

# ZoneTrak G Near-bit Gamma Service

Optimize well placement with  
real-time reservoir navigation

The **ZoneTrak™ G near-bit gamma service** provides early formation identification, geostopping, and geosteering capabilities while drilling. The rapid identification of geological targets, formation bed boundaries, and potential trouble zones enables operators to efficiently reach the most productive zones with reduced well construction risks.

## Formation evaluation quality

The ZoneTrak G service from Baker Hughes uses a short sub equipped with two scintillation gamma ray detectors that provide high statistical repeatability and service reliability. The service delivers formation evaluation quality single and dual gamma ray measurements up to 500 API, along with azimuthal gamma ray, gamma image, and drilling dynamics (in most sizes).

## Optimized reservoir exposure when geosteering

The gamma ray sensors close proximity to the bit enable the identification of a formation change much sooner than with other LWD services positioned further uphole in the BHA, particularly when modular motors are used.

The ZoneTrak G service measures formation gamma rays and generates a borehole gamma image directly behind the bit. These images, together with our **Reservoir Navigation Services (RNS)**, provide an efficient geosteering process to maximize reservoir exposure. The borehole image interpretation also provides critical information for structural analysis, such as formation boundaries, fault identification, and dip picking.

## Geostopping applications reduce risk and save rig time

The early zone identification delivered by the ZoneTrak G service facilitates accurate casing-point selection, minimizing exposure to wellbore stability problems, while saving valuable rig time by eliminating the circulation of cuttings to confirm target zone entry. The service also enables selecting the optimal stopping point for coring, without missing the top of the reservoir.

The ZoneTrak G service is especially suited for applications where low formation resistivity contrast does not allow the use of the **ZoneTrak™ R at-bit resistivity service**.

## Applications

- Geosteering
  - Enhanced well placement
- Geostopping
  - Top of productive reservoirs
  - Top of coring sections
  - Casing point selections
  - High-risk zones

## Features and benefits

- Near-bit gamma ray
  - Detects early formation changes
  - Saves rig time compared to cuttings circulation to verify bed boundaries
- Two scintillation gamma ray detectors
  - Ensures data confidence
  - Improves statistical accuracy
  - Acquires formation evaluation quality measurements
- Azimuthal gamma ray measurements
  - Offers imaging up to 16 sectors
  - Optimizes well placement when used with real-time RNS
  - Provides high-quality gamma images for structural evaluation and dip picking
- Display gamma ray and gamma images using the WellLink™ service
  - Provides real-time data visualization
  - Facilitates faster remote decisions while drilling

## Flexible deployment

The ZoneTrak G service is available in 4¼-in., 6¾-in., and 9½-in. sizes and can be run with the **AutoTrak™ family of rotary steerable systems (RSS)**.

Special versions of the 6¾-in. and 9½-in. service allow them to be run above conventional motor systems or directly above the bit.

To learn more about the ZoneTrak G service and how it can help you optimize the placement of your wells and reduce your risk, contact your Baker Hughes representative.

## Tool and measurement specifications

Tool size/AutoTrak version	4¼ in./GT4-G	4¼ in./eXact	6¾ in.	9½ in.
<b>Borehole size</b>	5¼ to 6¾ in. (146 to 171 mm)	7/8 to 6¾ in. (149 to 171 mm)	8 3/8 to 9 7/8 in. (213 to 251 mm)	12¼ to 18¼ in. (311 to 464 mm)
<b>Maximum temperature</b>	257°F (125°C)	302°F (150°C)	257°F (125°C)	302°F (150°C)
<b>Maximum pressure</b>	20,000 psi (1380 bar)	30,000 psi (2017 bar)	30,000 psi (2070 bar)	25,000 psi (1725 bar)
	25,000 psi (1725 bar) <sup>1</sup>			
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<b>Gamma ray measurements</b>	Single gamma ray	Single gamma ray	Single gamma ray	Single gamma ray
	Dual gamma ray	Dual gamma ray	Dual gamma ray	Dual gamma ray
	Azimuthal gamma ray	Azimuthal gamma ray	Azimuthal gamma ray	Azimuthal gamma ray
	Gamma ray images	Gamma ray images	Gamma ray images	Gamma ray images
<b>Drilling dynamics</b>	VSS and RPM	VSS from AutoTrak	No	VSS and RPM
<b>Tool configuration</b>	4¼ in. AutoTrak GT4-G with ZoneTrak G service	4¼ in. AutoTrak eXact with ZoneTrak G service	AutoTrak RSS sub <sup>2</sup>	AutoTrak RSS sub <sup>2</sup>
			Bit sub <sup>3</sup>	Bit sub <sup>3</sup>
<b>Measure point from downhole shoulder of tool</b>	From bottom of AutoTrak 5.74 ft (1.75 m)	From bottom of AutoTrak 10.35 ft (3.15 m)	ZoneTrak G AutoTrak sub 1.73 ft (0.53 m)	ZoneTrak G AutoTrak sub 2.10 ft (0.64 m)
			ZoneTrak G bit sub 2.16 ft (0.66 m)	ZoneTrak G bit sub 2.66 ft (0.81 m)

<sup>1</sup> High pressure available on request

<sup>2</sup> Modular connection up and down

<sup>3</sup> Modular connection up, bit box connection down