

# Using compressed natural gas has clear benefits



Bonavista Energy Corporation rig manager Derek Ridout (left) and site supervisor Gerald Gould began incorporating compressed natural gas into their rig three months ago.

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**CNG provides environment and cost benefits without affecting operations**

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Traditionally oil and gas rigs in Alberta have run solely off diesel fuel; however rigs are now beginning to incorporate compressed natural gas (CNG) as an additional source of fuel.

CNG is a form of gas comprised mostly of methane that is stored at a high pressure, which can be used in place of petrol, diesel or propane. Typically, CNG is used in larger vehicles such as buses and transport trucks because of the better mileage realized.

Nathan Ough, vice president of business development for Certarus Ltd. Gas Compression Facility, says that using CNG doesn't affect the rig any differently. "From the horsepower perspective there is no horsepower loss; from the environmental perspective, it is

*'You can inject compressed natural gas into a diesel engine using a bio-fuel kit and capture a very healthy cost savings.'*

**Nathan Ough**  
Vice President of Certarus

actually cleaner," says Ough. "But the big win is from the cost benefits, so you can inject compressed natural gas into a diesel engine and capture a very healthy cost savings."

Companies using diesel that choose to incorporate CNG must install a bi-fuel system to accept the natural gas, which



This Certarus trailer carrying compressed natural gas (CNG) powers a drill rig north of Rocky in June. CNG offers drilling rigs an alternative fuel to diesel. Rigs need to be outfitted with a bi-fuel system to accommodate the natural gas, but once it is installed the system saves money and reduces emissions.

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costs approximately \$200,000. But after the system is installed, rigs will notice a cost savings.

The Bonavista Energy Corporation Savanna 614-drill rig located north of Rocky began using CNG three months ago. Rig manager Derek Ridout said that his rig is saving about \$1,000 per day with the bi-fuel system installed.

Site supervisor Gerald Gould says he is pleased with the way it has turned

out. "We're saving money and there are less emissions, so it's greener for the environment."

Ridout says the only disadvantage he has run into is having an additional truck on the property, "but the footprint on location is very minor for what it's doing for the environment."

Ough says that using the Certarus CNG system reduces mono-nitrogen oxide emissions by 30 to 50 per cent.

"We hardly have to clean out the soot

inside the boilers," says Ridout. "So the boilers run cleaner and hotter, and you get a stream of heat way faster. In the wintertime it will be great."

Certarus Ltd., which has facilities located in Rocky Mountain House, Grande Prairie and Fox Creek, "targets diesel and propane fuel displacement to lower operating costs and reduce environmental impact."

"Any customer who is looking to burn natural gas within their operations and

capture cost savings can have a pretty basic guarantee that whether they are drilling north of Calgary all the way up to Fort St. John, they have a reliable gas stream within that corridor," says Ough.

Ough adds if natural gas is cut or not available, rigs are still able to go back to using diesel.

The Certarus site is located east of Rocky and has been in operation since April of this year.