Wyoming Law Review

Volume 10
Number 2 *Small Towns, Big Values: Professional Responsibility for Practitioners in Wyoming*

Article 7

January 2010

Energy Law -- Finding the Appropriate Authority for Federal Coal Mine Methane Leasing; Vessels Coal Gas, Inc., 175 I.B.L.A. 8 (2008)

Nicholas T. Haderlie

CASE NOTE

ENERGY LAW—Finding the Appropriate Authority for Federal Coal Mine Methane Leasing; *Vessels Coal Gas, Inc.*, 175 I.B.L.A. 8 (2008)

*Nicholas T. Haderlie**

Introduction

A Utah coal mining operation vented methane gas into the atmosphere as it developed its federal coal lease in compliance with Mine Safety and Health Administration (MSHA) regulations.[1] Consistent with Environmental Protection Agency (EPA) guidelines, the coal mine operator contracted with another company to capture the vented methane because it is considered a greenhouse gas.[2] The company profited from capturing the gas because the high concentration of methane in the vented gas made it marketable.[3] Consistent with established precedent, the Utah State Office of the Bureau of Land Management (BLM) decided the methane gas captured from federal lands must be done in compliance with a federal lease issued under the Mineral Leasing Act (MLA).[4] The BLM held a competitive lease sale, but a third party challenged the sale as anticompetitive.[5] After extensive litigation, the Interior Board of Land Appeals (IBLA) held methane gas released incident to coal mining is *not* a gas deposit, and is therefore not subject to regulation under the MLA.[6]

Vessels Coal Gas, Inc. is an administrative decision offering a pragmatic solution to a unique problem, thereby preventing waste of valuable natural resources. Despite this positive outcome, the IBLA decision in *Vessels* unnecessarily stepped outside the boundaries of established law by redefining the term deposit when there were legitimate alternative theories to handle each concern the IBLA espoused in reaching its result.[7] Given these considerations, *Vessels* highlights the need for legislative clarification in this area of energy law.[8]

---

* Candidate for J.D. and M.A. in Environment and Natural Resources, University of Wyoming, 2011. Thank you to all my editors, including my beautiful wife, for your superb guidance. Thanks also to Professor Dennis Stickley and Professor Sam Kalen for your insights and advice on this note.

[1] Vessels Coal Gas, Inc., 175 I.B.L.A. 8, 9–10 (2008).

[2] *Id.* at 12–13.

[3] *Id.*

[4] *Id.* at 14.

[5] *Id.* at 15–17.

[6] *Id.* at 24–25.

[7] *See infra* notes 115–18, 134–40, 156–60 and accompanying text.

[8] *See infra* notes 151, 166 and accompanying text.

As a preliminary matter, the background section of this note outlines relevant terminology, statutes, and precedent at issue in *Vessels*.[9] The analysis section illustrates that the IBLA stepped outside the boundaries of existing law.[10] Alternative legal approaches to the problem in *Vessels* and policy considerations are also evaluated.[11] Finally, this note concludes there is a need for legislative clarification regarding coal mine methane leasing to ensure stability in this area of natural resource development.[12]

BACKGROUND

Terminology

A few basic terms are essential to understanding the issues raised in *Vessels*. Methane is a hydrocarbon associated with petroleum formed by the decomposition of organic matter.[13] Methane is the most common and abundant of all the hydrocarbons that constitute natural gas, and it is often associated with coal mining.[14] Methane has no taste, color, or odor, and it can form an explosive mixture when combined with air.[15]

Coalbed methane (CBM) is methane gas found in and released from coal deposits.[16] CBM is found both in the fractures of a coal seam and within the coal itself.[17] CBM is extracted in two ways: (1) traditional drilling of vertical wells, independent of coal mining; and (2) in conjunction with the coal mining process.[18]

---

[9] *See infra* notes 13–56 and accompanying text.

[10] *See infra* notes 112–25, 141–51 and accompanying text.

[11] *See infra* notes 115–18, 136–40, 156–60, 161–72 and accompanying text.

[12] *See infra* notes 173–80 and accompanying text.

[13] BUREAU OF MINES, A DICTIONARY OF MINING, MINERAL, AND RELATED TERMS 700 (1968); A. NELSON, DICTIONARY OF MINING 281 (1965); 8 HOWARD R. WILLIAMS & CHARLES J. MEYERS, OIL AND GAS LAW 600–01 (LexisNexis 2008).

[14] *See* sources cited *supra* note 13.

[15] *See* sources cited *supra* note 13.

[16] DENNIS C. STICKLEY, PETROLEUM INDUSTRY WORDS & PHRASES 68 (2007). CBM is alternatively referred to as "coalbed methane gas, coalbed methane, coal seam gas, occluded coalbed methane gas . . . firedamp, and . . . a variety of similar terms." NCNB Tex. Nat'l Bank, N.A. v. West, 631 So. 2d 212, 213 n.2 (Ala. 1993) (citing Jeff L. Lewin et al., *Unlocking the Fire: A Proposal for Judicial Determination of the Ownership of Coalbed Methane*, 94 W. VA. L. REV. 563, 566–67 (1992)).

[17] FRED BOSSELMAN, JOEL B. EISEN, JIM ROSSI, DAVID B. SPENCE & JACQUELINE WEAVER, ENERGY, ECONOMICS AND THE ENVIRONMENT 551 (2d ed. 2006).

[18] *Id.* at 551–52.

Coalmine methane (CMM) is a form of coalbed methane, sometimes called "gob gas."[19] In the long wall coal mining method, CMM comes from the extraction of CBM from "gob hole vents" or "gob wells" in quantities often containing as much as ninety-five percent marketable methane.[20] CMM is derived from a combination of sources, including CBM released from a primary coal seam, smaller unmineable coal seams and other nearby mine workings, strata gases from coal seams that are trapped in noncoal strata, and from natural gas otherwise originating in noncoal strata.[21]

Ventilation air methane (VAM) is an air and methane mixture that is created when vents push external air into a mine to mix with and dilute methane gas released inadvertently during long wall coal mining.[22] The mixture is then expelled via vents in the mine, creating VAM.[23] VAM is not a marketable form of methane because it usually contains less than one percent methane, and therefore does not exhibit the same high concentrations of methane gas as CMM.[24]

Statutes, Regulations, and Policies

The canary in the coal mine, as a sentinel of hazard to human health, has been replaced with statutes, rules, and regulations promulgated by the Mine Safety and Health Administration.[25] A division of the Labor Department, MSHA

---

[19] *Id.* at 552.

[20] *Id.*; Vessels Coal Gas, Inc., 175 I.B.L.A. 8, 11–12 (2008). Long wall coal mining is an underground method where a "series of longwalls, or rooms, separated by pillars" are excavated. *Vessels*, 175 I.B.L.A. at 11. Coal is extracted from the rooms while the pillars are used for support to prevent the surface from collapsing. *Id.*

[21] BOSSELMAN ET AL., *supra* note 17, at 552. CMM is emitted from at least six sources including "degasification systems at underground coal mines," "ventilation air from underground mines," "abandoned or closed mines," "surface mines," and "fugitive emissions from post-mining operations, in which coal continues to emit methane as it is stored in piles and transported." ENVTL. PROT. AGENCY, COALBED METHANE OUTREACH PROGRAM (2009), *available at* http://www.epa.gov/cmop/basic.html [hereinafter EPA CMOP].

[22] *Vessels*, 175 I.B.L.A. at 11.

[23] *Id.*

[24] *Id.* at 11–12 (emphasizing the low concentrations of methane in VAM and its similarly low contribution to greenhouse gas emissions when vented); *see also* EPA CMOP, *supra* note 21 (offering information about the EPA's Coalbed Methane Outreach Program, including a description of VAM and how it is created).

[25] Federal Mine Safety and Health Act of 1977, Pub. L. No. 95-164, 91 Stat. 1290 (1977). For an explanation of the concept of the canary in the coal mine, see Yale University School of Medicine, Canary Database: What Are Animal Sentinels?, http://canarydatabase.org/about/what_are_animal_sentinels/ (last visited Feb. 24, 2010) ("Well into the 20th century, coal miners . . . brought canaries into coal mines as an 'early warning signal' for carbon monoxide and other poisonous gases. The birds would become sick before the miners, who would then have a chance to escape or put on protective respirators.").

has been regulating mine safety since 1978.[26] Methane gas is a deadly byproduct of coal mining that can cause underground explosions; therefore, detection and removal of coal mine methane is important to protect the health and safety of coal miners.[27] As a result, MSHA requires coal mines to ventilate or otherwise remove methane incident to the mining process in order to prevent explosions.[28]

Methane is dangerous to miners, but it is also considered a greenhouse gas by the Environmental Protection Agency.[29] Although there are no current EPA regulations requiring capture of ventilated methane, such regulation may be imminent with growing public concern and increased litigation over greenhouse gas emissions.[30] If CMM is vented into the atmosphere and not captured—as was largely done with VAM in the past—it may have the potential to adversely contribute to climate change.[31] Thus, the EPA advocates that coal mines voluntarily adopt programs to capture vented methane, thereby reducing

---

[26] Federal Mine Safety and Health Act of 1977, Pub. L. No. 95-164, 91 Stat. 1290; *see also* Mine Safety and Health Act, 30 U.S.C. §§ 801–965 (2006) (codifying the current version of the Act, which includes a host of health and safety regulations affecting various mining operations).

