

# SCIENTIFIC INQUIRY INTO HYDRAULIC FRACTURING IN THE NT

## RESPONSE TO BACKGROUND AND ISSUES PAPER

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The response that follows herein, pertains to the well-attended public meeting in Nhulunbuy on 20 March 2017, sponsored by the scientists engaged in the above independently-operated NT Government inquiry.

I address several concerns:

1. Consultation with rural and remote area Aborigines;
2. Possible toxification and/or draining of aquifers;
3. The prospects for meaningful legal liability;
4. Quality of drill shaft casing steel;
5. Impact on later land use;
6. Rationale for high risk gas exploitation.

## 1 Aboriginal awareness of direct and interrelated issues

A small sample survey (25 individuals) of the Yolngu population hovering in the vicinity of the Nhulunbuy main shopping precinct (afternoon of the 20<sup>th</sup> March) identified zero individuals who had even heard about fracking. This suggests to me that we are at stage A1 of the consultation process. If history is any guide, full consultation is not going to occur. I explain this assertion as follows:

**Social and political backdrop and history:** Alarming, glancing at the evidential prospects for unconventional fracking, there is an uncanny similarity to the scenario confronting welfare officer Ted Eagan in 1969 when he surveyed Yolngu of the Gove Peninsula and discovered that the “fullest consultation” claimed by Canberra regarding proposed bauxite mining, was in fact restricted to two individual opportunists of the Gumatj and Riritjingu clans.

History shows us that other language groups upon whose country the mining operation and town would impinge, Galpu, Djapu, and Djambarrpuyngu, were neatly excised from consultation and subsequent compensation. I see no evidence that government has learned from these previous ‘oversights’: most

critical factor being **that individual Yolngu who have been manipulated into positions of leadership, were the sole reasons for the original inadequate consultation.**

It is relevant to note that Eagan's report to his most senior supervisor, Director of Welfare Harry Giese, was not acted upon and, if Eagan had not courageously written directly to Canberra, mining would have proceeded with miniscule regard for Aboriginal rights. As it happened, the original compensation corruption remained in place and continues to this day. Compounding this, the introduction and nurturing of corruption amongst Yolngu has intensified and receives routine and nodding approval by almost all well-meaning westerners.

Secondly, the Christian missionaries were the people who actually gave local permission for the bauxite mining... a role that was never their legal or moral prerogative. It is now clear that the same Christians are positioning themselves to assume a significant role in future Yolngu decision-making, a role which runs counter to Yolngu endemic democratic consensus-formation processes, and which entirely ignores mission Christians's historic and overwhelmingly destructive role of undermining Mala authority and family integrity. As the Stolen Generation saga demonstrates, the Christian role in NT (and Australia-wide) Aboriginal communities is not one to boast about, but these thick-skinned interventionists are in perennial and compulsive denial... as is evidenced by their current attempts to seize control of East Arnhem Aboriginal child welfare and currently-frozen mining royalties.

Incorporate these dismal prospects with the current level of media distortion and misinformation and we would be remiss to not recognize the lack of **information level playing field** upon which Yolngu will soon find themselves wandering in circles.

**Back to the Nhulunbuy meeting of 20 March:** whilst the goodwill exhibited by all scientists and meeting-participants was most encouraging, it was my impression that nobody present appreciated the most pivotal obstacle to consultation; that, **in 228 years, Yolngu have been forced to negotiate for their survival in a foreign language... English; which for most Yolngu is a fourth, fifth, or even seventh language.** Consequently, government and other entity exercises of consultation with Indigenous people of the NT has been a painful and very visible litany of failures (with a single exception in 1979). Yet, invariably, in all the recorded instances of relevant public discussion there has been the same outpouring of good intention by all concerned.

**Why do people expect that repeating the same failed consultation formula will on this occasion miraculously result in success?**

As on so many previous occasions, I listened to very genuine people declaring that consultation with Aborigines was critical. There was even an isolated reference to

*consensus protocols*, but with absolutely no awareness how intensely specific is that term as it applies to very traditional Yolngu on Homelands. This refers to a decision-making structure that has no parallel in western culture; which makes it invisible to anyone not specifically made familiar with it.

