Robert Donnan 107 Southview Ct. McMurray, PA 15317

SUBJECT: Strongly Oppose SB 0878

February 25, 2025

To Whom It May Concern:

As a resident of Washington County in southwestern Pennsylvania, I've closely followed the rapid development of the shale gas industry in our county, as well as the tri-state area, including Ohio and West Virginia. The first Marcellus Shale well was actually drilled in our county in 2004.



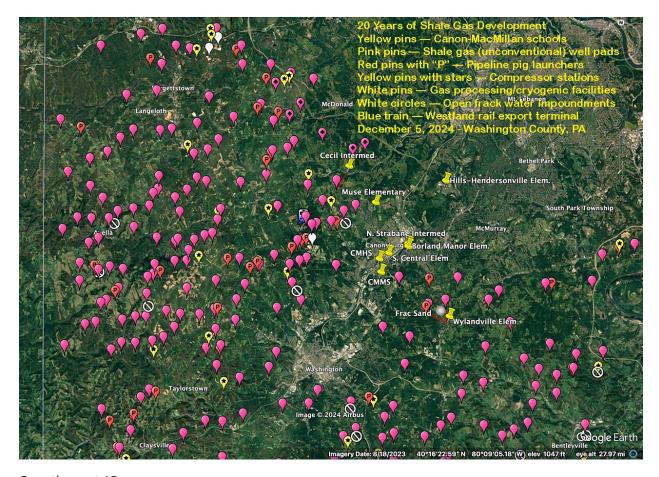






As shale gas development ramped-up in 2009, I became fully engaged, since the gas producers were actually dumping their frac wastewater at local POTW's (Public Owned Treatment Works). Two of those were located along the Monongahela River, where our home's tapwater originates. Trihalomethane levels soon became a regulatory issue, so our water company switched from using chlorine to chloramine, which creates its own set of less than desirable results. We now have a reverse osmosis treatment system for our home drinking water.

*	Acrylonitrile	0.594 🛣
	Benzene 12-3-2009	< 0.5
>	Bromodichloromethane	19.7
>	Bromoform	0.5
	Bromomethane	< 0.5
	Carbon Tetrachloride	< 0.5
	Chlorobenzene	< 0.5
	Chloroethane	< 0.5
>	Chloroform	42.2
	Chloromethane	< 0.5
	cis-1,3-Dichloropropene	< 0.5
>	Dibromochloromethane	7.60



Over the past 15 years, I've attended shale gas related meetings in 3 states, and a half dozen Pennsylvania counties, related to everything from zoning to health. Over the years, I've gotten to know many families who were adversely affected when drilling or gas processing ended up close to their homes. Some have died, some are stuck with their properties, and others have moved away, some even out-of-state.



GeoHealth

10.1029/2023GH000938

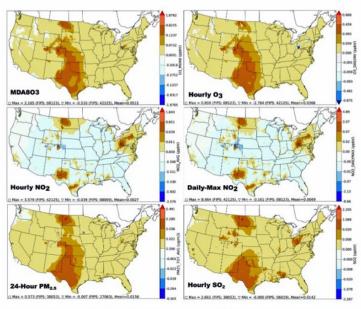


Figure 3. Annual-average of MDA8 Ozone (ppb), 24-hr average $PM_{2.5}$ ($\mu g/m^3$), daily-average and daily-maximum NO_2 (ppb), SO_2 (ppb) contributed by FV (i.e., differences between wFlare2 and woFlare).



Peer reviewed health studies on gas production are easy to find if you Google Compendium of Scientific, Medical, and Media Findings Demonstrating Risks and Harms of Fracking and Associated Gas and Oil Infrastructure, Ninth Edition, October 19, 2023' or use the link

https://concernedhealthny.org/compendium/





One of the latest health studies was conducted by the University of Pittsburgh on behalf of the Pennsylvania Department of Health. https://www.pa.gov/agencies/health/programs/environmental-health/oilgas.html#accordion-b14cb09678-item-db8e92c827

Those health compendiums are posted by the Concerned Health Professionals of NY. In addition to various individuals we know who have gotten sick or died, there have been mostly undocumented deaths and birth defects among wildlife, dogs, horses and livestock. For more information Google 'Study suggests hydrofracking is killing farm animals, pets' from Cornell linked here

https://news.cornell.edu/stories/2012/03/reproductive-problems-death-animals-exposed-fracking











My name is Angel, my quality of life has suffered, and I call for a halt on fracking.

