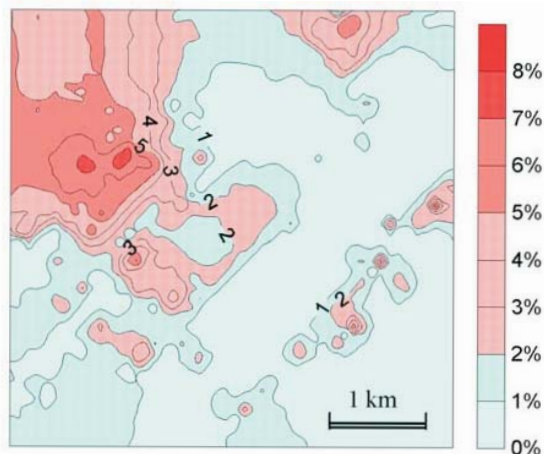


Resistivity map of paleovalley at the depth 30-40m. Lower resistivity associated with clay and silt occurring in sands and conglomerates allows localizing ancient valley of river and oxbow morass. This information is used for gold and diamond prospecting.



TEM detection and delineation of melted zones in frozen rocks. These zones are characterized by high polarizability in the time range of 10-30 μ s. TEM-RES software evaluates the polarizability and draws the map.

Technical specifications:

configuration one and/or two loops
 loop size..... 10x10 m - 500x500 m
 transmitter current..... 1- 4 A
 time range .. 4 μ s - 16 ms
 number of time windows 48
 dynamic range100 nV-10V
 temperature range.... -20°C to +65°C
 dimensions 103x27x310 mm
 weight..... 1.5 kg
 internal battery life..... 8 h
 communication with PC..... RS232
 productivity..... 12 sites/h
 sealing stormproof IP65

TEM-FAST set:

TEM unit with battery
 Palmtop PC
 antennas 25x25 m and 50x50 m
 system software
 interpretation software TEM-RES



APPLIED ELECTROMAGNETIC

SMART TOOL
for EM research
TEM-FAST 48 HPC

high performance, robust
 handheld system for earth studies
 in the depth range 1- 300 m



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TEM-FAST 48 HPC

Time domain electromagnetic measurements are used in TEM-FAST system to provide high resolution, depth and productivity, at low cost.

Applications

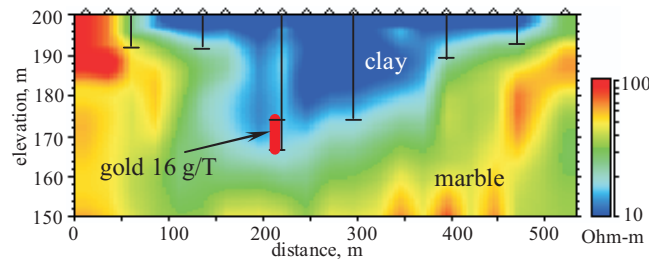
- search for water and geothermal resources
- pollution monitoring
- mineral prospecting
- engineering research
- localization of karsts, landslides, suffusion zones
- geological mapping
- search of buried unexploded ordnance (UXO)
- high resolution research using induced polarization (IP) and superparamagnetic (SPM) phenomena
- monitoring geodynamic processes
- archaeological studies

Software

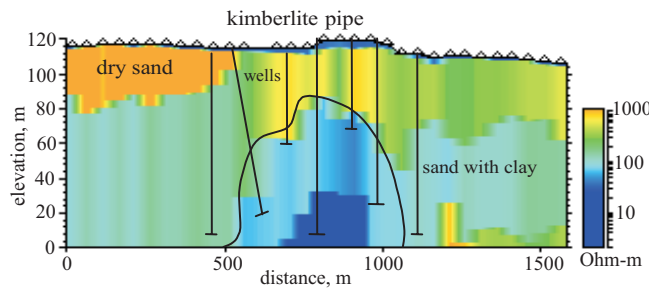
Palmtop PC controls the system, provides in-field display of signal, noise, apparent resistivity curves and stores the acquired data.

Applied TEM-RES software provides data analysis and correction, robust manual and/or automatic inversion accounting available complementary information.

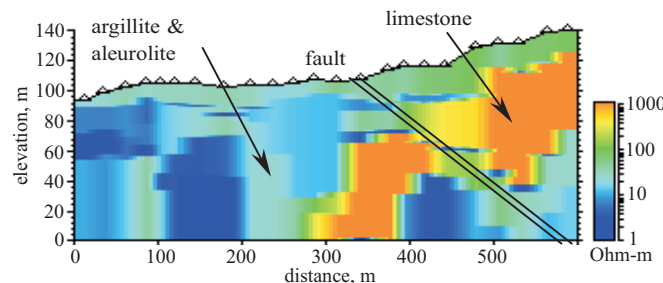
Innovative inversion technology enables to construct 1D gradient and stratified cross-sections and collate them into 2D and 3D sections and maps. TEM-RES software makes inversion possible even if the TEM data are complicated by IP or SPM effect.



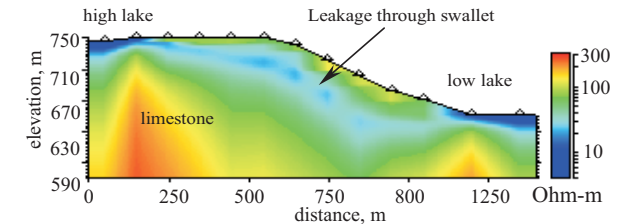
Resistivity cross-section of a deeping cave containing chemogenic gold-bearing deposits. Depth to the weathered marble determined from TEM sounding agrees with the known borehole data.



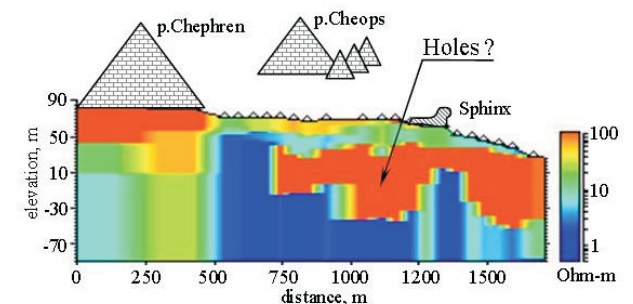
Resistivity image of a kimberlite pipe. Low resistivity kimberlite clay is well distinguished on the background of high resistivity bearing sands. The contour shows the boundary of the pipe as it is known from geological data.



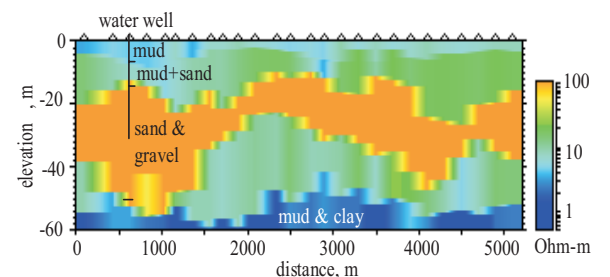
Limestone layer of an alpine structure broken by the fault. TEM imaging can be used to forecast further movement of the structural blocks.



Resistivity image of a subsoil water filtration zone. Water is leaking through the fracture crossing a limestone massif.



Goelectrical section through the Great Pyramids at the Giza plateau. Zones of resistivity above 100 Ohmm are distinguishable on the background of the less resistive limestone formation. The zones may contain artificial cavities.



Cross-section of the aquifer in the Nile's flood-lands. The results of joint TEM and DC inversion are shown with the water well.