[27] *Vessels*, 175 I.B.L.A. at 10–11 (2008) ("The old adage of the canary in the coal mine establishes well enough . . . that coal mining releases methane."); *see also* Amoco Prod. Co. v. S. Ute Indian Tribe, 526 U.S. 865, 871 (1999); Freeman Coal Mining Co. v. Interior Bd. of Mine Operations Appeals, 504 F.2d 741, 746–47 (7th Cir. 1974) (discussing the deadly nature of methane gas in coal mining); *supra* notes 13–15 and accompanying text (defining methane gas).

[28] 30 U.S.C. § 863 (requiring ventilation of coal mines); *Vessels*, 175 I.B.L.A. at 10–11; Newman v. RAG Wyo. Land Co., 53 P.3d 540, 545 (Wyo. 2002) (citing U.S. Steel Corp. v. Hoge, 468 A.2d 1380, 1382 (Pa. 1983) (discussing the safety requirements of coal mine ventilation)).

[29] *See generally* EPA CMOP, *supra* note 21 (discussing coal mine methane generally); ENVTL. PROT. AGENCY, GLOBAL MITIGATION OF NON-CO_2 GREENHOUSE GASES (2006), *available at* http://www.epa.gov/climatechange/economics/international.html [hereinafter EPA GLOBAL MITIGATION].

[30] James A. Holtkamp & Rebecca A. Ryon, *Capture of Ventilated Methane from Mining Operations: Ownership, Regulation, and Liability Issues*, 55 ROCKY MT. MIN. L. INST. 26-1, 26-5 to -12 (2009) (discussing the possibility of regulation under the Clean Air Act, the National Environmental Policy Act, proposed mandatory emission reporting rules, and possible climate change legislation). *See generally* Wendy B. Davis, *Coalbed Methane: Degasification, Not Ventilation, Should Be Required*, 2 APPALACHIAN L.J. 25 (2003); Kathy J. Flaherty, *Quandry or Quest: Problems of Developing Coalbed Methane as an Energy Resource*, 15 J. NAT. RESOURCES & ENVTL. L. 71 (2000); EPA CMOP, *supra* note 21.

[31] *Vessels*, 175 I.B.L.A. at 12; ENVTL. PROT. AGENCY, COALBED METHANE OUTREACH PROGRAM BROCHURE, http://www.epa.gov/cmop/docs/brochure_2005.pdf (last visited May 18, 2010) ("[M]ethane is more than 20 times more powerful (by weight) at warming the atmosphere than carbon dioxide. Coal mining is a significant source of methane: it contributes about 10 percent of all human-related methane emissions in the United States.") [hereinafter EPA CMOP BROCHURE]; *see also* Davis, *supra* note 30, at 32–33; EPA GLOBAL MITIGATION, *supra* note 29; ENVTL. PROT. AGENCY, METHANE TO MARKETS, UNDERGROUND COAL MINE METHANE RECOVERY AND USE OPPORTUNITIES (Mar. 2008), http://methanetomarkets.org/documents/coal_fs_eng.pdf ("Globally, CMM accounts for 6 percent of total methane emissions resulting from human activities.").

greenhouse gas emissions from the coal mining process.[32] The EPA's goal is to simultaneously facilitate the capture of CMM for profit, promote mine safety, and prevent discharge of CMM into the atmosphere.[33]

In addition to health, safety, and environmental concerns, public policy also discourages waste of natural resources generally.[34] Even though some waste may be permissible in the event of mineral estate conflict, it is otherwise forbidden.[35] As such, most oil and gas producing states have made it their express policy to avoid waste of natural resources, always recovering as much as possible.[36]

The Mineral Leasing Act is another body of law important in analyzing *Vessels*. The MLA facilitates leasing federal oil and gas lands.[37] The right to produce methane gas on public lands is acquired by obtaining a federal oil and gas lease through the competitive bidding process compelled by the MLA.[38] The BLM has broad discretion in determining which federal lands will be available for leasing, and is under no legal obligation to make any particular tract available.[39] The MLA

---

[32] EPA CMOP, *supra* note 21.

[33] *Id.*; *see also Vessels*, 175 I.B.L.A. at 12 ("The goal of this program is 'to promote the profitable recovery and use of coal mine methane (CMM), a greenhouse gas more than 20 times as potent as carbon dioxide.'") (quoting EPA CMOP, *supra* note 21).

[34] *E.g.*, N.D. CENT. CODE § 38-08-01 (2008). North Dakota's statute is exemplary of most states:

> It is hereby declared to be in the public interest to foster, to encourage, and to promote the development, production, and utilization of natural resources of oil and gas in the state in such a manner as will prevent waste . . . [and] in such a manner that a greater ultimate recovery of oil and gas be had . . . .

Id.; *see also, e.g.*, MONT. CODE ANN. § 82-11-121 (2007); UTAH CODE ANN. § 40-6-1 (2008); WYO. STAT. ANN. § 30-5-102 (2009).

[35] Amoco Prod. Co. v. S. Ute Indian Tribe, 526 U.S. 865, 878–79 (1999) ("[A coal lessee has] the established common-law right of the owner of one mineral estate to use, and even damage, a neighboring estate as necessary and reasonable to the extraction of his own minerals."); *see also* Michael F. Geiger, L.L.C. v. United States, 456 F. Supp. 2d 885, 889 (W.D. Ky. 2006) (noting the coal lessee has a right to use or damage a neighboring gas estate as much as reasonably required to extract coal); Hunt Oil Co. v. Kerbaugh, 283 N.W.2d 131, 135 (N.D. 1979) (discussing the implied rights of the mineral estate to dominate the surface estate as much as is reasonably necessary to explore for and extract minerals); *infra* note 147 and accompanying text (citing sources discussing mineral estate dominance and conflicts between estates).

[36] *E.g.*, WYO. STAT. ANN. § 30-5-102; *see also supra* note 34 (citing statutes expressly discouraging waste of natural resources).

[37] *See generally* 30 U.S.C. §§ 181–263 (2006).

[38] 30 U.S.C. § 226; 2 GEORGE C. COGGINS & ROBERT L. GLICKSMAN, PUBLIC NATURAL RESOURCE LAW § 23.03 (1994); John F. Shepherd & Jeanine Feriancek, *A Guide to the Federal Onshore Oil and Gas Leasing Reform Act of 1987*, NAT. RES., ENERGY, AND ENVTL. L. SEC. MONOGRAPH SERIES NO. 9, at 11–15 (1989).

[39] 30 U.S.C. § 226(a) ("All lands . . . believed to contain oil or gas deposits *may* be leased by the Secretary.") (emphasis added); *see also* 2 COGGINS & GLICKSMAN, *supra* note 38, § 23.03[2][a]; 5 EUGENE O. KUNTZ, A TREATISE ON THE LAW OF OIL AND GAS § 67.2 (Matthew Bender, rev. ed., 2010).

only allows noncompetitive leasing of lands if the same lands were previously offered for competitive leasing, but did not receive a minimum acceptable bid.[40] The MLA does not specifically address coal mine methane, but all other forms of federally owned methane are usually leased under MLA procedures.[41]

Finally, the Federal Land Policy and Management Act (FLPMA) is another statute that could be used to legally capture federal coal mine methane.[42] Under FLPMA, the Secretary of the Interior is directed to "regulate, through easements, permits, leases, licenses, published rules, or other instruments as the secretary deems appropriate, the use, occupancy, and development of the public lands."[43] The Secretary has broad discretion in authorizing land use under FLPMA and such land use authorization may be offered competitively or noncompetitively through private negotiation.[44]

The Owner of Federal Coal Does Not Own Federal Methane

The United States Supreme Court case *Amoco Production Co. v. Southern Ute Indian Tribe* is the foundation case regarding ownership of federal methane incident to coal seams.[45] The issue in *Amoco* was whether the United States

---

[40] 30 U.S.C. § 226(b) (allowing noncompetitive leasing under § 226(c) if the subject lands were previously offered for competitive sale and did not receive a minimum acceptable bid, and the competitive sale occurred within two years of the noncompetitive lease sale); *see also* Shephard & Feriancek, *supra* note 38, at 15.

