

Chartered Professional Guideline 3: Areas of Practice

1. Areas of Practice: Geology

A geologist is a professional who studies, investigates or explores the earth's crust to find mineral resources (including hydrocarbons) of sufficient quantity and having sufficient content of useful metals or other commodities to warrant their extraction; or controls and monitors the geological aspects of subsequent mining and extracting operations; or determines those structural characteristics of the earth's crust that may affect the design, safety or practicability of excavations (either on the surface or underground) required for mining operations or civil engineering excavations.

The following areas of practice are offered as examples of experience that is required for registration as a Chartered Professional (Geology). Professional experience need not be limited to those listed and applications will be considered for appropriate areas of practice in addition to those listed below.

1. Exploration strategy:

- 1.1. experienced in the strategic aspects of exploration, who advises on corporate philosophies, objectives and general implementation
- 1.2. usually a person with extensive experience at the exploration executive level

2. Exploration planning and management:

- 2.1. advising on and/or who undertakes the planning and management of exploration programs
- 2.2. usually dealing with the 'hands-on' rather than the strategic aspects of exploration
- 2.3. detailed knowledge of drilling techniques (e.g. open hole, core, reverse circulation etc.)

3. Exploration property appraisal:

Note: This category does not cover the economic valuation of exploration properties.

- 3.1. technical assessment and evaluation of exploration properties
- 3.2. a geologist with sufficiently broad and relevant experience to qualify as the author of a Technical Report, as defined in the VALMIN Code (1998) (as modified from time to time), on an exploration property

4. Geochemistry:

- 4.1. planning, design, implementation and assessment of geochemical exploration programs
- 4.2. experienced in the theory of geochemistry and its application to mineral exploration

5. Geophysics:

- 5.1. planning, design, implementation and assessment of geophysical exploration programs
- 5.2. experienced in the theory of geophysics and its application to mineral exploration

6. Photogeology and remote sensing:

- 6.1. geological interpretation of aerial photographs and/or of satellite images
- 6.2. theoretical aspects of photogeology and remote sensing and their application to mineral exploration

7. Mineral Resource/Ore Reserve estimation (including geostatistics):

- 7.1. advising on, and/or undertaking, the preparation of Mineral Resource estimates
- 7.2. a geologist who is sufficiently experienced to contribute to, or in restricted circumstances to undertake, the preparation of JORC compliant (or equivalent code complaint) Ore Reserve estimates
- 7.3. a geostatistician who specialised in Resource/Reserve estimation

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8. Mining geology/grade control:

- 8.1. advising on geological aspects of existing or planned mining operations
- 8.2. experienced in the field of mine grade control

9. Structural geology: A specialist who advises on, or who undertakes, structural geological studies related to the exploration for, and/or mining of, mineral deposits

10. Mineralogical services:

- 10.1. experienced in petrology and/or mineralogy as it relates to the exploration for, and/or mining of, mineral deposits
- 10.2. a geologist who provides petrological and/or mineralogical services including QEMSCAN/MLA techniques

11. Geochemical Analytical and Sampling Methods:

- 11.1. a geologist with knowledge of basic geochemical techniques, particularly where they apply to exploration, grade control, variability testing and sterilisation testing
- 11.2. a geologist with understanding how to take representative samples and blending/composition techniques. Examples of analytical techniques include XRF, XRD, Wet Chemistry Methods, ICP-OES, ICP-MS, AAS etc.

12. Safety, health and risk. Implementation of workplace health and safety systems that provide for:

- 12.1. hazard identification
- 12.2. risk assessment
- 12.3. implementation of controls
- 12.4. effective monitoring
- 12.5. comprehensive review.