

## Geology & Geological Processes

**Introduction** Basic understanding of geology, geological processes, rock types, and their applicability or suitability for quarrying.

Many product technical issues encountered by quarry operators can be traced back to source rock properties and the selection of suitable raw material(s). Having a basic understanding of geology, geologic processes, and rock types allows a quarry operator to extract the most from their reserve on-site; determine potential future site suitability; comply with the relevant specifications regarding product quality; identify and manage geotechnical issues; and limit future product technical claims or issues.

**Duration** 1 hour

**Potential Participants** Suitable for Quarry Managers, Quarry Supervisors, Technical / Laboratory Managers, and Operational Management employed or seeking employment in the industry.

**Topics Covered**

1. Outline the Earth's structure and the geologic time scale.
2. Describe basic rock types and their formation.
3. Describe the Rock Cycle and its influence on geology and quarrying.
4. Outline the basic structural geology types as encountered in quarrying.
5. Define secondary mineralisation and outline impact on quarry products.
6. Define and describe basic quarry source rock properties.

**Facilitator** Richard Ernst



The Institute of Quarrying  
Australia