

Couple claims energy exploration contaminates their water

By Lana Michelin
Red Deer Advocate
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Ponoka-area cattle farmers say their water well is getting increasingly more contaminated with “extremely explosive and deadly” hydrocarbons and sour gas — and Alberta’s energy regulator isn’t acting quickly enough to protect them.



Shawn and Ronalie Campbell are concerned that their water well is now 10 times as polluted as when it was tested several years ago.

The couple haven’t been using the contaminated well on their property for drinking, but only stopped showering and laundering clothes in the water this fall when the latest test results became known.

Explosive methane and other associated hydrocarbon gases in the Campbells’ water well were shown to have increased to 500,000 parts per million in testing done last July.

Ronalie said recently that this compares to 87,900 ppm in 2009, 67,900 ppm in 2007, and 7,840 ppm in 2006.

Hydrogen sulphide (H₂S) was recently found to be at 88.5 ppm in July, compared to 9.9 ppm in 2006.

The current rate is more than eight times higher than the safe level, which is below 10 ppm, said Ronalie, who believes the depth of the contamination indicates it was caused by oil and gas activity in the area.

But the Energy Resources Conservation Board (ERCB) sees no evidence of this.

“Fingerprint” testing conducted on nine oil and gas wells operating in the vicinity showed no exact match with the hydrocarbons found in the Campbell’s well, said ERCB spokesperson Darin Barter, who added, “There’s no direct link.”

Ronalie disagrees, saying a report confirmed the well is suffering “thermogenic impact” from deep source gases that are being tapped into by energy companies in the area.

A 2009 report commissioned by the ERCB accepts that deeper gas migration could have occurred by historic fractures created by a former resource company called PanCanadian in the 1980s, she

said. (Hydraulic fracturing, or fracking, is when high-pressure fluid is injected deep into rock layers to open up new channels and increase the extraction rates of fossil fuels.)

If methane gases from different depth levels mixed together in the water, then the combination might not be traceable to a particular source, Ronalie suggested.

“I don’t care what energy well it is, at this point. We know it’s from an energy source, so they should say, ‘All of you have to clean this up,’ ” added Ronalie, who’s disappointed by the ERCB’s position.

She’s particularly upset that the ERCB is advising them to fix the problem, instead of industry doing it.

One suggestion from the energy regulator is that the Campbells should build a venting shed to heat the well water, allowing noxious gases to evaporate into the atmosphere. But Ronalie isn’t even sure it would be legal to vent such concentrated poisonous gases.

“What if somebody got knocked out walking by?”

She noted the sour gas would be particularly dangerous if inhaled. And methane is explosive, said Ronalie, adding a venting shed blew up in Northern Alberta.

According to Barter, the hydrogen sulphide found in the Campbells’ well water must be naturally occurring from bacteria since the closest sour gas well is 10 km away from their property.

But Ronalie believes bacteria can’t produce such high concentrations of sour gas — “They (ERCB officials) know that.” She noted that all of the sweet gas wells in the vicinity produce low amounts of sour gas, too.

This is a case of the regulator protecting industry instead of the public, she said.

Barter believes the ERCB must be doing something right if both landowners and industry are complaining that the regulator isn’t in their corner.

He disagrees that the ERCB isn’t doing enough for the Campbells, saying that ongoing testing was offered of their contaminated water well.

But Ronalie said the well has been studied long enough and action is needed.

While the Campbells get their drinking water from a less productive, unpolluted well on their property, Ronalie said there’s no other drinking source for their cattle once the cows are moved back from where they have been kept on another quarter-section.

She said exposure to sour gas is known to cause miscarriages and calf deformities.

Water grief brings cowboy to tears Rancher fights contamination

Jason Fekete, with files from Renata D'Aliesio, Calgary Herald
Calgary Herald
Wednesday, May 02, 2007

A rugged Alberta rancher -- who says a handshake is more important than any paper contract -- was brought to tears Tuesday in Edmonton, as he launched a petition calling on the Stelmach government to protect the province's groundwater from oil and gas contamination.

Ponoka-area farmer Shawn Campbell, 57, tried to choke back tears under the brim of his cowboy hat at a news conference, when he argued rural Albertans' worries over their contaminated and potentially toxic groundwater are largely falling on deaf ears.

Campbell and his wife Ronalie, 55, were the first Albertans to sign the petition titled "A Pledge to Invest in Alberta's Future" -- which demands a series of groundwater safety protocols -- and are calling on all MLAs and the rest of the province to follow suit.

Industry production has contaminated their water with several explosive gases, he insisted, such as methane, ethane and propane. But the government is treating them like a bunch of "dumb farmers," he said, and is failing to protect the best interests of citizens.

"I've lost total faith in our government today," Campbell said, his voice breaking with emotion. "They have a long ways to go back to get my handshake again."

Their pleas come the same week a new report from the Alberta-based Pembina Institute argued the province needs stronger regulations to protect groundwater from potential contamination related to increased natural gas production. The study urged government to step up regulations on industry to conduct water-well testing prior to drilling gas wells and improve the system for handling and reporting landowners' complaints.

But Environment Minister Rob Renner said Tuesday there's been methane in groundwater for years and that only recently have Albertans become more aware of the issue.

"We do everything that we possibly can to maintain the integrity of our groundwater," Renner told reporters at the legislature. "If there is any clear evidence that we need to take further action, we're prepared to do so."

But Renner said the province's analysis of sample wells shows most of the contamination issues are the result of poor well maintenance by landowners.

Alec Blyth, a hydrogeologist with the Alberta Research Council who's part of the scientific panel reviewing Alberta's water testing rules, said he's surprised by how many water wells are poorly maintained.

