

503 Pa. 140
Supreme Court of Pennsylvania.

UNITED STATES STEEL
CORPORATION, Appellant,

v.

Mary Jo HOGE, Jessie Lee Cowan, Harvey
C. Cowan and Mary L. Cunningham,
and
Kinloch Development Corporation, Mary
L. Cunningham, Harry A. Murdock,
Jr. and Donis A. Murdock, Appellees.

No. 45 W.D. 1983. | Argued Sept.
15, 1983. | Decided Dec. 22, 1983.

Appeal was taken from an order of the Superior Court, at No. 1072 Pittsburgh, 1980, [304 Pa.Super. 182](#), [450 A.2d 162](#), affirming a judgment of the Court of Common Pleas, Greene County, at Nos. 682 and 691 in Equity, Civil Division, quieting title to coal bed gas in favor of surface owners. The Supreme Court, No. 45 W.D. Appeal Dkt. 1983, Zappala, J., held that: (1) such gas as is present in coal must necessarily belong to owner of coal, so long as it remains within his property and subject to his exclusive dominion and control, notwithstanding that coal owner's interest in situs occupied by coal may be less than perpetual; landowner, however, has title to property surrounding coal, and owns such of the coal bed gas as migrates into surrounding property, and (2) implicit in coal severance deed's reservation of "right to drill and operate through said coal or oil and gas" was a recognition of parties to deed that such gas was that which was generally known to be commercially exploitable, and therefore, because at time deed was entered into, commercial exploitation of coal bed gas was very limited and sporadic, reservation intended only a right to drill to reach unconveyed oil and natural gas generally found in strata deeper than coal, and not coal bed gas.

Reversed and remanded.

Flaherty, J., filed a dissenting opinion in which Hutchinson, J., joined.

West Headnotes (10)

[1] Mines and Minerals

🔑 Title in General

Gas may be owned prior to being recovered from its natural underground habitat.

[2] Mines and Minerals

🔑 What Are Minerals and Nature of Property in Minerals

Gas is a mineral, and while in place it is part of property in which it is contained, as is case with other minerals within bounds of a freehold estate.

[1 Cases that cite this headnote](#)

[3] Mines and Minerals

🔑 Title in General

Gas necessarily belongs to owner in fee, so long as it remains part of property; ownership in it will be lost only upon grant or upon gas leaving property through migration.

[1 Cases that cite this headnote](#)

[4] Mines and Minerals

🔑 Title in General

As a general rule, subterranean gas is owned by whoever has title to property in which gas is resting.

[2 Cases that cite this headnote](#)

[5] Mines and Minerals

🔑 Construction and Operation in General

When a landowner conveys a portion of his property, such as coal, to another, it cannot thereafter be said that property conveyed remains as part of former's land, since title to severed property rests solely in grantee.

[1 Cases that cite this headnote](#)

[6] Mines and Minerals

🔑 Kind, Quantity, and Location of Minerals Granted or Reserved

Such gas as is present in coal must necessarily belong to owner of coal, so long as it remains within his property and subject to his exclusive

dominion and control, notwithstanding that coal owner's interest in situs occupied by coal may be less than perpetual; landowner, however, has title to property surrounding coal, and owns such of the coal bed gas as migrates into surrounding property.

[15 Cases that cite this headnote](#)

[7] **Mines and Minerals**

🔑 [Servitudes Granted, Retained, or Reserved](#)

Owner of coal may, as may any property owner, exercise dominion over his property so as to maximize his right of enjoyment thereover, within bounds limiting impingement upon rights of other property owners.

[8] **Mines and Minerals**

🔑 [Servitudes Granted, Retained, or Reserved](#)

Coal owner may mine his coal, extract gas from it, or both; if he chooses to extract gas, drilling as well as hydrofracturing are available means, so long as their utilization does not impinge upon rights of owners of surrounding property, since damage to coal inflicted by these processes is within his dominion to inflict.

[15 Cases that cite this headnote](#)

[9] **Mines and Minerals**

🔑 [Construction and Operation in General](#)

In construing extent of rights reserved under coal severance deed, effect should be given to intentions of parties to the instrument; language of deed should be considered in its entirety, giving effect to all its terms and provisions, and construing language in light of conditions existing at time of its execution.