In my 46 years of constructive association with Yolngu and other Indigenous people of the NT, I have never encountered a non-Aboriginal person, nor a non-traditional Aborigine, who was even vaguely aware of the protocol. Moreover, few surviving Yolngu recall the actual process, this having been actively repressed by missionaries and government personnel at every level and at every opportunity. Yolngu themselves are not cognizant of just how much their culture has been changed, eroded or modified over the past half-century; and few white Australians are aware that the same thing has happened to mainstream Australian culture.

For mainstream Australians, this is because all monocultural people are blind to their own culture, the term being purely relative. It would be news to most Australians that we have a culture at all; somewhat ironical considering the power of generic western culture as it impacts violently across the globe. This blindness most damagingly extends to the *values* component of cultures.

Consequently, even in very general terms, few westerners appreciate that Aboriginal culture expresses flat power, as opposed to the pyramidal or hierarchical structure generated so rigidly in our own society.

This incomprehension of the most pivotal of all Aboriginal cultural components is painfully evident every time westerners apply the term **leadership** to Aboriginal development; which makes a mockery of the very word *Anthropology*. And, of course, anthropologists.

It is an indictment of our contemporary education system that relatively few people are aware of observations about the full spectrum of power, flowing from the greatest minds in our own history as they criticized the *leadership* role: the Pericles speech of Thucydides of ancient Greece; the tomes of the Irish Monks of 300 to 700 AD; of Thomas Paine ("all authority resides in The People"); of Abraham Lincoln's "Government of the people, by the people and for the people"; and of Lord Acton's "power corrupts, and absolute power corrupts absolutely".

As long as we engage in the colonial imposition of hierarchical decision-making, we erode Aboriginal culture at its epicenter and we generate the very organizational corruption which we later deride and condemn.

In 1926, Elkin, one of only two anthropologists with a realistic grasp of cross-cultural communication, pointed out to government that use of pidgin (now laughably upgraded to 'kreol'); and the use of interpreters, were processes doomed to failure. *Government officers must learn Aboriginal languages if genuine communication is to be a reasonably anticipated outcome*, he said.

**Elkin was ignored and later reviled by the hopelessly monolingual cadre of anthropologists who have so profitably colonised Aboriginal culture.** Indeed, in 1992, a team of visiting European anthropologists declared that Australian anthropologists should be stripped of their degrees for breaching their most important professional ethic; that of demonstrating linguistic proficiency prior to attempting cross-cultural studies.

While nothing has changed in this regard, the practical consideration in this particular instance (fracking) is that we are forced into an inadequate compromise position: **We need to ensure that several people of each language group (*mala*) have assisted access to visual evidence of the fracking experience, in the hope that this can be broadcast through all homelands and communities. The logistics of this procedure demand that government provide appropriate and flexible block funding to enable a consultation team to identify appropriate first contacts, and then address these people.**

Past experience strongly suggests that politicians and the now-corporatised public service will be horrified at any attempt to establish informed consensus. Already, the Minister responsible for protection of children and families is attempting to demolish spontaneous Yolngu attempts to employ extended family authority (*Mala seniors as it were*) to ensure workable placements for neglected and at-risk children. It would seem that politicians are determined to protect *government from the top down* at any cost.

In recognition of this easily-confirmed reality, pro-consensus lobbies will need to be extremely energetic.

## **2 Fracking impact on higher geostrata integrity and concomitant invasion and toxification of aquifers. 'Nature hates a vacuum.'**

When a multiplicity of lateral well shafts have siphoned off all shale gas, it seems likely that the vacuum thereby created will cause overhead rock stratas to fail, and for aquifers to drain down into the now vacated gas repository. Simultaneously, residue gas and lighter introduced chemicals will flow upwards to fill the thus-vacated aquifer. Included in this upwards movement will be antibacterial and other chemicals, which will contaminate the remaining aquifer contents, possibly in concentrated form.

