights was entitled to retain oil extracted along with salt water from a salt well.<sup>31</sup> Even more germane are decisions stating that an oil lessee has the implied right to capture natural gas that must necessarily escape when drilling for oil.<sup>32</sup> A late 19th century case from West Virginia<sup>33</sup> ruled that the lessee under a lease of "carbon oil" was not accountable to the lessor for the "considerable quantity" of natural gas that escaped with the "small quantities" of oil. The opinion described the right to extract the gas as one of the "incidents essentially or naturally [sic] pertaining to" the enjoyment of the right to extract the oil.<sup>34</sup> This decision was discussed with approval in a subsequent opinion, and the court gave the following explanation: "[W]hile the grant was for the specific purpose of mining and removing carbon oil, still the lease necessarily included the gas which came up with the oil as an inevitable concomitant."<sup>35</sup>

Accordingly, if an oil lessee has the right to capture natural gas that escapes with oil, so too must a coal owner have the right to capture CBM that otherwise would be vented.<sup>36</sup> These decisions provide strong support for an implied right to capture CBM that escapes as a "natural and inevitable incident" of coal mining.

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31. *Kier v. Peterson*, 41 Pa. 357 (1862).

32. Annotation, *Right to Incidental as or Oil Under Mining Lease*, 64 A.L.R. 734 (1929). *E.g.*, *Guffey v. Stroud*, 16 S.W.2d 527 (Tex. 1929).

33. *Wood County Petroleum Co. v. West Virginia Transp. Co.*, 28 W. Va. 210 (1886).

34. *Id.* at 215.

35. *Williamson v. Jones*, 19 S.E. 436, 442 (W. Va. 1894).

36. The situations arguably are distinguishable insofar as the combined minerals in the early cases (salt and oil or oil and gas) were produced together and could not be produced separately, whereas CBM can be extracted separately from coal seams in advance of mining using vertical and horizontal boreholes. On the other hand, in the absence of pre-mining degasification, all of the methane would escape in the process of mining, wasting this resource and vastly increasing the costs of ventilation. The inevitability of methane release in conjunction with mining justifies the capture of CBM as an incidental mining right, even if the gas owner had title to CBM and could produce it separately in advance of mining.



Finally, although in *Hoge* the state's highest court ruled that the coal owner had title to CBM, it overruled the opinions of the two lower courts that each would have adopted Rule #6. The trial judge held that the gas owner had title to CBM, but stated that the coal owner had the right to capture it in the course of mining.<sup>37</sup> The Superior Court agreed:

[I]f the coal owner reduces the coalbed gas to his possession as it is released incidental to mining the coal and removed from the mine pursuant to the right of ventilation rather than wasting it into the atmosphere, then he is entitled to its possession and the profits from its sale, if any, just as the chancellor held.<sup>38</sup>

Because the Pennsylvania Supreme Court overruled the lower courts and awarded ownership of CBM to the coal owner, that court had no need to decide whether a coal owner who did not own the CBM would nevertheless have an incidental right to capture it in conjunction with mining.

Rule #6 would *not* give the coal owner *title* to the CBM in place. To the contrary, the incidental mining rights theory *presumes* that the party exercising this right has no title to the associated mineral and would have no right to remove it except in conjunction with the mining of the primary mineral. (Other commentators who have discussed incidental mining rights do not appear to have appreciated this important point). Thus, Rule #6 would empower the coal owner to extract and capture CBM in conjunction with mining, but it would not permit the coal owner to produce CBM from nonminable coal. In addition, it might not permit the coal owner to produce CBM from minable coal in a stand-alone operation not associated with any future mining plans.

While common sense supports the incidental mining right of coal operators to capture methane gas released by mining activity that otherwise would be wasted, neither logic nor justice would necessarily excuse them from compensating the actual owner of the gas. Rule #6 contemplates that coal owners have the right to extract and capture

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37. United States Steel Corp. v. Hoge, No. 682, slip. op. at 17-18 (C.P. Greene County, Pa. March 24, 1980).

38. United States Steel Corp. v. Hoge, 450 A.2d 162, 172 (Pa. Super. Ct. 1982).

CBM in conjunction with mining activity without incurring any obligation to compensate the gas owners. A court could adopt a variant of Rule #6, however, which required payment of a royalty to the gas owner for any CBM captured in conjunction with mining.

### 7. Rule #5 Rule #6

It is possible that ownership of CBM may be governed by a hybrid of Rule #5 and Rule #6. Under Rule #5, the coal owners would own CBM in place, subject to a rule of successive ownership in which the gas owners would have title to gob gas. Under Rule #6, the gas owners' nominal title to gob gas would be qualified by the coal owners' incidental right to capture gob gas in order to ventilate the mine.

### B. *Summary of the Possible Common Law Rules*

The foregoing discussion has demonstrated the indeterminacy of CBM ownership at common law. The absolute ownership claims of gas owners and coal owners, reflected in Rule #1 and Rule #2, both rest on plausible conceptual foundations ("CBM is a gas" or "CBM is part of the coal"). Although both have some support from existing authorities, neither is clearly correct.

Whenever a coal owner has title to CBM, both principle and precedent (especially *Hoge*) imply that these rights are limited to CBM in place within coal and that the gas owner would have title to any gob gas liberated from coal and non-coal strata by high extraction mining, yielding a regime of successive ownership, Rule #5. Conversely, whenever a gas owner has title to CBM, both principle and precedent strongly suggest that these rights are qualified by the incidental mining rights of the coal owner, yielding a regime of mutual simultaneous rights, Rule #6. Moreover, it is possible for a hybrid of Rule #5 and Rule #6 to apply, with coal owners having title to CBM within coal, gas owners having title to gob gas, and coal owners having the right to extract gob gas as an incidental mining right.

The existing precedent is so sparse that in most jurisdictions the applicable legal rule is unclear. Regardless of the legal rule, most

attorneys believe that ownership of CBM will be determined on a case-by-case basis insofar as courts must interpret the documents to the transaction and take into account other extrinsic facts. In the face of this uncertainty, CBM development usually requires a negotiated compromise among gas owners and coal owners, and a 50-50 split is not an uncommon arrangement.<sup>39</sup>

#### IV. SURPRISING JUDICIAL DEVELOPMENTS

##### A. *Federal and Indian Land: Decision Pending*

Virtually all production of CBM on lands West of the Mississippi has been undertaken by the holders of gas rights on federal or Indian lands in reliance on the 1981 and 1990 opinions of the Interior Department's Solicitor.<sup>40</sup> Interpreting the statutes, regulations, and documents of conveyance in transactions involving federal and Indian trust lands, the Solicitor adopted Rule #1, opining that CBM is a "gas" and thus was conveyed to the grantees of gas rights and was not retained by the reservations of coal rights.

The 1981 Solicitor's opinion is currently being challenged in *Southern Ute Indian Tribe v. Amoco Production Co.*,<sup>41</sup> an action by the Tribe seeking to establish its ownership rights to CBM underlying approximately 200,000 acres of land in which the Tribe owns the coal interests. Defendants include twenty oil and gas companies, an estimated 20,000 individuals holding interests in oil and gas rights under the

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39. Indeed, in the earlier article we concluded that shared ownership of CBM by coal owners and gas owners might be the most fair and practical solution to the problem of uncertain ownership, and we suggested that a statute that established shared ownership might well survive a challenge to its constitutionality. See Lewin, *supra* note 5, at 661-90.

40. M-36935, 88 Interior Dec. 538 (1981); M-36970, 98 Interior Dec. 59 (1990).

41. No. 91-B-2273 (D. Colo. filed Dec. 31, 1991). The facts in this paragraph are derived from the complaint and from an appellate opinion on an interlocutory appeal of a procedural issue. *Southern Ute Indian Tribe v. Amoco Production Co.*, 2 F.3d 1023, 1025 (10th Cir. 1993) (reversing award of costs against the Tribe for 25% of the expense previously incurred by the oil companies in compiling lists of owners of oil and gas interests); see also Charles L. Kaiser & Mark D. Bingham, *Coalbed Gas Exploration and Development on Federal and Other Lands in the West*, in *COALBED GAS DEVELOPMENT: EAST AND WEST* 2-14 (ROCKY MTN. MIN. L. FOUND. 1992).

Tribe's land, and the United States Department of the Interior. The Tribe has requested declaratory and injunctive relief, as well as seeking substantial damages against the private defendants.

Amoco is the principal defendant, as it owns oil and gas leasehold interests covering roughly 150,000 of the Tribe's 200,000 acres and operates roughly 160 of the 350 existing wells on the Tribe's land. The district court certified a defendant class, with Amoco as representative of the class, and Amoco's counsel as lead counsel. The ownership of hundreds of millions of dollars worth of CBM is directly at stake in this litigation, and the decision probably will establish the legal framework for all future CBM development on federal and Indian land.<sup>42</sup>

The parties have filed cross motions for summary judgment. Briefing was completed in February of 1994, and a decision on ownership is expected by the end of the year. If the court were to decide that the Tribe had title to the CBM, it probably would certify the ownership question for interlocutory appeal in order to obtain a definitive ruling before taking up the difficult question of determining what compensatory or injunctive relief would be appropriate.

### *B. Montana: A Temporary Victory for Coal Owners in the West*

The prevailing wisdom has long been that different ownership rules would be applied by courts in the Eastern and Western United States.<sup>43</sup> In the East, where most of the CBM is trapped within minable coal and is most efficiently extracted in conjunction with mining,

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42. Because the Tribe acquired its land from the federal government in 1938, after the government had relinquished the gas rights, the case primarily deals with the interpretation of the reservations of coal rights in patents of federal land issued under Act of March 3, 1909, and June 22, 1910 (the subject of the 1981 Solicitor's opinion), and it does not directly address the interpretation of the standard tribal oil and gas leases involving Indian trust land under the Indian Mineral Leasing Act of 1938 (the subject of the 1990 Solicitor's opinion). On the other hand, because many of the issues are the same in both contexts, the decision is likely to clarify the ownership of CBM in transactions under the Indian Mineral Leasing Act as well as under patents of federal land under the Acts of 1909 and 1910.

