





power struggle

Story Leisa Scott

Photography Russell Shakespeare

The coal seam gas industry is fuelling huge growth in the Queensland economy – but it's also creating a lot of negative energy for farmers out west.

You can see it, shimmering. Coal seam gas, the new gold of the west. The lifeblood of Queensland's revenue stream, the "clean, green" answer to our energy needs. It wriggles like a heatwave, this methane, as it rises from the Jurassic-era Surat Basin into the light.

The thing is, it really shouldn't be shimmering here. Not out of the water bore on Col Davis's feedlot near Chinchilla, about 300km west of Brisbane. For five years this bore has watered 2000 head of cattle without a hiccup. Now it gurgles like an underground demon before gushing water – and gas.

Davis is a pragmatic bloke, as evidenced by the rudimentary bandaging of the fingers he injured on a plough recently. Just a few bits of foam rubber wrapped around the digits, all held together by gaffer tape. He's not one to jump at shadows. He knows this area has always been prone to gas in bores. But he's never had a problem with this bore. Until a gas company started drilling a couple of kilometres away.

It's the doubt. That's what's got Davis fired up. Doubt over the safety of the water, the fate of his cattle, the chances of selling "a gas farm". It's one thing – galling as it was – to be told multinational gas companies have every right to come onto farmers' land to drill. It's quite another to meddle with a bloke's livelihood.

Davis sets the gas alight, sending flames roaring into the air. "The government has got to realise that we're still living in this country," he says. "And if they want us to get along with these gas companies, they've got to be able to make good on the things we lose."

Gas companies are part of the landscape out west now, all along the Warrego Highway beyond Roma and points north and south. Their trucks dominate country byways, their workers book out motels and stimulate local economies. The place is booming. Over the years, big and small coal seam gas explorers arrived, punctured the earth, came up with bugger-all and left. But in the past decade, the exploratory, political and economic planets aligned, giving birth to the CSG industry in the resource-rich Surat and Bowen basins. It's been on steroids ever since, bolstered by a Queensland domestic supply policy that mandates 15 per cent of energy be sourced from gas, and pumped up on the world stage by a government-backed export industry out of Gladstone that will turn CSG into the more transportable liquefied natural gas (LNG). Even the head of the Queensland Resources Council (QRC), Michael Roche, told a May conference that final investment decisions were soon to be made in a "remarkably short space of time for projects of such magnitude".

Set to emerge with solid plans this year are GLNG, a teaming up of Australia's Santos and Malaysia's Petronas; Queensland Curtis LNG, run by Queensland Gas Company, a wholly owned subsidiary of Britain's BG Group; and Australia Pacific LNG, a joint venture between Australia's Origin and the US's ConocoPhillips. Not far behind is the partnership of Royal Dutch Shell and PetroChina, which has just paid \$3.5 billion to command the resources built up by Brisbane-based Arrow Energy. More mergers are expected as the CSG/LNG companies gear up for export from 2013, but these big four will together account for the lion's share of the \$40 billion the industry is expected to spend setting up in Queensland.

Some of that will be spent on sinking gas wells – up to 40,000 of them in the state by the time the industry, with its 30-odd-year lifespan, reaches full production. Right now, there are about 2500. As miners march across the countryside with their plans for a well every 750 to 1000 metres, they're moving closer to the coast and encroaching on some of Australia's most productive farms. And the tension is building.

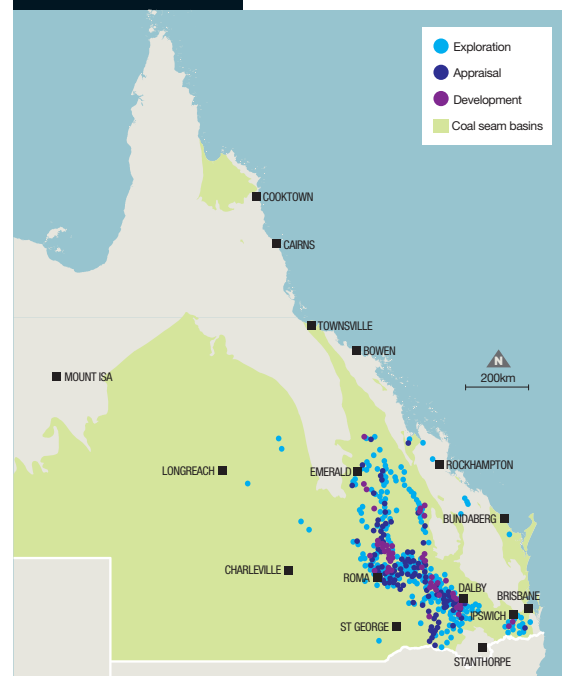
Peter Shannon has watched it unfold. About five years ago, locals started coming to the Dalby solicitor's office with documents gas companies wanted signed. They were complex, so he called the Brisbane legal firm he consulted on such matters. It couldn't help. Conflict of interest: it was working for one of the gas companies. So he tried another. No good. "Almost every significant firm in Queensland is tied up acting for an energy company," Shannon says. "They're very proud members of the QRC, making loads of money from the explosion of the industry and very much entwined with its future."