Furthermore, it is reasonable to speculate that antibacterial chemicals will kill human and other animal intestinal biota causing incomplete digestion, even malnutrition, and may even precipitate gut colonisation by bacteria which produce brain-damaging toxins (as is believed to be the cause of some advanced forms of autism).

The issues here are:

- Reduced or destroyed aquifers;
- Contamination of aquifers.

### **3 Environmental and human injury liability and remedy enforcement mechanisms**

One only need glance at the Hardy asbestos, BP and ExxonMobil experiences to realize that globalist corporate power is greater than that of any single government. The more one examines this issue the more one realises that trade treaties going back to the (thankfully failed) MAI and now NAFTA specifically deny any nation the right to launch litigation over environmental, labour, consumer, or any other protection measures.

Trump's abrogation of Free Trade means these restrictive clauses are now *ultra vires* but the power of the global investment banker alliance has not been reduced and we would be foolish to expect a piddling NT Government to take on these giants and win.

And, if one monitors the horizontal and vertical connections between oil/gas/miners and the investment banker-owned corporations who ultimately fund both major political parties, it becomes abundantly clear that any damage will be paid for by the victims and the Australian taxpayer.

Thus, in this real world context, any risk whatsoever becomes unacceptable.

### **4 Shaft casing durability**

The chance of a 4K length of shaft casing fracturing under the stress of geological movement, which may well be hastened by the aftermath of the shale-fracturing process (as outlined above), is extremely high; according to some US experts. In Ohio, actual earthquakes have been recorded. Some experts claim that all US-manufactured casings will eventually fail within 100 years. This is a little over one lifetime, to put it in human perspective.

However, because the activities of almost all companies are regulated by shareholder demand to use the cheapest materials available and thereby enhance profit/dividends, we may as well conclude that casings will not comply with former US durability standards and, if we model on other metal product experiences, the inevitable Chinese recycled steel will have a 70% lesser lifetime. Ergo, we would be naïve in the extreme not to anticipate 30 year lifetimes for all layers of casings. This means that permanent water contamination will most certainly occur within 30 years, but possibly immediately.

Because this happened in NSW and Queensland, and with government scientists in denial, there is scant room for optimism that this cannot happen in the NT.

Globally powerful interests stand to gain or lose vast profits, and regulating scientists need to ask themselves how they, as individuals, compare in alternative monetary value. Personal risk can be realistically diluted through public support.

## **5 Aboriginal sacred sites, songlines, hunting zones, homeland access, and social integrity**

The drill pad size tends to be the primary focus of opponents of gas drilling, however, a drill rig access track will be a cleared minimum of ten metres wide and anything up to 50 Ks long, which means a total of 50 hectares of woodland lost. To a pastoralist, this is the equivalent area in pasture withdrawn from production.

More likely, in the NT, the tracks will extend a quarter that distance but, due to our invariably and naturally churned Top End soil units, most of these unsuited to heavy vehicles, and because use of an experienced land unit surveyor would be regarded as uneconomical, many tracks will require directional retreats and then alternative tracks cut. Moreover, because track construction and rig transport will be limited to June-October, a single unseasonable rain event could result in a rig becoming bogged for several months. It has happened to much smaller water drilling rigs. In fact, dry season rains, once rare, are now regarded as normative... for anything up to one week's duration (as in September 2016).

In 1989, the Australian Army, which regards itself as expert on these issues, bogged its only recovery vehicle and was forced to delay the Jim Jim Road training facility development for nearly a year. Similarly, the Ranger Uranium development ground to a halt because local knowledge was ignored and tailings ponds were built 12% too small to accommodate real rainfall. Ergo, the hard evidence tells us that real world conditions will continue to be underestimated.

