

A man with glasses, wearing a dark blue t-shirt and brown shorts, stands by a lake holding a fishing rod. The background is a dense forest of green trees. The text 'industry' is in a smaller font above 'ills', which is in a very large, bold font.

# industry ills

**Costs have been outweighing benefits from shale gas fracking in Pennsylvania as the extraction process has taken a heavy toll on the health of residents and the quality of their air, land and water. By Don Hohey**



Bryan Latkanich, who asserts that shale gas drilling damaged his property, his health and the health of his son, stands by the pond in front of his Pennsylvania home in rural Deemston Borough, Washington County.

## On a normal day, Bryan Latkanich might stroll down to the farm pond in front of his home in rural Deemston Borough, Washington County, to fish with a friend for channel catfish, mudcats and bluegill.

But the former prison guard hasn't had many normal days since late in 2011 when Chevron Appalachia drilled and fracked the first of two shale gas wells on the hilltop just 350 feet above and behind the brick house he built in 2001.

Mr. Latkanich, 50, said he was told by field agents for Atlas Energy and Chevron — which bought his lease from Atlas and sold it to Pittsburgh-based EQT last year — that he could earn millions in lease payments and royalties for the gas under his 33-acre property, 36 miles south of Pittsburgh.

But those expected riches never materialized. Instead, he said, his home's foundation buckled and his well water went bad due to chemical contamination from well pad spills and runoff. He said his health and that of his son, Ryan, also soon cascaded downhill.

The first inkling that something was wrong, Mr. Latkanich said, came as the gas wells were flared in 2012. He said in the aftermath of the well development work, he was admitted to the hospital for an inflamed intestine. He said the exposure also caused him to go sterile and lose hair, medical conditions noted in a 2013 toxicology report by the West Virginia University Institute of Occupational and Environmental Health.

In April 2013, then 3-year-old Ryan emerged from a bath covered in welts and burns. Mr. Latkanich said his son subsequently developed asthma and neuropathy, suffered from headaches and nosebleeds, experienced joint soreness and became incontinent, health conditions listed in his medical history contained in an April 2018 University of Pittsburgh Medical Center toxicology report.

Chevron, in an email response to questions, said its investigation found gas well development operations did not contaminate the Latkanich water well, damage his home or impact the family's health. The company said those accusations "have been disproved," and it made a "business decision" to end gas well operations there. The company said it removed the well pad and restored the property in 2020.

The state Department of Environmental Protection tested the Latkanich well water in 2013, and six more times between February 2017 and March 2019, finally issuing a report in May 2019 saying it found no elevated chemical levels.

However, more sensitive testing by John Stolz, director of Duquesne University's Center for Environmental Research and



Amanda Hrycyna

Education, found bromide, chloride and salts in water well samples, an indication, he said, that brine, or wastewater from the nearby shale gas wells, had contaminated the water supply.

And both the WVU and UPMC toxicology reports found that the Latkanichs' health problems could potentially be linked to exposure to air and water pollutants from the gas wells in the family's backyard. The UPMC report recommended the boy move away from the "significant exposures."

Ryan did so for several months and his conditions improved. The 11-year-old is back home now and has recovered enough to play grade school football. Although Chevron capped the gas wells in March 2020, Mr. Latkanich said his water problems persist.

"I haul water to drink from a spring, but we still use the well water to wash clothes and dishes and shower. We still get rashes and burns occasionally. You just never know," Mr. Latkanich said from a bench on his front porch.

"Anger is an understatement for the emotion I feel. I was a supporter of fracking at first, but now everything I worked for in my life is totally destroyed, and we've been sickened by an industry that grabs for all the money it can and doesn't care about us."

**“We went from peace and quiet to drilling lights and 60-decibel noise day and night.”**

Dan Russell, of West Pike Run Township, Washington County

#### **Failed promises and environmental costs**

The shale gas industry, which relies on an extraction process known as hydraulic fracturing, or "fracking," has not lived up to its promises for many in the Marcellus and Utica shale gas lands, a crescent-shaped swath of Pennsylvania that extends from northern tier counties along the New York border through its southwest corner and encompasses three-fourths of the state.

Farmers and other big landowners who own the mineral rights under their acreages have benefited financially from gas leases and royalty payments. They've bought new tractors and pickup trucks, renovated homes and built new ones. Municipalities have seen tax revenue increases. And trillions and trillions of cubic feet of natural gas have been fracked from the Marcellus and Utica shale formations, making Pennsylvania the second-largest gas-producing state, behind only Texas.

But shale gas development didn't create the hundreds of thousands of jobs proponents said it would. And as the shale gas industry moves through its second decade in Pennsylvania, Mr. Latkanich's story of environmental damage, health problems, and mental and emotional woe has become an increasingly common tale and one reflected in the scientific research.

In December 2020, two groups, the Physicians for Social Responsibility and the Concerned Health Professionals of New York, published their seventh "Compendium of Scientific, Medical, and Media Findings Demonstrating Risks and Harms of Fracking," an aggregation of more than 2,000 studies and papers documenting that shale gas development is both risky and harmful.

