

January 2009

Surface Damages, Site-Remediation and Well Bonding in Wyoming - Results and Analysis of Recent Regulations

Christopher S. Kulander

Follow this and additional works at: <https://scholarship.law.uwyo.edu/wlr>

Recommended Citation

Kulander, Christopher S. (2009) "Surface Damages, Site-Remediation and Well Bonding in Wyoming - Results and Analysis of Recent Regulations," *Wyoming Law Review*: Vol. 9: No. 2, Article 3.
Available at: <https://scholarship.law.uwyo.edu/wlr/vol9/iss2/3>

This Article is brought to you for free and open access by the UW College of Law Reviews at Law Archive of Wyoming Scholarship. It has been accepted for inclusion in Wyoming Law Review by an authorized editor of Law Archive of Wyoming Scholarship.

WYOMING LAW REVIEW

VOLUME 9

2009

NUMBER 2

SURFACE DAMAGES, SITE-REMEDICATION AND WELL BONDING IN WYOMING— RESULTS AND ANALYSIS OF RECENT REGULATIONS

*Dr. Christopher S. Kulander**

TABLE OF CONTENTS

I.	INTRODUCTION	414
II.	SURFACE DAMAGE ACTS AND ENTRY REQUIREMENTS.....	415
	A. <i>Introduction</i>	415
	B. <i>Surface Damage Acts in General</i>	417
	C. <i>Wyoming's Surface Damage Act</i>	417
	D. <i>Comparisons with Neighboring States—North Dakota and Montana</i> ...	421
	E. <i>Analysis and Comment</i>	422
	1. <i>General Intent</i>	422
	2. <i>Pre-Production Requirements</i>	425
	3. <i>Requirements During Production</i>	426
	4. <i>Post-development</i>	427
III.	PRODUCED WATER/GROUNDWATER AND SITE REMEDIATION	428
	A. <i>Introduction</i>	428
	B. <i>Current Wyoming Regulations</i>	429
	1. <i>Coalbed Methane Produced Water</i>	429
	2. <i>Site Remediation</i>	433
	C. <i>The “Implied Covenant to Restore” & Troubling Damage Awards— the Louisiana Experience</i>	433
	D. <i>Analysis and Recommendations</i>	436

* Associate Attorney, Energy and Power Section, Haynes & Boone, LLP, Houston, Texas. Licensed in New Mexico and Texas. B.S. (Geology) 1993, Wright State University; M.S. (Geophysics) 1995, Wright State University; Ph.D. (Geophysics—Petroleum Seismology) 1999, Texas A&M; J.D. 2005, University of Oklahoma.

IV. BONDING AND ORPHANED WELLS	438
A. <i>Introduction</i>	438
B. <i>Current Wyoming Regulations</i>	439
C. <i>Orphaned Well Problems—the Texas Experience</i>	439
D. <i>Alberta</i>	442
E. <i>Analysis and Comment</i>	442
APPENDIX A: A SURVEY OF SURFACE DAMAGE ACTS—EAST & WEST	445
APPENDIX B: CASE LAW REGARDING COALBED METHANE DEVELOPMENT IN WYOMING AND MONTANA	450
ACKNOWLEDGMENTS	453

I. INTRODUCTION

A great oil and gas boom is afoot in America and Canada and onshore production is advancing at an extraordinary pace. For some states, this production is without historical precedent. Consequently, they are now facing the environmental and surface-use issues related to hydrocarbon development that states with established production have wrestled with for a long time. Whatever regulatory path these states with newer production decide to take, the laws and regulations they have enacted or are considering will play a significant role in how gas, oil, and coalbed methane is ultimately developed in western America and how that development will affect rural landowners and towns. Wyoming is in the eye of this storm. Hitherto, Wyoming has been a minor producer compared to some other states, but now that prices are hitting new records and technologies and markets have developed for coalbed methane development, the eyes of the energy industry are fixed on Wyoming. It is currently undergoing a remarkable boom cycle, particularly with the advent of coalbed methane development. Wyoming has a sparse population, but must now begin to consider the results of surface damage, water contamination of both aquifers and surface supplies, and the tension between the surface and mineral owner that this rampant development is bringing. Until recently, it had relatively few laws—some of which were antiquated—on the books covering site remediation, water disposal from production, and well bonding.

This paper examines three issues. The first is recent legislation covering surface damages and entry requirements for producers. Wyoming has recently joined other states¹ in passing a Surface Damage Act (“SDA”), designed to facilitate communication between landowners and producers and lessen the domination of the mineral estate over the surface owner in situations where the ownership of the two estates are separate.² How the new Wyoming laws compare with other states’

¹ Illinois, Indiana, Kentucky, Montana, New Mexico, North Dakota, Oklahoma, South Dakota, Tennessee, West Virginia.

² WYO. STAT. ANN. §§ 30-5-401 to -410 (2005).

SDAs, related case law and experiences of producers in other states with SDAs is discussed.

The second issue examined concerns regulations crafted to help prevent groundwater contamination caused by coalbed methane development and surface remediation and bonding. Currently, courts across the nation are seeing an exceptional amount of litigation related to surface damages and remediation. Experiences of the major producing states that have had longer experience with legislated/regulated surface remediation are examined, as well as states whose natural resources include those of aesthetic value.

The third topic of this paper concerns bond requirements for producers. The experiences of the states and provinces have also proven that bonding requirements are necessary to curtail the problems of orphaned wells—unproductive wells that are abandoned without being properly plugged, and therefore, raise the specter of groundwater contamination. To avoid this problem, Wyoming has enacted bonding requirements for operators. Whether these are correctly structured to prevent the problems encountered with bonding schemes in other states is open to debate.

In all three areas, Wyoming's current legal climate will be considered and further suggestions will be made for a "best practices" approach to developing or modifying regulatory oversights. This approach is designed to balance competing concerns, thereby providing efficient, responsible developments of oil, gas, and mineral resources (including natural gas from coal) without damage to the surface or subsurface aquifers. Observations and recommendations regarding Wyoming's process for facilitating communications between surface and mineral owners, resolving valuation differences in an expedited, cost efficient manner, and ensuring timely and successful reclamation will also be discussed.

II. SURFACE DAMAGE ACTS AND ENTRY REQUIREMENTS

A. *Introduction*

The United States and Canada are two of the small number of countries where a private surface owner can also own the oil and gas rights below, contrasting most other countries where the national government owns the oil and gas.³ Typically, if the surface owner also owns the mineral estate, he is happy to see the minerals developed as this means income to him in the form of lease bonus, delay rentals, and royalty. The surface and mineral estates can be separated however, and the two owners (or oil and gas leaseholder) may be completely unknown to one another.

³ See EUGENE KUNTZ, A TREATISE ON THE LAW OF OIL AND GAS § 2.1, at 59 (1987) (noting that the concept of private ownership of oil and gas rights is not the case in civil law countries).

If the mineral estate has been separated from the surface, the surface owner may have no financial incentive to see minerals developed, and may be opposed if the development will cause him nuisance or harm the value of his surface properties. In addition, current high prices have empowered surface mineral owners to make more demands from operators.

Historically, the mineral owner dominated the surface owner when the two owners collided over issues relating to land use and mineral development. In its most unvarnished form, this dominance meant the mineral owner had “the right to use so much of the surface as may be reasonably necessary to enjoy the mineral estate.”⁴ Later, the dominance of the mineral owner was attenuated somewhat by the accommodation doctrine, which introduced the circumstance that a disruption of the surface owner’s use of the land by subsequent mineral development might require or force the mineral owner to use another “reasonable” method to develop the mineral estate. The accommodation doctrine kept intact, however, the overall doctrine of the dominance of the mineral estate—if no other reasonable method existed for mineral development, then the mineral owner could go ahead with the disruptive development without the surface owner’s consent and without being liable for damages for the disruption. Oklahoma even adopted statutes to give the mineral owner a private right of eminent domain over the surface for access to the minerals.

Uncertainty exists over whether the accommodation doctrine exists in Wyoming and, if so, to what extent. One landmark case, *Mingo Oil Producers v. Kamp Cattle Company*, examined the terms of the original lease between the parties, focusing on a liquidated damages clause the operator drafted covering damage caused by access to the development site.⁵ Holding that the mineral estate was dominant, the court found that the surface owner could not require the execution of an agreement before access was permitted and that the lessee’s right of access was “primary and fundamental.” The court therefore refused to extend a liquidated damages provision beyond its specified term of one year.⁶ The lessee already had the right, being the dominant estate, to possession as provided by the oil and gas lease.⁷

In Texas, and other accommodation doctrine states, it is quite common for informal, non-mandated meetings to be held between the developer and the surface owner. In these meetings, the producer typically outlines his plan for development, a timetable, and the parameters of the impending development. However, such informal “handshake” agreements could not prevent some litigation and in response to ranchers’ and farmers’ complaints. In an effort to

⁴ *Harris v. Currie*, 176 S.W.2d 302, 305 (Tex. 1943).

⁵ 776 P.2d 736 (Wyo. 1989).

⁶ *Id.* at 740.

⁷ *Id.*

be viewed as pro-environment, politicians have stepped in to sand down with legislation the perceived hard edges of the dominance of the mineral estate. These efforts have led an increasing number of states to adopt SDAs.

B. Surface Damage Acts in General

Along with Wyoming, ten states have enacted surface damage statutes to help alleviate surface owners/users' displeasure with the perceived imbalance of power that mineral owners have over surface owners/users. They are designed to compensate for damage caused by the mineral owner. Across the states that have passed SDAs, the laws vary surprisingly little with regard to the major components. Most contain entry notification and negotiation requirements to facilitate contact between operators and surface owners/users. Most also contain bonding requirements and protocols on determining surface damage costs. Case law related to such acts is, as yet, sparse.

Another common requirement in SDAs is the need for entry negotiations. In these, the surface owner and the producer must begin negotiations before entry to determine what the surface damages will be before the drilling begins. Oklahoma requires negotiations begin within five days after providing notice to the surface owner. Kentucky and Illinois mandate talks begin at least five days before drilling. The other six states require that negotiations over surface damages begin after drilling operations have begun.

Not surprisingly, these talks can lead to disagreement. If the landowner and the producer cannot agree, then typically the landowner can bring suit or require arbitration. To address this problem, some SDAs then delineate assessment procedures in order to decide the amount of damages that are due (or are due in the future if damage is done) to the landowner. Perhaps the most important departure from the accommodation doctrine is that SDAs, while paying at least lip service to the dominance of the mineral estate, now require payment for damages to the surface estate—even if the actions of the mineral owner were reasonably necessary for development and no other method was open to him.

C. Wyoming's Surface Damage Act

Wyoming's 58th Legislature passed—and Governor Freudenthal signed—an SDA entitled "Entry to Conduct Oil and Gas Operations" in 2005 (the "Act").⁸ The Act was made effective on July 1, 2005 after several years of study by

⁸ WYO. STAT. ANN. §§ 30-5-401 to -410 (2005).

industry⁹ and agitation by landowners.¹⁰ The purpose of the Act was to provide notice to surface owners of coming mineral development and, hopefully, cultivate agreement between the surface owner and the developer.

The Act first establishes the general dominance of the mineral estate, stating: “Any oil and gas operator having the right to any oil and gas underlying the surface of land may locate and enter the land for all purposes reasonable and necessary to conduct oil and gas operations to remove the oil or gas underlying the surface of that land.”¹¹ After this broad declaration, however, the Act nods to the accommodation doctrine by saying the developer must “reasonably accommodate existing surface uses” and goes on to narrow the operator’s rights by imposing certain pre-development requirements. Operators are allowed to enter to conduct “non-surface disturbing activities” within which are included inspections, staking, surveys, measurements, and general evaluation of proposed rights and sites for oil and gas operations.¹² These first pass operations require at least five days notice to the surface owner, with further notice required when new non-surface disturbing activities are undertaken.¹³

Subsequent entry upon the land for “oil and gas operations” require more elaborate notifications and it has been suggested that any activity that is not considered a nonsurface disturbing activity counts as an “oil and gas operation.”¹⁴ The notice of entry for oil and gas operations must come not more than 180 days and not less than thirty days before actual entrance to the land is proposed,¹⁵ and must include the proposed dates of operation; the foreseen location of surface facilities and all other appurtenants necessary for operations; contact information of the operator; an offer to “discuss and negotiate” any proposed changes to the plan of operations; and a copy of the Surface Damage Act of Wyoming.¹⁶

⁹ For example, in 2004, Apache Corporation, a large presence in Wyoming with holdings such as the U-Cross Ranch, took the lead by presenting astute recommendations to state officials and industry regarding its vision for responsible development after collaboration with several environmental studies and extensive legal research on other state SDAs.

