Shalefield Stories

Personal and Collected Testimonies



There are more than 4,000 Marcellus wells in Pennsylvania, with projections ranging from 2,500 new wells a year to a total of more than 100,000 over the next few decades. - The New York Times - Nov 17, 2011

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Dedicated to the power of human stories.

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Introduction

In recent years, people across the United States and in the world at large have heard more and more about the practice of deep horizontal drilling for shale gas and oil. The experimental process of extracting these fossil fuels known as unconventional gas drilling, hydraulic fracturing, or just "fracking" has led to the rapid industrialization of our rural communities. Sadly, the destruction that follows is often left out of the headlines. This publication will tell the stories of those who have been harmed in the mad rush to frack in the places we call home.

The public has been inundated with commercials, billboards, and radio ads with repeated claims about "clean, safe energy" and the abundance of "jobs and money" that fracking will bring to you and your region. These claims and promises have not only fallen short, but are sometimes simply untrue. Oil and gas development has had tragic consequences for many. The 24/7 truck traffic and pollution; the devaluation of property near drilled wells; sickness and disease; loss of loved ones, animals, water and breathable air; and the massive, industrial infrastructure of pipelines and compressor stations that now stand where cows once grazed and in previously quiet neighborhoods are awaking many citizens to the reality of what natural gas drilling really is.

Many of our politicians choose to work for the industry and its campaign contributions instead of the citizens they were elected to represent and protect. Our politicians recklessly believe industry talking points while giving their misinformed support for the industry and turning a blind eye to its lack of oversight and regulation. Media has largely not reported or followed up on the thousands of stories across the country of people sickened and impoverished by the negligence and everyday practices of the Oil and Gas industry and its development. Therefore the job of telling these stories falls to us, citizen journalists and the victims living in the shalefields of America.

With faith in the experiences of everyday people and those who choose to use their power for good,

Friends of the Harmed



Many more stories can be found at: pennsylvaniaallianceforcleanwaterandair.wordpress.com/the-list

Notable Quotes

Louis W. Allstadt Former executive vice president of Mobil Oil who ran the company's exploration and production operations in the western hemisphere before he retired in 2000.



"Both the horizontal drilling and fracturing have been around for a long time The industry will tell you this over and over again - they've been around for 60 years, things like that. That is correct. What's different is the volume of fracking fluids and the volume of flow-back that occurs in these wells. It is 50 to 100 times more than what was used in the conventional wells.

The other [difference] is that the rock above the target zone is not necessarily impervious the way it was in the conventional wells. And to me that last point is at least as big as the volume. The industry will tell you that the mile or two between the zone that's being fracked is not going to let anything come up.

But there are already cases where the methane gas has made it up into the aquifers and atmosphere. Sometimes through old well bores, sometimes through natural fissures in the rock. What we don't know is just how much gas is going to come up over time. It's a point most people haven't gotten. It's not just what's happening today. We're opening up channels for the gas to creep up to the surface and into the atmosphere. And methane is a much more potent greenhouse gas in the short term - less than 100 years - than carbon dioxide."

Dr. Dawson Lim, M.D. Medical Oncologist

"Fracking advocates claim that natural gas reserves will help lead to a clean energy future, however, the negative consequences of fracking may yield the exact opposite effect on our future. There are over 650 chemical compounds in fracking fluids that may cause cancer in humans. There is NO minimal exposure to these toxins that is safe. Acute and especially chronic exposure in children and adults may cause or promote the development of cancer. We are all at risk."

Dr. Dawson Lim M.D., Medical Oncologist



Personal Stories

The Friends of the Harmed would like to thank the many brave families that have shared their stories in hope of helping others.

Carol French: Dairy Farmer

It started in 2008, they did a test well 600 feet from our home. There are over nine well pads surrounding my home within a two mile radius. We've never had an issue with our water, ever.

Our water turned white. When you let it sit for about three hours it will have a sand in it. When it comes out of my faucet it'll have like a sand and a green, mossy carpet and then it will gel at the top. I never had that problem before, never had water that looked like gelatin before.

It doesn't turn white everyday, it could once or twice a month. In the last eight days it has changed five times. In October they were drilling a mile and a half away and my water was white, day and night, for a whole week. My daughter got sick. She ended up having sharp, stabbing pains and they'd move all around her stomach. She had a high fever for three days and diarrhea which turned to blood. She lost ten pounds in seven days. On the seventh day she asked me to take her to the hospital and they found a lot of fluid floating in her abdomen. They found her right ovary, her spleen and her liver were

enlarged. The doctors said they didn't know what she has.

My daughter left home to look for another one. She found a place in Tennessee and got a job. December 26th, she left me. She left Pennsylvania. While she was looking for another home she realized it was our water, because she started feeling better. Her fever, her diarrhea, all her aches and pains went away.

Chesapeake told me I am not allowed to talk about this white water. I've never seen my water gel, and when I told the guy from Chesapeake that he paused, and he says, "How far down in the jar does it gel?"

I have a rash, several rashes - the same ribcage rash that's on my cows too. I don't know what's happening to them.



Chesapeake told me I am not allowed to talk about this white water. I called to report to DEP that my water had changed because my daughter got sick. They took all my information, I wrote requirements in order for them to come out. The fourth week they wrote me back and said because of my requirements they would not come out to test my water until I made no requirements on DEP. My requirements were that a hydrogeologist I hired be here to do split samples and that I be able to video the testing. Also, DEP

insisted on bringing Chesapeake

Energy, even though we didn't know what had affected my water. I insisted that Chesapeake not be allowed on my property.

After what happened to my daughter, I went down to the EPA and I was going to talk about my concern with the food since I'm in the dairy business, but other people there set out their black and brown water. And I looked at it thinking, this is my water, this is why my baby left me. Then I told them her story. Another man, from Potter County, said the same thing - his water changed and he had sharp pains, diarrhea, and a high fever. He went to the doctor and they told him his spleen and liver are enlarged. Now, he has liver cancer. All I can do is hope that my daughter left in time.

- Carol French



For Additional Information: www.publicherald.org/archives/16845/investigative-reports/energy-investigations/



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



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

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
 - Air Contamination: Arsenic
 - Human Health Impact
 - Bile Duct Liver Disease
 - Rashes on Neck
 - 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

Before my family's nightmare started, I lived a peaceful life in Bradford County, Pennsylvania. Our house nestled in a mountain and

overlooked the Susquehanna River. There was little traffic in Sugar Run, but plenty of wildlife. It was quiet and clean. My husband, Carl, and I planned on spending our lives in this beautiful Garden of Eden.

However, we were not the only ones interested in Bradford County. Chesapeake Energy moved into Bradford in 2009 seeking natural gas. With them, they brought promises of clean energy, fair leases on land, little environmental impact, and more jobs. A Chesapeake Energy representative knocked on our door in January 2010. Since Carl and I were in between drilled land, we signed the lease.

In February 2010, Carl and I started breaking out in terrible rashes on our hands and feet. Our skin would

actually peel. Our tap water now had an odor to it and was yellow. The rashes came and went, as did the water problems, so we shrugged it off.

Then, we started getting stomach aches and had trouble keeping food down. We grew dizzy and tired, and started to forget simple things. Our joints started aching. We saw doctors who tried to figure out what was wrong with us. Our symptoms mirrored so many other diseases and disorders. The doctors could not figure out what the problem was, and our health kept deteriorating.

In April, a large hole opened in our yard. It emitted a terrible smell, and it leaked a foamy fluid.

My daughter, Angelina, moved in with us in June 2010. What should have been a happy time turned sour, because within a month, she, too, started getting sick.

We could not ignore the signs any longer. We consulted an independent water tester from Scranton. We paid them \$1,200 to come and test our water.

In September 2010, news came out that the Susquehanna River contained methane. Shortly after, we received our water tests. We called the Pennsylvania Department of Environmental Protection (DEP). Also, we called Chesapeake. They arrived the same day. They made a visual determination that our water contained methane. We showed them the four-page report from the independent test. Our water contained dangerous levels of lead, methane, propane, ethane, ethene, barium, magnesium, strontium, and arsenic. Chesapeake disregarded the independent test results. The DEP was only concerned about the methane in our water. Chesapeake sent us a fivegallon water cooler; the level of methane in our well did not merit a water buffalo.

I represent the family of Judy Armstrong Stiles. I have lost my home, my health, and my husband. I want hydraulic fracking stopped.

Name: Judy Armstrong Stiles Location: Sugar Run, Bradford County, PA Exposure: Numerous wells within five miles of home

- Harm: Water Contamination:
 - Lead
 Strontium
 - Methane
 Arsenic
 - Propane Radon
 - Ethane Radium 226
 - Ethene Radium 228
 - Uranium
 - BariumMagnesium
 - Air Contamination:
 - Methane
 - Radium 226
 - Radium 228
 - Uranium
 - Human Health Impact:
 - Rashes on hands and feet
 - Stomach aches
 - Dizzy spells
 - Intestinal cancer
 - Daily seizures
 - · Lead, arsenic, and barium poisoning
 - Industry Dishonesty/Disregard: DEP and Chesapeake did not acknowledge well contamination or methane leaks in uard.
 - Loss of Property: 85% loss of value \$75,000 to \$10,000

However, we felt that we finally had proof that our health problems were the result of some sort of contamination. I demanded blood tests from my doctor. He found barium and arsenic in my blood. Carl had to pay out of pocket because he did not have health insurance. The test cost \$6,000. Since Chesapeake does not have to reveal the chemicals that they use, our doctors could not treat us for fear of causing a reaction with other unknown chemicals or minerals.

After seeing a realtor who could not sell our house without us "cleaning it up," Carl, Angelina, and I left our beautiful home and land to live with relatives. We were living off of Chesapeake's check while their drilling and denial of their accountability were slowly killing us. Meanwhile, our radon tests came back and we also had radon in the air, and trace amounts of radium 226, radium 228, and uranium in our water.

In February 2011, Carl developed intestinal cancer and had his intestines removed. My daughter, five months pregnant, suffering from seizures, had lead poisoning. We had been out of the house five months and she was one point below toxic. I would like to say that after moving out, our health improved, but it did not. Although the chemical and mineral counts have gone down in my blood, my body is still paying for those high doses. My daughter suffers from daily seizures. She cannot work or drive. My husband, Carl, deteriorated day by day. Unable to handle the loss of memory and speech, as well as the debilitating daily headaches, he took his own life. I don't blame him. He was in too much pain, and his doctors could not help him.

I am the family of Judy Armstrong Stiles. I lost my home, my health, and my husband. We are not expendable for natural gas.

Name: June Chappel

- Location: Hopewell Township, Washington County, PA
- Exposure: 15-million-gallon frack waste pond 200 feet from home
 - Condensate storage tanks 500 feet from home
 - Combustible flare 500 feet from home
 - Seven horizontal shale gas wells 900 feet from home
 - Harm: Industrial dishonesty/disregard: Minimal competence in managing industrial accident
 - Loss of property value.

For my son, my husband, and me, the years of 2008-2010 revolved around: drilling, fracking, flowback, and flaring.

Drilling: 900 feet from house: Our house vibrated 24 hours per day, for 7 days per week. It was horrific.

Fracking: 900 feet from house: This was nine days of heart pounding noise. It was constant 24 hours per day.

Flowback: 200 feet from house: Range Resources placed a 15-million-gallon fracking waste pond 200 feet from my house. The fracking waste pond is where unnamed liquid chemicals were stored open to the air. The fracking waste pond was a vat that smelled like a can of gasoline or kerosene and was longer than a football field.

Flaring: 500 feet from house: This is the activity that caused the industrial accident behind my house. In September 2009, Range Resources placed a large blue pipe 500 feet behind our house that was to be used to burn away unwanted gases. We had to go outside at 4:00 a.m. to rescue our beagles due to the extreme noise and heat caused by the flame from this pipe. We found our dogs cowering in their dog boxes.

This flame lit up the night sky and sounded like a 747 jet within my home.

A few days later, I returned home to find a local volunteer fire department and fire truck at the fracking waste pond.

We could see several little fires burning around the edge of the frack waste pond! The protective liner under the frack waste pond was melting! Range Resources drilling company demonstrated minimal competence in managing this industrial accident. In addition, the local volunteer fire department didn't have the knowledge needed to manage this industrial accident. Someone in the company told me that they are "learning as they go." This negligent "learning curve" could have ended in a man-made disaster.

How am I doing today as of July 2012? On February 26, 2010, I lost my dear husband, Dave, to an unrelated illness. Regarding drilling, I still deal with the post-traumatic stress of having lived through the three My name is June Chappel. I have multiple condensate storage tanks beside my house. I'm calling for a halt to fracking near people's homes.



For Additional Information: youtube.com/watch?v=3j21qBuJxsl



years of drilling activity. The several condensate storage tanks that sit 500 feet

from my house are a constant visual reminder of what occurred here. The deer have not returned to the land that the fracking waste pond had occupied. My property value has decreased. I have petitioned Range Resources to buy my property so that I may move in search of health and peace. The response from Range Resources was "We're not in the business of buying homes."

