

# STATE OF COLORADO

---

**OFFICE OF THE GOVERNOR**

136 State Capitol Building  
Denver, Colorado 80203  
(303) 866-2471f  
(303) 866-2003 fax



**Bill Ritter, Jr.**  
Governor

**Bill Ritter, Jr.**  
**Governor of Colorado**  
**Testimony before the Senate Committee on Energy and Natural Resources**

**Oversight Hearing: Oil Shale Resources**  
**Thursday, May 15, 2008**

---

Mr. Chairman, thank you for this opportunity to provide the State of Colorado's perspective on oil shale resources. Oil shale development creates significant opportunities and challenges for Coloradans, and all Americans, with respect to energy supplies, environmental protection, water resources, socioeconomic impacts, and national security. From this perspective, I thank the Committee for the time and thoughtful consideration you are giving to reviewing these issues.

Northwest Colorado is home to extraordinary oil shale resources, among the richest in the world, yielding 25 gallons of oil or more per ton of rock. The area is estimated to hold nearly 500 billion barrels of proven oil shale reserves, which is more than double the proven reserves of Saudi Arabia. Successful development of this resource could provide a substantial new source of domestic oil for the United States, which would have positive implications for our national energy policy and national security.

Even though Colorado's oil shale resources are remarkable, they have remained in the ground since their discovery over a hundred years ago. Past development attempts have failed due to a number of challenges -- technical, economic, and environmental -- that have yet to be overcome, notwithstanding billions of dollars invested by both government and industry. Just as it was 30 years ago during the last push for oil shale development, the State of Colorado is ready to do its part to help the country meet its energy needs. At the same time, we need to be thoughtful about our approach, especially in light of the magnitude of such development. In fact, if the Department of the Interior were to authorize a commercial oil shale industry in Colorado, the development would constitute the largest industrial development in the State's history -- with enormous implications for all of Northwest Colorado and for the State itself.

Since coming into office nearly 18 months ago, I have followed with keen interest federal efforts to jump-start a domestic oil shale program. I have strongly supported continuation of the Research Development and Demonstration (RD&D) process, and look forward to continuing to work with the Administration, Congress, and the private sector to make that possible. Once we understand the results from this federal RD&D process and the other efforts that are being

pursued on private land holdings, and once we have a clear understanding of viable technologies and the steps necessary to manage and mitigate the environmental and socioeconomic impacts of such technologies, thoughtful and meaningful regulations can be developed and a commercial federal leasing program can be put in place. Establishing a leasing program prior to understanding what technologies are viable and the implications of these technologies would be a dangerous course, with enormous risk of unintended consequences. Such a course of action would not be in the best interest of the nation and certainly not in the interest of Colorado.

This position is consistent with Colorado's previous administration which appeared before this very committee three years ago to urge caution with respect to oil shale development and noted that "oil shale technology development is still fraught with uncertainty". I would like to emphasize that the same is true today. Similarly, I have heard from many local mayors, county commissioners and citizens who support a thoughtful and measured approach to oil shale development. In addition, the Western Governor's Association has expressed in a letter to this Congress that they are "very concerned about the accelerated timetable mandated in the [Energy Policy Act] for the development of a commercial scale oil shale industry." As the Governor of Colorado, I will continue to emphasize the need to be responsible and thoughtful when it comes to oil shale development.

### **Background Principles**

Colorado will play an active role in any development of the nation's unconventional fossil fuels, particularly oil shale, and has consistently articulated a desire to move forward in a thoughtful and measured manner with regard to shale. We must ensure that projects are fiscally and environmentally responsible, and that our communities are protected from any harmful boom and bust cycle such as we saw in the 1980s. As the epicenter of the oil shale resource in the United States, Colorado has the most to gain if the resource is developed responsibly and the most to lose if the risks are not managed appropriately. While a reliable, sustainable domestic oil-based resource is increasingly important, equally important, from Colorado's perspective, is the protection of the State's exceptional environment, including our water supplies, our clean air, our mountains, and our wildlife. Colorado's oil shale country also boasts a remarkably diversified economy in which agriculture, tourism, recreation, hunting and fishing, natural gas and mineral development, retirement communities, and their economic drivers co-exist in a relatively balanced and supportive way. This economic diversity grew in part out of the last energy bust, and the current energy boom should not diminish the businesses and culture that emerged from that adversity.