¹⁰ For example, groups like the Powder River Basin Resource Council (“PRBRC”) scheduled meetings with Governor Freudenthal of Wyoming, his energy advisor Steve Waddington, and the Department of Environmental Quality (“DEQ”) to express support for a “Surface Owner’s Protection Bill”. Powder River Basin Resource Council, <http://www.powderriverbasin.org> (last visited Apr. 9, 2009). Their handbill for the June 13, 2004 meeting with Mr. Waddington and the DEQ representatives exhorted surface owners to show up to avoid letting “streamlining of permitting [to] take away your right to protect your property.” *Id.*

¹¹ WYO. STAT. ANN. § 30-5-402(a) (2005).

¹² *Id.* § 30-5-402(b).

¹³ *Id.*

¹⁴ Estee A. Sanchez, Esq., *New Wyoming Surface Use Statutes*, THE ROCKY MOUNTAIN LANDMAN (Denver Assoc. of Petroleum Landman), Summer, Vol. 23, Issue 9, p. 3.

¹⁵ WYO. STAT. ANN. § 30-5-402(d).

¹⁶ *Id.* § 30-5-402(e).

The developer must attempt good faith negotiations in order to reach a surface use agreement.¹⁷ The surface use agreement should describe what methods will be used to protect surface resources, describe the compensation to the surface owner for any damages to the lands and improvements thereon, and provide details of a timely completion of reclamation activities.¹⁸ In order for the surface use agreement to be valid for the purpose of satisfying the surface-use-agreement option for allowing entry (as described later in this section), it must provide that the developer will compensate the surface owner for losses of land and improvement value and losses from lessened production and income from the land. Importantly, the damages provided for are only to be applied to the lands directly affected by production and the surface owner cannot separate from the surface estate the right to receive surface damages.

During the negotiations, either party can seek arbitration or mediation or invoke Wyoming Statute §§ 11-41-101 to -110, providing informal procedures for resolving disputes through the Wyoming Agriculture and Natural Resource Mediation Board. Finally, if a surface use agreement is made, the oil and gas operator is directed by the Surface Damage Act to avoid “substantially and materially different” operations from those listed in the Development Plan.¹⁹

After notice and negotiations, the developer must satisfy one of the following conditions: (i) acquire a waiver by all the surface owners that will allow the oil and gas producer to begin operations; (ii) obtain a surface use agreement as described above which provides for improvements pursuant to Wyoming Statute § 30-5-405 (2005); (iii) secure a waiver as described in Wyoming Statute § 30-5-408 (2005); or (iv) should the producer not desire to seek an executed Surface Use Agreement, simple consent or waiver, he can choose to execute a surety bond or other guaranty to the Wyoming Oil and Gas Conservation Commission (the “Commission”) for the use of the surface owner to obtain payment for any surface damages caused by operations.²⁰ This surety bond must follow the form set by the Commission, must be at least \$2000 per well, and may be a blanket bond that covers a number of wells.²¹ The Commission then notifies the surface owner of the bond, which starts a thirty day period wherein the surface owner

¹⁷ *Id.* § 30-5-402(f).

¹⁸ *Id.* § 30-5-405(c)(i) and (ii). These payments are described in Wyoming Statute § 30-5-405 and include payments to the surface owner which include damages sustained by the surface owner for loss of production, income, land value and value of improvements caused by oil and gas operations.

¹⁹ *Id.* § 30-5-402(g).

²⁰ *Id.* § 30-5-404(b)(iv). A process of approval described in Wyoming Statute § 30-5-404 determines the amount of the bond.

²¹ WYO. STAT. ANN. § 30-5-404 (2005).

can object to the amount. Should an objection occur, the Commission will step in and determine the bond amount depending on the specific circumstances.²²

In order to help ensure operator compliance with the Act, § 30-5-403 (2005) of the Wyoming code states that an application for a drilling permit will not be approved by the Commission until the oil and gas operator files with the Commission the following:

- (1) The surface owner's name and contact information;
- (2) A statement that notice was given to the surface owner of proposed oil and gas operations;
- (3) A statement that the surface owner and oil and gas operator attempted good faith negotiations to reach a surface use agreement; and
- (4) A statement that the oil and gas operator has either secured the written consent, waiver, or surface use agreement or has filed with the State a surface damages bond.

A surface owner has two years after the discovery of damage to the surface estate to make a claim for damages under the Act if a developer has started operations without any agreement in place regarding compensation for damage to the surface as described above.²³ The surface owner must give notice of this damage to both the developer and the Commission.²⁴ After such notification, the operator must make a written offer to settle within sixty days and, unless a written agreement between the parties provides for another remedy, the surface owner can accept or reject the offer of the developer.²⁵ Should the Commission reject the claim of the surface owner, the surface owner can seek redress in the state district court.²⁶ Surface damages can be recovered for loss of production and income from the surface, and loss of market value and value of improvements—should the operators not pay within sixty days of the due date, the amount owed can double.²⁷ Note that no allowance is made, when measuring damages for “reasonable use,” to defer any portion of the loss of marketable value—any adverse affect on the price appears to be compensable.

²² *Id.*

²³ *Id.* § 30-5-406.

²⁴ *Id.*

²⁵ *Id.*

²⁶ WYO. STAT. ANN. § 30-5-406.

²⁷ *Id.* § 30-5-405.

A statute of limitations is included in the Act that precludes actions not brought within two years of the discovery—or the time whereat the damages should have been discovered—to recover damages to the surface estate.²⁸ This provision is tolled for four months if a written notice of damages is provided by the surface owner.²⁹

D. Comparisons with Neighboring States—North Dakota and Montana

Western states, because of their extensive production and the advent of coalbed methane (“CBM”) development, have some of the most commented-upon and extensive SDAs. Oklahoma, because of the extensive production in the state, the fact that its SDA was first in the west, and because the state has produced most of the case law, is often seen as having the “flagship” SDA³⁰ and is a popular yardstick for other states to measure themselves against. Oklahoma’s assessment scheme for a surface damage settlement changes the “reasonable use” doctrine found in Texas and other states without SDAs. Instead of the requirement that landowners show that the producer had done something unreasonable and that other alternatives existed to avoid harming the landowner’s preexisting use—a fairly high bar to meet—Oklahoma’s SDA defines a compensable damage merely as something with “adverse affect on the price” of the land. This arguably has the effect of making the mineral owner’s use comparable to a pipeline easement, invoking condemnation law. Pipelines, however, are an easement whereas the owners of a mineral estate are not trespassers—quite the contrary in that they are the owners of the dominant estate. Additionally, surface owners often benefit from mineral development through bonuses and/or royalties, whereas pipelines do not provide any benefits to the surface owner. More specifics of the various SDAs in the Western States are detailed in Appendix A.

North Dakota and Montana had surface damage acts on the books before Wyoming. North Dakota currently requires that the mineral developer provide written notice of the development plan to the surface owner within twenty days of the start of operations.³¹ This notice must detail the development plan and provide notification of the rights afforded the surface owner by the Act.³² Along with the notice, the producer must make an offer of settlement to compensate the surface owner for damages.³³ If the surface owner rejects the settlement offer, he may bring suit in the appropriate district court. Should the award granted by the court exceed the initial settlement offer, the developer must pay court

²⁸ *Id.* § 30-5-409.

²⁹ *Id.*

³⁰ OKLA STAT. tit. 52, §§ 318.2 to 318.9 (Supp. 2000).

³¹ N.D. CENT. CODE § 38-11.1-05 (2001).

³² *Id.*

³³ *Id.* § 38-11.1-08.

costs and interest.³⁴ Unlike Oklahoma, North Dakota's SDA expressly lists what a surface owner can recover for in the state's SDA.³⁵ North Dakota's SDA expressly delineates actions affording damages—reimbursement is required for the lost value of surface improvements, lost use and access to the surface, loss of market value, and the loss of agricultural production and income.³⁶ North Dakota does not require a bond for surface development.

Montana's SDA is quite similar. Written notification is again required of the producer to the surface owner not more than ninety days or less than ten days prior to entry and must relate the proposed operations.³⁷ Montana does not require a surface bond and mirrors North Dakota in requiring damages for loss of value to surface improvements, loss of land value, and loss of production and income from agriculture.³⁸ After entry, the surface owner has two years to notify the mineral developer of damages. Upon such notification, the developer has sixty days to make an offer of restitution. The surface owner can accept or file suit in the appropriate state district court.³⁹ Whatever the route to calculating damages, payment must be made within sixty days of the agreement or award, or the surface owner is entitled to twice the amount of the owed damages.⁴⁰

The major difference between the North Dakota and Montana is timing of payment of surface damages. North Dakota requires the parties to speculate on the damages and agree—or seek a judicial determination if no agreement is reached—on a settlement beforehand. Montana's statute considers damages in retrospect, with the surface owner essentially keeping tabs and presenting a bill after the alleged damage is done.

E. Analysis and Comment

1. General Intent

Resolving the tension between the surface owner/user and the mineral developer is a matter of balancing incentives to produce minerals with concern for accommodating the surface owner and/or tenant regarding specific and narrowly-defined matters. It should not be simply a way for surface owners to shake down producers for no other reason than their presence. Generally, Wyoming's surface damage act has achieved this.

³⁴ *Id.* § 38-11.1-09.

³⁵ *Id.* § 38-11.1-04.

³⁶ N.D. CENT. CODE § 38-11.1-04.

³⁷ MONT. CODE ANN. §§ 82-10-503 and 82-111-122 (2004).

³⁸ *Id.* § 82-10-504.

³⁹ *Id.* §§ 82-10-506 to 508.

⁴⁰ *Id.* § 82-10-504.

The broadly worded declaration beginning the SDA stating the mineral estate remains dominant over the surface estate is a good, if vague, declaration of intent. If “push comes to shove” and the mineral owner is dead-set on production and the surface owner is equally adamant against production, the mineral estate owner should prevail.

The judicially created accommodation doctrine still championed in Texas, and a host of the other states, still has two major advantages over Wyoming’s efforts to address the split estate issue. First, if the development is reasonable and there is no other economic way to accomplish it, then no damages are forthcoming. Production must be encouraged because development of mineral resources is not only a matter of positive economic benefit; it is a function of national security in the face of a turbulent world energy market. It is not just historical dogma that keeps the mineral estate dominant, but political, military, and economic realities that recognize the absolute necessity of promoting domestic production. Second, and related to the first point, the surface owner is not *automatically* entitled to damages if production is reasonable and damages happen to occur, or—as is the unfortunate case now in several states—even if no real damages occur except that the land is entered. Past some nominal payments, damages should be curtailed to those that occur if a surface land use or improvement that pre-dates the mineral development is damaged by a specific act of mineral development that could have been reasonably achieved another way, or one that damages surface use and enjoyment in a specific and narrowly-defined circumstance.

Compensable damages, however, as defined in the Wyoming statute, are worrisome. Compensable damages are defined by the statute as “[a] sum of money or other compensation equal to the amount of damages sustained by the surface owner for loss of production and income, *loss of land value* and loss of value of improvements caused by oil and gas operations.”⁴¹ This definition, standing alone, could open the door to the problem in Oklahoma, namely that compensable damages are not tethered by the accommodation doctrine’s theory of reasonable use, instead including *any damages* caused by the reasonable development of the minerals—even if the damages were caused by reasonable use. The attempts to curtail these compensable damages in the subsequent section by adding the following clause, “[t]he payments contemplated by this subsection shall only cover land directly affected by oil and gas operations. Payments under this subsection are intended to compensate the surface owner for damage and disruption”⁴² fail to rein in damages that would be associated with reasonable development of the land. Unlike North Dakota, where only certain express actions and damages are compensable, in Wyoming, any diminution in value is compensable. Again, this sounds like a pipeline condemnation action. Mineral developers, however, are not trespassers.

