DATA SHEET

HALLIBURTON

MAGNETIC RANGING SOLUTIONS | ACCESS-DEPENDENT RANGING

RangeStar™ Magnetic Guidance Service

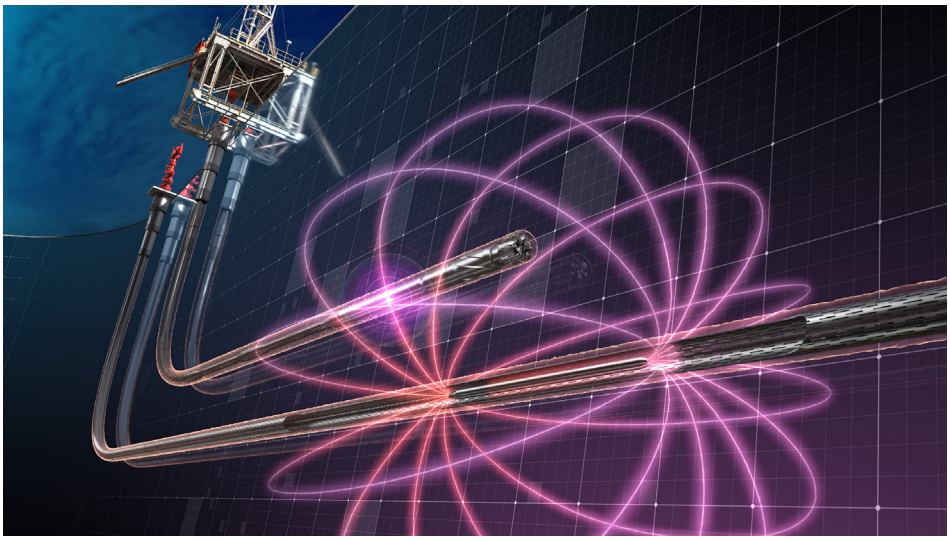
The industry standard for parallel wellbores

BENEFITS

- Extensive global experience on SAGD wells
- Provides greater survey accuracy than conventional surveying technology
- Improves collision avoidance while allowing tight well spacing

FEATURES

- Separation distance accuracy of less than 5 percent
- Eliminates outside magnetic influences
- Works with smaller separation distances
- No trip of the BHA is required



RangeStar™ Magnetic Guidance Service

Overview

The RangeStar™ Magnetic Guidance Service provides an active magnetic ranging solution, enabling the drilling of parallel wells with highly accurate separation tolerances. This enhanced survey accuracy helps ensure safe and efficient placement of two or more wellbores within tight separation tolerances.

Greater confidence in congested conditions

The RangeStar Magnetic Guidance Service, which includes a downhole electromagnetic source and an MWD service, generates a known magnetic field. The MWD service reads this field with an accuracy of less than 5 percent of the separation distance. In a SAGD application, this translates to a wellbore position accuracy of less than a foot at a 5-m radial distance from the target. As a result, well pairs are vertically aligned and fixed at a specific distance apart. For infill drilling and collision avoidance, operators can position wells more closely to one another with greater certainty than traditional survey methods.

Advanced technology and experience to stay on course

The RangeStar™ Magnetic Guidance Service, along with additional active magnetic ranging systems, drills the majority of SAGD pairs worldwide—equivalent to over 3,000 well pairs. The MGT coil, housing the electromagnet, is conveyed into the well and aligned with the adjacent well. Once the electromagnet from Halliburton activates in the first well, the MWD sensor in the neighboring well measures the resulting known magnetic field. External magnetic influences are negligible, and real-time data from the MWD sensor is pulsed to the surface for processing, calculating the distance and directions between wellbores.

Technical specifications

SAMPLE	VALUES
Nominal tool OD	2.0 in. (50.8 mm)
Hole size range	NA
Minimum tubing ID	2-7/8 in. (73 mm)
Maximum tubing ID	NA
Length	16.1 ft (4.9 m)
Weight	120 lb (54.4 kg)
WL connection	1-3/16 in.-12 GO-Head
BHA connection	NA
Maximum operating temperature*	392°F (200°C)
Maximum operating pressure	15,000 psi (103.42 MPa)
Accuracy 0 to 82 ft (0 to 25 m)	5%
Accuracy beyond 82 ft (25 m)	10%
Maximum range*	115 ft (35 m)

* Temperature and range can be configured/customized to customer needs.

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