

Gas Mining In Victoria

A submission by:

Steve Winfield, Portland, Victoria, June 2015

image: a gas pipeline explodes in a ball of white heat at Sissonville, West Virginia, blocking highway 77. Watch it here on Youtube:

https://www.youtube.com/watch?v=a7Sjl_x3fs0

This report has been designed to be read carefully in under 10 minutes. As a consequence, the subject matter has had to be restricted to meet that criteria.

Before I begin my submission, I would like to say a few words about why I've spent so much time researching this. I've tried to approach this topic with an open mind, considering the arguments in favour of gas mining, as well as the arguments against. We are discussing a technical operation, about which large sections of the public, still have very little awareness. Having spent some considerable time studying the war that is happening between local communities and mining companies around the world, I have asked myself these critical questions:

Who has the most to lose or gain, by being economical with the truth ? Why would scientists warn of dire consequences for no legitimate reason ? What do they have to gain by doing that ? Why would such influential nations as France and Germany, ban it for no good reason ? The mining industry and of course the government, have billions of dollars at stake, so ask yourselves the very same questions. If I were charged with making the final decision here, I would like to think I could turn off the light and sleep easy with that decision.

While I'm guessing that the vast majority of submissions from both sides, will attack the key topics of water, land and air quality, I will touch briefly on each of those but for brevity alone, will cite just the one example in each case. There are no shortage of them out there.

The key issues:

While considering very carefully, the material I would use for my submission, I came across an article published some 2 years ago in 'The Australian'. The writer of this article, made an aggressive attack on the opponents of the mining industry. This is what his article opened with;

article location:

www.theaustralian.com.au/news/world/just-tell-the-fracking-truth/story-fnb64oi6-1226698648192 (this is a subscriber restricted link). You will be able to access it by searching for 'just-tell-the-fracking-truth' in Google and access it from that link.

quote;

"Here are five things they keep saying that are simply false. First, that shale gas production has polluted aquifers in America. Second, that it releases more methane than other forms of gas production. Third, that it uses a worryingly large amount of water. Fourth, that it uses hundreds of toxic chemicals. Fifth, that it causes damaging earthquakes. None is true".

This statement forms the basis of my submission because it will undoubtedly echo the stance of the industry itself. So I will begin my submission by answering each of these statements in the order they appear:

"Shale gas production has polluted aquifers in America"

This excerpt, is taken from 'The Scientific American'

article location:

<http://www.scientificamerican.com/article/groundwater-contamination-may-end-the-gas-fracking-boom/>

quote:

"Robert Jackson, a chemical engineer at Duke University, found methane in 115 of 141 shallow, residential drinking-water wells. The methane concentration in homes less than one mile from a fracking well was six times higher than the concentration in homes farther away. Isotopes and traces of ethane in the methane indicated that the gas was not created by microorganisms living in groundwater but by heat and pressure thousands of feet down in the Marcellus Shale, which is where companies fracture rock to release gas that rises up a well shaft."

Is it likely that Mr Jackson would have fabricated this research for his own ends and is he not adequately qualified to conduct such research ?

Image: a gas well explodes in West Virginia

"it releases more methane than other forms of gas production"

The following report, much closer to home, reveals much greater air pollution than just methane alone;

article location:

["Dr Somerville CSG Air Pollution in the Darling Downs.pdf"](#)

copy of this document available from the CSG page at www.creeksbend.com

Here's a quote from page 4 of this report;

"NPI data reveals rapidly increasing emissions of dangerous CSG related air pollutants in the Darling Downs. For example, in the year 2013-14, (see Table 2 in Appendix B) about 1,383 tonnes of Volatile Organic Compounds (VOCs), 13 tonnes of Acetaldehyde, 2.2 tonnes of BTEX, 241 tonnes of Formaldehyde, 8,788 tonnes of Carbon Monoxide, 12,189 tonnes of Oxides of Nitrogen, and 2,325 tonnes of particulates were emitted in the air above the Darling Downs, where the gas industry is set to expand a number of times over".

Some mining companies are attempting to confuse the public by citing they are nothing to do with CSG mining. This however, is a moot point, as the acronym "CSG" only refers to how the gas is trapped underground, not how it is extracted. Where Fracking occurs, the extraction method remains the same, regardless of whether it's CSG, Shale gas or Tight gas. Some companies are even claiming they will extract without Fracking but the burden of proof, should rest firmly on their shoulders. How can we be certain they aren't Fracking and who will police that, given the vast number of gas rigs there could potentially be ?

