Energy Development in the Uintah Basin
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Down a lonely gravel road some 50 miles south of Ouray in Utah’s Uintah Basin, U.S. Oil Sands Inc., a Canadian company, would like to strip mine 189.8 million barrels of bitumen, a black, oily, viscous tar, from rock formations on its 5,390-acre PR Springs Oil Sands project. The company expects to develop 50,000 barrels of oil per day from the bitumen over the next decade. The PR Springs Oil Sands project, which is set to begin sometime in 2013, could create 1,250 to 1,750 full-time direct jobs and inject $18 billion into the Utah economy over the lifetime of the project.

Meanwhile, an Estonian-owned company named Enefit American Oil plans to surface mine oil shale from private property along the White River in the Basin, which the company says holds 2.6 billion barrels of shale oil. The company expects to produce 25,000 barrels per day in its first phase and 50,000 barrels per day in its second phase. It would also create several hundred jobs during construction and several thousand long-term jobs once production begins.

Another company, Utah-based Red Leaf Resources, Inc., is developing plans to surface mine what it says is the richest deposit of oil shale in the United States, on 17,000 acres of Utah School and Institutional Trust Lands. The company estimates that an equivalent of 1.5 billion barrels of oil are in place within its leaseholds.

Traditional Oil and Gas
In Utah, where traditional energy development from oil and gas is essential to Gov. Gary R. Herbert’s 10-year Strategic Energy Plan, the potential for oil shale and tar sands development is tantalizing. Earlier this year, an auditor from the Government Accountability Office told Congress the Green River Formation, a wide swath of mostly federal land covering parts of Utah, Wyoming and Colorado, contains about as much recoverable oil as all the rest the world's proven reserves combined.

Traditional oil and gas production currently in place in the Uintah Basin comprises some 6,000 wells. Meanwhile, another 20,000 oil and gas wells have been proposed. Tammie Lucero, economic development director for Uintah County, says traditional oil and gas production in the Uintah Basin creates more than $8.8 billion annually in economic activity for the region. Thanks largely to the energy economy, Uintah and Duchesne counties lead the state in job growth.

As Lucero points out, in 2010 every oil and gas well drilled in the basin produced more than $6 million in economic activity and provided 27 jobs with an average labor income of $57,418 per employee. Projecting forward, with more than 20,000 new wells proposed, the potential exists for energy production in the region (not counting the oil shale and tar...
sands developments) to account for more than $120 billion in economic activity and the creation of more than 540,000 direct and indirect jobs.

**The Bane of Environmental Responsibility?**

But must the boon of energy production in the Uintah Basin be the bane of environmental responsibility? No, says Lucero. “It’s not an all-or-nothing proposition.”

While energy development projects often pit industry and environmental concerns against each other over arguments about “fracking” and ground water contamination, air quality, disruption of wildlife habitat and overuse of limited water resources, Lucero believes many Uintah Basin energy projects offer examples of how collaboration and cooperation are achieving energy production goals while also demonstrating environmental responsibility.

For example, she says earlier this year the Greater Natural Buttes Final Environmental Impact Statement (FEIS) released by Anadarko Petroleum Corporation was heralded as an example of how industry and the conservation community can work together to preserve wilderness-quality lands while also allowing energy development to proceed. For the Greater Natural Buttes FEIS, Anadarko Petroleum collaborated with officials from the U.S. Fish and Wildlife Service, the Southern Utah Wilderness Alliance, the Environmental Protection Agency and the Bureau of Land Management (BLM) to achieve a balance of development and conservation.

Lucero explains that the Greater Natural Buttes is an infill project proposed by Anadarko Petroleum for an existing developed gas field in Uintah County, where up to 3,675 new natural gas wells would be drilled from 1,484 well pads over a period of 10 years under the BLM’s preferred alternative identified in the FEIS. That’s a little more than two wells drilled per pad, she notes.

Geologists involved in the oil and gas industry say that advanced directional drilling technologies allow them to drill down vertically and then turn the drill head horizontally. Using computer-guided drilling techniques, a drill operator can steer the drill bit in any direction, even drilling for miles horizontally to reach oil and gas fields without disturbing the surface area directly above them. Hence Anadarko’s ability to drill multiple wells from a single drill pad.

**Earth Day Awards**

John Rogers, associate director in the Utah Division of Oil, Gas and Mining, says Anadarko received a 2012 Earth Day Award from the division for the company’s efforts to reduce the amount of land it disturbs at its well pads through its advanced directional drilling techniques and through other minimization efforts. The award also acknowledges Anadarko’s reclamation efforts.

Rogers says Questar Pipeline Company also received a 2012 Earth Day Award for its work in protecting the viewshed along the Green River corridor, where the company buried a high-pressure natural gas line. Questar didn’t want people to have to observe the pipeline as they rafted or fished the Green River, he explains, so the company established a way to hide the pipeline and the work, when it was done, from all of the viewpoints.

In 2011, Newfield Exploration, Utah’s largest oil producer, also received an Earth Day Award from the division for working closely with private landowners in Duchesne and
Uintah Counties to create drilling programs that access oil and gas resources while preserving normal farming operations.

Keith Schmidt, Newfield’s media relations officer, says the company is highly conscious of the environment. Like Anadarko, Newfield utilizes horizontal drilling to make the most efficient use of its drill pads and infrastructure. Newfield also uses existing roads as much as possible to reduce its footprint on the landscape.

**Water Recycling**

In 2011, Newfield began water treatment operations in the Uintah Basin by opening its state-of-the-art Sand Wash facility, which recycles up to 10,000 barrels per day of produced water (the water that comes out of the well bore with the oil and gas). Newfield separates the produced water from the oil and gas at the well pad and trucks it to the Sand Wash facility for treatment. The water is later re-injected into the oil-producing formation, which enhances oil recovery and saves precious water resources.

Schmidt notes that Newfield just built a centralized gas and oil separation facility that is reducing truck traffic in the field. Previously, trucks hauling the oil to the refinery picked up their loads at the well pads. Now the trucks pick up their loads at the centralized separation facility. “Our intent is to lower our impact overall,” says Schmidt.

Lucero believes the Basin’s energy economy doesn’t have to grow at the expense of conservation interests and says companies like Anadarko, Newfield, Questar and many others are demonstrating their concern for the environment.

“Oil and gas are not the only resources to be developed in Governor Herbert’s strategic energy plan, but they are important resources,” she adds. “We have the technology to develop them responsibly, which not only benefits the overall economy, but also our schools through SITLA and every community in the state through the Community Impact Board.”

Utah School and Institutional Trust Lands Administration (SITLA) revenues come primarily from natural gas, coal, oil, real estate development and other surface uses such as grazing. Those revenues have grown 270 percent since 2001. All net revenue from the trust lands is deposited in the permanent State School Fund. Interest and dividends from the fund are distributed annually to Utah’s schools. A record-setting $29 million was distributed to school community councils this year, according to the School Children’s Trust Section of the Utah State Office of Education.