

Caledus Craic (Special Edition) SlimWELL™ Full System Test

A Happy and Prosperous New Year to one and all from the staff of Caledus. We hope you all enjoyed the festive time of year, and like us are bursting with energy to get a few things done during 2005.

The end of last year was a very busy time for us. We opened a new office in Calgary, our first international office, and we are delighted to welcome Chris Stewart, ex of Weatherford/Cardium and Precision Drilling/Polar Completions to our team and wish him the best of luck getting Caledus established in Canada during 2005.

We have a new Operations Manager starting in the Aberdeen office this month, Jim Hamilton, Jim is ex of SPS, and joins us with a host of experience in down-hole tool systems, welcome aboard Jim.



Jim Hamilton gets fit, running the Berlin Marathon prior to coming on board



DTL Test Rig Bridge of Don

The really significant news for us from the end of last year was the successful Full System Test of our evolutionary well construction system **SlimWELL™**. As many of you know, it is expected that SlimWELL™ will be at the centre of our oil and gas service sector business, and in full operation by the end of this year. I thought it would be helpful if we outlined the system test results from last year to you by way of this newsletter, many of you can see a more formal presentation of the results if you wish. Please contact us if you wish to arrange a presentation.

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Before we go into the results of the testing we have a few special thanks to make. **Franks International** provided all the torque turning and make-up equipment for running and pulling the casing and tubing during the test. Not only did this save Caledus significant testing costs, the experience of the casing crews was very beneficial for planning operations for the future.



Cansco Equipment and Rentals provided the vast majority of the handling equipment for the various sizes of casing and tubing used during the testing. This ensured we had quality equipment to use at all times.



Metrol Technology Limited provided down-hole pressure and temperature recording gauges throughout the test, which made post job analysis straightforward.



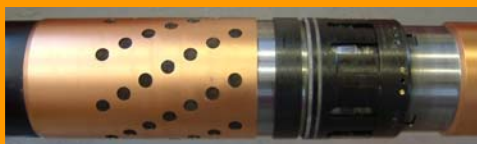
A huge thanks to all our service company supporters

SlimWELL™ Full System Test

The main objective of the full system test was to bring together all the critical items and run them in simulated well conditions. Most of the individual tools had been separately tested and qualified, but none of the equipment had ever been run and functioned below the rotary table in a well.

A comprehensive test program and sequence of events was established in conjunction with all the participating companies.

Initially a series of casings were run into one of the test wells to simulate the casing regime that would be in place for a field trial of the 5.1/2" x 7" SlimWELL™ system. This entailed running approximately 100ft of 9.5/8" casing, to simulate an under-reamed hole section, followed by 600ft of 7" casing, containing the SlimWELL™ dedicated joints for location and cementing, then a further 600ft of 9.5/8" to simulate the production casing above the 7" liner. With all the casing and dedicated joints in place the preparation and rigging up to run the SlimWELL™ system could begin.



The SlimWELL™ AnchorHANGER™ prepped and ready for testing.



The Franks Casing Crew gets stuck-in, thanks guys.

The Flow Diverter Shoe was successful in allowing fluid to bypass the conventional outside annulus flow path, by flowing up the inside annulus between the 5-1/2 liner and the 2-7/8 tubing.

The dual Dart System involves pumping down a top dart which releases a ball to route through a restriction in the running tool. The ball is captured by a lower dart which is then pumped down to the shoe. This system worked perfectly.

The Running Tool transported the liner string into the well, set the hanger at the correct pressure, released the string and was recovered from the well along with the running and tubing strings. The novel internal by-pass system within the body of the tool proved to have worked well.

SlimWELL™ methods and apparatus are protected by UK and international patents granted and patents pending

The Location Sub correctly identified the setting position for the hanger on numerous occasions, proving itself to be a robust tool.

The Hanger System set at the correct depth, the setting sequence was observed on the pressure gauge, the hanger supported all the available weight during the test.

The In-Line Centralisers performed their function and were in good condition when recovered to surface

The Operating Procedure was followed closely, and only needs minor enhancements for field ops.

All the equipment was retrieved from the well for strip-down, inspection and detailed reporting.



The DIVERTA™ and N-line centraliser ready to go in the hole

SlimWELL™ Full System Test

Now the work begins on getting the tools and systems ready for a Field Trial. We fully expect to go in the ground May this year. The 5.1/2" x 7" SlimWELL™ is tested and ready. This means that in-fill drilling and small accumulation drilling can benefit from the system off the bat, putting a larger than traditional liner across the zone of interest having possibly sidetracked from the 9.5/8" casing, set a 7"liner then straight into the SlimWELL™ 5.1/2".

In time the same system will allow 5.3/4" to be run and set through 7".

Meantime, we are starting to work on the next size that we need to be able to enlarge the SlimWELL™ envelope from a single size to a complete well construction system!! Just as well we have come back to work in the new year bursting with energy.

Finally an opportunity to say thank all the drilling, completions and reservoir engineers that have listened to our presentations, given feedback, provided us with well information, supported our efforts, and opened doors for us with-in their organisations to present and ask more questions. We are extremely grateful for your efforts and look forward to installing SlimWELL™ in some of your wells in the months and years ahead.



The sun sets at the end of the final day of testing at the Bridge of Don, the weather had been good to us all week.