43. See, e.g., J. Hovey Kemp & Kurt M. Petersen, *Coal-Bed Gas Development in the San Juan Basin: A Primer for the Lawyer and the Landman*, in ROCKY MTN. ASSOC. OF GEOLOGISTS, COAL-BED METHANE, SAN JUAN BASIN 257, 271-74 (1988).

courts were expected to follow the lead of the Pennsylvania Supreme Court and give the coal owners title to CBM. In the West, especially on federal and tribal land, where much of the CBM will be extracted from nonminable coal, state courts were expected to adopt the Interior Department Solicitor's view and confer title to CBM on the gas owners. Members of the CBM community were therefore quite surprised by the decision of a Montana trial court in *Carbon County v. Baird*,<sup>44</sup> which held that the coal owner had title to CBM.

Carbon County, a political subdivision of the State of Montana, had acquired the entire mineral estate under the property in question through tax deed proceedings. In 1974, Carbon County agreed to sell the coal rights under the property to Norman Kmoch. Kmoch assigned the agreement to a limited partnership (the "coal owners"). From 1978 to 1982, sublessees of the coal owners operated a mine on the property. In 1984, Carbon County executed a deed to the coal owners of "all coal and coal rights with the right of ingress and egress to mine and remove the same." Neither the agreement nor the deed made any mention of gas or methane.

In August of 1990, Carbon County executed an oil and gas lease to Florentine Exploration and Production, Inc. ("Florentine"). The lease granted Florentine "the exclusive right for the purpose of mining, exploring by geophysical or other methods, and operating for and producing therefrom oil and all gas, including coal seam methane of whatsoever nature or kind." The phrase "including coal seam methane" was inserted into the lease by Florentine. Florentine acknowledged, however, that the County did not warrant that it had title to the estate being leased, and Florentine covenanted to hold the County harmless should the title "be questioned or in any way impaired."

On October 23, 1990, Florentine contacted the coal owners about the possibility of obtaining a "protective coal seam methane gas lease," but no agreement was reached. Nevertheless, on October 24, 1990, Florentine began drilling a well on the property, which was completed on or about October 30, 1990. On that same day, the coal owners re-

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44. No. DV 90-120, 1992 WL 464786 (Dist. Ct., Carbon County Mont. Dec. 14, 1992).

jected the proposed lease, expressing concern about damage to the coal and interference with future longwall mining. On December 7, 1990, Carbon County initiated an action to quiet title for itself and its gas lessee. Florentine intervened and made a claim to quiet title to the CBM.

Following a non-jury trial, the court ruled in favor of the coal owners. The court ruled that as a matter of law, "Coal seam methane is part of the coal and of the coal estate and was included in the conveyance of 'coal and coal rights'."<sup>45</sup> Accordingly, the court declared that "Florentine acquired no right to drill and produce the coal seam methane gas when it entered into the oil and gas lease dated August 21, 1990."<sup>46</sup> The court ordered Florentine to remove its casing from the coal seam and plug the well, but it awarded only nominal damages because the coal owners did not meet their burden of establishing actual damage from interference with mining.

In its legal analysis, the memorandum decision in *Baird* followed *Hoge* in applying the ownership-in-place theory to CBM. After citing cases which held that Montana was an ownership-in-place state, the court declared that "the conclusion of the *Hoge* case that the owner of the coal necessarily owns the gas found therein is consistent with the conclusion of the Montana Supreme Court."<sup>47</sup>

The trial court's decision also was based on policy considerations: "the public's interest in the preservation of and the orderly development of the two resources, coal and coal seam methane gas."<sup>48</sup> The court drew further support from a Montana statute that incorporated the concept of incidental mining rights: "Grant includes essentials. One who grants a thing is presumed to grant also whatever is essential to its use."<sup>49</sup> The court found that the need for ventilation and

45. No. DV 90-120, slip op. at 11, 1992 WL 464786 at \*5.

46. *Id.*

47. No. DV 90-120, slip op. at 19, 1992 WL at \*10. The court relied on two cases: *Stokes v. Tutvet*, 328 P.2d 1096 (Mont. 1958); *Gas Products Co. v. Rankin*, 207 P. 993 (Mont. 1922).

48. No. DV 90-120, slip op. at 18, 1992 WL 464786 at \*9.

49. No. DV 90-120, slip op. at 19, 1992 WL 464786 at \*10 (quoting MONT. CODE ANN. § 1-3-213 (1993)).

degasification meant that "Methane gas is essential to the use, that is, the mining, of coal."<sup>50</sup> Taken out of context, this sentence may raise eyebrows among those habituated to viewing CBM as a threat to mine operations. It would be more correct to say that *removal* of methane gas is essential to the use and mining of coal. Nevertheless, insofar as removal of methane must be coordinated with mine operations, the court's decision is consistent with the theoretical and practical view that unitary ownership of coal and CBM would best promote safe and efficient extraction of both resources.

As was true in *Hoge*, the *Baird* decision dealt with degasification of virgin coal and did not directly address the question of title to gob gas. The court's interpretation of the Montana statute, however, suggests that a grant of coal rights presumptively would include the incidental right to remove gob gas in conjunction with mining.

The *Baird* decision is significant in two respects. First and foremost, *Baird* carries the reasoning and the holding of *Hoge* across the Mississippi, breaching the Maginot line that the oil and gas industry confidently had relied upon in the development of Western CBM resources.<sup>51</sup> Second, *Baird* represents a major step beyond *Hoge* insofar as the court relied upon policy concerns and the concept of incidental mining rights. But precisely for these reasons, the case could be treated as distinguishable in cases involving nonminable coal, as to which concerns about conflicting resource development and incidental mining rights arguably would apply with less force.

Subsequent to the decision of the trial court in *Baird*, the Montana legislature enacted a bill to nullify its impact. This new law declares that CBM is included in the definition of "gas" and is not included in the definition of "coal."<sup>52</sup>

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50. No. DV 90-120, slip op. at 19, 1992 WL 464786 at \*10.

51. It is unclear to what extent the decision in *Baird* will influence the outcome in *Southern Ute*. The issues in the two cases are in many respects dissimilar, because *Southern Ute* primarily involves interpretation of federal statutes governing mineral leases, whereas *Baird* was interpreting private transactions under state law. On the other hand, insofar as *Hoge* and *Baird* reject the "CBM is gas" approach and hold that CBM is part of the coal, they do tend to undermine the rationale for the Solicitor's interpretation of the statutes.

52. 1993 Mont. Laws ch. 379, § 1, MONT. CODE ANN. § 82-1-111 (1993). Defini-

Following enactment of this statute, the coal owners in *Baird* filed a notice of appeal, and the gas owner cross-appealed. The coal owners generally had prevailed in the trial, and their appeal primarily seeks to challenge the constitutionality of the statute. A decision is not expected until the end of 1994.<sup>53</sup>

It is impossible to predict how the Montana Supreme Court will rule. The court could dismiss the appeal on procedural grounds because the trial court ruled in the coal owners' favor and the statute would not have applied to them if they had let the ruling become final instead of filing an appeal. The court could entertain the appeal but avoid the constitutional issue by ruling that the statute applies only prospectively and not to contracts already in existence. The court could rule that the statute is not unconstitutional because the trial court was incorrect about ownership of CBM and the statute merely restates the gas owners' rights at common law. Or, the court could declare the statute unconstitutional as a taking of the coal owners' common law property rights.<sup>54</sup>

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tions:

As used in this title, unless the context requires otherwise, the following definitions apply:

(1) "Coal" means a combustible carbonaceous rock formed from the compaction and induration of variously altered plant remains. Coal does not include:

(a) methane gas or any other natural gas that may be found in any coal formation;

(b) oil shale; or

(c) gilsonite.

(2) "Gas" means all natural gases and all other fluid hydrocarbons, including methane gas or any other natural gas found in any coal formation, as produced at the wellhead and not defined as oil in subsection (3) . . . .

*Id.*

53. Author's conversations with the court clerk and counsel for the parties.

54. Because a trial court decision does not itself create any "vested rights," the Montana Supreme Court could only declare the statute unconstitutional if it concluded that the trial court was correct about the coal owners' rights at common law.

For a discussion of the constitutionality of statutory resolutions of disputes over ownership, see Lewin et al., *supra* note 5, at 670-90. We concluded that a statute which conferred *joint ownership* on gas owners and coal owners might well be constitutional. Our analysis would not, however, support the constitutionality of a statute which entirely deprived a person of common law property rights without compensation. If the trial court was correct about the common law of Montana, then the statute may well be unconstitutional.



### C. *Alabama: A Partial Victory for Gas Owners in the East*

Alabama's Black Warrior Basin was the site of several early pilot projects for extraction of methane from minable coal, and this area is the leading source of CBM in the Eastern United States. Operating in the Black Warrior Basin, Jim Walter Resources, Inc. ("Jim Walter") has been the industry leader in integrating the production of CBM with active mine operations.

The coal owners in Alabama generally have been able to develop CBM without engaging in litigation over ownership. In much of the state, CBM production has taken place on property in which coal and gas rights remained unsevered, and in other cases CBM production proceeded on the basis of contractual arrangements with both gas owners and coal owners.

#### 1. Prior Law in Alabama

As of mid-1992, only two cases involving disputes over ownership of CBM had been decided, and neither provided a definitive interpretation of Alabama law. In *Rayburn v. USX Corp.*,<sup>55</sup> the federal trial judge declined the parties' request to decide as a matter of Alabama law whether CBM was encompassed within the conveyance of coal or the reservation of gas. Instead, the court limited its consideration to interpretation of the 1960 coal severance deed, and its decision favoring the coal owners primarily was based on the language of a particular provision in that deed.

*Pinnacle Petroleum Co. v. Jim Walter Resources, Inc.*<sup>56</sup> granted

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55. No. 85-G-2661-W, 1987 U.S. Dist. LEXIS 6920 (N.D. Ala. July 29, 1987), *aff'd mem.*, 844 F.2d 796 (11th Cir. 1988). See discussion *supra* notes 25-27.

