

## What is Hydraulic Fracturing?

Hydraulic fracturing is the process of releasing natural gas and oil from rock deposits deep underground by fracturing shale formations. The technique is minimally invasive and involves drilling a small hole (typically about 15" in diameter) which is lined with multiple layers of steel encased in cement to completely seal off the process from any fresh water supplies and allow for the safe extraction of natural gas.

The process typically involves drilling a mile or more down...then horizontally into the dense shale rock. At that point, integrity tests are conducted and then pressurized water, sand and additives (less than 1% of the overall mixture) are used to create small, often millimeter-thick fissures in carefully targeted sections of the shale rock. This releases the natural gas, allowing it to safely rise to the surface within the self-contained system.



Graphics courtesy of America's Natural Gas Alliance (ANGA)

Much of the new natural gas supply lies in dense shale rock deposits located a mile or more beneath the earth's surface. This cutting-edge technology allows shale gas to be safely extracted from the New Albany Shale in southeast Illinois.