[41] 30 U.S.C. § 181 ("Deposits of . . . gas . . . shall be subject to disposition in the form and manner provided by this chapter [of the MLA] . . . ."). While this proposition is true under current law, whether the MLA should apply to CMM is ultimately the crux of the debate in *Vessels*: the IBLA avoided the MLA in its decision because it felt the MLA was not well suited to handle CMM, but Vessels argued the MLA should apply because it was the only available source of leasing authority. Vessels Coal Gas, Inc., 175 I.B.L.A. 8, 19, 25–26 (2008). Also, Oso initially requested a license from the BLM under the broad secretarial powers it has under the FLPMA, which was ultimately denied by the BLM when it recognized the MLA as the appropriate source of authority. *Id.* at 14. These facts highlight the confusion surrounding CMM leasing, and thus the need for legislative clarification. *See infra* notes 69, 89–90, 151, 166 and accompanying text (discussing both the confusion behind the appropriate leasing authority and the need for legislative clarification of the same).

[42] Holtkamp & Ryon, *supra* note 30, at 26-17.

[43] 43 U.S.C. § 1732 (2006).

[44] Holtkamp & Ryon, *supra* note 30, at 26-16 to -17 (citing 43 C.F.R. § 2920.5-4(b) (2009)).

[45] 526 U.S. 865, 873–78, 880 (1999). *Amoco* is the subject of much publication and commentary. *E.g.*, Anita S. Bryant, Amoco Production Co. v. Southern Ute Indian Tribe, 27 ECOLOGY L.Q. 799 (2000); Elizabeth A. McClanahan & Jill M. Harrison, Southern Ute*: Trial Court to Supreme Court*, 15 J. NAT. RESOURCES & ENVTL. L. 247 (2001); Laura D. Windsor, Amoco Production Company v. Southern Ute Indian Tribe*: A Final Resolution to the Battle over Ownership of Coalbed Methane Gas?*, 17 GA. ST. U. L. REV. 893 (2001).

intended to reserve methane gas when it reserved coal in lands patented under the Coal Lands Acts of 1909 and 1910; specifically, whether CBM should be considered incident to the coal.[46]

The issue arose when commercial interest grew in developing CBM, but it was unclear whether the reservation of coal to the United States also included rights to incidental methane.[47] In response to this uncertainty, the Solicitor of the Department of the Interior published an opinion in which he concluded the 1909 and 1910 Acts reserving coal to the United States did not reserve CBM.[48] Relying on this conclusion, development companies entered into oil and gas leases with surface owners covering an estimated 200,000 surface acres patented under the 1909 and 1910 Acts, under which the Southern Ute Indian Tribe owned the coal.[49] Claiming an executive interest in the CBM, the Tribe brought suit against production companies, royalty owners, federal agencies, and officials involved in the production and marketing of the CBM from the lands at issue.[50] The Tribe argued the reservation of coal to the United States in the 1909 and 1910 Acts included CBM, so the Tribe—not the successors in interest to the land patents—would own the gas.[51]

The case rose to the United States Supreme Court.[52] The majority focused on the issue of whether Congress regarded CBM as a part of coal at the time it made

---

[46] *Amoco*, 526 U.S. at 867, 873 ("The question is not whether, given what scientists know today, it makes sense to regard CBM as a constituent of coal but whether Congress so regarded it in 1909 and 1910."). The United States patented millions of acres of land under the 1909 and 1910 Acts, some of which were former Indian reservation lands once belonging to the Southern Ute Indian Tribe. *Id.* at 870. In 1938, the United States restored title to all of the former reservation lands not yet patented back to the Tribe, along with all of the coal, including coal reserved from lands already patented under the 1909 and 1910 Acts. *Id.*; Windsor, *supra* note 45, at 896–97.

[47] *Amoco*, 526 U.S. at 871. CBM development has since boomed and is a major source of natural gas in the United States. Windsor, *supra* note 45, at 899 ("Today CBM accounts for an estimated fifteen percent of potential United States natural gas reserves."); *see also* Anne MacKinnon & Kate Fox, *Demanding Beneficial Use: Opportunities and Obligations for Wyoming Regulators in Coalbed Methane*, 6 WYO. L. REV. 369, 370 (2006) (discussing issues surrounding increased CBM development in Wyoming).

[48] *Amoco*, 526 U.S. at 871 (citing Ownership of and Right to Extract Coalbed Gas in Federal Coal Deposits, 88 Interior Dec. 538, 538–39 (1981)).

[49] *Id.*

[50] *Id.*

[51] *Id.*

[52] S. Ute Indian Tribe v. Amoco Prod. Co., 874 F. Supp. 1142, 1154 (D. Colo. 1995) (holding the plain meaning of coal includes only the solid rock substance commonly used for fuel and does not include CBM), *rev'd*, 119 F.3d 816, 828 (10th Cir. 1997) (finding CBM was included when the United States reserved coal in lands patented under the 1909 and 1910 Acts), *aff'd on reh'g*, 151 F.3d 1251, 1267 (10th Cir. 1998) (finding the term coal ambiguous, construing the reservation in favor of the sovereign and finding the reservation of coal in the 1909 and 1910 Acts to the United States necessarily included a reservation of CBM), *rev'd*, 526 U.S. 865, 880 (1999); *see also* McClanahan &

the reservations in 1909 and 1910.[53] Based on historical context surrounding the passage of the legislation, the Court found "the most natural interpretation of 'coal' as used in the 1909 and 1910 Acts does not encompass CBM gas."[54] Therefore, the important point from *Amoco* is the bright-line substantive property rule ultimately established: CBM is *not* a part of the federal coal estate, and therefore any rights in the methane belong to the successor in interest to the patent granting title to surface ownership.[55] Federal coal leases do not convey any rights in methane.[56]

PRINCIPAL CASE

In compliance with MSHA safety requirements, Utah American Energy, Inc. (UAE) vented VAM from its Aberdeen Coal Mine with a fan and ventilation system.[57] Methane concentrations increased at Aberdeen as UAE mined toward depths reaching 3,000 feet, and the existing ventilation system was not sufficient to remove the deadly gas.[58] As a result, MSHA ordered UAE to install an enhanced methane removal system.[59] At a cost upwards of two million dollars, UAE installed a state-of-the-art system.[60] The new system removed large concentrations of marketable CMM through deeply drilled vertical vent holes.[61] UAE entered into

---

Harrison, *supra* note 45, at 247–60; Windsor, *supra* note 45, at 895–913 (detailing the procedural history and disposition of cases leading up to *Amoco*).

[53] *Amoco*, 526 U.S. at 873.

[54] *Id.* at 880.

[55] *Id.*

[56] *Id.* While *Amoco* determined who owns CBM under federal land patents, the question is not well settled among the states: some courts agree with the holding in *Amoco* that the owner of the coal does not own the CBM. *E.g.*, *In re* Hillsborough Holdings Corp., 207 B.R. 299, 305 (Bankr. M.D. Fla. 1997); NCNB Tex. Nat'l Bank, N.A. v. West, 631 So. 2d 212, 229 (Ala. 1993); Carbon County v. Union Reserve Oil Co., 898 P.2d 680, 687–88 (Mont. 1995). Some courts have found the owner of the coal owns the CBM. *E.g.*, Vines v. McKenzie Methane Corp., 619 So. 2d 1305, 1309 (Ala. 1993); Cont'l Res. of Ill., Inc. v. Ill. Methane, L.L.C., 847 N.E.2d 897, 902 (Ill. 2006); U.S. Steel Corp. v. Hoge, 468 A.2d 1380, 1384–85 (Pa. 1983). Other courts—most notably the Wyoming Supreme Court—have adopted case-by-case analysis of the parties' intent and surrounding circumstances. *E.g.*, Caballo Coal Co. v. Fid. Expl. & Prod. Co., 84 P.3d 311, 314–15 (Wyo. 2004); Hickman v. Groves, 71 P.3d 256, 258 (Wyo. 2004); McGee v. Caballo Coal Co., 69 P.3d 908, 912 (Wyo. 2003); Newman v. RAG Wyo. Land Co., 53 P.3d 540, 544–45 (Wyo. 2002); Energy Dev. Corp. v. Moss, 591 S.E.2d 135, 146, 150 (W. Va. 2003). *See generally* BOSSELMAN ET AL., *supra* note 17, at 552–53 (discussing all the common law possibilities for determining CBM ownership, including theories based on priority at severance, successive ownership, and mutual simultaneous rights); 8 WILLIAMS & MEYERS, *supra* note 13, at 151–52.