56. No. CV-87-3012 (Cir. Ct. Mobile County, Ala. July 28, 1989) (order granted). Pinnacle was the assignee of a 1978 lease of oil, gas and all other minerals except coal. Jim Walter, was the lessee of all coal rights under the property under a 1984 lease which expressly included the right to remove CBM. Jim Walter was engaged in longwall mining of a gassy seam of coal 1500' to 2000' below the surface and had undertaken a comprehensive program of degasification through vertical boreholes, horizontal in-mine boreholes and gob wells. In 1987, Pinnacle brought suit against Jim Walter, two other corporations

partial summary judgment to the coal owners, ruling that they had title to CBM, including the methane released from coal seams that was produced through gob wells in conjunction with longwall mining. The court granted only partial summary judgment because of unresolved factual and legal disputes involving the source and ownership of the gob gas.<sup>57</sup>

The trial court in *Pinnacle* never issued an opinion, and the two-page order granting partial summary judgment provided neither a citation of authority nor an explanation for the court's ruling. The court did, however, give some indication of its reasoning in an informal letter opinion directing the coal owners' counsel to draft the order: "The *Hoge* case should be cited as the principal authority for the ruling."<sup>58</sup> Moreover, in holding that the coal owner's rights extended to removal of gob gas, the court implicitly rejected the gas owner's argument for a version of Rule #5, successive ownership.<sup>59</sup> Nevertheless, the court's order provided no indication of the underlying reasoning, and its value as precedent was limited by the fact that the case never proceeded to final judgment.<sup>60</sup>

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engaged in its degasification program, and the surface owner as lessor under the coal and gas leases. *Pinnacle* sought to quiet title to all of the methane under the property and requested damages for conversion and trespass for the defendants' removal of methane in conjunction with mining.

57. The unresolved factual question was whether some of the gob gas came from gas-bearing sandstone formations rather than from coal seams. The unresolved legal question was whether the coal owner had the right to capture gob gas that originated in non-coal strata.

58. Letter from Judge Douglas Johnstone to all counsel of record (June 15, 1989) (on file with the *West Virginia Law Review*).

59. *Pinnacle's* argument was based on the mistaken premise that *Hoge* had awarded CBM to the coal owner under the container space theory. *Pinnacle's* motion for partial summary judgment asserted that CBM extracted from a gob well was the property of the oil and gas lessee because the rights of the coal lessee terminated upon the exhaustion of the coal (order dated July 28, 1989). Brief in Support of Motion for Summary Judgment by Plaintiff at 7-10, *Pinnacle Petroleum Co. v. Jim Walter Resources, Inc.*, No. CV-87-3012 (Cir. Ct. Mobile County, Ala. July 28, 1989) (order granted).

60. The matter was stayed by virtue of bankruptcy proceedings involving Jim Walter.

## 2. Recent Alabama Decisions: *West* and *Vines*

In 1993, the Alabama Supreme Court rendered two decisions about ownership of CBM. Instead of clarifying the issue, however, these decisions have raised new legal and factual questions that may impede future CBM development in Alabama.

*NCNB Texas National Bank v. West*<sup>61</sup> arose from a 1991 action by the coal owner Neva Watkins West, the coal lessee Jim Walter, and other parties associated with them in the production and marketing of methane from the property (collectively the "coal owners"), seeking to quiet title to CBM under a 40-acre tract in the Brookwood coal field suit. The defendant NCNB Texas National Bank (the "gas owner") was trustee for the owners of a 22.5% interest in the gas rights, which had been reserved in the 1953 and 1954 deeds of the coal rights. The gas owner counterclaimed seeking declaratory relief, damages for conversion, and an accounting for the proceeds from the sale of gas already produced. The case was consolidated with a related action filed by the gas owner against several of the parties involved in the production and marketing of methane from the property.

The case was tried in September of 1992 by the same judge who presided in the *Pinnacle* litigation. As in *Pinnacle*, the coal owners had argued for a rule based on the origin of the gas and had conceded that the gas owner would have title to any methane in the gob gas that was released from non-coal strata, which would include either natural gas that originated in non-coal strata or methane produced in coal seams that had migrated to other strata prior to mining activity (what we call "strata gas"). The jury, by special interrogatory, found that all of the gob gas was released from coalbeds,<sup>62</sup> leaving the trial

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61. 631 So. 2d 212 (Ala. Oct. 8, 1993), *modified on denial of reh'g*, Dec. 10, 1993.

62. If any of the gas had been released from non-coal strata, the gas owners would have received an accounting for that portion of the gob gas. Such an accounting would have required expert testimony about the percentage of gob gas arising from coal and non-coal strata, which probably would have involved comparisons of the percentages of various trace gases in samples taken from the coal seam, the non-coal gas-bearing strata, and the gob zone. No apportionment proved to be necessary, however, because expert testimony convinced the jury that all of the gob gas had come from coal seams.

court with the task of determining the ownership of CBM produced from gob wells and from vertical and horizontal boreholes.

The trial court analyzed CBM ownership in a detailed and carefully reasoned formal opinion.<sup>63</sup> The court noted that the gas owners and coal owners both had advanced respectable assertions based on the “physical properties” of CBM, its “function or effect,” “the methods and practicalities of extracting it,” and certain “legal practicalities.”<sup>64</sup> The court declared that *Hoge* correctly stated the applicable law with respect to ownership of CBM within the coal, and it employed the following definition: “Coalbed Gas’ is defined as ‘hydrocarbon gas which resides in coal, or which resides in the coal until the coal and gas are disturbed by mining or extraction activity, provided that the gas is produced during, or reasonably promptly after, such disturbance.’”<sup>65</sup>

The court rejected the Bank’s argument for a rule of successive ownership that would have given a gas owner the right to capture gob gas that had escaped from the coal, stating: “Such a chameleon rule would cause grave conflicts, with the coal owner and the gas owner trying to occupy the same surface area above the gob to ram their respective pipes into their respective strata to collect the Coalbed Gas.”<sup>66</sup> Nevertheless, the court said that the coal owner might lose its right to gob gas that was not produced “reasonably promptly” after mining, and it indicated that the rationale for allowing the coal owner to extract CBM from gob wells in conjunction with mining was practical necessity:

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63. *West v. NCNB Texas National Bank*, No. 91-000443.51 (Cir. Ct. of Mobile Cty., Ala., Dec. 31, 1992). Final Order and Judgment Amended and Reissued Sua Sponte. Extensive excerpts from the opinion are set forth in the opinion of the Alabama Supreme Court, 631 So. 2d at 214-19.

64. *Id.* at 9-10, *quoted in* 631 So. 2d at 217-18.

65. *Id.* at 2 (not quoted in the opinion of the Supreme Court).

66. *Id.* at 13 (not quoted in the opinion of the Supreme Court). The court recognized that language in the *Hoge* opinion “appears to support this chameleon rule,” but it emphasized that the statement was dictum and “did not adjudicate any migrated gas, did not address the time of migration, and did not necessarily mean Coalbed Gas which had migrated only during the mining or extraction process.” *Id.* at 13-14.

The definition of Coalbed Gas . . . would allow a court, in a proper case, to treat as "gas" any Coalbed Gas which had migrated independently of coal mining activity and to treat as "gas" any Coalbed Gas released by coal mining but not produced during, or reasonably promptly after, the mining activity. The definition contemplates, however that Coalbed Gas passing through or migrating into non-coal strata from a coal seam as a result of coal mining or Coalbed Gas production and being produced contemporaneously with that activity will be treated the same as Coalbed Gas residing within the coal seam itself, for the sake of consistency, practicality, and harmony.<sup>67</sup>

With respect to the six rules in our schema, the trial court's opinion in *West* might be interpreted in either of two ways. The decision might represent an application of Rule #5, with the coal owner retaining title to gob gas that is removed reasonably promptly because it remains within the coal owner's exclusive dominion and control and has not yet "escaped"; gob gas that is not removed promptly is deemed to have escaped and becomes the property of the gas owner. An alternative interpretation would be that the trial court applied a combination of Rules #5 and #6: the coal owner has title to CBM within unmined coal, but the gas owner has title to methane that escaped to other strata, either in the distant past or in conjunction with mining (Rule #5); nevertheless, the coal owner has the right to remove methane reasonably promptly in conjunction with mining as an incidental mining right (Rule #6).

While *West* was pending on appeal, the Alabama Supreme Court entered an opinion in *Vines v. McKenzie Methane Corp.*,<sup>68</sup> which appeared to partially foreclose the arguments of the gas owners in *West*. *Vines* involved a consolidated appeal of two separate disputes between surface owners who held no mineral rights and a CBM developer that held the right to *all* minerals under the properties, including both coal and natural gas.<sup>69</sup> Even though the landowners in both cases had re-

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67. *Id.* at 14 (not quoted in the opinion of the Supreme Court).

68. 619 So. 2d 1305 (Ala. 1993) (per curiam).

69. In one case, McKenzie Methane derived its title from an 1898 lease of "all the coal and other minerals, in, under or upon" the property. In the other case, it derived its title from a 1902 lease of "all of the coal, iron ore, and other minerals, in, under, and upon" the property of the landowner.

tained none of the mineral rights, they contested McKenzie Methane's right to extract CBM. The trial court in each case entered summary judgment for McKenzie Methane, and both landowners appealed.

The Alabama Supreme Court could have decided the case in favor of McKenzie Methane without addressing the competing claims of gas owners and coal owners to CBM by declaring that CBM was encompassed within the grant of "all minerals," applying the principle that a landowner who has conveyed away *all* of the minerals is bound by the general intent to relinquish all mineral rights and cannot assert any claim to minerals that were not known to have been present or that were not known to have been valuable at the time of the conveyance.<sup>70</sup> Instead, the court undertook to analyze the available caselaw on ownership of CBM, all of which involved disputes between coal owners and gas owners. The court expressed its agreement with the reasoning in *Hoge*, *Rayburn*, and *Baird*, and it concluded by declaring that CBM was included in the grant of "all coal."

The court appeared to base this conclusion on the legal concept of incidental mining rights and on the factual premise that degasification is closely linked with coal mining. After noting that "the processes of drilling for coalbed methane gas and mining for coal are inextricably intertwined,"<sup>71</sup> the court cited a 19th century Alabama case that discussed incidental mining rights.<sup>72</sup> The court did not seem to recognize, however, that the coal owner could have the right to extract methane from coal in conjunction with mining as an incidental mining right without necessarily having *title* to the gas within the coal.<sup>73</sup> Moreover, the incidental mining rights approach would not give the coal owner any right to extract methane from nonminable coal or to

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70. See *supra* note 12; see also Lewin et al., *supra* note 5, at 616-18.

71. 619 So. 2d at 1308.