Living in Bedford County for 16 years, our community used to be quaint and peaceful. We could sit on the porch together and hear the running water from the creek down below. All we hear now is the compressor station from the gas company and the ongoing traffic brought on by the gas extraction in our area. Now the creek is gone, and the pond might as well be gone with the contamination that now consumes it.

In 2001 and 2002, Pacific Gas & Electric (PG&E) approached us about drilling 5 production wells around our property. They were to last 15 years. None of these production wells were going to be on our land,

just surrounding us. In 2007, Spectra Energy bought these production wells and converted them into storage wells and informed us that they now owned them and would do with it as they pleased. This is when we first noticed problems. The wells were supposed to be dry. When they were converted to storage wells, that's when the water contamination first started. The pressure from the wells and the fact the wells were not dry is what caused the contamination. Spectra Energy showed a complete disregard of the area and the people. Shortly thereafter

we discovered arsenic in our water. The Pennsylvania Department of Environmental Protection (DEP), as well as Spectra said that the arsenic found in the water was at normal levels and that it is was naturally occurring. Some of our neighbors have higher arsenic levels than we do, but DEP still tells us that this is all naturally occurring. In another case, in 2011, I smelled gas when I was out with my family. The DEP did nothing. We called the fire chief. He tested the air and found carbon dioxide and propane. He said if it had been in a building, we would have needed to evacuate our home.

During this time we lost 5 cows, 3 dogs, 12 chickens, 4 cats, and 1 horse. When we described how the animals had died to the state veterinarians, they had told us that it sounded like arsenic poisoning. We had not informed him that high levels of arsenic had been found in our water.

For Additional information: http://www.altoonamirror.com/page/content.detail/id/528108.html



Name: Angel

Location: Clearville, Bedford County, PA

Exposure: Storage field, pipelines, compressor stations

 Compressor station is 1/2 mile from home

Harm: • Water Contamination:
Arsenic

Arsenic

- Air Contamination: Arsenic
- Human Health ImpactBile Duct Liver Disease
- Rashes on Neck
 Shorthness of Breath
- Shortness of Breath
- Animal Health Impact
- Death of 5 cows, 3 dogs, 12 chickens, 4 cats, and 1 horse
- Oversight Failure: DEP/EPA not fixing problems

Our quality of life is pretty much gone, and this is greatly related to health issues. My husband, Wayne, has problems catching his breath. The doctors still don't know what is wrong. He was given an inhaler at first and was told he had COPD, but the inhaler did not help and a second opinion revealed that COPD was not the problem. I have red rashes on my neck. My doctor directed me to a dermatologist. After being sent to many different doctors, I saw a doctor in Pittsburgh

who told me that I had some kind of bile duct liver disease. I don't know where it came from, and the doctor's only option now is to slow it down. The median until either death or liver transplantation is approximately 10 years.

In my opinion, we need to get rid of the DEP. They spend more time regulating us, the people, and not the oil and gas companies. We need to change the standards of eminent domain; this is what Spectra Energy used to take our land. Eminent domain is supposed to be for the public good, not for the wealth of a private company. Politicians need to realize that American citizens are paying their salaries. We are paying them to protect us. As a voter, I would rather throw my vote away than vote for people who take money from the gas and oil companies. I want to talk to the people who do not take money from the gas companies.

- Angel

7

As far as land usage, one local gas producer uses an average of 15 acres per well pad development project, and some of the well pads are only 1-mile apart from each other. Gathering pipelines must be

excavated to every well pad, causing adverse forest fragmentation in many cases. No trees can grow on those 50 to 100 foot wide right-of-ways ever again.



Wherry Well Pad in Washington County, Pennsylvania – April 13, 2021

Along with each fracked well will come fleets of diesel truck traffic, with ongoing reports of over 1,000 truck trips for <u>each</u> well, and the resulting diesel air pollution and rapid road deterioration.



