

Hydraulic Fracturing for Gas in Fermanagh – At What Cost?

Earlier this year, Australian-based Tamboran Resources were granted a license to explore the potential of hydraulic fracturing for gas in the shale rock of the Northwest Carboniferous Basin. This area covers a large part of SW Fermanagh, as well as parts of Cavan, Leitrim, Sligo, and Roscommon. In the Republic area, the Lough Allen Natural Gas Company has also been granted a license. The extraction technique they would use, known as 'fracking', is relatively new and is highly controversial as its impact on the environment and public health are not yet fully understood.

Although Tamboran are in the exploratory early stage and have not yet been given a license to extract gas, it is important that local people make themselves aware of their plans and of the problems already associated with this industry. Tamboran have apparently already met with planners from Fermanagh County Council and have organised a public information meeting next week, Tuesday 6th September, in Westville Hotel, Enniskillen, at 7pm (refreshments from 6:30).

No doubt over the next few months Tamboran will be promoting their enterprise to the media with the prospect of job creation and revenue, but we must not be misled by vague promises and gross figures. It seems unlikely that locals would see much profit from gas extraction – these are private corporations seeking profit and gas is an international product that would be sold at market prices. The company have stated that the drilling program could run from 10 to 15 years while the operation of the wells would require workers from 20 to 50 years. They have acknowledged that the production rate of a well declines steeply in the first few years.

Tamboran are insisting that they can carry out the fracking process safely, but in practise their claims are unproven. Regardless, the negative impact on our land and waterways for tourism and agriculture, on which the local economy in Fermanagh and the wider area depend, could far outweigh the short-term incentives the company claim to offer.

These videos provide a quick insight into the debate:
RTE Prime Time speak to representatives from Tamboran. Aired 25/8/11 (the fracking bit starts halfway through the programme):

<http://www.rte.ie/news/player.html#programme=Prime%20Time>

Video made by The Ecologist:

http://www.youtube.com/watch?v=dEB_Wwe-uBM

Additional Information

What is being proposed?

It is understood that there may be large reserves of gas held within the shale rock in this area, 500 - 1500m underground. The gas in shale is not held in large pockets but in the pores of the rock throughout its mass. The industry calls this 'unconventional gas'. In the past it was not feasible to extract gas from this type of rock, but with advances in drilling technology and diminishing supplies of oil and conventional gas, it has recently become a profitable reality.

The fracking technique involves drilling down vertically through the rock to a depth 1-1.5km, to where the shale rock lies, then horizontally along up to 1km. After the borehole is lined with metal casing and concrete, huge quantities of water, sand and usually chemicals, are forced down at extremely high pressure to fracture the rock, thus releasing the gas. Each area of activity is termed a 'pad', constructed on a large concrete base (app. size of 3 football pitches) with its various holding tanks and machinery. Each pad can support up to 15 wells (boreholes) running underground in different directions. Tamboran have said that they could potentially develop up to 100 pads in the Lough Allen Basin, 1 every 2km, from which about 1000 wells could be drilled.

Why should we be concerned?

Hydraulic fracturing to extract gas from shale has so far only been practiced extensively in the USA, and is still a relatively new technique. There have been many instances where the practice led to contamination of drinking water and impacted negatively on the environment and farm animals. France and South Africa have placed a moratorium on fracking, and several North American states are also proposing suspension with mounting concerns over health, safety and environmental impact.

Hydraulic Fracturing for gas has not been practised in Ireland or the UK before, but exploratory drilling began this year in NW England. Energy company Cuadrilla suspended their fracking operations near Blackpool this June, over fears of a link to two minor earthquakes in the area.

Tamboran have very recently announced (on RTE, Irish media and online,) that they will not use any chemicals in any stage of their processes in Ireland. They themselves admit that this has never been done anywhere before. In RTE Prime Time on 25th August, Richard Moorman, CEO of the company, said 'it's going to cost us a little more to go without friction reducer and things like that, but we can make the wellbore bigger, or we can pump harder.' (Link to the programme above.) It is clear that Tamboran's 'no chemical' claims are a blatant attempt to sweeten public opinion, when in reality they are proposing an even more intensive and untested alternative. There are also many other issues to consider, as outlined below.