72. "As early as 1888, this Court held that one who is granted the exclusive right to mine coal upon a tract of land has the right of possession so far as is reasonably necessary to carry on his mining operations." 619 So. 2d at 1308 (quoting *Williams v. Gibson*, 4 So. 350 (Ala. 1888)).

73. Our Rule #6 contemplates that the gas owner has title to CBM and the right to extract it in advance of mining but that the coal owner has the right to extract any methane left in the coal when mining activity commences.

even engage in degasification of a minable seam absent some relationship to future mining of that seam.<sup>74</sup>

In sum, the court's conclusion in *Vines* that title to CBM was conveyed with the grant of all coal was consistent with the precedent it cited, but the court's explanation was not persuasive. Moreover, the declaration that CBM passed with the grant of "all coal" arguably was dictum insofar as it was not essential to the court's ruling that the surface owners did not retain title to CBM following a conveyance of the coal and *all minerals*.<sup>75</sup> Nevertheless, the court's expression of support for the coal owners' position suggested that it was likely to affirm the ruling for the coal owners in *West*.

It therefore came as somewhat of a shock to the CBM community when the Alabama Supreme Court rendered a decision in *West* that partially reversed the decision of the trial court and held that the reservation of gas rights gave the gas owner title to CBM that escaped into the gob zone.<sup>76</sup> The court's convoluted analysis of the ownership issue appears to be internally inconsistent, and the decision raises several important new questions that may impede future CBM development in Alabama.

The court in *West* began by beating a hasty and awkward retreat from the ill-considered dictum in *Vines*, inserting new parentheticals to indicate what it had "really" intended to say in that case:

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74. In fact, McKenzie Methane's degasification operations were not associated with any mining operations, and one of the landowners filed a petition for rehearing that requested the Court to modify its holding to prohibit the coal owner from utilizing the surface of the property for the production of CBM unless it was conducted in conjunction with an active mining operation. The court overruled this application for rehearing. Correspondence and Case Summary from Conrad Armbrrecht, Counsel for Jim Walter (on file with the *West Virginia Law Review*).

75. The court seems to have been persuaded to focus on the grant of the coal instead of the grant of all minerals by the amicus brief of Jim Walter, which apparently was submitted in *Vines* with a view toward educating the court about CBM in advance of the anticipated appeal in *West*.

76. *NCNB Texas Bank v. West*, 631 So. 2d 212 (Ala. Oct. 8, 1993) *modified on denial of reh'g*, Dec. 10, 1993. One Justice dissented in part and would have affirmed the trial court decision on the basis of *Hoge* and *Vines*.

In *Vines* we stated: “[W]e are not inclined to hold that a grantor may never grant separate estates in coal and coalbed methane gas. Rather, in keeping with earlier Alabama law construing mineral leases, we hold that an express grant of ‘all [the] coal [and other minerals]’ necessarily implies the grant of coalbed methane gas, *unless the language of the grant itself prevents this construction.*” 619 So. 2d at 1309 (“never” emphasized in original; other emphasis added).<sup>77</sup>

The opinion then addressed the interpretation of the reservation of gas rights in the 1953 coal deed. While the court agreed with the trial court that the language was unambiguous, it disagreed with the ruling that CBM was transferred to the coal owners by the grant of all coal and coal mining rights. Instead, the court adopted the view of the Interior Department’s Solicitor, holding that CBM was encompassed within the reservation of “all gas”:

Evidence at trial indicated that coalbed methane gas is a gas with a composition similar to, if not exactly the same as, other natural methane gas. We can find no scientific or legal basis to support the proposition that coalbed methane gas should be treated as a resource separate and distinct from other natural gas, or from any other gas. The fact that the coalbed methane gas is produced by, and stored within, coal seams does not require the conclusion that a grant of “all coal” includes coalbed methane gas, nor does it require the conclusion that a reservation of “all gas” does not include coalbed methane gas. As we said in *Turner v. Lassiter*, “Under the facts of this case: ‘All’ is all. ‘All’ is not ambiguous. ‘All’ is not vague. ‘All’ is not of doubtful meaning.”<sup>78</sup>

If the court had stopped there, it would have ruled entirely in favor of the gas owners under Rule #1. But the court continued: “However, careful analysis of the law of real property indicates that the ownership of coalbed gas depends upon its location at the time the gas is recovered or ‘captured,’ at which time it is reduced to possession.”<sup>79</sup> The court then discussed the migratory nature of CBM and the possible significance of whether Alabama applied the “ownership in place” or the “nonownership” theory of gas ownership. The court

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77. 631 So. 2d at 221.

78. *Id.* at 222-23 (footnotes omitted).

79. *Id.* at 223.



concluded that this distinction “does not affect the extent of extraction rights.”<sup>80</sup>

The court next discussed the meaning of the coal conveyance and incidental mining rights in relation to the migratory nature of CBM:

Conveyance of coal as a distinct property also includes that bundle of property rights included within the coal, such as the rights incident and necessary to the recovery of the coal. *Williams v. Gibson*, 84 Ala. 228, 232-34, 4 So. 350 at 353-54 (1888). This bundle of property rights includes the right to reduce to possession any gas trapped with the coal itself, so long as that gas remains with the coal until the time of its capture. However, as shown below, due to the migratory nature of natural gas, the coal owner would lose any right to possess coalbed methane gas once that gas migrates out of his property and thus beyond his right to reduce the gas to possession.

. . . Thus, so long as the coalbed gas is bound within the coal seam in which it originated, the holder of the coal estate has the right to extract the gas and reduce it to possession. However, once the coalbed gas migrates out of the stratum in which it originated, the right to recover the gas belongs to the holder of the gas estate.<sup>81</sup>

The court then reviewed the available precedent from other jurisdictions. It distinguished *Rayburn* and *Hoge* on the basis of particular language that was used in the deeds in those cases, and it agreed with the analysis of the dissenters in *Hoge* who would have found that the unrestricted use of the term “gas” in reservation clause of those coal deeds had the effect of reserving title to CBM.<sup>82</sup> The court noted that *Baird* was distinguishable because it “did not address the issue of who owns the gas once it migrates from the coal seam into the strata above.”<sup>83</sup> The court also indicated its disagreement with *Baird* “insofar as it treats the coal miner’s qualified right to ventilate dangerous methane gas as if it were an absolute right of ownership.”<sup>84</sup>

The court concluded by restating its holding that: (1) the gas owner had title to CBM by virtue of the reservation of gas rights; (2)

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80. *Id.* (quoting Lewin et al., *supra* note 5, at 619).

81. 631 So. 2d at 223-24.

82. *Id.* at 225-26.

83. *Id.* at 227.

84. *Id.*

the coal owner had the exclusive right to remove methane from coal seams; and (3) the gas owner had the right to capture and sell gob gas that escaped from the coal.<sup>85</sup>

Recognizing that the "holding raises factual and legal issues that must be determined by the trial court," the court remanded the case for further proceedings.<sup>86</sup> On application for rehearing, the court resolved one of these issues by modifying its opinion to add the following sentence: "If the coal owner captures and sells gob gasses that have migrated into other strata, the gas owners are entitled to share in any profits on such sales, after taking into account the cost borne by the coal owner in capturing and marketing the gas."<sup>87</sup> The court did not elaborate, however, on the criteria to be employed in allocating costs or sharing the profits, leaving these difficult issues for consideration on remand.

85. The court stated:

We hold that the appellant gas owners have no interest in coalbed gas recovered from horizontal or vertical wells drilled directly into coalbeds before the coal is mined, although the gas owners do have a 22 ½% interest in coalbed gas that migrates out of the coal seams, such as that gas collected within the gob zone.

For the above reasons, we hold that, absent a clear showing to the contrary, the reservation of all gas includes the right to coalbed methane gas that migrates into other strata from out of the source coal beds where it formed. We further hold that, based on the facts and circumstances of each case, and absent a clear showing of the parties' intent to the contrary, the reservation of coalbed methane gas does not include coalbed methane gas contained with its source coal seam, and that the holder of the coal estate has the right to recover *in situ* such gas as may be found within the coal seam. However, once that gas escapes unrecovered from the coal and migrates into other strata, then the holder of the gas estate has the right to reduce to possession the coalbed methane gas from the other strata . . . .

Therefore, we affirm that part of the judgment holding that the appellee coal owners/lessees have the exclusive right to produce and own coalbed methane gas from horizontal boreholes and vertical degasification wells drilled directly into the source coal seam. Because the right to recover coalbed gas from the gob area above the source coalbed properly belongs to the gas estate, however, we reverse that part of the trial court's judgment holding that the appellee coal owners/lessees have the exclusive right to produce and own all of the coalbed gas that has been, or that will be, produced from gob wells on the Property.

631 So. 2d at 229.

86. *Id.*

87. *Id.* (This sentence was inserted where the elipsis appears at the end of the second paragraph in note 85).

### 3. Implications of the *West* Decision

The net result of the court's holding in *West* is consistent with a combination of Rule #5 with a modified version of Rule #6. The court's convoluted analysis is internally inconsistent, however, and the decision may create several substantial obstacles to CBM development in Alabama.

The court's first error was in seeking to interpret the reservation of gas rights in the 1953 deed before addressing the meaning of the conveyance of coal rights. As a result, the court first concluded that the landowner had reserved CBM as part of the gas rights, but then concluded that the coal owner had received the right to remove CBM directly from coalbeds as an incidental mining right. The court failed to recognize that if the right to remove CBM was included in the conveyance of coal rights as an incidental mining right, then there should have been nothing reserved for the landowner except the gas rights to CBM that escaped from the coal into other strata.

The court's main error, however, was in basing its holding on the concept of incidental mining rights and then applying that concept both too narrowly and too broadly. The court rejected the trial court's ruling, based on *Hoge*, that would have given the coal owner title to CBM because it was located within the coal at the time of conveyance. Instead, the court seemed to be saying that the coal owner's right to capture CBM was based on the concept of incidental mining rights.

