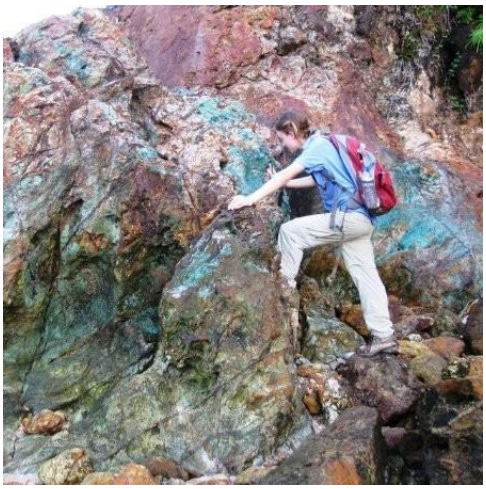
UPDATED!!

The Geological Society
Hong Kong Regional Group
英國地質學會香港分部

Application of spectral alteration data in new porphyry and epithermal discoveries: Case Studies from Indonesia and Ecuador

What to expect



With the global race to net-zero and low-carbon lifestyle, the focus has been placed on the discovery and exploitation of critical mineral deposits. But with greater electrification of our infrastructure, one essential element has consistently been neglected, Copper!

Dr Rachel Harrison will share her experiences in being involved in the discovery of a major Au-Cu-Mo porphyry deposit at Tumpangpitu, SE Java, Indonesia, one of the largest new discoveries in SE Asia. She will discuss how she and her team interpreted the various phases of mineralisation to complete the geology and alteration models for the initial resource estimation of the 1.9 billion tonne deposit.

She will also discuss the application of spectral alteration mapping to vector towards hydrothermal ore deposits in field exploration, as well as its use in deposit modelling and geometallurgy. This practical application resulted in new discoveries in Indonesia and at the Cascabel giant porphyry Au-Cu discovery in Ecuador.

Details

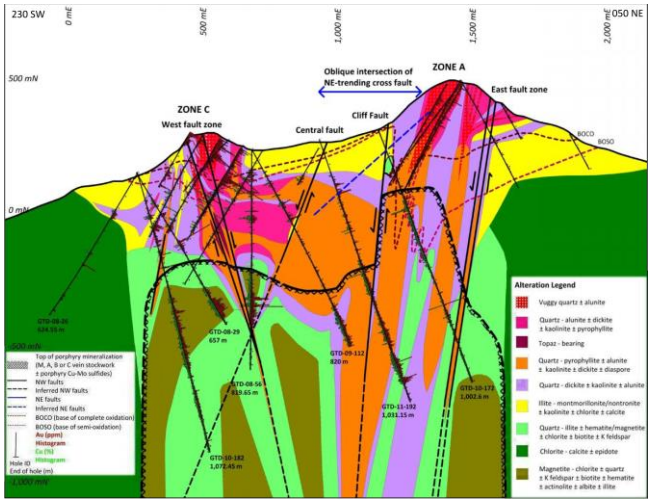
Date: Wednesday 18 March 2026

Time: 6:30-8:30pm

Location (hybrid): Seminar Room, Centenary Building, Craigengower Cricket Club, 188 Wong Nai Chung Gap Road, Wanchai (or Zoom – details will be emailed to successful applicants)

Registration: Registration is free **Register here** by 11 March 2026 (light snacks & drinks will be provided)

Enquiry: Please contact Jesse Tam at j.tam@fugro.com



About the Speaker

Dr Rachel Harrison (MEconGeol, PhD, CGeol)

Rachel is a field-oriented chartered independent consultant exploration geologist with a strong interest in exploration for Au-Cu porphyry and epithermal deposits. She has 20 years of experience from grassroots exploration to advanced stage projects in a variety of geological and cultural environments including Indonesia, China, Laos, Vietnam, Ecuador, Mexico, Central America, PNG and Australia.

She completed her Master's in Economic Geology and PhD at the Centre for Ore Deposit and Earth Sciences (CODES) at the University of Tasmania. She has QP Chartership Status (CGeol) from the Geological Society of London and currently works as an independent consultant geologist based between Indonesia, S. America, Australia, the US and the UK and shares knowledge with local geologists during training workshops and fieldwork.

She has a keen interest in the application of spectral alteration mapping for the identification of ore bodies through vectoring toward mineralisation. She has presented these techniques that led to major discoveries at a number of international conferences and gives workshops to geology teams at projects worldwide.