

Water and Sanitation in the News

Produced Water Has High Benzene Levels, Report Says

Two years ago, the state of California (USA) ordered oil companies to test fracking wastewater for harmful chemicals. The results are in. A key finding from this research is that fracking wastewater contains high levels of benzene. "Data culled from the first year of those tests found significant concentrations of the human carcinogen benzene in this so-called 'flowback fluid.' In some cases, the fracking waste liquid, which is frequently reinjected into groundwater, contained benzene levels thousands of times greater than state and federal agencies consider safe," the Los Angeles Times reported.

The Times studied the data to see how significant the harm might be. "The testing results from hundreds of wells showed, on average, benzene levels 700 times higher than federal standards allow" the report said. The results are concerning because California regulators have—very controversially—allowed fracking companies to reinject produced water into drinking water aquifers. ...The EPA called the revelation "shocking." "The agency's regional director said that California's oil field waste water injection program has been mismanaged and does not comply with the federal Safe Drinking Water Act," the Times reported.

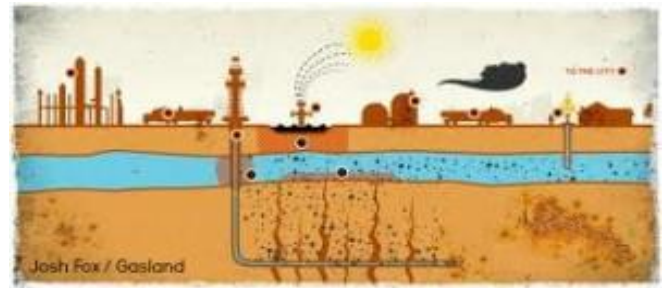
According to the pro-fracking industry group Energy from Shale, fracking is safe. "Hydraulic fracturing is safe and well-regulated by federal and state agencies. The technologies and processes continue to be improved, guided by industry standards developed from experiences in the field and which undergo rigorous review before adoption," the group says.

Source: [Water Online, 25 Feb. 2015](#)

Early in 2015, the Cancer Association of South Africa (CANSA) has added its voice to the fracking debate, arguing that fracking could dump cancer-causing chemicals into the drinking water of Karoo communities where fracking is proposed. Hydraulic Fracturing, or "fracking," is a mining technique in which typically water is mixed with sand and chemicals, and injected at high pressure into rock to create small fractures. These fractures then allow for the extraction of liquids like gas or petroleum. "Potentially hazardous substances are often added to the fracking fluid

or are released through the process," says Dr Carl Albrecht, CANSA's head of research.

It is estimated that about 100 of the more than 700 chemicals added to fracking fluid are carcinogenic. These cancer-causing chemicals include benzene, which causes leukemia in children, and formaldehyde, which has been linked to throat and stomach cancers among others. Formaldehyde has also been known to cause drug resistance in bacteria, an issue South Africa is already struggling with in terms of tuberculosis.



CANSA has collected and tested samples of Karoo water to estimate its water quality before fracking takes place. If the mining practice is allowed, these baseline samples will be tested against water samples taken post-fracking to determine if water has been polluted. "This data could be used as evidence in court where a contaminated farm or affected community would need to supply 'before and after' samples of drinking water aquifers to prove pollutions," adds Albrecht. CANSA is calling for further baseline data to be collected. "It is hoped that this initiative will induce fracking companies to conduct their operations with the greatest of care and protect Karoo plants, animals and humans from any carcinogenic harm through any form of contamination of underground drinking water aquifers," Albrecht says.

Source: [Health-E News, 21 Jan. 2015](#)

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