[1 Cases that cite this headnote](#)

[10] **Mines and Minerals**

🔑 [Kind, Quantity, and Location of Minerals Granted or Reserved](#)

Implicit in coal severance deed's reservation of "right to drill and operate through said coal or oil and gas" was a recognition of parties to

deed that such gas was that which was generally known to be commercially exploitable, and therefore, because at time deed was entered into, commercial exploitation of coal bed gas was very limited and sporadic, reservation intended only a right to drill to reach unconveyed oil and natural gas generally found in strata deeper than coal, and not coal bed gas.

[21 Cases that cite this headnote](#)

Attorneys and Law Firms

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Before ROBERTS, C.J., and NIX, LARSEN, FLAHERTY, McDERMOTT, HUTCHINSON and ZAPPALA, JJ.

Opinion

OPINION

ZAPPALA, Justice.

The question presented by this appeal is which of the parties to a coal severance deed, or more precisely which of their successors in interest, is to be recognized as owner of coalbed gas. The Superior Court affirmed a final decree of the Court of Common Pleas of Greene County and quieted title to the gas in favor of the surface owners, permitting them to lease rights to drill into the coal seam to extract the coalbed gas contained therein, subject to restrictions imposed to prevent unreasonable damage to the coal owner's property. *U.S. Steel v. Hoge*, 304 Pa.Super. 182, 450 A.2d 162 (1982).

The Appellant, United States Steel Corporation (hereinafter "coal owner"), is owner of the "Pittsburgh" or "River" Vein of coal underlying certain tracts of land in Greene County

owned by Appellees Hoge, ****1382** Cowan, and Murdock (hereinafter “surface owners”). This coal seam is located ***144** approximately 800 feet beneath the earth's surface. Appellant's predecessor in title acquired rights to the coal from Appellees' predecessors in title via a severance deed dated July 23, 1920.

The deed, which contained language common to most coal severance deeds executed in 1920 and in later years, read in pertinent part as follows, conveying

All the coal of the Pittsburgh or River Vein underlying all that certain tract of land...

Together with all the rights and privileges necessary and useful in the mining and removing of said coal, including the right of mining without leaving any support ..., the right of ventilation and drainage and of access to the mines for men and materials...

The parties of the first part [surface owners] hereby reserve the right to drill and operate through said coal for oil and gas without being held liable for any damages.

Together with all and singular the improvements, ways, waters, water courses, rights, liberties, privileges, hereditaments and appurtenances... (Emphasis added)

In 1976 and 1977, Appellee Cunningham (hereinafter “gas lessee”) acquired all of the foregoing reserved gas and oil rights from the surface owners. In 1978, the gas lessee began drilling wells for the purpose of recovering coalbed gas from the “Pittsburgh” coal seam. Upon learning of the drilling operations and the gas lessee's intention to stimulate recovery of coalbed gas through a process known as hydrofracturing,¹ the Appellant coal owner initiated actions in equity to terminate the intrusion upon its coal seam and to determine the ownership of, and right to develop, the coalbed gas. The chancellor entered a decree permitting ***145** the drilling for such gas in Appellant's coal seam, but prohibiting the use of hydrofracturing methods to stimulate gas recovery. Superior Court affirmed.

The ownership of, and right to develop, coalbed gas are questions of first impression. Consideration of the characteristics, origins, and history of development of gas is necessary to a determination of the issues presented. The following factual background is condensed from the chancellor's findings. Coalbed gas is found in and around coal veins, having long been recognized by the mining

industry as a highly combustible and deadly poisonous gas which must be, at all times during the active coal mining process, ventilated to prevent explosion or inhalation; hence, the gas has traditionally been wasted into the atmosphere. Coalbed gas is always present in coal seams; its molecules are absorbed in micropores of coal, and even the smallest particle of coal always contains, and when exposed emits, some coalbed gas. **Coal and coalbed gas are, nevertheless, separate physical entities.**

The gas which has commonly been referred to as “natural gas” is generally found in strata deeper than coal veins, though it shares many of the characteristics of coalbed gas. Both gases evolved, through natural processes, from carbonaceous material beneath the earth's surface, and both contain mixtures of various hydrocarbons, including methane, ethane, propane, butane, carbon dioxide, carbon monoxide, and hydrogen sulfide. Both are, as are all gases, migratory, thus being capable of escaping their natural habitats to enter other strata, and both are found in the same geographic areas of Pennsylvania. Due to its fugacious character, natural gas is capable, under certain circumstances, of commingling with coalbed gas in the upper strata.

