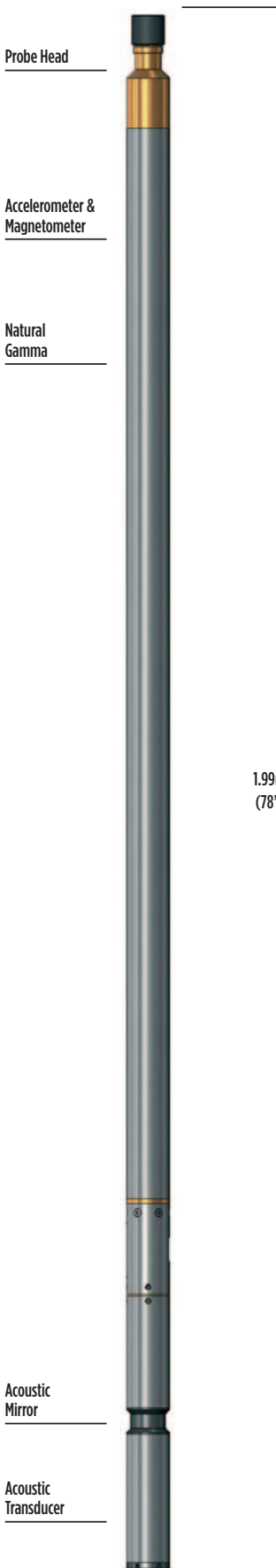


PROBES

HIGH RESOLUTION ACOUSTIC TELEVIEWER (HRAT)



The High Resolution Acoustic Televiewer (HRAT) provides a continuous high-resolution oriented ultrasound image of the borehole wall.

The probe uses a fixed acoustic transducer and a rotating acoustic mirror to scan the borehole walls with a focussed ultrasound beam. The amplitude and travel time of the reflected acoustic signal are recorded as separate image logs.

Features such as fractures reduce the reflected amplitude and appear as dark sinusoidal traces on the log. The travel-time log is equivalent to a 360-arm caliper and shows diameter changes within open fractures and 'break-outs'. Directional information is also recorded and used to orient the images in real time.

GeoCAD® Televiewer Module: is a Windows-based package for processing, interpreting and displaying acoustic and optical televiewer image logs. Standard log presentations include tadpole and stick plots, stereographic projections of poles to planes and azimuth frequency diagrams. The synthetic core display allows convenient comparison of log and field data for orientation of fractured or incomplete core sections.

SPECIFICATION:

Applications

- Fracture identification and orientation
- Stratigraphic studies
- Local stress studies (break-out)
- Core orientation
- Cased-hole studies

Operating Conditions

- Borehole Type: Fluid filled
- Recommended Logging Speed: 2.5m/min

Specifications

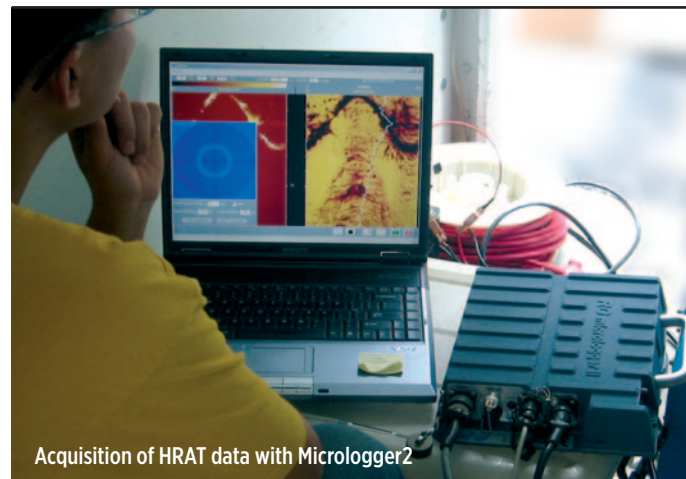
- Diameter: 42mm
- Length: 1.99m
- Weight: 5kg
- Temperature (max): 70°C
- Transducer type: 1.5MHz piezo-composite
- Rotation rate: 5 - 20rev/s
- Sample rate: up to 360/rev

Part Numbers

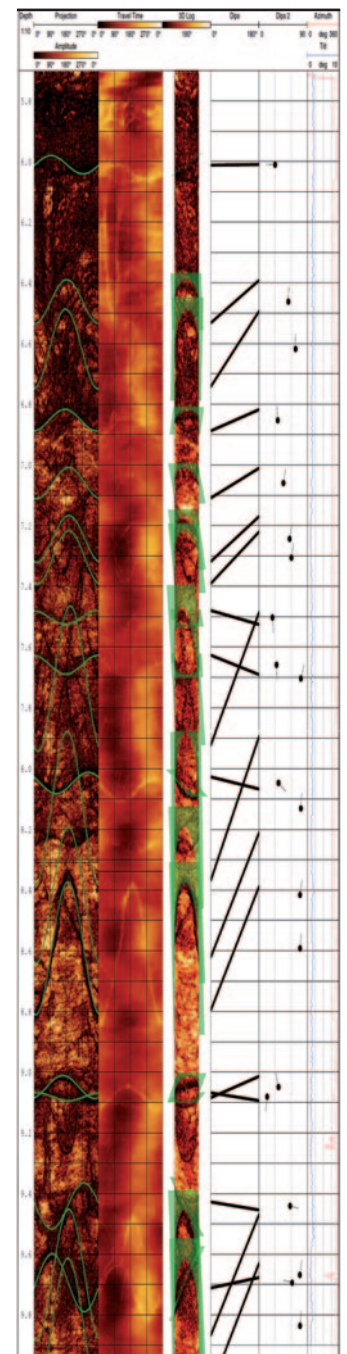
- 1002184 HRAT probe
- 1002192 HRAT including natural-gamma

GeoCAD® Televiewer Module

- 1020248 GeoCAD® Televiewer Module



Acquisition of HRAT data with Micrologger2



Example of logging data

High Resolution Acoustic Televiewer (HRAT) Probe