

# ***Cimarex to mine helium, methane at Riley Ridge***

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New operation now called 'Rand's Butte Project'

Everywhere you look in Sublette County, new industry and development is taking place. Cimarex Energy, who gained the Riley Ridge Unit lease interest in 2005 and assumed the role of "operator" in 2007, is just one of the new faces in the ever-growing scene – and they hope to be a little less noticeable than others.

Cimarex will be undertaking the extraction of methane and helium located beneath the now-named Rand's Butte Project.

## Helium and methane

Helium is, as most of us know, used worldwide to fill party balloons because it is nonflammable (and it lets you talk like Donald Duck – always a fun party trick). But helium, an inert gas, has numerous other uses. It is used as an inert-gas shield in arc welding, a cooling medium for nuclear reactors, document preservative (such as the Declaration of Independence), and a pressurizing agent for numerous mechanics from cardio-pulmonary pumps to liquid fuel rockets to underwater divers' equipment.

Methane is basically used as a fuel like natural gas, but using it has a cleaner burn for the petroleum and also provides a profitable way for people mining helium or coal to trap the methane and use it as opposed to releasing it into the atmosphere, because it is a greenhouse gas.

## A little history

Mobil found gas in the early 1960s in the Madison Formation outside Big Piney but it was found to be a very low British Thermal Unit (BTU) gas due to its high concentrations of carbon dioxide and hydrogen sulfide. These findings hindered the location's extraction of natural gas.

In the early 1980s, five wells were drilled at Riley Ridge but development halted in anticipation of the area's Environmental Impact Study (EIS). The plant approved after the EIS became the Exxon Shute Creek plant.

Riley Ridge is an existing federal unit formed in 1982 that, according to Cimarex, has existing production from the Frontier Formation and four dormant Madison wells.

The current Riley Ridge project by Cimarex has been renamed Rand's Butte Project to avoid confusion with past production.

## The project

After taking possession, Cimarex has determined the project area contains a large reserve of methane and helium, and due to advances in technology and the decrease in availability of helium, decided to undertake the operation of a new plant on the already existing site.

"The Riley Ridge unit has existed for almost 30 years," said Project Manager Scott Stinson. "A kind of perfect storm came together."

Stinson (whose father developed the current Chemical Engineering department at the University of Wyoming) said his expertise along with his father's, combined with a fruitful location and Cimarex's owning the land, just made sense to start moving forward with the project.

"It's almost like a culmination of (my father's) 50 years of work," Stinson said. "We started asking ourselves how we could do the project with the smallest footprint."

According to Stinson, he and many others have worked behind the scenes for several years to develop the current proposed project. He stated the work has been done in unison with local landowners, the Bureau of Land Management (BLM), Department of Environmental Quality (DEQ) and the Oil and Gas Commission (OGC).

He and his father are both of the opinion that everything needs to be site-specific to work the best, Stinson added. This new technology was developed in Wyoming.

"We now have what we feel is a very strong project, and we're ready to come out onto the stage," Stinson said.

Stinson said that there will be very little added to the current facility; there will be no new roads and the majority of facilities will simply replace what is currently there.

"We're going to update it," Stinson said. "There will be no more Madison wells than are there currently and it's going to be in one immediate area, out of public view shed."

The plant will develop reserves of 620 billion cubic feet (BCF) of methane and large supply of helium.

"We need it and we can develop it," Stinson said. "This is a three-years' world supply of helium from a known field."

The plant, Stinson said, will also be reinjecting the CO<sub>2</sub> and H<sub>2</sub>S to its original place in the formation storing it there instead of releasing it into the atmosphere.

"We can use it as a chance to demonstrate carbon sequestration technology on a large economic stance," Stinson said.

A lot of thought and effort has gone into minimizing the footprint coming from the plant going in, he added, and there will be many public meetings in the near future where the people will be welcome to share their input and opinions.

"The BLM's scoping (notice) will be coming out soon," he said. "After that there will be a lot of public meetings. ... There will be ample opportunity for local residents."

"I'm sensitive to the needs, and when I drive through the valley I too have mixed feelings (toward development)," Stinson added. "It is a very holy place, and I am very aware of my responsibility to it."