

## Energy Equipment & Services

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### Nabors Looking to Run With New Technology

#### Event

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- Nabors Canada, a subsidiary of Nabors Industries Ltd., announced yesterday that it has entered into an agreement with PressSol Ltd. (a private Calgary based company) to license the company's patented Reverse Circulation Centre Discharge (RCCD) drilling technology.

#### What It Means

- **We think that RCCD drilling could significantly improve the economics of drilling for natural gas, particularly for underpressured and water sensitive formations like shallow gas and coalbed methane.** We originally wrote about the potential merits of this new drilling technology over two years ago (August 24, 2004) in our report "CBM Potential in Western Canada - 500 Tcf?". Subsequent to that report the technology has been used on a number of pilot wells in Alberta with encouraging results. In this environment of weak natural gas prices, producers will be looking for ways to reduce overall drilling and completion costs and to improve the overall economics, particularly on play concepts like low-pressure shallow gas and coalbed methane (which have been subject to the biggest cutbacks over the summer), as well as in shale gas and other tight water sensitive formations. Nabors plans to adopt this technology for use with its new hybrid coil tubing/ top drive (PACE) drilling rigs.

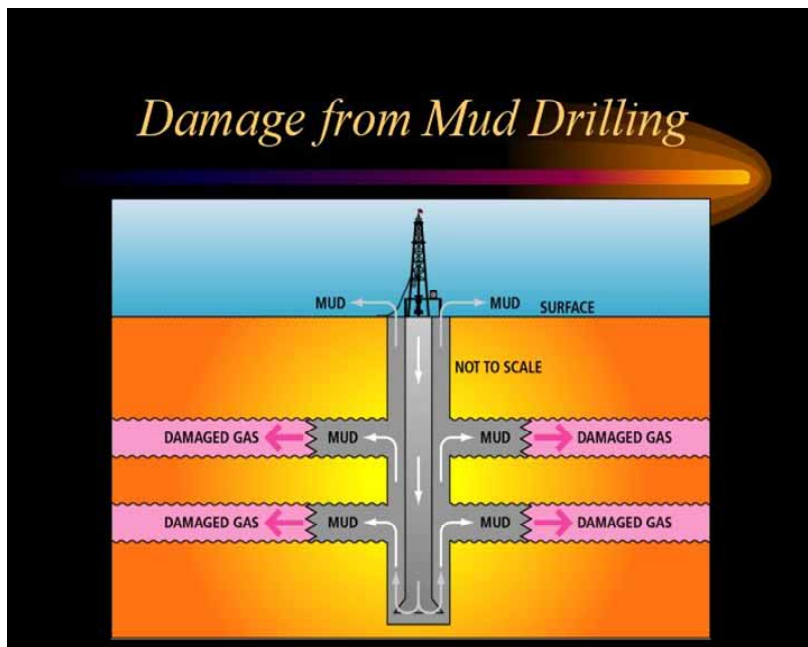
#### Universe of Coverage

	Price	Rating	Risk	1-Yr	ROR	2-Yr	ROR
ESI	C\$19.76	1-SO	High	\$29.00	48.3%	\$29.00	49.8%
PD.UN	C\$37.31	2-SP	High	\$43.00	24.8%	\$43.00	34.8%

