

Welcome to the July 2026 edition of LPD Lab Services Newsletter

LPD Lab Services are the experts in materials, chemicals, technical engineering and scientific problem solving for products and manufacturing processes across all sectors within Quality Assessment, Facilities, Manufacturing, Engineering, Product and Process Development and Research. LPD Lab Services develop innovative and practical analytical solutions, as well as bespoke testing methods for in-process manufacturing, finished products and field failure, plus help develop new production processes, products and materials. Staff pride themselves resolving some fascinating and complex technical problems from across diverse product ranges and sectors of industry. The laboratory offers pragmatic scientific and engineering solutions, with timely response times and clear communications, which are all core to the company's business model.

This Edition at LPD Lab Services:

- **Construction and Building Facilities Failure Investigations.**
- **Coating and Plating Layer Measurements.**
- **Problem-Solvers and Technical Thinkers - Our Team Behind The Lab: Introducing Dr Georgeanna Kawaley.**

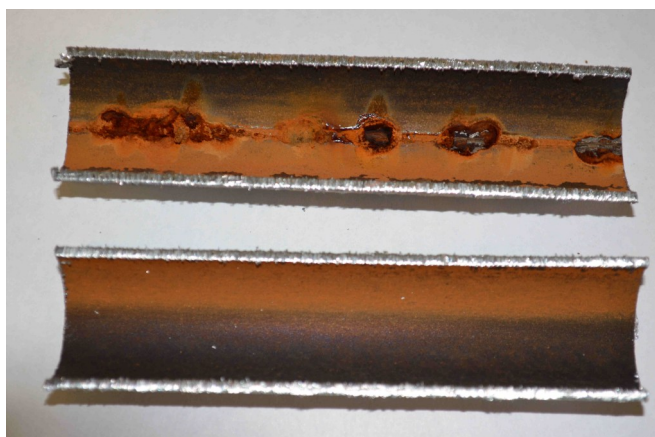
Construction and Building Facilities Future Investigations.

LPD Lab Services supports the construction industry, consultants, and building and facilities engineers with a wide range of analytical work and root cause failure investigations. Work spans both new developments, refurbishment projects and early lifetime problems. Often these focus on understanding why materials or infrastructure systems have failed and how to prevent it happening, again using the significant real-world experience of the laboratory's consultants providing pragmatic advice.

This can include investigating issues such as paint or powder coating delamination on steel structures, cracking in resin driveways, filter blockage and blinding, plastic, rubber and coating degradation or failures in water pipe systems or building cladding. Using techniques such as FTIR, XRF, XPS, AAS and SEM/EDX, the team can analyse materials in detail, whether it is checking concrete and mortar mixes, identifying contamination such as flux residues in plumbing fittings, or assessing corrosion in pipework, heat exchangers and air conditioning systems.

The lab also works on practical real-world problems, like chilled water pipe bursts, leaks promoted by phenolic foam insulation and deposits or blockages in piping, polybutylene hot water pipe failures, filters, and extraction systems. In addition, LPD Lab Services carries out UKAS accredited lead-in-paint analysis for health and safety and risk assessments, as well as dust and debris analysis to trace contamination sources within buildings including data centres.

Overall, the approach combines detailed laboratory analysis with a clear understanding of how materials and chemicals behave on site, helping clients identify root causes and make informed decisions for repair, replacement, containment or improved design.

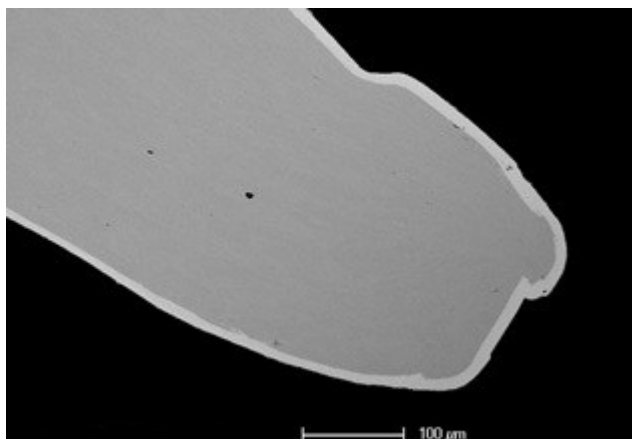


Coating and Plating Layer Measurements

LPD Lab Services has built up very significant experience in analysing coatings and plating layers, supporting work that ranges from routine characterisation through to more complex reverse engineering and failure investigations. This includes projects such as examining bore oxide on superheater tubes, as well as assessing the porosity and overall quality of barrier layers. Using techniques like SEM/EDX, XRF, XPS and FTIR Microscopy the laboratory can measure coating thickness, study layer composition and understand how different coatings are performing in real conditions.

Staff look closely at practical issues that matter in service, such as the uniformity and continuity of corrosion protection or whether a plating layer meets its specification. Work often involves detailed cross-sectional imaging to understand adhesion and mechanical keying, alongside fingerprinting of paints, sealants, adhesives and gasket fillers based on their chemistry and particle structure.

Where things go wrong, LPD Lab Services, supports failure investigations, including problems linked to plating bath chemistry or organic contamination. This extends to more specialised challenges, such as nickel plating failures in lithium-ion battery cans, helping to identify root causes and improve processes moving forward.



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Problem-Solvers and Technical Thinkers — Our Team Behind The Lab: Introducing Dr Georgeanna Kawaley.

We are pleased to introduce Principal Scientist and Technical Customer Owner, Dr Georgeanna Kawaley, an experienced metallurgist and materials engineer with over 15 years in corrosion, electrochemistry, failure investigations and HVAC systems.

With an academic background spanning Biomedical Sciences, Metallurgy and Materials, and a PhD focused on corrosion testing for food packaging materials, she has built a career at the intersection of scientific research and industrial innovation. Her work has ranged from developing materials for medical applications, including hip implants and dental devices, to advancing the performance and durability of heating and cooling systems.

Throughout her career, she has led research and development programmes focused on understanding and preventing material degradation, helping to improved product reliability and extend system lifespans. Georgeanna's expertise is supported by an extensive portfolio of patent applications, scientific publications, and hands-on experience with a wide range of analytical and investigative techniques.

In addition to these technical achievements, she has successfully managed technical facilities and collaborative projects involving both industrial and academic partners, translating complex technical challenges into practical solutions.

In her role at LPD Lab Services, she brings a wealth of scientific knowledge and industrial experience, supporting customers across a diverse range of sectors with expert materials, corrosion, and failure analysis services. Welcome to the team, Georgeanna!

