

Fracking brings boom, fears to rural US

April 22 2012, by Veronique DuPont



Workers lay the pipes of a gas pipeline outside the town of Waynesburg. Underneath the ground in southwestern Pennsylvania, bedrock is put under explosive pressure to fracture and spill out its lucrative cache of natural gas.

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On the surface, though, the society is fracturing as the new gold rush fills pockets but also creates environmental and health concerns in this

hardscrabble region once dependent on [coal mining](#).

The rolling countryside around Waynesburg is the epicenter of a five-year-old boom that embodies the United States' determination to cut its energy import bill on the new technique of [hydraulic fracturing](#), or "fracking," to tap into cheap, formerly locked-up gas deposits.

Some 100,000 jobs have been generated in the state from the rush to suck gas from the [Marcellus Shale](#), a vast zone in the eastern United States, and billions of dollars raked in by the companies who sell it.

Nationwide in 2010, the gas fracking industry generated \$76 billion in revenues, and put the US on track to possibly become a gas exporter.

Geologists have long known there was a lot of gas underneath the fields, but the horizontal drilling technique that gave birth to the industry was only recently perfected.

[Drillers](#) inject water mixed with chemicals and sand at very high pressure underground to fracture rock formations.

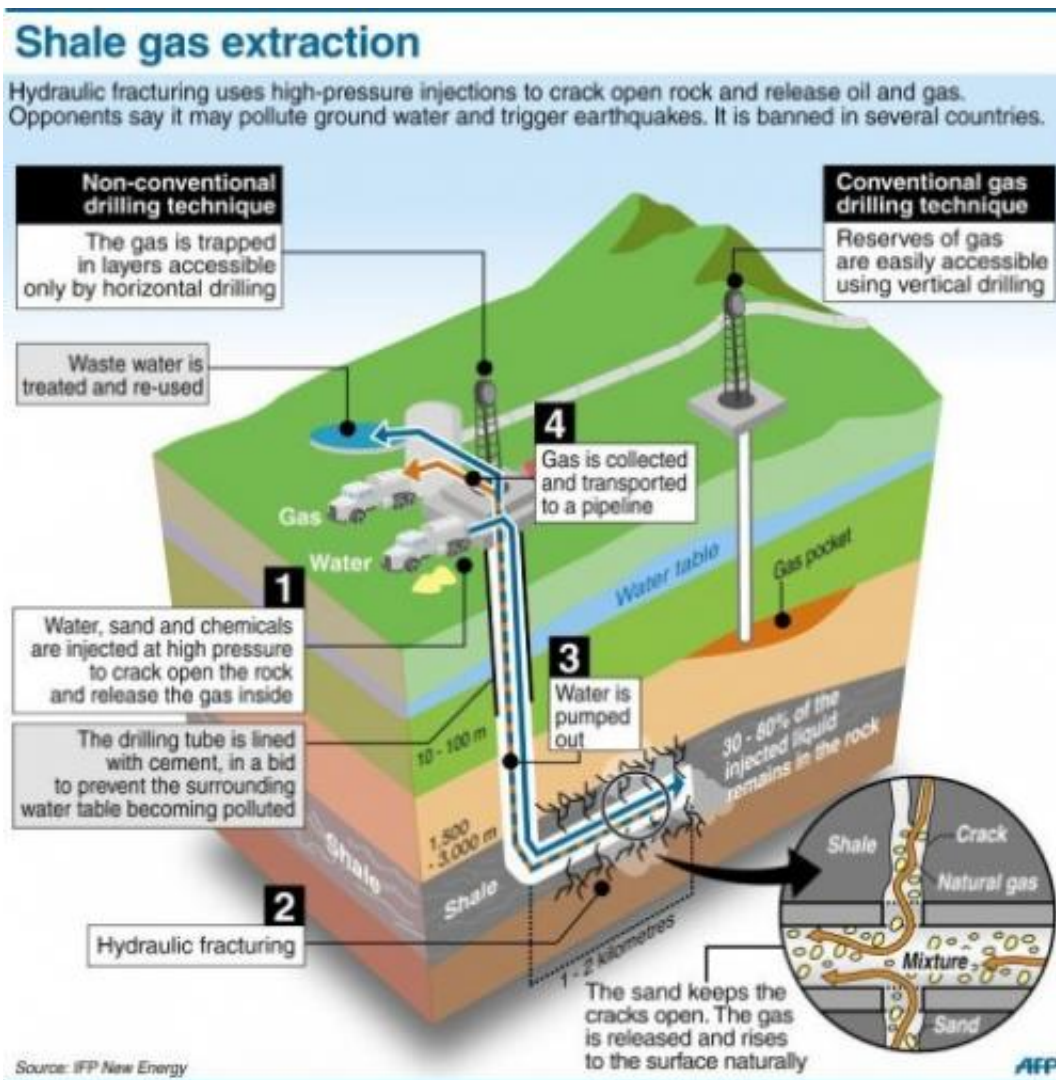
In the fields and along the roads around Waynesburg the signs of the boom are everywhere.

