



Mining & Minerals Exploration Technology & Geotectonic

DURATION

5 days

CONTACT HOURS

30

LEVEL

Intermediate

FEE PER DELEGATE

R15,000

Plate tectonics as an exploration tool: why deposit types cluster in particular settings.

Mineral deposits are not scattered randomly. They concentrate in tectonic settings that produce the heat, fluid and structure needed to form them, which makes tectonic reasoning the first filter in any regional targeting exercise. This module covers plate tectonic processes and the settings they produce, the metallogenic associations of each, and how terrane analysis and tectonic history are used to rank ground before a single sample is taken.

Available as classroom, live online, in house.

Who it is for

Exploration geologists and managers working at regional scale, resource geologists, and analysts assessing exploration ground.

What you will be able to do

- Explain plate tectonic processes and the settings they create.
- Associate deposit styles with their tectonic settings.
- Apply terrane analysis to a region.
- Use tectonic history to rank ground.
- Avoid stretching an analogue beyond what it supports.

The outline

DAY 1

Plate tectonics

Divergent, convergent and transform margins · Subduction, collision and rifting · Mantle plumes and intraplate magmatism

DAY 2

Settings and their rocks

Arcs, back arcs and accretionary complexes · Rifts, passive margins and cratons · Orogens and their evolution

DAY 3

Metallogeny

Porphyry and epithermal systems in arcs · Volcanogenic massive sulphides · Orogenic gold and collision settings · Layered intrusions and rift related deposits

DAY 4

Terrane analysis

Recognising and bounding terranes · Sutures, and what crosses them · Reconstructions and their uncertainty

DAY 5

Applying it

Regional targeting from tectonic reasoning · Analogue regions, and where the analogy breaks · Ranking ground before spending on it

What you leave with

- A tectonic setting analysis for a chosen region.
- A metallogenic association table.
- A ground ranking with the tectonic reasoning stated.

Published dates

DATES	WHERE	FEE
23 to 27 November 2026	Maseru, Lesotho	R15,000
30 November 2026 to 4 December 2026	Cape Town, South Africa	R15,000
7 to 11 December 2026	Dar es Salaam, Tanzania	US\$1,500
14 to 18 December 2026	Dubai, United Arab Emirates	US\$1,500

Fees are per delegate and cover all expenses arranged by the delegate. Reg

Register or ask a question

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