

**Submission
No 42**

INQUIRY INTO COAL SEAM GAS

Name: Mr Doug Cush

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Because of the limited knowledge into the implications of Coal Seam Gas (CSG) mining on underground aquifers I request and support an ongoing moratorium on all CSG activities until such time this knowledge is acquired.

My submission to the inquiry is not aimed at the effects of what is *under* the surface of the land but the effect *to* the surface of the land - our prime agricultural land. One of my primary concerns is soil erosion and how will we manage it.

Petroleum Exploration Licence (PEL) 470 is held by Leichhardt Resources Pty Ltd, operated by Planet Gas Ltd (farming in) with MBA Petroleum Consultants Pty Ltd acting as project managers. PEL 470 is located about 45km SSE of Moree characterised as undulating ridge country, with soft black self mulching clay cracking soils. By their very nature these soils are highly erodible.

From my understanding of the land access requirements, it is not only a quarter acre well site every 250 square acres that these companies are seeking from landholders. In fact it is much more intrusive. There will be at a minimum; a bore hole every 750 square meters, 2 pipes connecting each bore hole one will carry gas the other water. These pipes will initially be buried half a meter under the ground, though I predict these pipes will rise due to the nature of these soils. All pipe lines are isolated from traffic for safety reasons, so a 40 meter exclusion zone is imposed by the gas company given the interconnectivity of the bore holes. In addition each well site requires all-weather road access. If you care to work out mathematically the combined total loss of our land you would find it comes to around 15%.

Then there are the pipe lines that carry the gas to the delivery line to the export terminal e.g. Newcastle. These pipelines again attract an operating exclusion zone as well as all-weather road access and so contribute a further 3% loss of our land. There are also the holding ponds for "produced water" a by-product of CSG production typically high in concentration of salts. And what will become of this waste brine? All told, given the size of our operation, I estimate we will lose 18-20% of our land's production capacity. On the basis of the value of the Durum wheat we grow then mill and produce into pasta at our Tamworth plants the dollar value at our farm gate of lost production income is around \$1.25 million per annum.

As mentioned earlier my primary concern is soil erosion, it will be difficult if not impossible to manage. The 60 metre wide path of land turned over to mining access infrastructure will still need to be managed by us, the area will require constant spraying so it will not become a weed haven. This area will always be full of moisture and any storm event will magnify the problem. The table drains

supporting the road network will need to be big enough to carry the access water and deposit them into the rollover bank to carry the water into the waterway. If it breaches any rollover bank, water will overflow into next levy bank below it and keep breaching rollover banks until it reaches the bottom of the slope. Gullies will soon emerge rendering cultivation country unfarmable. Land values will drop rapidly as the land will become like a moonscape, and lost to future food production. The inquiry is fortunate to have the expertise of the Hon. Rick Colless MLC on its committee. A respected soil conservationist with expertise in soil and water engineering and structural soil conservation works programs specific to this area I am confident he will more specifically alert you to the dangers CSG mining will have on soil conservation on black soil plains.

My understanding is that the former Premier of New South Wales, Neville Wran, presided over legislation that removed CSG ownership rights from the land holder in the mid-to-late 1970's. This legislation needs to be reversed immediately so that land holders again hold the rights to coal seam gas below their properties. The farmer, with appropriate legislation, is in the best position to negotiate a deal in the interests of all parties; governments (inclusive of Local, State and Federal governments) and the gas companies. The farmer will not put his farms at risk for short term gains to the detriment of the long term sustainability of his/her valuable land asset. This is particularly true in cases of generational farming.

In addition to being a large-scale farmer at Bellata our family also operate a state of the art durum mill and pasta making facility located at Tamworth. We directly employ 24 people with additional staff during peak periods. In addition there are a large number of support businesses that rely on the success of our business for the ongoing viability of their own, for example; transport companies supplying 14 B-Double movements per week, electricians, plumbers, fabricators etc. Our products are sold all over Australia and exported around the world. Arguably our greatest asset is the rich earthy flavour of our pasta, the result of the unique soil we grow our durum wheat in, however just as much a part of our product appeal is the beauty of our surroundings – nestled at the foot of the picturesque Nandewar mountain ranges. The introduction of CSG mining into this area has the potential to put at risk jobs, local businesses, the environment and our “clean and green” product image that our company is built on.

We need good science, and good management.

Yours sincerely,

Doug Cush