⁴¹ WYO. STAT. ANN. § 30-5-405(a)(i) (2005) (emphasis added).

⁴² *Id.* § 30-5-405(a)(iii).

Wyoming's SDA stipulates that if the surface owner files a claim for damages with the Commission against a developer who has not made a Development Plan or other acceptable arrangement with the surface owner, then the developer must offer a settlement within sixty days. This protocol appears to be an incentive for producers to have a Development Plan in place. While encouraging Development Plans is a laudable goal, the Commission should not require a producer to offer a settlement if there was no other reasonable alternative method for mineral development than the one the developer chose. In addition, a surface damage act should not encourage surface owners/users to feel they are automatically entitled to "damages" without some sort of actual damages. Although the surface owner should be compensated for adverse impact of mineral development, adverse impact on the price should have some threshold relative to the mineral owner's reasonable use right. Furthermore, even if damages recoverable through SDAs are to be extended past surface damage caused by use unreasonable for mineral development, all SDAs should at least echo the wisdom of Oklahoma's recent case limiting SDA recovery to the lessee's exercise of his right to enter and use the land for development.⁴³

Producers in Wyoming should have the opportunity to litigate all tortious claims in an Article III court. SDAs are not substitutes for standard civil actions brought on by tortious activities such as negligent surface damage or pollution. Recently, the Oklahoma Civil Appellate Court ruled that a lessor must bring a separate cause of action in the event of nuisance or the negligent infliction of pollution.⁴⁴ The court agreed with the producer-defendant who argued that the Oklahoma SDA only allows damages to be granted based on the operator's entrance and use of the leased premises.⁴⁵ This is good news for producers who might otherwise not have a fair opportunity to defend tort claims but rather have to pay some administrative penalty based on the claims of assessors, without due process.

Another source of tension not yet addressed by the new Wyoming laws is how they interact with areas where the surface is owned by private Wyomingites and the minerals are owned by the federal government. Wyoming, a relative latecomer into the Union, was a federal territory before admission, and in large portions of the state, the federal government retained the mineral rights to the land while divesting the surface to private citizens and the state.

Onshore Oil and Gas Order Number 1, (the "Order") as amended in 2006, provides the requirements necessary for the approval of all proposed oil and gas exploratory, development, or service wells on all Federal and Indian onshore oil

⁴³ *Vastar Resources, Inc. v. Howard*, 38 P.3d 236 (Okla. Civ. App. 2001).

⁴⁴ *Id.*

⁴⁵ *Id.* at 240–41.

and gas leases, including leases where the surface is managed by the U.S. Forest Service. The Order also covers approvals necessary for subsequent well operations, including abandonment. The changes would include new requirements for development on split estates; a new approval process for multiple wells based on a single environmental review and a Master Development Plan; and additional bonding requirements.⁴⁶

The federal Order provides for lower minimum bond amounts than the new Wyoming law and a less complex system for calculating and providing compensation to affected surface owners for a narrower range of types of surface property damage. Neither law makes it clear which applies when the mineral owner is the federal government. Naturally, given the difference in the bonds and the process for determining surface damages, producers and landowners will likely have a set of laws they would like to apply differently from their counterpart. Both the Wyoming Attorney General and publicists for Governor Freudenthal have been quoted by press sources expressing their beliefs that the Wyoming law applies.⁴⁷ In response, the Director of the Bureau of Land Management (“BLM”) issued a letter to Don J. Likwartz, Wyoming Oil and Gas Supervisor, on June 13, 2005, expressing the BLM’s view that the federal law prevails.

2. *Pre-production Requirements*

A surface damage act should address all stages of development. Before production begins, the mineral owner should be required to notify at least one surface owner and the surface owner’s tenant, if applicable, a number of days before land entry and the notification should contain information necessary to allow the land owner to assess what effect the development might have on his surface estate. The parties should be required in some way to get together and discuss the plans for mineral development and address any concerns that the surface owner has over the proposed development. These differences should be documented—making damage assessment by appraisers easier or, at worst, leaving a paper trail for subsequent litigation. In many cases, practically speaking, differences that cannot be worked around could lead to a check being written and a settlement made on the spot between landowner and company landman.

Wyoming’s SDA does not entirely accomplish these pre-production goals. As noted above, operators are allowed to enter to conduct “non-surface disturbing activities” if they give at least five days of notice to the landowner. Even though

⁴⁶ Onshore Oil and Gas, Order No. 1, 48 Fed. Reg. 48916 (Oct. 21, 1983), as amended at 48 Fed. Reg. 56226 (1983) and 72 Fed. Reg. 10328 (2007). Dated December 1, 2006, not codified in the Code of Federal Regulations.

⁴⁷ Richard W. Goeken, *Conflict Looms over Federal and State Regulation of Access to Federal Oil & Gas Leases on Split-Estate Lands*, http://www.saltmanandstevens.com/pdf/split_estate_article_draft_5.pdf (last visited Apr. 6, 2009).

the surface owner has thirty days to protest after the surface bond is posted, a common complaint raised by landowners is that once the bond is posted, immediate access is granted to the producer for these first look activities. Once the Commission gets the protest, they have seven days to respond. This has led to scenarios where the developer posts bond and conducts geophysical surveys and other pre-development activities quickly without having to wait for the outcome of the Commission's examination of the complaint.⁴⁸ One solution for this problem would be to delay entry for the developer until after the Commission has had an opportunity to respond to the landowner's complaint.

As expected, the concerns of landowners in Wyoming over the ability of developers to "bond-on" and avoid negotiations altogether mirror concerns in other states. "Bonding-on" happens when producers ask the Commission for permission to conduct operations without the surface owner's approval. Although the Act encourages producers to contact and negotiate with landowners, it ultimately acknowledges that mineral owners, and by proxy their leased developers, should be able to develop without subjecting their entry and development plan to approval by the landowner. This has led to contested bond amounts before the Commission, with the landowner claiming the bonds are not high enough to cover reclamation if the producer defaults on its obligations and the producer pointing towards the numerical limits in the statute of \$2000 per well.⁴⁹

3. *Requirements During Production*

During production, the surface owner should not be able to halt entry and development once the pre-production phase is complete, save for gross negligence and/or willful misconduct. The bar for collectable damages should not be an "adverse affect on the price" as in Oklahoma. This makes the entrance and development much like a pipeline easement—which it is not. Mineral development is not an easement because the mineral producer has the right to develop his asset and is not a trespasser.⁵⁰ In addition, often times the surface owner stands to gain from the production, whereas a pipeline provides no benefit to the surface owner.⁵¹ The bar in Wyoming should be the one used in Texas: damage caused by unreasonable use of the land, plus any specific items that the legislature deems worthy of protecting, such as the actual farmstead or other particular classes of fixtures. A nexus needs to exist between the three-part *Getty* analysis, as used in Texas and other accommodation doctrine states, and the modern

⁴⁸ Interview with Llysia Sechrist, Legal Assistant, Wyoming Oil and Gas Conservation Commission in Cheyenne, Wyo., (Nov. 28, 2007).

⁴⁹ WYO. STAT. ANN. § 30-5-404 (2005).

⁵⁰ Personal communication, Professor Owen Anderson—Eugene Kuntz Chair of Oil and Gas, University of Oklahoma College of Law, 2004.

⁵¹ *Id.*

SDA.⁵² If the mineral production upsets a use that predates development and that development could have been accomplished another way (such as directional drilling), with a cost comparable to the cost actually used to develop, the surface owner should be able to go through the assessment process for the collection of damages. This analysis, combined with simple distance limitations preventing development within a certain distance from houses and other structures along with the inclusion of pollution, debris left at the drill site, and improperly plugged and abandoned holes in the damage assessment, would seem to provide the correct balance between the mineral and surface estate. In addition, injunctions should be discouraged. If the correct procedure is followed and the entrance by the mineral developer passes whatever *Getty*-like analysis is required by the SDA, no injunction should be forthcoming to halt production except those necessary to allow time to go to the conservation commission and show the procedures were not followed.

4. *Post-development*

Post-development estate relationships center on damages done during production. Here, it is important to see that actual, demonstrated, or evidenced damages yield compensation, but also that the SDA does not come to be seen as an automatic payday when mineral developers appear at the gate. The goal must be accurate assessment.

One benefit of the Wyoming SDA is that it avoids the wrangling over the appointment of three assessors to tally surface damages. In Oklahoma, the developer and the landowner each appoint an assessor who, in turn, jointly appoint a third. The traditional three-member panel of assessors has been a popular way to assess damages, with each side appointing an assessor and the third being appointed by the first two—or a local court when the first two cannot agree. The problems arise when the third member is partial to one side. Oklahoma, faced with the problem of the third member often being favorable to one side or another despite the merits of the case, has attempted to solve the problem by making certification of the assessors by the state mandatory.⁵³ Although this would help eliminate assessors without any experience and knowledge and, perhaps, obvious “sweetheart” appointments—such as a rancher picking a neighbor—it may be better if the state has a cadre of professional assessors from which the first two assessors, the court, or the appropriate state agency could choose. “Professional” status would mean being licensed after testing and accreditation by the state.

It is also important for the values reached to have some relevance to the real world. In other words, the value of the land should be limited to tangible loss of value, and not sentimental value or the dubious values associated with loss of

⁵² *Getty Oil v. Jones*, 470 S.W.2d 618, 621–622 (Tex. 1971).

⁵³ For a further description of the Oklahoma SDA, please see Appendix A.

a remotely-possible future use. Wyoming's SDA should more expressly disallow valuation of damages based upon sentimental value or loss of alleged future use. Another possibility may be to allow "reasonable use" so that mere entry is not an event meriting damages. The current Wyoming SDA makes no allowance for "reasonable use" when considering the amount of damages. This may result in alleged damages of questionable merit cited simply to "nickel and dime" the damage assessment. Furthermore, a requirement that the money paid is actually used to remediate and improve the land should be considered, while allowing for reasonable attorney's fees on a non-contingent basis. Finally, the county tax assessor should be privy to the assessments made by the assessing tribunal. This will help prevent results that are inconsistent with assessments by other state and local agencies.⁵⁴

III. PRODUCED WATER/GROUNDWATER AND SITE REMEDIATION

A. Introduction

Oil and gas development has long been recognized as a source of concern for groundwater and surface water contamination elsewhere in the country.⁵⁵ Being relatively arid, Wyoming—with its low population and historically less-prolific hydrocarbon development—is initiating widespread protective measures for groundwater. Coalbed methane production ("CBM") is especially challenging because the process produces considerable water.⁵⁶ The variability of produced water quality, however, makes regional classification difficult and potentially inaccurate. Economic waste could result by having the same regulations that require expensive remediation efforts for low quality water to also govern high quality produced water.

Nationally, litigation for environmental damage is on the upswing, and it seems logical that where water contamination occurs, litigation will closely follow. Litigation has already erupted concerning permitting of CBM development on federal and state land.⁵⁷ This first wave of lawsuits will soon give way to actions on

⁵⁴ Gene Gallegos, a seasoned oil and gas lawyer in Santa Fe, New Mexico, strongly disagreed with this suggestion, commenting that trying to intertwine land values as they relate to remediation costs to property tax assessment values was unworkable because the tax assessment values are made for fairly and equitably raising property tax dollars and are *not* made with an eye toward remediation assessment.

⁵⁵ VITO NUCCIO, COALBED METHANE—POTENTIAL AND CONCERNS, U. S. Geological Survey Fact Sheet FS-123-00 at 2 (2000), <http://pubs.usgs.gov/fs/fs123-00/fs123-00.pdf> (last visited March 31, 2009).

