

Test Water Wells before Fracking Starts, Experts Say

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Two experts on the gas drilling process called *hydraulic fracturing, or fracking*, told a group of Pennsylvanians that they should have their private well waters tested before any drilling begins near their homes. Neglecting to have such testing performed could lead to problems if fracking contaminates their wells.

According to a report in the Citizen's Voice, Peter Wulfhorst and Bryan Swistock, educators with Penn State Cooperative Extension, held a seminar in Luzerne County to discuss water quality issues related to fracking. If water contamination occurs within 1,000 of a drilling platform, Pennsylvania law presumes that drilling is the cause. As such, most drillers will volunteer to test wells within that area prior to beginning operations. Wulfhorst and Swistock said property owners should take the drillers up on such offers. Gas companies lose that presumption of guilt if property owners turn water testing down, Citizens Voice said.

The pair also said property owners should pay for their own testing if they can afford it. Such tests should look for barium, chloride, elevated levels of total dissolved solids, the pH factor, and methane. These chemicals are often associated with natural gas drilling. When a property owner commissions such tests, a lab employee or independent consultant should obtain the water samples and keep a copy of the chain-of-custody report

According to Citizens Voice, Wulfhorst and Swistock also said there are some things property owners should look for after drilling commences that could indicate their well water has become contaminated. Water that "looks like Alka-Seltzer," could contain methane, or if it leaves red stains it could have high iron levels.

The Pennsylvania State Department of Environmental Protection and the gas driller need to be contacted immediately if any changes in water quality are noted.

Hydraulic fracturing involves injecting water, sand, and a cocktail of chemicals at high pressure into rock formations thousands of feet below the surface. The chemicals that make up that fracking fluid are cause for concern. They may include, among other things, barium, strontium, benzene, glycol-ethers, toluene, 2-(2-methoxyethoxy) ethanol, and nonylphenols. All have been linked to health disorders when human exposure is too high. Thanks to a move by Congress in 2005, fracking is exempt from federal regulation under the Safe Drinking Water Act, so drillers don't have to disclose what is contained in their fracking fluids.

Pennsylvania has seen several water contamination incidents where fracking is a suspected cause. Perhaps the most well-known occurred in the Susquehanna County town of Dimock, near the New York border. There, problems with the cement casing on 20 wells drilled by Cabot Oil & Gas have caused contamination of local water wells, driving down property values and causing sickness. Levels of methane in some Dimock water wells are so high that homeowners are able to set water aflame as it comes out of their taps.

In October 2009, state regulators finally acknowledged that a major contamination of the aquifer had occurred. In addition to methane, dangerously high levels of iron and aluminum were found in some wells. Fifteen Dimock residents whose wells were contaminated are now suing Cabot.

Other Pennsylvania residents have reported similar problems. Earlier this month, for example, 13 families from Susquehanna County's Lenox Township – just 10 miles from Dimock – filed suit against another driller, Houston, Texas-based Southwest Energy Production Company, for allegedly allowing a fracking operation to contaminate their water wells. At least one person, an infant, has become physically ill, and exhibits neurological symptoms consistent with toxic exposure to heavy metals. The other families live in constant fear

of future physical illness, particularly with respect to the health of their minor children and grandchildren, the lawsuit said.

“The fracking fluid leaked into the aquifer and contaminated wells within several thousand feet, if not more,” Peter Cambs, an attorney with Parker Waichman Alonso LLP, one of the firms representing the families, recently told the Associated Press.