



CHAUTAUQUA COUNTY DEPARTMENT OF HEALTH
Division of Environmental Health Services

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Mr. Jack Dahl
Director, Bureau of Oil & Gas Regulation
NYS Department of Environmental Conservation
Division of Mineral Resources
625 Broadway
Albany, NY 12233-6500

Dear Mr. Dahl:

Thank you for responding to my letter dated June 1, 2009 regarding a water well complaint at the Ferrugia home in the Town of Kiantone, Chautauqua County. I appreciate the time you and your staff spent reviewing the information I sent, obtaining additional information, and preparing the response.

With over 6,000 gas and oil wells having been drilled in Chautauqua County, I understand and appreciate the positive impact that the oil and gas industry has had on Chautauqua County's economy and on the region's energy production. I further believe that drilling and development of gas and oil wells in Chautauqua County has resulted in relatively few environmental impacts that we know of. However, there is no denying that impacts have occurred in our county and elsewhere and, due to the rural nature of our county, there may be groundwater quality impacts that we are unaware of.

The increase in gas well drilling activity over the past few years has resulted in an increase in complaints to this Department from property owners who state their water wells were impacted by gas well development. The Ferrugia case happens to be one where the gas drilling company tested nearby water wells before and after drilling gas wells in that area. The data showed a water quality impact following gas well drilling. I understand you have limited resources to spend on these issues. However the information provided herein warrants that a more thorough review of this case be conducted by your Department, especially in light of the anticipated increase in drilling activity we will see in Western New York associated with Marcellus shale.

In summary, your response indicates that the following issues may explain the Ferrugia's well contamination:

- 1) Hydraulic fracturing of the Ferrugia water well by Caster Drilling led to an increase in permeability of the shale aquifer, which likely created a pathway for contaminants to migrate from greater distances to the well.
- 2) The Ferrugia septic system is a likely source of their well contamination.
- 3) Neighboring water wells exhibit chloride and sodium concentrations similar to those currently found in Ferrugia's.
- 4) Concentrations of chlorides and sodium in the Ferrugia well are improving (decreasing) and do not indicate contamination from production brine.