⁵⁶ RUCKELSHAUS INSTITUTE OF ENVIRONMENT AND NATURAL RESOURCES, WATER PRODUCTION FROM COALBED METHANE DEVELOPMENT IN WYOMING: A SUMMARY OF QUANTITY AND MANAGEMENT OPTIONS 10 (2005) [hereinafter RUCKELSHAUS REPORT].

⁵⁷ Appendix B of this report details some current cases moving through the administrative and judicial process in Wyoming and Montana related to CBM development.

private land. Recently, courts and juries in other states have handed out startling damage awards, including astronomical punitive awards. Hopefully, this can be prevented in Wyoming to some degree if site remediation and groundwater concerns are adequately addressed. Regulations should be rigorous yet flexible allowing responsible operators to produce without the specter of outrageous judgments. Concurrently, Wyoming should put the state in the best position to quickly identify and curtail production by “fly-by-nighters” and by so doing, soothe the worries of surface owners concerned about rampant CBM development causing environmental damage.

B. Current Wyoming Regulations

1. Coalbed Methane Produced Water

In the last four years, Wyoming—led by a governor’s office seemingly well advised by academic and industry groups—has enacted several measures dealing with groundwater protection related to hydrocarbon production. The Wyoming Department of Environmental Quality (the “WDEQ”)⁵⁸ and the Commission have responded to groundwater concerns raised by CBM development.

Before production of CBM, the gas is trapped within the coal and only becomes mobile once the reservoir pressure is decreased by pumping water out of the coal seams.⁵⁹ Produced water can be reinjected, hauled away in disposal trucks, or treated and piped for beneficial uses such as irrigation, stock ponds, or even drinking water.⁶⁰ Most often this water is stored in wastewater impoundments.⁶¹ Water taken from deeper depths is much more likely to be briny than water found in shallow aquifers and contain higher levels of dissolved solids.⁶² The water, if not removed or drained down a channel, either evaporates or infiltrates back into the ground. If this water is contaminated with brine, or if a large volume of produced water leaches out constituents in the soil and introduces these elements into a shallow aquifer, water production becomes problematic because the impoundments can then introduce the briny water from the deeper reservoir into the (generally) freshwater shallow reservoirs. The quality of the produced water can

⁵⁸ Wyoming Department of Environmental Quality, <http://deq.state.wy.us/> (last visited March 31, 2009).

⁵⁹ NUCCIO, *supra* note 55.

⁶⁰ *Id.*

⁶¹ *Id.* at 2.

⁶² C.A. RICE, M.S. ELLIE & J.H. BULLOCK, JR., WATER CO-PRODUCED WITH COALBED METHANE IN THE POWDER RIVER BASIN, WYOMING: PRELIMINARY COMPOSITIONAL DATA, U. S. Geological Survey Open File Report 00-372 at 4 (2000), <http://pubs.usgs.gov/of/2000/ofr-00-372/OF00-372.pdf> (last visited March 31, 2009).

be better than the local surface water and shallow aquifers.⁶³ For example, in the Powder River Basin, where nearly all of Wyoming's CBM is currently produced, the quality of CBM-produced water generally increases when moving from Belle Fourche, Powder River and Little Powder River drainages southeastward toward the Cheyenne River drainage.⁶⁴ In these areas with cleaner CBM-produced water—particularly in drought conditions—the local surface owners and users welcome the produced water and want to use it to irrigate crops and water cattle.

The steep increase in CBM development and the large volume of water produced by CBM development and production has resulted in large numbers of impoundments to hold the produced water. Impoundments are small man-made ponds that hold the plentiful water that springs from CBM development. These impoundments are either created by damming an existing natural channel or stream (“on-channel”) or by excavating a pit or pond elsewhere (“off-channel”).

Reclamation of impoundments is one of the few instances in Wyoming where remediation is required outside of contractually-based obligations.⁶⁵ Bonding and subsequent reclamation of on-channel reservoirs is made obligatory by the WDEQ through regulations promulgated in August 2005, and revised in June 2007 (described below). Off-channel impoundments are the domain of the Commission and the Office of State Lands and Investments (“OSLI”). On federal lands, the BLM requires bonding and reclamation on federal oil and gas leases. Which agency's rules apply depends on not only whether the impoundment is off-channel or on-channel, but also on whether the surface and mineral estates are privately owned, owned by the state, or federally owned.⁶⁶

Reclamation of impoundments after CBM production ceases is seen as necessary lest un-reclaimed pits fragment and isolate drainages. Reclamation also prevents exposure of selenium and dry impoundment bottoms yielding dust,

⁶³ See Thomas F. Darin, *Waste or Wasted? Rethinking the Regulation of Coalbed Methane Byproduct Water in the Rocky Mountains: A Comparative Analysis of Approaches to Coalbed Methane Produced Water Quality Legal Issues in Utah, New Mexico, Colorado, Montana & Wyoming*, 17 J. ENVTL. L. & LITIG. 281 (2002).

⁶⁴ RUCKELSHAUS REPORT, *supra* note 56, at 17.

⁶⁵ On-channel regulations are described in the “Implementation Guidance for Reclamation and Bonding of On-Channel Reservoirs that Store Coalbed Natural Gas Produced Water” promulgated to implement the requirements of § 35-11-102 of the Wyoming Environmental Quality Act as they cover reclamation of on-channel impoundments. Wyoming Department of Environmental Quality, Water Quality Division, *Implementation Guidance for Reclamation and Bonding of On-Channel Reservoirs that Store Coalbed Natural Gas Produced Water*, August 2005, available at http://deq.state.wy.us/wqd/WYPDES_Permitting/WYPDES_cbm/downloads/BONDING_GUIDANCE-CBM.pdf (last visited Apr. 1, 2009) [hereinafter Implementation Guidance].

⁶⁶ Fortunately, the WDEQ maintains a chart on their website that distills the question of whose remediation and bonding regulations apply to an elementary process. See Wyoming Department of Environmental Quality, *Reservoir Bonding and Reclamation Guidance*, available at http://deq.state.wy.us/wqd/WYPDES_Permitting/WYPDES_cbm/cbm.asp (last visited Apr. 1, 2009).

invasive weeds and other undesirable flora.⁶⁷ The bonding is intended to pay for reclamation of the impoundment after production has ceased if the operator does not conduct such operations himself.

The non-federal off-channel regulations of impoundments are the province of the Commission and the OSLI. Section 1(r) of Chapter 4 of the regulation effective February 11, 2008 and promulgated by the Commission requires completion of “Form 14A” for construction and maintenance of produced water pits. Additional information may be required by the Commission if the land affected by the impoundment meets the Commission definition of a “critical area” as defined in Chapter 4.

With respect to “off-channel” impoundments, the WDEQ first enacted rules in 2002 and 2004 that attempted to address the issue of contamination caused by use of surface impoundments.⁶⁸ These rules were superseded in September 2006.⁶⁹ Because of contamination concerns, the WDEQ announced steps necessary for issuance of new CBM water discharge permits whereby the operator using the discharge impoundment demonstrates, through groundwater monitoring and geochemical sampling of the surrounding soils, that the produced water will not degrade shallow aquifers to a lower classification. Monitoring is to continue through all phases of production. This mandated sampling will eventually delineate statewide areas with clean water that require less control and areas with polluted discharge that may require the prohibition of the use of impoundments. The WDEQ has divided the Powder River Basin into smaller drainage areas, making the policy flexible enough to deal with areas of differing levels of contaminates.⁷⁰

Bonding where BLM rules apply is based upon a professional engineer’s estimate of reclamation costs for the impoundment. The Commission requires a bond based upon the written estimate of a professional engineer. WDEQ bonding requirements are as follows:

⁶⁷ Implementation Guidance, *supra* note 66.

⁶⁸ Wyoming Department of Environmental Quality, Water Quality Division, *Compliance Monitoring for Groundwater Protection Beneath Unlined Coalbed Methane Produced Water Impoundments*, November 2008 (Revised), http://deq.state.wy.us/wqd/groundwater/downloads/CBM/8-1043-Compliance%20Monitoring%20and%20Siting%20Requirements_Impoundments_Oct%2008revision%20_2_%20with%20doc%20num%20and%20Attachments.pdf (last visited Apr. 1, 2009) [hereinafter Compliance Monitoring]; *Off channel Unlined CBM Produced Water Pit Siting Guidelines for the Powder River Basin, Wyoming*, Guidance Document, Wyoming Department of Environmental Quality, August 6, 2002.

⁶⁹ Compliance Monitoring, *supra* note 68.

⁷⁰ See *Watershed-based WYPDES Permitting Schedule for the Powder River Basin, Wyoming*, a map maintained on the website of the WDEQ.

- (1) \$7,500 for on-channel impoundments less than 5,000 cubic yards of earthwork;
- (2) \$12,500 for on-channel impoundments less than 5,000 cubic yards of earthwork;
- (3) For on-channel impoundments greater than 10,000 cubic yards of earthwork, the security amount must be based upon a certified professional engineer's estimate of reclamation including costs to remove all ancillary equipment.⁷¹

These bonding requirements include a 3.0% inflationary escalation scale.

Remediation requirements across the agencies all have similar aspects. For example, the WDEQ requires that topsoil be set aside and replaced if the impoundment is to be reclaimed and not left for the landowner. Harmful evaporates like halite must be removed after production ceases and the impoundment filled. The soil must meet WDEQ Land Quality Division specifications. Once the original grade is reconfigured and the topsoil replaced, the producer is required to "seed and mulch the area with a native grass and shrub seed mixture, unless the landowner specifies some other seed mixture consistent with the use."⁷²

Secondary development of CBM can be achieved by enhanced stimulation techniques such as hydraulic fracturing. This technique involves high-pressure injection of fluid (generally water), and in some places sand, into a CBM-bearing formation. The high-pressure fluid fractures the reservoir and the sand enters the cracks, propping them open. The fluid is then drawn out, but the sand remains, keeping the cracks open to enhance production. Complaints have occurred when diesel fuel used as a surfactant in the injection fluid caused bacteria blooms in nearby water wells. However, once use of diesel fuel was voluntarily curtailed as an injection fluid additive, the Environmental Protection Agency found that injection or "frac'ing" fluid presented no danger to groundwater in a study that looked at wells in eleven coal basins and compared the results of over 200 peer-reviewed studies.⁷³

⁷¹ *Id.* § 5(f).

⁷² *Id.* § 5(c).

⁷³ ENVIRONMENTAL PROTECTION AGENCY, EVALUATION OF IMPACTS TO UNDERGROUND SOURCES OF DRINKING WATER BY HYDRAULIC FRACTURING OF COALBED METHANE RESERVOIRS, EXECUTIVE SUMMARY, June 2004, http://www.epa.gov/safewater/uic/pdfs/cbmstudy_attach_uic_exec_summ.pdf (last visited Apr. 1, 2009) (providing the results of the study).

2. *Site Remediation*

Generally, impoundments must be remediated within one year of the date of last use.⁷⁴ Because of their possible use to surface owners, and because CBM-produced water can often be put to beneficial surface use, produced water impoundments may be left undemolished with the approval of the WDEQ if not subject to other regulations. If the impoundment is to be left in place, however, a written agreement executed and notarized by the surface owner expressing a willingness to accept future responsibility for the impoundment and its potential contents describing the location, size, and including a cost estimate for pit demolition prepared by a professional engineer with expertise in pit remediation, must be approved by the WDEQ.⁷⁵

The level of remediation required is not expressed clearly in the regulations. Unlike plugging operations, the potential cost of site remediation is more variable and often depends on state mandates governing the level of remediation and the climate of the area, whether arid or humid. For example, restoring a pad site to the exact same look it had before development takes longer and requires more work in arid regions where the foliage can take decades to return. Wyoming is an arid state—foliage cannot be expected to grow back at the same rate as in a humid state like Louisiana. The close well spacing necessary for optimal development of CBM (without directional drilling) requires a thick network of roads to access each ten acre site, crosshatching former wilderness with potentially unsightly and dusty roads and dotting it with impoundments. Conversely, some ranchers like the roads because it gives them better access to their land and impoundments filled with high quality water may be welcome.