Each production phase for a group of wells can last months, and since some well pads are now projected to have several dozen wells, that industrial process is anything but temporary, since wells are usually drilled and fracked in groups of six or less.

Once wells are producing, compressor stations need to be built to move the gas through pipelines. More wells equals more compressor stations, and they are bad source of air pollutants. Their proximity to one, and the cumulative air pollution, is rarely taken into consideration here in Pennsylvania. Our one county now has around 50 compressor stations, all built in the past 20 years, and they keep growing in size. Taxation of them only equates to that of a small house on a postage stamp lot.



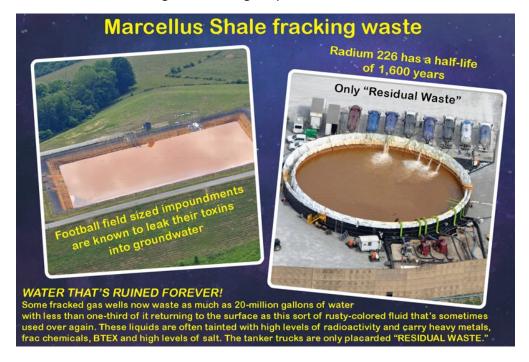


At the next higher level of gas processing and air pollution, you have the cryogenic gas plants, of which our county now has at least four large ones. The Revolution gas plant feeds the Revolution pipeline that

exploded in Beaver County, resulting in large DEP fines. There have been a litany of other fires and accidents, too many to list here. Evacuation zones are usually a one-mile radius, and for severe well blowouts, crews brought in from out of state create severe delays in a final remedy, like the XTO well methane blowout in Belmont County Ohio, lasting nearly two weeks and recorded from space.



Then you must consider the huge volumes of waste associated with this fracking industry, while much of it is radioactive. First you have the drill cuttings, then the massive volumes of liquid waste the industry must dispose of somewhere. Some of our state's liquid waste is trucked to Ohio injection wells, some is still applied to roads (believe it or not) and some is used over again, with the orange or unusually colored fluids often being stored in large impoundment dams that leak.



The rest of the toxic waste is being hauled into ordinary garbage landfills, which were never designed to handle toxic waste. Radium 226 has a half life of 1600 years. The leachate from these 'toxic teabags' eventually flows into waterways or ordinary POTWs, which were never designed to handle these toxins. The oil and gas industry has multiple exemptions from environmental laws that regulate most other businesses. Landfill leachate caused serious problems at this sewage treatment plant.

WESTMORELAND LANDFILL Drill Cuttings	41,450.3 Ton: 82,900,600 Lbs
Drilling Fluid Waste	1,013.37 Bb 42,561.54 Ga
Flowback Fracturing Sand	665.42 Ton: 1,330,840 Lbs
General O&G Waste not covered by other waste types	12.06 Tons 24,120 Lbs

Joint Conservation Committee: Belle Vernon Municipal Authority Taking A Stand Against Pollution From Drilling Waste



Belle Vernon Municipal Authority Taking A Stand Against Pollution

Written by Guy C. Kruppa Superintendent of the Belle Vernon Municipal Authority February 2020

The Belle Vernon Municipal Authority has always prided itself on providing quality effluent that returns to the source water from their Sewage Treatment Plant.

The source water I am referring to is the Monongahela River, which provides drinking water to many communities downstream from Belle Vernon.

When we noticed a change in the bug population in the treatment tanks, we quickly examined the influent content.

We explored all the waste streams the treatment plant receives and quickly narrowed the sources down. Upon further investigation, the selection was cut down to one source: the Municipal Landfill.

At this point, our battle began. The Belle Vernon Municipal Authority had a choice
– to fight for what was right for the community and humanity or to turn a blind eye and
capitalize on profit for what is widely accepted – disposing of hazardous waste.

Once the source was identified, it was time to unearth the problem. After many months, thousands of Authority dollars and through laboratory results and expert opinions, the source was pinpointed: the gas fracking industry.

One might say, "What would a garbage dump have to do with the fracking industry?" A very good question to which we wondered ourselves.