According to the 475-page compendium, there is an "ongoing upsurge in reported problems and health impacts" from all parts of the shale gas extraction, processing and distribution system. And public health harms now scientifically linked to those operations include cancers, asthma and other respiratory diseases, rashes, heart disease, and mental health problems. Multiple studies of pregnant women living near those sites found links to higher rates of birth defects, preterm births and low birth weight.

"Our examination," the report stated, "uncovered no evidence that fracking can be practiced in a manner that does not threaten human health directly and without imperiling climate stability upon which public health depends."

Philip Johnson, The Heinz Endowments' senior program director for Environment & Health, recalled a time not long



## (of the many) environmental concerns about fracking

**AIR POLLUTION** A gas flare, far left, burns at a fracking site in rural Bradford County, Pennsylvania, on Jan. 9, 2012. Depending on the type of gas burned and the temperature of the fire, flaring, or burning off excess gas, can release pollutants into the air, according to the environmental activist group Earthworks.

**WATER POLLUTION** Ray Kemble of Dimock, Pennsylvania, left, holds two samples of well water that he says were contaminated by fracking in his community.

**NOISE POLLUTION** A fracking site in West Virginia, right, shows the effects that the large, heavy trucks that are part of the fracking preparation and extraction process can have on local roads.



Bill Hughes, photo courtesy of FracTracker Alliance

ago when Western Pennsylvania was “so enamored by shale gas it was difficult to be against it.”

“The industry captured the social license, but that’s changed,” he said. “It’s slipping away from them. Now those saying there are no health impacts from shale gas development are laughed out of the room.”

He cited a December 2019 study by Carnegie Mellon University researchers that found that while the Marcellus Shale gas buildout from 2004 through 2016 produced jobs and economic benefits estimated at \$21 billion, all the drilling and fracking cost the region more than double that amount in environmental, public health and climate damage.

And a July poll by the Ohio River Valley Institute, a regional think tank, shows that Pennsylvanians across all demographic measures and by wide margins are deeply concerned about the air, water and health impacts of shale gas development and want it to end.

“Our recent research shows there is very little data to support the contention that the Appalachian natural gas boom has been or can be an engine for economic prosperity,” said Joanne Kilgour, executive director of ORVI, which receives funding support from the Endowments. “This poll confirms what other polls have been finding: that public support for fracking in Pennsylvania is eroding precipitously.”

A section of the polling questions was based on the findings of a two-year statewide grand jury investigation and a June 2020 report by Pennsylvania Attorney General Josh Shapiro that concluded air and water pollution from shale gas operations had sickened nearby residents, their pets and livestock. Other findings were that the state’s environmental and health departments had failed in their duty to regulate the industry and protect public health. The report credited the Southwest Pennsylvania Environmental Health Project for “stepping in to fill the void.”

“The AG’s report on fracking took a strong angle,” said Andrew McElwaine, the Endowments’ vice president for Sustainability. “And we felt it addressed a lot of concerns folks have about health issues and their ability to get relief for them.”

### From shattered peace to public defiance

Lois Bower-Bjornson, a dance instructor living in Scenery Hill, Washington County, has seen up close fracking’s fall from favor. The 12-acre property where she lives with her husband and four children is bordered by four gas well pads. She works part time for the environmental nonprofit Clean Air Council, driving regulators, health professionals, elected officials and journalists — including those from Fox News and Al Jazeera — on gas land tours to meet rural residents affected by the industry.

“Entire towns could be built on the coal economy and its family-sustaining jobs. Then oil and gas came in and promised to do what coal did, but it didn’t deliver,” Ms. Bower-Bjornson, 56, said. “Now our exposure is all around. It’s always there.”

One of her semi-regular tour stops is at Dan Russell’s cedar-sided home on Elm Road, a twisting, narrow, graveled climb in rural West Pike Run Township, Washington County, just down the hill from where he was born and just up the road from Rice Drilling’s Lusk well pad, where four wells were drilled and fracked in 2012. Nine years later, he’s frustrated by the truck traffic, the near collisions, noise, drilling vibrations, air pollution and dust.

“We went from peace and quiet to drilling lights and 60-decibel noise day and night,” said Mr. Russell, 58, who has spoken at several community meetings in opposition to the drilling. “Now they’re talking about putting 10 more wells on that pad, and that means another five years of hell while they’re drilled and fracked. It messes your head up.”

Mr. Russell, whose mood bounces from resignation to defiance, said the shale gas operations have cut into the social fabric of pastoral West Pike Run Township.

“I’ve got friends over the hill who have benefited from fracking, but these companies are not good neighbors,” he said. “They’ve found gold here, and we’re not going to stop them.”

“But this place is my roots, and to get run out would bother me a lot. I started fighting this in 2011–2012 and now it’s full blown. I don’t know if I can fight this again, but why give it up now?” **h**