Thousands of drilling and production sites speckle the landscape, networks of pipelines tying them together.

In small towns, lines of oversized trucks hauling equipment and chemicals lumber up to red lights.

"Coal has been here forever, but until three years ago we had never heard of the Marcellus Shale," said Melody Longstreth, head of the Waynesburg Chamber of Commerce.

Businesses in the town are doing well. Pickup trucks are flowing off the lot at the local Ford dealership, and John Bruno, owner of the men's wear shop Mickey's, says he is pulling in profits after many years.



Explanation of the controversial technique of shale gas extractoin by hydraulic fracturing. Underneath the ground in southwestern Pennsylvania, bedrock is put under explosive pressure to fracture and spill out its lucrative cache of natural gas.

Before fracking came, "we were paying our bills but we were not making money."

But the signs of the dangers brought by the new industry are also everywhere.

Many of the trucks rolling through the town are tankers carrying water laced with chemicals in the fracking process, headed for deposit pits.

At a production site near Waynesburg operated by Consol Energy, a 50-meter (150-foot) high derrick towers over signs warning "danger, restricted zone. Water hazard."

Fracking has stirred up intense worries countrywide because the chemicals pumped into the ground can enter the water table, polluting well water. There are also concerns that it releases dangerous gases like methane into the air.

More residents are complaining of unusual and persistent health problems they say comes from the drilling.

Terry Greenwood, a farmer and retired truckdriver, said 10 of his cows died in 2008 after two wells were drilled on his land.

"I don't want my cows to drink the water from the pond anymore," he said, and his family now only drinks water that has been trucked in from elsewhere.

"Fracking has been linked to contamination of water... and of air," says Jill Kriesky, a public health researcher at the University of Pittsburgh.

She noted that a recent study by researchers at the Colorado School of Public Health found higher risks of cancer and non-cancer health

impacts from air emissions for people living close to wells.

Company officials say they follow environmental standards and that the process is regulated by state and federal officials.

A University of Texas study released in February concluded hydraulic fracturing itself was not linked to groundwater pollution. But it found that other parts of the process may leak contaminants into water supplies.

Still, the fracking process has raised fears, fueled by a widely disseminated documentary which showed a water tap catching fire from methane.

While many Waynesburg residents have concerns, almost all of them work in some form for the energy industry.

Even the town's mayor, Blair Zimmerman, works for a large coal company.

But he says the benefits have been uneven.

"My overall view of the Marcellus is a negative one," says the well-tanned former running coach.

"They tear up my streets, they hire very few local people who don't pay taxes because they don't live here."

He points to a campground full of fracking industry workers from out of state -- cars with license plates from Oklahoma and Texas, the home of the US oil and gas industry.

"A minority is making tons of money but the majority is paying the

bills," he said.

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