

Galilee Basin brings oil and gas expert home



Cam Rathie AM of Galilee Energy.*

LONGREACH-born, Lester Campbell (known as Cam) Rathie, who was awarded an AM in this year's Queen's Birthday Honours for services to oil and gas exploration and production, has returned to the region with Galilee Energy's coal seam gas project.

Cam and his older brother Kerry were sons of Harry and Margaret Rathie who had properties in the Blackall area including Avington on the Barcoo and Maryvale near Yaleroi.

After finishing school, Kerry headed off to university to become a geneticist while Cam stayed on the family properties.

"There was quite a bit of exploration drilling happening in the area at the time and I got interested," he said.

"Not in mining, as such.

"I thought it offered a change of pace and a chance to see the world - at someone else's expense."

He first joined Core Laboratories, a Texas-based geological service firm and his first posting was to the Marlin oil platform in Bass Strait.

Two weeks into the job a gas blowout put him in the drink.

"I didn't have to swim the first half mile or so because of the velocity of the gas coming out," he said.

Finding it still an "interesting job," he spent the next 20 years in the industry moving from oil

and gas exploration to processing the reserves and then into management.

He fulfilled his dream of seeing the world with jobs taking him from Morocco to India, Argentina to Canada, the Middle East and across much of South East Asia including Indonesia, Taiwan, Thailand, Malaysia and Vietnam.

"I went to wonderful places people don't go to because they're not tourist spots," he said.

"You meet the locals and learn the culture, because you're living with them and employing them."

In 1988 he and his wife Louise returned to Australia so their son Harry could grow up here, making Darwin their home for the next 20 years.

"At that time BHP was world leader in floating production, storage and offtake (known as FPSO) which operated in water too deep for fixed platforms," he said.

Old tankers were outfitted with everything from the undersea production and mooring equipment to plant for separating the produced fluids. This was marketed to customers whose tankers tied up behind the FPSO.

He set up over 30 Timor Sea wells and worked on other BHP operations until 1997 when he and a colleague decided to pool their expertise and formed Upstream Petroleum.

Over the next 10 years it grew to a staff of 450 and contract managed oil and gas wells in Sumatra and Australia with responsibility for everything from government regulations to hiring staff.

They sold out to a Norwegian firm, AGR Group in 2006 and by 2008 Cam considered himself "semi retired". He and his wife moved to a property at Kurwongbah, outside Brisbane.

Retirement however didn't last long, and he was invited to join Galilee Energy and help develop the coal seam gas permits originally held by Enron (the US utilities giant which collapsed in spectacular fashion in 2001).

"Enron were coal seam gas pioneers in Australia, and set the basis from which Galilee Energy operated the Rodney Creek pilot CSG evaluation plant on Glenaras," he said.

"I'd known George Gowing from years ago at Jericho and the property now has the AGL pilot plant named Glenaras.

"I have Brown, McClymont and Banks relations all across that area. Aunt Jean married Bert McClymont and we've recently drilled a well on a property of John McClymont's.

"I was away for 40 years wandering the world, so it's great to come back and meet all these people I knew about."

Coal Seam Gas is a whole new energy industry

CSG was a very different industry to oil and gas production, according to Mr Rathie.

Conventional oil and gas were relatively easy to develop, market and transport but coal seam gas (or methane) is more difficult because it had to be compressed into a fluid or piped to consumers.

Developing it was also different.

"Oil and gas are found in a porous medium like sandstone and drilling into it allows the fluid to flow to the well bore and up to the surface.

"CSG does not sit in a reservoir but is chemically bonded to the coal, and removing the water in the coal seam will lower the pressure and free the gas.

"Initially the wells produce a lot of water, but less as time goes on."

At present no one knows how much water was in the Galilee Basin coal seams or how much gas could be produced because there has not yet been a successful pilot plant operation.

"The attempt by Galilee at Rodney Creek couldn't pump enough water out to free the gas," he said.

"AGL has learnt from that, and everyone is watching its Glenaras pilot to see how it will perform."

Coal seam gas extraction requires a lot of wells - more than 100 for a large gas field, spaced about 1/2km apart. Each well produces for

between 5-15 years, with wells capped at the end of their lifespan and others brought on stream.

The remoteness of the Galilee Basin also created its own issues.

"There is quite mature CSG production in both the Surat and Bowen Basins, while there is none in Galilee. Their coal seams are quite shallow, whereas CSG tenements in the Galilee Basin have coal deposits at 800-1200m.

The Bowen coalfields are huge, there is a lot of infrastructure, so the gas can be marketed locally, and close to the coast for export markets.

"The Galilee Basin doesn't have anything like that yet and it will probably take 10 years to develop the industry here.

"It takes a while to establish the size of the reserve and it needs a few pilot projects to see if it has commercial reserves and once they are defined, we have to come up with a market suitable for the size of the reserve."

Galilee Energy had a head start with its farm-in agreement with AGL as AGL is potentially able to market CSG into the domestic grid.

"But the average explorer in the Galilee Basin will have to come up with something pretty innovative if they want to monetarise it in the short term."

The lifespan of a CSG

field is 30-50 years so there was real potential for local towns to take advantage of the resource to be gas powered and for residents to convert from diesel to LNG powered.

There were also a host of opportunities for local businesses to get involved in land preparation, contracting, roads, pads, water ponds, fencing etc. Mechanical and electrical trades are needed to set up the process stations and operate them.

And since the plants don't occupy much space, they're eco friendly and the people working on them can be drawn from the local farming community.



Exoma Energy drilling the Crossmore South 1 corehole on Crossmore Station in December 2009. Far left are two water tanks, then the mud tank and drill rig. On the right is a manatu (or four wheel drive fork lift). * Photo courtesy Exoma Energy.

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