"that it uses a worryingly large amount of water"

article location;

www.exploreshale.org

quote;

"Each drill site requires between 3 and 5 million gallons of water per frack. Based on approximately 1,500 horizontal wells fracked in 2011, Pennsylvania used about 12-20 million gallons of water per day for Marcellus Shale drilling, which represents approximately .5-.8% of the 9.5 billion gallons of water the state uses daily."

Image: Police forced to escort a Fracking truck onto a site in the UK.

Source: The Daily Mail, a leading UK tabloid newspaper.



The article in "The Australian" goes on to point out that agriculture is the biggest culprit for water usage, far worse than the mining industry and it's agriculture that is to blame for water shortages. Well, that may be so but then again, agriculture produces the luxury item we call food, so perhaps we should all go without that and ban agriculture instead? What useful product that we can eat or drink, does the gas mining industry produce? In a land like Australia, that has a very fragile ecosystem and where the impact of climate change could be dramatic, surely, water has to be one of our most precious resources.

This recent article, a report by NASA, gives worrying news about world water resources;

article location:

www.independent.co.uk/environment/nasa-data-shows-the-world-is-running-out-of-water-10325188.html

quote;

"Twenty-one of the world's 37 largest aquifers — in locations from India and China to the United States and France — have passed their sustainability tipping points, meaning more water was removed than replaced during the decade-long study period, researchers announced Tuesday."

Surely, an outfit like NASA should be taken seriously?

"that it uses hundreds of toxic chemicals"

article location:

<https://fracfocus.org/chemical-use/what-chemicals-are-used>

Well, 'hundreds' may be an exaggeration but without full and honest disclosure, it's almost impossible to know the real truth and you need to be an industrial chemist, to understand the full environmental impact, some of these chemicals may have. I have heard industry sources making statements like "they are only household chemicals". Well, so is bleach but you wouldn't be drinking that would you ?

This article expresses concerns about what is really used in the Fracking process;

article location:

www.businessinsider.com.au/scary-chemicals-used-in-hydraulic-fracking-2012-3?op=1#methanol-1

quote;

"A 2011 congressional report on the chemicals used in hydraulic fracking, states that the 14 leading hydraulic fracturing companies in the U.S. injected 10.2 million gallons of more than 650 products that contained chemicals that are known or possible human carcinogens, regulated under the Safe Drinking Water Act, or listed as hazardous air pollutants."

A commonly quoted figure, is that the Fracking solution used, is 99.5% water. Okay, sounds good. So let's take the lower figure quoted of 3 million gallons, or 13,620,000 ltrs if you prefer. A 0.5% solution of that, represents just over 68,000 ltrs. Doesn't sound so good now does it ? Then again, if it's all harmless additives, I guess the mining company executives wouldn't object to having a 0.5% solution of these chemicals, added to their drinking water ?

"that it causes damaging earthquakes"

Image: A category 4.0 quake, rocks Youngstown Ohio, close to a fracking injection site.

Article location: www.washingtonpost.com/news/post-nation/wp/2015/01/08/study-links-fracking-to-dozens-of-small-ohio-earthquakes/

