AziExpress Geosteering While Drilling Combination Instrument

Shenkai AziExpress geosteering while drilling combination instrument (azimuth resistivity) is a precision geosteering tool, which is a special research achievement of national major scientific instrument undertaken by Shanghai Shenkai Petroleum & Chemical Equipment Co., Ltd., with fully independent intellectual property rights. It has high integration since azimuth resistivity, azimuth gamma, compensation resistivity, annular pressure, wellbore temperature, and other measurement parameters are integrated into one drill collar.

Azimuth resistivity is mainly used in the construction of complex formations and thin reservoirs. It is provided with real-time edge detection and positioning, reservoir tracking, oil-water interface detection and other functions while drilling to achieve accurate geosteering and borehole trajectory optimization. It is also helpful for water saturation analysis, borehole cleaning, well kick and lost prediction, ensuring that drilling tools travel through high-quality parts of the reservoir, and improving the drilling rate of high-quality reservoirs, single well production, as well as improving drilling safety.

Product Features

- Calculation of the direction, distance, and oil-water interface of the formation boundary by making use of azimuth gamma, azimuth resistivity, and compensation resistivity
- Optimization of the drilling trajectory to maintain upper interface drilling in the reservoir
- The azimuth resistivity detection distance is much longer than that of traditional resistivity tools, and the formation changes can be detected for a longer time in advance, so as to improve the drilling speed and quality, and reduce risks
- Max. working temperature: 175°C
- Max. working pressure: 25000psi
- Mass storage device: 1GB
- Annulus pressure: range: 25000 PSI,Accuracy: ±24PSI
- Azimuth gamma: 16 sectors,0-500API
- Azimuth resistivity: 16 sectors,Detection distance: 15 ft
- Compensated resistivity: 400KHz, 2MHz,0.2-3000 ohm-m

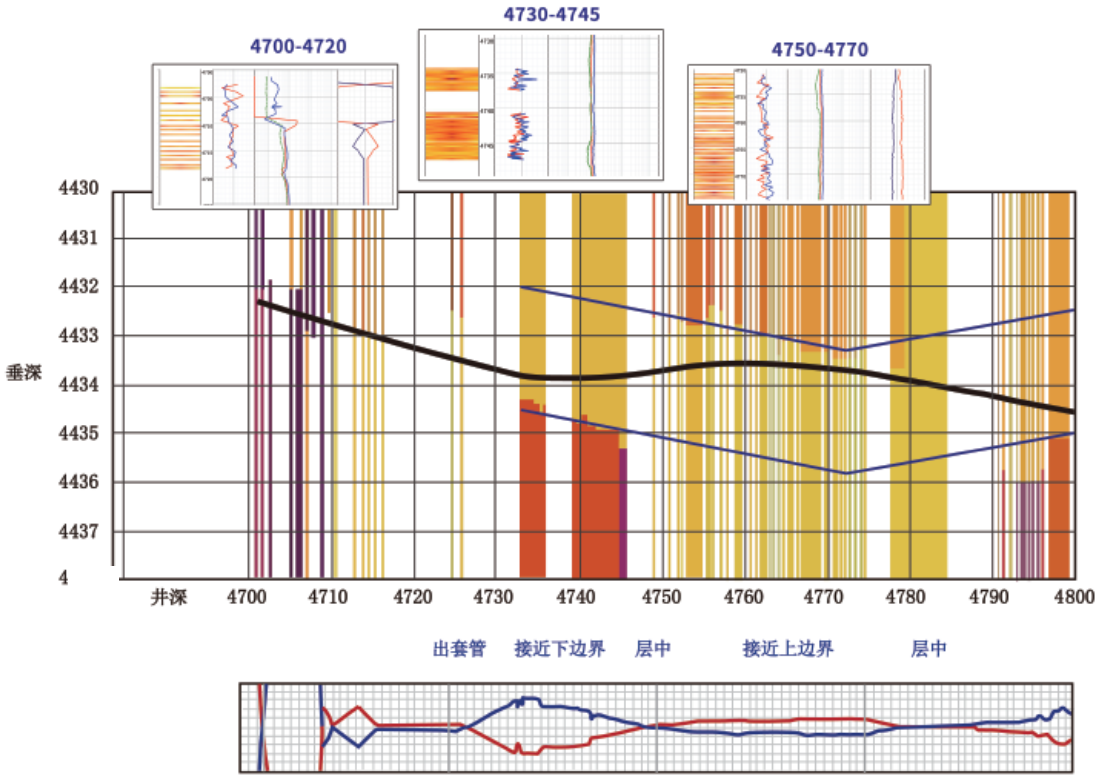
175°C
Max. working temperature

25000psi
Max. working pressure: 25000psi

2000+ Hrs
Mass storage devic

Parameter	Value	Unit
Drill collar length	4.16	M
Max. working temperature	175	°C
Max. survival temperature	185	°C
Bearing pressure	25000	Psi
Max. withstand vibration	20	G RMS
Max. withstand shock	1000	G
Max. edge detection distance	4.6	M
Annular pressure measurement range	25000	Psi

Case 1:在地层倾角突变井况中的应用



Case 2:在横向不连续地层中的导向应用