

# STAR-XR extended-range resistivity imaging service

Get enhanced-coverage microresistivity images in conductive mud systems

The **STAR-XR™ extended-range resistivity imaging service** from Baker Hughes provides high-resolution formation resistivity imaging in conductive mud systems — even in wells drilled with salt-saturated muds. The wide range of the sensor arrays results in enhanced geological and petrophysical reservoir evaluation. The six-arm, independently articulated carrier and powered stand-off ensures optimal sensor-to-formation contact, even in highly deviated boreholes. On each of the six articulated arms are the newly redesigned pads with 24 sensors, resulting in a total of 144 microresistivity measurements, a vertical and azimuthal resolution of 0.26 in. (6.6 mm), and 30% increase in azimuthal coverage over previous wellbore imaging services. The resulting high-resolution borehole images reduce interpretation uncertainty and capture detailed geological features for identifying bedding, fractures, faults, stratigraphic features, and borehole wall features such as breakout and drilling-induced fractures.

Whether deployed alone or in combination with acoustic imaging services, such as the **Circumferential Borehole Imaging Log™ (CBIL™)** service or the **UltrasonicXplorer™ service**, the STAR-XR service helps identify features for analysis of structural dip, fracture systems, depositional environments, borehole stability, and net-pay in thinly bedded sequences. The STAR-HD imager and UltrasonicXplorer acoustic imager allow the simultaneous acquisition of image data sets and are fully combinable with other Baker Hughes logging tools.

For more information on the STAR-XR service, contact your local Baker Hughes representative.

## Applications

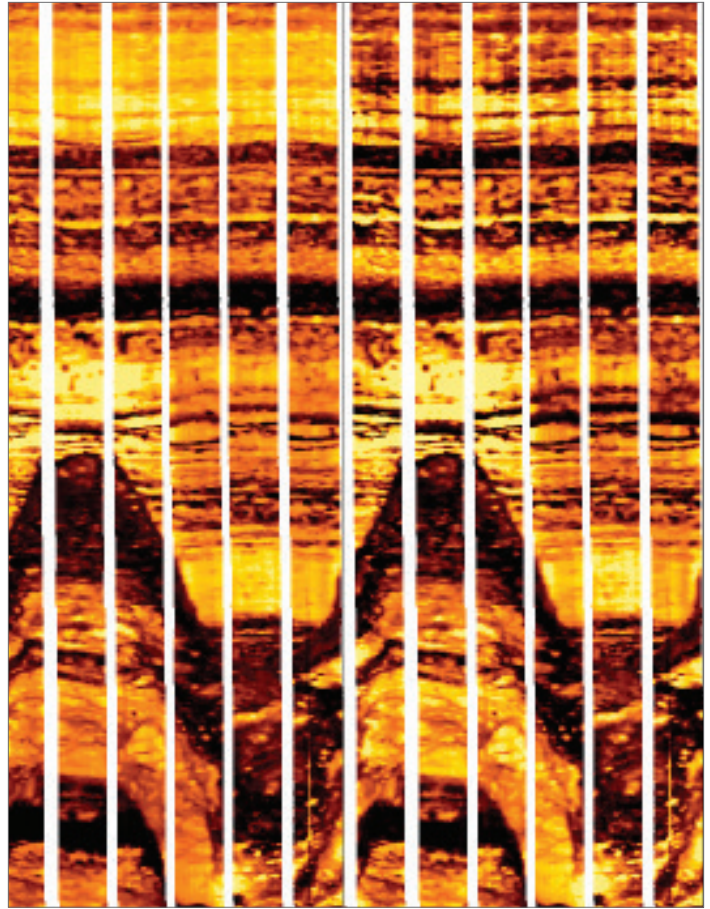
- Dip and strike determination
- Fault and fracture identification and description
- Sedimentary and stratigraphic interpretation
- Structural mapping and well-to-well correlation
- Seismic upscale and verification of a seismically derived structural model

## Benefits

- Provides 30% increase in azimuthal coverage over standard microresistivity imager
- Improves Signal to Noise ratio
- Enhanced features reduce interpretation uncertainty
- Provides range of solutions from image processing to complex multi-well sedimentological study.

## Properties/Specifications

Instrument diameter	5.25 in. (133 mm)
Length	30.7 ft (9.70 m)
Weight	680 lb (310 kg)
Minimum borehole size	6.25 in. (159 mm)
Maximum borehole size	21 in. (533 mm)
Maximum temperature	350°F (177°C)
Maximum pressure	20,000 psi (138 Mpa)
Maximum logging speed	900 ft/hr (275 m/hr)
Number of pads/sensors	6 pads/24 sensors per pad
Mud resistivity range	0.01 to 10 ohm-m
Tool compressive strength	36,000 lb (16,330 kg)
Tool tensile strength	36,000 lb (16,330 kg)
Conveyance method	Wireline or pipe conveyed logging



The static and dynamic normalization presentation from the STAR-XR imaging service displaying a brecciated fault zone.

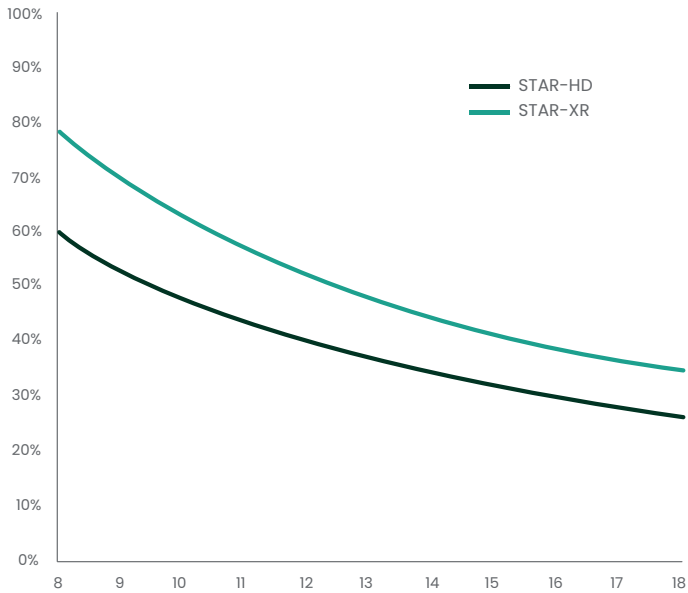


Chart showing the increased borehole coverage provided by the STAR-XR service, when compared to the STAR-HD service.