C. *The “Implied Covenant to Restore” & Troubling Damage Awards—the Louisiana Experience*

The above exposition on regulations governing the surface footprint of CBM development represents mandated surface use limitations and remediation rules rooted in concern related to surface and groundwater quality. These regulations appear to not require surface remediation or use limitations based on any other presuppositions.

A common worry of producers and operators is liability for environmental damage. Awards for damage to the surface—making companies liable for unreasonable damage to the surface estate—has made the operators more conscientious about working with surface owners and acting with a lighter touch. The informal and non-mandated meetings between developers and land owners

⁷⁴ WOGCC Reg. Chap. 4, § 1(qq).

⁷⁵ *Id.*

to discuss future mineral development common in the production industry evidence this awareness.

While some states, by statute or regulation, require that developers remediate certain disruptions to the surface estate, as for example the aforementioned mandated remediation of impoundments in Wyoming, no state legislature or court has instituted an implied covenant to restore the surface. Recently, however, Louisiana courts and juries delivered a Faustian jambalaya of disturbing portents for operators in that state. First, in *Corbello v. Iowa Production*,⁷⁶ the Supreme Court of Louisiana affirmed a \$33 million award for breach of an express covenant in a surface lease requiring restoration of the surface, holding that for breach of contract, the costs of restoration are not limited by the fair market value of the property restored. The court opined,

[W]e decline to set forth a rule of law . . . that in cases of breach of a contractual obligation of restoration in a lease, the damage award to [the surface owning] plaintiffs must be tethered to the market value of the property. To do so would give license to oil companies to perform their operations in any manner with indifference to the aftermath of its operations because of the assurance that it would not be responsible for the full cost of restoration.⁷⁷

No promising lights shine down this road. In addition to the mistake of “tortifying” contract law, the potential for astronomical damages, where the amount rewarded is no longer “tethered” to any realistic measure of the land, is immense. The potential for economic waste is also heightened: most prospective acreage is leased many times as generations of explorationists use new technology to wring more from fields. Even if the money collected in damages is actually put into remediation such that the land is returned to its (alleged) original shape, much remediated land is simply leased again, with the same damage done—and the same improvements, such as canals and roads, being re-dug and re-slashed.

Next, consider the “implied covenant to restore” the leased acreage. In *Terrebonne Parish School Board (“TPSB”) v. Castex Energy, Inc.*,⁷⁸ a Louisiana Court of Appeals majority ruled that under the Louisiana Mineral Code

⁷⁶ 850 So. 2d 686, 694–95 (La. 2003).

⁷⁷ *Id.* at 695.

⁷⁸ 878 So. 2d 522, 528 (La. App. 1 Cir. 2004) (petition for cert. accepted as No. 04-C-968 in La. S. Ct.).

§ 31.122,⁷⁹ “there is an obligation to restore the surface of the land subject to an oil and gas lease despite the lack of an express provision so requiring.” This implied obligation is “to restore the surface of the lease premises as near as is practical to its original condition.” The judgment was amended to provide that defendants “are solitarily obligated to TPSB for the restoration to TPSB’s property to a condition as near as practicable to its pre-lease condition.” Prior to the decision, Louisiana jurisprudence did not require lessees to restore the land used for gas and oil production unless either an express agreement was reached in writing with the lessor, or the lessor gave proof that the operator had been negligent and caused unreasonable damage to the surface or engaged in excessive use.⁸⁰ The majority did not balance restoration costs against the fair market value of the acreage, nor the fact that the surface owner intended to re-lease the property again for mineral development. Instead, the majority focused on, *inter alia*, the “intrinsic value” of Louisiana’s swamps to society,⁸¹ the “global-wide benefits restoration of this state’s wetlands provide”,⁸² and what the lower court perceived to be “the rich reward of the oil industry.”⁸³ Any implied duty invoked by Louisiana Mineral Code § 31.122 must be tied to the prudent operator standard, yet in *Terrebonne* no evidence existed that a reasonably prudent operator would have backfilled the canals in question or that construction of the canals was an unreasonable use of the land and not in accordance with common industry practice.

Fortunately, the Louisiana Supreme Court reversed this decision in a split decision in January 2005.⁸⁴ The high court of Louisiana opined:

Although the temptation may be to thrust a great part of the solution to the problem of coastal restoration upon the oil and gas companies and other private parties, rather than the state and federal governments currently faced with underwriting the expense of restoration, we decline to do so out of respect for the terms of the mineral lease to which the parties agreed.⁸⁵

⁷⁹ LA. REV. STAT. ANN. § 31:122 (2009).

A mineral lessee is not under a fiduciary obligation to his lessor, but he is bound to perform the contract in good faith and to develop and operate the property leased as a reasonably prudent operator for the mutual benefit of himself and his lessor. Parties may stipulate what shall constitute reasonably prudent conduct on the part of the lessee.

Id.

⁸⁰ Rohner v. Austral Oil Exploration Co., 104 So. 2d 253, 255–56 (La. App. 1 Cir. 1958).

⁸¹ *Terrebonne*, 878 So. 2d at 19.

⁸² *Id.* at 20.

⁸³ *Id.* at 19.

⁸⁴ *Terrebonne Parish Sch. Bd. v. Castex Energy Inc.*, 893 So. 2d 789, 801 (La. 2005).

⁸⁵ *Id.* at 792.

The decision of the Louisiana court of appeals—and the subsequent reversal by the Louisiana Supreme Court—represent points on a continuum that the courts and legislature of Wyoming need to consider and choose wherein they will lie. The effect of *Corbello* and the decision of the court of appeals in *Terrebonne*, if applied in tandem, would certainly make producers think twice about land use, perhaps making them back off altogether from exploration. Taken together, even if a lease lacks any express requirement for remediation of the leasehold back to “original” condition, an implied covenant has been found to exist requiring this remediation—and the damages for breach of this implied covenant will not be limited by the market value of the leasehold.

D. Analysis and Recommendations

Natural gas is a clean-burning fuel, the production of which should be facilitated responsibly. CBM development allows economic benefits to flow into the state and enhances national security by decreasing dependence on foreign liquefied natural gas (“LNG”). Development of CBM should not be discouraged by the threat of completely unreasonable surface remediation damage awards and outrageous punitive damages.

Happily, with the rules enacted by the WDEQ in 2004 controlling water quality standards for, and monitoring of, impoundments, Wyoming has taken a big step towards responsible CBM development. Of course, the state must vigorously follow up on the data garnered by the reporting mechanisms in these regulations to see if the problems caused by contaminated water disposal are being alleviated. If this proves not to be the case, the state may need to consider financial mechanisms to ensure responsible drilling and water disposal, keeping in mind that the real test for whether any bonding-supported remediation system works is when the exploitation ceases because of lower prices. Blanket bonds and lowered bond requirements for long-time producers should never be allowed and each impoundment should always have a specific bond covering it.

Should bonding beyond that necessary to insure reclamation of impoundments be required for remediation of possible surface damage in Wyoming? No other state requires bonding for surface remediation by developers, although several states have some peripheral ways of raising money for surface remediation. For example, Texas sets aside a portion of the oil spill cleanup fund for site remediation. The Oklahoma Energy Resource Board⁸⁶ (the “OERB”) performs some surface remediation along with its primary mission of plugging orphaned wells. The OERB is funded through a voluntary one-tenth of one percent assessment on the sale of oil and natural gas in Oklahoma. Any producer or royalty owner who does not wish to participate in the program can apply for a refund, but historically, 95%

⁸⁶ Oklahoma Energy Resource Board, <http://www.oerb.com> (last visited Apr. 1, 2009).

of all contributions remain in the OERB's coffers. In no state, however, is surface remediation afforded anywhere near the priority of orphaned well plugging.

Each well site is different and many variables control the type of surface damage that might occur; thus predicting the amount necessary to require for such a bond is likely to be fraught with a great deal of speculation. Bonding for surface remediation should probably be considered only if other surface remediation remedies do not assist with the problem, and if adopted, should only be required in the amount necessary to remove obvious signs of development, such as removal of leftover equipment, the plowing-up of service roads, the leveling of unwanted water impoundments, and development leftovers of that nature.

Also, when considering mandatory site remediation bonding and the measure of potential damages being considered for the establishment of bond values, the diminution of land value if remediation is not made should typically be the value used to set the bond, not the cost to remediate the land back into the exact same condition that existed before development. This paradigm recognizes a couple things. Foliage grows more slowly in the West and while an area may require replanting, the replaced fauna should not have to mimic immediately the original fauna. Also, land is often re-leased, and Lessee A should not necessarily have to remediate land back to pristine conditions just before the land is re-leased to Lessee B, who then develops the lease in much the same way Lessee A had done. In other words, what is the sense in remediation of a roadway or canal one lessee built just so that the next lessee can rebuild it?

Classification of the produced water must recognize that various levels and types of pollutants exist in different areas. Furthermore, the WDEQ might want to address whether localized small scale degradation really matters. If no one will use the water in or near that location, expensive measures to maintain water quality may not be necessary or practical. Flexibility is the key—water produced varies in quality statewide, a fact recognized by the WDEQ in its recent regulations.

If responsible companies follow state-established procedures, their liability should be reduced, particularly when considering punitive damages. It makes sense to limit awards to the value of the land or the price it takes to remediate it, whatever is less. Finally, awards for surface damages ought to go toward remediation—not into the pockets of plaintiff's attorneys and landowners who then turn around and re-lease the land to another developer. The state has no interest in seeing surface damage claims turn into a lottery for plaintiffs and a payday for mercenary plaintiff attorneys while the problems of surface damages remain unsolved. Finally, hydraulic fracturing fluids do not pose a threat to groundwater and so do not logically factor into any bonding scheme or any surface damage calculations.

Surface owners should not be able to recover for surface damage occurring before purchase of the property when such damage was discovered before purchase in the absence of the assignment of such a claim. Suits of this sort typically are difficult to win. For example, a Texas appellate court recently ruled that a cause of action for injury to real property accrues to the person who owns the property at the time of the injury and, absent an express assignment of the cause of action to a subsequent owner, the current owner lacks standing.⁸⁷ Additionally, allowing landowners to recoup the full cost of remediation for pollution caused by contamination from orphaned wells—instead of just the diminution in value—is seen as a litigation-based stimulant because it would open the door to increased liability for contamination. Agencies and courts are struggling with damage awards for common surface damages such as those caused by the presence of leftover production equipment and surface pollution. The case law, as described below with regards to recent developments in Louisiana, can yield frighteningly huge judgments when total remediation is required. Like full remediation of surface damages, requiring full remediation of an aquifer contaminated by orphaned wells—particularly an aquifer away from any productive use—may result in astronomical judgments. Limiting recovery to the diminution of value, unless reckless conduct or willful conduct is involved, takes economic factors into consideration, promotes mineral development, and prevents economic waste.

One pleasant side effect of the new regulations concerning CBM development and its impact on groundwater is that by addressing—if only in some aspects—the topic of groundwater, surface water, and site remediation, Wyoming courts will have some legislative landmarks in which to ground their opinions in the inevitable cases that will arise as the CBM boom continues in Wyoming. Jurisprudence will hopefully develop such that Wyoming will follow the more conservative models for surface restoration. Heeding the cautionary tale of Louisiana, no implied covenant to remediate a leasehold back to its original condition—particularly in arid Wyoming—should exist, and surface damage awards should at least be tied to the fair market value of the land.

