



The Geological Society

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## The role geology plays in the sustainable management of mine tailings

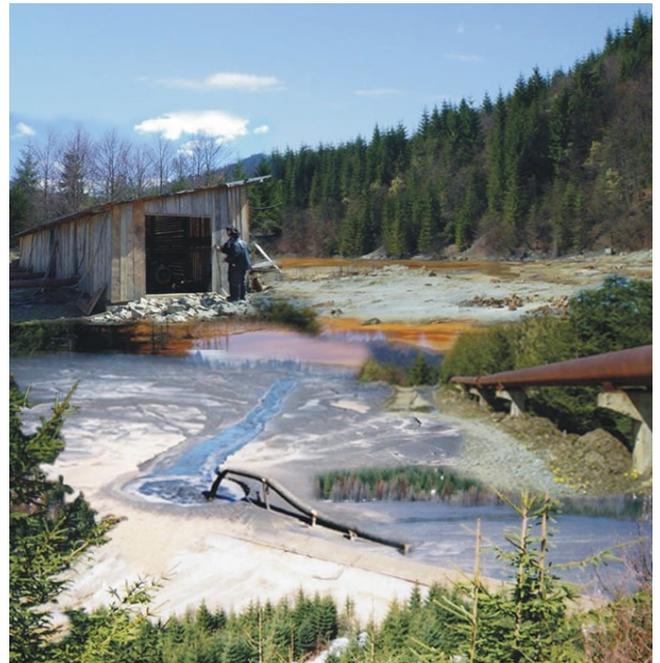
Nick Watson (WMRG / Wardell Armstrong)

11<sup>th</sup> March 2020 | The Deritend Room, St Martin in the Bullring, Edgbaston Street, Birmingham, B5 5BB  
| Refreshments and networking from 6.00pm for a 6:30pm start

The September edition of Geoscientist dealt with education and noted that geology was in decline, being perceived as a dirty industry and damaging to the planet. Many in the profession think the reverse; that geology plays an important role in developing sustainable industry practices and improving life for the better.

The storage of slurry tailings – the waste from a processing plant on a mining operation – is a case in point. Tailings dams are large structures. The storage of slurry tailings needs to be carefully managed to follow sustainable practices and mitigate the impact of the storage facilities.

The presentation shows how a knowledge of geology (in this case mineralogy, geochemistry and soil mechanics) provides for an understanding of the properties of slurry tailings and their physical and chemical behaviour. This geological understanding informs sustainable design of operational practices and closure schemes at tailings storage facilities.



**About the Speakers:** Nick is a retired geologist and geotechnical engineer with 40 years varied experience on construction and mining projects in the UK and overseas, including Africa, Russia, Middle East, Asia, Europe and Central-South America.

For much of his career he was a Technical Director with Wardell Armstrong. Work involving tailings disposal and storage at mines started for him in the 1990s, since when he has been involved in many projects worldwide.

During Nick's career he has been responsible for the design and construction of several new tailings dams and the remediation of old dams, developed feasibility level designs for many more, and inspected and audited facilities on existing mines. The presentation is based on his experiences with slurry tailings storage.

**Forthcoming Talks:** The WMRG is constantly on the lookout for fascinating talks. If you would like to present, or know someone who is willing, please contact the WMRG committee (details below) and we will try our very best to accommodate your requests.

**Contact:** For all enquiries regarding the West Midlands Regional Group and events please contact us using the details below.

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