[57] Vessels Coal Gas, Inc., 175 I.B.L.A. 8, 10–11 (2008); *see also supra* notes 25–28 and accompanying text (discussing MSHA coal mine ventilation requirements).

[58] *Vessels*, 175 I.B.L.A. at 11.

[59] *Id.*

[60] *Id.*

[61] *Id.* at 11–12.

an agreement with Oso Oil and Gas Properties, L.L.C. to facilitate EPA directives to capture the vented gas.[62] Under the agreement, Oso would capture the CMM at the vents on the surface, then transport it, process it, and market it.[63]

The Aberdeen mine operated under both public and private coal lease agreements.[64] Oso successfully acquired oil and gas leases from the private mineral owners in order to conduct its methane capturing operation at the vents located on private parcels.[65] The parcels of the mine on public lands are subject to federal coal leases.[66] Federal coal leases "give the lessee the right to explore for, mine, and produce coal deposits."[67] Federal coal leases, however, do not give any of these rights with respect to oil or gas.[68] To legally capture the methane gas over the federal parcels, Oso requested a license be issued under the broad secretarial powers of the BLM.[69] Consistent with the United States Supreme Court holding in *Amoco*, the BLM determined the only way for Oso to legally capture the vented methane from the coal mine over the federal parcels was to acquire a federal oil and gas lease under the MLA.[70]

Meanwhile, Vessels Coal Gas, Inc. discovered the agreement between UAE and Oso and tried to join the operation.[71] UAE informed Vessels that the only way it could be directly involved was by ancillary agreement with Oso, which apparently never came to fruition.[72] Determined to participate, Vessels began acquiring private oil and gas leases in lands surrounding the area of the coal mine.[73] When the BLM issued a Notice of Competitive Lease Sale that included leases for

---

[62] *Id.* at 12; *see also supra* notes 29–33 and accompanying text (discussing the EPA's Coalbed Methane Outreach Program, encouraging the voluntary capture of vented CMM).

[63] *Vessels*, 175 I.B.L.A. at 12.

[64] *Id.* at 9–10.

[65] *Id.* at 13.

[66] *Id.* at 9–10; *see also* 30 U.S.C. § 201 (2006) (authorizing the Secretary of Interior to divide federal coal lands into tracts and award leases by competitive bidding).

[67] *Vessels*, 175 I.B.L.A. at 9; *see also* 30 U.S.C. §§ 201–209 (providing for federal coal leasing).

[68] *Vessels*, 175 I.B.L.A. at 9 (citing Amoco Prod. Co. v. S. Ute Indian Tribe, 526 U.S. 865, 879–80 (1999)).

[69] *Id.* at 13 (arguing the BLM had authority to issue such a license under the Federal Land Policy and Management Act, instead of a lease under the MLA); *see supra* notes 41–44 and accompanying text (discussing the underlying issue in *Vessels* of what the appropriate source of authority for CMM leasing is and the possibility of a FLPMA lease).

[70] *Vessels*, 175 I.B.L.A. at 14 (citing 30 U.S.C. § 226 (2000)); *see also* 2 COGGINS & GLICKMAN, *supra* note 38, § 23.03 (discussing MLA leasing procedures and requirements). *See generally supra* notes 37–41 and accompanying text (describing basic MLA leasing requirements).

[71] *Vessels*, 175 I.B.L.A. at 15.

[72] *Id.*

[73] *Id.*

the federal parcels at issue, Vessels protested.[74] Vessels contended stipulations in the leases made them "anticompetitive and inconsistent" with the requirements of the MLA because the stipulations gave UAE operational control of the CMM vents, and therefore of any federal oil and gas lease over any parcels containing the vents.[75] As such, Vessels maintained that the stipulations inappropriately delegated BLM's regulatory authority for oil and gas leases to UAE.[76]

The lease sale went on and Oso acquired the federal oil and gas leases.[77] Vessels filed a protest to the lease sale that was ultimately denied by the Utah State Director of the BLM.[78] The Director said the MLA did not apply to the sale because the gas at issue did not meet the definition of gas normally subject to regulation under the MLA since the Director thought it did not contain high enough methane concentrations (he mistakenly believed the leases were for VAM rather than CMM).[79] The Director concluded the leases at issue did not permit recovery of gas normally subject to the MLA, and thus were not MLA leases.[80]

Vessels appealed the BLM's decision to the Interior Board of Land Appeals.[81] The IBLA found that the BLM inappropriately premised its decision on the notion that methane emitted from the mine was not gas because it was artificially created and not "produced in a natural state from the earth," as required by the federal definition of gas subject to the MLA.[82] The IBLA disagreed with the

---

[74] *Id.* at 17; *see also* 30 U.S.C. § 226(f) (2006) ("Such notice shall be posted in the appropriate local office of the leasing and land management agencies . . . [and] shall include the terms or modified lease terms and maps or narrative descriptions of the affected lands."). The BLM decided to issue leases over the Aberdeen mine notwithstanding an existing policy against gas leasing over long wall coal mines. *Vessels*, 175 I.B.L.A. at 10, 16.

[75] *Vessels*, 175 I.B.L.A. at 17.

[76] *Id.*

[77] *Id.*

[78] *Id.* at 18.

[79] *Id.*; *see supra* note 24 and accompanying text (explaining the difference between VAM and CMM). Another rationale for the Director's decision was that the gas "is artificially created in the mine and discharged through a mechanical ventilation system at the earth's surface." *Vessels*, 175 I.B.L.A. at 18.

[80] *Vessels*, 175 I.B.L.A. at 18, 21.

[81] *Id.* at 18–21. The IBLA hears appeals from decisions of the Bureau of Land Management, the Minerals Management Service, and the Office of Surface Mining Reclamation and Enforcement, or any administrative law judge decision made under subparts E and L of 43 C.F.R. part 4. *See generally* Department Hearings and Appeals Procedures, 43 C.F.R. pt. 4 (2008); OFFICE OF HEARINGS AND APPEALS, U.S. DEP'T OF THE INTERIOR, INTERIOR BOARD OF LAND APPEALS MANUAL (2009), *available at* http://www.oha.doi.gov/manuals/IBLA%20Manual%202009%200612.pdf (setting forth procedures and practices the IBLA follows in adjudicating appeals); James M. Day, *Federal Oil and Gas Lease Appeals in the Department of the Interior*, *in* NAT. RES., ENERGY, AND ENVTL. L. SEC. MONOGRAPH SERIES NO. 18 (1992) (describing IBLA jurisdiction, standing to appeal, appeals procedures, and other jurisdictional and evidentiary issues that arise in appealing federal oil and gas leasing decisions to the Department of the Interior).

[82] *Vessels*, 175 I.B.L.A. at 18, 19.

Director's decision that the methane at issue was not subject to the MLA because such a classification of CMM would throw methane leasing in other contexts into disarray.[83] According to the IBLA, this project and case arose precisely because the gas at issue was something more than VAM.[84] The IBLA refused to define CMM containing high concentrations of methane as something other than gas simply because "it is produced as an inadvertent byproduct of coal mining," noting that "it is being captured *because* it is methane gas."[85] The IBLA also reasoned it was inconsistent for the Director to contend the methane at issue was not gas under the MLA, while simultaneously upholding the MLA lease sale.[86]

Citing the Director's mistake of fact and the inconsistent positions held by the BLM, the IBLA reversed the Director's decision denying Vessels's protest to the lease sale.[87] However, Vessels requested both a reversal of the Director's decision, as well as an order from the IBLA forcing a second competitive lease sale under the MLA for the same leases, but without the offending stipulations.[88]

In determining whether Vessels was entitled to relief in the form of a new competitive lease sale, the IBLA addressed the threshold issue of whether the MLA was the appropriate source of authority for leasing in this type of situation.[89] The IBLA found the MLA does not contemplate the novel issue presented by an oil and gas company capturing and marketing gas vented by an underground coal mine.[90] The IBLA pointed to language in the MLA, which states in relevant part that "[*d*]*eposits of* . . . oil . . . gas, and lands containing such deposits . . . shall be subject to disposition in the form and manner provided by this chapter."[91]

---

[83] *Id.* at 21 (agreeing with Vessels that holding CMM to be something other than gas would conflict with coalbed methane leasing under the MLA).

[84] *Id.* ("[The Director's] logic misses the entire nature of the project and undercuts the rationale of his decision affirming competitive bidding for MLA leases.").

[85] *Id.* at 22.

[86] *Id.* at 21–22. The IBLA used this reasoning against the Director, yet ignored that its decision in this case has the exact same result; namely, the IBLA denied that the MLA applies, yet upheld the MLA leases at issue. *Id.* at 25–27; *see also infra* notes 154–55 and accompanying text (discussing the inconsistency in upholding the MLA lease at issue while simultaneously contending the MLA does not apply).