By digging into our archived lab results along with our current results, we were able to trend data that linked the Municipal Landfill to the fracking industry.

Upon several meetings with the Department of Environmental Protection, we discovered that the fracking industry is permitted to dump drill cuttings, frack- ing cake and other fracking wastes into Municipal Landfills.

This waste is permitted to be disposed of, up to a certain tonnage per year. Now landfills are designed to accept the nastiest smelling garbage on Earth, right?

You would be correct to assume this thought. However, is it correct to accept waste that contains elevated radiation levels, with elements such as Barium, Radium, and Tritium?

The DEP obviously thought this. The old adage applies here which is, "If you don't test for it, you won't find it."

We have come to realize that drilling for gas is accompanied by devastating byproducts that are harmful to human health as well as sewage treatment plant bugs.

It may seem funny to say, but sewage bugs are living organisms that breathe air and eat, but will not survive under conditions that are adverse.

Now let me bring this full circle in connecting the landfill with the sewage plant at Belle Vernon.

The landfill has a grandiose system of under drains that collects water that leaches through the layers of garbage. This water is called "Leachate."

The leachate exits the landfill through piping and enters the sanitary sewage system where it is eventually dumped into the sewage plant for processing. When rain water washes over the garbage and fracking waste, bad things wash out.

The "bad things" I am referring to are constituents such as: Chlorides, Calcium, Ammonia-Nitrogen, Magnesium, TDS, Iron, Phenols, Nickel, Boron, Lead, Sulfide, Conductivity and Radium 226+228 to name a few.

All of these elements are indicators of the fracking industry and all are poisonous at certain levels.

I quickly realized that we were the "land-fill's permit to pollute." This statement and condition did not sit well with the Belle Vernon Municipal Authority board members.

A decision was made at a public meeting to terminate the agreement with the landfill and stop service. Through certified letters and eventually a court order, Belle Vernon no longer treated or profited from the landfill and its hazardous waste.

Today, the Municipal Authority treats only waste that it was intended to treat – domestic sewage.

The population of bugs in the plant has recovered and is operating optimally.

It was through countless hours, emails, meetings and spending large amounts of money that we were able to do what was right and just.

Accepting money in exchange to pollute the environment, harm wildlife and potentially cause human health issues was fundamentally wrong.

Belle Vernon Municipal Authority took the initiative to rectify the problem and in many ways, stood alone.

Doing the right thing is almost unheard of these days when profit is to be gained. Belle Vernon looked past today and looked toward the future.

By taking a stand, doing the right thing, and standing up to big business, Belle Vernon stands alone in a greedy world where money does the talking."

Pittsburgh Post-Gazette stories:



https://www.post-gazette.com/news/environment/2019/05/17/Injunction-shuts-down-waste-water-pipe-from-Westmoreland-landfill-to-Belle-Vernon-sewage-plant/stories/201905170154

PITTSBURGH'S

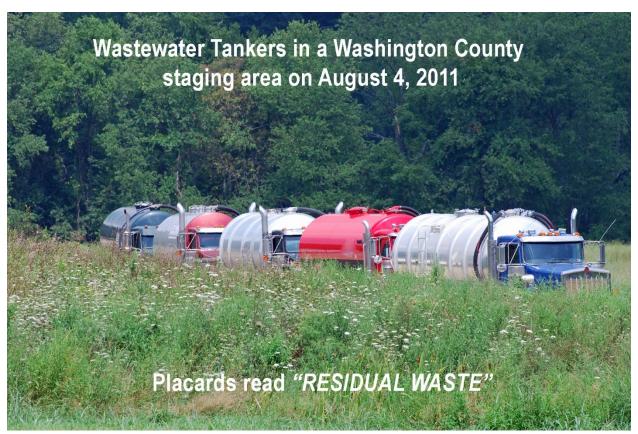


https://www.post-gazette.com/news/environment/2020/02/18/landfill-Westmoreland-sanitary-DEP-consent-order-waste-runoff/stories/202002180167



 $\frac{https://www.post-gazette.com/local/south/2019/05/23/westmoreland-sanitary-landfill-contaminated-runoff-investigate-fracking-pennsylvania-belle-vernon/stories/201905230159$

How much liquid waste are we talking about? Some of the newer wells consume 20 million gallons of fluids during fracking, with about 25% to 35% of that returning to the surface (over 5 million gallons in this example). With tri-axle tanker trucks typically holding about 5,000 gallons, it would take 1,000 truckloads to take that liquid waste away from just one well. Frac fluids contain many secret 'Proprietary' formulas without CCS numbers, of which many are endocrine disruptors and carcinogenic.



