

Weatherford completes 100th DDV installation

WEATHERFORD International announced the successful 100th installation of the downhole deployment valve (DDV) in the North Sea. The announcement was first made at the 2007 SPE/IADC Drilling Conference in Amsterdam on 20-22 February.

Weatherford successfully installed a 7-in., 32-lb/ft, 5,000 psi DDV through 9 5/8-in. casing landing in open hole. The well had a total depth of 19,613 ft (5,980 m), and the DDV was set at 9,236 ft (2,816 m) to provide pressure isolation. The operation included drilling with 3 1/2-in. heavy weight drill pipe and a 6-in. bit.

"On this North Sea installation, we were able to provide the operator with an alternative to snubbing, resulting in a safer drilling environment with far less NPT," said **David Pavel**, global product manager for the DDV technology. "This milestone, along with many other installations over the past few years, proves that the DDV technology has been accepted as mainstream."

Along with the tool's maturity, there has been an evolution in its capability in direct response to the industry's ever-changing needs and specifications. The result has been the emergence of five tools, and Weatherford's



In the 100th installation of the downhole deployment valve, Weatherford installed a 7-in. DDV through 9 5/8-in. casing landing in open hole in the North Sea.

offering is set to double in the next year, with many additional DDV applications currently in development.

Weatherford first acquired the patent to use DDV technology in 1999. A prototype for a redesigned DDV tool was run in Alberta, Canada in 2000, and the first DDV field trial was carried out in 2001. By 2002, 7 DDV installations had been completed; by 2003, 9 were completed; by 2004, 15; and by 2005, 33 had been completed. ♠

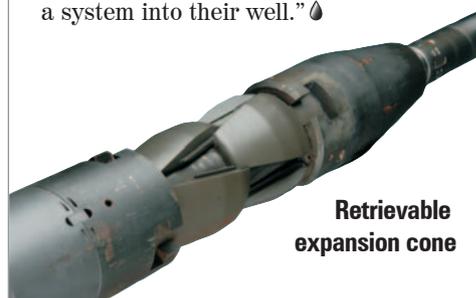
Solid expandable systems introduced

WEATHERFORD International recently launched its new MetalSkin Solid Expandable Systems for open and cased hole applications.

Four MetalSkin systems have been developed: 1) open-hole liner; 2) monobore open-hole liner; 3) cased-hole liner; and 4) monobore open-hole clad.

Significant downhole testing has been completed to date. On 14 February 2007, approximately 1,000 ft of the 11 3/4-in.-by-13 3/8-in. MetalSkin monobore open-hole liner was successfully installed in a test well. This installation proves that Weatherford's monobore technology has become a reality, allowing for new ways to solve drilling challenges without losing hole size.

Solids tubular expansion is one of the industry's most important enabling technologies, said **Pat York**, director of commercialization and marketing for Weatherford's Solid Expandables business unit. "Our ultimate goal is to move solid expandables from being a risky contingency into the mainstream, where operators actually plan a system into their well." ♠



Retrievable expansion cone

Halliburton offers new advanced reamer technology

SECURITY DBS DRILL Bits, a product line of **Halliburton's** Drilling and Formation Evaluation Division, has added the XR reamer line of tools to its suite of Hole Enlargement products. It is designed for both conventional and rotary steerable applications and provides concentric hole enlargement technology that is also capable of enlarging a pilot hole more than 40% while drilling.

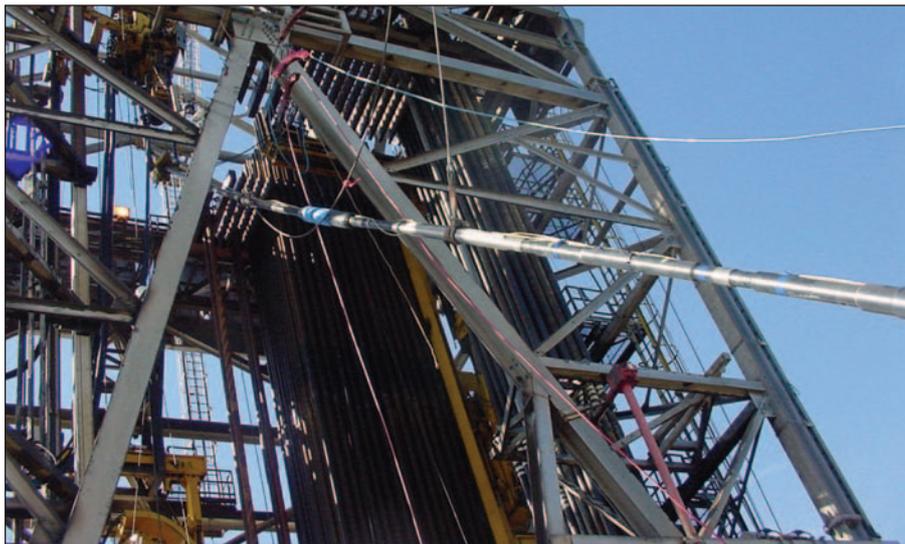
XR reamer tools offer activation and deactivation capabilities that allow the hole to be selectively enlarged based on existing casing-shoe and well-design parameters.