- June Chappel



A view of Chappel's backyard.



My name is Jaime Frederick. Fracking has devastated my quality of life. I'm calling on our government to stop protecting the gas industry and to start protecting us.

> Name: Jaime Frederick Location: Coitsville, Mahoning County, Ohio Exposure: • Water Contamination:

- Barium
- Strontium
- Toluene
- Human Health Impact:
 - Removed gall bladder
 - Numerous Surgeries
 - Grapefruit-sized infection in intestine
 - Elevated kidney and liver levels
 - Kidney infections
 - Body pain
 - Difficulty breathing
 - Rapid heartbeat
- Loss of Property: 100% loss \$125,000 to \$0

Our little house, in the middle of the woods, will soon be in the middle of a toxic wasteland, as Bocor prepares to cut down the remaining trees to put in the pipelines and compressor stations that will eventually connect the wells. We have already had a blowout of at least one well, a chemical spill, and a tear in a waste pit liner. Fortyseven wells, including injection wells, already cover the 12 square miles that is Coitsville, even surrounding the wildlife preserve.

Our property value has been reduced from \$125,000 to nothing. We have nothing left, having spent every penny on water testing, water filtration equipment, medical bills, and renovating a home in which we thought we were going to raise a family. We check our faucets daily with a lighter, hoping it won't ignite. My dogs and I feel better these days since we stopped drinking the water. My liver and kidney numbers have improved. I have developed kinetic tremors in my hands as a result of the neurological side effects of some of the chemicals.

The worst side effect is my concern about safely carrying a child. The doctors fear hemorrhaging or death is possible. If I would become pregnant, there is the risk of birth defects due to the chemicals from my water. I will never take that risk. At the time when I was most sick, drinking the most water, per doctor's orders. I lay on the bathroom floor, night after night, vomiting, thinking I would surely be dead soon. At that time, I did not know what fracking was, or that I was being deliberately poisoned. But I do now.

- Jaime Frederick





Shortly after moving into my home in Coitsville, Ohio, 3 years ago, I became seriously ill. I vomited on a regular basis and had intense abdominal pains every day. After numerous trips to six different doctors and several emergency room visits, I had my gall bladder removed.

Over the course of the next two years, I underwent five more surgeries in an attempt to repair the grapefruit-sized infection in my intestine, which ate through to the outside of my skin. I continued to get violently ill, had elevated kidney and liver numbers, kidney infections, pain throughout my body, trouble breathing, rapid heartbeat, and many other unexplained symptoms. I saw 18 different doctors who continued to misdiagnose me. Our medical bills burned through our savings.

Convoys of trucks and drilling equipment rolled down our once quiet road. The neighboring property owner, who lives out of town, had signed a gas lease before we even moved there. Out of the 62 acres signed off by my neighbor, they felt the best place to drill was right by my home, as close as the law would allow. My husband and I paid \$500 for a tier 3 test of our water to establish a baseline before the drilling began. Our baseline tests revealed high levels of barium, strontium, toluene and several others.

We dug deeper. We discovered that several wells had already been drilled and were tucked quietly away in the woods that surrounded our home and other properties. This was never disclosed to us when we bought the house. It's hard to say which one of the 25 wells within a mile actually caused the contamination.

Living through the drilling and fracking phase of the most recent well was a terrifying experience. We were given no notice and had nowhere to evacuate. We were subjected to unbelievable levels of noise, like an airport runway. We couldn't sleep for days due to the explosions. Worse yet, we could feel the vibration through the house from the drilling. The fracking lasted about 3 days.

The gas storage tanks and radioactive toxic waste tanks are outside my bedroom window, uphill from a fresh artesian spring on my property. The gas storage tank is now hooked up and regularly releases the pressure, putting fumes into the air and making a lot of noise. A smell similar to rotten eggs and diesel fumes hangs heavy in the air. The Ohio Department of Natural Resources (ODNR), tells me it is perfectly safe, and that I am in more danger breathing in the air in a parking lot. Sorry, ODNR. I don't live in a parking lot.

For Additional Information: youtube.com/watch?v=-TvhcvSHVs8



My name is Terry Greenwood. My farm is losing revenue from sick and dying cattle. I am calling for a ban on fracking.

Name: Terry Greenwood

Location: Daisytown, Washington County, PA

- Harm: Animal Health Impact: Lost 11 head of cattle, 10 of which were stillborn calves
 - Industry Dishonesty / Disregard:
 - Company littered and left
 garbage on property
 - Removed six acres of hayfields
 - Cut fences
 - Loss of Property: 100% loss \$125,000 to \$0
 - Loss of Income: \$10,000 per year lost revenue due to loss of cattle

For Additional Information: youtube.com/watch?v=DI_81WwSLbM www.nytimes.com/2010/07/24/business/energy-environment/24gas.html?pagewanted=all





I am a small town farmer from Western Pennsylvania. Whether horizontal or vertical wells are drilled, there is destruction and contamination from spills and run-off.

I have lived on this farm since 1988. This property was leased back in 1921. The gas company, Dominion, came to my farm in 2007 and said, "We're going to drill two wells on your property." They acted like dictators. They did what they wanted to do. I had no say.

The wellhead was 285 feet from my pond. There was a spill on my property a short time later. The frack fluid went into my field and pond. My animals drank this water. I lost 11 cattle. A two-year-old cow died, 10 calves were stillborn, and 4 were blind (2 had blue eyes and 2 had white eyes). This affects the animals something terrible. I had to get rid of my bull, because he became sterile. I called the DEP, Pennsylvania's Department of Environmental Protection. Also, we called the gas company. No one helped me. The DEP sided with the gas company when I called them. I was told by the DEP, "There's nothing wrong with this. They dump the water." The damage was done.

My drinking water went bad in January 2008. It looked like iced tea. When I called the company, they said, "Don't drink it." The gas company only tested my well that was for drinking water and my spring. They had no interest in testing the water my animals drank or answering as to what chemicals killed my cattle. They then came and drilled 5 wells to find a water well, but the water was so salty you couldn't drink it. However, they refused to supply us with water that we could drink. I have been paying \$800 a year for water since.

In my own field, the gas company said, "Get an attorney. Prove it." They threw garbage on my property and buried frack pits with plastic liners sticking up in places... This is what they do to you. I lost 6 acres of hayfield to the roads they built. They came one day, cut the fence and did what they wanted to do. When I hauled their garbage to the road, because I didn't want them burying it on my property, they accused me of blocking the road with garbage. They have even taken me to court.

I sell cattle for food. My business is bad now since it is not nearly as profitable. This has been hard on us and has caused a lot of stress and pressure. I am losing over \$10,000 per year in lost cattle and hayfield. Much more money has been lost than has been collected in royalties from the wells on my farm.

In 2009, a Dominion employee told me, "The wells are drilled. We're done with you." These people just ruin your life.

- Terry Greenwood

We are David and Linda Headley. The natural gas industry has stolen our land, polluted our streams and air, made our family and animals ill, and disrupted our peaceful way of life. We want safer extraction, more concern for the environment, and accountability for the industry.



We have been residents of Fayette County for 28 years. We have owned our current residence for seven years. Our rural community in Springhill Township was a serene, safe, picturesque small town, situated along the Monongahela and Cheat Rivers, nestled in the foothills of the glorious Allegheny Mountains. Life here was quiet. This was a beautiful place to live and raise our family, far from the bustle of the city. This was before the drilling.

We first noticed the gas activity when bulldozers invaded our hay fields to build access roads to well pads. It began only about 6 weeks after we signed on the land, having bought it with the mineral rights, but without the oil and gas rights. Since coal mining was the issue around here and there had been little to no gas activity left in the area, we were made not to worry about the potential for development, and moved ahead with plans to build our dream home. This was before anyone knew the name Marcellus. Yet, in 7 years' time, the man who owns the rights has put 4 shallow wells, one Marcellus well, and a pipeline across the property. We had no idea they could do this to the land or us.

The truck traffic is constant. Land damages were of course immediate. Trucks, noise, dust, and nomadic workers followed. Then came the pollution of our air and water, then deforestation and the destruction of fruit trees. They even managed to burn 10 acres of ground with a brush fire, set with used motor oil from a bulldozer's oil change! Every hour, once an hour, it sounds like a landing jet visits our once quiet farm as well.

We have even had multiple leaking wells for over a year, ignored by the operators, and now we have a spring 200 feet from our house which is now so rich with gas, it can be set on fire. Doctor visits have become commonplace. Our 4-year-old son has mysterious stomach issues that cripple him with pain; we do not have any answers, yet.

Then came the transmission pipelines along with more nomadic workers and thousands of gallons of drilling chemicals in our beautiful, trout-stocked stream! And why? All because of

Name:	The Headley Family
Location:	Springhill Township,
	Fayette County, PA
Exposure:	Shallow wells
	Marcellus well
	Transmission pipes
	Well Pads on Property
Harm:	Water Contamination:
	Natural spring that ignites
	from leaked gas
	Human Health Impact:
	Crippling stomach issue
	Oversight failure: Leaking wells

 Industry Dishonesty/Disregard: 10 acres of land burned by workers

an uncaring, dirty industry, driven by greed, selling their souls, and leaving our health, environment, and rights behind as waste. When will this nightmare end?

Dozens of neighbors and communities in whole have suffered. One next-door neighbor's well was contaminated. They had to get municipal water after the industry denied responsibility. We know of at least 3 families having serious health problems; they have had to seek legal assistance. Increased loads on rural roads have led to numerous accidents and incidents. Crimes in the area have increased.

Our experience with our local and state officials and the Pennsylvania Department of Environmental Protection (DEP), has been mostly not caring, not responding, or denying. Those who do care usually express feelings of helplessness or frustration. Most say the industry lobbying and money is hard to fight against. Others admit that they are now called the "Don't Expect Protection" and therein lies the truth.

Our once peaceful existence has forever changed. This industry is a loose cannon; we need to get a handle on it. Add layers of protection for all our people. Regulate and hold the industry accountable. Please slow the acceleration of this industry. Safe extraction and concern for the environment is a must! If we could put a man on the moon 40 years ago, we can find a better, safer, healthier way to fuel our future and our children's future.

We have many photos, videos, and water and soil samples. Our air samples are pending. It's too late for us. But we are willing to share anything that may help someone else.

David Headley





For Additional Information: www.nytimes.com/2012/06/21/us/an-energy-boom-in-western-pennsylvania.html triblive.com/news/2144774-74/headley-gas-company-property-leaking-bubbles-environmental-pipeline-williams-gun





Aerial view of a flowback waste pond near a private residence.

A Life Lost in the Rush to Drill: The CJ Bevins Story

As people skeptical of the gas industry, we are used to bad news. We shake our heads knowingly when we hear about another illegal dumping of frack waste. We scribble pages of statistics as the scientific community publishes newer findings of the dangerous health risks related to horizontal drilling. We pass reports through social networks of semi-truck wrecks, destroyed country roads and explosions. It is very easy to find ourselves in a frack pit of despair, apprehensive that the next article will be the one to finally knock us permanently on our backs.

But there is a less talked about risk in fracking circles: worker safety. It is an aspect that many ignore. After all, no one is forced to put on a hard hat, just as no one is forced to sign a lease with a gas company. But if the industry can lie to and deceive a landowner, couldn't they just as easily lie to and deceive an employee? Or worse, poison, endanger and threaten them? Even injure or kill them?

On May 1, 2011, my son and his coworkers were hurriedly erecting a drill site in Smyrna, NY. The site was extremely hazardous. AWD vehicles were sinking into the mud and ruts were thigh and even waist deep. Supervisors requested, then demanded, more mats to cover the work area. But the company answered that they were too expensive, and pushed the workers to continue. As a result, Charles E. Bevins III, my sweet, sweet boy, was pinned and crushed between an industrial sized forklift and a building when the weight of the forklift on the unstable ground gave way.

The remote, hidden location which affords so many drilling sites

less scrutiny, was not mutually beneficial to my son. The sprint to the Syracuse hospital took over an hour. I'm told the last thing his coworkers heard him say as they loaded him into the ambulance was, "Am I gonna die?" My only son, 23 years old, died repeatedly until the doctors could no longer revive him. My only son, died with no family or friends at his side, to hold him and comfort him. Every night when I go to



bed my thoughts are haunted with what his last thoughts must have been...how scared he was...his pain.

When my son's body was brought back home, we buried him on our property after keeping him at home one last night. He went into our soil where he had grown up the last 14 years of his life. We buried him among the trees he had cut and planted, the fences he strung and repaired, while the sheep he trimmed and fed overlooked from the meadow. Our family dogs lay quietly among us as we said goodbye and filled his grave with earth. He was supposed to grow old in the house he helped build, not be buried in the woods a stone's throw from the back door. Our lives became observed, not lived.