[87] *Vessels*, 175 I.B.L.A. at 21.

[88] *Id.* at 22.

[89] *Id.* at 23. The IBLA first determined the BLM was under no obligation to issue MLA leases for oil and gas deposits because there is no "foundation in any law or rule" supporting the idea that a competitive lease sale must be held simply because coal mining is taking place. *Id.* at 24. Therefore, the IBLA concluded it was not necessary to hold a second competitive lease sale, even though the State Director's decision denying Vessels's protest was reversed. *Id.*; *see also supra* note 39 and accompanying text (discussing the BLM's discretion in determining whether to offer a particular tract for oil and gas leasing).

[90] *Vessels*, 175 I.B.L.A. at 25.

[91] *Id.* (citing 30 U.S.C. § 181 (2000)).

The IBLA also pointed to § 226 of the MLA which states "[a]ll lands subject to disposition under this chapter which are known or believed to contain oil or gas deposits may be leased by the Secretary."[92]

Using these two sections of the MLA, the IBLA reasoned "[g]as already legally released into the atmosphere is not remotely a 'deposit.'"[93] The IBLA also offered a definition from an industry dictionary defining "'deposit' to be 'anything laid down,' and 'mineral deposit' as 'a *natural occurrence* of a useful mineral . . . in sufficient extent and degree of concentration to invite exploitation.'"[94] The IBLA concluded a deposit "is the mineral in place in the ground."[95] The IBLA also contended the purpose of the MLA was to facilitate oil and gas leasing for purposes of exploration, drilling, mining, extracting, and production of "oil and gas deposits in place."[96] The IBLA said this was not the purpose of the project in this case because there was no deposit and a coal lessee was merely liberating gas as a result of its coal mining.[97] On these bases, the IBLA decided the gas vented from a coal mine is not a deposit of gas.[98]

The IBLA also gave three further rationales justifying its decision.[99] First, the IBLA concluded that any finding otherwise would essentially put the coal lessee in the position of paying for the drilling and exploration costs normally associated with federal oil and gas leases by giving the oil and gas lessee the ability to capture the methane at the coal miner's expense of installing the methane vents.[100] Second, the IBLA reasoned if it found the vented gas was a deposit, the coal lessee might be accused of "acting with respect to a deposit in a manner appropriate only for an oil and gas lessee, contrary to the limited rights it is given under its coal lease," because federal methane is a part of the oil and gas estate and not part of the coal estate.[101] Finally, the IBLA cited practical reasons for denying Vessels's request: "UAE and Oso have collaborated in creating a new coal mine degasification operation that has the benefit of protecting miners as required by

---

[92] 30 U.S.C. § 226; *Vessels*, 175 I.B.L.A. at 25.

[93] *Vessels*, 175 I.B.L.A. at 25.

[94] *Id.* (citing BUREAU OF MINES, *supra* note 13).

[95] *Id.*

[96] *Id.*

[97] *Id.*

[98] *Id.*

[99] *Id.* at 25–26. The IBLA was not addressing any particular party's arguments, but offering dicta to support its departure from existing precedent. *See id.* (justifying the decision declining to extend the MLA to cover vented coal mine methane).

[100] *Id.*

[101] *Id.* (citing Amoco Prod. Co. v. S. Ute Indian Tribe, 526 U.S. 865, 879–80 (1999)); *see also supra* notes 55–56 and accompanying text (reciting the bright-line property rule established by *Amoco*: CBM is *not* part of the federal coal estate).

MSHA, minimizing pollution to the environment as sought by the EPA, and permitting use of additional energy resources as promoted by national policy."[102] The IBLA concluded there was nothing in the MLA compelling the BLM to impose an uninvited third party on the project.[103] Declining to order a second competitive lease sale, the IBLA held gas vented from a coal mine is not a deposit of gas, and therefore is not subject to the MLA, which only requires federal leasing for deposits of oil and gas.[104]

ANALYSIS

The IBLA offered a practical solution to a unique problem with the *Vessels* decision. The MSHA requires venting methane for mine safety.[105] The EPA promotes capturing vented methane to reduce greenhouse gas emissions.[106] Public policy discourages waste of natural resources.[107] The decision in *Vessels* simultaneously advances all of these policies.[108] Unfortunately, the decision accomplishes this in a logically inconsistent manner that does not comport with existing precedent. First, the IBLA either disingenuously or incorrectly defined deposit.[109] Second, while the rationales offered by the IBLA raise legitimate concerns, they do not justify a decision contravening precedent when there are legitimate legal alternatives available to address such concerns.[110] Finally, this section highlights important environmental and political considerations not entirely accounted for in the *Vessels* decision that need to be more carefully evaluated and considered in future CMM leasing.[111]

The Definition of Deposit

The *Vessels* decision rests upon a dictionary definition of the term deposit.[112] The IBLA's choice of definition for the term deposit is susceptible to criticism

---

[102] *Vessels*, 175 I.B.L.A. at 26.

[103] *Id.*

[104] *Id.*

[105] 30 U.S.C. § 863 (2006); *supra* notes 25–28 and accompanying text (discussing mine safety requirements).

[106] *Vessels*, 175 I.B.L.A. at 11–12; *supra* notes 29–33 (discussing EPA greenhouse gas reduction guidelines).

[107] *E.g.*, WYO. STAT. ANN. § 30-5-102 (2009); *see also supra* note 34 (citing statutes codifying policies against waste of natural resources).

[108] *Vessels*, 175 I.B.L.A. at 26.

[109] *See infra* notes 112–25 and accompanying text.

[110] *See infra* notes 126–60 and accompanying text.

[111] *See infra* notes 161–72 and accompanying text.

[112] *Vessels*, 175 I.B.L.A. at 25.

in that it may have been disingenuously selected merely to render results.[113] The IBLA inferred from various pieces of a definition that a deposit is a mineral in place in the ground.[114] However, another industry-accepted definition has no "in place in the ground" requirement: a deposit is "[a]n accumulation of oil, gas or other minerals capable of production."[115] The gas at issue in *Vessels* was an accumulation capable of production, and was therefore a deposit according to this alternative definition.[116] Furthermore, before *Vessels* was decided, the American Geological Institute updated the *Dictionary of Mining, Mineral, and Related Terms*, extending its definition of deposit to include "[m]aterial of *any type*, either consolidated or unconsolidated, that has accumulated by some natural process or agent" and "[a]n accumulation of ore or other valuable earth material of *any origin*."[117] The IBLA's definition requiring a deposit to be in place in the ground ignores these alternative industry-accepted definitions of the term.[118]

Even if the IBLA's definition of the term deposit is appropriate, application of the definition produces an absurd logical contradiction.[119] The IBLA's definition of a deposit that would be subject to the MLA is a mineral in place in the ground.[120] It follows that a mineral not in place in the ground is not a deposit, and is not subject to the MLA.[121] The *reductio ad absurdum* argument against these premises

---

[113] *Cf.* Gonzales v. Raich, 545 U.S. 1, 69 n.7 (2004) (Thomas, J., dissenting) (implying the majority selected one of many available definitions without explanation merely to support its broad definition of the term "economic"); Keegan v. United States, 325 U.S. 478, 502 (1945) ("[A] word, read in its context in the statute, is far more revealing of the legislative purpose than the arbitrary selection of one of its dictionary meanings to the exclusion of others which are equally applicable."); United States v. Cabaccang, 332 F.3d 662, 640 (9th Cir. 2003) (Kozinski, J., dissenting) ("A statute does not have a plain meaning just because one cherry-picked dictionary definition happens to support it.").

[114] *Vessels*, 175 I.B.L.A. at 25 (citing BUREAU OF MINES, *supra* note 13).

[115] 8 WILLIAMS & MEYERS, *supra* note 13, at 255.

[116] *Vessels*, 175 I.B.L.A. at 12; 8 WILLIAMS & MEYERS, *supra* note 13, at 255.

[117] AM. GEOLOGICAL INST., A DICTIONARY OF MINING, MINERAL, AND RELATED TERMS (1997) (emphasis added).

[118] It is a legitimate exercise in statutory interpretation to rely on dictionary definitions. *See, e.g.*, United States v. Kozminski, 487 U.S. 931, 961–62 (1988) (relying on multiple dictionaries to interpret the term "servitude"). *But see* Vines v. McKenzie Methane Corp., 619 So. 2d 1305, 1307 (Ala. 1993) ("The meaning of the term 'minerals' as that word is used in any particular grant or reservation is not to be determined by rigid and arbitrary definitions, but from the language of the grant or reservation, the surrounding circumstances, and the intention of the grantor, if it can be ascertained."). Choosing one dictionary definition of a term to the exclusion of alternatives without explanation is questionable. *See* cases cited *supra* note 113.

