

THE SIMPLE TRUTH ABOUT NATURAL GAS:

WHAT HYDRAULIC FRACTURING

IS AND WHY IT IS GOOD FOR OUR REGION



A COMMON MISCONCEPTION IS THAT DRILLING AND HYDRAULIC FRACTURING (COMMONLY REFERRED TO AS “FRACING”) ARE THE SAME THING. *THEY AREN'T.*

Drilling is simply the first step in the creation of a successful and productive natural gas well. For operations like those conducted by Chesapeake in the Marcellus Shale, hydraulic fracturing is an entirely different stage in the process, called the completion. It comes after drilling and is a key reason why American natural gas stands poised to lead this region and our nation into a new era of energy independence.

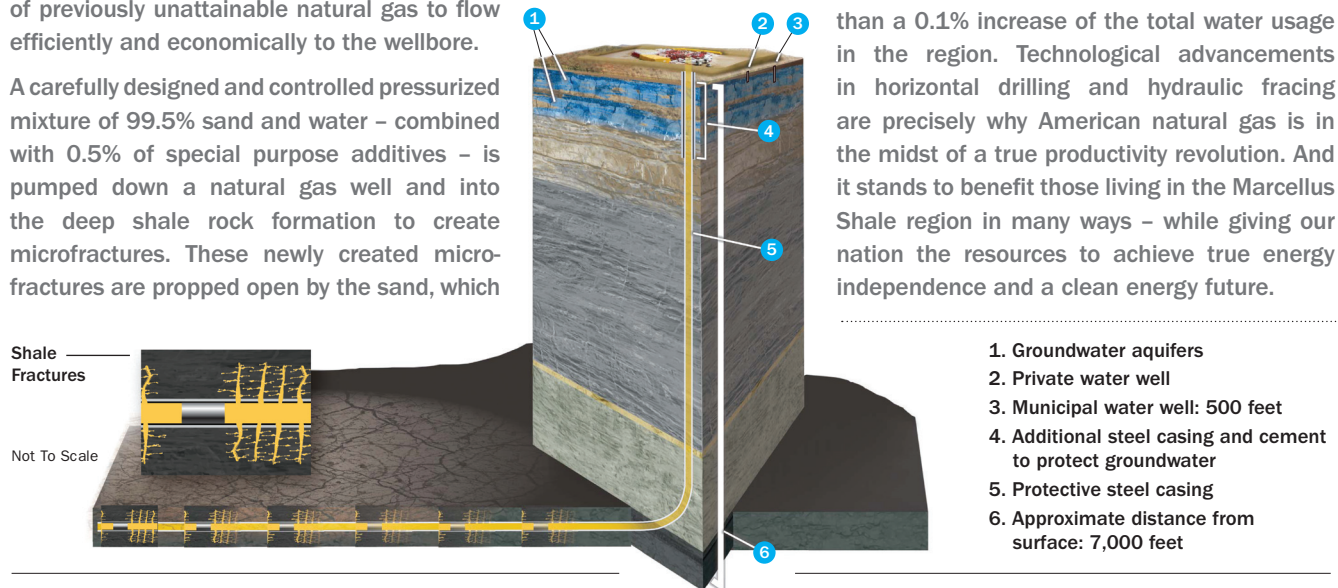
Hydraulic fracturing (a critical component of the completion process) lasts from approximately a few days to no more than a couple of weeks depending on the number of required stages and wells being completed at the wellsite. It is limited to a specific, environmentally safe area thousands of feet below freshwater zones. And it allows vast amounts of previously unattainable natural gas to flow efficiently and economically to the wellbore.

A carefully designed and controlled pressurized mixture of 99.5% sand and water – combined with 0.5% of special purpose additives – is pumped down a natural gas well and into the deep shale rock formation to create microfractures. These newly created microfractures are propped open by the sand, which

allows natural gas to flow into and through the wellbore to be collected at the surface. These special-purpose additives are compounds that can also be found in most common household products. They help reduce friction and corrosion and inhibit bacteria to make the fracturing process effective.

Produced water returned through the wellbore during the completion process is collected and stored in on-site holding tanks. It is then pumped through a special filter and placed in a clean storage tank, tested and recycled. At the end of the fracing process, any remaining produced water is directed off-site to secure, designated, regulated locations.

Please note the amount of water used for all drilling and fracing operations in the Marcellus will represent less than a 0.1% increase of the total water usage in the region. Technological advancements in horizontal drilling and hydraulic fracing are precisely why American natural gas is in the midst of a true productivity revolution. And it stands to benefit those living in the Marcellus Shale region in many ways – while giving our nation the resources to achieve true energy independence and a clean energy future.



Chesapeake is the second-largest natural gas producer in the U.S. and America's most active driller. We're proud of the integrity, quality and environmental stewardship of our operations. And we're eager to share the rewards of the Marcellus Shale with the people of Pennsylvania, New York and West Virginia.



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