

Attachment A: Letter Submitted 12-27-12 – Poughkeepsie Journal – Rubin/Beinkafner

Most reasons to ban high volume hydraulic fracturing (HVHF) in New York State originate from petroleum production practices which will contaminate near surface aquifers and surface waters with the ultimate impact of degrading farmland, and delivering serious health effects to nearby property owners and residents.

A recent report of the Energy Resources Conservation Board (ERBC) demonstrates exactly the potential routes of destruction of surface and near surface environment during a fracking procedure in a Midway Energy Ltd. well near Innisfail, Alberta, Canada on January 13, 2012. Midway drilled a horizontal well, which came within about 420 feet of the bottom of a vertical producing oil well operated by Wild Stream Exploration, Inc. The two wells were separated by about $\frac{3}{4}$ mile at the surface and have a vertical depth of 6068 feet. Fracking in the horizontal well was conducted between 12:08PM and 1:17PM. The ERBC report indicates that the first signs of interwellbore communication occurred around 3PM at the Wild Stream well. At about 4:30PM a passerby observed 30 feet of fracking fluid gushing up above the pump jack at the Wild Stream well and telephoned authorities and visited the Midway well site.

What happened to cause this unanticipated hazardous release? During high pressure hydrofracturing operations in the Midway well, fracking fluid was pumped into the target formation, transmitted through the fractured formation, driven by pressure up the vertical Wild Stream well, and gushed out the top of the well casing and into the production and service lines of the oil well. By design, Midway drilled the horizontal well much too close to the nearby vertical producing oil well. Their modeling method was too close for real world conditions. As a consequence, the high pressures and volume of fracking fluid found the pathway of least resistance directly to the surface. At least 25,000 gallons of oil and fracking fluids were released. Luckily the ground was frozen and the liquid waste could be vacuumed up.

This episode shows how quickly, within two hours, the fracking fluids can find a pathway of least resistance and contaminated fluids can reach the surface. The unintended consequences were not detected back at the fracking control station. Luckily a passerby spotted the situation. The incident could have happened at night, when no one might have observed the problem and reported it.

In this case the pathway of least resistance was an operating oil well, but it could be an old abandoned well or rock openings such as faults, fractures, solution cavities (caves), or failing well casing, cement or clay plugs. After the fracking fluids emerge from such a pathway, methane will follow because the fracking pressure field remains in the subsurface for a matter of months approaching one year. This incident should not be viewed as a simple mistake that was cleaned up at the surface. More problems may arise from a poorly designed frack job and it demonstrates the risk of hydrofracking and fluid transport more than one mile upward to the surface from the high pressures in the process and their persistence thereafter.

In NY, reports by Ron Bishop of SUNY Oneonta and Water Hang of Toxic Targeting have reported tens of hazardous subsurface fluids (including radioactive materials, brine, methane, and lethal chemical compound) that have come up in ponds, basements, garages, wells and other unanticipated locations. NYSDEC has published that there are 48,000 (1994) or 57,000 (2008) unplugged old wells. The risk of uncontrolled contamination of water supplies and consequential human health impacts is an overwhelming reason to ban HVHF in NY and elsewhere. It is not a safe process, especially since fracking fluids contain a myriad of hazardous chemicals. Congress has a 17 page single-spaced list of 750 ingredients. Health effects associated with fracking have been reported in Pennsylvania and Ohio and more reports will be coming daily. Once a water supply is damaged, cleanup is virtually impossible and cost prohibitive. Clean water for New Yorkers is far more important than profit for gas companies, which now have government permission to ship gas overseas. Such out of country sale of our energy resources negates the gas industry's own statements that we need to develop these resources for energy independence and our own national security.