'Residual Waste' placards don't reveal the true nature of many waste liquids they haul on local roads.

Two books I would highly recommended:

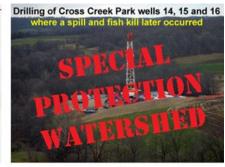
'Petroleum-238: Big Oil's Dangerous Secret and the Grassroots Fight to Stop It' by Justin Nobel

'Amity and Prosperity: One Family and the Fracturing of America' by Eliza Griswold (about our Washington County)

We've also had our share of disasters from temporary, overland plastic wastewater pipelines, which have often failed at junctions, often dumping tens of thousands of gallons of this toxic wastewater before the pumps can be shutoff, resulting in large spills and many fish kills. This is all documented through the PA DEP, and I would highly recommend following this sort of detailed information through the PA Environment Digest Blog which is maintained by David E. Hess, former secretary of the Pennsylvania DEP at https://paenvironmentdaily.blogspot.com/

Remarks: PA DEP report on May 2009 spill & fish kill

Responded to brine/wastewater spill at the Cross Creek wells \$14 (125-23165) and \$15 (125-23182). The wells pipeline carries brine/wastewater 3.5 miles to the Lowery impoundment. The pipeline is a 6" HDPE line and carries the brine/wastewater (from manifolded wells 14&15) at 70 psi. Taken from the evidence and clues at the scene a coupler for the 6" line became loose and discharged brine/wastewater along with sediments into the creek below. There was an obvious hole from the erosion right underneath the coupler. During the inspection the coupler upstream was also observed to be leaking. The entire creek was walked down to the mouth to Cross Creek Lake. The creek was impacted by sediments all the way down to the lake and there was also evidence of a fish kill as invertebrates and fish were observed lying dead in the creek. The incident was reported by Mark Kiel on 5/26/09 at 5:15pm. The time from when the discharge occurred and when it was reported is unknown. The leak was discovered at 1:30pm by Range employees. An estimated 70 barrels of brine/wastewater (4200 gallons) was lost. During the inspection the pump was shut off and the pipe was drained. The pipe is going to be cleaned and pressure tested before being put back on line. Range is also considering going away from the couplers and welding the pipes together making it one solid piece. The ground that was impacted around the spill was scraped up and placed into a lined 30-yard box (3 boxes on site). The area was being seeded and mulched before we left the site.

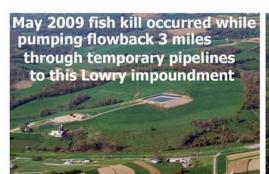






On 10/7/09 I responded to a spill incident that occurred in an unnamed tributary which leads to Brush Run a HQ watershed in Hopewell Twp., Washington County. The release happened when a 90 degree elbow ruptured from a pipeline transporting flow back water from the Berdnarski impoundment to the Kearns well site. It was estimated that a total of 10,500 gallons were lost to the tributary. Range Resource and Red Oak employees quickly shut the that a total of 10,000 gallons were lost to the tributary. Range Resource and Red Oax employees quickly shut the pump off and stopped the water flow. A make shift dam was constructed where the flow back water first entered the tributary. An estimated 500 gallons was pumped out of this pool and the rest was lost downstream. The distance from where the spill entered the tributary down to Brush Run was 0.4 miles. The incident was discovered at 6:40 m on 10/6/09 and called into the Department at 7:40pm on 10/6/09. The incident was improperly reported because after normal working hours all incidents should be reported to the emergency number 412-442-4000. Instead the incident was remotted to an increator with sections of the sections of the property of the property of the property of the property of the sections of the property of the property of the sections of the property of the property of the property of the sections of the property of the property of the sections of the property of the property of the sections of the property of the property of the sections of the property of the property of the sections of the property of the property of the property of the sections of the property of the prop incident was reported to an inspector at his residence. Once on site we began to walk the stream and collect samples (SAC 942). While walking the stream we observed some dead fish. There was no dead vegetation on the banks or in the channel and a very light sheen observed in a few spots. A report from Brian Dillemuth (Water Pollution Biologist II) confirmed that 57 Creek Chubs, 34 Black nose Dace and 6 unknown Salamanders were killed from the spill.