IV. BONDING AND ORPHANED WELLS

A. Introduction

The recent increase in gas prices combined with the relatively shallow depths required for a successful CBM well has led to a dramatic increase in the number of wells drilled in Wyoming and neighboring states and the decrease of the average spacing between wells. A vehicle to properly plug and abandon wells left

⁸⁷ *Exxon Corp. v. Pluff*, 94 S.W.3d 22, 27 (Tex. Comm'n App. 2002). In addition, the court ruled no express or implied duty existed for the oil company to remove oilfield materials from the property.

as orphaned wells was needed. This led many states to require operators put up a bond before drilling so that if an insolvent operator does not properly plug and abandon a non-productive well, the state can pay to have the well plugged. Orphan wells present the problem of contamination when water migrates to shallow aquifers through leaks in casing or cement behind casing. A properly plugged well has a cement barrier preventing the flow of saline-rich waters in contaminated aquifers into fresh water aquifers closer to the surface. Improperly plugged or completely unplugged wells do not have the cement barrier and present a contamination threat. The cost of plugging wells varies widely, averaging about \$12,500–\$15,000 for traditional oil and gas wells, but occasionally costing much more. No technology presently exists to restore a regionally contaminated aquifer.

B. Current Wyoming Regulations

Wyoming requires a compliance bond to drill in the state, which is collected by the Commission.⁸⁸ The size of the bond for drilling is dependent on the depth of the well. Bonds for wells less than 2,000 feet are \$10,000 for an individual bond or \$75,000 for a blanket bond. A blanket bond is a single bond that covers all the wells in a certain area, typically a state. Wells deeper than 2,000 feet require a \$20,000 individual bond or, as before, a \$75,000 blanket bond. Wyoming's requirements for bonding necessitate an additional bonding up to \$3 per foot for idle wells in excess of 8,300 feet or 25,000 feet, depending on the bond in place. Currently, five options exist for companies to choose from:

- (1) Owner's surety bond (\$10,000 or \$20,000 as applicable)
- (2) Owner's blanket bond (\$75,000)
- (3) Letter of Credit
- (4) Certificate of Deposit
- (5) Cash (cashier's check)

On state lands, the bond of the producer is paid to the Wyoming Commissioner of Public Lands in the amount of \$10,000 for an individual well or \$100,000 for a blanket bond.

C. Orphaned Well Problems—the Texas Experience

The best way to consider Wyoming's possible future regarding bonding is to consider Texas' past. The biggest change, and the cause of the greatest howl among the regulated in Texas, is the Texas Railroad Commission's (the "RRC")

⁸⁸ Wyoming Oil and Gas Conservation Commission, *Chapter 3: Operational Rules, Drilling Rules*, <http://soswy.state.wy.us/RULES/rules/6913.pdf> (last visited Apr. 1, 2009).

move towards substantial and universal bonding. Universal bonding, without opportunity for additional deposits, “good guy” grandfathering, or other alternatives to bonding, is the ultimate destination of producer security regulation in Texas.

Texas has perhaps the greatest problem with orphaned wells, and it is one of the missions of the RRC⁸⁹ to prevent the orphaning of wells and to oversee the proper plugging and abandonment of orphaned wells. In order to produce in Texas, at least in theory, a prospective operator must prove to the state that it is financially capable of properly plugging and abandoning its wells. In 2004, Texas had about 355,000 wells, 112,013 shut-in (nonproductive) wells and 242,932 productive wells. By the end of January 2004, higher risk, unbonded companies operated 7,313 wells. The RRC rules require operators to plug/abandon or shut-in wells, but industry insiders suggest this is not rigorously enforced. For example, loopholes can be used to circumvent this requirement. An operator is allowed to treat an entire lease as a single entity. So, for example, if there are ten wells on a lease and only one is a producer, then the other nine holes need not be plugged until the one well stops producing. By the time that happens, the operating company may be bankrupt. The likelihood of bankruptcy increases as the production decreases over time because wells with dwindling production typically get sold down the company “food chain” so that wells circling the drain of economic viability are common in the portfolio of financially unstable corporations. These companies often go out of business, orphaning a large group of wells in one fell swoop. In a few cases, unbonded operators intentionally accumulated inactive wells and striped the wells of salvage. Then they went out of business, orphaning many wells at once.⁹⁰

The current public plugging mechanism for orphaned wells in Texas, the Oilfield Cleanup Fund, does not cover the cost of plugging orphaned wells, a problem made worse by the fact that many operators cannot be made to pay because of subsequent bankruptcy. Until recently, unbonded operators in Texas managed to perpetually avoid plugging wells by paying a \$100-per well licensing fee annually. This fee could be paid in lieu of plugging the well properly.

Legal and equitable remedies can be a challenge to landowners. If saltwater from an unplugged oil well contaminates freshwater wells on an adjoining piece of land, that landowner can bring a “trespass suit for damage to land.” This has a two-year statute of limitations, tolling from “first injury”—*not* from detection of

⁸⁹ The Texas Railroad Commission regulates oil and gas operators within Texas. Railroad Commission of Texas, <http://www.rrc.state.tx.us> (last visited Apr. 1, 2009).

⁹⁰ Personal communication, Professor Owen Anderson—Eugene Kuntz Chair of Oil and Gas, University of Oklahoma College of Law, 2004.

the injury. Two recent cases, *Walton v. Phillips Petroleum Co.*⁹¹ and *Exxon v. Pluff*,⁹² have limited a landowner's recovery for damages to diminution of the land's value, not cost of remediation. Furthermore, "trespass suit for damage to land" does not include attorney's fees. Those fees are deducted from any award—a deduction that could discourage plaintiff's attorneys.

After the implementation of new bonding rules, producers in Texas had the following two options to satisfy the necessity of fiscal assurance that they will properly plug and abandon wells:⁹³

- (1) A bond or letter of credit based on the total footage of the wells operated; or
- (2) A bond or letter of credit based on the number of wells operated.

Prior to making the financial requirements more strictly controlled, concern existed that these changes would make it difficult for small operators to stay in business. This fear has apparently not materialized. Although the number of operators did indeed drop annually from 2001–2003, this seems merely a continuation of the drop in the number of active operators that has steadily declined since before 1990; subsequently, the number of operators is increasing considerably. The cost to maintain an inactive company has increased from \$100 to \$1000 in March 2002, thus increasing the incentive for owners to finally shut down long-lingering inactive companies. In addition, company registration costs with the state went from the \$300–\$1000 range to \$300–\$1125 over the same period. The bottom line appears to be that operators that are not financially solvent enough to post an adequate bond are far more likely to not properly plug and abandon a well.

The RRC's other tactics for solving the orphan well problem have been threefold. First, a limit to the transfer of inactive wells has been suggested, keeping unproductive wells attached to the companies who originally owned—and are liable—for them. Further, it is suggested that the number of plugging extensions, via dodges like the \$100/year fee, has been curtailed. Increased funding of the RRC's plugging program through increased fees, a more robust bonding and letter of credit plan, and more vigorous state action in going after offenders with substantial fines are all beginning to better address the orphan well problem.

⁹¹ *Walton v. Phillips Petroleum Co.*, 65 S.W.3d 262, 272 n.3 (Tex. Comm'n App. 2001).

⁹² 94 S.W.3d at 22.

⁹³ *Bonding Requirements for Oil & Gas Exporters: Hearing Before the H. Energy Resources Comm.*, (Tx. 2004) (testimony of Michael Williams, Commissioner of The Railroad Commission of Texas) http://www.rrc.state.tx.us/commissioners/williams/newscenter/House_Energy_Testimony_3-24.pdf (last visited April 5, 2009).

D. Alberta

On the other end of the spectrum is Alberta, Canada, whose regulatory experiences with orphaned wells are much less problematic. The well plugging authority in Alberta is the Orphan Well Association (the “OWA”) that operates with fiscal independence under authority of the Alberta Energy and Utilities Board (the “AEUB”). Of course, Alberta has fewer wells to worry about (and less people to complain about them) than Texas and also has been aided by a more proactive approach toward remediation and plugging. First, reasonable attempts are made by the agencies to recover money from responsible parties before wells are determined to be orphaned. After a well is deemed orphan, the OWA can conduct the orphan abandonment plan. The AEUB receives funding from two sources. The first source is the Orphan Fund levy, where funds are collected from the “upstream” oil and gas industry with each company being levied based on its proportionate share of “deemed liabilities” compared to total industry deemed liability. In the past, the agency has based the annual levy for the orphan fund on the number of inactive wells each company held at the end of the previous year.⁹⁴ The second source of funds is a first time licensee fee. Recently, revenues were increased because of an increase in applications for a *first time* licensee fee for each operator. This fee is \$10,000 and is charged to each new company wishing to hold well licenses.

E. Analysis and Comment

Preventing orphaned wells is a two-step process. The first is to prevent a rush of financially unstable producers from beginning development. The second is to assure that state conservation efforts to manage production of oil, gas, and CBM through pooling and unitization do not encourage economic waste and needless wells that could be orphaned, as happened in Texas.

In order to ensure that funds are available for the proper plugging of orphaned wells, Wyoming should assume *every* well will be orphaned and plugging costs will ultimately be borne by the state. The necessity of this assumption was laid bare by the unfortunate scenario that unfolded in Texas when the RRC’s orphaned well prevention and remediation program—a scheme that included blanket bonds⁹⁵ and non-bonding schemes such as licensing fees and “good guy” reductions—did not provide enough money to properly plug and abandon holes. Wyoming’s goal should be to set up bonding requirements so that each company’s bond can cover

⁹⁴ Interestingly, in 2001 and 2000, the annual levy was set at zero per inactive well to *reduce* the growing Orphan Fund balance and to match the decreased activity level of orphan abandonment and reclamations in 2000. The levy was set at zero based on the reasoning to only take money from the upstream oil and gas industry when it was required. Orphan Well Association of Alberta 2002–2003 Annual Report.

⁹⁵ A blanket bond is one bond that covers more than one well. Thus, one bond could cover many or all wells in a single company’s portfolio.

that company's orphaned well responsibility. Furthermore, the money collected should be tied to a particular well so that, if well ownership changes hands, the state would continue to hold the funds necessary for covering the cost of plugging and abandoning the well. This is particularly important within the realm of CBM development. CBM wells are typically quite shallow, particularly when compared to oil wells. Typical depths are 500 to 1,500 feet for these wells. Wells of this depth can be quickly, easily, and cheaply drilled. This business thus attracts all manner of developers, and the state must keep a tight rein on development in order to prevent the financially challenged, capital constrained, or irresponsible operators from converging on Wyoming and then departing suddenly when the prices fall again, leaving their responsibilities for remediation, well plugging, and surface damage costs unmet.

Recent changes in Texas law may provide Wyoming a good starting point of view, particularly if focused through the lens of CBM production. Texas' problems with orphaned wells are rooted in the fact that the bonding procedures were not responsive to maneuvers by producers short on cash but savvy to various 'outs' that could be used to avoid responsibility for properly plugging and abandoning wells. In addition, before reforming their well-bonding measures, Texas allowed the following three options for producers as alternatives to well bonding:⁹⁶

- (1) A \$100 annual fee if the operator had 48 consecutive months of acceptable operation under remediation statutes and regulations.
- (2) A fee equaling 3% of the otherwise applicable bond amount described in the first two options.
- (3) A lien on tangible personal property in an amount equal to the otherwise applicable bond amounts in the first two options.

Wyoming's regulatory position would be much stronger if a requirement existed mandating the collection of money via a bond to plug a well if the producer proves unable to do so. Each well could have money specifically earmarked for that particular well, rather than a pool of money provided by a blanket bond. In other words, Wyoming should act as if *every* well will be orphaned and the state will have to pay to plug it. The shallow depth common to CBM wells, combined with the size of Wyoming and the state's allowance of one CBM gas well per forty or eighty acres, means that active producers of CBM will hold a large number of wells in their portfolio. If the producer pays the blanket bond, then the money

⁹⁶ After September 1, 2004, these three options were no longer available in Texas. All operators are now required to have a bond, letter of credit, or to make a cash deposit.

available for plugging potentially abandoned holes is lessened for each. As Texas has done, all options—save a well-specific bond or letter-of-credit—should be forever eliminated. These options have proven ineffective in providing money to plug orphaned wells in Texas, often placing the burden on companies who do fulfill responsibilities, landowners, and taxpayers.

