



Story available at <http://www.billingsgazette.net/articles/2006/09/06/news/wyoming/25-microbes.txt>

Published on Wednesday, September 06, 2006.

Last modified on 9/6/2006 at 1:01 am

Microbes assist in cleanup at Crosby well

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CODY - Microbes are among the tools being used in cleanup efforts at the Crosby well site in Clark following a blowout there last month.

Concerns about contamination of nearby water wells prompted a testing and remediation program that includes the drilling of a series of monitoring wells, according to a statement released by the state Department of Environmental Quality.

Test results so far show no traces of contamination from natural gas and gas condensate forced to the surface during the blowout, the statement said.

The monitoring wells constitute a "thorough and long-term evaluation of the potential groundwater impacts of the blowout," the statement said.

Well operator Windsor Energy said the company had hired Terracon, a national consulting engineering firm with offices in Billings, to complete a testing program to determine whether groundwater was affected.

The program, expected to be completed around Sept. 15, will include analysis of water samples from the monitoring wells and other groundwater sources, and further sampling of subsurface soil and bedrock, the statement said.

Windsor will forward findings from the analyses to the DEQ, but Keith Guille, a spokesman with the agency, said Tuesday he was unsure when those results were expected or whether they would be made public.

Some of the earliest cleanup efforts focused on removing drilling fluid and condensate forced to the surface through underground fissures near the well site.

Vacuum trucks were used to remove large concentrations of contaminants on the surface, including about 10 barrels of gas condensate.

A bioremediation agent called Micro-Blaze was used to help clean up trace amounts of condensate on and in the soil, according to Don Likwartz, supervisor of the state Oil and Gas Conservation Commission.

The product is a combination of nutrients, microbes and a wetting agent, said William L. Scogin, president of Houston-based Verde Environmental, makers of Micro-Blaze.

It is designed to immediately render spills nonvolatile, and eventually break down hydrocarbons into

carbon dioxide and water, Scogin said.

"The wetting agent begins to break up and start to emulsify the condensate, breaking it down into smaller particles," Scogin said. "Then the microbes come out of their spore form and come into contact with the hydrocarbon molecule and stick to it."

The microbes, a collection of bacteria designed to tackle the most common kinds of oil and gas spills, feed on the hydrocarbons, and will continue to replicate as long as hydrocarbons and moisture are present, Scogin said.

Condensate is one of the easiest contaminants for Micro-Blaze to degrade, Scogin said.

Micro-Blaze is approved by the Environmental Protection Agency, and is used "virtually all over the world in all types of industries, from refineries to fire departments" to eliminate flammability in gasoline and oil, and to clean residue left behind after spills, Scogin said.

The product can degrade spill residue in days, weeks or months, depending on conditions, he said. It works best in the presence of oxygen, but also works anaerobically. Tilling contaminated soil helps speed cleanup.

The microbes in Micro-Blaze are not genetically engineered, and are tested and certified as nonpathogenic and nontoxic, Scogin said.

"We've combined those microbes that will best clean up hydrocarbons," Scogin said. "It's just Mother Nature."

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