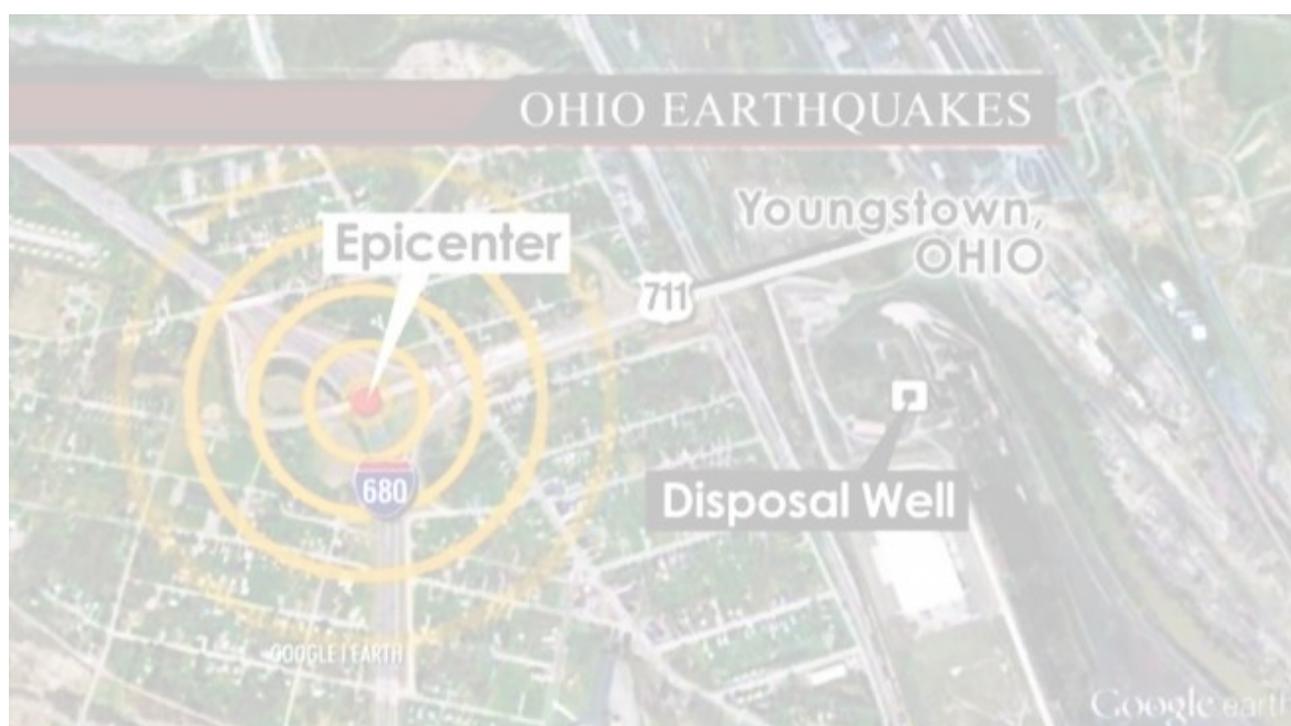


Image: A tank of fracking 'fluids' ignites at Tyler County, West Virginia

Article location: www.salon.com/2014/01/11/icymi_fracking_is_dangerous_partner/



It is now well documented that across US States where Fracking is prevalent, seismic activity has increased dramatically. This article, shows growing concern over this issue;

article location:

<http://news.nationalgeographic.com/news/energy/2014/05/140502-scientists-warn-of-quake-risk-from-fracking-operations/>

quote;

"Underground disposal of wastewater from fracking may pose a much greater risk of causing dangerous earthquakes than previously believed, particularly in areas of the U.S. Southwest and Midwest where earthquake faults have not been mapped extensively, seismology researchers said at a conference Thursday.

Worse yet, scientists are not yet able to predict which wastewater injection sites are likely to pose risks to buildings or critical structures such as power plants, and do not yet know what operators might do to mitigate the hazard. And new research indicates that the disposal wells are capable of affecting earthquake faults that are miles away from them."

This further article, also addresses the concern of people feeling the effects of quakes in the US;

article location:

<http://edition.cnn.com/2015/05/09/us/texas-earthquakes-fracking-studies/>

quote;

"According to the U.S. Geological Survey, the Dallas area has suffered almost 40 small earthquakes (magnitude 2.0 or higher) since the beginning of this year, the latest a magnitude-2.7 quake near Farmers Branch on Saturday. Many of the epicenters were recorded in Farmers Branch and Irving, with a couple to the south in Venus."

"The quakes don't sound like much to somebody from California," Jim Wells told CNN. "But when you are sitting right on top of them, they are more than noticeable. They will shake the entire house, and you have no doubt about it when you have gone through it. We have in my home perhaps 100 or more wall hangings, pieces of art -- prints, etchings, oil originals -- and none of them are hanging straight."

How long before a massive earthquake occurs ?

The Issue of democracy and the right to say "no"

We are seeing worrying evidence that the very basic mechanics of democracy, is being dismantled in favour of gas mining. In Texas, where gas and oil production is big business, the State moved to ban the city of Denton, just north of Dallas, from declaring itself a gas field free zone. Subsequently, when protesters tried to blockade the resumption of drilling, they were arrested. Ironically, just 3 days later, a gas well on the outskirts of the city exploded. It's like an atomic explosion. You can watch it here on Youtube;

<https://www.youtube.com/watch?v=80poM-XXPTg>

It will create angry divisions within our society

Whether for, or against, gas mining has become an emotive issue for many people. Many communities have not just shrugged their shoulders and allowed the gas rigs to roll in. There have been angry demonstrations and clashes with police. Is this what we really want for Victoria and indeed, Australia as a whole ?

Image: A protester with a placard, delivering a chilling message at a rally in the UK

With that, my time is almost up !

So, I'll sign off now and bid you all a Good Night.

Remember, once done, the damage can never be repaired !

Sleep well

