Blowouts onshore: Fear, pollution, uncertainty

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In this Aug. 31, 2010 photo, environmentalist Deb Thomas stands next to the Crosby 25-3 gas well, which blew out in 2006 when it was being drilled in the Line Creek Valley, about 40 miles east of Yellowstone National Park. The blowout released potentially explosive gas and authorities evacuated homes in the valley for three days. Local residents remain concerned about a plume of groundwater pollution they fear could spread to their water wells. (AP Photo/Mead Gruver)

(AP) -- A gas well blowout in the shadow of Yellowstone National Park spewed a cloud of explosive natural gas, forced evacuations for miles around and polluted the drinking water - and the people who live in Wyoming's Line Creek Valley still wonder four years later if their lives will return to normal.

Days of panic after the Aug. 11, 2006, blowout at the Crosby 25-3 well

have been replaced by lingering uncertainty about a pollution plume 225 feet underground. Now Windsor Energy is applying to drill a new well - inside Shoshone National Forest, less than a mile from the blowout - even though the blowout's cause, to this day, remains a mystery.

"It's just speculation," said Tom Doll, supervisor of the Wyoming Oil and Gas Conservation Commission, which oversees oil and gas drilling. "I don't have anything in the records that show what the cause was."

For some who live in this idyllic valley of cottonwoods cradled by sagebrush hills, where elk outnumber people and the occasional grizzly bear saunters down from the Beartooth Mountains, enough is enough.

"I didn't really believe in that `not in my back yard' philosophy. I felt that someone's got to bite the bullet, so to speak," Jim Sonderman, who retired to the valley in 2004, said of area gas drilling.

"I've kind of changed my views on things."

Last year's Deepwater Horizon disaster focused international attention on offshore blowouts. But they happen more often onshore, with dangerous effect: Release of flammable and toxic gases, spills of oil and drilling fluid, and plumes of groundwater pollution.

Most U.S. onshore blowouts occur at gas wells. Tracking them falls to the states. The Texas Railroad Commission lists nearly 100 blowouts in that state since 2006. Louisiana has had 96 onshore blowouts since 1987.

In November 2009, a gas well blowout killed one worker, injured another and prompted the evacuation of two dozen homes 20 miles south of Shreveport, La. In June, a well spewed gas for 16 hours following a blowout in rural central Pennsylvania. In August, a 200-foot plume of oil, gas and brine erupted for more than two weeks from an exploratory

well 60 miles west of New Orleans.

Blowouts can result from the failure of blowout preventers, designed to seal off the well bore and block a surge of gas or pressurized oil from underground. They also can occur when the well bore ruptures, which is what happened at the Windsor Energy well here, a couple miles from the Montana line.

Gaseous mud and gas condensate, a type of light sweet crude, bubbled up around the rig. A sulfurous smell wafted through the air. Firefighters raced up and down the valley telling people to shut off their pilot lights, round up their pets and livestock, and get out.

"You could taste it. You could feel it on your skin. And it was just blowing. It was just like this huge cloud of gas coming off this pad," said Deb Thomas, an environmentalist who lives less than a mile from the well.

Twenty-five homes were evacuated. Gas spewed for two and a half days until workers plugged the well with 1,300 barrels of heavy mud.

The blowout happened when the well's steel casing and cement surrounding the casing ruptured underground. Documents filed with the state show that Nabors Drilling was to use 9 5/8-inch steel pipe reinforced by concrete inside a 12-inch drilling hole.

"Typically that should have been enough to prevent such a thing from happening," Doll said.

It's still unknown if the pipe or cement was defective or if human error was involved. In 2007, Windsor paid a $2,812.50 state fine as part of a settlement with the Wyoming Department of Environmental Quality. Windsor also agreed to post $300,000 bond to assure that it would clean

up the groundwater. The cleanup is expected to begin in earnest this year.

In 2005, Windsor paid a $5,000 state fine for improperly dumping 200 barrels of drilling fluid and other liquid waste in the area. Benzene, a carcinogen, has been verified at a residential well a quarter-mile from the blowout. Windsor paid for a filter on the well.

Dozens of monitoring wells suggest the pollution plume is not spreading. That doesn't reassure homeowners still awaiting cleanup.

"The word has gotten out. If we ever wanted to sell or had to sell our house, it's going to affect us," Sonderman said.

"You can never say never because it's the subsurface and you really can't say what's going on down there," said Kathy Brown, cleanup project manager for the environmental quality department.

Susan Aholt lived a half-mile from the well. Not long after the blowout, rainbow-colored sheens appeared in Line Creek, she said. She quit eating trout she'd catch from the creek.

"That's the worst part of it, the feeling that you have absolutely no control over your environment or your life at that point," said Aholt, who with her husband, Bob, sold their home and moved away.

Doll said the conservation commission has changed its rules since the blowout. They more clearly state that companies must use pipe and cement that meet standards set by the American Petroleum Institute.

Windsor has been getting gas out of the blowout well, though not as much as it would like. Attempts last fall to increase production by injecting pressurized water, sand and chemicals into the well - an

environmentally controversial practice called hydraulic fracturing - yielded disappointing results, company officials said.

Thomas, the environmentalist, said Windsor's record should disqualify it from new drilling in the area.

"This is a company that has made mistake after mistake. We still haven't remedied the problem up here," she said.

Not everybody in the valley agrees. Jerry Neal, a former Louisiana rig worker, abandoned his home for three days after the Windsor well blew. But he insists the company has taken good care of the people of Line Creek Valley.

"We got to have energy and until some more is developed, well, we're going to have to keep developing what we got," Neal said. "I understand that. I come from an oil country."

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