### RCCD Expected to Reduce Formation Damage

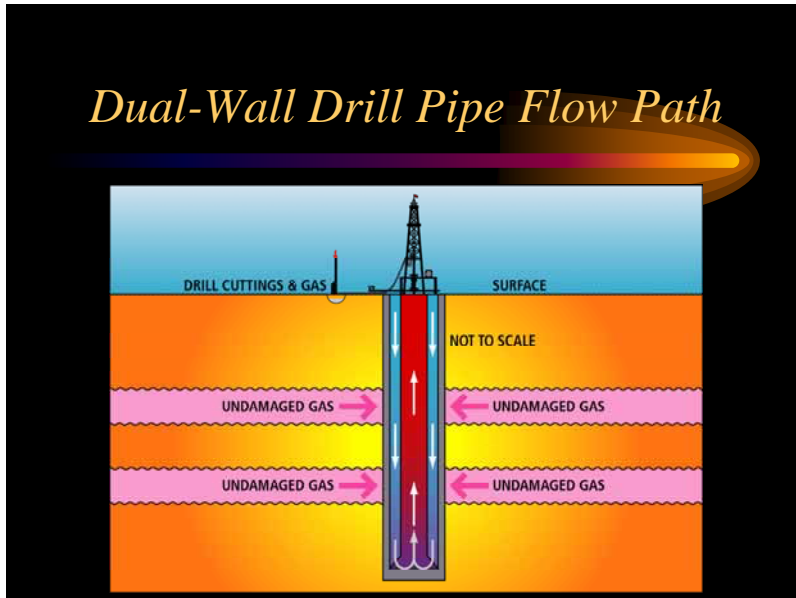
- **This technology could significantly improve the economics of drilling for shallow gas by replacing the need for costly fracture stimulation, cementing and perforating jobs.** The basic concept behind the development of RCCD drilling was to eliminate the amount of drilling induced formation damage being done using conventional drillpipe (see Exhibit 1 and 2). Conventionally a well is drilled with a single wall drillpipe pushing a drilling medium (usually mud) down the centre and up the annulus. RCCD technology drill pipe consists of a dual wall sting and a patented downhole blowout preventer, with the drilling medium flowing down between the two pipes and then returning to surface with the cuttings up the centre tube. Drilling with this new technology should result in the elimination of skin damage to the reservoir during the drilling process.

Exhibit 1 – Conventional Drilling - Mud Damage



Source: PressSol Ltd.

## Exhibit 2 – RCCD Drilling Technology



Source: PressSol Ltd.

**RCCD Could Alleviate Growing Concerns in CBM Drilling Activity**

■ **Reducing drilling induced formation damage in the shallow underpressured Horseshoe Canyon CBM / Edmonton Sand wells could eliminate the need for expensive and highly contentious fracture stimulations in this play.** Since the start of the year a number of landowners have come forward with complaints regarding ground water contamination following CBM activity in the immediate area. Growing landowner concerns have resulted in both the Alberta Energy and Utilities Board (EUB) and Alberta Environment implementing new guidelines regarding CBM drilling and completion practices. These new guidelines are:

- 1). **On April 7, 2006 Alberta Environment put in new standards for baseline water-well testing for coalbed methane/natural gas in coal operations.** Growing concerns regarding contamination of ground water due to potential shallow CBM activity has resulted in required water testing by operators prior to field development. Effective May 1, 2006, producers are now required to test existing water wells within a minimum 600 meter radius of a proposed CBM well prior to drilling a new CBM well or re-completing an existing well for CBM production where the completion will be at a depth above the Base of Groundwater Protection.
- 2). **On January 31, 2006 the EUB issued Directive 027 that stated that "licensees must not conduct fracturing operations at depths less than 200 meters** unless they have fully assessed all potential impacts prior to initiating a fracturing program." The growing trend towards development of shallow gas reservoirs less than 200 meters deep using high fracture volumes, pump rates, and pressures has caused the EUB to review this practice. According to the EUB ... "Information provided by industry to date shows that there may not always be a complete understanding of fracture propagation at shallow depths and that programs are not always subject to rigorous engineering design." The EUB, in consultation with Alberta Environment, has also established a new multistakeholder technical review committee to evaluate current industry practices and assess the need for appropriate regulatory controls or industry recommended practices (IRPs), with a targeted completion date in late 2006.

- **EnCana - EUB Hearing - Industry Awaits Decision:** As an example of the growing concerns of landowners regarding CBM development, the first ever hearing to review a producer-landowner disagreement over a CBM drilling application wrapped up on April 7, 2006, after four days of hearings on the proposed development near the town of Torrington, Alberta, located just northeast of Calgary. EnCana Corporation applied to drill 15 Horseshoe Canyon wells on this central Alberta property, however, fourteen intervenors stand opposed to the development plans. The EUB's three-member panel has still yet to make a decision on this proposed drilling program.

