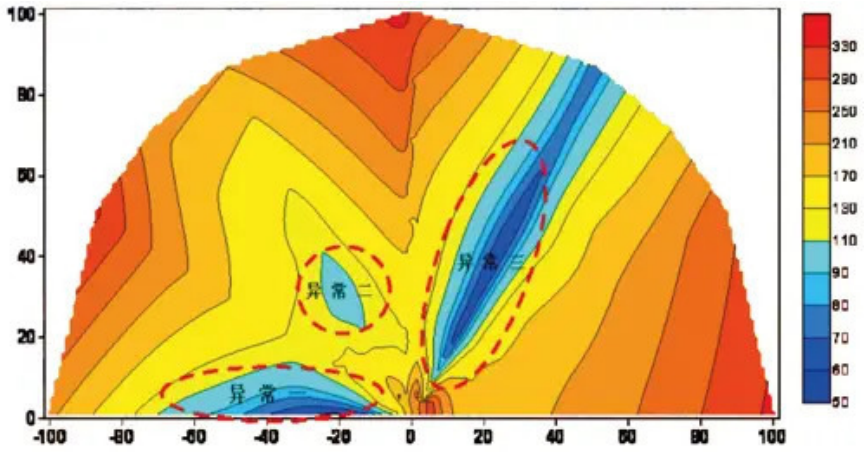
TRANSIENT ELECTROMAGNETIC INSTRUMENT (TUNNEL)

Mineral Exploration

The GT-20 transient electromagnetic instrument is mainly applied in tunnel advanced exploration. The application scenarios are generally to arrange three survey lines along the roadway (in three directions: upward 45°, along the layer direction, and downward 45°). By moving the transmitting/receiving coils at the face, three measured profiles for advanced exploration are formed.

Explanation: With the increase of mining years and mining depth, the hydrogeological conditions of this mine have become increasingly complex, and it belongs to a mine with complex hydrogeological disasters. The water hazard threat of this mine mainly comes from two aspects. One is the water accumulation and mined-out area formed after the completion of small-scale phosphate mining in the surrounding area. The other is that the topographic and geomorphic conditions around the mine are relatively complex, and the water-rich structure is very obvious. The blue low-resistance abnormal area circled in the right figure is presumed to be the waterlogged goaf area and the structural water-rich area.



Technical Specifications :

Alternate Model Number	GT-20
Master Control Computer	Military Grade Industrial Computer
A/D Converter	32Bit
Dynamic Range	160dB
Sampling Rate	1μs, 4μs, 16μs
Background Noise	1μV
Internal Memory	2GB
Hard Disk	120GB Electronic Disk (Expandable)
Port	USB
Display	10.4 "TFT LCD Screen
Sending Current Intensity	≥120A
Transmitting Frequency	25Hz、12.5 Hz、6.25 Hz、3.125 Hz、1.5625 Hz
Operating System	Windows 7E
Turn-off Time	0.5-300μs
Transmitting Waveform	Bipolar Rectangular Wave
Power Source	Built-in Battery
Stacking Number	1-9999
Continuous Working Time	Seven Hours
Dimension	403mm × 330mm × 178mm (Length × Width × Height)
Operating Temperature	-10°C-50°C