For Colorado, then, there is much at stake in the outcome of any federal oil shale program, including the need for thoughtful development of a commercial leasing program through leasing regulations. That is why I am here today: I am concerned that federal efforts to develop a commercial oil shale leasing program are moving forward too quickly, before public and private research efforts are completed, with necessary testing and monitoring to ensure that the impacts to air, water, wildlife, and communities are fully understood.

My testimony today will provide the Committee with background on the area of Northwest Colorado containing the nation's richest oil shale deposits -- the Piceance Basin. I will also

discuss the status of the federal research and development program, and provide my perspective on pending legislation concerning federal oil shale resources and appropriate steps forward.

### **Colorado's oil shale country**

Northwest Colorado is truly blessed with diverse, exceptional natural resources and a vibrant, diversified economy. While being the epicenter of oil shale country, the Piceance Basin is also home to other world-class hydrocarbon resources. Natural gas, oil, and coal -- all vital components of a national energy strategy -- are commingled in this same geographic region. This area holds centuries of clean coal reserves that are being produced at record levels, a significant oil field that has produced for decades, and trillions of cubic feet of clean-burning natural gas which are currently undergoing an unprecedented boom in development. There are currently twice as many drilling rigs operating in Colorado as there were just five years ago, and the number of active oil and gas wells statewide has increased 40 percent during this period to top 35,000 wells. In 2007, the State issued a record 6,368 oil and natural gas drilling permits -- over half of which were located in the oil shale country of Northwest Colorado's Piceance Basin -- and the Bureau of Land Management (BLM) proposes amending management plans to allow up to 17,000 new gas wells to be drilled in this region over the next twenty years.<sup>1</sup> In 2006, natural gas and other energy-related development accounted for 15 percent of direct and secondary employment in the region. Attached is a recent comprehensive economic study of Northwest Colorado forecasting that population in the region will double in the next 30 years due to the boom in natural gas drilling, and that an additional 50,000 people could move into the region if oil shale development were to occur.

This hydrocarbon-rich area also supports incredible wildlife resources. The Piceance Basin is home to the largest migratory mule deer herd in North America, a robust migratory elk population, one of only six greater sage-grouse populations in Colorado, populations of Colorado River cutthroat trout, and a host of other wildlife species. These wildlife resources have been built up over millennia, are part of active recovery programs, and are of long-term statewide and national economic, ecological, and aesthetic importance. Colorado's future is reliant on these resources remaining strong and healthy.

In the last twenty years, the region has developed a growing tourism industry as well as a vigorous hunting and fishing economy. In 2006, approximately 17,000 jobs were supported by the tourism industry for the region including Moffat, Rio Blanco, Garfield, and Mesa counties -- representing about 15 percent of the jobs in the area. About 20 percent of the tourism jobs in Northwest Colorado are in the outdoor recreation segment -- or about 3,400 jobs.

The region also sustains a healthy agriculture industry, a vibrant and long-standing ranching tradition, and growing retirement communities. Employment in the agriculture and ranching industry -- a 16 billion dollar industry in Colorado -- contributes between 6 percent and 15 percent of all base jobs in the counties in this region. Retirees comprise 13 percent of the population in the region, and their spending supports 11 percent of the basic jobs.

---

<sup>1</sup> See Reasonable Foreseeable Development Scenario for Oil and Gas Activities in the BLM White River Field Office: Rio Blanco, Moffat, and Garfield Counties, Colorado, Executive Summary at 3, available at [http://www.blm.gov/rmp/co/whiteriver/documents/RFD\\_Executuve\\_Summary.pdf](http://www.blm.gov/rmp/co/whiteriver/documents/RFD_Executuve_Summary.pdf).

As a result of its abundance of natural resources, particularly the growth of the natural gas industry, Northwest Colorado is experiencing extraordinary changes in population and associated challenges. Housing affordability is a significant challenge to these local communities, and the capacity of local communities to absorb growth is already largely consumed. Many workers are housed in hotels and motels rather than conventional housing. Much of the transportation infrastructure in these communities is in disrepair and is being severely stressed by growth. The costs to repair infrastructure will require up-front financing, before revenues become available from traditional sources such as severance taxes, property taxes, sales taxes, and federal royalties.

