

Coal Bed Methane Ownership and Responsibility: A Summary of Surface, Mineral, and Split-Estate Rights

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Coal bed methane (CBM) development has generated national attention, a myriad of published journals, and stacks of legal decisions ranging from local jurisdictions to U. S. Supreme Court holdings. Many of these documents have evolved from surface and mineral right disputes.

Due to recent innovations in CBM extraction technologies and an increasing flux in costs of petroleum, this once thought of waste by-product called "gob gas" is now being aggressively sought after. As recently as 1995, when the U.S. Geological Survey updated a nation wide assessment of oil and gas resources, CBM wasn't even a factor except for a few production areas. CBM production now constitutes 7.5% of the U.S. supply of natural gas (Cubin, 2002). Recently, CBM has been referred to as a "Cornerstone" in the Bush Energy Policy.

Exploration, development, and natural gas production within the CBM industry have increased dramatically over the past ten years. One region that has gained a lot of attention is the Northern Great Plains. Since 1997, the Powder River Basin in Wyoming and Montana has emerged as one of the most active new areas of CBM production in the U.S. and comprises nearly 6% of U.S. total production (Rice et al., 2001).

With the potential of billions of cubic feet of methane gas yet to be extracted and a mosaic of industrial, public, and private landowners sitting atop the trapped gas, debate has captured the attention and resources of some state and federal law making and enforcement departments. Along with water quality/quantity and reclamation issues, there is a growing debate over ownership of the methane gas contained in water-saturated coal seams. Uninformed surface owners rush to gain an understanding of the legal implications of split-estate or severed rights development, while oil and gas companies battle over proprietary ownership of trapped methane. This summary attempts to define and explain the major components of historical surface, mineral, and split-estate resource



ownership law in the United States. The review concentrates on the Amoco Production Co. v. Southern Ute Indian Tribe Supreme Court decision declaring an opinion of U.S. congressional intent in the creation of the Coal Lands Acts of 1909 and 1910.

A second component of this review attempts to address CBM by-product water management and disposal impacts, surface owner's rights to damage compensation, and industry reclamation responsibilities as overseen by the U.S. Environmental Protection Agency (EPA) and the Montana Department of Environmental Quality (DEQ).

In order to understand the complexity of the CBM extraction issue, it is initially necessary to understand the federal primacy of the United States government. As with Great Britain, colonial American governments claimed right to the entire precious and semi-precious mineral deposits underlying the surface lands of its possessed property. Because of this precept, owners of mineral rights can be different from the surface owners. Mineral rights are defined as the right of ownership of the mineral resource that underlies a tract of land (Kansas Geological Survey, 2002). In most cases, these rights have been leased out in varying proportions to federal and state agencies that in turn lease these rights to industrial producers. Mineral owners have a prior right to access and develop their minerals. This is where the bulk of the misunderstanding and litigation exist. Mineral right owners have legal authority over surface right owners, which means that whenever the two rights conflict, a mineral property right takes precedence over the overlying surface property right (Northern Plains Resource Council, 2001). For many ranchers, farmers, and residents with surface ownership, this has become a difficult principle to accept. Landowners argue that construction of roads, pipelines, power lines, and installation of wells and compressor stations have the potential to disrupt current and future land uses and infringe upon state and federal resource proprietary rights.



Property ownership in which mineral rights are severed from surface rights is commonly referred to as "severed estate." The balance of rights between mineral owners and surface owners varies depending on whether state laws or federal laws apply. If the state or a private individual or company owns the minerals beneath a landowner's surface right, then the landowner and the mineral lessee must follow state law (Northern Plains Resource Council, 2001). In the case of Montana, the Board of Oil and Gas and the Department of Environmental Quality are the state agencies responsible for permitting, defining reclamation terms, and enforcement in the case of non-compliance.

If the federal government owns the minerals beneath a land parcel and leases them, depending on the Act under which the surface was transferred, then in addition to state laws, federal laws may apply. The EPA and the U.S. Bureau of Land Management are the federal agencies most involved with CBM regulations and enforcement in Montana. In

general, federal laws provide stronger protections for surface owners than Montana laws (Northern Plains Resource Council, 2001). A condition of split estate can also apply to the mineral rights themselves. The mineral rights can be owned in total by a single entity or can be owned by the specific mineral commodity; for example, one company can own the mineral rights to the coal, while another company owns the oil and gas rights (Kansas Geological Survey, 2002).

Federal laws regulating federally owned minerals could vary depending upon the date at which the surface was transferred to private ownership. Most federally owned minerals in areas of proposed CBM developments are enforced by the Environmental Protection Agency (EPA) in conjunction with the Bureau of Land Management (BLM). The BLM is responsible for permitting, bonding, and overseeing the reclamation of these federally leased mineral rights. This definition of split-estate, or severed estate, mineral rights was introduced with early 20th Century coal legislation. Land patents issued to western settlers pursuant to the Coal Lands Acts of 1909 and 1910 conveyed the land and everything in it, except the "coal," which was reserved to the United States (Kennedy, 1999).



The matter of split-estates has recently been challenged in the courts by coal industrialists and involved coal lessees believing that CBM and solid coal should be defined as one mineral. Coal lessees argue that coal interests should receive monetary compensation from methane extracted from coal seams. This claim has merited address by the Federal Circuit and the United States Supreme Court in the *Amoco Production Co. v. Southern Ute Indian Tribe*. No. 98-830. 151 F.3d. 1251, argued April 19, 1999 and decided June 7, 1999.