Furthermore, a change in control of a well need not reduce the amount of money available to plug the well. If a portfolio of wells is passed from one operator to another, the state-held funds to plug each well via a bond can remain at the pre-sale level. Here again, limitation of the blanket bond is apparent. For example, a producer could acquire a multitude of marginal wells and then go out of business, leaving only a blanket bond to cover plugging all the orphaned wells in the company's portfolio. Eliminating the blanket bond and going to a per-well bond requirement will require companies to devise methods, such as establishing escrow accounts or performance bonds, or using the direct approach of having the new company augment money held in the state with its own cash. As an added feature, regulations could have a built-in mechanism for increasing the bond amounts should costs and inflation escalate.

Other solutions to the problem of orphaned wells exist. Lease forms are often off-the-shelf and used with little foresight. If the model lease forms drafted and endorsed by the American Association of Professional Landmen ("AAPL")⁹⁷ were made more remediation-friendly, the number of orphan wells abandoned in the future could be attenuated.⁹⁸ Another suggestion is requiring every oil company in Texas to annually plug a certain percentage of the shut-in wells on its inventory. For example, the company could be required to plug 5–10% of shut-in wells in their portfolio annually.⁹⁹ Additionally, a prescription limiting the amount of time a company has to plug such wells could be imposed. "Whole lease" provisions—loopholes that allow an operator to wait on plugging an unproductive well until drilling and production on the whole lease ceases—ought to be eliminated. Combining regulatory responsibility for groundwater and surface

⁹⁷ American Association of Professional Landmen, <http://www.landman.org/> (last visited Apr. 1, 2009).

⁹⁸ Loire Woodward Cantu, *On a Collision Course*, CATTLEMEN, May 2004, available at <http://www.texascattleraisers.org/issues/2004/0504/collision.asp> (last visited Apr. 1, 2009). This article mentions several problems and suggestions regarding orphan wells in addition to bonding, such as changing the model lease forms, requiring the proper plugging and abandonment of a certain percentage annually of each operator's portfolio of orphaned wells, and elimination of "whole lease" loopholes. *Id.*

⁹⁹ This provision could potentially eliminate wells that might return to production under better economic conditions. If such a provision were ever adopted, care would have to be taken to require plugging of wells clearly below any threshold of realistic future economically-sound productivity, while also allowing the shut-in of wells that could realistically be reworked and made profitable with higher oil prices.

water into one agency, as opposed to dividing it between the Texas Commission on Environmental Quality¹⁰⁰ and the RRC, respectively, is touted by some as a solution to inconsistent regulatory enforcement.¹⁰¹

One of the greatest causes of orphaned wells and ensuing pollution, surface disruption and damage, and economic waste are unnecessary wells kept afloat by conservation schemes incentivizing “small parcel” wells by marginal producers. In Texas, state coddling of small producers and the refusal to mandate orderly field development through unitization and spacing has resulted in a plethora of unnecessary wells produced by unstable operators.¹⁰² This phenomenon is particularly ominous for Wyoming. Boom conditions, combined with the shallow depth common to CBM wells with small proration units, means that producers of CBM will end up with a lot of wells in their portfolio. If the producer pays a fixed blanket bond, then the money available for plugging a potentially abandoned hole is lessened for each producer as the producer’s portfolio increases. For the same reasons, all options, save a well-specific bond or letter-of-credit, should be eliminated. Furthermore, the change in control of a well should not in any way affect the money available to plug the well. If a portfolio of wells is passed from one operator to another, the money that the state holds to plug each well via a bond should remain at the level it was before the sale. This will prevent financially unstable operators from orphaning a multitude of wells with one bankruptcy.

Finally, if a well produces water fresh enough to be an asset to the surface owner, an option could exist for a producer to assign a well to a rancher. The rancher might want the water from the CBM well for irrigation or livestock. This complicates the orphan well issue, but the water well could be a resource for surface owners or the state.

APPENDIX A: A SURVEY OF SURFACE DAMAGE ACTS—EAST & WEST

What follows is a glimpse at the various SDAs currently enacted, with analysis split into SDAs in the western and eastern United States.

SDAs in the Western United States

North Dakota and Montana have been previously discussed.

¹⁰⁰ Texas Commission of Environmental Quality, <http://www.tceq.state.tx.us/> (last visited Apr. 1, 2009).

¹⁰¹ See Cantu, *supra* note 7, at 7–8.

¹⁰² Jacqueline Lang Weaver, *The Federal Government as a Useful Enemy: Perspectives on the Bush Energy/Environmental Agenda from the Texas Oilfields*, 19 PACE ENVTL. L. REV. 1, 15 (2001).

Oklahoma does not require that surface damages be paid as a matter of course, but the behavior of the mineral owners suggests they believe the SDA of Oklahoma creates an obligation to pay for any and all damages suffered by the surface owner.¹⁰³ Arbitration of damages is conducted by three assessors—one appointed by the landowner, one appointed by the producer, and the third appointed by the other two.¹⁰⁴ If the appraisers, by majority vote, decide no compensation is owed, none is due, but the landowner can appeal. Upon appeal to a court, if the court's judgment is less than that of the appraisal of damages, the landowner will not receive attorney fees as part of the damages. Often what occurs is that the landowner will "lowball" or "sandbag"—slang used by lawyers for purposely quoting an unreasonably low damage estimate—on the appraisal because he knows he is going to go to court anyway. Then, in court, the landowner will be sure to get a judgment far over what was agreed upon, thus assuring attorney fees.¹⁰⁵

In South Dakota, the SDA¹⁰⁶ requires the mineral developer to give written notice to the surface owner at least thirty days prior to the beginning of operations. The notice is to go to the address of the surface owner as ascertained by the county records for the land to be subject to development. The notice shall be explicit enough to allow the surface owner to approximate the disruption and damage that the mineral development will cause.

The amount of surface damages may be determined using any method both sides agree upon. Damages can be paid in annual installments, but the surface owner can only be compensated for harm caused by exploration with one single lump sum payment. In addition, the payment is to be to the titleholder of the land and assignment or reservation of such compensation is prohibited unless

¹⁰³ Ronald W. Polston, *Surface Rights of Mineral Owners—What Happens When Judges Make Law and Nobody Listens?*, 63 N.D. L. REV. 41, 55–56 (1987). In a survey conducted by the author, producers of forty-six of forty-seven wells drilled accepted responsibility for some measure of surface damages. One operator, when asked why he paid, simply responded with a copy of Oklahoma's SDA. Owen Anderson, a professor of oil and gas law at the University of Oklahoma, has said that surface owners and tenants generally know the "going rate" of surface damage settlements in the area around their land and seem to expect something akin to that value whatever the particular scenario involved. He said that surface owners routinely expect some measure of payment. (From a special talk given in conjunction to Owen Anderson's 2003 Oil and Gas Law class at the University of Oklahoma College of Law.)

¹⁰⁴ Bruce Stallsworth, in his article *Legislation Hits Mid-Point; Oil and Gas Bills Progress—Surface Damage Reforms* in the April 2004 edition of *WellHead* April 2004, noted that two bills currently in committee Oklahoma (HB 2541 and SB 1296) contain language that will require that all three appraisers used in a surface damage settlement be state-certified. These bills have met resistance from landowners. Bruce Stallsworth, *Legislation Hits Mid-Point; Oil and Gas Bills Progress—Surface Damage Reforms*, *WELLHEAD*, April 2004.

¹⁰⁵ Producers in Oklahoma jocularly refer to this as "getting Munsoned."

¹⁰⁶ See S.D. CODIFIED LAWS §§ 45-5A-1 to -11 (1997).

made to a surface lessee. The mineral developer is to pay damages to the surface owner equal to the amount of damages sustained for:

- (1) Loss of agricultural production;
- (2) Lost land value; and
- (3) Lost value of improvements caused by mineral development.

The surface owner, in order to receive compensation, must give the mineral developer notice in writing of damages sustained within two years that the damage became apparent or should have been apparent.

Unless controlled by another written agreement, the mineral developer, within sixty days of receipt of damages sustained by the surface owner, must make an "offer of settlement." This must be accepted or rejected within sixty days of receipt of the offer of settlement. If rejected, the surface owner can seek redress in court of proper jurisdiction. In a clause not mentioned in any other SDA, this SDA expressly does not apply to vehicles traveling on state highways.

SDAs in the Eastern United States

Speaking generally, SDAs east of the Mississippi are more prone to expressly provide specific items for which surface owners can expect recovery and more tightly stipulate notice, negotiations with the surface owner, and periods during which the mineral owner can proceed with development. What follows is a list of the high points and quirks of each of the SDAs in eastern states.

West Virginia's SDA¹⁰⁷ does not require that the mineral developer give the landowner notice of entry.¹⁰⁸ Items that require compensation are enumerated in the law as are the surface damages that may be recovered for them if an offer of

¹⁰⁷ See W. VA. CODE §§ 22-7-1 to -8 (1998).

¹⁰⁸ W. VA. CODE § 22-7-7 (2009). The oil and gas developer must pay damages to cover compensation to the surface owner for any of the following:

- (1) Lost income or expenses incurred by mineral developers occupation.
- (2) Market value of crops destroyed.
- (3) Damage to water supplies.
- (4) Cost of repair (up to replacement value) of personal property.
- (5) Diminution of value of the surface after completion of the mineral development.

All other common law claims remain intact. The surface owner, in order to receive compensation, must give the mineral developer notice in writing of damages sustained within two years of the time that the damage became apparent or should have been apparent. Unless otherwise provided by written agreement, the mineral developer must, within sixty days of giving of notice of damages, either make an offer of settlement or reject the claim. *Id.*

settlement fails. The alternative to court action is an arbitration method carefully delineated in the statute.¹⁰⁹

Tennessee's SDA¹¹⁰ is very similar. A list of items requiring compensation after notice is listed in the statute.¹¹¹ The developer must then respond, offering either a settlement or rejecting the claim. Upon either rejection of the demand for damages or the offer of an unacceptable settlement, the surface owner can choose to seek compensation in court or through arbitration.¹¹²

¹⁰⁹ W. VA. CODE § 22-7-7 (2009). Within sixty days of notice of rejection of the surface damage claim by the mineral developer, the surface owner can either (1) bring an action for compensation in the court of proper jurisdiction; or (2) decide to have his compensation finally determined by binding arbitration. The arbitration committee consists of three arbitrators—one picked by the surface owner, one picked by the mineral developer, and the third selected by the first two. If the first two arbitrators cannot agree on a third arbitrator, the matter will be turned over to the circuit court of the county wherein the surface estate lies. *Id.*

¹¹⁰ See TENN. CODE ANN. §§ 60-1-601 to -608 (1989).

¹¹¹ TENN. CODE ANN. § 60-1-604 (2009). The oil and gas developer must pay the surface owner for:

- (1) Lost income or expenses incurred as a result of being unable to use land actually occupied by the driller's operation or to which access is prevented by such drilling operation for the purposes it was used prior to commencement of the activity for which a permit was obtained, measured from the date the operator enters upon the land;
- (2) The market value of crops destroyed or damaged;
- (3) Any damage to a water supply in use prior to the commencement of the permitted activity;
- (4) The cost of repair of personal property up to the value of replacement by personal property of like age, wear and quality; and
- (5) The diminution in value, if any, of the surface lands and other property after completion of the surface disturbance done pursuant to the activity for which the permit was issued, determined according to the actual use made thereof by the surface owner immediately prior to the commencement of the permitted activity.

Any surface owners who want to receive compensation must notify the oil and gas developer by certified mail, return receipt requested, of the damages sustained by the person within three years after the injury occurs. *Id.*

¹¹² TENN. CODE ANN. § 60-1-607 (2009). If the surface owner wanting compensation receives a written rejection, rejects any counter-offer of the oil and gas developer, or receives no reply, he may bring an action for compensation in a court of proper jurisdiction. If the amount of compensation awarded by arbitration or the court is greater than that which had been offered by the oil and gas developer, the person seeking compensation shall also be awarded reasonable attorney fees, costs of expert witnesses, any other costs which may be legally assessed, and interest on the amount of the final compensation awarded from the day drilling was commenced. This scheme avoids the lowballing seen in Oklahoma, as the surface owner cannot give an artificially low damage value because the producer can take him up on it, whereas in Oklahoma, the surface owner can give a low value, then refuse anything the arbitrators come up with and go to court assured the judgment will be larger than his previous bogus damage value.

