



Future Understanding of Tectonics, Ores, Resources, Environment and Sustainability

## Structural Geology in Epithermal Systems

Nick Oliver<sup>1</sup>, Julie Rowland<sup>2</sup>, John McLellan<sup>3</sup>

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### Location:

Rydges Southbank Townsville  
Kingston Room  
23 Palmer St  
Townsville

### Date:

Sunday 4 June 2017

### Time:

9 am – 5.30pm

### Course Requirements:

Laptop , manual will be on a USB

### Catering

Fully catered

### Parking

Available in the Rydges car park, Palmer St or behind Rydges in Mcllwraith St

### Course Description

This 1 day course is intended for any geologist who desires to improve their skills in dealing with, and combining, structural observations (mine and field), geophysical datasets, and structural modelling, with particular emphasis on epithermal mineralisation. It will also act as a refresher for experienced mine or exploration geologists seeking new ways to get their team to solve complex problems. Research geologists and academics involved with epithermal mineralisation will take home a new view on how to approach epithermal systems.

### Presenters

#### Nick Oliver

Nick Oliver is a Principal Consultant in HCOV Global (hcovglobal.com), a consortium founded around structural geology, and Adjunct Professor, James Cook University. He was Director of the Economic Geology Research Unit and Professor of Economic Geology at James Cook University in Australia from 1997 to 2010. He uses structural, geochemical and geophysical approaches to provide practical consulting and training solutions for any hydrothermal system containing veins, breccia, or alteration, with a recent focus on porphyry-epithermal systems in Mesozoic to modern arcs. He has run field- and class-based workshops, both public and in-house, to over 3000 industry geologists over a 25 year period.

#### Julie Rowland

Julie Rowland is an Associate Professor at the University of Auckland. She uses structural geology to understand what controls the migration of hot fluids through the crust. Her projects range from fundamental studies of continental break-up to applied structural geology of geothermal and epithermal

systems. She has worked extensively with the geothermal and minerals industries, in New Zealand, Asia, Africa and South America, in both an academic and consulting role.

### **John McLellan**

John McLellan is the Managing Director and Principal Geoscience Consultant at GMEX (Geological Modelling for Exploration), was a Senior Research Fellow, and is still currently, an Adjunct Research Fellow at James Cook University. John focuses on the importance of geological processes, such as, deformation, fluid flow, structural controls and thermal budget on mineralisation events. He uses computational methods (discrete and continuum numerical methods) in 2D and 3D to solve many geological process driven questions, ultimately leading to highly improved predictive capacity for mining and exploration companies.