DATA SHEET

HALLIBURTON

STIMULATION | FIBER OPTIC FRACTURE MONITORING

FIBERSIGHT® Map fiber locating sensors

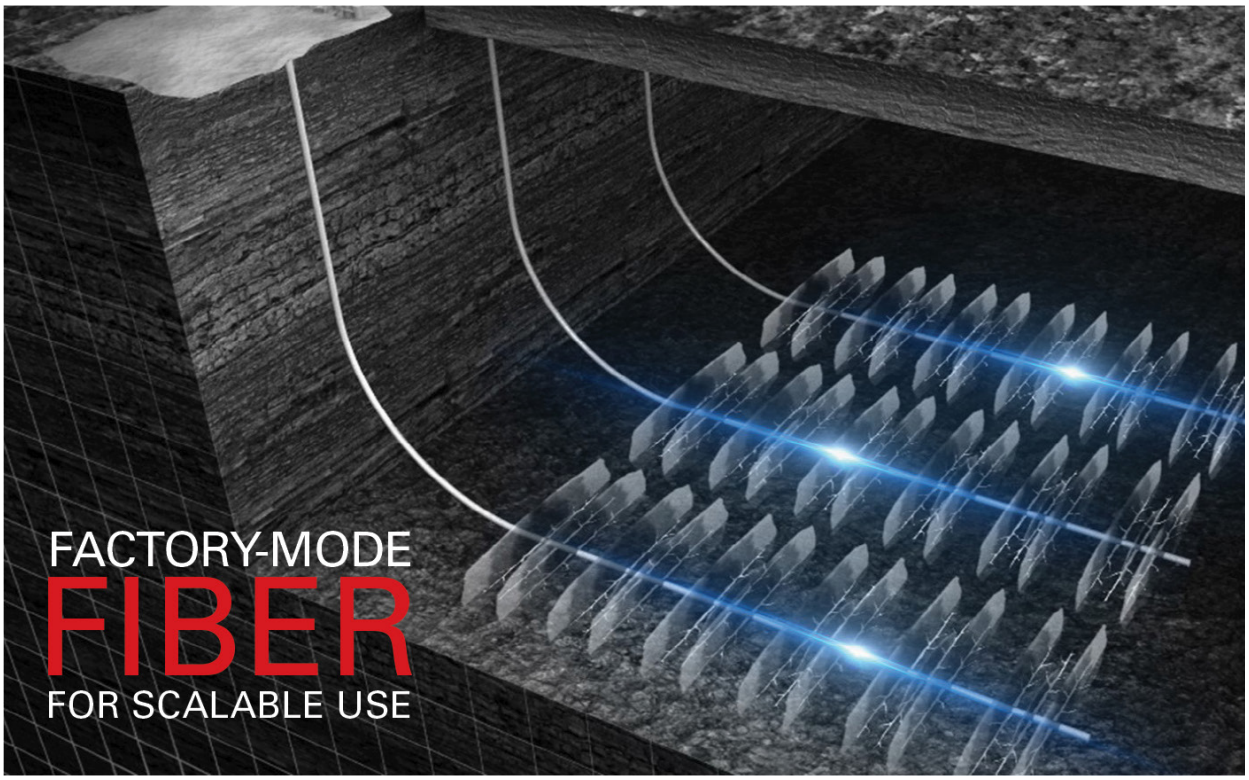
Cable orientation without wireline mapping

Overview

Traditional permanent fiber deployments require a wireline mapping run after casing installation to identify the cable's orientation. These runs are time consuming, they increase costs, and they introduce additional risks.

Halliburton has eliminated the complexity with traditional fiber installation by simplifying and condensing the process from an average of six months down to two weeks—making fiber more manageable and easier to incorporate into your overall fracture design. And, by simplifying the complex design process, we have engineered $600,000 in indirect costs out of typical fiber installations—making it a more affordable option for routine fracture monitoring.

One of the ways we have achieved this is through the addition of FIBERSIGHT® Map fiber locating sensors, which eliminates the need for an additional mapping run.



Halliburton has simplified fiber installation by engineering out unnecessary complexity and cost, for routine fracture monitoring that compliments your well factory approach.

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Eliminating wireline mapping

FIBERSIGHT Map fiber locating sensors eliminate the cost and risk associated with additional mapping runs. With these sensors, cable orientation is identified immediately following casing deployment, without a wireline mapping run, reducing the total cost of ownership by $200,000.

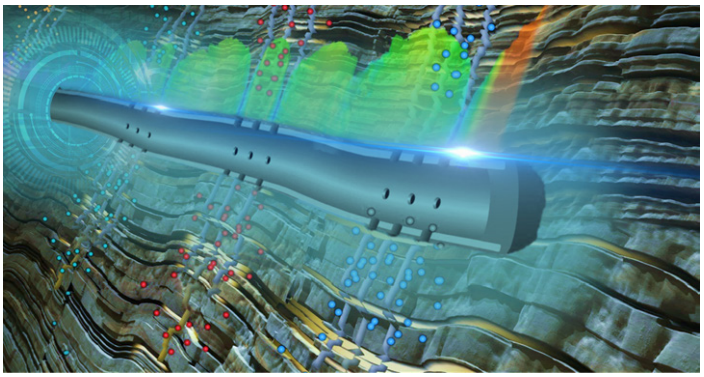
This service delivers increased precision by providing a fixed position immediately after the casing string lands. FIBERSIGHT Map sensors are deployed along the wellbore during the casing run to determine and communicate the orientation of a fiber optic cable back to the surface.

These fiber-locating sensors are part of Halliburton's FIBERSIGHT® cable services, which have been reengineered to fit standard North America wellbores and hole sizes. This step-change in traditional fiber installation has eliminating the need for wellbore construction changes, such as requiring a larger hole, which impacts drilling schedules, planning cycles and your bottom line.

The HT Fiber Locating sensors can perform in downhole temperatures up to 150˚C (304˚F). Further qualification will be needed on a case by case basis for temperatures greater than 150˚C.

Trying to understand what's happening downhole while fracturing is complicated. The solution shouldn't be.

Halliburton has simplified fiber installation by engineering out unnecessary complexity and cost, for routine fracture monitoring that compliments your well-factory approach.



FIBERSIGHT® map delivers:

Reduced risk

- No intervention needed to identify cable orientation

Reduced cost

- No wireline mapping run

Faster mapping results

- Immediate fiber mapping post casing landing

Less jewelry

- No additional downhole clamps

Increased precision

- No ambiguity, weak signal interpretation or eccentric wireline tool challenges

Eliminates need for wireline mapping

For more information, contact your local Halliburton representative or visit us on the web at www.halliburton.com

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