The corporations he worked for sent flowers and representatives to his viewing. I found a short paragraph on one of their web sites about sending their condolences and how committed they are to worker safety...this sandwiched between paragraphs about earnings and upcoming events. As far as the news, a local channel did a very short piece acknowledging his death and that there was an ongoing investigation. After many months, OSHA found the companies at fault, and slapped them on the wrist with a whopping \$4,900 fine. Both companies have since filed bankruptcy.

In the more than 2 years following the loss of CJ, our eyes have been opened to the substantial amount of injuries and deaths caused by this dangerous industry. We read more and more articles about rig workers injured or killed by electrocutions, explosions, chemical spills and traffic accidents. Our research also unveiled the unregulated inhumane hours they are forced to work and the unsafe environment they are subjected to. This is an industry known for cutting corners and ignoring scientific evidence. As they race

My only son, died with no family or friends at his side, to hold him and comfort him. against the turning public opinion and the river of negative articles about their practices, I believe their desperation and blatant disregard for safety will only get worse. Their arrogance will continue to leave environments, communities, and especially their workers, at risk.

How is it possible we live in a world where an industry can poison and pollute with little repercussions? Where their workers are expendable

and a death can be brushed aside as part of another day's work? How many once complete families will be left incomplete?

My daughter Charlotte began working with Senator Tony Avello of Queens, to forward a bill (CJ's Law) to protect workers. We are beginning to introduce similar legislation in West Virginia and hopefully other states, like Pennsylvania, as well. Josh Fox has recently put together a short documentary to make the public aware of the worker's plight and the disproportionate amount of death the oil and gas corporations allow, in comparison to all other industries in the U.S. The industry's mantra of, "Well, this is just a dangerous line of work" should no longer be accepted by the workers, their families, or the public.



My name is Randy Moyer, I've become disabled as a result of trucking wastewater, and I want a ban on

Name: Randu Mouer

fracking.

I've been driving trucks since 1994. In August 2011 I started driving for a small water-hauling outfit in East Freedom, in Blair County, PA. Every day was different. Some days I'd carry mud but most days I'd haul wastewater from fracked wells to treatment plants. They'd lower the Ph and then I'd haul it back to the wells for another frack job. I didn't know exactly what was in the brine. It was an endless parade of trucks on those back roads. Some nights there would 350 trucks on just for one pad.

On the pads it was common for them to set up a makeshift containment pit out of sheets of plastic and a pipe frame; kind of like an aboveground pool. This was to hold the wastewater after it flowed back from the well. We'd use our trucks to drain them out and once they were almost empty, part of the job was to get in there and squeegee out all the dirt and mud. Others would spray in hot water and I'd squeegee. The more they spayed and the longer I stayed in the wetter my feet got. It would soak through my boots. Some guys would go in there in their bare feet to avoid getting their boots wet. We weren't told what we were dealing with. We weren't given MSDS sheets (material safety data sheets) or any training on any of this stuff. They didn't provide us any specialized equipment or gear because they don't want to scare the public. The only thing we were required to wear was a flame resistant coat. If the public sees guys in hazmat suits they're going to start to ask questions. The drilling companies would rather endanger the public and the workers than answer too many questions. We just followed orders. If you asked too many questions, you were labeled a tree-hugger and you were gone. They don't want any tree-huggers.

Sometimes we'd go in the tanks. They'd use the super sucker to clean them out. In there you would wear a hardhat and goggles but no mask. In the tank you'd spray hot water to clean out the frack fluid. You couldn't see but an inch from your nose because of the steam. Eventually all the drivers are going to get sick like I have. It's all airborne.

I had to stop working in November 2011. I was too sick. I have a hard time breathing and use an inhaler. I get dizzy and my vision is blurred. Sometimes I go into a room and forget why I'm there. I get migraines so bad I can't think. If I get anywhere near a frack site or a compressor station I throw up. This stuff gets into your eyes and ears. My tongue, lips, and limbs all swelled up. I've had three teeth snap off. The first two broke while I was eating garlic bread and spaghetti. I have burning rashes all over my body that jump from place to place. My heart acts like a pumping station for this junk and moves it throughout my body. It moves up my arm to my chest and then

Name:	Randy Moyer
Location:	Portage Township, Cambria County, PA
Exposure:	Wastewater, flaring, abatements; Randy was responsible for hauling, emptying and cleaning waste water tanks and mats.
Harm:	Human Health Impact Severe Swelling of the face, lips, tongue, extremities, and genitals. Severe pain in spine and back Burning rashes, Dizziness, Lung impairment, Kidney and liver problems Irregular heart rhythm, Memory loss, Swelling of digestive tract and extreme heartburn, Constant ringing in the ears, Blurry vision
	Wastewater improperly categorized as residual waste. Industry Dishonesty/Disregard Not provided proper training or safety equipment Workers not informed as to contents of wastewater
Loss of income:	Loss of \$6,000/month as trucker

down to my genitals and butt. There were days this past winter when all I could do was lay on the floor in my house with the doors open to cool me down. My skin felt like it was on fire.

The first time I went to an emergency room was straight from a well pad. I showed a supervisor the rash on my chest and he sent me. Since then, I've been to the emergency room 10 more times and have seen over 40 specialists in PA and WV. One told me that I had bed bugs. Another said it must be a food allergy. It only took me four months on the gas rigs to get this stuff in me and now no one seems to know how to get it out. On my best day, I have two good hours and then I'm spent. I've got two tractor-trailers sitting at my brother's place that I'll never drive again. I can't go back to driving trucks.

I've heard stories of other guys that have it like I do and have taken their own life. I'm a fighter. That's how God made me. I go to church 3 times a week. No matter what I'm going through, God is still King and he'll always be. If He brings you to it, He'll bring you through it. I just pray he gives me enough time to see my seven year-old grow up a bit.

Randy Moyer



Additional Information: www.youtube.com/watch?v=eHoHft6Mqno www.youtube.com/watch?v=OxLG -LYIO4

www.timesonline.com/news/local_news/fracking-wastewater-can-be-highly-radioactive/article_ac1dd0e8-5a2f-57aa-8c5d-1d80273e261e.html

My name is Marilyn Hunt and I am calling on people to stand up and demand the rights guaranteed by our Constitution.

Thirty years ago, we moved to Wetzel County. It was a quiet farming community crisscrossed with tiny country roads, abundant wildlife, strong families and churches, and blessed with clear night skies. Our water was clear and pure. It seemed like the perfect place to farm.

That all started to change in 2009. Convoys of trucks started coming in. Land men started making the rounds and trouble started.

Land men were very aggressive, gathering intelligence like CIA operatives, so they could pit one family member or one neighbor against another. Some unscrupulous land men even took advantage of older folks - sneaking into their homes while their caregivers were out and getting signatures on documents that sold their rights away. Marriages broke up, families fell apart, and longtime friendships were lost over disagreements about money and drilling.

Our local services and our way of life were overloaded and seriously altered. Serious crime exploded and our emergency responders weren't equipped to handle the industrial accidents. We didn't have enough jail space to handle the criminals, many of them drillers from outside the area. Our quiet country roads were pocked with potholes.

A meeting was called and residents of the area were invited to hear the drillers talk about their operations. They assured us that the process they used was perfectly safe, that they were injecting just water and sand into the ground. They said that the only way anything could go wrong is if there were an accident or an anomaly. Days later I was alarmed when I saw trucks pulling up with pallets and tanks of chemicals. If it was just sand and water, what were these chemicals?

> We are in the midst of a prolonged and intense civil and human rights crisis.



The lawlessness went far beyond assaults and thievery, as we were soon to find out. We decided that we would not lease even though the drillers had designs on our farm.

This, apparently, got some people upset. There were infringements upon our rights. There were attempts at intimidation. We were run off the road, there were attempts to change our property lines, and we caught a tanker truck emptying its contents on a local road without a permit.

Then we started getting sick. In December 2009, we all came down with flu-like symptoms. Drinking water seems perfectly natural when you are sick - and our water was good. There were no smells or tastes but we did notice white flecks that we had never noticed before. It never occurred to us, though, that water might have been contaminated so far from the actual drilling. We assumed we were safe, insulated from harm by our 70-acre farm. We were over a mile from the nearest well. But then a neighbor called and told us her horses refused to drink the water from her well and it had a chemical smell. She, too, was over a mile from a drilling site.

Chicks we were raising drank the water. Soon after, they developed elongated beaks. Many developed neurological symptoms. They were unable to stand. The dying chicks moved their bodies in circles and died.

My husband, Robert, a scientist with several patents to his name, tested the water and found acrylonitrile. Acrylonitrile is highly flammable and toxic and had migrated over a mile from the drill site. We have the findings of the volunteer lab and a private commercial lab. My neighbor has the deepest well in the area and her test results included benzene, toluene, and pages of other chemicals.

We used to live the American dream; we had a middle class existence. Now we're on a camping trip without the fun. We collect rain water to water the stock and we've set up a special system to treat the rainwater for our drinking water. I'm not sure if people realize how critical water is to

Name: Marilyn Hunt

Location:	Wetzel County,
	West Virginia

Exposure: Multiple Wells in the Area

- Harm: Water Contamination: Acrylonitrile
 - Human Health
 Impact:
 Flu-like symptoms
 - Animal Health Impact: Deformed and dying chicks

our lives. We need it to drink, bathe, clean, cook, wash clothes, and it is also critical to our animals.

This country was set up to give all of its citizens certain rights. What seems to be happening is that we are sliding back to a tiered system where different people get different rights. We are in the midst of a prolonged and intense civil and human rights crisis.

The gas and oil industry buy the allegiance of our government officials with legalized bribes called campaign contributions. And who pays the steepest price? It's the poor and marginalized.

Some people have benefitted from this invasion but most people are no better off than when this "boom" hit Wetzel County. Some people have more money but the quality of their lives is no better and is often worse. You can't live without clean air and water, and is life really living if you are nothing more than a serf? My father landed at Normandy and fought his way across Europe to protect our freedoms. People need to stand up and fight for the government we were promised or we will lose all that so many gave so much for. We in America have become a beacon of hope and resolution to those who live under totalitarian and repressive regimes.

- Marilyn Hunt



Calvin Tillman Former Mayor of Dish, Texas

Imagine finding your dream home in the country; a place that you can raise your family in peace and quiet, with room to roam, and raise horses to ride. You invest your life savings into this home, because it is the place you have waited your whole life to own. You spend the next several years remodeling, building fences, constructing barns for the horses, and making this place exactly where you want to spend the rest of your life.

Now imagine a company moving in next door against the will of everyone in the area, including the owners of the property that they are developing. On this heavy industrial site there will be over a dozen massive engines that create massive amounts of noise and odor, so the quiet country community that you moved to, is quiet no more. No more sitting outside for the quiet cool Texas evenings that we enjoyed during the spring and fall, and no more enjoying the beautiful Texas sunsets. Now the only thing you hear outside is the roar of 3,500 horsepower engines roaring 24 hours a day, 365 days a year.

If that were all, the situation would be bad enough, but then heavy industrial equipment has to remove the impurities from the natural gas that they process and move out into the pipelines with their massive compressor engines. They take the liberty of releasing these impurities in the air around your dream home, which causes a noxious odor like many could not imagine. If the unbearable noise were not enough, the odor makes it so you can not stand to be outside, and unfortunately the odors creep into the house through the vents, so you have no place to hide. You wake up one day and realize that the quiet country living that you moved to, is now a dirty, noisy, and smelly industrial zone. You may as well be living next to a refinery or chemical factory on the Gulf Coast.

If that were all, the situation would be horrible, but then realize that when the odor is at its strongest your children get massive nosebleeds. Imagine the realization that comes when you realize that the natural gas processing facility and compressor station is releasing carcinogens and neurotoxins, and that is what is causing your children to have nosebleeds. Then comes that moment when you realize that you can no longer live in your dream home. To protect the health of your children, you are forced to move away, take your kids away from their school and friends, and give up your dream.

You think that what I just described could not happen in America, but it does, and it is happening everyday. You will also think that there is no way this will happen to you, but I personally know hundreds of families in the same situation. If you live in the middle of a natural gas field, this will happen to somebody, and it may be you. That is unless you stand up and choose to do something to prevent it.

William Sciscoe Mayor of Dish, Texas

Run for your life! Run for the lives, health, safety and wellbeing of your family members and loved ones! Run for the value of your estate! There are billions of dollars under your feet and people are coming to get it. They do not care who or what they have to run over or through to get it. It is an under-ground gold rush, with you and your property in the way.

They have the legal right to take control of your property and do with it what they will. Their rights trump the rights of all others. They can and will take any portion of your property they want and turn it into a heavy industrial zone, toxic waste site and visual eyesore, which will spew toxins, carcinogens and noise.

In September of 2011, I visited Ithaca, New York. My airplanetype club buddies and I meet in beautiful locales several times a year, and Ithaca was the current choice. Two thoughts kept running through my mind in the several days I spent there. One, I was glad I got to see this area up close before it gets destroyed. Two, these people do not have any idea how much their world is about to change.

