MELDOR

Measure Systems For Gas and Oil Industry

Sonic logger tubing-conveyed perforating

Features

- Automatic light indication of the fire guns operation
- Offline operation at low temperatures
- Write data to the Wave format
- Processing in any audio editor
- Compact design
- Recording time up to 30 minutes
- Extended memory capacity

Applications

- Tubing conveyed perforating (TCP)

Opening the formation by perforation in cased wells is one of the most important operations in the construction of a well. For the opening of productive formations, cumulative perforators are used, which are conveyed on the tubing, drillpipe, or coiled tubing in highly deviated and horizontal wells, into which it is not possible to convey the perforators on the wireline. In the production of this type of operation, it is very important to determine the fact of gans fire action, since lifting and removing the non-working gans fire from the well requires the implementation of appropriate measures to ensure safety. Usually, the fact of action of the gans fire is established based on external manifestations (vibration, noise, change in the volume of the package). One of the problems, in this case, is sometimes the absence of obvious signs of the operation of the fire guns or their low level against the background of industrial noise from working pumping units and noise from working engines. Another problem is determining the fact of operation of the fire guns is the lack of the log file for further analysis.

To solve the range of issues related to logging the moment of action fire guns of tubing-conveyed perforating, we have developed the device "Sonic logger TCP". The purpose of the logger is to record the sound pattern of the firing guns in a cased well, which is produced in the device's own memory in the digital WAVE format and is intended for subsequent analysis. To accompany the recorded data, a text file containing information about the date, time of registration, and the amplitude of the registered signal is additionally generated in the "Sonic logger TCP". Also in the logger, there is an indicator of the operation of the fire guns, designed for operational control. It should be noted that when the threshold indicator of the fire gun operation is triggered, the recording of the fire gun process does not stop automatically, but continues until the recorder is turned off by the operator or until the memory is filled. Structurally, the "Sonic logger TCP" is an electronic unit in a sealed metal case with a sensor on a flexible cable. The sensor has a magnetic mount.

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PHISICAL	
Outer dimensions	140x100x75 мм
Weight	1,3 kg
ENVIRONMENTAL	
Temperature Operating	-45° C to 45° C
PERFOMANCE	
Continuous operation time in measurement mode	30min
Frequency response (bandwidth)	10 кHz
Maximum total operating time (toggle switch position "ON"), after the batteries are fully charged.	200min
Sensor mounting type	magnetic