So he learned about CSG himself. He got a copy of the Petroleum and Gas Act (2004), the "innovative legislation for an innovative industry", as Mines Minister Stephen Robertson heralded it to an enthusiastic Queensland Parliament. The more he read, the crankier Shannon got. More clients came in with concerns about a drilling process that requires the removal of hundreds of thousands of litres of groundwater to access the gas. He downloaded more reports, bothered senior government bureaucrats (those who hadn't left for a lucrative job in the gas fields), burned the midnight oil.

He emerged with strong beliefs. That farmers have been trampled in the rush to rip CSG out of the ground in a money grab by the state to plug its gaping \$1.7 billion deficit. That the legislation is flawed and biased towards mining companies. That the volume of water to be pulled out of aquifers to meet the newfound export demand was not understood by the draughtsmen of the 2004 Act and is poorly

**They'd all
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on the place.**

On the front line ...
Katie and Scott Lloyd
(right) at a well on their
Chinchilla property;
(below) the extent of
Queensland's coal seam
gas plans; and (previous
page) Col Davis burns
off gas at a bore on his
Chinchilla feedlot.





understood now. And that – just as BP was not prepared for a worst-case scenario when its oil rig fell apart in the Gulf of Mexico – the cash-strapped state government is diving into a grand experiment before the science is clear.

“It’s just mind-blowing. There’s no attempt to genuinely appraise the negative side of the industry,” says Shannon, also a farmer. “To me, you can’t make informed decisions about anything until you’ve looked at the pros and cons.”

So what are the farmers worried about? For a start, it’s the quantity and quality of their vital bore water tapped from the Great Artesian Basin; salinity from the brackish CSG water; the degradation of the productive land that provides grains, pulses and cotton to domestic and export markets. They also fear the consequences of “fracking”, a controversial mining method in which water, chemicals and sand are forced into the ground under great pressure to release gas trapped in the rock. In the Rocky Mountains in the United States, fracking has been blamed for contaminating

underground water, forcing a congressional hearing and an ongoing \$US1.9 million government study.

Shannon’s pessimism wasn’t helped by the recent Kingaroy groundwater contamination scare involving underground coal gasification – a nascent industry compared with the juggernaut that is CSG. Traces of a known carcinogen, benzene, and the toxic chemical toluene were found in water bores outside Kingaroy. “The Great Artesian Basin – we muck around with that, and we send all our people from the country into the cities,” he says. “I am convinced there needs to be a moratorium until the industry can prove it’s not going to stuff the whole show up.”

RICH, BLACK SOIL CLINGS TO THE BOOTS OF Greens Senator Bob Brown as he follows Dalby farmers Wayne Newton and Andrew Rushford to a neighbour’s boundary. Under a leaden sky, they drape themselves over the fence and stare out at the laser-levelled field – and the gas well in a corner of it. Taking up about a hectare, the inner perimeter of which is fenced and strewn with “danger” signs, the well consists of a drill head about 2m high, a generator and computer system. Large pipes – one for water, one for gas – emerge from the drill head and disappear underground. Those pipes crisscross below the Western Downs cropping country, linking every one of the wells with a processing facility. Some of the gas will keep our power stations whirring; the rest will be whisked to Gladstone via a yet-to-be-determined number of pipelines, converted to LNG and sold overseas, bringing an \$850 million annual windfall in royalties for state coffers. Or, as Premier Anna Bligh puts it, “for more schools and hospitals”.