Natural gas and coalbed gas have value as energy sources, the latter having approximately ****1383** a 90 percent heating value as compared to the former. The energy value of the coalbed gas is far less, however, than that of the coal ***146** itself; the value of the coalbed gas is only one percent of the b.t.u. value of the coal.

Extensive and costly drilling operations are required in order to extract coalbed gas or natural gas from strata where they are found. As early as the year 1900, certain wells were drilled in Greene County into the subject Pittsburgh Vein of coal, and not deeper, and some of these wells produced coalbed gas in paying quantities. Commercial exploitation of coalbed gas, however, has remained very limited and sporadic until recently. As a result of our nation's high energy demands and shortage of energy supplies, conditions which gained much attention during the past decade, both the gas industry and the mining industry have come to regard coalbed gas as having sound market potential. There has recently developed an industrial capacity to drill into coal seams both horizontally and vertically to recover coalbed gas. With either drilling approach, the process of hydrofracturing facilitates recovery of coalbed gas in greater volumes and over longer periods of time. Nevertheless, in some areas coalbed gas can be recovered in paying quantities without any artificial

stimulation of the coal seam. As noted previously, certain gas companies have through the years produced coalbed gas from wells in Greene County and in other portions of western Pennsylvania. More recently certain coal owners, including Appellant, have drilled into and in some cases hydrofractured their own coal seams in various regions—as experimental determinations of coalbed gas production capacities and as a means of alleviating the presence of the gas in areas soon to be mined. Against this background, we examine the ownership and development rights to coalbed gas.

[1] [2] [3] The fact that gas is of a fugacious character does not prevent ownership in it from being granted prior to its being reduced to possession. We have long recognized that gas may be owned prior to being recovered from its natural underground habitat. *Hamilton v. Foster*, 272 Pa. 95, 102, 116 A. 50, 52-53 (1922). Gas is a mineral, though not commonly spoken of as such, and while in place it is part of *147 the property in which it is contained, as is the case with other minerals within the bounds of a freehold estate. *Id.* Gas necessarily belongs to the owner in fee, so long as it remains part of the property; ownership in it will be lost only upon grant or upon the gas leaving the property through migration. *Id.* In *Westmoreland & Cambria Natural Gas Co. v. DeWitt*, 130 Pa. 235, 249, 18 A. 724, 725 (1889), the governing principle of gas ownership was stated as follows:

Water and oil, and still more strongly gas, may be classed by themselves, if the analogy be not too fanciful, as minerals *ferae naturae*. In common with animals, and unlike other minerals, they have a power and a tendency to escape without the volition of the owner ... They belong to the owner of the land and are part of it, so long as they are on or in it, and are subject to his control; but when they escape and go to other land, or come under another's control, the title of the former owner is gone. (Emphasis added)

[4] [5] [6] Thus, as a general rule, subterranean gas is owned by whoever has title to the property in which the gas is resting. Cf. *Kier v. Peterson*, 41 Pa. 357 (1862) (owner of subterranean salt entitled to oil commingled with it). But cf. *Erwin's Appeal*, 7 Sad. 477, 12 A. 149 (Pa.1887). When a landowner conveys a portion of his property, in this

instance coal, to another, it cannot thereafter be said that the property conveyed remains as part of the former's land, since title to the severed property rests solely in the grantee. In accordance with the foregoing principles governing gas ownership, therefore, such gas as is present in coal must necessarily belong to the owner of the coal, so long as it remains within his property and subject to his exclusive dominion and control. The landowner, of course, has title to the property surrounding the coal, and owns such of the coalbed gas as migrates into the surrounding property.

**1384 [7] [8] We do not regard as inconsistent with this analysis the fact that the coal owner's interest in the situs occupied by the coal may be less than perpetual. In addressing *148 questions of title to coal, and of rights of access to and through coal to secure its removal, this Court has not construed the conveyance of coal alone as a grant of a fee simple estate in the situs where the coal is located. Rather, the coal owner's interest in that situs has been regarded as being in the nature of an estate determinable, which reverts to the surface landowner by operation of law at some time subsequent to removal of the coal. *Webber v. Vogel*, 189 Pa. 156, 160, 42 A. 4, 5 (1899); *Chartiers Block Coal Co. v. Mellon*, 152 Pa. 286, 296-297, 25 A. 597, 599 (1893). The potential for reversion of the situs, however, does not diminish the character of the coal as property of its grantee, or of the gas contained therein as a mineral *ferae naturae* resting inside the coal owner's property and falling within the dominion and control of the coal estate. The owner of coal may, as may any property owner, exercise dominion over his property so as to maximize his right of enjoyment thereover, within bounds limiting impingement upon the rights of other property owners. *Chartiers Block Coal Co. v. Mellon*, 152 Pa. at 295, 25 A. at 598. Hence, the coal owner may mine his coal, extract the gas from it, or both. If he chooses to extract the gas, drilling as well as hydrofracturing are available means, so long as their utilization does not impinge upon the rights of owners of the surrounding property, since the damage to coal inflicted by these processes is within his dominion to inflict.

