

All rise

TOGY talks to

Alfred FISHER

CEO

QUADRISE CANADA



THE OIL & GAS YEAR: *How does Quadrise plan to use its MSAR (multiphase super-fine atomised residue) fuel to capitalise on growth in Canada?*

ALFRED FISHER: In Canada we provide fuel solutions to the oil sands companies, which enables them to use their asphaltenes as a fuel when they elect to install partial upgrading facilities. Things have been delayed for several years due to the state of the economy and the fact that operators are focused on the basics.

Our product is limited to water heating applications in the mining side of the oil sands industry, which is based on "shovel and truck" technology. Our fuel has more applications on the newer, steam-assisted gravity drainage side of the business, where steam is generated and used to extract oil from under the ground. We have had a number of commercial pilots but natural gas is so cheap at the moment that everyone is using it to generate steam.

Why would you burn bitumen or its components at this time when oil is at \$70 per barrel and natural gas is so much cheaper on an energy cost basis? Where we come in is when companies want to get rid of products from the bottom of the barrel – the heavy, carbon-intensive end of things – and do partial upgrading in the field. For every barrel of bitumen produced, half a barrel of expensive diluent has to be purchased. Partial upgrading reduces or eliminates the additional cost of dilution and very attractive project returns can be achieved. People are now thinking in terms of building specific projects in order to achieve these returns.

TOGY: *Where do you see Quadrise's largest growth components coming from?*

AF: We are waiting for the oil sands industry to start up again and gas prices to return to more reasonable historic price levels. That is when we really plan on taking advantage of the opportunities. Of course, we are making sure that our name is out there, ready for when the industry

turns around. In the meantime, we are working with refineries in the US to take their asphaltenes and convert them into a cheaper, useful fuel, saving them the cost of using expensive diluents to get rid of this material. We have seen project values greater than \$150 million per year of earnings at some refineries, and we are very excited about our prospects.

We are also using our MSAR fuel in oil and coal-fired power plants to reduce smog emissions through a technology we call MD-FLARE, which is a reburn emulsion fuel that can reduce coal and oil-fired power station nitrogen oxides emissions. Of course, once the CO₂ legislation is finalised and Canadian producers know exactly what is required of them, Quadrise can offer them MSAR combustion and sequestration technology, our solution for capturing CO₂. We are also working with a company called Clean Energy Systems, which has a device that can use our emulsion fuel to create relatively pure CO₂. This CO₂ can then be injected either into the ground, or, ideally, into depleted oil fields for enhanced recovery. At the same time, we are generating emission-free electricity.

TOGY: *Is Quadrise looking for partnerships in Western Canada to enhance the company's profile?*

AF: We are always open to new partnerships but the Quadrise name is already pretty well known among Canadian oil companies.

We are waiting for when the time is right to apply our technology. We have succeeded in making the most stable fuel emulsion in the world. Now we are using our expertise in another way, using emulsions for enhanced oil recovery with a process we call E2EOR.

TOGY: *Quadrise produces a niche product. Would you consider partnering with a larger company to market your technology further afield?*

AF: We are certainly interested in partnering with other industries and technologies. There

Q quadrise is a private company based in Calgary. The company manufactures and supplies an emulsion fuel called multiphase superfine atomised residue (MSAR) made from hydrocarbons such as bitumen and heavy refinery bottoms. MSAR has numerous applications, from thermal recovery and power projects to refuelling large steam power plants. Quadrise also offers carbon capture and storage technology for CO₂ sequestration. ■