[119] *See* E.J. LEMMON, BEGINNING LOGIC 26 (Hackett Publ'g. Co. 1978) (describing the basic rules of the propositional calculus that modern symbolic logic is founded on); *cf.* Sierra Club v. Andrus, 581 F.2d 895, 902 (D.C. Cir. 1978), *rev'd on other grounds*, 442 U.S. 347 (1979) ("The principle of Reductio ad absurdum is part of the landscape of logic.").

[120] *Vessels*, 175 I.B.L.A. at 25.

[121] *Id.* at 26 ("The methane mixture released by coal mining . . . is not the oil and gas deposit addressed by leasing under the MLA.").

is as follows: CMM is in place in the ground before coal mining happens, and is therefore subject to the MLA.[122] The same CMM is not in place in the ground after coal mining happens, and is therefore not subject to the MLA.[123] This is an absurd result because the CMM cannot be both subject to the MLA and not subject to the MLA.[124] The IBLA's definition of deposit ignores this contradiction: the MLA may apply at one given time and not at a later time over the exact same molecules of gas.[125] The definition would no longer produce this absurd result if the "in place in the ground" requirement were abandoned in favor of more recent industry definitions.

Three Rationales Offered by the IBLA

The IBLA offered three rationales as justification for declining to extend MLA leasing to CMM by redefining deposit.[126] However, an alternative legal theory was available to handle each concern raised by the IBLA without departing from precedent.[127] The first concern that MLA leasing of CMM would put the coal lessee in the untenable economic position of shouldering the burden of gas exploration costs could be handled by a theory of contract implied in law between the coal and gas estates.[128] The second concern that the coal lessee may be faced with violating the gas owner's rights is alleviated by the doctrine that a coal lessee may infringe on, and even destroy, so much of neighboring estates as is reasonably necessary to mine the coal.[129] Finally, the concern that nothing in the MLA compels the IBLA to allow third-party intervention in a case like *Vessels* can be addressed with the broad discretion the BLM is otherwise afforded either under the MLA or alternatively under the FLPMA.[130]

---

[122] *See id.* at 25 (assuming deposit means a mineral in place in the ground, and therefore any methane in place in the ground is a deposit subject to MLA leasing).

[123] *See id.* at 26 (holding methane released by coal mining is not subject to MLA leasing).

[124] *Cf.* Corley v. United States, 129 S. Ct. 1558, 1567–68 (2009) (employing *reductio ad absurdum* reasoning in determining whether Congress intended to discard or narrow the *McNabb-Malory* rule when it passed 18 U.S.C. § 3501); Andrus v. Sierra Club, 442 U.S. 347, 358–59 (1979) (citing the lower court's *reductio ad absurdum* argument with approval); *Sierra Club*, 581 F.2d at 902, *rev'd on other grounds*, 442 U.S. 347 (relying on *reductio ad absurdum* and noting the absurdity of requiring an EIS on every federal land management decision); LEMMON, *supra* note 119, at 26–27 ("[I]f a contradiction can be deduced from a proposition A, A cannot be true, so that we are entitled to affirm its negation.").

[125] *See Vessels*, 175 I.B.L.A. at 26 (applying the term deposit, as used in § 226 of the MLA, only to methane in place in the ground, but not to the same methane otherwise released from the ground); *see also supra* notes 119–24 and accompanying text (showing the logical contradiction produced by the definition of deposit requiring a mineral to be in place in the ground).

[126] *See infra* notes 131–60 and accompanying text.

[127] *See infra* notes 131–60 and accompanying text.

[128] *See infra* notes 131–40 and accompanying text.

[129] *See infra* notes 141–51 and accompanying text.

[130] *See infra* notes 152–60 and accompanying text.

Coal Lessee in Untenable Economic Position

The IBLA reasoned that extending the MLA to issue leases to an oil and gas producer that develops gas vented by a coal lessee incident to its mining operations would effectively force the cost of exploration and production onto the coal lessee.[131] Indeed, federal oil and gas lessees usually confront risk and incur substantial exploration costs in developing a prospect.[132] It is true these risks and expenses are avoided by the oil and gas lessee in a project like the one in *Vessels* because there is no exploration required.[133]

These legitimate concerns amount to a desire to avoid unjustly enriching the gas estate at the expense of the coal estate.[134] There is no reason to expect a coal mine to shoulder the costs of exploration for a gas company, while getting none of the benefit.[135] The legal fiction of a contract implied in law exists to handle unjust

---

[131] Vessels Coal Gas, Inc., 175 I.B.L.A. 8, 25–26 (2008).

[132] ENERGY INFO. ADMIN., COSTS AND INDICES FOR DOMESTIC OIL AND GAS FIELD EQUIPMENT AND PRODUCTION OPERATIONS 1988 THROUGH 2006 (2007), *available at* http://www.eia.doe.gov/pub/oil_gas/natural_gas/data_publications/cost_indices_equipment_production/current/coststudy.html; Rob Jessen, *Top 10 Risks for the Oil and Gas Industry*, J. PETROLEUM TECH., July 2008, at 18, *available at* http://www.spe.org/spe-site/spe/spe/jpt/2008/07/07GuestEdit.pdf.

[133] *Vessels*, 175 I.B.L.A. at 26. In jurisdictions where the coal estate owns the CBM, subject to the rule of capture, the surface owner who captures migrating CBM similarly avoids exploration costs. *See* U.S. Steel Corp. v. Hoge, 468 A.2d 1380, 1383 (Pa. 1983) (indicating the surface owner has title to CBM that may migrate to the surface or surrounding lands as a result of coal or CBM operations below the surface).

[134] *Vessels*, 175 I.B.L.A. at 25–26 ("[I]t would put the coal lessee in the untenable position of effectively performing and paying for [oil and gas exploration] . . . with the oil and gas lessee reaping the benefit of the coal lessee's work.").

[135] *See* Watts v. Watts, 405 N.W.2d 303, 313 (Wis. 1987) (citing Puttkammer v. Minth, 266 N.W.2d 361, 363 (Wis. 1978)) ("[A]n action for recovery based upon unjust enrichment is grounded on the moral principle that one who has received a benefit has a duty to make restitution where retaining such benefit would be unjust."); *see also* Bluebonnet Warehouse Coop. v. Bankers Trust Co., 89 F.3d 292, 300 (6th Cir. 1996); Commerce P'ship 8098 Ltd. P'ship v. Equity Contracting Co., 695 So. 2d 383, 386 (Fla. Dist. Ct. App. 1997); RESTATEMENT (FIRST) OF RESTITUTION § 117 (1937). Tentative Draft Number 2 of the Restatement (Third) of Restitution & Unjust Enrichment defines the common law action of restitution as follows:

> A person who takes effective action to protect another's property or economic interests has a claim in restitution against the other if
>
> (a) the circumstances justify the claimant's decision to intervene without a prior agreement for payment or reimbursement, and
>
> (b) it is reasonable for the claimant to assume that the defendant would wish the action performed.
>
> Restitution under this Section is measured by (i) the loss avoided by the defendant or (ii) a reasonable charge for the services provided, whichever is less.

RESTATEMENT (THIRD) OF RESTITUTION & UNJUST ENRICHMENT § 21 (Tentative Draft No. 2, 2002).

enrichment claims like the one at work in *Vessels*.[136] The relationship between a coal mine venting gas and a gas company capturing it, like in *Vessels*, satisfies all the common law elements of unjust enrichment: the coal mine conferred the benefit on the gas company of shouldering the costs of exploration.[137] Aware of this benefit, the gas company retained or accepted it by capturing the gas without having explored for it.[138] Finally, these circumstances are unjust such that it would be inequitable if the gas company did not pay fair value for this service.[139]

Since there may be a contract implied in law between the coal lessee and the gas lessee, there is no reason to ignore well settled precedent by redefining deposit to protect the interests of the coal lessee from unjust enrichment. The IBLA raised legitimate concerns regarding unjust enrichment, but did not appeal to the alternative doctrine and offered no other foundation in the law to justify its decision.[140]

Coal Lessee Faced with Violating Gas Owner's Rights

In its decision, the IBLA pointed to the United States Supreme Court precedent it ultimately declined to extend.[141] As discussed above, *Amoco Production Co. v. Southern Ute Indian Tribe* stands for the proposition that a federal coal lessee has no rights in the methane gas associated with the coal; rather, those rights are in the successors in interest to the land surface patentees.[142] The IBLA cited *Amoco* as a reason *not* to extend the MLA to cover gas that is incident to coal mining.[143] The IBLA expressed concern that if CMM was a deposit under the MLA, then the federal coal lessee may be "held accountable for acting with respect to a deposit

---

[136] *Commerce P'ship*, 695 So. 2d at 386 (noting that a contract implied in law is referred to alternatively as a "quasi-contract," "unjust enrichment," "restitution," "constructive contract," and "quantum meruit"). The equitable remedy of contract implied in law has four elements:

> (1) the plaintiff has conferred a benefit on the defendant; (2) the defendant has knowledge of the benefit; (3) the defendant has accepted or retained the benefit conferred and (4) the circumstances are such that it would be inequitable for the defendant to retain the benefit without paying fair value for it.

