

Sent via e-Mail To: StephenPlatt - platt.steve@epa.gov From: Bill Peiffer - oldstonefly@gmail.com

Re: Public Comment on EPA UIC Permit Nos.: PAS2D215BWAR and PAS2D216BWAR
Bear Lakes Properties, LLC - Public Hearing held on March 23, 2011 at Columbus Township
Social Hall, Columbus, PA

Dear Steve,

I am writing to express my opposition to EPA approval of the above UIC permits. Please note my concerns are based on comments made during the above hearing (which I attended) by contractor/employees of Bear Lake Properties LLC and Lion Energy LLC, as well as, by elected officials of Warren County PA, members of the Brokenstraw Watershed Council, members of local Fire Departments, local property owners, the Allegheny Defense Project, the Pennsylvania Chapter of the Sierra Club, and others. Comments made by nearly all of the abovementioned individuals revealed to me the proposed injection wells represent a compelling danger to local groundwater resources, as well as, an immediate threat to the quality of life in this area.

My objections are based on the following considerations:

1) Notice to neighboring residents and well owners in the State of New York was not given

Note one of the wells to be permitted is between 75 and 200 feet of the PA-NY State line

I have been told that none of the following received notice of the current US EPA injection well hearing held in Columbus, PA:

a. Nearby Chautauqua County, NY landowners (Town of Clymer and Town of Harmony, Chautauqua County, NY)

- Given the proximity of NY residents (both permanent and seasonal) with water wells in the Town of Clymer and Town of Harmony, Chautauqua County, NY, notice of the hearing should have been given to these individuals – it wasn't. Hence, I feel the intent of the EPA's notice requirements was violated.

b. Nearby Chautauqua County, NY owners/operators of existing oil and/or gas wells* (Town of Clymer and Town of Harmony, Chautauqua County, NY)

*Whether 'active and producing', 'abandoned/unplugged', 'gas wells producing oil', etc.

- Given the location of the current wells to be permitted and the activities proposed thereon it is hard to believe nearby gas and oil wells in Chautauqua County, New York (a total of ten permitted, active, and producing gas wells were spotted within one mile of the Bittering No. 4 site on the NY DEC's Environmental Navigator website) would not be in some way be impacted. Since the depth of all these NY wells is very near the injection depth of the proposed PA injection wells, I believe the quantity and/or quality of currently produced oil and gas in those NY wells may be impacted. I am not aware that any owner/operators of NY State oil and or gas wells received notice of the hearing. Owner/operators of NY wells should have received notice. Again, I feel the intent of EPA's notice requirements was violated.

c. EPA Region 2

- The border between EPA Region 2 and EPA Region 3 is the NY-PA State line so it would appear EPA Region 2 should have in some way been involved with the current matter. I have not spoken with anyone in NY State who was contacted by anyone in EPA Region 2.

d. New York State DEC (Region 9)

- PA DEP jurisdiction ends at the PA-NY State line at which point NY DEC jurisdiction takes over. Note that NY State has different procedures and rules for permitting injection wells than PA does (NY allows for public comment at the local level – PA does not). Although the proposed PA injection wells may well impact wells in NY (whether these wells are producing, abandoned, unplugged, have expired permits, etc.), I have not heard that NY DEC is in any way involved with issues related to the current matter. I feel the EPA and PA DEP should have the burden to notify the NY DEC of current proposals.

I agree with comments made by the Allegheny Defense Project and the Pennsylvania Sierra Club that EPA's Public Notice has been inadequate and the period for public comment should be extended another 90 days.

2) The overall well condition including casing and grout (cement) integrity, as well as, the depth and condition of the surface and intermediate casing of the proposed injection wells is in question. Can the same be said of nearby wells in Pennsylvania and in New York?

I am not a petroleum engineer or a geologist, but living in NW PA's "snowbelt" nearly all of my life I am very much aware of the corrosive effect salt has on steel. Hence, it's impossible for me to believe none of the wells in the Bear Lake, PA/Clymer, NY area don't have some sort of pre-existing condition(s) (pitted production casing, construction defects, sub-standard surface casing, bad cement jobs, unreported/currently unknown multiple-stage perforation zones for previous frac jobs, a wide range of pressure variations at well-head, etc.) which could lead to well failure and/or subsequent migration of waste fluids into groundwater. Comparing the depths and target formation of neighboring wells in NY (4384'-4632'/Medina) and PA (presumed to be similar) with those of the proposed injection wells and taking into consideration the possibility of pre-existing conditions in all of these wells, I feel EPA approval of the above UIC permits is nothing short of an horrific accident waiting for a time to happen.

