

### OVERVIEW:



**ERS regularly undertakes site investigations for water pipe assessments in order to recommend appropriate water supply pipes for water main diversions, replacements, or new installations, as required by Scottish Water.**

**Developers involved in the installation of drinking water supply pipes at brownfield (previously developed) sites have a responsibility to select appropriate pipe materials, to ensure that the quality of the drinking water supply will not be affected by potential contaminants in the soil in which the pipe is laid.**

For example, certain compounds such as hydrocarbons can permeate commonly used plastic pipes, and corrosive chemicals can reduce the service life of unprotected metallic pipes. The potential presence of contamination in brownfield sites therefore requires careful selection and evaluation of an appropriate pipe material to provide long term protection to both drinking water quality and structural integrity.

Scottish Water (or any other Water Authority) requires soils to be tested and an assessment undertaken in accordance with the UK Water Industry Research (UKWIR) guidelines.

---

### ADVANTAGES

- ERS' water pipe investigation and assessment approach has been developed from discussions with Scottish Water regarding its interpretation of the UKWIR guidance, and from our experience in the investigation and assessment of contaminated land.
- ERS has considerable experience in undertaking water pipe assessments for a range of clients including both local and national development contractors, and Scottish Water.

---

### TECHNIQUE

Assessment of the presence, or otherwise, of contamination in the soil beneath the site is made through a series of trial pits are excavated at appropriate evenly spaced intervals along the proposed route of the water supply pipe on the site. Soil samples are taken at the proposed depth of the pipe, and submitted to an accredited laboratory for analytical testing for a suite of contaminants in general accordance with the UKWIR guidance and current best practice. Analysis of the results allow recommendations to be made regarding the selection of water supply pipe material, and any special installation instructions, as required.