



LABORATORY TESTING AND ANALYSIS

4-RAIL Services Limited has an in-house laboratory that can perform a range of chemical, mechanical, physical analyses and investigations. Our experienced and technically qualified laboratory technicians, technologists and specialists offer a range of laboratory and Research and Development (R&D) services such as:

▪ Compositional evaluations

- Elemental analysis
- Chemical analysis and other similar hazards

▪ Mechanical analyses

- Mechanical analysis, evaluation of the compressive and tensile strength properties of materials
- Hardness and Impact testing and evaluation.
- Failure analysis and investigations

▪ Material investigations

- Chemical and compositional analysis including the **identification of Hazardous components**
- Material property evaluations, i.e. performance, mechanical, etc.
- Comparison evaluations, against standards and/or 'new' versus 'old'

▪ Macroscopic and Microscopic analysis

- Able to conduct various macroscopic and microscopy investigations
- Scanning Electron Microscopy (SEM) coupled with elemental analysis via EDXS

▪ Contamination sampling and analysis of soil, ballast, effluent and water

- Determination & quantification of various contaminants (e.g. **asbestos, metals, PCBs, etc.**)
- Classification of Non-hazardous and Hazardous Waste
- Waste Acceptance Criteria (WAC) analysis
- Contamination and Bacterial/Microbiological (e.g. **Legionella**) analysis of water

▪ Concrete testing analyses

- On site sampling of fresh concrete, manufacture and subsequent testing of concrete cubes
- On site core sampling

▪ R&D investigations for background information, comparisons with standards, specifications, etc.

▪ And many other similar services

To discuss your particular requirements regarding these or other complementary services, contact us by emailing enquiries@4-rail.com or call us on 020 8955 1700

4-RAIL Services Limited is a recognised and leading
UK Environmental and Materials Consultancy

Unit 11 Ironbridge Close, Great Central Way, London NW10 0UF
Telephone: 020 8955 1700 Facsimile: 020 8830 1003
www.4-rail.com

