

ACOUSTIC CALIPER ARRAY TOOL



The Acoustic Caliper Array Tool (ACAT) employs 12 distributed acoustic sensors positioned across the tool. This configuration enables the tool to achieve high-fidelity measurements of the entire 360-degree inner surface of the well tubular. With its precise acoustic sensing capabilities, the ACAT provides a clear and comprehensive picture of the wellbore geometry.

The slim design of the ACAT makes it suitable for logging wells with diameters ranging from 2 7/8" to 7". The compact size of the tool enables it to navigate through narrow wellbores efficiently.

Additionally, the ACAT is capable of detecting defects in the well tubular as small as 0.7 mm. This level of sensitivity allows it to identify and locate anomalies such as corrosion, erosion, scale buildup, or other structural issues that could potentially impact the integrity of the well.

In openhole wells ACAT is used along with FIND tool to determine and evaluate opened for flow fractures.

Applications:

- Internal and external well tubular inspection with a high level of detailization
- Corrosion evaluation and monitoring
- Perforation intervals assessment
- Fractures and vugs evaluation along with FIND in OH wells

Advantages:

- Non-invasive caliper measurement
- Through-tubing technology
- Fully autonomous (memory mode)
- Compatible with an entire range of North Side Tools

Tool Specifications

Number of transducers / receivers	12 / 1
Tool resolution	0.7 mm
Casing OD / Measurement error	2.875-7 in (73-178mm) / ±0.5 mm
Maximum Operating Temperature	120°C (248°F)
Maximum Operating Pressure	11,600 PSI (80 MPa)
Logging speed	5 m/min
Tool OD	1.65 in (42mm)
Tool length	5.2 ft (1.6m)
Surface read-out / Memory	Fully autonomous (memory mode)
Operational time	60 hrs
H ₂ S resistance	6% standard (25% optional)

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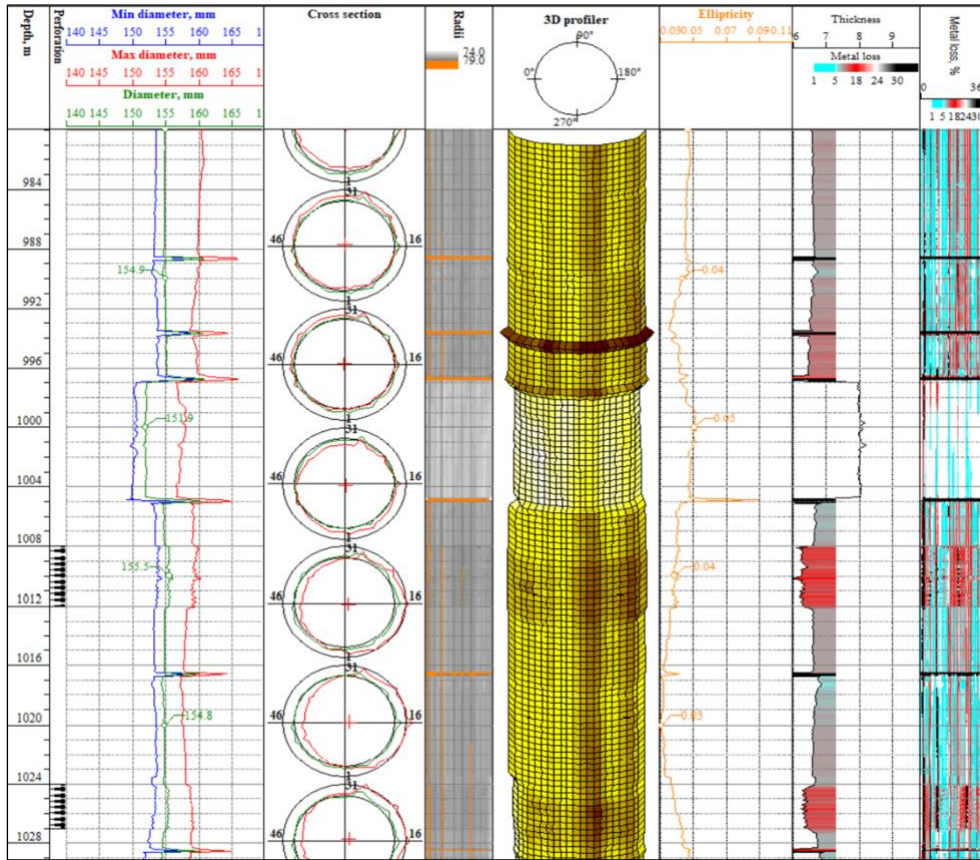


Fig1. Cased hole well.

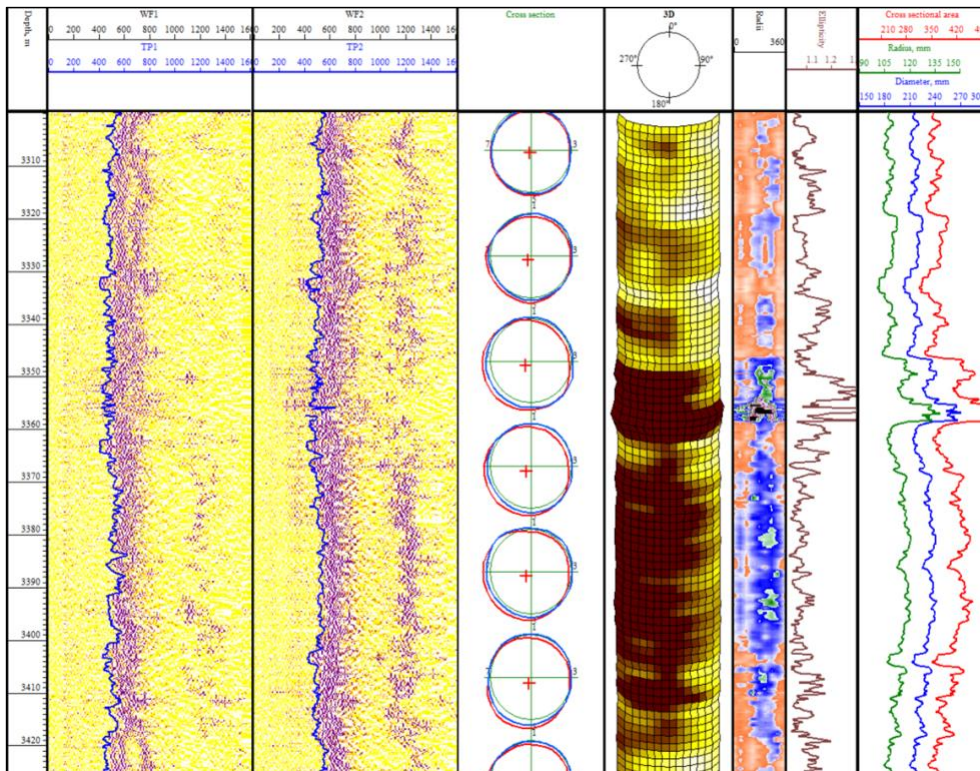


Fig2. Open hole well.