Ninety per cent of rural Albertans rely on groundwater for their homes, but residential wells aren't regulated in Alberta.

Still, Blyth believes improvements to the province's testing system are required. One gap he's cited is the need to collect better data on the natural gas from coal bed methane wells.

"We've got a fingerprint of the gas, but there is nothing to compare it to," he said recently. "I think that leads to problems."

The conference also included representatives from industry and landowners. One thing they all agreed on is the province doesn't know enough about the water that lies beneath the ground.

"In the province, we don't know where the water is," Blyth told the audience. "That's the bottom line."

The Campbells, who have more than 30 producing oil or gas wells on their land, maintain their groundwater has been contaminated by a conventional deep gas source, and their water hisses and bubbles when coming out of the tap.

Their holding tank was burping, they said, which forced them to flee their home at one point, worried it would explode. Bottled water is now their only option. "People need to hear about this," Shawn Campbell said.

The couple joined Liberal environment critic David Swann, as well as three other frustrated land owners in calling for an independent assessment of groundwater quality in Alberta.

The petition also seeks an early-warning system that could detect groundwater contamination and begin water-well data collection before approving unconventional gas development.

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Gov't ignoring tainted groundwater problems: rancher

Jason Markusoff, The Edmonton Journal Published: Wednesday, May 02, 2007

EDMONTON - Afraid coal-bed methane wells have tainted her water, Fiona Lauridsen moved her cattle to another farm.

Her husband spends days away from the family, with the calves.

"I don't want to see my animals poisoned," she said. "The water coming out of my well is vile. You can't swallow it."

Alberta Environment told Lauridsen a methane-producing bacteria got into her well.

Debbie Signer, who also lives near the hamlet of Rosebud, was told by the department that poor well maintenance made her water undrinkable.

Both women were at the legislature Tuesday to say the government has rejected their pleas for more answers.

In the 18 months since their problems and similar ones emerged, officials are still investigating, while more wells are drilled to extract natural gas from coal seams deep underground.

"Alberta Environment is doing everything that it possibly can to get to the bottom of this issue," Environment Minister Rob Renner said in the legislature.

He said his ministry has drilled some monitoring wells but doesn't have a conclusive link that coal-bed methane activity is harming groundwater.

But Lauridsen and Signer argued the evidence is there. Signer showed reporters water-sample results the ministry did on her property, finding a toxic stew of petroleum-related chemicals, including butane, isopentane, hexane and the solvent toluene. That suggests naturally occurring bacteria along did not trigger the problems, she said.

Heather von Hauff, a groundwater policy adviser with the government, said some of the hydrocarbon chemicals can be found in commercial products such as glue. She and other officials would not discuss the investigations.

More than 10,000 coal-bed methane wells have been drilled in Alberta.

Alberta Environment has investigated 61 complaints that coal-bed methane has caused water problems. In most cases, improper well maintenance was found to be the culprit, a spokesman said. Four more are ongoing, including a Ponoka County farmer's problems with conventional oil and gas wells.

The other coal-bed complaint still being probed is from Wetaskiwin County's Dale Zimmerman, who claimed 12 of his cows died for unknown reasons. After hearing his complaint, Lauridsen said she refused to expose her livestock to the same potential dangers.

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Alberta accused of ignoring water well contamination by oil and gas drilling (Alta-Coalbed-Methane)

EDMONTON (CP) _ Shawn Campbell says the Alberta government has refused to test the toxic cocktail of petro-gases that he says have poisoned his drinking water.

The Ponoka farmer spoke at a news conference organized by the Opposition Liberals to highlight concerns about coalbed methane drilling.

Campbell and wife Ronalie said they have 30 producing oil or gas wells on their 250 cow-calf operation.

They discovered more than a year ago that their water well contained explosive gases like methane, ethane, propane, butane and pentane.

He said they have fought the province unsuccessfully to have full comprehensive testing of their water.

Environment Minister Rob Renner said he is not aware of any instances where the province has refused to test wells.

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Complaint prompts well tests

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[By Mary MacArthur](#)

Camrose bureau

Alberta Environment officials have taken samples from wells after Shawn and Ronalie Campbell complained at a recent news conference the government has done little to help find out how gas contaminated their water well.

Andrew Horton, an Alberta Environment spokesperson, said the government hopes tests of gas and water wells last week near the Ponoka-area farm will isolate the cause of the contaminated drinking water.

"We're taking this very seriously," said Horton. "Hopefully we will get this resolved soon."

Ronalie Campbell said four companies have already sampled water from their well since it became contaminated 18 months ago and have identified methane, ethane, propane, butane and pentane in their drinking water. The explosive gases have been identified as coming from deep production gas zones.

Campbell said they weren't notified the province was sampling water from nearby water and gas wells, but noticed government trucks in the area and asked to watch the process.

"We were not supposed to be included, but my husband asked permission to go on site," said Ronalie.

"We were never included in the loop," she said. "We're victims in this situation and we're the last ones to get any information."

Ronalie said they hope the latest tests will lead the government to provide safe drinking water for their home and their cattle.

"We want to know if they plan on taking any positive action to provide us with safe drinking water," said Ronalie.

Horton said between Jan. 1, 2004, and April 10, 2007, the environment department received 177 complaints of ground water problems. Only "a couple" have been linked to the energy industry. There have been no links to ground water contamination from coalbed methane, he said.

Ronalie said it costs about \$250,000 to fix a leaking energy well, a lot of money for most farmers, but about 20 days production for energy companies.

"That's not bringing them to their knees. It's asking them to be responsible."

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