

Ore Textures and Breccias: Recognition Techniques

23 – 25 January 2018

Presented by
Economic Geology Research Centre

Location
James Cook University
Townsville QLD



Course Leaders
Dr Gavin Clarke

Course Fees

EGRU member	\$ 990.00
Non-EGRU Member	\$1290.00
Students	\$ 200.00

Inclusive of GST, \$AU

Registration
[Online Registration](#)

Introduction

This 3 day course, available to industry geologists and, students as an opportunity for short duration professional training. The training is part of the honours coursework program at JCU in 2018 so, participants will work alongside current JCU honours students.

Course Description

This module is designed to introduce participants to the fundamentals of textural observation and interpretation in mineralized hydrothermal systems. The techniques are simple, highly effective and require no specialized equipment for their implementation. The techniques taught are also extremely practical in that they generate numerous questions concerning the mineralization being studied and commonly provide vectors toward mineralisation for drill testing.

In other situations questions concerning the timing, location and controls on different components (especially gold) can be readily answered using basic textural interpretation together with follow-up petrological work. The most fundamental aspects of textural interpretation involve the recognition of various components of hydrothermal systems especially whether new minerals are formed by infill and/or alteration.

Other important aspects include the timing relationships between different hydrothermal phases (overprinting and paragenesis), the nature of the channelways for fluid access, and the styles of brecciation and mineralization present. These are all features that can be determined from rock samples and drill core by eye and with the aid of a hand lens if the basic principles of textural interpretation are applied.

Enquiries

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Schedule

Day 1

Infill - Recognition Criteria

- Alteration - recognition & evaluation
- Channelways - recognition criteria
- Overprinting - paragenesis - recognition & sequencing criteria

Day 2

Breccia - Recognition Criteria

- Breccia - rudimentary classification system
- Tectonic breccia systems - Big Gossan Deposit example
- Intrusive breccia systems - system types / classification

Day 3

Paragenetic Core Logging Technique

- Overview
- Establish stages
- Establish relative timing of stages → Paragenetic evolution
- Establish structural controls, and overview as deposit style

Course Requirements

Enclosed shoes, scribe, magnet, hand lens, USB, laptop

Course Notes

Handbook will be provided

Location

James Cook University
Townsville

Building 017, Room 131

[Map](#)

Daily Routine

9.00 - 5.30

Catering

Morning and afternoon tea – fully catered
Lunch – included for industry participants only

Transport and Parking

[Sunbus](#) – Route 201 - one stop on the University near building 134 – follow pathway in front of the Library to 034

Parking – free parking is available beside the ring road opposite buildings 017/034 – parking tickets for the permit areas are available at the bookshop

Accommodation Options

Cedar Lodge – www.cedarlodge.com.au

JCU Short Stays - www.jcu.edu.au/jcu-halls/short-stays

General Townsville Accommodation -

www.queenslandholidays.com.au/destinations/townsville/accommodation/accommodation_home.cfm