

Quantec's Titan 24 Induced Polarization / Resistivity / Magnetotelluric system is the state-of-the-art in electrical geophysical technologies – providing results to 750 m with IP and Resistivity, and to 1500 m or more using Magnetotellurics. The system has been used routinely in mineral exploration for a variety of exploration targets, including gold, copper, base metals, diamonds, platinum, and more. The following table gives a comparison of the benefits of using Titan 24 technology in comparison with traditional IP / Resistivity methods.

Advantages of Using Titan 24 IP and Resistivity	Comparison with Conventional IP
Data Acquisition	
Electrode spacings of 24.5 or greater for enhanced depth, enhanced resolution for superior inversion results	Electrode spacings of 8 means that measurements are severely limited
Configurable system with 24 measuring electrodes (dipoles) but expandable up to 48 inline dipoles for flexibility in array length	Minimal number of dipoles
Current Monitor provides more accurate measurement of resistivity throughout the entire reading cycle	Current is measured only at the beginning of the reading cycle and is assumed to be constant throughout entire cycle when in actuality it can fall off significantly leading to inaccurate resistivity measurements
Data Quality and Penetration	
Greater depth of penetration – 750 to 1 km, depending on geology	Depth of penetration typically limited to 250 m
Pole-dipole array acquired in two directions gives better resolution of structure	Blind to certain structure – less data and not acquired in two directions
Lower noise due to full waveform and robust processing	Higher noise, less precision
Additional Parameters	
System easily configurable to acquire Magnetotelluric Resistivity	No additional parameters
Additional parameter (Magnetotelluric Resistivity) sees to 1.5 to 2 km (or deeper)	No additional parameters
Inversion Modeling and Interpretation	
Titan 24 surveys are an excellent solution for providing input into IP and Resistivity inversions due to high multiplicity of data and highly precise data	Lower data volume and higher uncertainty with smaller N spacings result in shallower, less defined inversion models
Applicable in a minesite environment due to system design and processing benefits	Quality of acquired data generally insufficient for minesite resolution
More deposit types can be detected and at greater depths	Applicable for fewer deposit types and at shallow depths