



GROUND TECHNOLOGY



Trial Pitting

Trial pits and trenches can be carried out using a variety of excavation plant or by hand digging methods. Observation pits and trenches are logged by appropriately experienced engineers with a thorough knowledge of soil description, geology and soil mechanics.

Machine Excavated

Machine excavated trial pits are used for rapidly obtaining bulk samples of granular materials and detailed logging of the exposed excavation faces. Trial pits are ideal when close visual examination of the soils is required; particularly with respect to recording visual features such as assessing the extent of organic contamination or tracing buried structures and obstructions. Machine excavated trial pits are able to provide exceptionally economic coverage of shallow ground conditions on large sites and are suitable for foundation assessment for most low rise structures. However, advancing trial pits below the groundwater table or in dry unstable soils is usually problematical.

A variety of excavators can be used depending on the final depth required and the access restrictions on the site. Depths of up to 5.00mbgl can be achieved with a 360 type tracked excavator in suitable ground conditions. We are also able to perform a range of insitu tests in excavated pits, including plate bearing tests, CBR tests, soakaway tests and strength testing using hand held shear vanes.

Although entry into excavations by personnel should generally be avoided where possible, entry into a trial pit might be required to obtain block/undisturbed samples or to undertake further works or tests. In these situations we are able to provide suitable shoring, such as a trench box which can be lowered into the pit.

Hand Excavated

Hand excavated trial pits are usually undertaken to: obtain shallow environmental or disturbed samples, expose shallow foundations to structures (or other shallow sub-surface features) or identify buried utility cables. We excavate all hand pits using insulated hand tools.