

THE FACTS ABOUT HYDRAULIC FRACTURING

Production of the state's shale gas deposits will help lower Ohio's natural gas costs to consumers and grow our economy

What is Hydraulic Fracturing?

The hydraulic fracturing process enables energy companies to tap into natural gas-rich shale such as the Marcellus and Utica-Point Pleasant deposits in Ohio.

It allows natural gas trapped deep in the earth to be released and captured for use in our homes, businesses, and as an alternative fuel for some cars.

The Facts about Hydraulic Fracturing

- Hydraulic fracturing has been used safely in more than one million U.S. wells.
- The first commercial well was hydraulically fractured more than 60 years ago in Oklahoma.
- Hydraulic fracturing has been used for more than 50 years in Ohio to stimulate oil and gas well production.
- Since 1990, more than 15,000 Ohio wells have used hydraulic fracturing. During that time the Division of Oil and Gas Resources Management has conducted a number of water well investigation complaints – **none of the investigations** revealed problems due to hydraulic fracturing.

How deep is a shale gas well?

5,000 to 8,000 feet down (thousands of feet below freshwater aquifers).

How and why is shale fractured?

After a well is drilled and secured, a mixture that is approximately 98 percent sand and water, with some chemical additives, is injected at a very high pressure to fracture the shale. The sand keeps the fractured shale open and serves as a conduit for extracting the natural gas.

Can hydraulic fracturing fluid rise to the surface?

No. Geologically speaking, the bedrock between the fracked site and the surface is so thick and it contains multiple low-permeability confining zones that it makes it impossible for frack fluid to travel upward thousands of feet, or between rock formations and into freshwater aquifers.

How much natural gas is currently being produced in Ohio through traditional drilling?

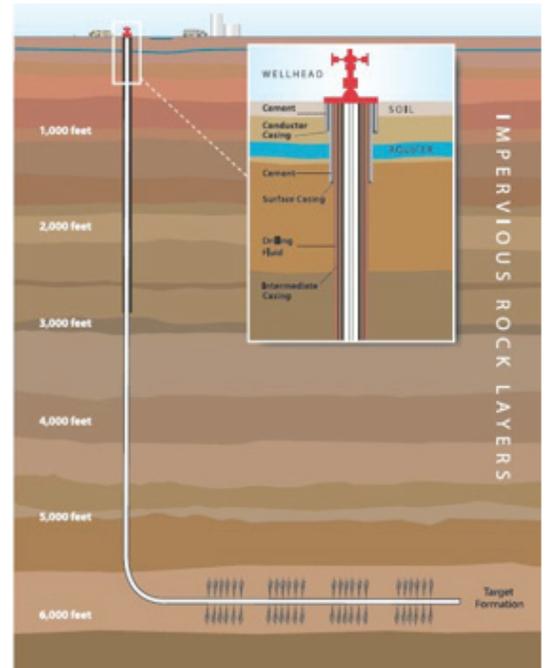
In 2012, more than 86 billion cubic feet of natural gas was produced in Ohio. Nearly 100 percent of the natural gas produced in Ohio is used right here at home.

Independent study commends Ohio regulations

Ohio recently received a positive endorsement of its hydraulic fracturing program by the non-profit, multi-stakeholder organization, the State Review of Oil & Natural Gas Environmental Regulations, Inc. The report, which can be downloaded at oilandgas.ohiodnr.gov/STRONGER, commended ODNR for its role in revising Ohio's oil and gas laws. Since then, new rules and regulations have been passed to further strengthen groundwater protection.

The U.S. Environmental Protection Agency, the Ground Water Protection Council, and the Interstate Oil and Gas Compact Commission* all have found hydraulic fracturing nonthreatening to the environment or public health.

*U.S. EPA, 2004 study; GWPC, 2009 report; IOGCC, 2002 study



Additional Resources

Ohio EPA:
epa.ohio.gov

Penn State Marcellus Center:
marcellus.psu.edu

Frac Focus:
fracfocus.org

Ohio Department of
NATURAL RESOURCES
Division of Oil and Gas Resources Management
oilandgas.ohiodnr.gov

