

## Telluric Cancellation of Time Series IP Data

Example of the benefits of using the full tensor (MT) impedance over using a scalar simplification in the Telluric Cancellation process (e.g. the often used impedance from the calculated response of a 1D inversion model).

A significant component of the telluric signal in the E-field, particularly at low frequencies (close to and less than the IP signal), arise from contributions of the principal diagonal ( $Z_{xx}$ ,  $Z_{yy}$ ) elements of the tensor impedance such that their inclusion in the calculation, together with the off-diagonal ( $Z_{xy}$ ,  $Z_{yx}$ ) elements, result in a significantly improved inference, and removal, of the telluric noise and a potentially dramatic improvement in data quality.

