

# Your Private Drinking Water and the Natural Gas Industry: Part Three

*This column is presented weekly by the Public Education sub-committee of the Clinton County Natural Gas Task Force in an effort to provide accurate, up-to-date information on activities surrounding the Marcellus Shale formation and the natural gas exploration industry. For more information on Task Force activities, visit the Task Force page on the Clinton County government website at [www.clintoncountypa.com](http://www.clintoncountypa.com).*

The Clinton County Natural Gas Task Force recently hosted two public meetings that focused on protection and testing of private water supplies near natural gas drilling. At those meetings, Bryan Swistock, water resource extension specialist with Penn State's School of Forest Resources, provided valuable information and practical advice for people interested in protecting their private drinking water supplies. His presentation is being reproduced in this column, with today's article being the third of a four-part series.

Knowing the quality of your home well or spring water before natural gas drilling is critical to knowing if that quality changes or is impacted by natural gas drilling (or any other factors, for that matter). Swistock says if you want to legally document your water quality prior to any drilling occurring, you need to use a third-party, state-certified test lab.

Importantly, he says that many drilling companies conduct what is called "pre-drilling survey" water testing.

"This is a survey of drinking water supplies in the vicinity of the natural gas drill site. The survey is not actually performed by the drilling company, but by a third-party, accredited testing firm," says Swistock. "If you are asked to participate in such a survey, it's in your best interest to do so, since the drilling company will pay for the water test."

## Pre-Drilling Survey Water Testing

- Usually on water supplies within 1,000 feet (some further)
- Must be done by a state accredited water laboratory
- Parameters chosen by drilling company
- Free to the water supply owner
- Cooperate with this testing to maintain "presumed responsibility"
- Ask for and write down the identification of anyone who visits your home to take a water sample. Ensure that they are "unbiased"
- You have a right to receive a copy of any water test results – arrange for how you will get this copy



Swistock says people always have the option of paying for their own water testing. He says there are several factors to consider.

## Purchasing Your Own Water Tests?

- Considerations
  - Will free water testing be done as part of a pre-drill survey?
  - Do you trust that free water testing?
  - How much can you afford to spend on water testing?
  - Timeframe for testing?
  
- If you decide to pay for your own water testing:
  - Seek out state accredited water labs
  - Have lab employee or consultant collect a “chain-of-custody” water test that will be legally valid
  - Testing for all parameters can get very \$\$\$
  - Discuss qualifications and costs with the laboratory. Select a testing package that addresses your concerns while still being affordable.

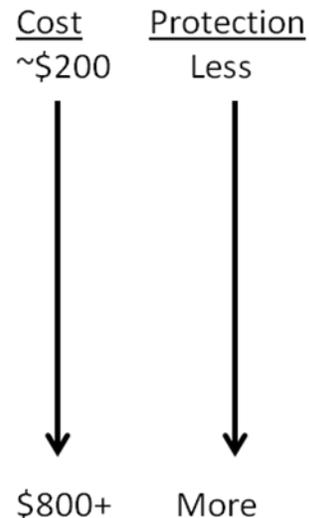


As far as “what” to test for when testing your drinking water supply, Swistock recommends a tiered approach.

“There’s no perfect answer, but I suggest setting some priorities – ask yourself what is most critical to test for and start there. Prioritize and determine what you can afford to test for. If you are financially able to do more, there are some additional parameters you could consider.”

## Testing Parameters

- Critical indicators
  - Total dissolved solids, pH, barium, chloride, iron, manganese, methane gas
  
- Excellent additions
  - Suspended sediment, hardness, sodium, total organic carbon, strontium, lead, arsenic, alkalinity, oil/grease, surfactants, coliform bacteria, sulfate, nitrate
  
- Expensive additions
  - BTEX, volatile organic compounds (VOC), radium, radon, gross alpha



More Testing = More Protection

## Other Water Testing

- Water quantity
  - Contract with well driller or hydrogeologist
- Voluntary monitoring during drilling?
  - Simple TDS or conductivity meters
- Post-drilling testing?
  - Usually voluntary testing arranged by the homeowner
    - Timeframe important for “presumed responsibility”
  - Testing may be done by DEP as part of complaint
- Keep in mind that testing can be part of lease negotiations
  - Pre- and post-drilling testing (wells, stream, ponds, etc.)
  - Drinking water + other water (streams, ponds, etc.)
  - Timeframe for delivery of results



Next week, the final article in this series will address how important it is to understand your water test results, and offer web sites to help determine when to test your water and information that is available through the Penn State Extension office.