This region is vitally important to Colorado's future. Everything state and federal policy makers do with regard to Northwest Colorado must protect the resources, values, and diverse economies and interests that have been embodied there for decades. We cannot simply think of this region as an area where development of one resource can supplant protection of other social, economic, and natural resources.

### **Moving forward wisely on oil shale**

In 2005, the Congress considered various pieces of legislation related to oil shale resources and ultimately enacted oil shale measures in Section 369 of August 2005's Energy Policy Act. Among other things, the Energy Policy Act called for a research and development leasing program for federal oil shale resources; a regional study of federal oil shale resources and the likely impacts of commercial leasing in Colorado, Utah, and Wyoming; and the adoption of final regulations establishing a commercial leasing program for federal oil shale resources.

Given the significant oil shale resource and exigent national energy interests, Colorado is committed to seeing ongoing oil shale research and development move forward. For example, Shell Exploration and Production has been a collaborative corporate leader in its efforts to develop successful *in-situ* development technologies and we support their efforts to move forward. State officials also assisted the Department of the Interior in reviewing and narrowing the applications for these federal RD&D leases. The State is currently home to five 160-acre RD&D leases that were issued in 2006. If successful, these research and development projects could set the foundation of a subsequent commercial oil shale industry.

Construction has not yet begun on the federal RD&D leases, and none of the companies looking at Colorado's oil shale are talking about commercial development any time in the next decade. I believe that the projects on federal RD&D leases are critical in showing that new proposed technologies work, that they can be utilized economically, that they will not have unacceptable impacts on Colorado's environment, and that the resulting communities are sustainable. Colorado has consistently maintained that development of the information that will allow us to address historic challenges to development of the resource is a prerequisite to federal oil shale leasing, regulation, and development.

In March of this year, I submitted comments to the BLM on the agency's draft Programmatic Environmental Impact Statement for Oil Shale and Tar Sands Resources in Colorado, Utah, and

Wyoming. That document proposes to make nearly 2 million acres of federal lands in the three states -- including nearly 360,000 acres in Colorado -- available for application for commercial oil shale leases.

Today, I reiterate the conclusion I reached after reviewing the BLM's draft document: the approach put forward by the BLM is unwise. The agency proposes to open nearly 2 million acres of federal oil shale resources to potential oil shale development, yet it lacks information about the technologies that would be used or their impacts on the environment. One is a logical consequence of the other – and we have neither at this time. The prospect of oil shale development raises a number of significant questions that must be answered before large-scale leasing goes forward:

- We do not know how much water will be needed for a large oil shale industry or how those water demands will affect other water users. The State is rapidly approaching full allocation of its Colorado River entitlements and will soon enter a new period of trading and sharing water between different users.
- We do not know what the environmental impacts will be on both surface water and ground water quality due to extraction operations, particularly when considering experimental *in-situ* technologies.
- We do not know the scope of potential impacts on wildlife. The Piceance Basin contains unique and irreplaceable habitats for a variety of species, and oil shale development could cause significant habitat loss and fragmentation that would damage important wildlife populations, including greater sage-grouse and big game species.
- We do not know the amount of energy that will be needed to process shale oil, the sources or locations of necessary power plants, the impacts such energy production would have on regional air quality and visibility, or the greenhouse gas implications.
- We do not know how the infrastructure needed to house the incoming workforce will be developed, financed and managed.
- We do not know whether the cumulative environmental and economic carrying capacities of the region have been exceeded, in light of the current natural gas development boom.

Given the information missing from the BLM's analysis, a decision to make 360,000 acres of federal land in Colorado available for oil shale leasing at this time is ill-advised. The State of Colorado, therefore, recommended selection of Alternative A, which would allow activities on federal RD&D leases to continue and potentially expand to commercial leases on over 25,000 acres of federal lands for which the RD&D lessees have preference rights. I am attaching a copy of my comments on the BLM's environmental review for the Committee's use.