But if incidental mining rights were involved, then the concept was applied too narrowly, for there was no justification for the court to treat capture of gob gas any differently from capture of CBM directly from coal seams. If the right to capture CBM is an incidental mining right, then the extent of the coal owner's right to produce CBM should depend upon whether this was reasonably necessary for mining of the coal, and not upon whether the gas remained within the coalbed.<sup>88</sup> Even if the gas owner had title to CBM within the coal,

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88. Curiously, as authority for the proposition that the coal owner loses title to CBM

the court should have recognized that the coal owner's incidental mining rights would give the coal owner the right to use *any reasonably necessary means to remove methane from the mine*, whether directly from coal seams by vertical and horizontal boreholes or indirectly through gob wells. The practical necessity of employing gob wells is especially acute in the Black Warrior Basin, because the volume of methane in these deep, gassy longwall mines is too great to be handled at reasonable cost by ordinarily ventilation fans, so that gob wells are essential to the safe and efficient mining of the coal. The court's application of incidental mining rights thus was too narrow insofar as it failed to recognize that gob wells are just as important to mine operations as direct removal of CBM from coal seams through vertical and horizontal boreholes.

The application of incidental mining rights was too broad, however, insofar as the court declared that the coal owner had the *exclusive* right to remove CBM directly from coal seams. As the court itself stated, incidental mining rights do not establish an absolute right of ownership, but only a right to remove methane in order to ventilate the mine. If the gas owners reserved *title* to the CBM, then they should have been given a nonexclusive right to remove methane from coal seams in advance of mining, so long as this could be done without interfering with future mine operations. It is especially surprising that the court overlooked this possibility, since it cited with approval the dissenting opinion in *Hoge*, which had advocated a result that would have given both gas owners and coal owners a nonexclusive right to produce methane from coal seams.<sup>89</sup>

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that escapes into the gob zone, the court quoted the crucial dictum from *Hoge* about the gas owner having title to "such of the coalbed gas as migrates into the surrounding property." 631 So. 2d at 224-25. The court did not seem to recognize that this dictum was premised on the holding in *Hoge* that the coal owner had *title* to methane *within* the coal, a premise that the Alabama court explicitly had rejected.

89. 631 So. 2d at 226. The dissenters in *Hoge* would have reached this result because they interpreted the reservation of gas rights as yielding only a right to drill into the coal for CBM, and not a reservation of title to CBM; hence, the gas owner's rights did not negate but only qualified the coal owner's title to the CBM. See *Hoge*, 468 A.2d at 1389 (Flaherty, J., dissenting).

In holding that coal owners have the exclusive right to remove CBM from coal seams, the court left gas owners throughout Alabama with a hollow victory. The inclusion of CBM in the reservation of gas rights is virtually meaningless if it does not include the right to develop this resource. Production of CBM would be promoted by a rule that gave either gas owners or coal owners the right to develop the resource independently. Thus, if the gas owners truly reserved title to CBM in the deed, then practical considerations as well as consistent application of legal doctrine would have supported recognition of mutual simultaneous rights to capture CBM from minable coal (Rule #6).

The court also failed to consider the impact of its decision on future CBM development in Alabama. If gas owners generally have title to gob gas, would the coal owners' drainage of gob gas in the future be treated as a trespass or conversion, subject to equitable relief and punitive damages? If so, then all CBM production and marketing in Alabama would cease until the coal owners were able to negotiate for the gas owners' consent. But since the court recognized that the coal owners' incidental mining rights included the right to ventilate methane gas from the mines,<sup>90</sup> it seems more likely that the court would deny the gas owners a right to injunctive relief and limit them to accounting for a share of the profits on gob gas production, consistent with the modified opinion in *West*.<sup>91</sup> Even if coal owners could

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90. The court said:

The grant of coal mining rights would be useless if it did not include the right to ventilate methane gas from the coal mining area, pursuant to the requirements of law . . . . At the time of the initial conveyance to Center Coal in 1953, the Alabama Coal Mine Safety Act of 1949 required ventilation of methane from coal mines. [citation omitted] This requirement must be read into the grant of coal and the reservation of gas in the 1953 deed. [citation omitted]

The grant of all the coal and mining rights includes a grant of those rights incident to, and necessary to, the mining of the coal, which include the qualified right to properly ventilate existing or proposed coal mining operations. The rights to "all gas" reserved by the grantor cannot, therefore, impair coal mining operations. To the extent that ventilation is required by law, the coal owner will not be liable to the owner of gas rights for any waste of methane gas that occurs during ventilation.

631 So.2d at 228-29.

91. Such a result would be consistent with a suggestion in our earlier article that courts could adopt a variant of Rule #6 by imposing an equitable royalty on coal owners

not be enjoined from producing and marketing gob gas, however, uncertainty over the possible outcome of an accounting should induce most CBM developers to negotiate with gas owners to establish a precise formula or royalty in advance of production.

But if coal owners must pay a share of profits when they capture and market *gob gas* in the exercise of incidental mining rights, why should they escape liability for an accounting when they remove CBM *directly from coal seams* in the exercise of incidental mining rights? It seems inconsistent for an accounting to be owed in one circumstance and not in the other, since in both instances the coal owners' rights are based on incidental mining rights and not on title to the gas itself.<sup>92</sup>

One question left open in *West* is the extent to which the court's holding would apply to disputes over production of CBM from nonminable coal. Much of the CBM in the Black Warrior Basin is trapped within thin seams of coal that may not be minable. Instead of waiting for longwall mining of deeper coals to fracture these seams, it may be feasible to extract some of the CBM from these seams through vertical wells using multi-seam completion methods that are currently being developed by the oil and gas industry. Insofar as the court based the coal owners' exclusive rights to produce CBM from coal seams on the concept of incidental mining rights, *West* may not apply, and the

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who did not have title to CBM or gob gas but captured it in the exercise of incidental mining rights. See Lewin et al., *supra* note 5, at 647-48.

92. Indeed, gas owners have a stronger claim for a share of the profits on CBM produced from coal seams than they have on CBM produced from gob wells. CBM can be produced from coal seams using traditional oil and gas technology, and the gas owners have a valid factual basis for asserting that they eventually could have produced the gas themselves if the coal owners had not beaten them to it. Thus, gas owners have a legitimate basis for claiming a share of the profits on CBM that coal owners produce directly from coal seams.

Gas owners cannot make this same argument with respect to gob gas, however. Most of the gob gas is released by the super-fracture of thin seams in the adjacent strata that occurs when the mine roof collapses after the coal in the primary seam has been removed. No comparable release of methane from these thin seams is possible using traditional oil and gas technology, so any accounting to the gas owners for profits on gob gas production is largely a windfall. While new techniques are being developed for production of CBM from thin, nonminable coal seams, they have not yet achieved the efficiency of gob wells.

gas owners still may have the right to produce CBM from nonminable coal. Unfortunately, the ambiguity about who has the right to produce CBM from nonminable coal may discourage investment and retard technological innovation.

Another very important question left open in *West* is whether coal owners would have the right to produce methane from minable coal seams in stand-alone operations that were not associated with any definite plans to mine the coal in the future. Again, insofar as the court based the coal owners' exclusive rights to produce CBM from coal seams on the concept of incidental mining rights, *West* would not necessarily give the coal owners any right to produce CBM in stand-alone operations. But since *West* holds that the coal owners have the *exclusive* right to produce CBM from minable coal seams, it may be that *no one* has the right to remove CBM from minable coal seams except in conjunction with mining. Since stand-alone operations are quite common in the Black Warrior Basin, the ambiguity of *West* in this regard could seriously impede future CBM development.

The court's decision in *West* has complicated CBM development in several respects. The court's holding forces coal owners engaged in longwall mining to negotiate or litigate with gas owners over the sharing of profits on gob gas. The court's convoluted and inconsistent reasoning creates uncertainty about who has the right to extract CBM directly from nonminable coal and about whether anyone has the right to extract CBM from minable coal in stand-alone operations.

The court did not seem troubled by the fact that its decision was likely to complicate CBM development in Alabama. The court expressly refused to let considerations of efficiency and practicality influence its decision: "It is not the role of this Court to disturb existing property rights by redefining existing property law in order to promote economic efficiency."<sup>93</sup>

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93. 631 So. 2d at 227. The court hinted that the legislature could remedy any difficulty raised by its opinion, noting that "Ownership of coalbed methane gas is slowly being addressed by state legislatures." *Id.* at n.18. In fact, only Montana has directly addressed ownership of CBM, and the constitutionality of that statute has not yet been determined.

One salutary effect of the holding in *West* is the court's rejection of the rule employed by the trial court that would have made ownership of gob gas depend on the stratum of origin. The case had been tried on the assumption that gas released into the gob zone from non-coal strata would be the property of the gas owner. By conferring title to all of the gob gas on the gas owner, regardless of its source, the court avoided the difficult problems of apportionment that would arise whenever some of the gob gas originated in non-coal strata or in thin coal seams in associated strata that were not owned by the owner of the primary seam.

The inconsistency of the court's analysis makes it difficult to categorize the holding in *West* in terms of our six rule schema. Because the court ruled that the gas owner retained title to CBM and based the coal owners' right to produce CBM from coal seams on the concept of incidental mining rights, it would seem to have been applying Rule #6. But insofar as the court gave the coal owner the exclusive right to produce CBM from coalbeds and indicated that this right did not apply to CBM that escaped into the gob zone, the court would seem to have been applying Rule #5. However, if I am correct that the decision does not forbid coal owners from producing gob gas but only imposes a duty to account for the profits, then the net impact of the decision is equivalent to a combination of Rule #5 and a variant of Rule #6: coal owners essentially own the CBM within coal seams; gas owners have nominal title to gob gas; nevertheless, coal owners have the right to capture gob gas as an incidental mining right, subject to the obligation to pay an equitable royalty or share of profits.

#### V. NEW FORCED POOLING LEGISLATION

Under traditional "forced pooling" legislation, which has long existed in many states, the owner of oil or gas under one tract can obtain a pooling order combining several tracts into a single unit to prevent physical and economic waste from unnecessary wells, optimize well location, and protect correlative rights.<sup>94</sup> With respect to CBM,

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94. 6 HOWARD R. WILLIAMS & CHARLES J. MEYERS, OIL AND GAS LAW §§ 901, 905 (1993). Forced pooling also can be used to compel involvement of nonconsenting own-



forced pooling statutes also can circumvent the obstacle posed by uncertain of ownership. These statutes facilitate CBM production by: (1) allowing CBM to be produced by any persons who claim to own an interest in CBM, without requiring them to conclusively prove ownership; (2) minimizing the risk for persons who produce CBM in the face of disputed ownership claims by limiting their liability to payment of a fair royalty or share of the profits if it is later determined that they are not the owners; and (3) protecting the rights of all persons claiming an ownership interest in CBM by establishing an escrow fund to hold their share of royalties or profits pending resolution of competing ownership claims.