I, too once lived in a serene, ideal, and beautiful place. In the mid 1980's I moved my young and growing family out to some acreage thirty miles northwest of Dallas/Ft. Worth, on the beautiful rolling green hills of North Texas, with the clean air, peace and quiet of country life. We built a home. We shared the land with my aging parents, and my wife's aging parents. We raised five great young Americans, and some cows and horses. Our children developed into two Eagle Scouts/U.S. Marines (one is at the U.S. Naval Academy and the other, an Afghanistan war vet, is now serving on the USS Iwo Jima); a veterinarian-technician; a popular radio host/sports commentator; and a Lear Jet mechanic/avionics technician. Life was good for us there.

Then the heavy trucks started to roll in. And then more heavy trucks. And bulldozers and rock trucks roll in. And drilling platforms arrive, with support trucks and service trucks. A dieselpowered drilling rig, grinding into the earth around the clock for 7 to 30 days, with banging and clanging drill pipes. Then the twenty trucks haul it to the next well site a very short distance away. Following this, trenching machines bigger than houses, scarring the earth from each well head to the compressor stations. They are making way for the high pressure gas pipelines. And sand trucks roll in and out. And water trucks are everywhere. And pipe trucks. And work-over rigs. And then the frac trucks come in. And more trucks, hauling in storage tanks, pipes and valves. This is a procession that happens at every well head. And the well heads will be much closer than you can imagine. But please be advised that it does not end with the completion of the well head. It is an ongoing process. The heavy wastewater trucks will be on your roads 24/7/365 from now on. Where are they hauling all of that radioactive, toxic wastewater to, you should be asking yourself?

Of course, when the production of a gas well diminishes, it will need to be fracked again. So, some of this process will be repeated several times.



I do not want to give the impression that I am against the oil & gas industry, exactly the opposite. I come from an oil & gas family. My father has been honored and recognized as an oil field pioneer. My father owned several oil field service companies, manufacturing companies, an oil field tool rental business, and was a wildcatter of the Permian Basin and the states of the lower Mississippi River Valley. His father and brothers were also oil field pioneers. Among several other interests, I am an oil & gas operator and investor. So, a portion of my income comes from this industry.

This industry does provide jobs. And it will provide some cash flow to the local economy. Many people will manage to skim a little gravy off the industry's war zone. And you will be living in a war zone. You just do not know it, yet. Rent a small aircraft and have someone fly you over your beautiful hills, valleys, pastures, rivers, orchards and forest. Take pictures and videos. Then do this again every three months. Overall you are going to pay a very, very heavy price, environmentally. Many people will pay that price with their lives. You will see.

Oil & gas production is a dirty, filthy, nasty business. Anyone who tries to paint it otherwise is a liar. Your serene, picturesque countryside, small town lives, scenic drives through Norman Rockwell-type views, and the peace and quiet of your existence, are all going to be decimated. There will be ugly well sites every eighth of a mile or less [In New York they will supposedly be every mile or so.] There will be heavy trucks choking and pulverizing every road from the smallest private driveways to the major highways.

There will be drilling rigs, work-over rigs, compressor stations with multiple 2,250 horsepower diesel engines at full power. For your reference, the average freight train locomotive engines are about 1,250 horsepower. There are twelve of these compressor engines located less than one-quarter mile from my home. I look out my front door and the first thing I see is a gas well site. And right behind that is the compressor station complex. I look out my back door and look at another gas well site. There will be pipeline metering stations, with high pressure pop-off valves releasing one hundred million cubic feet of raw natural gas into your atmosphere. This sounds like a Saturn V rocket, launching outside your door. There will be people who tell you, "Oh, there is nothing to worry about. That gas is lighter than air. It goes straight up to heaven." But we have proved this theory wrong in the town of Dish, Texas. If anything, these gas fumes, with their toxins and carcinogens, hug the ground and hang in depressions, until moved out by the wind.

What really tipped us off in 2009 was the death of old growth trees near the compressor stations. We checked other compressor sites and found more dead trees. We paid for an independent air study that came back with toxins and carcinogens at four hundred times the EPA short term and long term exposure levels. We now have a 24/7/365 air quality monitor station in our town near the compressor station. But every well head site is venting these gases, toxins and carcinogens.



I recently had a new resident email me at 6:30 AM, complaining about their windows rattling in their new home. They live one-half mile from the compressor station. I responded, explaining the source of their problem. They sent another email a few minutes later saying that they walked the dog in their back yard and their swimming pool water was vibrating. I thought, "Really?" I walked out in my back yard and sure enough, my swimming pool water was vibrating also. The earth was vibrating through my shoes!

You will smell gas all of the time. You will never again enjoy sitting outside your home. The noise and odor will aggravate you, more than you can imagine. You will not feel safe breathing. Have you read those placards on gasoline pumps that say, breathing these fumes can cause cancer? Six people that I have known, that lived within one-half mile of my home and these well sites and compressor stations, have died of cancer. This is not a densely populated area. All of the homes are single family. And the smallest lot size allowed is one acre.

We have several homes in our town where citizens have had a 36inch diameter high pressure gas line buried within twenty feet of their front door. These high pressure gas lines are buried all over our town. One property owner next to my property has five pipelines across his once beautiful horse ranch, each with a one hundred foot wide easement. He can never develop that property, never do anything than grow grass on it. He owned his property, but they had their will with it. They have the control of his property, while he cannot hope to sell it. But he still gets to pay the property taxes on it.

They have the right of eminent domain. They can, for a fair price, which they set, run over and through your property with pipeline easements, right-of-way easements, and erect any industrial complex they wish. They are not going to steal your property from you. They do not want it. They do not want to own a toxic waste site or have to pay the property taxes on it. That's your responsibility.

We have property rights in this country–until someone with more money and power wants what we think we own.

The sale of real estate is governed by the rules of full disclosure. If a perspective purchaser views your property, you must disclose any and all known defects about your property or the area surrounding your property. Failure to do so opens you up to some very serious liability. So, if a gas well goes in down the road, spewing toxins and carcinogens, failing to report this to perspective purchasers can prove very costly to your estate. You will soon find that you are a prisoner in your own home. There are billions of dollars under your feet and there are people coming to get it. And they do not care who or what they have to run over or through to get it.

RUN! RUN! RUN!

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"Burn off"

July 13, 2013 Mark West Cryogenic Plant, Rt. 519, Houston, PA

Multiple families live across the street from this cryogenic plant which has had many emergency burn offs over the last few months. These Washington county families are left to wonder what they and their children have been exposed to and why they cannot get answers or help from their local officials and the DEP. My name is Paula S. I suffered after chemical exposure on December 8, 2011. I'm calling for a halt to hydraulic slick-water fracturing.

Name: Paula S.

Location: Butler, Butler County, PA Exposure: Natural Gas processing plant on route to work

- Harm: Air Contamination: H2S - Hydrogen Sulfide
 - Human Health Impact
 - Headaches
 - Nosebleeds
 - Dizziness
 - Vomiting
 - Vertigo

I don't know if it is the Sjogrens Syndrome or just hypersensitivity that renders me the proverbial "canary in a coal mine." My immune system took a hit on December 8, 2011... two or three seconds of exposure

from inside an enclosed car has taken months of recovery. I'm angry. I was doing so well, with energy like I hadn't had in years, and it was taken away in less than five seconds.

On Thursday, December 8, 2011, as I made my way home from Zelienople traversing the countryside as I did on a daily basis, I was assaulted by a nasty smell. A few seconds of inhalation elapsed before I realized what was happening and jumped to turn off the heater. A few seconds of a noxious odor akin to rotten eggs wafted its way into my car. My husband would later tell me that it might have been H2S – Hydrogen Sulfide. I had just passed by a gas processing plant that had sprung up along Route 528 near the Upper Harmony extension. Two seconds of inhalation of something instantly caused a tingling sensation on my scalp, quickly followed by an intense all over headache and numbness to the back of my head. I was concerned that I may not make it home since I was near the halfway point. I kept driving while keeping tabs on what I was feeling. I just wanted to be as far away from that smell as possible.

When I experience numbness to the back of my head it means that my adrenals are under stress. When I got home I took supplements to boost adrenal support. I also took Rescue Remedy because I felt that I had been assaulted. The tingling, numbness, and headache slowly subsided over a period of days. Lack of energy was left in its wake. I took a multitude of naps because I had no energy. I also experienced extreme irritability and edginess. My nerves were totally shot. My calm demeanor had become volatile.

I read later that all of the symptoms I had experienced were indeed signs of H2S exposure, right down to the irritability and volatility. I purchased a respirator.

I have opted to travel a different way to work. My route may change again as I try to avoid more drilling sites. If I keep rerouting myself, soon it will take me an hour to get to work instead of 25 minutes. I'm not crazy about adding the extra miles to the car, not to mention the money spent on gasoline. It's sort of perverse that I need to burn more fuel to avoid what makes me sick. If the pace of growth continues there may be no way for me to avoid exposure. I wonder if I can drive with a respirator? Will the police pull me over for wearing a mask?

This past week I went to my doctor. I talked to her about my ordeal. She tested me for presence of toxins. I tested positive for chemical exposure. She put me on a supplement to help rid my body of the toxins and also increased my adrenal support. Overall, my system has taken a hit. In the meantime, I try to work my way back to where I was and avoid exposure.

After monthly visits to my doctor my system is getting better. I am not sure when I will need to use the respirator.

I hear that a processing plant is going in a couple of miles due west of my home. I wonder if I will be able to stay here. But where do I go? My family is here. My job is here.

- Paula S.

My name is John Slesinger, and I think there should be a ban on the whole drilling process. There are no laws being enforced to protect citizens from harm.

Name: John Slesinger Location: Cambria County, PA Harm: • Water Contamination: TDS - 3,590 ppm • Industry Dishonesty/Disregard: Apparent withholding of information that jeopardized

- public health
 Oversight Failure: Neglecting to act on information about failed well casing.
- Loss of Property Value

A coal company owns property adjacent to mine and leased this property for drilling. I was unaware that a gas well was going to be drilled 2,700 feet from my house. Shortly after the well was drilled, our water well became contaminated. This occurred in December 2009, and I have been hauling my own water ever since. I have never been supplied with a drop of drinking water since the drillers, T&F Exploration, contaminated my well. I live in a rural area that was beautiful and once had safe, perfectly good water. This is no longer the case.

The contaminants in my water pointed to gas well contaminants. Of course the Pennsylvania Department of Environmental Protection (DEP) and the driller denied this. Acceptable levels of TDS, total dissolved solids, for drinking water are 500 ppm; the total dissolved solids found in my water, after testing, were 3,590 ppm. I am currently involved in a lawsuit, which is still in the "discovery" phase. It can still take a year or more to go to court.

A gas well expert with over 25 years' experience, hired by my attorney, met with me and reviewed all the drilling records and water samples. He found the answer in the drilling records. Drilling logs show that when cementing the casing in 2009, 15 barrels of cement (about 5,600 pounds), plus water and drilling fluids, disappeared into what is called a "thief zone," or a fracture, which obviously led to my drinking water fracture. This happened in December 2009 and again in October 2010 when the well was abandoned and cemented shut. The documented loss of cement and the amount of chemicals in my water match. The expert hired by my attorney says that the DEP and the driller had these documents the whole time, while they both denied that any proof existed. Documents will show this proof which is described as



undeniable. The DEP signed off on a cement casing job that they knew had been done incorrectly. The DEP lied and the drilling company treated me as though I did not exist.

At one point, I requested permission to enter the property when the drilling was in process. I watched as black, foamy fracking fluid filled a plastic lined pit to overflowing. Some of this fluid was captured and trucked away; the rest was just buried right on the property, plastic pit and all. I called and reported this. The drilling company was cited for "improper capsulation of waste." I am not sure that any fine was issued. I was also promised that core samples would be taken to assess contamination, but never heard a word from the DEP again.

I have been fighting this for 777 days. I want to move, but I am stuck in limbo right now. Who will buy a house with no potable water? There are disclosures on seller agreements now regarding leased property. It must be disclosed whether or not there is a lease on your property or neighboring properties. This will certainly affect the willingness of a lender to grant mortgage approval.

I feel violated and helpless. These people have control of my life.

Finally, this past week a lawsuit was filed in Cambria County Court against the driller, T&F Exploration. I can now share the details of what my attorney's group found, and I thank all of them. Even if the court does not find in my favor, I now know the truth.

- John Slesinger

For Additional Information: canon-mcmillan.patch.com/blog_posts/ the-pennsylvania-dep-another-red-herring-2



Notable Quotes

Professor Chris Rhodes, BSc, DPhil, DSc, CChem, FRSC, FLS

"It is found that high concentrations of salts, including those of radium and barium, are present in the flowback waters from late-end fracking operations. This investigation raises issues over the exhumation of other toxic materials that had previously remained sequestered in the rock over millions of years. The measured levels of radium and barium are significantly greater that those deemed acceptable in drinking water."