[9] Although coalbed gas contained in coal is, *ab initio*, property of the coal owner, that owner may allow others certain rights respecting the gas. In the present case, the grantor of the coal severance deed reserved therein the “right to drill and operate through said coal for oil and gas without being held liable for any damages.” In construing the extent of the rights thereby reserved, effect should be given to the intentions of the parties to the instrument. *In re Conveyance of Land Belonging to City of Dubois*, 461 Pa. 161, 169-170,

335 A.2d 352, 357 (1975); *Dunham & Shortt v. Kirkpatrick*, 101 Pa. 36, 43-44 (1882) (severance of mineral rights). The language of the deed should be *149 considered in its entirety, giving effect to all its terms and provisions, and construing the language in light of conditions existing at the time of its execution. *In re Conveyance of Land Belonging to the City of Dubois*, 461 Pa. at 169; 335 A.2d at 357; *St. Michael & Archangel Russian Orthodox Greek Catholic Church v. Uhniat*, 451 Pa. 176, 186, 301 A.2d 655, 660 (1973). The plain meaning, in the common understanding, of the provisions in a severance deed has been utilized as the best construction, where it may safely be assumed that such was the understanding which the parties themselves accorded the terms. *Dunham & Shortt v. Kirkpatrick*, 101 Pa. at 44. In accordance with these rules of construction, and in light of the chancellor's findings of fact as to the circumstances surrounding the deed's execution, the instant severance deed in question may be examined for evidence of the parties' intent.

[10] As found by the chancellor, at the time this coal severance deed was entered into, although commercial exploitation of coalbed gas was known such operations were very limited and sporadic. Indeed for the most part coalbed gas was a dangerous waste product which had to be vented from the coal seam to allow for safe mining of the coal. This common practice is attested to by the presence in the deed under consideration of a "right of ventilation", permitting the grantee of the coal severance deed the right of reasonable encroachment on the estate retained by the grantor for the purpose of ventilating the gas from the coal seam.

The reservation to the grantor of the right to drill through the coal seam deeded away for oil and gas is stated generally. Although the unrestricted term "gas" was used in the reservation clause, in light of the conditions existing at the time of its execution we find it inconceivable that the parties intended a reservation of all types **1385 of gas. In so finding, we are unable to overlook a basic question: Why would a party retain the right to something which is only a waste product with well-known dangerous propensities? Case law is replete with examples of terms coming to have *150 recognized meanings either more or less inclusive than they have in common parlance, usually through usage of the particular parties involved or the attendant business or industry. We find implicit in the reservation of the right to drill through the severed coal seam for "oil and gas" a recognition of the parties that the gas was that which was generally known to be commercially exploitable.

It strains credulity to think that the grantor intended to reserve the right to extract a valueless waste product with the attendant potential responsibility for damages resulting from its dangerous nature. *See McGinley, Legal Problems Relating to Ownership of Gas Found in Coal Deposits*, 80 W.Va.L.Rev. 369, 391 (1978). We find more logical and reasonable the interpretation offered by the Appellant that the reservation intended only a right to drill through the seam to reach the unconveyed oil and natural gas generally found in strata deeper than the coal.

The order of the Superior Court is reversed, and the case is remanded to the Court of Common Pleas of Greene County for entry of a final decree quieting title in the Plaintiff-Appellant, United States Steel Corporation.

FLAHERTY, J., filed a dissenting opinion in which HUTCHINSON, J., joined.

FLAHERTY, Justice, dissenting.

This case was originally assigned to this writer, and the following opinion was prepared as a proposed majority opinion, but it received insufficient votes. It is now submitted for publication as a dissent. Thus, in accordance with the opinion which follows, the order of the Superior Court, insofar as it affirmed the final decree of the chancellor which dissolved a preliminary injunction against drilling operations and prohibited utilization of the hydrofracturing process by the gas lessee, should be affirmed, and, to the extent that the order quieted title to the gas in coal in favor of the surface owners, it should be modified.