Id.; *see also* sources cited *supra* note 135.

[137] *Vessels*, 175 I.B.L.A. at 25–26.

[138] *Id.*

[139] *Id.*; *see also supra* notes 135–36 (discussing principles of equity underlying contracts implied in law).

[140] *See Vessels*, 175 I.B.L.A. at 25–26.

[141] *Id.* at 26.

[142] Amoco Prod. Co. v. S. Ute Indian Tribe, 526 U.S. 865, 871 (1999); *see also supra* notes 55–56 and accompanying text (reciting the holding from *Amoco*).

[143] *Vessels*, 175 I.B.L.A. at 26.

in a manner appropriate only for an oil and gas lessee."[144] But the *Vessels* decision effectively awarded UAE, the federal coal lessee, the right to privately negotiate and profit from the capture of the methane from its mine vents.[145]

UAE's gas venting operations at Aberdeen did not infringe on the methane at issue in a manner only appropriate for an oil and gas lessee until it began extracting the gas for sale to Oso.[146] In order to exercise its own rights, the federal coal lessee necessarily has some right to infringe on the gas incident to the coal.[147] Otherwise, under *Amoco* a federal coal lessee has no right to gas associated with its coal.[148] Even the EPA acknowledges the case law holding that a federal lease is required for any form of federal methane production.[149] The IBLA raised a

---

[144] *Id.* Even if the MLA is not extended to cover CMM, a federal coal lessee profiting from the sale of gas incident to its coal is still acting in a manner only appropriate for an oil and gas lessee. 43 C.F.R. § 9239.0-7 (2009) ("The extraction, severance, injury, or removal of . . . mineral materials from public lands under the jurisdiction of the Department of Interior, except as authorized by law and the regulations of the Department, is an act of trespass."); *see also* W. Nuclear, Inc. v. Andrus, 475 F. Supp. 654, 663 (D. Wyo. 1979), *rev'd on other grounds*, 664 F.2d 234 (10th Cir. 1981), *rev'd*, 462 U.S. 36 (1983) (upholding an IBLA decision finding a trespass on the mineral estate when the surface owner removed sand and gravel without authorization).

[145] *Vessels*, 175 I.B.L.A. at 25–26 (declining to order a second competitive lease sale under the MLA, thereby allowing UAE to profit from the private contract it had with Oso to capture the vented methane).

[146] *See id.* at 26 ("UAE arguably risks being held accountable for acting with respect to a deposit in a manner appropriate only for an oil and gas lessee, *contrary to the limited rights it is given under its coal lease*.") (emphasis added).

[147] *See supra* note 35 and accompanying text (discussing the common law right of an owner of one mineral estate to use, and even damage, neighboring estates to the extent it is reasonably necessary for the extraction of his own minerals). The common law rule in every jurisdiction that has considered the issue is that the mineral estate is the dominant estate and can enter and use so much of the servient or neighboring estate as is reasonably necessary to extract minerals. *See, e.g.*, Hunt Oil Co. v. Kerbaugh, 283 N.W.2d 131, 135 (N.D. 1979) ("[T]he well-settled rule [is] that where the mineral estate is severed from the surface estate, the mineral estate is dominant."); Getty Oil Co. v. Jones, 470 S.W.2d 618, 621 (Tex. 1971); Humble Oil & Ref. Co. v. Williams, 420 S.W.2d 133, 134 (Tex. 1967); Flying Diamond Corp. v. Rust, 551 P.2d 509, 511 (Utah 1976); Mingo Oil Producers v. Kamp Cattle Co., 776 P.2d 736, 742 (Wyo. 1989) ("It is elementary that the mineral lessee . . . possesses the dominant estate."); Belle Fourche Pipeline Co. v. State, 766 P.2d 537, 544 (Wyo. 1988) ("[T]he mineral estate [is] the dominant estate with respect to the ownership of the surface and the incidents of ownership of a mineral estate include certain inherent surface rights.").

[148] *See* Amoco Prod. Co. v. S. Ute Indian Tribe, 526 U.S. 865, 879–80 (1999) (holding that a reservation of coal does not encompass methane).

[149] ENVTL. PROT. AGENCY, IDENTIFYING OPPORTUNITIES FOR METHANE RECOVERY AT U.S. COAL MINES: PROFILES OF SELECTED GASSY UNDERGROUND COAL MINES 2002–2006, 2-19 (rev. Jan. 2009), *available at* http://www.epa.gov/cmop/docs/profiles_2008_final.pdf. EPA guidelines explicitly require a federal lease for vented methane:

> A developer on federal lands *must hold a gas lease in order to put a CBM or CMM resource to beneficial use*. If a company holding a coal lease wants to utilize its CMM emissions, for example, it must follow the federal leasing procedures in place for conventional natural gas as prescribed by the BLM. Generally, utilization and/or

legitimate concern with this rationale, but offered no legal justification for the conclusion at which it arrived.[150] The IBLA's concern does, however, highlight the need for legislative clarification regarding CMM leasing.[151]

A Pragmatic Solution for a Complicated Problem

The final rationale the IBLA offered for declining to extend the MLA to cover gas incident to coal mining was that two companies created a new coal mine degasification process complying with both MSHA requirements and EPA guidelines, and nothing in the MLA compels the IBLA to allow third parties to intervene.[152] Nonetheless, the MLA does compel competitive leasing for federal gas in the event federal gas is leased.[153] Failure to recognize this MLA requirement resulted in the same inconsistent outcome in *Vessels* that the IBLA criticized the State Director for in his original opinion denying Vessels's protest.[154] Namely, the IBLA denied the MLA covers methane gas captured incident to coal mining, yet upheld the MLA leases to capture methane gas incident to coal mining.[155]

Additionally, as the guardian of public lands, the Secretary of the Interior has broad discretion in determining whether to lease federal oil and gas deposits.[156]

> sales of CMM requires a valid gas lease, regardless of end use. If the leased gas is used by the mine or mine company, used for power production, or sold to another party, gas royalties must be paid to the BLM. If no lease is held for the gas, it may only be vented to the atmosphere for safety purposes as set out by the Mine Safety and Health Administration (MSHA).

Id. (emphasis added); *accord* ENVTL. PROT. AGENCY, COALBED METHANE EXTRA 2007 (2007), *available at* http://www.epa.gov/cmop/docs/fall_2007.pdf.

[150] *See Vessels*, 175 I.B.L.A. at 26; *cf. Amoco*, 526 U.S. at 871 (holding federal coal estate has no right to infringe on the CBM incident to its coal except as may be reasonably necessary for extraction of the coal).

[151] Windsor, *supra* note 45, at 918–19 (calling for legislative clarification of CBM ownership).

[152] *Vessels*, 175 I.B.L.A. at 26; *see also* 30 U.S.C. §§ 181–263 (2006); 2 COGGINS & GLICKSMAN, *supra* note 38, § 23.01 (discussing the MLA generally); Gary L. Trotter & Q. Zane Rhodes II, *Catalytic Oxygen Removal for the Aberdeen Coal Mine Methane Project in Carbon County, Utah*, Laurance Reid Gas Conditioning Conference (2008), *available at* http://newpointgas.com/blog/wp-content/uploads/2009/11/zanes-2008-gpa-paper-website.pdf (giving a technical description of the methane capturing process, indicating it is a profitable step toward lower greenhouse gas emissions for underground coal mines).

[153] *See generally* 30 U.S.C. §§ 181–263; *see also supra* notes 37–41 and accompanying text (discussing the MLA generally).

[154] *Vessels*, 175 I.B.L.A. at 21–22; *see also supra* note 86 and accompanying text (discussing the IBLA's criticism of the Director's reasoning upholding the MLA lease while maintaining the MLA did not apply).

[155] *See supra* note 86 and accompanying text (discussing the IBLA's criticism of the Director's opinion).