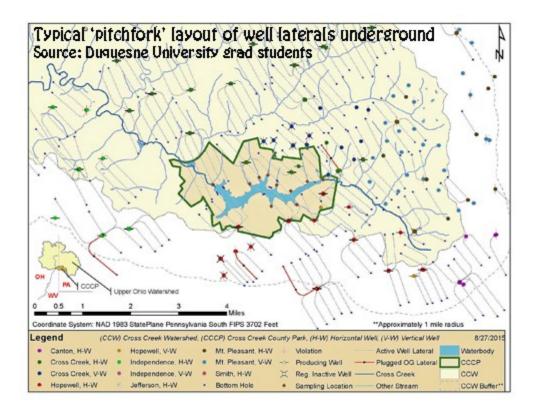












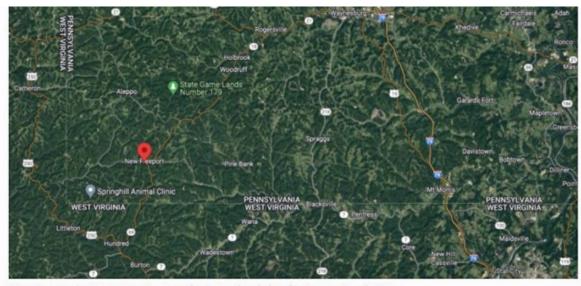




No One Warned A Cameron County Family Their Water Well Was Contaminated By A Seneca Resources Shale Gas Wastewater Pipeline Rupture

The Seneca Resources Company, LLC reported to DEP that at 4:00 p.m. on July 3, 2022 a plastic pipeline ruptured and spilled an estimated 18,000 gallons of shale gas drilling wastewater in Shippen Township, Cameron County. On <u>July 8, 2022, DEP's Environmental Cleanup Program issued</u> the first of two notices of violation related to the wastewater pipeline rupture and spill.

Then you come to the issue of well plugging, especially since these shale gas wells have rapid production declines. In addition to tens of thousands of unplugged older wells in Pennsylvania, we are now seeing some of the newer shale gas wells being abandoned or orphaned, partly due to pitifully low bonding amounts. We've also seen cases of 'well communication' where the fracking of new wells, with around 9,000 p.s.i., finds a conduit to the surface through those older wells, threatening water wells and groundwater.



New Freeport in Greene County, near the Pennsylvania border. Image: Google Maps

EQT STOPS FRACKING AT SITE IN GREENE COUNTY AFTER CLAIM OF WATER CONTAMINATION; DEP INVESTIGATING

REID FRAZIER × JULY 14, 2022

New Freeport residents file class-action lawsuit against Pittsburgh-based gas drilling company EQT

90.5 WESA | By Lane Moore | Published September 10, 2024

Pittsburgh-based oil and gas company EQT Corporation is facing accusations from Greene County residents in a class-action lawsuit filed this summer. The complaint, filed June 20, alleges the company's natural gas drilling operations in New Freeport contaminated the community's groundwater aquifers in June 2022.

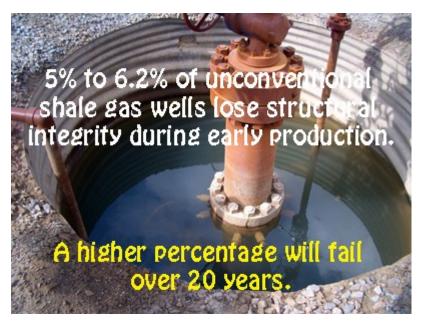
Residents report their <u>water wells in New Freeport became unusable</u> right around the same time that fluid started erupting from an abandoned gas well along the town's Main Street, June 19, 2022. A Department of Environmental Protection inspection report from June 23, 2022 indicates it was the result of a "communication incident" between EQT's Lumber well pad and the abandoned Fox Hill well.