Pouné Saberi, MD, MPH Philadelphia PSR Board Member

"Every step associated with high volume operations of natural gas extraction, processing and transmission exposes the workers, as well as residents of Pennsylvania, to significant health risks. The operators of these activities have very little information on how they are exposing the residents and exercise even less prudence in preventing the known exposures. It is up to the agencies of the state, and the federal government, to protect the people, communities and environment by adhering to the Precautionary Principle. Anything less will only promote a toxic large-scale laboratory."



Ronald D. Castille Pennsylvania Supreme Court Justice (Republican)

"By any responsible account, the exploitation of the Marcellus Shale Formation will produce a detrimental effect on the environment, on the people, their children, and the future generations, and potentially on the public purse, perhaps rivaling the environmental effects of coal extraction."

Chief Justice Castille articulates a new framework for evaluating government actions under Article I, Section 27, which guarantees each citizen the right to "clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment." Those environmental rights are "presumptively on par" with other civil liberties found in Article I's Declaration of Rights, writes Castille,



and the fact that the Constitution declares them "inviolate" "necessarily implies that economic development cannot take place at the expense of an unreasonable degradation of the environment."

Read more about the landmark Act 13 ruling at: stateimpact.npr.org/pennsylvania/ 2013/12/19/state-supreme-court-strikes-down-act-13-local-zoning-restrictions





Collected Stories

Laura Amos

Laura Amos, Larry Amos, and their daughter, Lauren, live south of Silt in the heart of Encana, Colorado's industrial wasteland.

They were among the first in their area to have natural gas drilling on their property. They were also among the unfortunate who did not own the mineral rights under their property.

Encana sent a kind, older gentleman who sat at their kitchen table and told them more or less, "I feel for you, but you own the surface. We own the minerals, and we're coming in to drill. Here's the Surface Use Agreement. You can sign it, but you don't have to. If you sign it, you get a check for \$3,000. If you don't sign, you get no financial reimbursement for any damages that may occur."

In May 2001, while fracturing four wells on their neighbors' property (less than 1,000 feet from their house on what's known as the G33 pad), the gas well operator "blew up" the Amos's water well. Fracturing created or opened a fracture or fault between their water well and the gas well, sending the cap of the Amos's water well flying and blowing their water into the air like a geyser at Yellowstone. Immediately their water turned gray, had a horrible smell, and bubbled like 7-Up. Water production dropped drastically from 15 gallons per minute to nothing or near nothing.

Tests of their water showed 14 milligrams (mg) per liter of methane. They were warned to make sure there were no closets or pockets in their home where the gas could build up and explode. They tested the water in the Amos's well a couple more times that summer, ending in August 2001.

In the spring of 2003, Laura became very ill. She spent months in doctors' offices and hospitals. She was eventually diagnosed with Primary Hyperaldosteronism, a very rare condition of a tumor in her adrenal gland. None of her doctors had any idea of how she could have acquired such a rare disease. The tumor and her adrenal gland had to be removed. From August 2001 until January 2004, no testing was done on their water. Their daughter was only 6 months old when fracturing blew up their water well. Laura

Name: Laura Amos

Location: Encana, Colorado

Exposure: Four wells less than 1,000 feet from home

- Harm: Water Contamination:
 - Methane
 - 2-BE
 - Human Health Impact Tumor in adrenal gland
 - Industry Dishonest/Disregard:
 - Bully tactics
 - Lied about using 2-BE in fracking

bathed Lauren in that water every day. She also continued breast-feeding her for 18 more months until she was 2 years old. During that time the tumor was developing in Laura's adrenal gland. If there was a chemical in her body causing her tumor, Lauren was exposed to it as well.

Encana's spokesman, Walt Lowrey, assured several of the Amos's neighbors and the Amoses themselves that the toxic chemical 2-butoxyethanol (2-BE) was NOT used in fracking on their property. In addition, Lowrey told many reporters in western Colorado, Denver, and the Associated Press that 2-BE was not used on the pad or anywhere in this area. However, on January 31, 2005, Laura learned that the industry had not been telling the truth. They fractured 2,000 feet below the surface, and they DID use 2-BE.

According to newspaper accounts, the plaintiff's lawyer obtained documents providing that chemicals present in the drinking water were used in the defendant's fracking fluids. Laura Amos now has a gag order, nondisclosure agreement and settled out of court in a lawsuit.



Deborah Rogers, a financial analyst, has a professional knowledge of the many numbers related to the price of natural gas, exportation, and the potential economic impact on citizens in the United States. She calls shale gas drilling "a failed economic model." While Deborah understands the issues associated with the industry from an economic standpoint, she also has experienced the negative impacts from this industry on a personal level.

Deborah reported egregious odors to the Texas Commission on Environmental Quality (TCEQ) hotline shortly after drilling began near her home in April 2010 and did not receive a prompt response. Subsequent testing showed that all of the sulfur compounds found on her property were above short- and long-term TCEQ Effects Screening Levels. Carbon disulfide was 300 times higher than the Environmental Protection Agency's (EPA) normal standard for ambient urban air. Another round of testing found toxic compounds, including benzene, barely below the new TCEQ long-term levels and carbon disulfide about 250 times the norm for ambient urban air.

Deborah has experienced nausea from the strong odors and two massive nosebleeds that began with severe headaches. According to Deborah, "The nosebleeds are spontaneous and very frightening because the blood flows copiously, and within seconds, you are covered in blood-your face, your hands, your clothes. I have never had nosebleeds in my life either."

Deborah Rogers

Name: Deborah Rogers

Location: Fort Worth, Texas

- Exposure: Drilling near her home by Chesapeake
 - Harm: Water Contamination: 16 Toxic compounds found on her property including:
 - Benzene
 - Toluene
 - Xylene
 - Chloroform
 - Dichlorodifluoromethane
 - Disulfides

Human Health Impact:

- Nausea
- Severe nosebleeds
- Severe headaches

Animal Health Impact: Asphyxiated goats and chicks

Oversight Failures:

- Texas Commission on Environmental Quality (TCEQ) hotline response time was unsatisfactory
- TCEQ's toxic vapor analyzers are not sensitive enough to pick up VOCs

The evening after her first environmental tests, two baby goats and 6 baby chicks were asphyxiated. The senior veterinary toxicologist at Texas A&M University wrote a letter of concern after test results concluded that the compounds were problematic to the animals' health and to the food chain. These compounds, when ingested or inhaled, magnify potency further up the food chain in milk and meat.



For Additional information:

www.earthworksaction.org/voices/detail/deborah_rogers

Tim and Christine Ruggiero and Family

Name: Tim and Christine Ruggiero and Family Location: Wise County, Texas Harm: Water Contamination: Benzene Methane Sodium Heavy Metals Air Contamination: Methane Sodium Heavy Metals Human Health Impact: Loss of sensation in extremities Rashes Nausea Memory loss Asthma **Oversight Failures:** · Failure to notify neighbors of the occurrence of a spill Delay in taking samples after spills occur The companies self-report

> Loss of Property Value: 75% Loss of Value \$257,330 to \$75,240

the findings

Aruba Petroleum began drilling on a property adjacent to Tim and Christine Ruggiero's in August 2009. On September 16, Aruba began drilling two wells on the Ruggiero property. Since that time, they have experienced several spills, a possible methane seep where bubbles ignite, constant emissions from various stages of the extraction process and noise pollution. They have had several Texas Commission Environmental Quality (TCEQ) air studies as well as private testings that show toxins exceed standards, including benzene at 120 ppb.

The Ruggiero's ten-year-old daughter has been diagnosed with asthma. Christine has experienced rashes, nausea and memory loss. Tim has loss of sensation in his extremities.

Their home and 10-acre horse property have been devalued from \$257,330 to \$75,240. Because they and their neighbor do not own the mineral rights under their land, Aruba was able to drill next to their neighbor's home and under the Ruggiero's property, where they keep their horses, without consent or notice. In fact, the day they started drilling the company cut down their fence where the horses were grazing. They were not told ahead of time that the company planned to drill there.

Although Aruba put up a sound barrier, it is not long enough to cover the length of the house, so it does not help with the noise. They have a clear view of the rig and wastewater pit. On the afternoon of October 29th 2009, Christine reports that while she was in the kitchen, she noticed a black smoky liquid shooting across the pit onto the ground and into the neighbor's trees. There was not an Aruba employee in sight, so Christine called the Texas Railroad Commission (TRC), and filed a complaint. Aruba only cleaned up the spill after the TRC arrived. Samples of the ground were not taken until 5 days after the spill occurred, and Aruba had watered the area down for 5 days. Christine was told that Aruba would conduct the tests and report the findings to the TRC. The TRC found problems with the pit that needed to be corrected. The TRC admitted that the areas should be tested for carcinogens, benzenes and hydrocarbons.

As Christine states, "Don't self-report the spill and you don't have to self-report what was in the spill, clean it up, and fill out all that paperwork. They [Aruba] exist for profit and profit only. Surface right owners are a mere nuisance and are expendable."

Darrell Smitsky



Well water with sediment in the bottom of the jar

Darrell Smitsky's family has occupied their rural home for more than four decades, and prior to Marcellus drilling, their well water was well-known in the area for its excellent quality and taste. Not long after drilling began, the Smitsky's water started looking and tasting funny, so they quit drinking it. Strange things began to happen around anything associated with water on their property. Darrell had eight healthy goats as Marcellus drilling got underway around him, but over a period of several months, five of the goats died, dropping off one by one. Darrell recalls that tragic time this way, "It was like their back legs became paralyzed, and I would have to carry them into the barn. I tried various supplements and other things, but nothing worked."

The fish in a small backyard pond began exhibiting strange symptoms as well, with their scales breaking down and becoming translucent, prior to death. Water plants they purchased from a local pond store turned brown and died. It finally became obvious that their well water and surface water were causing these impacts. Even though Darrell's family began buying bottled water for drinking and cooking, they continued to shower in well water. The Smitskys have developed brown rashes on the front of their lower legs, identical to other shale-fracking victims who live five miles away in Rea, Pennsylvania.

For Additional inforwmation: www.marcellus-shale.us/Darrell-Smitsky.htm



Name: Darrell Smitsky Location: Hickory, Washington County, Pennsylvania Harm: Water Contamination: • Toluene • Acrylonitrile • Strontium • Barium

- Manganese
- Human Health Impact:
- · Rashes on legs from showering
- Animal Health Impact:
- Eight healthy goats dead
- Fish in pond showing abnormal scales

It was originally believed that no gas wells were drilled within a distance of 1,000 feet, but Darrell later learned that his water well was within 1,000 feet of a Marcellus well they drilled on a farm across the road. Since this "less than 1,000 feet" proximity was never revealed prior to these incidents, Darrell's water well never received the required baseline testing before and after drilling. Why is this important? Drilling is presumed to have caused water well contamination if it occurs within 1,000 feet of drilling within 6 months.

Darrell's well water tests indicated serious problems that also pointed directly to drilling contamination, especially when compared to other area water well tests close to drilling. Acrylonitrile appeared at an alarming level in Darrell's water



View from McCarrell Road near Hickory, Pennsylvania test, being 130 times higher than the permitted level in a Pennsylvania stream.

Card Creek's Exceptional Value Wetland



Because of my immaculate quality, which has been naturally preserved within the mountains by which I am fed and sheltered, the Commonwealth of Pennsylvania had declared me Exceptional Value. But despite being classified among the best quality water in the Commonwealth, my wealth is not valued by all, in common. In fact, risk-laden activity is permitted by the Commonwealth to take place within my watershed - and one natural gas company even built right on top of me.

WETLAND

BOUNDAR

In August 2009, a major violation was issued to Pennsylvania General Energy (PGE), a gas company the Commonwealth permitted to horizontally drill and fracture in my watershed, uphill from my tributaries, which feed public and private drinking water systems in the valley below. Department of Environmental Protection (DEP) issued the violation, as they are the ones charged with my protection. PGE had built their well site on top of me, an Exceptional Value wetland, by not building its site according to plans approved by the DEP and adding an impoundment pond to hold fluids. Despite these acts, PGE was allowed to continue operations - until the National Army Corp of Engineers overrode the Commonwealth and issued a cease order stopping further work by PGE until the matter was resolved.

PGE hired a company called Moody & Associates to assess me. They determined that, contrary to what the Commonwealth and Army Corp of Engineers said, I am not a wetland, and therefore not of Exceptional Value. After over a year of back and forth PGE was eventually allowed to continue their work, drilling and fracking several more wells and adding buildings, pipes, and large tanks.

All this was allowed to happen even though the company had broken the law, not just by building on top of me without permission, but for other illegal construction at other Exceptional Value watersheds not far from me. The United States of America, the Nation I "find myself" in, has a collective Clean Water Act, since we, water systems, don't adhere to the artificial borders of individual States. This National law requires States to protect and preserve the quality of the waters within those borders.

Pennsylvania has classified "its" waters based on their uses according to humans, such as Potable Water Source, Habitat or Recreation Area. I and all other EV water bodies qualify for the most stringent regulations in the state in order to protect our delicate and pristine ecosystems.

Despite these laws, I and my EV neighbors will never be the same. We can't, because once shale gas extraction infrastructure, taking up many acres, is in place - it never goes away.