I would request the period for public comment be extended another 90 days in order to possibly give an *independent consultant* time to evaluate design/construction features of both wells, review the depth and integrity of surface/intermediate casing and cement, grade the type(s) of steel used in all casings, review past and present well logs and down-hole geology, perform state-of-the-art integrity testing on the wells themselves, evaluate and test existing levels and depth of groundwater, determine injection capacities, etc. Given the proposed use of these wells (and their potential for catastrophic failure), I have a hard time believing the dutiful and conscientious folks at the PA DEP have the resources to perform a comprehensive evaluation of all of the above.

3) **A smattering of local history, why the "out-of-sight...out-of-mind" philosophy doesn't cut it, and why old well locations and local geology are so important.**

Over the past 150 years or so many parts of this area (northwestern Pennsylvania and western New York) experienced boom-bust periods of oil and gas activity (as well as, inevitable swings in population). Noteworthy in these parts are the facts that – 1) the first gas well was *dug* about 45 miles to the north of the proposed permit sites around 1825 in Fredonia, NY, and 2) the first oil well was *spudded* about 35 miles to the south in 1859 in Titusville, PA. I suppose in a way only some of us from in and around the oil and gas patch can understand - we're kind of proud of all this. From those days to the present fortune hunters, speculators, and property owners quite possibly spudded or drilled thousands of unreported (and secretive) oil, gas, salt, etc. wells. Unfortunately, the location of many of these wells in NW PA and western NY is not known. Stories in and around our local oil/gas patches of drill strings flying into the air as nearby wells were hydraulically fractured and of water wells going dry because of distant drilling activities have been heard or experienced first-hand by many of us. If nothing else these stories give testament to the hazards inherent in the oil and gas industry and the vagaries of geology (our local geology has been compared to a brick of Swiss cheese, which is probably more than most of us care or need to know). However, the current permitting proposal does not address the extraction of oil or of gas from out of the earth – it addresses the injection of waste materials (in liquid form) into the earth. It's important to make a distinction here between extraction and injection. Back in the day there weren't any permits or inspections (barring what the owner/operators did on their own), or any of those pesky environmental rules or safeguards. Owner/operators made money primarily by putting oil in the barrel and gas in the pipeline. Spillage or waste at the wellhead or at the pipeline cut into profits, but since waste generated isn't a part of cash flow, folks generally opted for the most cost-effective and practical solution (today, we call some of those solutions pollution). The solution often involved dumping well tailings or brine into unproductive wells, nearby pits, marshy areas, ditches, creeks, or nearby rivers. The historical waste stream from oil & gas well operations (prior to the 1980's and today's Marcellus play) *generally* consisted of solids (drill cuttings/well tailings) and a salty brine/chemical blend of liquids. Federal legislation enacted in the mid-1970's put a chill on the "dilution is the solution" cure for many kinds of wastes, however, it's important to note that the waste stream(s) generated today by deep, horizontal Marcellus gas well drilling activities contain a much different chemistry than does the brine coming out of those oil wells down in Grand Valley. Marcellus waste fluids (and other deep well wastes) are highly toxic (before and after drilling) and often radioactive (after drilling). You don't have to pick up a newspaper, read a magazine, surf the internet, or turn on the TV to learn more about this - just talk to a few people who live next doors to this kind of activity (deep, horizontal Marcellus shale drilling) - bear in mind it's the waste (not the gas) from these areas that's headed here. One of the problems with all this waste here in PA is there's such a huge volume of it that we just don't have a way to safely treat or dispose of it, which is where <drum roll> injection wells come in. I suppose if they were just going to inject brine and wastes from our local oil and gas wells I could live with this whole business, but this isn't the case - the waste stream that will be injected into these wells will be: 1) Completely undocumented (which is to say there won't be a paper trail of what and how much of it came from where, and what's in it - toxic sludge, radioactive materials, or medical wastes? Who knows? Out-of-sight/out-of-mind seems to be the operative rule of law here), 2.) Untraceable (in the event some of these toxic liquids do find their way into our pristine groundwater or local water wells, or heaven forbid – an oil or gas well in the area - it will be completely untraceable (there are no State or Federal requirements to add trace materials to any of this liquid waste, which also means if the City of Corry's tests for total dissolved solids (TDS) suddenly goes off the chart we'll only have ourselves to blame), and 3.) The largest volume of waste fluids injected into these wells will likely be recycled frac fluids and other drilling wastes from far away Marcellus wells; the volume of waste from nearby oil and gas wells here in NW PA and western NY will no doubt be miniscule (I say this looking at the Baker-