Thirty plus chemicals used in fracking fluids are known or possible human cancer causing agents, thirteen chemicals are carcinogens. The carcinogens consist of:

- Benzene
- Benzyl Chloride
- Lead
- Sulfuric Acid
- Di(2-ethyhexyl)phthalate
- Acrylamide
- Ethylene Oxide
- Naphthalene
- Thiourea
- Acetaldehyde
- Formaldehyde
- Propylene Oxide
- Nitrilotriacetic Acid

Source: Wilma Subra

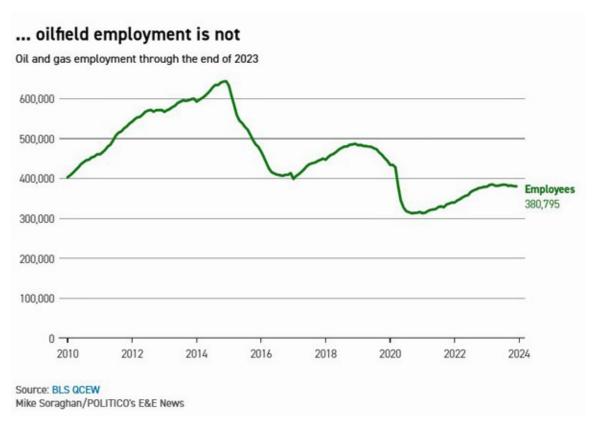
As Dr. Anthony Ingraffea, a former professor at Cornell, has made us aware, the concrete well casings used by the industry fail, some right away, and others over a period of years. The resulting methane leaks are problematic greenhouse gases.

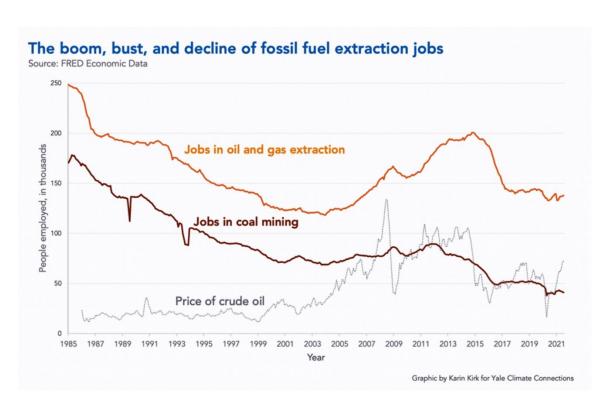


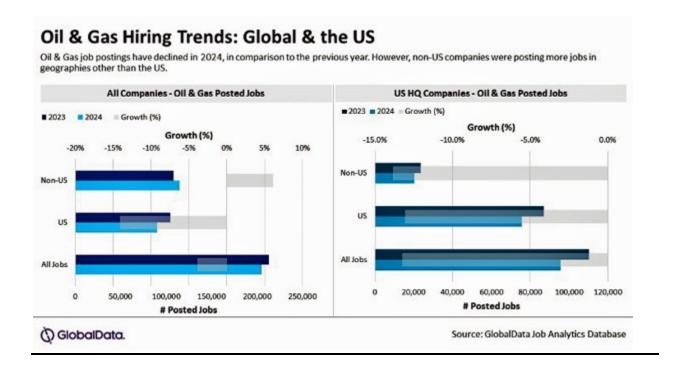
For a birds eye view of shale gas production in our tri-state area, I would encourage you to watch a YouTube video with some of the photos from my 57 photographic flights, titled 'What Would Rachel Carson Say About Fracking Her Homeland?' linked here https://youtu.be/ZDDZUWUoJz0

Finally, our region's shale gas industry is not labor intensive, and the number of jobs ballyhooed are often inflated, plus they also suffer from recurring 'boom bust' cycles. I would point you to thorough

research papers on all the economics from the **Ohio River Valley Institute** linked at https://ohiorivervalleyinstitute.org/







My position: Strongly Oppose SB 0878

Best wishes for a healthy future in Maryland -

/s/ Robert Donnan