It’s an impressive figure, but these farmers and Senator Brown are more interested in other numbers. “If we get to the 40,000 wells, they’re talking up around 350,000 megalitres a year coming out of our aquifers, so that’s two-thirds of Sydney Harbour coming out of the Great Artesian Basin annually,” says Rushford. Newton adds that the amount of water drawn from the basin by farmers and townships is regulated and, at the moment, fully allocated. “This is just going to blow that because the mining companies are totally exempt from all rules of water restrictions. They can go their hardest.”

The Great Artesian Basin is iconic here. Tapping into millions of years of underground water opened the inland up for multi-state farming now worth about \$3.5 billion annually. People are touchy about it. Farmers were appeased six years ago when a government/industry report said the targeted underground source of CSG – known as the Walloon Coal Measures – was not hydraulically connected to

the basin’s aquifers. Further research has shown that it is. This has thrown up many questions for farmers. Is their good water going to be polluted slowly by bad? Or drained away? And will the chemicals used in fracking seep into the water system? And the salt that comes with the water – up to 200,000 tonnes a year – what’s to become of that? Answers have been inadequate and piecemeal, the farmers say – and these are members of the Basin Sustainability Alliance, a group that mines minister Robertson agrees comprises “moderates” who accept CSG could play a role in the region.

“The reporting systems are just terrible,” says Rushford. “There’s really no accountability. The P&G [Petroleum and Gas] Act has not kept pace with development, and now they’re trying to legislate to catch up.”

Farmers generally turn to their traditional support base, the Liberal National Party, to lobby for them. But the Coalition backed the CSG legislation and has annoyed many constituents by being less than rowdy about the issue. Which is how Australia’s best-known greenie, the politician they’ve yelled at on the telly for years, came to be standing in this field listening to their concerns. And why Brown is now ferried to the Newtons’ house, where pikelets and egg and lettuce sandwiches are laid in front of 50 concerned farmers who want to know what he can do about the CSG industry.

Brown doesn’t sugarcoat it. “When it comes to the rapid onslaught of CSG here, you are up against it,” he tells the crowd. “The mining corporations ... will use up the honesty, the humanity, the willingness of good folk in rural and regional Australia to want to give and take – they will take that and then they will take more and ride over the top.” It’s not even a green industry, he says, despite the government’s hype. Methane is 20 times more potent a greenhouse gas than carbon dioxide, he argues, although it survives for a shorter time. It’s an argument expanded on by the Queensland Conservation Council, which has asked government ministers to stop saying the CSG/LNG industry will reduce global greenhouse emissions until they can back it up.

The senator has soothing words, though, for a region that makes up a big slab of the slender 2.2 per cent of Queensland used for growing crops. He tells them arable land is diminishing and must be protected. This is a food bowl, he says, with its special soil that enables the planting of winter and summer crops. “Of course, it’s a no-brainer ... but I would say 90 per cent of MPs in Canberra have no idea of the food crisis, globally, that is coming down the line in the very near future.”

Listening are Scott and Katie Lloyd, who ►

run a 3240ha property near Chinchilla. As luck would have it, the young couple's mixed farming land has three mining leases over it: one held by Origin, another by QGC and the other by a pioneer of the gas industry, Ian Sykes. The first two came knocking about ten years ago.

"They'd all of a sudden turn up and say, 'you've got to sign this and you have to sign it now'," says Scott. Most confronting was QGC's plan to build 25 wells and a 10km pipeline out the front of their homestead. The Lloyds got lawyers. "They retreated," says Scott, "but they'll be back. They went to our neighbours and put down 45 wells there." Origin returned last year. "It was very much 'you sign this or it will be a Land Court trip'." Aware such trips rarely left the farmer cheering – and slightly placated by the fact Origin's operations were out of their line of sight – the Lloyds negotiated a deal.

When the drillers arrive, it's like a rock festival. Trucks churn up tracks carrying equipment, Porta-Loos, canteens and enough lights to brighten a stadium. They work 24/7 for two to three weeks. "It's pretty awful," says Scott. "You've got no control over who's on the place, what time they're here. You completely lose control."