For the same reasons that it is inappropriate for the BLM to make land use decisions without results from the federal RD&D leases, it is likewise inappropriate for the BLM to move forward to finalize commercial leasing regulations at this time. The BLM lacks the information necessary to finalize any comprehensive set of rules and regulations for oil shale development. These regulations will establish environmental-protection standards, set royalty rates and address bonding, establish standards for diligent development, determine the allowable size of leases, and make myriad other important decisions that will directly and significantly and irreversibly affect how oil shale development proceeds. Until the basic answers are derived from the RD&D

program, establishing the rules for commercial leasing is premature. Promulgating regulations in the absence of the data from the RD&D projects will likely create an illusion of “regulatory certainty” rather than a comprehensive set of regulations that will be viable for commercial leasing and development.

Colorado is committed to working with the federal government and industry on oil shale efforts going forward. But this requires a thoughtful approach rather than a rush to premature leasing and regulatory decisions that will create legal rights and expectations before we fully understand the economic, environmental, and social implications.

### **Colorado perspectives on pending oil shale legislative proposals**

Finally, I would like to offer my perspective on two pieces of legislation concerning federal oil shale resources.

#### **American Energy Production Act, S. 2958**

Section 433 of the Consolidated Appropriation Act, 2008 provides that none of the funds made available by that Act can be used to prepare or publish final commercial leasing regulations or to conduct a commercial lease sale for federal oil shale resources. I support this restriction, and recently sent a letter to Congress expressing my desire that this funding limitation continue.

A provision in the American Energy Production Act would eliminate this restriction on Department of the Interior expenditures. I oppose this provision.

The oil shale funding limitation contained in the 2008 Consolidated Appropriation Act will not prevent the BLM from finalizing the Programmatic Environmental Impact Statement or preparing draft rules for oil shale leasing. Importantly, it will also not slow or prevent activities on the federal research and development leases. As I have made clear, I support a thoughtful, measured approach to oil shale, which means letting research and development activities yield meaningful results before irreparably locking up federal resources with an uncertain fate through commercial leasing.

#### **Oil Shale and Tar Sands Leasing Act of 2008, S. 221**

This legislation would eliminate some of the timing requirements of the Energy Policy Act and expand opportunities for me and other Governors from oil shale states, as well as the public, to comment on environmental reviews and proposed oil shale regulations. I support these provisions. The Energy Policy Act of 2005 sets out unreasonably ambitious deadlines for preparing regional environmental analyses and adopting leasing regulations. It should be noted that these deadlines have passed. Setting out a more responsible and realistic timeline in legislation is consistent with sound public policy

The legislation would also direct the Department of the Interior to submit to the Congress a report on the status of activities on federal research and development leases as well as various policy issues surrounding a potential commercial leasing program. It would also call for a study

by the National Academy of Sciences concerning oil shale resources, research activities, timing of commercial development activities, and positive and negative implications of such development on the environment and various resources. I strongly support these provisions. They would do nothing to slow current research and development activities, yet they would yield vital information that is now missing from the public debate about commercialization of federal oil shale resources.

Finally, the legislation would provide me and the Governors of other affected states, as well as executives of affected local governments, the opportunity to submit recommendations regarding the size, timing, or location of any proposed oil shale lease sales or with respect to any proposed development or production plans. I support these provisions as well. The State of Colorado and local governments have much at stake in commercial leasing decisions, and I support provisions giving expanded voice to their concerns.

### **Conclusion**

The State of Colorado supports a thoughtful approach to oil shale development. I am encouraged by the ingenuity displayed by the companies seeking to develop new oil shale development technologies, but I am concerned by federal efforts to fast-track decisions about commercial oil shale leasing, including promulgation of leasing regulations. I continue to believe that the prudent course of action is to see the research and development program called for in the Energy Policy Act through so that accurate information might be forthcoming about the likely costs, risks, and impacts of commercial shale development activities. Then, and only then, might the federal government be assured that its rules and regulations can both encourage oil shale development while ensuring a fair rate of return for federal oil shale resources and protecting the environment and communities of Colorado.

Thank you for this opportunity to offer the State of Colorado's perspective on oil shale development.

### **ATTACHMENTS**

- State of Colorado's statement to the Task Force on Strategic Unconventional Fuels (September 2007).
- State of Colorado's comments on BLM's Draft Oil Shale and Tar Sands Programmatic EIS (March 2008)
- Northwest Colorado Socioeconomic Analysis and Forecasts (April 2008)