There are two serious ramifications already evident here:

- Landowners and Mala need to calculate the likely damage to their country, should they agree to drilling. Yolngu have little grasp of geopolitical reality. **They need to be aware that compensation for unanticipated land and water supply injury is simply not going to happen.**
- The drilling companies need to become acquainted with the financial risks inherent in heavy off-road travel in the Top End, and the relative costs of soil type delimitations in concert with the tiny season of opportunity. The conclusion might well be that the Top End is an uneconomical target for exploitation, especially in the face of falling prices (post Chinese withdrawal from contracts).

Regarding the latter observation, I attracted much derision from our discussion group when I mentioned the impact of free trade on the original launching of fracking in Australia, and also the reverse impact of the dumping of free trade by Donald Trump. No one considered this relevant, which is a worry in itself.

I reiterate, the cost effectiveness of fracking was entirely contextualised by free trade ideology, policies, and treaties; and by unqualified presumptions that Chinese trade expansion would continue to grow. By 2010, it was obvious that Chinese foreign trade was about to shrink by 45% and abandonment of free trade by the US will mean the absolute collapse of Sino-foreign sales. Although for a few days following Trump's election, the LNP coalition proclaimed that it would bravely go it alone on free trade, advisors finally made themselves heard, and it is now conceded that free trade is gone forever.

This means that an entirely new trade/economic paradigm is about to emerge, one which will see Australian focus switch to protected national manufacturing and domestic food production.

In such an environment, with Australian energy suddenly in critically short supply, and Chinese demand for gas about to shrink, I suspect that the fracking controversy is about to be rendered academic.

If not, then at least we can force additional costs on the industry which make it much less profitable and therefore more likely to be abandoned. This is how trade wars are won.

## **6 Why are we exporting gas in the first place?**

While this question is peripheral to the Science team's brief, as Australians, we would be foolish to overlook the genesis of all gas production.

First-off, we need to recognize that gas exploration and exploitation decisions were made by Cabinet Ministers, in concert with party bosses and lobbyists, in meetings that were secret. Thus, proof will never become extant and we must rely on informed speculation to understand what happened and why.

While readers should feel free to accept or reject what I present here, at least be aware that between 1999 and 2016, I engaged in full time research into geopolitical impact on Australian Governmental decision-making. My conclusions parallel those of many other international writers, all of whose work has been co-published on [GlobalResearch.com](http://GlobalResearch.com)

Essentially, if one wishes to be preselected for either the ALP or LNP it must be determined through interview that you support free trade and the internationalization of political decision-making; AKA *globalization*. This is on the insistence of the various

entities who fund party election campaigns. Thus, decisions are pan-political and entirely predictable.

One outcome of this absence of national cost-effectiveness criteria, is that we sell our gas so cheaply that it is now cheaper to buy Australian gas from foreign nations, for use in Australia.

This is just one of the inevitable outcomes of globalization; and Trump's dumping of free trade means that Australia will be able to renege on these contracts with impunity. This will be expedited if we can force the gas miners to protect the environment from injury and thereby reduce their profitability. Only intense public pressure will force parliaments to invoke such protection mechanisms, and the only credible source of such pressure will be this independent scientific study.

Whilst some scientists prefer to believe that *science is above politics*, the evidence unarguably tells us that all science has been politicised ever since research was corporatised and/or privatised.

If we don't like this then the new fight must be to return academia and science to its former independent status; and hence worthy of public credibility.

Finally, gas prices, indeed all energy costs, are the outcome of Robert Menzies' *Oil Price Parity Agreement* in which Australia voluntarily agreed to pay international prices for our own oil; coupled with the 38% fuel tax.

Many Australians want these deals scrapped, which would theoretically reduce our bowser price to 12 cents per litre, with massive impacts for industry and energy costs. America's Lyndon LaRouch (*Business Intelligence Review* and *Citizens Electoral Lobby*) re-analysed these figures and quoted 25 cents per litre, which is academic in terms of wider economic significance.

The relevance here is that fracking would cease to exist if oil reforms happen, and a significant percentage of the national electorate supports such a move.

In conclusion, I request that scientists set aside their beliefs and ideologies and acknowledge only evidential reality. One might add that, as science is defined, it should be unnecessary to even suggest this.

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