

Historically, IP logging has been used to detect disseminated pyrite in sedimentary rocks. In uranium roll-front deposits there is sometimes a higher concentration of pyrite on the reduced side of the roll, when compared to the oxidized side; IP may be used to distinguish these geochemical depositional systems. In coals seams, IP logs have been used to detect pyrite and other ferrous material. Montmorillonite clay is found in reducing sedimentary depositional systems and yields an IP response. Detection of sulfides in igneous and metamorphic rocks can be done with IP logs. ALT has improved the measurement of this basic phenomenon of charge separation in rocks that occurs when an external voltage is applied and created the new QL40-IP tool and IPWAVE browser for MATRIX users. Users can configure 10 time windows during chargeability relaxation curve to characterize IP response for a particular application.