"Hole enlargement is expected to grow more than 40% in 2007 to an estimated 16% of total footage drilled worldwide," said **James Bement**, Security DBS Drill Bits vice president. "This development reflects an overall systems approach to meeting this challenge in increasingly complex drilling applications."

In one well, the XR 1200 reamer, in combination with the GeoPilot and FullDrift bit-matched system, enabled Halliburton to drill ahead and enlarge a 700-m section of Cretaceous chalk with hard stringers from 12 1/4 in. to 17 1/2 in. in less than 72 hrs. In a Norwegian offshore well, the XR 1200 reamer established the longest simultaneous 12 1/4-in. hole opening run, drilling 4,661 m at an 80° inclination. ♠

Halliburton's XR reamer tool





An intelligent well system bottomhole assembly is lifted in the Spiderman Field.

Intelligent well completed in 8,100 ft of water in GOM's Spiderman Field

USING BAKER OIL Tools' InForce Intelligent Completion System, **Anadarko Petroleum** recently completed an intelligent well in 8,100 ft (2,469 m) of water in its Spiderman Field of the Independence Subsea Development, in the eastern Gulf of Mexico. The completion assembly was 93 ft (28.35 m) long, with six control lines in place. The Baker Oil Tools team provided over 18 months of upfront planning, involving packer design as well as technical support in designing and implementing lifting and transportation devices. Anadarko's partners in the well include **Dominion E&P** and **Hydro Gulf of Mexico**.

The completion system comprised several crucial Baker Oil Tools com-

ponents, including the InForce system with HCM+ Shrouded and Non-Shrouded Sleeve, Premier Packer with feed-through, splice sub and a pressure-testable quick connect, and the Neptune Surface-Controlled Subsurface Safety Valve.

The 93-ft (28.35-m) completion assembly was composed of six control lines that were terminated and tested on the riser skate prior to lifting. This unique idea saved 12 to 14 hours of rig time, resulting in a significant cost savings.

In addition, the preplanning allowed for pre-assembling and testing in controlled shop conditions, resulting in improved reliability and assembly integrity, as well as reduced risk. ♠

Varel expands diamond protection

VAREL INTERNATIONAL HAS expanded its diamond protection for customers drilling with its roller cone products. Diamond protection is when, during the manufacturing process of the bit, polycrystalline diamond capped inserts are inserted along the gage, back row and/or the leading edge of the shirrtails to provide added protection to the bit in abrasive formations. Diamond protection is recommended on motor, directional and rotary steerable applications, particularly those drilling through abrasive formations such as sandstone, siltstone, granite and limestone.



Varel offers several diamond protection options:

- Enhanced back row protection – increases gage holding in abrasive applications.
- Enhanced gage row protection – maximizes 100% of gage rows provides longer gage hold in abrasive and directional applications.
- Enhanced Shirrtail Protection – provides maximum wear resistance in the most extreme drilling environments. ♠

TOTAL to participate in GOM wide-azimuth towed-streamer survey

WESTERNGEO ANNOUNCED that **TOTAL E&P** is underwriting a major portion of the first exploration multi-client wide-azimuth towed-streamer survey in the Gulf of Mexico. The "E-Octopus" project covers 475 Outer Continental Shelf blocks in the central Gulf of Mexico, about 125 miles offshore Louisiana in water depths of 4,400 ft.

To enhance the subsalt image, WesternGeo is employing the Q-Marine

single-sensor marine seismic system with proprietary processing workflows and wavefield extrapolation migration (WEM).

"The acquisition of this extensive wide-azimuth survey will offer an enhanced ability to optimize well placement and reduce drilling risk, and will enable the comparison of geological analogues to assist in identifying potentially significant oil and gas reserves," said **Joe**

Varisco, WesternGeo region manager, North America.

Seismic data acquisition commenced in July 2006. Since then, more than 200 blocks of wide-azimuth data have been acquired and are currently being processed. Completion of the survey is expected in April 2007. Fast-track WEM products will be available for interpretation in advance of the October 2007 Gulf of Mexico lease sale. ♠