Surface recorder “KASKAD-ASP”

DESIGNED to record data from memory downhole tools. The recorder includes an automatic two-channel charging device to charge accumulator batteries of the downhole tools, and a cable set to charge the batteries and to acquire data from the downhole tools. The cables are transported in a transport bag. The recorder is mounted in a hermetic case with covers and handles for carrying purposes.

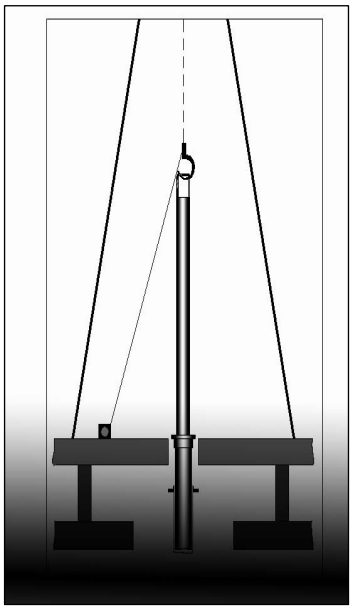
The recorder “KASKAD-ASP-K” includes additionally a portable computer (NoteBook) with installed software. The software of the recorder realizes the complete technological cycle of well-logging measurements performed by the memory tools.

THE SOFTWARE is intended to support the complete technological cycle of well-logging measurements and provides the following services:

- automatic identification and testing of downhole tools;
- data exchange with downhole tools via a USB cable;
- basic calibration of downhole tools and recording of calibration data on the hard disk;
- selection and deletion of directories for a field or borehole on the hard disk to subsequently acquire and store logging data;
- typing of information on a borehole and storage of previously typed information;
- combining of memory tools into a durable string and possibility to edit the string on the well site;
- automatic preparation of downhole tools before logging;
- recording of data from the surface sensors of a depth-measuring device to subsequently create “TIME-DEPTH” files (TI_DEPT.LAS files);
- reading of recorded data and control of different units in downhole tools after logging;
- view of file-copies with recorded areas in digital form;
- creation of files with raw data on each recorded area;
- creation of event logs on the hard disc (preparation and reading of recorded data) and possibility to subsequently view the event logs;
- creation of Excel reports on the operation of a string and separate tools;
- creation of TI_DEPT.LAS files according to pipe tally records and time-stretched data from downhole tools;
- creation of TI_DEPT.LAS files from “TIME-DEPTH” files of AMK “Gorizont” system;
- time editing (shift, squeeze and stretch) in TI_DEPT.LAS files;

- preliminary editing of logging data with tying to depth (TI_DEPT.LAS files), depth matching of measure points (creation of LIS-files containing both time and depth) and possibility to edit tool time;
- view and editing of logging data;
- preliminary processing of logging data and correction for measurement conditions;
- hardcopy output of processing results.

The software runs on a PC under Windows 2000, Windows XP.

Depth-measuring device		
DESIGNED to record data in time-depth coordinates by measuring the length of drill pipe stands.		
Installation of depth-measuring device  Set of connecting cables 	Electromechanical measuring tape  Control unit 	Tension gage  Uninterrupted power supply 

Accumulator power supply unit		
DESIGNED to supply power to devices, control boards and memory of downhole tools.		
GENERAL SPECIFICATIONS		
Accumulator unit length, mm	875	not more
Max diameter, mm	36	
Accumulator unit weight, kg	2.2	not more
Type of accumulator battery	NiMH	
Nominal voltage of accumulator battery, V	12	
Capacity of accumulator battery, A·h	8.0 (4.5)	
Operating temperature, °C	from –20 to +90	
Storage temperature, °C	from –20 to +40	
Number of charge-discharge cycles	50	

Two-channel charging device AZU-2K3		
DESIGNED to charge accumulator batteries of NiCd, NiMH types in “Fast”, “Standard”, “Trickle” and “Preliminary” modes; to discharge accumulator batteries; to exchange data between the recorder and a memory tool via a USB interface; to supply a DC voltage of +12V to memory tools.		
		
GENERAL SPECIFICATIONS		
Dimensions B×L×H, mm	483×420×133	not more
Weight, kg	6	not more
Type of accumulator battery	NiCd, NiMH	
Nominal voltage of accumulator battery, V	12	
Charging current of accumulator battery, A	0.1 ÷ 3.0	
Operating temperature, °C	from +10 to +45	
Storage temperature, °C	from –50 to +50	