*151 This is an appeal from an order of the Superior Court which affirmed¹ a final decree of the Court of Common Pleas of Greene County dissolving a preliminary injunction against drilling operations directed at recovering coalbed gas from a certain coal seam, and quieting title to that gas in favor of the surface owners so as to permit their lessee of gas rights to drill into the coal seam to extract the coalbed gas contained therein, subject to restrictions imposed to prevent unreasonable damage to the coal owner's property.

The appellant, United States Steel Corporation (hereinafter "coal owner"), is owner of the "Pittsburgh" or "River" Vein of coal underlying certain tracts of land in Greene County owned by appellees Hoge, Cowan, and Murdock (hereinafter "surface owners"), such coal seam being located approximately 800 feet beneath the earth's surface.

Appellant's predecessor in title acquired rights to the coal from appellees' predecessors in title via a severance deed dated July 23, 1920. The deed reserved to the surface owners "the right to drill and operate through said coal for oil and gas without being held liable for any damages."² In ***1386** 1976 and 1977, appellee Cunningham (hereinafter "gas lessee") acquired all of the foregoing reserved gas and oil rights from the surface owners. In 1978, the gas lessee began drilling wells for the purpose of recovering coalbed ***152** gas from the "Pittsburgh" coal seam. Upon learning of the drilling operations and the gas lessee's intention to stimulate recovery of coalbed gas through a process known as hydrofracturing³, the appellant coal owner initiated actions in equity to terminate the intrusion upon its coal seam and to determine the ownership of, and right to develop, coalbed gas. The chancellor entered a decree permitting the drilling for such gas in appellant's coal seam, but prohibiting the use of hydrofracturing methods to stimulate gas recovery. Superior Court affirmed.

The ownership of, and right to develop, coalbed gas are questions of first impression.⁴ Consideration of the characteristics, origins, and history of development of gas is necessary to a determination of the issues presented. Hence, the following factual background, condensed from the chancellor's findings⁵, pertains. Coalbed gas, often called methane, is found in and around coal veins, having long been recognized by the mining industry as a highly combustible and deadly poisonous gas which must be, at all times during the active coal mining process, ventilated to prevent explosion or inhalation; hence, the gas has traditionally been wasted into the atmosphere. Coalbed gas is always present in coal seams; its molecules are adsorbed in micropores of coal, and even the smallest particle of coal ***153** always contains and emits, when exposed, some coalbed gas. Coal and coalbed gas are, nevertheless, separate physical entities.

The gas which has commonly been referred to as "natural gas" is generally found in strata deeper than coal veins, though it shares many of the characteristics of coalbed gas. Both gases evolved, through natural processes, from carbonaceous material beneath the earth's surface, and both contain mixtures of various hydrocarbons, including methane, ethane, propane, butane, carbon dioxide, carbon monoxide, and hydrogen sulfide. Both are, as are all gases, migratory, thus being capable of escaping their natural habitats to enter other strata, and both are found in mainly the same geographic areas of Pennsylvania. Due to its fugacious character, natural gas

is capable, under certain circumstances, of commingling with coalbed gas in the upper strata. Natural gas and coalbed gas have value as energy sources, the latter having approximately a 90% heating value as compared to the former. The energy value of coalbed gas in the relevant geographic area is far less, however, than that of coal itself; the coalbed gas has an energy equivalent value of only 1% of the b.t.u. value of the coal.

Extensive and costly drilling operations are required in order to extract coalbed gas or natural gas from strata where they are found. As early as the year 1900, however, certain wells were drilled in Greene County into the subject Pittsburgh vein of coal, and not deeper, and some of these wells produced coalbed gas in paying quantities. More recently there has developed an industrial capacity to drill into coal seams both horizontally ***1387** and vertically to recover coalbed gas. With either drilling approach, the process known as hydrofracturing, see fn. 3, supra, facilitates recovery of coalbed gas in greater volumes and over longer periods of time. Nevertheless, coalbed gas can, in some areas, be recovered in paying quantities without any artificial stimulation of the coal seam. Developed by the drilling industry in the late 1940's, hydrofracturing was initially and ***154** has more regularly been utilized to recover natural gases from strata other than coal veins. When applied to coal seams, however, the process is highly efficient and desirable from the standpoint of the gas developer, but it presents serious threats to the interests of the owner of the coal estate.