Hydraulic fracturing for gas is a noisy and intensive industry requiring large numbers of heavy vehicles in the construction and drilling stages, and Tamboran have not yet indicated how they would intend to transport the

gas out of the area. It also requires large areas of land for its wellpads and huge quantities of water for the fracking procedure.

A 2011 EU study on the 'Impacts of shale gas and shale oil extraction on the environment and on human health' concludes that the current EU regulatory framework concerning hydraulic fracturing has a number of gaps, and recommend that regional authorities should be strengthened to take decisions on the permission of projects which involve the process. It also highlights the following impacts:

- * Unavoidable impacts are area consumption due to drilling pads, parking and manouvering areas for trucks, equipment, gas processing and transporting facilities as well as access roads.

- * Major possible impacts are air emissions of pollutants, groundwater contamination due to uncontrolled gas or fluid flows due to blowouts or spills, leaking fracturing fluid, and uncontrolled waste water discharge.

- * Fracturing fluids contain hazardous substances, and flow-back in addition contains heavy metals and radioactive materials from the deposit.

- * Experience from the USA shows that many accidents happen, which can be harmful to the environment and to human health. The recorded violations of legal requirements amount to about 1-2 percent of all drilling permits. Many of these accidents are due to improper handling or leaking equipments.

- * Groundwater contamination by methane, in extreme cases leading to explosion of residential buildings, and potassium chloride leading to salinization of drinking water is reported in the vicinity of gas wells.

- * The impacts add up as shale formations are developed with a high well density (up to six wells per km²)

Fermanagh District Council's new corporate strategy for 2011 - 2015 points out that, 'Fermanagh's rural location and tranquil setting provide a quality of life second to none in Northern Ireland. Shorter commuting times, lower cost of living, less costly property, the clean environment and the close proximity to the lakes and countryside are cited as the major motivation for moving to Fermanagh.' Many of these positive aspects of living in our county would be at risk if a development like this was allowed to go ahead.

What can we do?

Attend one of the public meetings held by Tamboran:

Enniskillen: 6th September, 7pm, Westville Hotel

Carrick-on-Shannon: 7th September, 7 pm, The Bush Hotel

Ballyconnell: September 14th, 7 pm, Slieve Russell Hotel

Express any concerns to local councilors and MLA's

Spread the word to family and friends - pass on this information to anybody you think may be interested

Explore the issues – there is vast and almost overwhelming amount of information online, but the links below are a good starting point:

Petition:

<http://www.gopetition.com/petitions/northern-ireland-no-fracking-required-here.html>

EU report on the impacts of shale gas and shale oil extraction on the environment & human health:

<http://www.europarl.europa.eu/document/activities/cont/201107/20110715ATT24183/20110715ATT24183EN.pdf>

Local Reporting:

<http://fermanaghherald.com/2011/08/17/strong-opposition-mounting-to-method-of-gas-exploration/>

<http://www.anglocelt.ie/news/roundup/articles/2011/08/26/4006321-public-to-have-their-say-on-controversial-gas-fracking-process/>

UK Media:

<http://www.bbc.co.uk/news/science-environment-12190810>

<http://www.guardian.co.uk/environment/2011/may/23/mps-reject-moratorium-shale-gas>

<http://www.guardian.co.uk/environment/georgemonbiot/2011/aug/31/fracking-issues-resolve>

<http://www.co-operative.coop/corporate/Press/Press-releases/Headline-news/The-Co-operative-calls-for-moratorium-on-shale-gas-extraction-in-the-UK/>

<http://www.independent.co.uk/environment/nature/mps-call-for-inquiry-into-shale-gas-drilling-after-earthquakes-2294389.html>

Promotional article written by Richard Moorman of Tamboran for thejournal.ie (the comments after the article go into insightful detail & debate):

<http://www.thejournal.ie/readme/column-want-to-boost-the-economy-and-create-jobs-drill-for-gas/>

Unconventional gas extraction companies

<http://www.tamboran.com>

<http://www.cuadrillaresources.com/>