You can see me, my story, and those of my neighboring EV waters, in Triple Divide, a new documentary. Visit **www.TripleDivideFilm.org** for more...







LIST of the HARMED

Colorado

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NAME	LOCATION	GAS FACILITY	EXPOSURE	SYM	IPTOMS 🕇 Human 🛛 🖬 Animal
April Beach and son, Sam	Erie Boulder-Weld County, CO	Five drilling pads within a mile	Air, dust	Ť	Lesion in spinal cord, asthma, migraines, severe auto immune issues,GI issues and extreme pain
Beth and Bill Strudley and sons	Garfield County, CO	Antero Resources gas well	Water, air	Ť	Rashes, nosebleeds, blackouts, (relocated) (drilling by the Anschutz Exploration Corp. in New York contaminated the drinking water of nine families.)
Scott Ely	Susquehanna County, PA	Within a couple miles of 9 active wells	arsenic, manganese, aluminum,		Unknown
Floyd and Lisa Green	Garfield County, CO	Gas wells, condensate tanks		Ť Tm	Nosebleeds, headaches, nausea, muscle spasms, Chicken death, goat gave birth to a head (relocated)
Susan Haire	Morrisania Mesa, Garfield County, CO	Gas wells and compressor stations	Air		Nose bleeds, itching of her eyes and face, coughing, leg nerve inflammation that has hindered her ability to walk and other symptoms.
Susan Wallace Babbs	Parachute, Garfield County, CO	Gas wells	Air- benzene, tetrachloroethene and 1,4-dichlorobenzene	Ť	Vomiting, diarrhea, lesions, pain, elevated heart rate
Elizabeth "Chris" Mobaldi* *deceased Nov. 14, 2010	Rifle, Garfield County, CO	Gas Facility: 20 wells within a mile of home	Air, dust, wate	î ™	Pituitary tumors, joint swelling and large white bumps on her elbows and hands. Steve experienced rectal bleeding; death Two dogs developed tumors
Thomas Thompson and wife	Rifle, CO	Encana gas production	Air – noxious fumes, water	∱ ┣₩	Nosebleeds, vomiting blood, danger of speeding heavy equipment, injuries, illness, property damage, polluted water sources, poisoned water wells Wildlife and livestock deaths
Karen Trulove	Silt, Garfield County, CO	Gas wells	Air, dust	Ť	Constant fatigue, headaches, nausea, fatigue and dizziness
Dee Hoffmeister	Silt, Garfield County, CO	800 feet from a well pad with four wells and two condensate tanks	Air	Ť Tm	Weakness, dizziness, fainting, nausea, pain, burning skin and breathing difficulty; four of her grandchildren, who live on the same property, have asthma Dog has asthma
Lisa Bracken and father (an important case of death and official cover-up)	Silt, Garfield County, CO	Encana wells	Robert Blackcloud died of pancreatic cancer after drinking from a creek that he did not know was polluted with high levels of benzene	Ť Tm	Father deceased Widespread wildlife death
Brett Corsentino	Huerfano County, CO	Petroglyph Energy Inc. discharges	Water – high levels of sodium, land	î ™	Crops ruined, diminished soil's ability to absorb water Symptoms (animal): Abnormally high death rates in cow herd, cows consumed too much sodium from the water
Ben Bounds	Huerfano County, CO	Gas wells	Air – methane		Explosion – the state advised that Bounds not allow his grandchildren or any visitors to come to the property, and his insurance company has threatened to drop coverage. He has thought about simply abandoning the home since he could not in good conscience sell the property.
Brian Wallace	Weld County, CO	Encana gas well	Encana gas well		Death

The following only a small sample of those harmed by gas and oil extraction across the USA.

As of August, 2013 the List of the Harmed had over 1600 listings and continues to grow.

Ohio

NAME	LOCATION	GAS FACILITY	EXPOSURE	SYMF	PTOMS	🕇 Humar	1		Animal	
Michelle Aini	Broadview Heights, Cuyahoga County, OH	Gas well	Increased levels of radon		Unknov	vn				
Susan Fowler	Cuyahoga County, OH	Oil and gas wells	Unknown	Ť	Vomitin	g and heada	aches, fo	orce	d to reloca	ite
Forty-three household class-action suit, including Richard and Thelma Payne	Geauga County, OH	Ohio Valley Energy gas well	Air – methane	∱ ┣₩	Explosi	on				
Dawn & Carl Siers	Lake County, OH	Drilling of a gas well	Air – H2S	Ť		cal bronchitis t settled out iome.				
William and Stephanie Boggs* *Stephanie deceased age 47	Medina County, Ohio	Landmark 4 LLC gas well	Water, land, air		Unknov	vn				
Kathy and John Sayers	Morgan County, OH	Tennessee Gas Pipeline	Pipeline explosion	Ť	Lost ho	me from exp	olosion			
Erin & Brian Alford	Tuscarwaras County, OH	Gas Compressor Stations	Air; noise		Noise a	and air pollut	ion relat	ted h	ealth issu	es
6769.6		Gas well LE HOUSEHOLD WERE compiled by Jen	Air – hydrogen sulfide AFFECTED. ny Lisak) is available at:	Ť Tm	up from ears, m Neighb become	nonths of se a sitting or re luscle spasn ors – fumes e ill requiring nd moles – a	clined p ns; in the h immedi	ositi ouse iate	on, dizzine caused c hospital ca	ess, ringing children to are.

pennsylvaniaallianceforcleanwaterandair.wordpress.com/the-list

A Short List of Chemicals and How They Relate to Fracking

Acrylonitrile - A large segment of the oil/gas drilling industry uses acrylonitrile compounds as an adhesive.¹ Acrylonitrile exposure has been found to increase cancer rates in both people and in lab rats.

 $\mbox{Arsenic}\,$ - Arsenic naturally occurs in the Marcellus shale rock layer. It gets into the water due to flowback from the fracking process.² Arsenic is a well known poison.

 ${\bf Barium}\,$ - Barite is a compound containing barium that is used as a weighting agent in the fracking process.^2

Water-soluble barium compounds are poisonous. Higher doses affect the nervous system, causing cardiac irregularities, tremors, weakness, anxiety, dyspnea and paralysis.³

Benzene - Benzene is a known carcinogen. It is a byproduct of fossil fuels. The Barnet Shale Energy Education Council admits levels of benzene in natural gas wells average .001%⁴ and benzene has been declared unsafe by the EPA at 5 ppb or 0.0000005% which means the average gas well has 2000 times the unsafe level of benzene.

Methane - Methane is the main component in natural gas. High concentrations of methane gas can break down oxygen and create carbon monoxide. When present in water it will have a milky appearance. A build up of methane in people's wells is what causes faucets to be lit on fire.

Strontium - Strontium can be used as a radioactive tracer.⁵ Problems can develop in the bone growth of children who ingest high levels of strontium. A build up of strontium can cause muscle and bone depletion and lead to a low blood count.

Toluene (Methyl Benzene) - The EPA states that gas drilling emits toluene along with other dangerous gases into the atmosphere. Exposure to toluene over a long time may cause nervous system effects, irritation of the skin, eyes, and respiratory tract, dizziness, headaches, difficulty with sleep, and birth defects.⁶

2. wri.eas.cornell.edu/gas_wells_waste.html

^{1.} rubber.confex.com/rubber/182/webprogram/Paper12286.html

^{3.} Patnaik, Pradyot (2003). Handbook of inorganic chemicals. pp. 77-78. ISBN 0-07-049439-8.

^{4.} www.bseec.org/content/facts-about-benzene

^{5.} www.gwadi.org/tools/tracers/strontium

^{6.} www.epa.gov/oaqps001/community/details/oil-gas_addl_info.html

Pennsylvania

and 32 other families aipont aipont property was shown, county offeed 50 members of the Meach panel of their mineral rights Mary Mack Clearville, PA Stackman Ridge storage field and compressor storage field and sto	NAME	LOCATION	GAS FACILITY	EXPOSURE	SYI	MPTOMS	∱ ⊦	luman	` m`	Anin	nal	
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Bradford County, PA manganese, lead, methane, raciological material, and raciologic	Sherry Vargson and husband				Ť	Headache	es, nau	isea, ligh	t-heade	dness	i	
pad, drilling waste disposal areaand bariumLeas of all fish and aquatic life in contaminated pondTruman BurnettBradford County, PAChesapeake well, frack water containment tanks, compressor stationWater - leaking frack water tanks, hydrochoric acidImage: state stat	Chrystal Stroud		Chesapeake well	manganese, lead, methane, radiological material, and	Ť Tm	of breath,	and st	tomach c	ramps,	hand		
well, frack water containment tanks, compressor stationhydrochloric acidImage: compressor stationPat KlotzBradford County, PAGas wellsWater, dust, noiseImage: compressor stationHeadaches, trouble breathing, dizziness, intense burning eyes and throat, metallic taste, leg cramps Dogs – lethargic, seizuresPhyllis Carr and familyLake Lynn Fayette County, PAThree natural gas compressors operated by Williams and a dehydratorAir pollutionImage: compressor stationHeadaches, sore throats, sinus congestion, rashes, blisters, lesions, respiratory distress, and hearing difficulties; blood contains phenol and benzeneClint YatesGibbs Hill, McKean County, PASeneca gas wellWater- high levels of barium and manganese and total dissolved solidsImage: physical consuming the water or showering; two other homeowners reported that drilling operations caused after consuming the water or showering.Stever HilyerGibbs Hill, PA McKean County, PASeneca gas wellWater- high levels of barium and manganese and total dissolved solidsImage: physical consuming water or showering.Stever HilyerGibbs Hill, PA McKean County, PASeneca gas wellsWater - methaneImage: physical consuming water or showering.Craig and Julie Sauther and daughterDimock, Susquehanna County, PACabot gas wellsWater from illegal dumpingImage: physical consuming water or showering.Jenny and Tom LisakJefferson County, PAGas wellsWater from illegal dumpingImage: physical consuming water or showering.Sott ElySusquehannaWithin a couple miles <td>Mike Bastion</td> <td>Bradford County, PA</td> <td>pad, drilling waste</td> <td></td> <td>Ť</td> <td>Shaking,</td> <td>vomitir</td> <td>ng, breath</td> <td>ning diffi</td> <td>cultie</td> <td>8</td> <td></td>	Mike Bastion	Bradford County, PA	pad, drilling waste		Ť	Shaking,	vomitir	ng, breath	ning diffi	cultie	8	
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familyFayette County, PA operated by Williams and a dehydratorgas compressors operated by Williams and a dehydratorbilsters, lesions, respiratory distress, and hearing difficulties; blood contains phenol and benzeneClint YatesGibbs Hill, McKean County, PASeneca gas well seneca gas wellWater- high levels of barium and manganese and total dissolved solidsburning sensation, headache, or difficulty with sinuses after consuming the water or showering; two other homeowners reported that drilling operations caused their "private water supply" to dry upStever HilyerGibbs Hill, PA McKean County, PASeneca gas wellWater- high levels of barium and manganese and total dissolved solidsSymptoms similar to Clint Yates (above) after consuming water or showering.Craig and Julie Sautner and daughterDimock, Susquehanna County, PACabot gas wellsWater – methaneMater – methaneJenny and Tom Lisak and familyJefferson County, PAGas wellsWater from illegal dumping arsenic, manganese, aluminum,Dogs – cancer, stillborn litterSoutt ElySusquehannaWithin a couple milesarsenic, manganese, aluminum,Unknown	Pat Klotz	Bradford County, PA	Gas wells	Water, dust, noise	Ť Tm	burning e	yes an	d throat,	metallic			
McKean County, PAmanganese and total dissolved solidsafter consuming the water or showering; two other homeowners reported that drilling operations caused their "private water supply" to dry upStever HilyerGibbs Hill, PA McKean County, PASeneca gas wellWater- high levels of barium and 	Phyllis Carr and family	•	gas compressors operated by Williams	Air pollution	Ť	blisters, le	esions,	respirate	ory distr	ess, a	nd hearin	
McKean County, PAmanganese and total dissolved solidsconsuming water or showering.Craig and Julie Sautner and daughterDimock, Susquehanna County, PACabot gas wellsWater – methaneHeadaches and dizziness, soresJenny and Tom Lisak 	Clint Yates		Seneca gas well	•	Ť	after cons homeown	suming iers rej	the wate ported the	er or sho at drilling	owerin g ope	g; two oth	er
Sauther and daughter Susquehanna County, PA County, PA Jenny and Tom Lisak Jefferson County, PA Gas wells Water from illegal dumping Dogs – cancer, stillborn litter and family Susquehanna Within a couple miles arsenic, manganese, aluminum, Unknown	Stever Hilyer		Seneca gas well		Ť					(abov	e) after	
and family Scott Ely Susquehanna Within a couple miles arsenic, manganese, aluminum, Unknown	Craig and Julie Sautner and daughter	Susquehanna	Cabot gas wells	Water – methane	ţ	Headache	es and	dizzines	s, sores			
	Jenny and Tom Lisak and family	Jefferson County, PA	Gas wells	Water from illegal dumping	1	Dogs – ca	ancer, :	stillborn l	itter			
	Scott Ely					Unknown						