Now they're losing water. Farmers don't routinely measure their bore levels, but the Lloyds do. When the industry started arriving, there was talk of trigger thresholds at which miners would have to investigate falls in the groundwater level. So Scott put gauges in to take his own measurements. One bore on the QGC lease has dropped 10m, based on its official standing level when it was sunk in 2003. Another, on the Origin lease, has dropped 4m since Scott's first 2006 measurement. They've notified both companies, which have measured the bores and taken samples. Now they wait.

Such is the process of the "adaptive environmental management regime" (as described by Brown and Shannon) adopted by the government for the CSG industry. Instead of using the precautionary principle of environmental management, which supports knowing the impact of an activity *before* beginning work, the CSG companies will monitor factors such as groundwater levels as they go. If things start going pear-shaped, the government literature says, "any unintended environmental outcomes would be appropriately managed". To many in the bush, it's a bit like locking the gate after the horse has bolted.

Exasperating the farmers further is the fact that trigger thresholds were only set in May, six years after the legislation touting them was introduced. There's no telling how much water was sucked out of the aquifers in the interim. Shannon reckons the thresholds were only set after lobbying by the community: "And you



know how complicated it was? Five metres for one type of aquifer, two metres for another."

For the Lloyds it's a worrying time, with their 5000 head of cattle totally reliant on groundwater and summer coming on. "I don't know how our little bit of data is going to stack up when you're dealing with these big guys," says Katie. "I'm just worried they're going to fob us off." Still, they are being paid. For allowing the wells on site and access to their land for the next 20 to 30 years, the Lloyds will receive more than \$50,000 annually. Katie knows that's not to be sneezed at, but says she'd give it all back right now if it meant she could just stop worrying.

Cash flows are relative. A few weeks after I meet the Lloyds, Arrow Energy finalises its multibillion-dollar sell-out to Shell and PetroChina. The managing director, Nick Davies, leaves with a little over \$30 million.

CATTLE ARE CHEWING THEIR WAY THROUGH

high green fields of luceana as we chopper over Santos's Fairview CSG field in the Bowen Basin north of Roma, a further 260km west of Dalby. It was desalinated CSG water that created this 234ha of protein-rich fodder, and graziers pay Santos to bring their cattle to feed. Soon, Santos will put small reverse-osmosis desalination plants near wells on graziers' properties so they'll be able to grow luceana on their own land.

Sam Claas, Santos's area manager, points out the Chinchilla white gum plantation, the first approved by the government for CSG water.

One million hardwoods have been planted using chemically rebalanced water that's trickle-fed at an average rate of one megalitre an hour. That's fast going, but those gas wells pull out a lot of water. Claas tells how one well gave up no gas for an entire year. Just water. "So you've got to have deep pockets and big testicles," he says. "It's how the dewatering process works ... now that well has produced more than 11 billion cubic feet of gas, more than any CSG well in the country by a long way."

He loves this work, you can tell. It's a big boy's dream: pipelines run for kilometres, massive compressor stations grind away and depots teem with heavy machinery. The sheer investment and logistics of the place are staggering. But the job of getting to full production in this Bowen Basin region is slightly easier than that of rival leaseholders in the Surat Basin, for three reasons: Santos owns much of this land; it is used more for grazing than intensive cropping; and the locals have lived with conventional gas production – by Santos – for more than 40 years.

"I don't envy them trying to do business [in the Surat Basin]," says Claas. "It's all so new for those Downs people. It's always the fear of the unknown that upsets people."

The fear of things happening too fast is another, and the Queensland Government's approval process for these multibillion-dollar projects has come in for heavy criticism. Veteran conservationist and former Queensland Greens federal candidate Drew Hutton says the policy



**These
are our
homes, our
investments
– why aren’t
we treated
fairly?**

Fighting back ...
“Blockie” Michael
Bretherick (left) from
Tara; (below) Dalby
farmer Wayne Newton.



of declaring all big four projects of “state significance” quarantines them from rigorous environmental assessment and shuts out public scrutiny. He points to GLNG and Queensland Curtis LNG receiving conditional approval despite the Coordinator-General, Colin Jensen, citing severe shortfalls in their Environmental Impact Statements. Among 1200 conditions, Jensen sent the companies back to study how

much of an impact all the planned projects – not just their own – would have on groundwater. Jensen has since resigned. So concerned was the federal Environment Minister, Peter Garrett, about the effects on groundwater and other issues that last month he postponed making his call on the projects until mid-October. Just who will hold the pen over that decision after this weekend’s election is wide open.

