

Fracking - the debate rages on

WASHINGTON, USA: New evidence that fracking may contaminate drinking water was published on Monday (24 June) in a study that's sure to add fuel to the fight over the controversial method of extracting natural gas from cracks in rocks.



Researchers at Duke University analysed 141 drinking water samples from private water wells across the gas-rich Marcellus shale basin in north-eastern Pennsylvania.

They found methane concentrations were six times higher and ethane concentrations were 23 times higher at homes within a kilometre of a shale gas well.

Propane was detected in 10 samples, all of them from homes within a kilometre of drilling.

"The methane, ethane and propane data and new evidence from hydrocarbon and helium isotopes, all suggest that drilling has affected some homeowners' water," said study author Robert Jackson, an environmental sciences professor.

Two previous studies by Duke scientists found direct evidence of methane contamination in water wells near shale-gas drilling sites in north-eastern Pennsylvania.

A third study conducted in Arkansas by US Geological Survey scientists found no evidence of drinking water contamination from shale gas production.

Ethane findings hard to refute

The ethane and propane contamination data are "new and hard to refute," Jackson said.

"There is no biological source of ethane and propane in the region and Marcellus gas is high in both, and higher in concentration than the Upper Devonian gas found in-between," he said.

Hydraulic fracturing, known as fracking, has led to a massive expansion of natural gas production in the United States but has been banned in some other countries such as France due to environmental concerns.

The gas is extracted after cracking open hydrocarbon-rich shale by pumping water, sand and chemicals at high pressure into the deep wells.

So far there has been no evidence well water contamination by fracking fluids.

However, the researchers said it's possible that faulty well construction led the drinking water to be contaminated by gas released during the process.

"Our studies demonstrate that distances from drilling sites, as well as variations in local and regional geology, play a role in determining the possible risk of groundwater contamination from shale gas development," said Avner Vengosh, a professor of geochemistry and water quality at Duke.

"This must be taken into consideration before drilling begins."

The study was published in the Proceedings of the National Academy of Sciences.

Source: AFP via I-Net Bridge

For more, visit: <https://www.bizcommunity.com>