Class action suit 17 families	Susquehanna County, PA	Southwestern Energy production facility	Exposed to such hazardous gases, chemicals, and industrial wastes and caused damage to the natural resources of the environment in and around the Plaintiffs' properties, causing Plaintiffs to incur health injuries, loss of use and enjoyment of their property, loss of quality of life, emotional distress, and other damages.	Ť	Illness, neurological symptoms
Class action suit 63 residents	Dimock and Montrose, PA Susquehanna County, PA	Cabot Energy gas production	Water – methane and other toxins		Unknown
Thirty-two Families forced to evacuate	Jersey Shore, PA	Aqua America fracking water withdrawal site			Forced to relocate, without proper notice or adequate compensation; banned from having guests, forced evacuation
Carol and Don Johnson	Tioga County, PA	East resources waste impoundment	Water (waste pit overflowed into field) chloride, iron, sulfate, barium, magnesium, manganese, potassium, sodium, strontium and calcium.	Î	Stillborn calves, quarantined cows
Amanda Friend and her family	Union County, PA	Halliburton	Air – truck leaked 250 gallons hydrochloric acid into the air in White Deer Township on August 11, 2012		Forced to evacuate home
Stacey Haney	Washington County, PA	Range Resources gas well and 7 acre waste impoundment	Water – glycol and arsenic	Ť	Son – stomach, (liver and kidney) pain, nausea, fatigue and mouth ulcers; daughter – similar symptoms
June and David* Chappel *David deceased	Washington County, PA	Waste pit the size of a football field, seven gas wells	Air, dust	∱ Tm	Sickness, death Cat – death
Beth Voyles	Washington County, PA	Range Resources frack waste impoundment and gas wells		∱ 1π	Rashes, blisters, inability to concentrate, light- headedness, nose bleeds, lethargy; benzene, toluene and arsenic in blood and urine Farm animals and dogs suddenly died, other dogs aborted pregnancies, stillborn offspring
George and Lisa Zimmerman	Washington County, PA	Atlas Energy wells, waste impoundment spill, ignited fumes	Air; water – arsenic at 2,600 times acceptable levels, benzene and naphthalene; soil – mercury and selenium, ethylbenzene, and trichloroethene		Unknown
Ron Gulla	Washington County, PA	Gas wells	Water-methane	Îm	Fish dead
Jennifer Gourley	Westmoreland County, PA	Gas production	Water; air	Ť	Health issues, chemical hypersensitivity, toxic level chemicals in body
Donald Allison* *deceased	Southwest, PA	Gas wells	Water, air	Ť	Skin infections, cancer, death - age 46

Texas

NAME	LOCATION	GAS FACILITY	EXPOSURE	SYM	IPTOMS 🕇 Human 🖬 Animal
Sandra Mora DeHerrera	Arlington, TX	Gas drilling near home/work 360 & Arkansas	Air – VOC emissions	Ť	Diagnosed with breast cancer after drilling started. Mammogram of Dec. 2005 showed nothing, but by March of 2006 she was nearly stage III. Doctor stated environmental causes, after her remission from breast cancer she got leukemia. She had complained of headaches, nausea, sinus problems, difficulty breathing, and anxiety during exposure.
Chuck and Geri Pegg	Dish, Denton County, TX	Few hundred feet northeast of large compressor	Air – benzene, carbon disulfide, a neurotoxin.		Unknown
Warren and Rebekah Sheffield and family	Dish, Denton County, TX	Compressor station	Air	Ť	Sick, multiple chemical sensitivity. Vertigo; children easily winded, vomiting, hives, itchy skin, nosebleeds, seizure
Sandra DenBraber	Arlington, TX	Carrizo natural gas operations	Air – benzene, toluene, ethylbenzene, and xylenes	Ť	Blood has Ethylbenzene, p-Xylene, Hexane, 2-Methylpentane, 3-Methylpentane; migraines
John and Jayme Sizelove	Denton County, TX	William's drilling operations and compressor stations	Air	Ť	Headaches, respiratory problems, and other symptoms
Brian Beadle	Hill County, TX	Williams' gas wells	Water- sulfates, toluene	1	Goats, llama- swelling, death
Steve Lipsky	Parker County, TX	Wells, fracking under home	Water – methane	Ť	Fatigued and nauseated
Jake and Mike Wilfong	Palo Pinto County, TX	Gas drilling	Water – arsenic, barium		17 cows dead; trees and plants dead and dying
Kim Davis	Southlake, Tarrant County, TX	Gas production	Air- twenty-six chemicals, carbon disulfide, benzene and naphthalene, carbonyl sulfide, dimethyl disulfide and Pyridine		Unknown
Bob and Lisa Parr, daughter Emma	Wise County, TX	21 gas wells	Air	Ť	Lisa – rashes, breathing difficulties, nausea and headaches, balance and other neurological problems Bob – nosebleeds, balance and other neurological problems Emma – asthma, rashes and nausea
Lloyd Burgess	ТХ	Compressor station	Air	Îm	Horses- sick, death, neurological defect and blind in both eyes
Maggie Golden* *deceased	Panola County, Texas	Injection wells	Water – arsenic, cadmium, lead, benzene and other substances	Ť	Death

How fracking contaminates groundwater



Picture of a power point presentation from Southwestern Energy on well casing failure.

WELL CASING FAILURE

When a well casing failure occurs it is usually near the top, where the pressure from the slurry is the strongest, also where it is closest to the water table. The industry claims to protect the water with well casings lined in multiple layers of concrete and cement however these are two materials that corrode when in contact with water, and even more so when that water has a higher salinity. Dr. Anthony Ingraffea, an industry expert and professor of engineering at Cornell University, analyzed numbers from the Pennsylvania Department of Environmental Protection and found that "6.2 % of all well casings fail initially, leading to methane migration. 60% of all well bores fail over 20 years."

CARELESSNESS OF INDUSTRY ٠

There is also a great deal of water contamination caused by the carelessness of the gas industry due to leaking flowback storage ponds, surface spills and Illegal dumping of flowback fluid.

West Virginia

NAME	LOCATION	GAS FACILITY	EXPOSURE	SY	'MPTOMS 🕇 Human 🗂 Animal
Salvatore M. Bombardiere Sr.	Clarksburg, WV Harrison County	Gas wells	Fracking chemicals	ţ	Burns, scarring, disfigurement, respiratory problems and post traumatic stress disorder
Danny and Sharon Kinney	Salem, Harrison County, WV	Gas well	Water – arsenic at .060		Unknown
Leann Kiner	Harrison County, WV	Antero gas well	Water - arsenic		Unknown
Dennis and Tamera Hagy and sons	Jackson County, WV	Gas wells 1,080 feet away		Ť	Neurological symptoms
Jeremiah Magers	Cameron, Marshall County, WV	Chesapeake well fracked, 1200 feet from water tank."	Water - methane		Unknown
James and Ruth Parsons	Ripley, Jackson County, WV	Fracked well within 600 feet	Water-high levels of pollutants and contaminates		Unknown
Paul and Janet Strohl	Jackson County, WV	Exco well	Water – methane, brine		Replacement water (For washing, they fill tank in their basement with rain water from their gutters and supplement that by paying per water truck-load. They drink bottled water.)
Ben Thornton and Family	Jackson County, WV	Gas wells	Water – black stuff	† 1	"Everyone got sick" Death of 70 chickens, eight or nine goats, 15 rabbits
Class action suit	Roane County, WV	Columbia pipeline	Soil contaminated benzene and xylene		Unknown
Rose Baker	Wetzel County, WV	Chesapeake gas wells	Water; air		Unknown
Bonnie Hall	Wetzel County, WV	10 gas wells nearby	Water – acrylonitrile, benzene and styrene.	Îm	Horses refused to drink the water



INDICATES A CASE IN WHICH MULTIPLE HOUSEHOLD WERE AFFECTED.

NAME	LOCATION	GAS FACILITY	EXPOSURE	SYMPTOMS 🕇 Human 🖬 Animal
Dick Bilodeau, Deb Thomas and 24 other families	Clark, WY	Windsor Energy gas wells	Air – 5 million to 7 million cubic feet of gas was discharged into the air during the 58-hour incident; water- benzene, acetone, carbon disulfide and others	25 homes were evacuated, Fort Union bedrock aquifer polluted, the blowout resulted in a 10 million cubic foot plume of groundwater contamination, or more than 100 Olympic- size swimming pools worth.

The complete list (compiled by Jenny Lisak) is available at: pennsylvaniaallianceforcleanwaterandair.wordpress.com/the-list

How fracking contaminates air

The EPA fact sheet¹ for the oil and gas industry describes the air pollution caused by the industry as follows:

- Some of the largest air emissions in the oil and gas industry occur as natural gas wells that have been fractured are being prepared for production. During a stage of well completion known as "flowback," fracturing fluids, water, and reservoir gas come to the surface at a high velocity and volume. This mixture includes a high volume of VOCs and methane, along with air toxins such as benzene, ethylbenzene and n-hexane. The typical flowback process lasts from three to 10 days.
- Pollution also is emitted from other processes and equipment in the industry that prepare gas for sale and that assist in moving it through pipelines.
- 1. www.epa.gov/airquality/oilandgas/pdfs/20110728factsheet.pdf



Flaring or burnoffs often burn unevenly due to wind and other atmospheric variables resulting in methane and other gases being released into the air.

Pennsylvania is one of only eleven states that do not limit the amount of money that can be given to

candidates. Meanwhile, our state's online campaign contribution database is so antiquated and inaccessible that it's difficult for average citizens to know who is influencing their politicians. It's a long-term problem with particularly serious consequences today. Thanks to OIL CHANGE INTERNATIONAL's website, you can now track the flow of oil, gas and coal industry contributions to your Governors, State Senators and Representative. To see where your elected officials are getting their financial

influence visit: **dirtyenergymoney.org** or view them by state at: **states.dirtyenergymoney.com**



		Party	Office	District	Money	Accepted
		5			As of 2011	As of 2013
	Tom Corbett	Republican	Governor		\$1,813,306	\$2,416,875
J	loseph B. Scarnati, III	Republican	State Senate	25	\$359,146	\$563,321
	Dave Reed	Republican	State House	62	\$137,532	\$316,150
	Mike Turzai	Republican	State House	28	\$98,600	\$268,600
	Dominic Pileggi	Republican	State Senate	9	\$66,750	\$258,000
	Jake Corman	Republican	State Senate	34	\$91,290	\$175,090
	Donald C. White	Republican	State Senate	41	\$94,150	\$158,420
	Jeffrey P. Pyle	Republican	State House	60	\$48,962	\$115,565
	Samuel H. Smith	Republican	State House	66	\$59,250	\$92,650
	Timothy J. Solobay	Democratic	State Senate	46	\$60,325	\$81,600
	H. William DeWeese	Democrat	State House	50	\$60,250	\$63,100
	Jennifer L. Mann	Democrat	State House	132	\$23,850	\$61,700
	Jeffrey E. Piccola	Republican	State Senate	15	\$48,950	\$59,950
	Brian L. Ellis	Republican	State House	11	\$35,150	\$56,350
	Mary Jo White	Republican	State Senate	21	\$22,200	\$52,050
I	Robert M. Tomlinson	Republican	State Senate	6	\$36,950	\$49,250
	Richard A Kasunic	Democrat	State Senate	32	\$33,500	\$48,250
	Frank Dermody	Democrat	State House	33	\$17,800	\$47,300
	John Pippy	Republican	State Senate	37	\$36,075	\$45,900
	Kim L. Ward	Republican	State Senate	39	\$11,050	\$45,800
	Jay Costa	Democrat	State Senate	43	\$21,850	\$43,950
	Daryl D. Metcalfe	Republican	State House	12	\$40,400	\$40,400
	Jane Clare Orie	Republican	State Senate	40	\$39,600	\$39,600
	Robert D. Robbins	Republican	State Senate	50	\$30,350	\$37,900
	Robert W. Godshall	Republican	State House	53	\$11,000	\$36,650
	Stan Saylor	Republican	State House	94	\$11,250	\$36,629
	Joseph F. Markosek	Democrat	State House	25	\$12,650	\$33,850
	Marc J. Gergely	Democrat	State House	35	\$13,900	\$32,500
	Dwight Evans	Democrat	State House	203	\$11,500	\$28,700
	John N. Wozniak	Democrat	State Senate	35	\$11,300	\$28,300
	Joseph Preston, Jr.	Democratic	State House	24	\$25,625	\$27,575
F	Richard R. Stevenson	Republican	State House	8	\$13,850	\$24,800
	R. Ted Harhai	Democrat	State House	58	\$19,800	\$19,800
	Ron Buxton	Democrat	State House	103	\$10,650	\$19,525
	Scott E. Hutchinson	Republican	State House	64	\$16,350	\$18,850
	Gary Haluska	Democrat	State House	73	\$15,495	\$18,155
	David G. Argall	Republican	State Senate	29	\$16,392	\$16,392
	Matthew E. Baker	Republican	State House	68	\$11,200	\$16,050



"Fracking is impacting the lives of families living in its shadow. It's time for their voices to be heard. That's why we're supporting the Shalefield Stories project."