When a coal seam is penetrated by a high frequency of gas well bore holes, and particularly when such holes are then hydrofractured, there is a distinct possibility of interference with coal mining processes, even when there is a careful exchange of information between the coal operator and the gas developer. Harm to the mining potential of coal arises from the fact that the inherently uncontrollable lesions caused by hydrofracturing permanently damage the coal seams, rendering any future mining operation slower in production, less safe, and more expensive. Even where hydrofracturing is not employed, but where gas wells are drilled with high frequency through the coal seam, the coal owner's estate is damaged, since as a safety precaution there must be left in place by the coal operator a barrier of coal surrounding each well hole. Such barriers, of course, interfere with full development of the coal, and cause considerable additional costs to the coal operator.

As a result of our nation's high energy demands and shortage of energy supplies, conditions which gained much attention

during the past decade, the gas industry and the mining industry have come to regard coalbed gas as having sound market potential. Certain gas companies have, to a very limited and sporadic extent through the years dating back to at least 1918, produced coalbed gas from wells in Greene County and in other portions of western Pennsylvania. More recently certain coal owners, including appellant, have drilled and in some cases hydrofractured their own coal seams in various regions as experimental determinations of coalbed gas production capacities, and as a means of alleviating the presence of the gas in areas soon to be mined. Against this background, we examine the ownership and development rights to coalbed gas.

***155** The fact that gas is of a fugacious character does not prevent ownership in it from being granted prior to its being reduced to possession, for we have long recognized that gas may be owned prior to being recovered from its natural underground habitat. *Hamilton v. Foster*, 272 Pa. 95, 102, 116 A. 50, 52-53 (1922). Gas is a mineral, though not commonly spoken of as such, and, while in place, it is part of the property in which it is contained, as is the case with other minerals within the bounds of a freehold estate, which extends to the center of the earth. *Id.* (In the words of an old maxim, “Cujus est solum, ejus est usque ad coelum et ad inferos,” or, “To whomsoever the soil belongs, he owns also to the sky and to the depths.”) Gas necessarily belongs to the owner in fee, *so long as* it remains part of the property; ownership in it will be lost only upon grant or upon the gas leaving the property through migration. *Id.* In *Westmoreland & Cambria Natural Gas Co. v. DeWitt*, 130 Pa. 235, 249, 18 A. 724, 725 (1889) (emphasis added), the governing principle of gas ownership was stated as follows:

Water and oil, and still more strongly gas, may be classed by themselves, if the analogy be not too fanciful, as minerals *ferae naturae*. In common with animals, and unlike other minerals, they have a power and a tendency to escape without the volition of the owner ... They *belong to the owner of the land* and are part of it, *so long as they are on or in it*, and are subject to his control; but when they escape and go to other land, or come under another's control, the title of the former owner is gone.

****1388** Thus, as a general rule, subterranean gas is owned by whoever has title to the property in which the gas is resting.⁶ When a landowner conveys a portion of his property, in this instance coal, to another, it cannot thereafter be said that the property conveyed remains as part of the former's land, since title to the severed property rests solely in the grantee. In accordance with the foregoing principles ***156** governing gas ownership, therefore, such gas as is present in coal must necessarily belong to the owner of the coal, so long as it remains within his property and subject to his exclusive dominion and control. The landowner, of course, has title to the property surrounding the coal, and owns such of the coalbed gas as migrates into that surrounding property.

We do not regard as inconsistent with this analysis the fact that the coal owner's interest in the situs occupied by the coal may be less than perpetual. In addressing questions of title to coal, and of rights of access to and through coal to secure its removal, this Court has not construed the conveyance of coal alone as a grant of a fee simple estate in the situs where the coal is located. Rather, the coal owner's interest in that situs has been regarded as being in the nature of an estate determinable, which reverts to the surface landowner by operation of law at some time subsequent to removal of the coal. *Webber v. Vogel*, 189 Pa. 156, 160, 42 A. 4, 5 (1899); *Chartiers Block Coal Co. v. Mellon*, 152 Pa. 286, 296-297, 25 A. 597, 599 (1893). The potential for reversion of the situs, however, does not diminish the character of the coal as property of its grantee, or of the gas contained therein as a mineral *ferae naturae* resting inside the coal owner's property and falling within the dominion and control of the coal estate. The owner of coal may, as is the right of any property owner, exercise dominion over his property so as to maximize his right of enjoyment thereover, within bounds limiting impingement upon the rights of other property owners. *Chartiers Block Coal Co. v. Mellon*, 152 Pa. at 295, 25 A. at 598. Hence, the coal owner may mine his coal, extract the gas from it, or both. If he chooses to extract the gas, drilling as well as hydrofracturing are available means, so long as their utilization does not impinge upon the rights of owners of the surrounding property, since the damage to coal inflicted by these processes is within his dominion to inflict.

