High Resolution Acoustic Televiewer (HRAT)

Accelerometer & Magnetometer

Natural Gamma

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 traveltime 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.

SPECIFICATION:

Applications

Fracture identification and orientation

Stratigraphic studies

Local stress studies (break-out)

Core orientation

Cased-hole studies

Operating Conditions

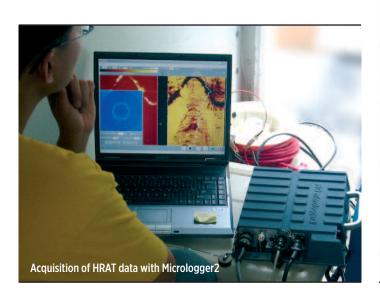
Borehole Type:	Fluid filled
Recommended Logging Speed:	2.5m/min

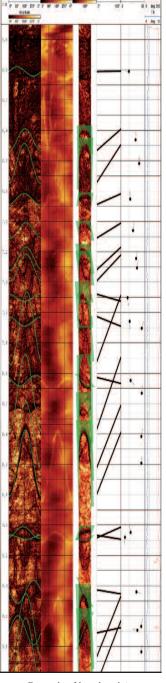
Specification

Diameter:	42mm
Length:	1.55m or 1.99m (with natural gamma option)
Weight:	5kg
Transducer type:	1.5MHz piezo-composite
Rotation rate:	5 – 20rev/s
Sample rate:	up to 360/rev

Part Number

T di C i (di iii)	
1002184	HRAT probe
1002192	HRAT including natural-gamma





Example of logging data

1.99m (78")

High Resolution Acoustic Televiewer (HRAT) Probe

Acoustic

Acoustic Transducer

Mirror