#### Nabors Sees Upside With RCCD

- **With the use of RCCD drilling technology Nabors sees the ability to offer the opportunity for better well performance with reduced costs, reduced water usage and overall reduced impact on the environment.** Nabors first wells using the new RCCD technology will likely be drilled this fall in Western Canada, but given its size and international presence we could expect a fairly quick rollout of this technology across its worldwide fleet if initial results prove successful. This could eventually give Nabors a significant competitive advantage in the drilling and development of "unconventional resource" plays.

#### Bad News For The Frac Companies

- **This new technology could very well be the answer to making shallow gas and CBM projects viable again by potentially eliminating the need for costly fracture stimulations required to get past drilling induced formation damage.** Weak natural gas markets combined with inflated well costs associated in large part with high-tech fracture stimulation jobs have caused many producers to cut back on the more marginal gas projects, particularly on the Horseshoe Canyon CBM play in Central Alberta.
- **PressSol Limited (the private Calgary based developer of the RCCD drilling technology) now has signed licensing agreements with Nabors Canada, Trican Well Service Ltd. and RC Energy Inc. (a private Calgary based company) for the use of RCCD drilling technology.** After spending years watching the development of this technology with a great deal of interest we now expect fairly rapid advancements in its use with Nabors now onboard and the current natural gas environment putting pressure on producers to look for new and better ways to drill.

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## Appendix A: Important Disclosures

Company	Ticker	Disclosures*
EnCana Corporation	ECA	H, H3, T

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\* *Legend*

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Our risk ranking system provides transparency as to the underlying financial and operational risk of each stock covered. Statistical and judgmental factors considered are: historical financial results, share price volatility, liquidity of the shares, credit ratings, analyst forecasts, consistency and predictability of earnings, EPS growth, dividends, cash flow from operations, and strength of balance sheet. The Director of Research and the Supervisory Analyst jointly make the final determination of all risk rankings.

#### Ratings

##### 1-Sector Outperform

The stock is expected to outperform the average total return of the analyst's coverage universe by sector over the next 12 months.

##### 2-Sector Perform

The stock is expected to perform approximately in line with the average total return of the analyst's coverage universe by sector over the next 12 months.

##### 3-Sector Underperform

The stock is expected to underperform the average total return of the analyst's coverage universe by sector over the next 12 months.

#### Other Ratings

*Tender* – Investors are guided to tender to the terms of the takeover offer.

*Under Review* – The rating has been temporarily placed under review, until sufficient information has been received and assessed by the analyst.

#### Risk Rankings

##### Low

Low financial and operational risk, high predictability of financial results, low stock volatility.

##### Medium

Moderate financial and operational risk, moderate predictability of financial results, moderate stock volatility.

##### High

High financial and/or operational risk, low predictability of financial results, high stock volatility.

##### Caution Warranted

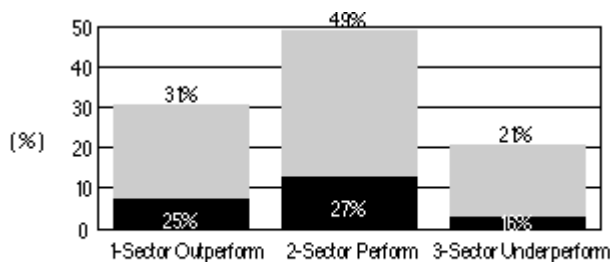
Exceptionally high financial and/or operational risk, exceptionally low predictability of financial results, exceptionally high stock volatility. For risk-tolerant investors only.

##### Venture

Risk and return consistent with Venture Capital. For risk-tolerant investors only.

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#### Distribution by Ratings and Equity and Equity-Related Financings\*



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- Percentage of companies within each rating category for which Scotia Capital has undertaken an underwriting liability or has provided advice for a fee within the last 12 months.

\* As at August 31, 2006.

Source: Scotia Capital.

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