#### A. *The Virginia Gas and Oil Act of 1990*

The Virginia Gas and Oil Act of 1990<sup>95</sup> sought to solve the problem of uncertainty about legal title to CBM by enabling CBM development to take place despite the existence of disputes over its ownership. The Act allows any "claimant" who asserts a right of CBM ownership to obtain a permit to drill CBM wells and to use forced pooling provisions to compel involvement of other claimants within a drilling unit. In the event of conflicting claims of CBM ownership, an escrow fund is established to hold the profits pending resolution of the dispute. CBM claimants must elect among three options: (1) lease their interests for a royalty; (2) share in the costs and profits as participants; or (3) receive a share of the profits as nonparticipants after deduction of their share of the costs.

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ers of fractional interests in affected tracts. In several states, including West Virginia, development of mineral interests requires the unanimous consent of all persons holding an interest in the property, and owners of fractional shares can enjoin their co-tenants from extracting the minerals. RICHARD W. HEMINGWAY, *THE LAW OF OIL AND GAS* § 5.1 (3d ed. 1991); *see also* Lewin, *supra* note 5, at 665.

95. VA. CODE ANN. §§ 45.1-361.1 to -361.41 (Michie Supp. 1993). A more complete description of the Virginia legislation appears in Lewin et al., *supra* note 5, at 601-02; *see also* Hugh M. Fain, III, *Pooling and Unitization in Virginia: The Law, the Regulations and the Reality*, *THE LANDMAN*, May/June 1993, at 57 (describing the statute, the regulations thereunder, and several field orders issued by the Gas and Oil Board).

CBM production in Virginia increased dramatically subsequent to the enactment of the forced pooling legislation, with major projects in Southwestern Virginia by Equitable Resources Exploration (EREX), by OXY USA with Island Creek Coal, and by Pocahontas Gas Partnership with Consolidation Coal Company.<sup>96</sup> The boom in Virginia stands in marked contrast to the virtual absence of CBM development in West Virginia, which lacks a forced pooling statute. Indeed, CBM production in Virginia sometimes stops at the West Virginia border.

### B. Section 1339 of the National Energy Policy Act of 1992

Inspired by the success of forced pooling in Virginia, industry representatives worked with Congress to enact comparable legislation at the federal level. Forced pooling provisions for CBM modeled after the Virginia Act were included in early drafts of the House version of the federal energy bill,<sup>97</sup> and they survived the conference process as Section 1339 of the National Energy Policy Act of 1992.<sup>98</sup>

Section 1339 will go into effect in 1995 in "Affected States" where the Secretary of the Interior finds that uncertainty over ownership is impeding CBM development.<sup>99</sup> The Act provisionally lists sev-

96. See *Coalbed Methane—State of the Industry*, 11 QUARTERLY REV. OF METHANE FROM COAL SEAMS TECH., No. 1, Aug. 1993, at 1, 7-10; *Virginia operators urge changes*, E&P ENVIRONMENT, Oct. 29, 1993, available on LEXIS, Nexis Library; *Coalbed methane adds to '92 Va. production*, IMPROVED RECOVERY WEEK, Sept. 20, 1993, available on LEXIS, Nexis Library. CBM production in the Central Appalachian Basin (primarily Southwestern Virginia) totalled 10.5 bcf (billion cubic feet) in 1992, representing approximately a 4.9 bcf increase over 1991. *Id.*

97. H.R. 776, 102d Cong., 1st Sess. (1991).

98. Pub. L. No. 102-486, § 1339, 106 Stat. 2986 (codified at 42 U.S.C. § 13368 (Supp. 1993)). Some of the early legislative history is recounted in Lewin et al., *supra* note 5, at 603-06.

99. Section 1339 applies to *all* land within the Affected States. On federal lands, Section 1339 is administered by the Secretary of the Interior. 42 U.S.C. § 13368(a) (Supp. 1993). On private and state-owned land, Section 1339 will be administered by the Secretary of the Interior with the participation of the Secretary of Energy unless the Affected State adopts its own forced pooling legislation or opts out of coverage. 42 U.S.C. § 13368 (b) & (c) (Supp. 1993).

The structure of Section 1339 is somewhat confusing, and on first reading it might appear that the provisions for Affected States in paragraph (b) had no significance beyond defining the extent of the regulation of federal lands in paragraph (a). Indeed, the Interior

en Affected States (Illinois, Indiana, Kentucky, Ohio, Pennsylvania, Tennessee and West Virginia),<sup>100</sup> and it expressly excludes several states from coverage (Alabama,<sup>101</sup> Louisiana, Utah, Virginia, Washington, and Wyoming). The Affected States can avoid coverage under the federal program by enacting their own statutory or regulatory procedure to encourage CBM development.<sup>102</sup> The Affected States also have the option of excluding themselves from coverage without adopting their own programs, either by petition of the governor or by resolution of the legislature.<sup>103</sup>

As in Virginia, Section 1339 allows any "entity claiming a coalbed methane ownership interest" to obtain a forced pooling order,<sup>104</sup> and an escrow account will be established to hold costs, profits, or royalties for disputed claims.<sup>105</sup> Claimants under the federal law have the same three options as under the Virginia law: (1) sell or lease their interests for a royalty; (2) share in the costs and profits as participants; or (3) receive a share of the profits as nonparticipants

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Department's initial notice requesting comments on the list of Affected States implied that Section 1339 applied only to lands where the federal government owned the surface or mineral rights. *See* 58 Fed. Reg. 5410 (Jan. 21, 1993). The Interior Department rectified this error when it published the list of Affected States: "The earlier notice at 58 FR 5410 may have conveyed the impression that section 1339 applies just to lands with a Federal interest rather than to all lands in a State on the list. Section 1339 applies to all lands within a State on the list." 58 Fed. Reg. 21,589 (Apr. 22, 1993).

To anyone familiar with the background to this legislation, it was clear that Section 1339 was directed at the problem of uncertain ownership under state law, which was impeding CBM development on private and state-owned lands. On federal public domain lands in the West, CBM development was proceeding apace in reliance on the two Solicitors' opinions. Also, if Section 1339 applied only to lands with a federal interest, there would have been no reason to give Affected States the options of adopting their own forced pooling legislation or opting out of coverage.

100. 42 U.S.C. § 13368(b) (Supp. 1993). All of these states appeared on the initial list of Affected States published by the Secretary of the Interior. 58 Fed. Reg. 21,589-90 (Apr. 22, 1993).

101. Alabama was expressly excluded from the list of Affected States because uncertainty about ownership of CBM did not appear to be impeding development when Section 1339 was enacted. Thus, Alabama will not be covered by the forced pooling provisions of Section 1339 when they go into effect in October of 1995.

102. 42 U.S.C. § 13368(c) (Supp. 1993).

103. 42 U.S.C. § 13368(b) (Supp. 1993).

104. 42 U.S.C. § 13368(g) (Supp. 1993).

105. 42 U.S.C. § 13368(h) (Supp. 1993).

after deduction of their share of costs.<sup>106</sup> The royalty for lease of CBM rights will be established by the Secretary of the Interior or by particular pooling orders.

*C. West Virginia's New Forced Pooling Legislation, H.B. 4371*

On the last day of its regular 1994 session, the West Virginia legislature passed H.B. 4371 to establish a forced pooling program for CBM.<sup>107</sup> The enactment of H.B. 4371 represents an extraordinary compromise between the coal and gas industries over several controversial issues that had stymied all previous efforts to pass forced pooling legislation.<sup>108</sup> The compromises embodied in H.B. 4371, which are discussed in the next section, represent a fair and practical solution to these disputes. As a result, H.B. 4371 may serve as a model both for legislation in other Affected States and for regulations to implement Section 1339.

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106. 42 U.S.C. § 13368(g) (Supp. 1993).

107. H.B. 4371 and S.B. 272, drafted by the gas industry, were introduced on February 4, 1994. H.B. 4371 and S.B. 280, drafted by the coal industry, were introduced on February 7, 1994. Although the major controversies had not yet been resolved, compromises on a variety of subsidiary issues were incorporated in the Committee Substitute for H.B. 4371 that was approved by the House Committee on Government Organization on February 24. The major controversies were resolved in a meeting on March 2, and they were incorporated along with a host of technical amendments in the Engrossed Committee Substitute for H.B. 4371, which was passed by the House of Delegates on March 3. Additional technical amendments were made in the Senate Committee on Energy, Industry and Mining on March 8. Engrossed House Bill 4371 was passed by the Senate on Friday, March 11, and the House concurred in the Senate's amendments at approximately 11:00 p.m. on Saturday, March 12. It will be codified as Ch. 22, Art. 21.

The chief architects of the compromise were Tom Lane for the coal industry and Neal Pierce (Columbia Natural Resources) for the gas industry. They credit House Speaker Chuck Chambers for his role in helping them reach an agreement. Other important participants included Claude Morgan (Consolidation Coal Company) and Kevin Walls (Western Pochontas Properties Limited Partnership) for the coal industry and Benjamin Snyder (Columbia Natural Resources), George Mason (Equitable Resources) and Tom Hansen (Sigma Corporation) for the gas industry. David McMahon (West Virginia Legal Services Plan) sought to represent the interests of surface owners. I proposed several of the technical amendments that were adopted on the House floor and in the Senate Committee.

108. Numerous bills were introduced in the three previous legislative sessions, but none made it out of committee. *See, e.g.*, S.B. 63 (1991); H.B. 4238 (1992); S.B. 406 (1992); H.B. 2693 (1993); H.B. 2710 (1993); S. 523 (1993).

*D. Issues to be Addressed in Drafting State Forced Pooling Legislation or in Implementing Section 1339*

Under Section 1339, the seven Affected States have three options: accept federal administration of forced pooling under Section 1339, enact their own forced pooling programs, or opt out of coverage entirely. In light of the success of forced pooling in Virginia, the Affected States are not likely to opt out of coverage under Section 1339 without developing their own alternative forced pooling programs.