Illinois' SDA¹¹³ contains two clever stipulations. First, the developer is required to give notice and offer to negotiate with the surface owner.¹¹⁴ Second, the producer must obtain a certificate from the state assessor's office providing state clearance to drill.¹¹⁵ The surface owner is encouraged by the statute to meet with the producer—failure of the surface owner to contact the operator at least five days prior to the proposed commencement of drilling operations is conclusively deemed a waiver of the right to meet by the surface owner. The surface owner is entitled to reasonable compensation from the mineral producer for damages caused by the drilling operations.¹¹⁶

The surface owner, instead of bringing an action in court, can request the mineral developer to deliver in writing by certified mail, return receipt requested, that compensation be determined by binding arbitration. If the oil and gas developer agrees to binding arbitration, the mineral developer shall notify the surface owner of consent to arbitration in writing within fifteen days of receiving the request. In the event of binding arbitration, compensation to be awarded the surface owner shall be determined by a disinterested arbitrator chosen by the surface owner and the oil and gas developer from a list of arbitrators approved by the American Arbitration Association—although the statute does not say how they choose. *Id.*

¹¹³ See 765 ILL. COMP. STAT. 530/1–530/6 (2001).

¹¹⁴ 765 ILL. COMP. STAT. 530/4 (2009). The operator must give written notice prior to the commencement of drilling.

This notice includes:

- (1) The location and date of entry;
- (2) Photocopy of the drilling application submitted to the Department of Natural Resources;
- (3) Name, address and phone number of the applicant; and
- (4) Offer to “discuss” with the surface owner the following:
 - (a) Placement of roads
 - (b) Points of entry
 - (c) Construction and placement of pits
 - (d) Restoration of fences to be cut
 - (e) Use of water
 - (f) Removal of trees
 - (g) Surface water drainage changes caused by drilling operations.

Id.

¹¹⁵ 765 ILL. COMP. STAT. 530/4 (2009). This certificate identifies the surface owner(s) and, once approved, acts as conclusive evidence as to the identities of surface owners—somewhat akin to a division order—and acts as proof of producer's compliance with the SDA.

¹¹⁶ 765 ILL. COMP. STAT. 530/6(A) (2009). In Illinois, compensation must be paid in a manner “mutually agreeable” to both the surface owner and the mineral developer. *Id.* at (B). However, the failure to agree upon the amount *will not* prevent the mineral operator from beginning operations, although compensation will be made within ninety days of completing the well. If compensation is not made, or not made to the level requested, the surface owner's remedy is a lawsuit. In addition, the mineral developer can only use that portion of the surface reasonably necessary for mineral development. *Id.*

Kentucky also has an SDA¹¹⁷ that is very similar to that found in Illinois. A certificate of ownership is required, as is notice to the surface owner, the requirements of which are expressly listed in the statute.¹¹⁸ The surface owner can recover for damages to crops, structures, etc. The payment shall be made in accordance with whatever is agreeable to the parties, *but a failure to agree shall not prevent a mineral developer from entering the land*. The operator must pay the surface owner within ninety days of completion of the well. If the payment is not made, or if no agreement is reached in the amount of the surface damages, then the surface owners can seek a judgment. Finally, as in the Illinois statute, surface restoration is also required.¹¹⁹

APPENDIX B:
CASE LAW REGARDING COALBED METHANE DEVELOPMENT
IN WYOMING AND MONTANA

In December 2005, the Ruckelshaus Institute of Environment and Natural Resources, in conjunction with the University of Wyoming, delivered to the office of the governor of Wyoming the “Water Production from Coalbed Methane Development in Wyoming: a Summary of Quantity and Management Options.” The “Ruckelshaus Report” contained summaries of the amount of CBM development in various parts of Wyoming, the specifics of CBM development, scientific reports on contamination of surface and groundwater by CBM produced water, and suggestions as to what steps should be taken to govern the process of permitting produced water impoundments as well as other facets of CBM development. This report created controversy, particularly with the pro-CBM production contingent within the Wyoming legislature, some of whom apparently used the report as a reason to vote against certain funding initiatives for the Institute and the University because of what they saw as anti-CBM sentiment within the report.¹²⁰ The Ruckelshaus Report mentioned six cases then currently

¹¹⁷ See KY. REV. STAT. ANN. § 353.595(5) (2000).

¹¹⁸ KY. REV. STAT. ANN. § 353.595 (2009). Within ninety days prior to the giving of notice to the surface owner, the mineral developer must get from the Property Valuation Office a certification which identifies the correct surface owner for the land on which development is intended. *Id.* § 353.595 (3)(b). This will act as conclusive evidence of surface ownership. The mineral producer must also provide notice of impending operations, including information such as drilling location and contact information. *Id.*

¹¹⁹ KY. REV. STAT. ANN. § 353.595(7) (2009).

In conjunction with the plugging and abandonment of any well or the reworking of any well, the operator shall restore the surface and any improvements thereon to a condition as near as practicable to their condition prior to commencement of the work. The surface owner and operator may waive this requirement in writing, subject to the approval of the department that the waiver is in accordance with its administrative regulations.

¹²⁰ *Freudenthal Says University of Wyoming Needs to Be a Place of Free Expression*, LOCAL NEWS 8 ONLINE, Jan. 26, 2008.

in litigation concerning actions, mostly by environmentalist groups, against state and federal government agencies in Wyoming and Montana for issuing permits allowing CBM developments. These types of actions have typically been the first wave of litigation to meet natural resource development on state or federal lands in other states for other uses. Later, private disputes with less-idealistic bents became more common. Since the CBM boom in Wyoming is still fairly novel, the second wave of private litigation has not yet developed. Below are detailed the five cases mentioned or cited within the Ruckelshaus Report on pp. 38–39.

*Pennaco Energy, Inc. v. U.S. Dept. of Interior*¹²¹

In *Pennaco*, a dispute arose involving three leases that were auctioned off by the BLM in the Powder River Basin. Environmental groups sued the BLM claiming that the agency failed to follow proper procedure according to the National Environmental Policy Act (“NEPA”) prior to leasing BLM land for CBM production. The BLM depended on two environmental reports to demonstrate its compliance with NEPA. The first report was called the Buffalo Resource Management Plan Environmental Impact Statement (“Buffalo RMP EIS”). This report was published in October 1985 and did not address environmental issues specific to CBM production. The second report, the Wyodak Coal Bed Methane Project Draft Environmental Impact Statement (“Wyodak DEIS”) was published in 1999 and addressed post-lease environmental issues relating to CBM production.

The court ruled the BLM failed to meet NEPA’s pre-lease environmental reporting requirements. Neither the Buffalo RMP EIS nor the Wyodak DEIS were found to be sufficient to satisfy NEPA’s requirements. The Buffalo report was written prior to the explosion of CBM production in the area, and was written to address the environmental impact of regular oil and gas operations which differ substantially from the environmental impact of CBM production. The Wyodak DEIS addressed *post-lease* CBM-specific environmental impact from CBM production, and therefore, was not sufficient for NEPA’s pre-production reporting requirements. Several subsequent opinions have cited this case.

*Northern Plains Resource Council v. United States Bureau of Land Management*¹²²

This case was brought by another environmental group seeking to curtail development, but with a twist—*before* this case was filed, the Federal District Court of Montana had found that the BLM’s initial Environmental Impact Statement (“EIS”) was inadequate. This dispute arose to determine the extent to which

¹²¹ Pennaco Energy, Inc. v. U.S. Dept. of Interior, 377 F.3d 1147 (10th Cir. 2004).

¹²² N. Plains Res. Council v. U.S. Bureau of Land Mgmt., No. CV 03-69-BLG-RWA (D. Mont. Apr. 5, 2005).

CBM production and development could continue pending the completion of the BLM's final EIS. This time around, the issue involved the scope of the court's order. One side wanted CBM production to be limited to production already in place until the BLM's final EIS report was completed. The other party wanted to follow the BLM-proposed plan to limit growth in production to a defined geographical area with heightened environmental impact requirements, and a cap of 500 new wells per year. An amicus party argued for a larger geographical area, less stringent environmental controls, and more wells per year until the BLM completed an acceptable EIS.

The court ordered that CBM production should follow the course set out by the BLM (limited geographical area, stringent environmental controls, and a cap of 500 new wells per year) but that the BLM must refuse all permits to drill unless the applicant demonstrated compliance with the environmental restrictions.

*Wyoming Outdoor Council v. U.S. Army Corps of Engineers*¹²³

The Army Corps of Engineers (the "Corps") issued a certain 'General Permit 98-08' as a way to address the growing need for permits to discharge dredge and fill materials associated with CBM development in the Powder River Basin. Accompanying General Permit 98-08 was a Combined Decisions Document ("CDD") to satisfy the reporting demands of NEPA. The Wyoming Outdoor Council, the Powder River Basin Resource Council, and others challenged the issuance of General Permit 98-08 and the efficacy of the CDD.

The issue the Wyoming District faced in this case was whether General Permit 98-08 and the CDD were arbitrarily and capriciously issued without regard to the standards set by the Clean Water Act ("CWA") and NEPA. The court remanded the case to the Corps to address the problems with General Permit 98-08 and the CDD, and held that the Corps' reports were arbitrary and capricious in:

- (1) failing to consider impacts to private ranchlands;
- (2) failing to consider cumulative impacts to non-wetland resources;
- (3) relying on mitigation measures wholly unsupported by the record; and
- (4) finding that cumulative effects on the aquatic environment were minimal without assessing lands other than wetlands.¹²⁴

¹²³ *Wyo. Outdoor Council v. U.S. Army Corps of Eng'rs*, No. 02-CV-155-D, slip op. (D. Wyo. Jan. 7, 2005).

¹²⁴ *Williams Prod. RMT Co. v. Maycock*, Decision Letter, Campbell County Civ. Action No. 26099, slip op. (Wyo. 8th Dist. Oct. 11, 2005).

On March 16, 2006, Judge Keith Kautz of the Eighth Judicial District Court of Wyoming resolved a dispute between Williams and Maycock concerning whether there was a state waterway easement to use creek beds on Maycock's land for discharge of water from Williams' CBM development. Because of the infrequency of the water flow within the banks of the creeks in question, the court decided that the creeks were not waterways; therefore, there was no state easement that Williams could use to dispose of the CBM water.

In addition to the preceding five cases, the Institute's report mentioned one dismissed case from Montana which dealt with air quality concerns under the Clean Air Act. This case was dismissed prior to trial according to the Clerk of the Court in the Federal District Court of Montana.¹²⁵ Several briefs and motions, however, were still filed in the court as of July 3, 2008.

ACKNOWLEDGEMENTS

The author wishes to express gratitude to Janice Hartrick, Esq. (Whistler, British Columbia) and Dr. Byron R. Kulander, Professor Emeritus (Wright State University Department of Geosciences, Dayton, Ohio) for their insightful comments and suggestions. Initial research for this report was done in 2004 as part of the oil and gas industry's response to then-proposed legislation in Wyoming and was spearheaded—and generously funded—by Apache Corporation and U-Cross Ranch. Specific and special thanks go to Raymond Plank of Apache Corporation for his interest. Further comment regarding this report was provided by Owen Anderson, Professor (University of Oklahoma College of Law), and Gene Gallegos, General Manager, Gallegos Law Firm, P.C. (Santa Fe, New Mexico). Austin Frost, Graduate Student, (University of Iowa College of Law) assisted with Appendix B. Jennifer Zygmunt, Permit Specialist (Wyoming Department of Environmental Quality) assisted in explaining the permitting of impoundments for CBM-produced water. All opinions expressed herein, unless otherwise stated, belong solely to the author and do not represent the opinion or views of any other person, school, group, company or agency.

¹²⁵ *Envtl. Def. v. Norton*, No. CV-04-64-BLG-RWA (D. Mt.).