Claas reckons Santos is answering all the questions Jensen raised, has excellent bore monitoring processes, and is even investigating, with others, the chances of reinjecting treated CSG water into the Great Artesian Basin: “If we do that for 20 years, we believe we can inject enough to have a positive impact on the aquifer for 40 years.” He has a hard-headed reason for believing the kinks will be ironed out and the CSG industry will flourish in the Surat and Bowen basins for the next 30 years. “They’ve got to. I honestly don’t think the government’s going to say, ‘Oh no, forget the CSG industry’.” Anna’s made plenty of promises about jobs and there’s no money in the bank. I mean, here’s a few billion bucks in revenue. Regardless of what people think, I just don’t think she’s going to stop it.”

It’s not a line you’ll hear from Stephen Robertson. In his richly toned parliamentary office, the minister emphasises that while the industry is “a great opportunity for Queensland”, the government feels the farmers’ pain and is not “blinded by the dollar signs”. Wrecking the Great Artesian Basin is not an option. He is adamant that, at the end of the EIS process, if companies cannot satisfy the Coordinator-General’s conditions, their projects will not go ahead. It is possible, he says, that CSG mining could be knocked on the head in the Surat Basin but allowed in the Bowen Basin. But there’ll be no moratorium – Robertson says the requirement for companies to meet the Coordinator-General’s conditions acts as a de facto safety net.

Robertson admits some companies have not been methodically monitoring water bores and says he has “left them under no misapprehension about my expectations of them improving their performance”. The government has some work to do, too. Catch-up legislation to improve water issues is being drafted and as a result of concerns about the industry monitoring the industry, the Queensland Water Commission this month became the arbiter on issues such as groundwater drawdown, the problem affecting the Lloyds.

It may take a little while longer for the Lloyds to hear anything, though. The commission – which will also conduct random testing – is still “ramping up”, says Robertson.

The government is so depleted of hydrologists and other experts after they took off for the mining boom that recruitment teams are “out there at the moment” with a \$9 million kitty trying to entice some back to bureaucracy.

OUT TARA WAY, THEY CALL ROBERTSON THE

Honourable Minister for Mining Companies. They don’t believe a word he says. “Wouldn’t know a CSG mine if he fell over it,” says local Scott Collins. “It’s just get in, refill the government coffers, nudge, nudge, wink, wink.” The industry, he says, “was signed, sealed and delivered ages ago”.

Robertson might see the setting of 1200 conditions as a positive sign of the government’s environmental stewardship, but Collins sees it from another angle. “If you need all those guidelines, doesn’t that say it’s dodgy and it shouldn’t be done?”

Collins lives on a 43ha block outside Tara, about 300km west of Brisbane, in an unserviced bush estate. Many of the residents live in rough-and-ready homes on pensions; they landed here, he says, “for a bit of peace and quiet, to listen to the birds”. Now QGC is on their doorstep wanting to sink wells throughout the scrub. Noise, health and traffic concerns are bigger issues here than groundwater, and that opens up a volatile new front on the CSG battleground.

“These are our homes, our investments – why aren’t we treated fairly?” asks Collins’s neighbour, Mike Bretherick. He figures it’s because the residents are not economic powerhouses. But they can organise. He’s formed a lobby group, set up a website. Collins has taken to accosting QGC workers he bumps into in town. Someone else threatened a gas worker, prompting police action. Other residents are trespassing onto wells to take gas levels and film covert videos. And the blockades have already begun.

“I am totally committed to harass, to blockade – I will blockade them out, I will blockade them in,” Bretherick says. “We will obstruct and it will go on and on. I had a QGC man sit in that seat and very eloquently bully me. Told me I had no rights, this was their land and they were going to drill here.” He narrows his eyes. “I can tell you now,” he says, slowing down to emphasise each word, “they ... will ... not ... come ... in ... here.”

He may be right. He certainly looks serious. Or perhaps Robertson is right when he says relations will improve with better communications. One thing is clear: this brave new world of gas is fuelling as much doubt and suspicion out west as it is money and excitement. And if we’re not careful, it could explode in our faces. ■