There are several reasons why the Affected States are likely to adopt their own programs in lieu of coverage under Section 1339. First, as a matter of pride, each state is likely to prefer to administer its own program. Second, state forced pooling programs can be integrated with existing regulatory systems applicable to the coal and gas industries, whereas federal regulations may conflict with particular state rules or policies. Third, regulated industries in the Affected States are likely to prefer the expansion of state regulatory authority to the creation of a new layer of regulatory bureaucracy administered from Washington, where they are likely to have less input and less political influence. All three of these reasons were factors in West Virginia's recent adoption of H.B. 4371.

Regardless of whether forced pooling is administered at the federal or state level, the existence of forced pooling does not eliminate the extraction-related conflicts between CBM development and coal mining that may arise whenever CBM development is undertaken by a claimant who is not the owner of the coal rights. These conflicts must be addressed by the Secretary of the Interior in promulgating regulations under Section 1339 and by any state that elects to enact its own regulatory program in lieu of coverage under Section 1339.

Extraction of minerals from different strata underlying a single tract has long been a source of conflict between the oil and gas industry and the coal industry. CBM production gives rise to unique conflicts because both target minerals, coal and CBM, co-exist in commingled form in a single stratum. If the coal owner has title to the CBM, the conflicts are internalized, leaving the single owner to resolve them in a manner that maximizes the total return from these two resources.

If someone other than the coal owner has title to the CBM, however, a number of extraction-related conflicts may require legal resolution. The following is a partial list of issues that must be confronted in the implementation of Section 1339 or in any state forced pooling program adopted in its place.

### 1. Stimulation

CBM extraction in advance of mining is enhanced by stimulation, *i.e.*, hydraulic fracturing, but coal owners and operators fear that stimulation will damage the roof of the coal seam, rendering entire tracts of coal unminable due to safety concerns. The available evidence from mine-throughs after stimulation have shown little or no damage to the roof.<sup>109</sup> This evidence is not conclusive, however, and has not allayed the concerns of the coal industry. Even if stimulation is safe in theory, the impact of stimulation in practice depends on the skill and care of the operator. The coal industry fears that if undercapitalized CBM developers employ improper stimulation techniques, coal owners would have no recourse if it later turned out that roof damage had rendered large tracts of coal unminable. Thus, while coal owners are beginning to employ stimulation techniques in their own mines, the coal industry vehemently opposes stimulation of minable coal seams by other parties without prior consent of the coal owners.

The Virginia Oil and Gas Act gives coal owners an absolute veto over stimulation by requiring the written consent of all coal owners within 750 horizontal feet of the well and within 100 vertical feet above or below the seam proposed for stimulation.<sup>110</sup> Under Section 1339, the CBM operator likewise must obtain consent of coal owners for stimulation of coal seams.<sup>111</sup> Under a compromise drafted during

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109. See sources cited in Lewin et al., *supra* note 5, at 594 n.136. I have never been shown evidence of roof damage from stimulation of a coal seam that would pose a threat to mine safety.

110. VA. CODE ANN. § 45.1-361.29.F (Michie Supp. 1993).

111. Section 13368(j)(1) states that:

No operator of a coalbed methane well may stimulate a coal seam without the written consent of each entity which, at the time that the coalbed methane operator applies for a drilling permit, is operating a coal mine, or has by virtue of

last-minute conference committee negotiations,<sup>112</sup> however, the Secretary of the Interior has the authority to permit stimulation despite the refusal of consent by the coal owner, but only if damage to coal is minimized and the appropriate state and federal mine safety agencies find that stimulation would be in accordance with applicable mine safety laws.<sup>113</sup> Dissatisfaction with this compromise may provide im-

his property rights in the coal the ability to operate a coal mine, located within a horizontal or vertical distance from the point of stimulation as established by the Secretary of the Interior.

42 U.S.C. § 13368(j)(1) (Supp. 1993). Section 13368(j)(3) states in pertinent part: "The Secretary shall promulgate rules to establish the horizontal and vertical boundaries within which consent is required on a regional, state-wide or multi-state basis." 42 U.S.C. § 13368(j)(3) (Supp. 1993).

112. The impasse over the coal owner veto of stimulation almost resulted in the deletion of Section 1339 from the bill. During these conference negotiations, I was consulted by a congressional aide and industry representatives, but the arbitration procedure that I proposed apparently was not acceptable to either the coal or gas industries.

113. Section 13368(j)(2) states:

(2) In the absence of a written consent pursuant to paragraph (1) and at the request of a coalbed methane operator, the Secretary of the Interior shall make a determination regarding stimulation of a coal seam. Such request shall include an affidavit which shall—

(A) state that an entity from which consent is required pursuant to paragraph (1) has refused to provide written consent;

(B) set forth in detail the efforts undertaken by the applicant to obtain such written consent;

(C) state the known reasons for the consent not being provided;

(D) set forth the conditions and compensation, if any, offered by the applicant as part of the efforts to obtain consent; and

(E) provide prima facie evidence that the method of stimulation proposed by the coalbed methane operator will not (i) cause unreasonable loss or damage to the coal seam considering all factors, including the prospect, taking into consideration the economics of the coal industry, that coal seams for which no actual or proposed mining plans exist will be mined at some future date, or (ii) violate mine safety requirements. If a denial of consent by a coal operator is based on reasons related to safety, the Secretary of the Interior shall seek the views and recommendations of the appropriate State or Federal coal mine safety agency. Any determination by the Secretary of the Interior shall be in accordance with all applicable Federal and State coal mine safety laws and such views and recommendations. A determination by the Secretary of the Interior approving a method of stimulation may include reasonable conditions including, but not limited to, conditions to mitigate, to the extent practicable, economic damage to the coal seam. Any determination approving or denying a method of stimulation by the Secretary of the Interior shall be subject to appeal. Interested entities shall be allowed to participate in and

petus for the coal or gas industries to support enactment of alternative state legislation with provisions that are more favorable to their position on this issue.

The key to the adoption of H.B. 4371 in West Virginia was the drafting of an improved version of the federal compromise that authorizes stimulation of coal seams without the consent of the coal owner. Whereas Section 1339 fails to clearly delineate the findings that must be made by the Secretary or the standard of proof that must be met, H.B. 4371 specifies that the Board can only approve stimulation without the consent of the coal owner if it finds "clear and convincing" evidence that stimulation will not jeopardize the safety of miners or the property of coal owners.<sup>114</sup> Moreover, a permit for stimulation does not absolve the operator from tort liability for personal injury to miners or for damage to the coal or to mining equipment. As part of the compromise in which the coal industry agreed to relinquish the absolute veto over stimulation, H.B. 4371 was amended to impose liability for damage to coal or mining equipment on a strict liability basis, without proof of negligence,<sup>115</sup> and to require that the appli-

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comment on proceedings under this paragraph.

42 U.S.C. § 13368(j)(2) (Supp. 1993).

114. The applicant seeking to stimulate a coal seam without consent of the coal owner must submit a request for a hearing accompanied by an affidavit "to provide prima facie evidence that the proposed method of stimulation will not render the coal seam unworkable, or considering all factors, impair mine safety." W. VA. CODE § 22-21-7(b)(4) (Supp. 1994). A copy of the application must be submitted to the director of the office of miners' health, safety and training "who shall review the application as to issues of mine safety and within thirty days submit recommendations to the board." W. VA. CODE § 22-21-7(d) (Supp. 1994). "In considering any recommendations made by the director of the office of miners' health, safety and training, the board shall incorporate such recommendations in its findings, conclusions, and order unless the board determines that there is clear and convincing evidence on the record supporting a finding, conclusion, or order inconsistent with such recommendations." W. VA. CODE § 22-21-13(b)(12) (Supp. 1994). "In weighing the evidence presented to the board the applicant shall have the burden of proving by clear and convincing evidence, that stimulation of a workable coal seam of twenty-eight inches or more in thickness will not render such seam or any other workable coal seam of twenty-eight inches or more in thickness unmineable or unsafe for mining." W. VA. CODE § 22-21-13(c) (Supp. 1994).

115. W. VA. CODE § 22-21-13(e) (Supp. 1994). Although the bill does not extend the strict liability standard to coal miners or to surface owners who might suffer personal injury, death or property damage from stimulation without the consent of the coal owners, the



cant furnish evidence of financial security.<sup>116</sup> This compromise represents a substantial improvement over the federal provision, and it may serve as a model for legislation in other states.

## 2. Well Casing, Spacing, and Plugging

CBM production in advance of mining can interfere with mining operations if it employs cased-hole production techniques and leaves casings in the coal seams. Casings can damage mining equipment and may prevent mining of substantial portions of the coal. If wells are planned in conjunction with mining, conflicts often can be avoided by locating wells in coal pillars that would have been left unmined in any event. Such coordination is not possible when CBM is extracted from areas for which no production plans exist. Coal owners strenuously object to CBM development in areas where mining plans have not yet been established because of its potential for interfering with orderly development of the coal reserve.

Because the casings used in degasification may interfere with future mining of coal, coal owners generally seek the widest possible spacing of any wells that penetrate the coal seam. Surface owners also prefer to maximize spacing between wells to minimize interference with their use and enjoyment of the land. Many states impose spacing requirements on their oil and gas industries in order to avoid wasteful drilling, protect correlative rights, and avoid unnecessary interference with surface owners and coal owners.<sup>117</sup>

The Virginia Oil and Gas Act purports to authorize a tighter spacing of CBM wells than is allowed for ordinary shallow gas wells,<sup>118</sup>

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legislature was implicitly recognizing that stimulation is an abnormally dangerous activity that warrants imposition of strict liability for all resulting damages. Accordingly, the courts ought to apply a strict liability standard to any personal injury, death or property damage proximately caused by stimulation of a coal seam. Moreover, although a coal owner who consented to stimulation of the coal seam would waive the protection of the strict liability provision, the coal owner's waiver should not affect the rights of miners and surface owners to recover in tort under a strict liability standard.

116. W. VA. CODE § 22-21-13(d)(5) (Supp. 1994).

117. EUGENE O. KUNTZ ET AL., CASES AND MATERIALS ON OIL AND GAS LAW 58-59 (1986); WILLIAMS & MEYERS, *supra* note 94, § 905.