Although coalbed gas contained in coal is, ab initio, property of the coal owner, that owner may allow others certain ***157** rights respecting the gas. In the present case, the grantor of the coal severance deed reserved therein the “right to drill and operate through said coal for oil and gas without being held

liable for any damages.” In construing the extent of the rights thereby reserved, effect should be given to the intentions of the parties to the instrument. *In re Conveyance of Land Belonging to City of Dubois*, 461 Pa. 161, 169-170, 335 A.2d 352, 357 (1975); *Dunham & Shortt v. Kirkpatrick*, 101 Pa. 36, 43-44 (1882) (severance of mineral rights). The language of the deed should be considered in its entirety, giving effect to all its terms and provisions, and construing the language in light of conditions existing at the time of its execution. *In re Conveyance of Land Belonging to the City of Dubois*, supra; *St. Michael & Archangel Russian Orthodox Greek Catholic Church v. Uhniat*, 451 Pa. 176, 186, 301 A.2d 655, 660 (1973). The plain meaning, in the common understanding, of the provisions in a severance deed has been utilized as the best construction, where it may safely be assumed that such was the understanding which the parties themselves accorded the terms. *Dunham & Shortt v. Kirkpatrick*, supra. In accordance with these rules of construction, the instant severance deed may be examined for evidence of the parties' intent, in light of the chancellor's findings of fact as to the circumstances surrounding the deed's execution.

****1389** In plain terms, the deed reserves to the grantor the right to drill for “gas”, without any express qualification limiting the types of gas that may be extracted. It is argued by appellant that the term “gas”, as it was used in the deed, should be construed narrowly as a reference to what has traditionally been called “natural gas”, the characteristics of which have heretofore been described, rather than as a reference to all gases. The chancellor found, however, that in the year 1920 it was well known that coal mines always contained coalbed gas; thus, it cannot be asserted that the parties were unaware of the existence of the particular gas now in dispute, though they may or may not have been aware of the few wells in Greene County and elsewhere ***158** that produced coalbed gas in paying quantities. Given their awareness of the presence of coalbed gas in the stratum, the earlier described similarities between coalbed gas and what has commonly been referred to as “natural gas”, and the fact that the unrestricted term “gas” was employed in the reservation clause, we believe the plain meaning of the term “gas” would be too far subverted were we to exclude coalbed gas as a recoverable gas.

Granted, the parties may not have foreseen that gas generally, or coalbed gas in particular, would one day be such a highly valued resource as it has become, and, as a corollary, they may not have expected that extensive operations would ever be warranted to recover coalbed gas. In the year 1920, coalbed gas was primarily regarded as a lethal substance to be

removed from mines and wasted into the atmosphere, to wit a gas that the mine owner would have preferred that the coalbed did not contain, as is evidenced by the clause in the instant deed providing access through the surface tract to ventilate gas from the mine. Thus, while the parties intended what the deed states, to allow drilling for gas generally, without specification as to its type, the broad reservation of gas rights may not have been motivated to any extent by an expectation of profitably developing coalbed gas within the future as foreseen from the year 1920.

Our determination that the grantor of the coal severance deed retained a right to drill through the coal and extract coalbed gas does not foreclose the appellant coal owner from proceeding to extract the same gas, for the right retained by the grantor does not, by the language employed in the deed, purport to be an *exclusive* one to all gas in the coalbed⁷; rather it is a right to remove only so much of the ***159** gas as is present and extractable through drilling efforts, whenever drilling is conducted. While the previously discussed methods available to the coal owner for extraction of the gas include those, such as hydrofracturing or intensive drilling, which may inflict substantial damage to the coal, the methods reserved to the coal grantor are less extensive, for they are bounded by the necessarily implied constraint that the coal estate granted will not be rendered useless, or unreasonably impaired, by the actions of one who has surrendered ownership of, and dominion over, the coal. Cf. *Chartiers Block Coal Co. v. Mellon*, 152 Pa. at 295, 25 A. at 598.

