

GAS WATCH 50.

COAL SEAM METHANE GAS.

Coal Seam Methane Gas mining is fraught with danger, with proven risks of:

- ✓ contamination of ground water affecting rivers, streams, brooks, waterways, wells and bores;
- ✓ depletion of ground water;
- ✓ contamination and destruction of vegetation from the saline and toxic water taken from the seams;
- ✓ sterilisation of soil and death of vegetation from migrating and leaking gas.
- ✓ escape of gas increasing global warming;
- ✓ escape of gas risking explosion and suffocation;
- ✓ migration of gas, risking sterilisation of soil and vegetation;
- ✓ migration of gas, risking explosion;
- ✓ increasing global warming by flaring and burning the gas;
- ✓ large and noisy compressor installations;
- ✓ explosion and leakage of methane into the atmosphere from leaks in pressurised gas pipes;
- ✓ loss of amenity and lifestyle;
- ✓ loss of house and land values;
- ✓ loss of business;

COAL SEAM GAS – What is it; how is it released; what are the downsides?

1. Coal Seam Methane Gas is a colourless, odourless gas held in coal seams, which is highly flammable, explosive and causes suffocation of humans in enclosed spaces.
2. Methane Gas was locked away, naturally, in coal seams millions of years ago. If it had not then been locked away by nature, our planet may well be a different place today.
3. Methane Gas is over 20 times more potent than Carbon Dioxide (CO₂) as a green house gas, and is one of the major gases responsible for global warming.
4. Methane Gas is just another fossil fuel and when burnt gives off damaging CO₂, at a rate more than 60% of the CO₂ given off by burning coal. It is just the new coal, so far as a fuel is concerned, and burning it, no doubt, will be regarded in the not too distant future to be as toxic to the environment as burning coal is considered now.
5. Coal Seam Methane Gas extraction is a relatively new industry and there are many unknown risks associated with it. The law under which the industry operates in NSW was not enacted with CSM gas extraction in mind and does not give many of the protections given to communities such as exist with the law governing coal mining.
6. In simple terms, to extract methane gas from coal seams it is necessary to pump water and sand into the coal seams, at pressure, to fracture the seam, then extract that water together with the water that was within the seam leaving the sand to hold the fractures

open. The methane gas will then migrate to the weakest point in the area which, the gas extractors hope will be the well they have drilled down into the seam.

7. If there is a weakness or natural fracture in the earth or rocks above the coal seam, or there is a weakness in the lining of the gas well, or there is a domestic well or a bore, then the methane could migrate through that weakness or fracture rather than going to the wellhead, resulting in poisoning of the soil, killing vegetation, and the risk of explosion from gas coming up through bores and wells.
8. Methane migration is well documented, and is currently threatening a new estate in the town of Cranbourne near Melbourne, where local Council and fire authorities have recommended evacuation of more than 250 homes due to the risk of ignition and explosion. The home owners may not be able to return to their homes "for at least a year". Homes formerly worth \$500,000 are now worthless and unsaleable.
9. If methane gas migration occurred resulting from the drilling next to the village of Broke, then Broke could be in the same situation as Cranbourne, or worse.

SYDNEY GAS LIMITED – PROPOSALS AND ACTIONS:

1. Sydney Gas Ltd holds Petroleum Exploration Leases over vast tracts of the Hunter Valley and is obliged to explore for Coal Seam Methane Gas.
2. There are restrictions and buffers around dwellings, orchards, vineyards, waterways, dams, etc., which result in over 70% of the surface area of the Broke and Bulga areas being inaccessible to Sydney Gas.
3. Sydney Gas could fulfil its exploration obligations by exploring in more remote areas of the Hunter.
4. It is reported that there will be a glut of gas coming out of the Pacific basin in the coming years. Investors in Coal Seam Methane Gas exploration companies, currently buoyed with the success of some CSM miners, are being advised to beware.
5. Sydney Gas, a small player in this growing market, seems intent on exploring close to this highly populated rural residential area.
6. Sydney Gas has refused to take seriously, the migration of methane gas into the village of Broke, commenting: *“there would be more methane leaking from the back passages of the local schoolchildren than would leak from its well.”* – Mark Harper, General Manager, Sydney Gas. It is understood that this well has already leaked in the past. Sydney Gas must be aware of the methane gas migration in Cranbourne. Sydney Gas has also commented *“I wouldn’t want one in my backyard.”* – Mark Harper, General Manager, Sydney Gas.
7. The water introduced into the seam in each well (and there could be hundreds of wells) could be as much as 1,000,000 litres and when extracted it is saline and contains toxins and heavy metals, and must be treated before being released into the environment.
8. If this toxic water escapes it will poison the waterways and the soil, and this has already happened both in both Australia and overseas.
9. The water treatment is done in Sydney or Windsor and must be trucked to the treatment plant. This will take thousands of heavy tanker movements down rural roads.
10. It has been confirmed by an independent hydrogeologist that when water is extracted from the coal seams, then water tables and aquifers could be severely diminished and contaminated. This would put at risk our bores, wells, the flow into the Wollombi Brook and even the Hunter River. The geology of the area is insufficiently known to minimise this risk.
11. Sydney Gas has not proved that it will not detrimentally affect the environment or the lifestyle of the people of the Hunter.

12. Sydney Gas, as opposed to its successful Queensland competitors, has decided to drill for coal seam methane gas immediately beside the Hunter Valley vineyard village of Broke rather than in broad acres away from closely settled rural residential areas.
13. Sydney Gas initially agreed to avoid the closely settled area of Broke and Bulga, being the catchment of the Wollombi Brook from Paynes Crossing to Warkworth up to the 200 metre contour.
14. Sydney Gas has now said it will drill within that area, and indeed immediately beside the village of Broke. Sydney Gas has bought land right next to the village for this purpose.
15. Sydney Gas has said it won't build a gas compressor plant on that site next to the village, but has refused to put a covenant on that land to ensure that construction won't happen leaving its options open.
16. Sydney Gas, if it reaches the stage of methane gas extraction, will have to build a compressor plant within 30 kilometres of the gas field. This compressor plant is an industrial complex taking up many acres of ground, linked to the various well heads (up to 300 wells) by piping.
17. Sydney Gas has said that although it believes it is responsible for any damage flowing from their workings, legal advice says it is not. However, Sydney Gas refuses to put into its Access Agreements a clause saying they will be responsible for any damage to third parties.
18. Sydney Gas has said it will not compensate any landowner for loss of value of land or damage to or loss of business income.
19. Sydney Gas is opposing a full Environmental Assessment of its immediate proposals, wanting instead a simple Review of Environmental Factors, thus avoiding public scrutiny and avoiding the scrutiny of various Government Departments and Ministers, and leaving environmental questions up in the air.
20. Sydney Gas can only come onto your land to drill if you have signed an Access Agreement for which they will offer a few thousand dollars and maybe offer to do up your internal roads, so they can access them, and maybe upgrade some fences. This will in no way compensate you for the loss of value of your land.
21. If you refuse to sign an Access Agreement, then Sydney Gas can make application to the Mining Warden's Court for an order allowing them to come on. Sydney Gas gave the community an undertaking that it would advise the community whether or not it proposed to take Court proceedings against those who refused to give them access, however it has breached that undertaking.
22. Sydney Gas also breached an undertaking given to the community that it would provide the community with a copy of its hydrogeological study, and it was necessary for the community, eventually, to obtain one from the Government.
23. Sydney Gas also breached an undertaking to provide the community with copies of its Review of Environmental Factors at the same time as lodging them with the Government. After much pushing, it appears that they may now honour that undertaking.

24. Sydney Gas also breached an undertaking to publish in the Singleton Argus the results of the focus group sessions it held in Singleton in 2007.

25. Sydney Gas has been secretive in its dealings with the community of Broke, as it was in its dealings with the communities of Dooralong and Yarramalong some years ago.

SIGN UP WITH SYDNEY GAS AND RISK ALL OF THE ABOVE.

**FREE LEGAL ADVICE IS AVAILABLE TO YOU THROUGH SOLICITORS
RETAINED BY HB GAG, OR SEE YOUR OWN LAWYER.**

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