

Open hole

## ZAS-02 (ZAS-03) Sonic logging and cement bond logging tool

is designed for cement bond logging and investigation of open-hole sections by kinematic and dynamic parameters of elastic waves.

### PROBLEMS TO BE SOLVED

- identification of low-strength cement intervals, detection of volume-contact defects of cement bond;
- lithologic segregation of a section, identification of reservoirs and evaluation of reservoir porosity

### FEATURES AND ADVANTAGES

- ZAS-02 and ZAS-03 tools with a three-element probe construction and an electronic circuit are fully compatible with the equipment - UZBA-21 and UZBA-21, widely used in Russia
- Replacement of the out of date downhole tools in UZBA-21 and UZBA-21A equipment by ZAS-02 and ZAS-03 tools keeps up using of the running investigation methods, the respective techniques as well as the interpretation software
- tool conveyance to the investigation interval through the drill pipe with inner diameter 90 mm.

### SPECIFICATIONS

Acoustic sonde formula:

ZAS-02

$T_2 0,85 T_1 1,05 R$

ZAS-03

$T_2 0,5 T_1 1,5 R$

Max. operating temperature, °C

120

Max. hydrostatic pressure, MPa

80

Borehole diameter, mm

100-250

Downhole tool dimensions, mm:

- diameter (without centralizers)

73

- length

up to 3500

Weight, kg

45

