

HOUSE OF ASSEMBLY

WEDNESDAY 22ND JUNE 2016

NATURAL RESOURCES COMMITTEE: UNCONVENTIONAL GAS (FRACKING) INTERIM REPORT

Adjourned debate on motion of Hon. S.W. Key:

That the 106 th report of the committee , entitled Unconventional Gas (Fracking) Interim Report , be noted.

(Continued from 18 November 2015.)

Mr PEDERICK (Hammond) (11:42): I rise to speak to the Natural Resources Committee 106th report, titled Unconventional Gas (Fracking) Interim Report. As I have indicated in this place before, I was involved in the fracking industry from 1982 into early 1983 in the Cooper Basin, operating in the north of this state and in Queensland. Fracking is certainly a business that does open up the resource. In the Cooper Basin, it has been low volume fracking, or fracturing. I was involved in fracturing many drill holes and many oil wells. I was working for a company called Gearhart Australia, which was subsequently taken over by Halliburton, which is a major company operating in this field.

Essentially, we did vertical fracking, straight down. Most of the time it was using items like four-inch steel guns, and there would be an explosive every 120° that could blast through 22 inches (using old technology measurements) of solid steel, so they had a fair go. There is quite a science in making sure that you actually shoot, so to speak, the correct area. As a junior operator at the time, it was my job to run the equipment the 10,000 feet to the bottom of the well. You knew when you were getting close to the well by your distance meter. You slowed the pace right down to a crawl, and then you kissed the bottom of the oil well with the equipment, with the guns.

Mr Pengilly interjecting:

Mr PEDERICK: It was 10,000 feet down. Then you had to work out where exactly you were in the oil well because at 10,000 feet (or a bit over 3,000 metres) you could get close to 10 metres of stretch in a cable. There is a machine called a casing collar locator that would tell you exactly where the collars in the 30-foot (nine and a bit metres) lengths of casing were. The idea was that you did not want to shoot through the collars.

This was all cased-hole work and it was all operated in holes with multiple runs of casing, usually triple runs at the top, going down to double runs and then a single run to the bottom. All these runs of casing are cemented in, and that is tested. The work that was done, in relation to the ability of the cement to be properly cured and in place for the whole distance of the well, was logged with a cement bond log. That would tell you if the cementing had been done appropriately. If it was not done appropriately, you would have to go back in. Usually, it was Halliburton's job as a company to cement in those wells.

Essentially, we would run our equipment down. We would work out the exact depth of where we had to be, which had been found out through the open hole testing that had been completed by a company that operated doing the open hole work prior to the wells being cased. The company is called Schlumberger, and they are well known around the world as experts in their field of wireline operations, which are what the operations are called when you are operating down a hole like that. They would have the zones where the gas or the crude oil was and where the fracture was going to happen.

What would happen after we fractured the wells was that we would come out and pack up our equipment. We would use a truck hooked up to an oil rig on site. Then Halliburton would have a range of tanks, and they could have up to 30 of these probably 30,000 or 40,000 litre tanks on site. They would have an article called 'frac sand' mixed up in fluid that would be pumped under immense pressure using V12 and V16 two-stroke diesel motors, Detroit engines, all operated by one engineer and all linked on one throttle. Obviously, all these tanks were hooked up so that this slurry could be blown down the hole and open up the fracture.

I participated in many of these fracture stimulations. We also did some work through tubing perforation, where we would have what was called a workover rig or a two-stage rig on a hole, and they would have the fully completed well with tubing in place. You would have long strips with lighter explosives on them. You would run them down and just go through the tubing, so it was not such a structured operation as with the four-inch or 100-millimetre guns. We did quite a bit of that work as well.

Things have moved on. There are tubing-conveyed perforations operated now, and there has certainly been the advent of horizontal drilling, which is when you are drilling vertically and then you have the art of being able to go horizontally and use about 300-odd metres (or 1,000 feet) to make the bend so that you can limit the impact on the surface and make it much more efficient in shifting your oil rig. I have seen it at Moomba and I have seen it in the United States. You can actually confine your pad area where you can put up to at least a dozen wells on one drill pad.

I acknowledge the work the committee has done on this, and I know they have a lot more work to do, but I think people really need to look at the science. There are a lot of different views about fracturing. Last year, I went on a trip to America with the Hon. John Darley, Mr Troy Bell (member for Mount Gambier) and the Hon. Mark Parnell to have a look at the situation in the United States. What they have learned in the United States is that good regulation is the key. Reports by the United States Environmental Protection Agency acknowledge there has not been any systemic failure. I did encounter people who were abjectly against the use of fossil fuels. I personally believe that they use fracturing as the tool to combat fossil fuels.

We also met a farmer who has since spoken to the committee via Skype, Jeff Heller, who represents 1,700 farmers from New York state who have been blocked out with the moratorium and the ban on hydraulic fracturing. The royalty regime in the United States means that a property owner actually gets a share of their royalties, which they obviously do in Pennsylvania and the other

34 out of 35 states in the US which have oil drilling. They were very keen to access that work so it would make their farms viable, for one thing. It was interesting to note, as Mr Heller said in his evidence, that they are heavily reliant on groundwater. You would not think you would want to mess up your farm if there were a risk of the hydraulic fracturing messing it up.

There are certainly a lot of different views, and I note there is a lot more work to do. I acknowledge that work needs to be done. It just shows that you need to sell your message if you are going to conduct this anywhere. I note that Kidman properties have recently figured well in the debate on land sales and that they have had many holes fractured on their properties. I would urge people to have a look at a couple of short videos, *TruthLand* and *FrackNation*, just to get a view of how hydraulic fracturing operates. I commend and support the work of the committee, because there are a lot of questions to be asked. We do not want to upset our prime farmland, but we also have to be realistic about how it really operates.