

# Upper Green River Valley Coalition

## Coalbed Methane in the Upper Green

*A primer on controversial natural gas drilling technique and what it means for South Piney's "split estate" lands*

### WHAT IS COALBED METHANE?

A constituent of natural gas, methane (CH<sub>4</sub>) was once a hazard in coal mining before new extraction technologies made capturing it possible and profitable. Formed over millions of years in the coalification process, coalbed methane (CBM) is a byproduct in the decomposition of organic material. The methane is adsorbed to coal particulates in underground coal seams that also serve as aquifers. The methane is held to these particulates by water pressure. To extract it, drilling operators "dewater" the coal seams, allowing the methane to vent freely through the well bore where it can be collected and piped to market. Western Wyoming's first major CBM field is proposed for the Upper Green River Valley, in the South Piney project area, west of Big Piney in the foothills of the Wyoming Range.

### WHAT ARE THE IMPACTS FROM COAL BED METHANE DRILLING?

CBM has all the impacts of conventional gas drilling – roads, drilling rigs, well pads, compressor facilities, staging areas, pipelines– as well as others associated with removing water from coal seams and discharging it on the surface. As underground aquifers are depleted, the ground may subside and landowners water sources may disappear. Hydraulic fracturing fluids, which contain known carcinogens, are injected into the ground under tremendous pressure and could contaminate these aquifers. Above ground, discharge of "produced" water, which is often saline and unfit for irrigation, can erode and contaminate soils, springs and intermittent streams. These impacts have resulted in numerous conflicts in the northeastern Wyoming's Powder River Basin, the scene of aggressive CBM development where much of the surface land is privately owned by ranchers. Pinedale federal land managers plan to require the drilling companies to "re-inject" the water back into the ground. One test re-injection failed, however, and there is no guarantee that future attempts will work. Re-injection still leaves aquifers depleted, since the water is not returned to the aquifer that was dewatered, and can cause problems underground, such as over pressurization of receiving aquifers.

### HOW MANY WELLS WILL THERE BE?

The two companies hoping to develop the 31,230-acre South Piney project area propose drilling up to 210 wells (160-acre spacing) going 10,000 feet into the Frontier formation, considered very deep for coalbed methane development. The BLM predicts up to 600 CBM wells over the next 10-15 years in its "reasonably foreseeable development" scenario for the Pinedale Resource Area. The resource area's only CBM activity to date has been test wells in the Riley Ridge area, near the proposed South Piney field, where a company operates a five wells. Some of these wells are 3,000 feet deep and spew 6,300 gallons of water a day. The Greater Green River Basin holds coalbed methane reserves of 314 trillion cubic feet (Tcf). By comparison, the Powder River Basin holds 39 Tcf in CBM reserves, 25 of which are deemed "recoverable." But, it is unknown how much of the Upper Green's massive reserve can be profitably recovered. This coalbed methane is deeper than the Powder River's, so much of it cannot be extracted given current economics and technology. However, the Upper Green CBM play may become more profitable with gas prices soaring, technological advancements and the billions of dollars in proposed subsidies for this "unconventional" fuel source.

### **WHAT IS SPLIT ESTATE LAND?**

A “split estate” occurs where the land surface is owned by a private party (often a rancher) and the mineral resources are owned by the federal government. Some 11,413 acres (or 37 percent) of the South Piney project area is “split estate.” The BLM has leased the right to extract the natural gas under much of this acreage. Leaseholders have a property right to engage in all activities necessary to carry out exploration, development and production. Elsewhere in Wyoming, industry has treated land owners with a lack of fairness and candor, disrupting rural patterns of life.

*We’ve made agreements with these companies only to have the companies fail to live up to their agreements, thus forcing us to spend more money and time on lawyers. Industry has been given license to destroy our property, our soil, our grass, our land, our creek and our solitude.* **Powder River rancher Marjorie West, 2004 U.S. Senate testimony**

### **WHAT PROTECTIONS DO SURFACE OWNERS HAVE?**

Before winning approval to drill on a split estate, the leaseholder must provide a statement to the BLM that it has obtained one of the following:

- Surface owner agreement for access to the lands.
- Waiver from the surface owner allowing access to the lands.
- An agreement to compensate for “damages for loss of crops and tangible improvements.”
- A bond “sufficient in amount to secure payment for loss of damages to crops and tangible improvements.”

The first three options are to have been pursued first, documented in writing, and require “good-faith negotiations.” Because operators have the option to “bond on” to a lease, a surface-use agreement with the land owner is not required. Bonds cover only improvements related to agriculture, so many kinds of damages are not included, such as loss of the property value related to hunting and fishing.

The minimum amount to be posted for a so-called 3814 bond is \$1,000. You have only 30 days from the time you receive a copy of the bond to file an objection with the BLM, which will then determine whether the bond is sufficient. If the BLM disagrees with you and determines the bond is sufficient, you have a right to appeal to the Interior Board of Land Appeals. We recommend retaining a lawyer to handle bonding appeals. BLM must also require a separate bond to ensure that reclamation and other lease obligations are met. One of the best ways you can protect your rights is to fully participate in the BLM’s environmental review. You should comment on South Piney’s draft Environmental Impact Statement, due out in fall of 2004, and follow the permitting process for permitting wells, known as APDs.

### **MORE INFORMATION:**

- BLM policy regarding split estates and bonding is spelled out in “Instruction Memorandum No. 2003-131”, available at: [www.blm.gov/nhp/efoia/wo/fy03/im2003-131.htm](http://www.blm.gov/nhp/efoia/wo/fy03/im2003-131.htm).
- The Oil and Gas Accountability Project has prepared a useful and detailed handbook for landowners available at <http://www.ogap.org/>.
- To get on the BLM’s mailing list write for the South Piney EIS: BLM, Pinedale Field Office, P.O. Box 768, Pinedale, WY 82941. Or: [pinedale\\_wymail@blm.gov](mailto:pinedale_wymail@blm.gov).
- Visit BLM’s South Piney project website: [www.wy.blm.gov/nepa/pfodocs/southpiney/index.htm](http://www.wy.blm.gov/nepa/pfodocs/southpiney/index.htm)
- Contact Upper Green River Valley Coalition: ([www.uppergreen.org](http://www.uppergreen.org)) and/or one of its organizers: Linda Baker: 307- 367-3670, or [lindab@wyoming.com](mailto:lindab@wyoming.com)  
Lauren McKeever: 307-367-8472, or [lauren@uppergreen.org](mailto:lauren@uppergreen.org)
- Contact Tom Darin, Jackson Hole Conservation Alliance: (307) 733-9417 [tom@jhalliance.org](mailto:tom@jhalliance.org)
- Landowners Association of Wyoming, [www.wyominglandowners.org](http://www.wyominglandowners.org), is promoting state legislation and a ballot initiative to safeguard surface owners’ interests in split estate conflicts. Contact Laurie Goodman, 307-733-3581.