Hughes rig count here in PA, the new conservation ethos in Harrisburg ("drill-baby-drill"), and projections for the number of Marcellus shale wells over the next ten years). At this point in time it appears the EPA and the PA DEP view injection wells as some sort of panacea to the issue of Marcellus drilling wastes. To this I would respectfully submit that these folks should seriously entertain the possibility of permitting of a few Class IID injection wells (Marcellus wastes only!) in and around the cities of Harrisburg, Philadelphia, and Washington - if for no other reason than you just can't drink the water in those places anyhow (believe me - it just tastes terrible). The State of Ohio taxes out-of-state drilling wastes (they have a large number of waste injection wells over there) and is currently considering raising the out-of-state rate to 20 cents a barrel, but I digress...such a tax in PA might have a chilling effect on job creation around here. Bear in mind the brine solutions our Townships use for dust control - are not recycled frac fluids or Marcellus well wastes. The waste for the Bear Lake injection wells is going to come from places where the Marcellus shale formation is thicker and the gas volumes more profitable namely - the northeastern, northcentral, and southwestern parts of PA, central New York (their moratorium on horizontal drilling will likely expire this July), West Virginia, and very possibly other parts of the country. Since I'm not aware of any exhaustive, in-depth historical and/or physical search for wells dug, spudded, or drilled in the area of the proposed injection wells (just west of the Borough of Bear Lake, PA), but am aware that some of the well data supplied by the applicant was compiled back in 1968 - I'm completely flummoxed. Then, there's that business we heard about at the hearing of a "non-permeable salt layer" which is supposed to contain those thousands and thousands of barrels of frac fluids and drilling waste from distant Marcellus wells . . . all of which is going to be injected into our "brick of Swiss cheese" geology at very high pressure. Since production in several of the wells in close proximity to the proposed injection wells has fallen off considerably over the past few years, I think we can all see what's coming next. Sorry, but there's just something really, really wrong here.

4) Finally, the importance of the Brokenstraw watershed to us locals

The Brokenstraw watershed comprises a land area of about 500 square miles and extends from Pennsylvania into New York; then back again into Pennsylvania. Its primary origin is within the bounds of PA State Game Lands 197 in a valuable and sensitive wetlands recharge area known as the Tamarack Swamp (note that both proposed injection wells are located in very close proximity to this resource). The watershed terminates east of Irvine, PA near the Buckaloons Recreation Area where the Brokenstraw Creek flows into the Allegheny River. Since the source of drinking water for my community (City of Corry, PA - municipal water supply) and thousands of others comes directly from groundwater sources which are a part of the upper Brokenstraw watershed, any contamination of this water resource simply cannot be tolerated. Any deterioration or degradation of water quality in this area would have devastating and far-reaching impacts on the quality of life for everyone who lives and works in this area (both in Pennsylvania and in New York). To that end I cite Article 1 Section 27 of the Constitution of the Commonwealth of Pennsylvania (Natural Resources and the Public Estate):

The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people.

Closing:

Personally, I not only support rules and laws that protect and preserve our natural environment, but also responsible oil and gas drilling. Problem is I don't see any good coming out of these proposed injection wells for my family, our drinking water, our community, the trout, the turkeys and deer, the kindred souls I meet in nearby fields and streams, or anybody who lives and works around here. The only folks who stand to make a buck out of all this will be the lawyers peddling class action lawsuits, the salesmen hawking expensive water purification systems, the venders selling bottled water (the big 5-gallon carboys), and a few investors who will no doubt be safely ensconced out-of-country when something goes wrong . . . and when that does happen – we all know who's going to pick up the tab.

Regards,

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