[156] 30 U.S.C. §§ 189, 201, 226; United States *ex rel.* McLennan v. Wilbur, 283 U.S. 414, 416–19 (1931) (citing United States v. Grimaud, 220 U.S. 506 (1911); Williams v. United States, 138 U.S. 514 (1891); Knight v. Ass'n, 142 U.S. 161 (1891)) ("[U]nder the [MLA], the granting

In this case, the BLM could have invoked its secretarial discretion to issue a lease under FLPMA, or it could have declined to issue any lease for the capture of the vented gas at issue.[157] In past disputes regarding CBM ownership, the BLM invoked its discretion by halting all leasing activities and awaiting appropriate judicial or legislative clarification.[158] Furthermore, the BLM has previously implemented policies and guidelines for conflict resolution between coal and CBM owners and developers.[159] The BLM offered no explanation why this alternative dispute resolution was not employed in the instant case, nor did the IBLA in contravening existing precedent.[160]

Environmental and Political Considerations

The *Vessels* decision is important to understand because it highlights significant environmental and political policy considerations. It is uncontroversial that methane is a greenhouse gas that should not simply be vented into the atmosphere if doing so can be avoided.[161] According to the EPA, methane is a potent greenhouse gas that is "extremely effective at trapping heat in the atmosphere" and at least "20 times more powerful (by weight) at warming than carbon dioxide."[162] Other sources indicate "methane has 25–30 times more 'radiative effect' (than carbon dioxide), and scientists believe that increased methane concentrations are responsible for roughly 15–20% of the global warming."[163] Coal mining is

of a prospecting permit for oil and gas is discretionary with the Secretary of the Interior, and any application may be granted or denied . . . as the facts may be deemed to warrant."); *see also* 38 AM. JUR. 2D *Gas and Oil* § 260 (1999) (discussing the Secretary's authority).

[157] *See supra* notes 39, 156 and accompanying text (discussing the broad discretion the Secretary of the Interior has in determining whether to issue MLA leases); *supra* notes 42–44 and accompanying text (discussing the broad discretion the Secretary of the Interior has to authorize land uses under the FLPMA); *see also Vessels*, 175 I.B.L.A. at 10 ("We have determined that oil and gas development is incompatible with underground longwall mines, so oil and gas leases will not be offered over coal lands contained within the mine permit areas for the existing coal mines or within tracts expected to be developed in the next ten years."); *supra* note 74 (discussing IBLA's policy against leasing over coal mines).

[158] Windsor, *supra* note 45, at 915–16 (citing Jeanine Feriancek, *Coal and Coalbed Methane Development Conflicts: No Easy Solution*, 14 NAT. RESOURCES & ENV'T 260 (2000)).

[159] *Id.*; *see also* Instruction Memorandum No. 2003-253 from the BLM Director on Policy and Guidance on Conflicts between Coalbed Natural Gas (CBNG) and Surface Coal Mine Development in the Powder River Basin to State Directors, Wyoming and Montana (Aug. 21, 2003), *available at* http://www.blm.gov/wy/st/en/programs/energy/CAZ/im2003-253.html. *See generally* U.S. Dep't of Interior, Bureau of Land Management, Conflict Administration Zone, http://www.blm.gov/wy/st/en/programs/energy/CAZ.html (last visited May 26, 2010).

[160] *See Vessels*, 175 I.B.L.A. at 25–28 (failing to discuss the possibility of conflict administration zoning for CMM and coal leasing).

[161] *See generally* Davis, *supra* note 30; Flaherty, *supra* note 30; EPA CMOP, *supra* note 21; EPA GLOBAL MITIGATION, *supra* note 29.

[162] EPA CMOP BROCHURE, *supra* note 31.

[163] Flaherty, *supra* note 30, at 87 (quoting Lewin et al., *supra* note 16, at 585).

responsible for approximately ten percent of all manmade methane emissions in the United States.[164] In addition to the harmful effects venting methane has on the environment, the gas is also a valuable economic resource that should not be wasted.[165] Given these environmental consequences and policy goals, there needs to be a determination regarding who owns federal methane in all its various forms and how it is to be leased, so methane producers and coal miners can legally achieve these goals.[166]

Vessels also raises a practical issue regarding entitlement to bonuses, rentals, and royalties.[167] Mineral leases issued under the MLA are subject to payments of bonuses, rentals, and royalties to the United States.[168] The United States shares the profits of these payments equally with the state from which minerals are extracted.[169] If gas vented from coal mines and produced for market is not subject to the MLA, then the bonuses, rentals, and royalties collected by the United States on that gas are not subject to the fifty percent apportionment to the states required by the MLA.[170] Many states are likely to oppose CMM leasing that allows the United States to profit from royalties on minerals extracted inside a state's borders without apportioning any of the royalty to the state. [171] The practical result of

---

[164] EPA CMOP BROCHURE, *supra* note 31.

[165] *E.g.*, WYO. STAT. ANN. § 30-5-102 (2009); Flaherty, *supra* note 30, at 71, 87; *see also supra* note 34 (citing other statutes expressly discouraging waste of natural resources).

[166] *See* Jeanine Feriancek, *supra* note 158, at 262–63 (discussing proposed legislation that would establish judicial procedure for disposing of conflicts between CBM and coal owners and developers); *see also* Windsor, *supra* note 45, at 918–19.

[167] Vessels Coal Gas, Inc., 175 I.B.L.A. 8, 28 n.13 (2008); *see* MacKinnon & Fox, *supra* note 47, at 370 ("The production of methane gas from coal beds has grown dramatically in Wyoming since the late 1990s, with 2003 gas production valued at about $1.5 billion, translating into some $257 million in tax and royalty income to the state and counties.").

[168] *See generally* 30 U.S.C. § 191 (2006); 30 U.S.C. §§ 1701–1759 (2006).

[169] 30 U.S.C. § 191(a); *see also* New Mexico v. Regan, 745 F.2d 1318, 1319 (10th Cir. 1984) ("The Mineral Leasing Act (Mineral Act) directs the Secretary of the Treasury to pay fifty percent (50%) of all mineral royalties received from federal lands to the states in which the leased federal lands are located.").

[170] *See supra* notes 168–69 and accompanying text; *see also Vessels*, 175 I.B.L.A. at 28 n.13 ("Our holding . . . that the leases were not properly issued under the MLA necessarily means that the apportionment of funds to the State of Utah, under 30 U.S.C. § 191(a) (2000) does not apply here.").

[171] *See* New Mexico v. United States, 831 F.2d 265, 269 (Fed. Cir. 1987) (litigating whether apportionment to the states should happen before or after the federal windfall tax is collected); *Regan*, 745 F.2d at 1319 (involving a dispute over calculation of severance taxes); Alaska v. Andrus, 436 F. Supp. 288, 291–92 (D. Alaska 1977) (disputing whether revenues collected from mineral leasing of wildlife refuge lands should be subject to apportionment to the state under 30 U.S.C. § 191); Amoco Prod. Co. v. Wyoming, 751 P.2d 379, 382–83 (Wyo. 1988) (determining the terms "gas" and "natural gas" include all types of gas, not just those with hydrocarbons, for purposes allowing the state to collect more money from Amoco under an excise tax statute); *see also Vessels*, 175 I.B.L.A. at 28 n.13; C.C. Co., 116 I.B.L.A. 384, 387 (1990) (indicating BLM has authority to collect royalty on vented natural gas).

Vessels means the United States profits from the royalty collected from Oso, while the state of Utah gains nothing.[172]

CONCLUSION

The IBLA's decision in *Vessels Coal Gas, Inc.* raises questions regarding the appropriate authority for issuing leases to capture vented CMM.[173] The IBLA effectively balanced competing policy goals in *Vessels*.[174] However, the pragmatic result the IBLA reached is incommensurable with existing law.[175] The concerns raised by the IBLA in *Vessels* can be addressed by existing legitimate alternatives without contravening precedent.[176] Admittedly, the existing alternatives may not be the most precise tools for CMM leasing, but this fact only highlights the need for legislative clarification.[177] Furthermore, any future application of the rule *Vessels* ultimately establishes will produce untenable results.[178] Given these considerations, it is apparent there is an exceptional opportunity to simultaneously prevent waste of natural resources and harm to the environment, while reaping the economic benefits of mineral production.[179] For these reasons, a more definite legal framework for methane leasing in all its various forms should be established to ensure stability of the production of methane as a valuable natural resource.[180]

---

[172] *Vessels*, 175 I.B.L.A. at 28 n.13.

[173] *Id.* at 27. The IBLA raises this issue indirectly by its decision that the MLA is the inappropriate authority for these leases, and questions whether or not the BLM has "authority at all to issue leases, permits, or contracts for the capture of the vent gas, similar to the ones issued to Oso." *Id.*

[174] *See supra* notes 105–08 and accompanying text.

[175] *See supra* notes 37–41, 112–25, 141–51 and accompanying text.

[176] *See supra* notes 37–41, 115–18, 136–40, 156–60 and accompanying text.

[177] *See supra* notes 41–44 and accompanying text.

[178] *See supra* notes 119–25 and accompanying text.

[179] *See supra* notes 161–72 and accompanying text.

[180] *See supra* notes 151, 166 and accompanying text.