John Rumpler, Senior Attorney Environment America

Across the country, fracking is contaminating drinking water, making nearby families sick with air pollution, and turning forest acres into industrial zones. That's why Environment America is working to stop this dirty

drilling wherever we can and to support immediate steps to protect communities already living on the frontlines of fracking. And we're also continuing our longstanding work of promoting clean energy – winning policies that will drive wind, solar, and energy efficiency.



Environment America is a federation of state-based, citizen supported, environmental organizations in 29 states – including PennEnvironment. Because we believe it is vital for the public to hear directly from people living on the frontlines of fracking, Environment America Research & Policy Center is supporting the *Shalefield Stories* project, which was designed and published by a grass roots group of individuals, and our state affiliates are disseminating this booklet to the media and the public.

In addition, we have produced several research reports and other resources to help educate the public on the grave threats posed by fracking. You can visit <u>www.environmentamerica.org</u> and search for the following titles:

Videos:

Breakthroughs (a short segment on fracking produced for public television)

Marcellus Shale Stories (video featuring families in the Marcellus Shale region)

Reports:

Fracking by the Numbers (groundbreaking report quantifying key environmental impacts)

The Costs of Fracking (detailing dollars and cents drained by dirty drilling)

Who Pays the Cost of Fracking? (communities could pay the tab for drilling pollution)

In the Shadow of the Marcellus Boom (showing proximity of drilling operations in Penn. to hospitals, day care centers, etc.)

Risky Business (documenting thousands of drilling violations in Penn.)

You can also find out more about Environment America's work to **Stop Fracking Our Future** here: <u>http://www.environmentamerica.org/programs/ame/stop-fracking-our-future</u>

References

Tracking Shale Gas Activity

FracTracker - www.fractracker.org/maps/ Find wells, permits, violations, and water bodies near you (717) 756-2637

SkyTruth - alerts.skytruth.org Receive email alerts when activity is in your area (304) 885-4581

eMapPA - www.emappa.dep.state.pa.us/emappa/viewer.htm PA Dept. of Environmental Protection's online mapping tool. eMapPA Tutorial - docs.google.com/a/publicherald.org/file/ d/0BwV75wo6lhJPNnBsNnFyUUZjWDQ/edit Tutorial for using PA DEP's eMapPA to assess gas wells and water resources by Save Our Streams PA saveourstreamspa@gmail.com.

eNotice - www.ahs2.dep.state.pa.us/eNOTICEWeb/eNotice Tutorial - www.youtube.com/watch?v=EfU4URFF3ZY&feature=reImfu Video tutorial on using PA DEP's online permit tracking system.

Water Testing & Monitoring

Southwest PA Environmental Health Project www.environmentalhealthproject.org/wp-content/ uploads/2012/06/SWPA-EHP-wellwater-testing-strategy.pdf "Water Well Contamination Ranking System & Monitoring Strategy" by PA's only shale gas health organization (724) 260-5504

Mountain Watershed Association - www.mtwatershed.com/shalegas/ Scroll down to "Resources" then click on "List of DEP Certified Water Testing Labs" (724) 455-4200

Alliance for Aquatic Resource Monitoring www.dickinson.edu/about/sustainability/allarm/ Focus on stream monitoring for background or baseline data (717) 245-1565

Air Testing & Monitoring

Group Against Smog & Pollution - www.gasp-pgh.org Founded in 1969 with a focus on air quality in the Pittsburgh region (412) 924-0604

Shale Test - www.shaletest.org Non-profit organization that will collect environmental data, and provide environmental testing to lower income families and neighborhoods (530) 237-4558

Landowners & Leasing

Landman Report Card -www.landmanreportcard.com Tips for handling gas industry landmen and leasing, with landowner reviews about specific landmen.

Landowner's Toolkit

www.mtwatershed.com/shalegas/ Scroll down to "Resources" then click on "Landowner's Toolkit" A Marcellus Primer and leasing tips from Mountain Watershed Association (724) 455-4200

Documentary Films

Gasland - www.gaslandthemovie.com Split Estate - www.splitestate.com Gas Rush Stories- www.gasrushstories.com Triple Divide - www.tripledividefilm.org

Other State, Regional, and National Groups

Marcellus Shale US – www.marcellus-shale.us List of the Harmed pennsylvaniaallianceforcleanwaterandair.wordpress.com/the-list Un-Natural Gas - www.un-naturalgas.org Marcellus at The Polls - www.facebook.com/groups/VoteProEarth United for Action - unitedforaction.org Catskill Citizens for Safe Energy - www.catskillcitizens.org

Media Covering Shale Gas

State Impact PA - stateimpact.npr.org/pennsylvania scott_detrow@pubradionews.net

Public Herald - www.publicherald.org/archives/category/fracking-2 (724) 388-0464

ProPublica - propublica.org (212) 514-5250

Pipeline: Pittsburgh Post-Gazette - pipeline.post-gazette.com (412) 263-1100

> Public Source - publicsource.org (412) 681-5685

Rust Belt Radio - radio.indypgh.org (412) 444-3569

Allegheny Front - www.alleghenyfront.org (412) 697-2933



Would you give this to your children? This is water straight from the tap. The DEP says this is okay to give to your children to drink.

Community, Outreach, & Educational Resources

*Though organized by county, some groups have a regional or statewide focus.

Allegheny

Murrysville Marcellus www.shalethreat.com - (412) 596-0066

> Local Authority Western PA www.pajustpowers.org justpowerspa@gmail.com

Fawn Against Marcellus www.facebook.com/groups/fawnagainstmarcellus

> Marcellus Protest marcellusprotest.org - (724) 485-9835

Friends of South Fayette www.friends-of-south-fayette.com Friends@Friends-of-South-Fayette.com

South Hills Area Against Dangerous Drilling www.shaadd.org - contact@shaadd.org

Beaver

Beaver Co. Marcellus Shale Committee www.marcellusawareness.com - (412) 897-7996

Berks

Berks Gas Truth www.gastruth.org - berksgastruth@gmail.com "For all the Fracking News that Fits"

Bradford

Landowner Group for Awareness & Solutions Carolyn (570) 358-3177, Carol (570) 247-7170

Bucks, Chester, Delaware Montgomery, & Philadelphia

Protecting Our Waters protectingourwaters.wordpress.com (215) 690-1278

Butler

Marcellus Outreach Butler www.marcellusoutreachbutler.org (724) 272-4539

Centre

Marcellus Center for Outreach & Research Penn State University www.marcellus.psu.edu - (814) 865-1587

Clarion

Clarion P.E.A.C.E. https://www.facebook.com/clarionpeace

Clinton

Dr. Robert Myers, Lock Haven University (570) 484-2236 or contact the Responsible Drilling Alliance listed under Lycoming County

Clearfield – Jefferson

PA Alliance for Clean Air & Water www.pacwa.org pacwa@ymail.com - (814) 518-7507

Cumberland

Community Environmental Legal Defense Fund www.CELDF.org - (717) 254-3233

Dauphin – Central PA

Gas Truth of Central PA www.facebook.com/GasTruthOfCentralPA (717) 233-1801

Delaware

Delaware Riverkeeper Network www.delawareriverkeeper.org - (215) 369-1188

Elk

Elk County C.A.R.E.S. https://www.facebook.com/ElkCountyCARES

Fayette, Westmoreland, & Somerset

Mountain Watershed Association www.mtwatershed.com - (724) 455-4200

Forest - Elk -McKean-Warren

Allegheny Defense Project www.alleghenydefense.org - (503) 887-7845

Greene - Washington

Center for Coalfield Justice coalfieldjustice.org - (724) 229-3550

Harry Enstrom Chapter Isaak Walton League http://www.iwlaharryenstrom.org/

Indiana

Coalition for a Healthy County coalitionforahealthycounty.wordpress.com

Lawrence & Mercer

Fracking Truth Alliance frackingtruth.webs.com - (412) 337-1671

Luzerne

Gas Drilling Awareness Coalition www.gdacoalition.org - (570) 266-5116

Lycoming

Responsible Drilling Alliance responsibledrillingalliance.org - (570) 494-7583

McKean - Potter

Save Our Streams PA www.saveourstreamspa.org - (814) 544-7490

Philadelphia

Philadelphia Physicians for Social Responsibility www.psrphila.org - (215) 765-8703

Tioga

Citizens Concerned about Natural Gas Drilling citizensconcernedaboutnatgasdrilling@googlegroups.com

Union

Central Susquehanna Citizens Coalition www.csccnow.org - info@csccnow.org

Washington

Southwest Pennsylvania Environmental Health Project www.environmentalhealthproject.org/

Wayne

Damascus Citizens for Sustainability www.damascuscitizensforsustainability.org

Westmoreland

Westmoreland Marcellus Citizens' Group www.westmorelandmarcellus.blogspot.com (724) 238-4968

York

Lower Susquehanna Riverkeeper Network www.lowersusquehannariverkeeper.org (717) 718-5431

Notable Quotes

Louis W. Allstadt Former executive vice president of Mobil Oil who ran the company's exploration and production operations in the western hemisphere before he retired in 2000.

I think the main question is how fast can these movements educate enough people about the dangers of fracking and its impact on global warming. It will take masses of people demanding action from politicians to offset the huge amount of money that the industry is using to influence lawmakers, a world-scale version of those standing-room-only town meetings. Something has to wake up the general public. It will either be education from the environmental movements or some kind of climate disaster that no one can ignore.



"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."

Article I, Section 27, PA Constitution

Anthony R. Ingraffea



Dept: Civil and Environmental Engineering Title: Dwight C. Baum Professorship in Engineering Address: 322 Hollister Hall Phone: 607-255-3336 email: ARI1@cornell.edu

Biography

Dr. Ingraffea spent two years as a structural engineer with the Grumman Aerospace Corporation and two years as a county engineer with the Peace Corps in Venezuela before he began doctoral studies. He has taught structural mechanics, finite element methods, and fracture mechanics at Cornell since 1977.

The Cornell Fracture Group members include Prof. Tony Ingraffea, research associates, and graduate students. The mission of the Cornell Fracture Group is to create, to verify, and to validate computational simulation systems for fracture control in engineered systems. The Fracture Groups current and past research has focused on both experimental testing and numerical simulation of fatigue and fracture in a variety of materials.

Dr. Ingraffea was named Co-Editor-in-Chief of Engineering Fracture Mechanics in 2005, received the ASTM Irwin Award for meritorious contributions to the practice of fracture mechanics in 2006, and was named a Fellow of the International Congress on Fracture in 2009. In 2011, TIME Magazine named him one of its "People Who Mattered." According to Dr. Ingraffea's report, "Fluid Migration Mechanisms Due To Faulty Well Design And/Or Construction: An Overview And Recent Experiences In The Pennsylvania Marcellus Play"

2010 =

1,609 wells drilled 111 well failures 6.9% RATE OF FAILURE

2011 1,979 wells drilled 142 well failures 7.2% RATE OF FAILURE

JANUARY - AUGUST IN 2012 = 1,014 wells drilled 67 well failures 6.6%

> Consistent with previous industry data, and **not improving**

RATE OF FAILURE

Revised results of surveys of leaking wells in the Pennsylvania Marcellus play based on violations issued by the DEP and well inspector comments. Violations and comments data from www.depreportingservices.state.pa.us/ReportServer/Pages/ ReportViewer.aspx?/Oil_Gas/OG_Compliance "Our mission is to educate the public on all aspects of the development and negative impacts the Oil and Gas industry has on our health, land, air, water, and especially our democracy. We are dedicated to helping those people in PA who have been abandoned by our government and the industry.

This project was made possible by a generous donation in honor of Richard and Shirley Saltzer, with financial support from PennEnvironment, Environment America, the NRDC and other generous individuals. Thank you to all who have given of themselves, the countless hours and volunteer efforts for the Friends of the Harmed.



"Shalefield Stories" is a compilation of first hand testimonies and collected stories from people who have been harmed by dangerous drilling in the oil and gas Shalefields across the country. Our mission is to collaborate with faith communities, public-health researchers, environmental organizations, and social justice groups in providing support to affected individuals and families in Western PA.

Donations collected from this book, will help provide assistance to those who have been harmed by drilling near their homes. No one should be living in this world, and especially this country without safe potable water and clean air. To help the harmed, go to the Shalefield Stories Campaign found on the Thomas Merton Center webpage. http://thomasmertoncenter.org/donate

or Thomas Merton Center, 5129 Penn Ave., Pittsburgh, PA 15224, 412-361-3022 Be sure to include "Shalefield Stories" on your check or donation in order for it to be properly routed. We thank you for your support and generosity.

If you would like to obtain more copies of this publication please contact:

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107 East 8th Avenue Homestead, PA 15120

412-461-5650



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