

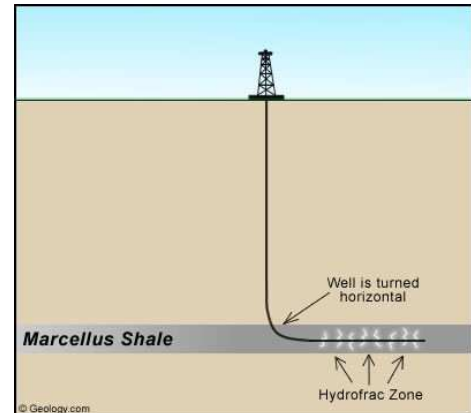
A Directory of Hydraulic Fracturing Terms

In the order you are likely to hear them

Hydraulic Fracturing (“fracking”) – A well is drilled to the bottom of the shale as deep as a mile. Horizontal wells are then extended from the original well. Millions of gallons of water combined with chemicals and sand are pumped down the original well and into the horizontal lines. The water, chemicals and sand “fracture” the shale, releasing gas. The sand holds the fractures open.

Shale – A porous rock that is found in large deposits beneath the earth’s surface. Natural gas is stored in the pores and fissures of these rocks.

Marcellus Shale – The Marcellus Shale, also referred to as the Marcellus Formation, is black shale that occurs under the earth beneath much of Ohio, West Virginia, Pennsylvania and New York. Most of the Marcellus is nearly a mile or more below the surface. Currently, it is assumed that the volume of natural gas would be enough to supply the entire United States for about two years and have a wellhead value of about one trillion dollars!



Leases – There are two main kinds of leases: mineral rights and surface rights. In 2005, leases for mineral rights were being bought with signing bonuses of a few dollars per acre. In 2008, bonuses were up to \$2,000 per acre. In northern Pennsylvania at the end of 2009, leases were being signed for \$5,800 per acre.

Royalties – A royalty is a share of a well's income. Not all wells produce gas – royalties are not guaranteed.

Who owns the leases? – Oil and gas drilling companies. Chesapeake Oil and Exxon own many of them, as do smaller companies.

Halliburton – Halliburton developed the method of hydraulic fracturing in the 1940s. Halliburton provides equipment and geological services to the oil companies. They determine the chemical mix that is used. Halliburton refuses to divulge that mix.

Halliburton Loophole – A loophole inserted into the 2005 Energy Policy Act—known as the Halliburton Loophole—exempted fracking from regulations and oversight that would otherwise be required under the Safe Drinking Water Act

Reversal of Halliburton Loophole – currently both Houses of Congress have bills that would reverse the Halliburton Loophole. These bills are currently in committee and have been sponsored by all our legislators: Senators Schumer and Gillibrand and Congressmen Rangel and Nadler.

DEIS – Draft Environmental Impact Statement. Issued by the New York State Department of Environmental Conservation in October 2009. It is a about 1,000 pages long. Most environmental groups believe the DEIS does not adequately address the danger to the water supply or other environmental issues. We are requesting a new study that fully addresses the need for adequate staffing to monitor all drilling, and makes appropriate and realistic plans for disposing of contaminated wastewater.