

## Column: Never heard of 'fracking'? You will soon

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An anti-fracking protester in the US, where the process has stirred controversy

Image: Matt Rourke/AP/Press Association Images

BENEATH COUNTIES LEITRIM, Roscommon, Cavan, Sligo, Donegal and Fermanagh, there is an estimated natural gas deposit valued at a minimum €120billion at current market prices. This resource has been known about for many decades, but until now it was not deemed viable. However, the game is now on to explore and extract. The shale gas, embedded in rock thousands of feet below the land surface, has been trumpeted as the magic solution to clean energy supply in the decades to come.

The factor that has reinforced viability for interested companies is a gas extraction method known as hydraulic fracturing, or 'fracking'. This method involves deep drilling – typically to depths of 6,000-7,000 feet – to reach the gas-bearing seam of rock. The drilling then continues on a horizontal trajectory along the seam. Then, the bore hole is sealed in concrete and a mixture of water, sand and so-called 'fracking fluid' – up to seven million gallons per bore hole (and there are currently 40,000 such holes across the US) – is forced into the bore hole in an effort to dislodge the gas from the fractured seam.

In the US, fracking fluid has been granted 'proprietary' status, like the secret recipe for Coca-Cola, thereby clouding its ingredients in secrecy. However, it

is known to contain 596 chemicals including strontium, mercury, formaldehyde and a range of others which are damaging to human health.

The name that has been given by the companies involved to this chemical-laced fluid, left over after the gas has been extracted, is 'produced water'. The companies claim to have been able to retrieve this water from the depths where it is employed, but this is now proven not to be the case – most notably in a [study](#) by researchers at Duke University in the US, which firmly establishes the connection between the fracking process and water contamination.

A second source of water contamination has been the leakage of natural gas from the fracking process into underground aquifers, resulting in the contamination of domestic and farming water supplies. In the US, there have been multiple cases where the gas has escaped into the water supplies. The 2010 documentary Gasland, which set out to highlight the environmental effects of fracking, contains an infamous scene in which a householder in Weld County, Colorado turns on their tap, then sets the tap-water alight. Recent statements by Tamboran Resources, who have concessions to explore for gas deposits in Leitrim and Fermanagh, have [confirmed](#) that they intend to use hydraulic fracturing should they move to the next stage of exploration. As far as the company is concerned, there is no known alternative. Tamboran assert that contamination issues highlighted in the US have been due to poor concrete casings around the bore holes.

### **'Wilderness areas'**

In the United States, landholders have been lured into allowing companies onto their properties through generous financial arrangements. However, these have often come with non-disclosure agreements – and in many cases massive depreciation in the resale value of land. In some areas affected, it has become impossible in many cases for people to secure mortgages on land and house purchases. However, the law in Ireland differs, and campaigners are currently clarifying the conditions under which exploration companies can access privately-owned land – as well as airing concerns over the type of access that State companies will permit for exploration and exploitation.

The Department of Communications and Energy – whose Petroleum Affairs Division issued the licenses to Tamboran as well as the Irish-owned Lough Allen Natural Gas Company (Leitrim) and Energy Oil (Clare Basin) in the dying days of the Fianna Fáil administration – have indicated that any use of fracking will be subject to an environmental impact assessment and a process of public consultation.

Leitrim County Councillors have also taken action, requesting the companies involved to come before the council, outline their intentions and answer concerns. The issue has also been raised by Fermanagh MLA Phil Flanagan with Northern Ireland's Minister for Enterprise and Energy Arlene Foster. The Fermanagh region contains officially-designated Areas of Special Scientific Interest and – like much of the Leitrim, Cavan and North Roscommon landscape – contains some of the country's few remaining wilderness areas as well as being an important sink for the Erne and Shannon systems.

Much of this awareness in Ireland has been raised by screenings of *Gasland*, which was nominated for an Academy Award for best documentary this year. The film has been responsible for raising the issue internationally and galvanising community response in Leitrim and Sligo, resulting in a petition calling for fracking in Ireland to be banned.

Internationally, fracking has now met with the opposition of the New York State Assembly and the French parliament, and has been outlawed in Quebec. However, a UK Parliamentary Select Committee has deemed that there was no risk to water quality from the process. But energy firm Cuadrilla Resources have been convinced to [suspend](#) fracking near Blackpool, Lancashire in early June – after two small earthquakes which geologists linked to their activity.

*Johnny Gogan is a feature film and documentary filmmaker. He is chair of [Cinema North West](#), the film company which has been distributing *Gasland* in Ireland, and a member of the Green Party of Ireland.*