In 1938, the United States restored to the Southern Ute Tribe, in trust, title to ceded reservation lands in Wyoming still owned by the government, including the reserved coal in lands patented under the 1909 and 1910 Acts. These lands contain large volumes of CBM gas within the coal formations. The tribe sought to have the CBM contained within the coal declared as part of the coal itself, so that the tribe could extract it for profit (Kreher, 1999). At the time of the 1909 and 1910 Acts, such gas was considered a dangerous waste product of coal mining and was not considered a valuable energy source.

Relying on a 1981 opinion by the Solicitor of the Department of the Interior, oil and gas companies entered into CBM gas leases with the individual landowners of some 200,000 acres of patented land in which the Southern Ute Tribe owns the coal. The Tribe filed suit against the petitioners, the royalty owners, the producers under the leases, and federal agencies and officials seeking, inter alia, a declaration that CBM gas is coal reserved by the 1909 and 1910 Acts (Kennedy, 1999).

Initially the District Court granted the defendants a summary judgment, ruling that the gas was not part of the coal, based on the 1981 Department of the Interior Solicitor's opinion. The court defined the term "coal" as a solid rock, which subsequently was defined to mean that "coal" does not include CBM gas. Subsequently, the Tenth Circuit Court of Appeals reversed this lower court ruling. The Appeals court stated that the Acts' definition of "coal" was ambiguous and concluded that the coal reservation of the Ute Indian Tribe encompassed CBM gas. This decision held for nearly a year until the Supreme Court reversed the Appeals Court decision in 1999. The Supreme Court based their decision on the question of not whether CBM gas is a constituent of coal based on today's knowledge, but on whether Congress so regarded it as a constituent of coal in 1909 and 1910. The common understanding of that time would not have encompassed CBM gas. One would logically conclude that Congress intended to reserve only the solid rock fuel that was mined, shipped through the country, and then burned to power the nations railroads, ships, and factories.

Supreme Court Justice Kennedy delivered the opinion of the court with six Justices joining, one dissenting, and one declining to take part (Kennedy, 1999). The outcome of this case provides significant precedent for split-estate mineral right litigation and interpretation. This decision impacted CBM gas ownership interpretation associated with the Coal Lands Acts of 1909 and 1910 and will serve as a benchmark for mineral right designation until subsequent court rulings.



The issue of CBM development extends beyond the surface, mineral, severed estate, and split-estate property rights laws. Additional controversies have emerged over the impacts of CBM product water discharge, landowner's rights to compensatory damages, and the reclamation of impacted sites during and after CBM development. Defining the interactions between CBM product water discharge and land surface response has been the focus of increasing research.

CBM product water with relatively high concentrations of salinity and sodicity has been recorded from wells in the Powder River Basin, as well as the adjacent Tongue River Drainage (Rice et al., 2001). Sodium adsorption ratios (SAR) and electrical conductivity (EC) levels of some CBM producing wells have exceeded published guidelines for use of water for irrigation or land spreading. According to the USDA and the University of California Extension Service, most oil and gas discharge water is sodic (USDA, 1979). In sodic soil systems, exchangeable sodium ions are so concentrated in the soil that they often have an adverse effect on soil physical properties. An SAR of 12 or higher indicates a sodic soil and may adversely affect plant growth (USDA, 1979).

Along with the potential of saline-sodic CBM product water to adversely effect soil properties and plant performance or change plant community types, physical structures are needed to extract, pump, and compress the methane and manage disposed water. These structures, although not permanent fixtures on the landscape, create potential for additional discord. Landowners argue that CBM development will reduce future property values by chopping up agricultural lands, increasing traffic, spreading noxious weeds, and drawing down wells and aquifers. They also express concern about the potential obstruction of scenic views and the invasion of "quiet" space through the exceedence of decibel level restrictions. Although federal and state laws favor mineral rights over surface rights, surface owners are not without protection. Surface owners have the right to compensation for any disturbance or interference with agricultural activity due to mineral extraction activities, and for any damages to the their property as a result of CBM development. It is suggested, but not mandated, that landowners associated with CBM development should negotiate surface use agreements (SUA). Well-negotiated SUAs allow landowners to direct the course of current and future land use associated with CBM development, from the siting of roads to payment schedules for damages (Northern Plains Resource Council, 2001). A surface owner, who has not been properly reimbursed, whether the entry was for exploration or drilling, can sue in any federal court. The court may award double damages, plus costs, if the action is determined to be "willful misconduct or gross negligence" (Northern Plains Resource Council, 2001).

Regardless of mineral right ownership, landowners should document baseline conditions on their property. This is the single most important initial step to ensure future entitlement for compensation for property damages. Within this documentation, there should be a description of the current and future land uses. These land use designations can range from agricultural to urban-industrial and can aid in the creation of reclamation strategies that the CBM industry will have to follow during CBM development and at the time that CBM development cases (Taber and Kinney, 1999). Some landowners are more informed than others about energy production and landowner rights. Ownership records of surface and mineral rights are attainable through public record. Therefore, the responsibility to be informed about ownership falls on the land purchaser and not the responsibility of state or industry.

In the end, the United States Supreme Court decided to define CBM as a by-product of coalification process and not part of the solid coal itself. This leaves the coal extraction industry and coal mineral owners without monetary compensation from the CBM industry, yet still dealing with the problems of dewatering and degassing the coal seams they are developing.

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