Hence, the reserved drilling right must not be interpreted as authority for there to be drilled into the coal so many wells that the coal's potential for being mined would be unreasonably impaired. Similarly, the hydrofracturing process, which had not even been suggested, let alone employed, in the year 1920, could not have been contemplated by the parties to the deed as an authorized form of “drilling and operating through” the coal; its potential for substantially damaging the coal exceeds what could have been intended as falling within the range of acceptable risk to the coal estate accruing from normal drilling operations. Thus, absent the express consent of the coal ****1390** owner, such methods of extracting coalbed gas cannot be utilized by the holder of gas drilling rights.

The parties to this case, and amicus curiae, have offered various policy arguments regarding who, as between coal operators and gas developers, *should* own coalbed gas. Such arguments focus upon the ease and efficiency with which the

gas can be recovered by the competing industries, as well as their respective motives to develop the resource. The issue before us, however, is not properly to be characterized as who *should* own and develop coalbed gas, but rather as who *does* own and have the right to develop the resource under the provisions of a particular coal severance deed. Whether coal and gas rights were in fact allocated by that deed in a manner that, in retrospect, would appear *160 most desirable, has not been the focus of our inquiry. Nevertheless, we note that allowing development of coalbed gas under the subject tracts

by both the coal owner and the holder of gas drilling rights will facilitate development of that resource.

HUTCHINSON, J., joins this dissenting opinion.

Parallel Citations

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Footnotes

- 1 Hydrofracturing is the forcing of fluids under pressure into the well so as to cause a fracturing of the target stratum. When applied to coal seams, the process creates fractures in the coal which serve as conduits through which gas can flow through the seam to the well's shaft. Developed by the drilling industry in the late 1940's, hydrofracturing was initially utilized to recover natural gases from strata other than coal veins, and has more regularly been so used.
- 1 [U.S. Steel v. Hoge](#), 304 Pa.Super. 182, 450 A.2d 162 (1982).
- 2 The deed, which contained language common to most coal severance deeds executed in 1920 and in later years, read in pertinent part as follows:

“All the coal of the Pittsburgh or River Vein underlying all that certain tract of land situate in ... Together with all the rights and privileges necessary and useful in the mining and removing of said coal, including the right of mining without leaving any support ..., the right of ventilation and drainage and of access to the mines for men and materials... The parties of the first part hereby reserve the right to drill and operate through said coal for oil and gas without being held liable for any damages. Together with all and singular the improvements, ways, waters, water courses, rights, liberties, privileges, hereditaments and appurtenances...”
- 3 Hydrofracturing is the forcing of fluids under pressure into the well so as to cause a fracturing of the target stratum. When applied to coal seams, the process creates fractures in the coal which serve as conduits through which gas can flow through the seam to the well's shaft.
- 4 For background materials and commentaries on the subject, see *Pennsylvania Coal* (S.K. Majumdar & E.W. Miller ed. 1983); Bowles, *Coalbed Gas: Present Status of Ownership Issue*, 1 Eastern Min.L.Inst. 7-1 (1980); Craig & Myers, *Ownership of Methane Gas in Coalbeds*, 24 Rocky Mtn.Min.L.Inst. 767 (1978); McGinley, *Legal Problems Relating to Ownership of Gas Found in Coal Deposits*, 80 W.Va.L.Rev. 369 (1978); Olson, *Coalbed Methane: Legal Considerations Affecting its Development as an Energy Resource*, 13 Tulsa L.J. 377 (1978).
- 5 We find no merit in appellant's challenges to certain of the chancellor's findings of fact, for the record provides adequate basis for the findings made, and no abuse of discretion by the fact-finder appears. See [Estate of Shelly](#), 484 Pa. 322, 333, 399 A.2d 98, 103 (1979).
- 6 Compare [Kier v. Peterson](#), 41 Pa. 357 (1862) (owner of subterranean salt entitled to oil commingled with it). But cf. [Erwin v. Hoch](#), 7 Sad. 477, 12 A. 149 *sub nom. Appeal of Erwin*, 12 A. 149 (Pa.1887).
- 7 The appellee gas lessee agreed to pay the owners of the surface tracts one-eighth of all of the methane gas extracted. Although the surface owners purported to convey to the gas lessee all of the gas under their tracts, they clearly could not convey any interest in gas that had been previously forfeited via the coal severance deed. The terms of the gas lease are not, therefore, relevant to construction of the coal severance deed.