

Grimy, Fizzy, Combustible

Big flats residents claim drilling contaminated well water

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Grimy, fizzy, combustible. That's how Joe and Bonnie Todd described their water last month during the forum at Trinity Episcopal Church in Elmira.

"This is what I have to wash my laundry in," Bonnie said, holding up a jelly jar full of black water. "There's so much methane that it locks up the water pump." The water problems began the first couple days in September, and the Todds believe they are related to drilling activity a half mile or more away from their home.

A little less than three thousand feet away, on Yawger Road just north of the Elmira/Corning regional airport, Anschutz Exploration Corporation has been drilling into the Trenton-Black River formation.

Trenton-Black River is not shale – it's a dolomite formation buried thousands of feet below the Marcellus shale. Whatever gas is there lies trapped in "grabens", troughs that are situated between parallel faults. While drillers don't have to do the same kind of hydraulic fracturing used in Marcellus wells, they still have to stimulate the deep wells to get the gas flowing. And they still need to drill through layers of stone, crossing through aquifers on their way down.

Drilling down into the Trenton-Black River formation requires the use of drilling muds, but drilling through the dolomite is very different from drilling through shales. In addition to water and friction-reducing chemicals, drillers inject a weak solution of hydrochloric acid to dissolve any residual limestone in the dolomite. But most drillers don't frack Trenton-Black River wells.

"I was told the well would be a deep well," Joe told *Broader View Weekly* in a telephone interview. "I was told we wouldn't be dealing with fracking chemicals. I never expected methane to be a problem."

The Todds aren't the only ones with water problems. Nine other homeowners in their neighborhood are also finding high levels of methane and sediment in their water. The houses are clustered in a square that includes the southern parts of Lewis Road, Melvin Lane, Wolcott and Sing-Sing. Other homeowners – including neighbors just across the street – have seen no problems with their water wells.

The NY Department of Environmental Conservation (DEC) has been investigating the water wells, but states that the way the gas wells were constructed makes it unlikely that the gas has migrated from deeper formations into the aquifer. "Wells were constructed with three casings cemented back to surface and through all shallow fresh water zones," DEC says in a fact sheet published this November.

The turbidity could have been caused by seasonal fluctuations, mechanical failures of the homeowners' wells or build-up of minerals. But would ten different homeowners experience the same exact problem at the same exact time, Todd wonders?

“We found there was a problem when Bonnie was doing the laundry. All of a sudden there was no water pressure.” Thinking it might be the pressure tank, the Todds called the repairman who told them their tank had become vapor-locked by too much methane.

“In all our 22 years here, we’ve never had that problem,” Joe said. Then the repairman said he was headed to a neighbor to look at a similar problem. The Todds reported the problem to the Chemung County Health Department and to DEC.

“DEC, when they came, the amount of methane pegged their meter it was so high,” Joe said. But DEC insists that methane is normally found in the bedrock in that area and, aside from offering to test the water, all DEC has done is urge homeowners to vent their wells.

“It seems funny, though, how all of us in this part of the neighborhood ended up with methane in our water at the same time,” Joe mused. But the sediment problem has gotten better in the past three weeks. Since early September Joe had been changing the water filters in his house every two days; now he can go ten days before needing a clean filter. He speculates that this might be due to some testing at the gas well – according to DEC Anschutz has been running some casing integrity tests.

“But it hasn’t taken care of the methane problem,” Joe says. “We can still light our drinking water on fire.”

The frustrating thing for the Todds is that they wanted nothing to do with drilling. They didn’t sign a lease – “it was only a couple hundred dollars for these small properties,” Joe explained – and at the beginning of the year they were compulsory-integrated into the 612-acre Dow 2 unit. The Todds didn’t know when the drilling was going to begin, and the company didn’t offer to conduct pre-drilling water tests.

After their water turned black, the Todds shelled out close to \$500 to have their water tested. The lab is testing for methane, heavy metals and volatile organic compounds – things the Todds wish the company had tested before they started drilling. The tests should be back within the week.

Meanwhile, the Todds would like the Town of Big Flats to bring town water to the neighborhood. The water pipeline is only 50 yards from their home. To do that, though, they have to get 51 percent of the property owners in the neighborhood to sign a petition requesting that the town extend the water district, says Big Flats Town Supervisor Theresa Dean.

“I’d gladly pay to put it in,” says Joe. “Let’s get drinkable water into our neighborhood. We can worry about who’s at fault later.” He’s hoping the neighbors can bring a petition to the town board soon so they can solve their water woes.