118. The spacing for an ordinary shallow gas well is at least 2,640 feet from any well

but an objecting coal owner in a CBM field apparently has the right to insist upon the wider spacing limits previously applicable to ordinary shallow gas wells in the event of protests,<sup>119</sup> thereby giving coal owners a veto over well spacing in addition to the veto over stimulation. Under Section 1339, spacing requirements are to be established by the Secretary of the Interior except where state law contains specific spacing requirements for CBM wells.<sup>120</sup> CBM wells that penetrate coal seams must “provide for subsequent safe mining through the well in accordance with standards prescribed by the Secretary of the Interior.”<sup>121</sup> The need to coordinate spacing of CBM wells with spacing and plugging requirements under existing regulatory programs is one reason for each Affected State to develop its own CBM regulatory program.

The second key to the enactment of H.B. 4371 in West Virginia was a compromise over the spacing and plugging of CBM wells. The spacing requirements were reduced from 2500 feet to 1600 feet,<sup>122</sup> but the coal owners were given the right to insist that the well operator “plug the well in such manner that the well can be safely mined through.”<sup>123</sup> In order to comply with the plugging requirement, the well operator must either use “minable” casings that can be mined through without damage to mining equipment or else be prepared to remove the casing from the wellbore upon receipt of notice that the coal will be mined within six months. The plugging requirement represents a fair and practical compromise that facilitates closer spacing of CBM wells without jeopardizing future mine operations. These provisions may serve as models for other state legislation, and they could

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completed in the same pool. CBM wells may be spaced 1,000 feet apart from other wells and 500 feet from the boundary of the tract; gob wells may be spaced 500 feet from other wells and 250 feet from the boundary. VA. CODE ANN. § 45.1-361.17 (Michie Supp. 1993).

119. Objecting coal owners can preclude issuance of any permit for a well within 2,500 feet of existing or planned wells unless it can be drilled through an existing or planned pillar. *Id.* § 45.1-361.12.

120. 42 U.S.C. § 13368(e) (Supp. 1993).

121. 42 U.S.C. § 13368(1) (Supp. 1993). This section further provides: “Well plugging costs should be allocated in accordance with State law or private contractual arrangement, as the case may be.”

122. W. VA. CODE § 22-21-20 (Supp. 1994).

123. W. VA. CODE § 22-21-22 (Supp. 1994).

also be adopted by the federal government in its implementation of Section 1339.

### 3. Delay in Mining to Permit Degasification?

Coal owners and operators insist that no claimant to ownership of CBM should be able to limit the right of coal operators to vent CBM that is removed prior to or during mining in order to assure the safety and efficiency of mine operations and comply with federal and state safety regulations. The right of mine operators to vent CBM without liability for waste is expressly recognized in the federal,<sup>124</sup> Virginia,<sup>125</sup> and West Virginia<sup>126</sup> legislation, and similar provisions are

124. "Venting for Safety. Nothing in this section shall be construed to prevent or inhibit the entity which has the right to develop and mine coal in any mine from venting coalbed methane gas to ensure safe mine operations." 42 U.S.C. § 13368(n) (Supp. 1993).

125. "The term 'waste' does not include gas vented from methane drainage boreholes or coalbed methane gas wells, where necessary for safety reasons . . ." VA. CODE ANN. § 45.1-361.1 (Michie Supp. 1993).

126. The definition of "waste" includes the following sentence:

Waste does not include coalbed methane vented or released from any mine area, the degasification of a coal seam for the purpose of mining coal, the plugging of coalbed methane wells for the purpose of mining coal, or the conversion of coalbed methane wells to vent holes for the purpose of mining coal.

W. VA. CODE § 22-21-2(p) (Supp. 1994). The bill also expressly excludes ventilation and degasification from coverage: "This article does not apply to or affect . . . (2) any ventilation fan, vent hole, mining apparatus, or other facility utilized solely for the purpose of venting any mine or mine area, (3) the ventilation of any mine or mine area or degasification of any coal seam for the mining of coal." W. VA. CODE § 22-21-3(b) (Supp. 1994).

The total *exclusion* of ventilation and degasification from the "article" in Section 3(b) seems inconsistent with the express language *addressing* ventilation and degasification within the definition of waste in Section 2(p). The coal industry's purpose could have been achieved by excluding ventilation and degasification from the bill's permitting and escrow provisions rather than from the entire article. Nevertheless, the coal industry was so concerned about protecting its right to ventilate the mine without regulatory encumbrance that it insisted on the total exclusion of these activities from coverage under the bill.

Similarly, the provision in the bill that includes in-mine horizontal boreholes within the article's forced pooling provisions was phrased as a general *exclusion* of subsurface boreholes from the article, except for five enumerated sections, whereas it ought to have been phrased as a general *inclusion* of subsurface boreholes within the article except for the exclusion of specific enumerated sections relating to permitting and objections. W. VA. CODE § 22-21-3(c) (Supp. 1994). As drafted, subsurface boreholes are subject only to the

likely to appear in any alternative state legislation.

Any mining of coal necessarily diminishes or exhausts the subsequent CBM production capability, destroying the rights of CBM owners. Accordingly, it might be appropriate to empower CBM claimants to obtain a delay of mining operations for a period of time sufficient to complete a program of degasification. For such a right to be effective, coal owners would have to be required to provide CBM claimants with advance notice of mining plans in order to give CBM claimants enough time to formulate pre-mining degasification plans. Optimal degasification may take ten years or more, and such a delay could be costly for coal owners. If a statute were to allow CBM claimants to compel a delay of mining, it probably should require the gas owners to compensate coal owners for the costs of delay.

Although provisions for delay and for compensation make sense in theory, in practice the representatives of the coal and gas industries are highly unlikely to agree to their inclusion in forced pooling legislation. The West Virginia legislation does not allow degasification to delay mining operations, for a coal operator can compel the CBM developer to plug the well within sixty days by giving notice of an intention to mine the coal within six months.<sup>127</sup> In order to avoid the risk of premature plugging of their wells, potential CBM developers can be expected to negotiate with coal operators to coordinate CBM production with subsequent coal mining operations.

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escrow provisions (§§ 15-19) and not to the following provisions: the declaration of public policy and findings (§ 1); the definitions, including the exclusion of liability for waste (§ 2); the powers and duties to the chief (§ 4) and the review board (§ 5); existing mining rights (§ 24); judicial review (§ 25); limitation on actions in trespass (§ 26); injunctive relief (§ 27); penalties (§ 28); construction (§ 29); and severability (§ 30). The bill's authors obviously intended for all of these provisions to apply to subsurface boreholes, but they rejected my proposal to rectify this drafting anomaly because they were understandably reluctant to make any last-minute amendments that might prevent passage of the bill before the end of the session, and they were especially unwilling to tinker with the sensitive section on exclusions on the eve of the bill's enactment.

127. W. VA. CODE § 22-21-22 (Supp. 1994).

#### 4. Accounting Issues

Special rules will be needed to address the difficult cost accounting issues that are likely to arise whenever CBM is produced in conjunction with coal mining operations and the claimants include gas owners who elect to share in the profits as participating operators or as nonparticipants. Coal owners have asserted that, in addition to the cost of drilling and operating the wells, many ordinary mining costs should be allocated as a cost of producing CBM. For example, the mine shafts and entryways are necessary for removal of methane through horizontal boreholes, and the longwall mining of the primary seam is necessary to create the super-fracture that releases gob gas from other strata. Gas owners point out that all of these costs, including the cost of the wells themselves, would have been borne by coal owners even if the gas were not captured, and they assert that the only "extra" costs solely attributable to CBM production and marketing are the special processors, pumps, compressors, and local pipeline gathering systems at the surface.

The board that administers forced pooling in Virginia has not promulgated regulatory guidelines on how to account for costs and profits when CBM is produced in conjunction with mining, nor has it yet adjudicated a dispute over an accounting in these circumstances. The Alabama Supreme Court in *West* left this issue for disposition by the trial court upon remand.

The accounting issue probably is too complex to be addressed in legislation. Rather than leave the matter for case-by-case adjudication, the Department of the Interior and each state regulatory body ought to establish guidelines setting forth the general parameters and criteria for accountings in such cases. Although the guidelines should be sufficiently broad to provide flexibility in adjusting for the unique circumstances of each dispute, they also must be specific enough to enable the parties to predict how they will fare in an accounting. Potential investors in CBM development need to know the accounting rules in order to determine whether a project is likely to be profitable, and the claimants need this information in order to elect among their options. Once projects are underway, the parties need clarity and predictability

in order to avoid disputes over accountings and to facilitate negotiated resolution of disputes that do arise.

### 5. Dispute Resolution Procedures

When disagreements arise between coal owners and CBM developers, a mechanism should be available for prompt and inexpensive resolution of disputes. Reliance on the court system is not feasible because judicial procedures are not suited to prompt resolution of disputes in an ongoing relationship, and judges lack the requisite technical expertise. Existing regulatory agencies associated with the coal and gas industries are not viewed as sufficiently impartial to resolve disputes between the two industries. The best dispute resolution procedure may be a system of compulsory negotiation or mediation that culminates in binding arbitration.

## VI. CONCLUSION

Recent litigation has not helped clarify ownership of CBM. The settled expectations that CBM would be owned by coal owners in the East and by gas owners in the West have been upended by recent decisions in Montana and Alabama. Only on federal and tribal lands is there any imminent prospect of a definitive resolution of the ownership question.

The forced pooling provisions of Section 1339 hold out the promise of facilitating CBM development in jurisdictions where ownership questions are impeding development. Difficult questions still must be addressed in the federal regulations necessary to implement Section 1339 or in any alternative state regulatory programs. Nevertheless, the success of forced pooling in Virginia provides reason for cautious optimism about the prospects for CBM development despite the continuing uncertainty about ownership. Indeed, even though Alabama was expressly excluded from coverage under Section 1339, the Alabama legislature ought to consider adoption of forced pooling legislation for

CBM in order to protect the industry from the risk of stagnation as a result of the confusion engendered by the decision in *West*.<sup>128</sup>

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128. Alabama has a general forced pooling statute, ALA. CODE §§ 9-17-12 & -13 (Supp. 1993), which it has employed to create drilling units for CBM. This procedure only has been used when the coal owner had an interest in gas rights on some acreage within the unit or had the consent of the gas owner to creation of the unit. (For example, counsel in *Pinnacle* informed me that the gas owner in that case consented to the establishment of a drilling unit for CBM, leaving the dispute over ownership for resolution in litigation). It is unclear whether the procedure would be available in other circumstances.