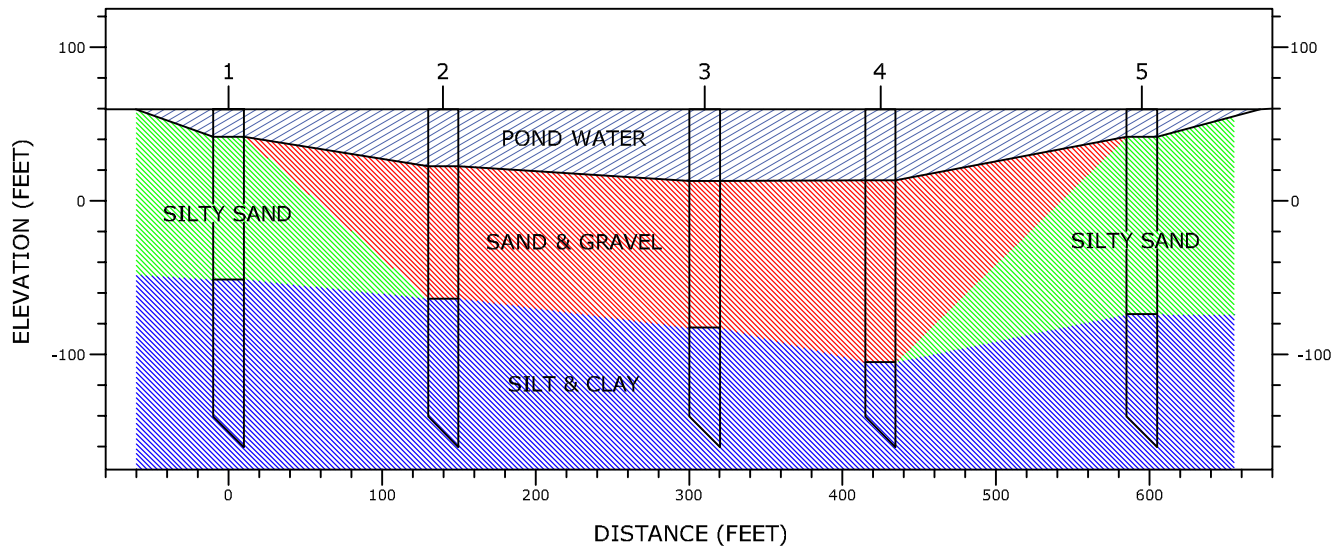


TIME DOMAIN ELECTROMAGNETICS



Time Domain Electromagnetics (TDEM) is a geophysical method that measures subsurface electrical properties without direct ground contact. This method can be used on land or in a marine environment. Transmitting and receiving loops are placed on the ground or floated on the water surface. Changes in conductivity with depth are recorded over a central point. Data can be obtained along a traverse or in a grid pattern to provide 2-D or 3-D vertical distribution and lateral continuity of electrical conductivity variations. Since there is a relationship between electrical conductivity and lithology, differentiations between fine grained silts and clays and coarse grained sands and gravels can be made.



TDEM can be used to explore for or characterize:

- Gravel deposits
- Impermeable clay units
- Groundwater basins
- Sea-water intrusion
- Various bedrock formations and structural features
- Potential water-bearing zones