

Mineral and Energy Resources (Domain H)

[Note: Examples given below are descriptive only and are not all-inclusive lists of items]

H-1. Ore/mineral systems and principles

H-1.1 Ore minerals and their economic use(s)

H-1.2 Mineral system/ore formation processes

H-1.2.1 Magmatic (e.g., disseminated deposits, vein/lode deposits, sulfide deposits, pegmatites, kimberlites, carbonatites)

H-1.2.2 Hydrothermal deposits (e.g., porphyry, volcanogenic massive sulfide, epigenic, geothermal brines)

H-1.2.3 Sedimentary ore deposits (e.g., placer, banded iron formations [BIF], evaporites, laterites, phosphorites)

H-1.2.4 Metamorphic deposits (e.g., skarn)

H-1.2.5 Meteoric/Groundwater (e.g., U-V roll front deposits)

H-2. Geologic energy resources

H-2.1 Coal deposits

H-2.2 Oil and natural gas reservoirs

H-2.2.1 Traditional systems

H-2.2.2 Unconventional systems

H-2.3 Geothermal energy

H-2.4 Nuclear energy (e.g., uranium mineral systems)

H-3. Prospecting/exploration techniques

H-3.1 Geophysical (e.g., resistivity, gravity, seismic refraction/reflection, magnetic susceptibility, aeromagnetic surveys)

H-3.2 Geochemical (e.g., soil, rock, groundwater/surface water sampling)

H-3.3 Drilling techniques (e.g., air/mud rotary, reverse circulation, diamond core)

H-3.4 Remote sensing and GIS (e.g., geologic maps, aerial imagery/photography, lidar, hyperspectral/multispectral imaging)

H-3.5 Petrophysical (e.g., bulk, grain, texture)

H-3.6 Analytical methods (e.g., fire assay, atomic absorption spectroscopy, inductively coupled plasma, x-ray fluorescence, microprobe)

H-3.7 Geostatistical analysis approaches – spatial modeling (PG)

H-4. Development techniques

H-4.1 Resource and reserve assessments

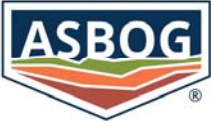
H-4.2 Quality and quantity evaluation

H-4.3 Economic evaluation (e.g., cutoff grade)

H-4.4. Mining methods

H-4.4.1 Surface methods

H-4.4.2 Underground methods



H-5. Environmental, health, safety, and security

H-5.1 Geological aspects that affect human health and environment

H-5.2 Extraction techniques

H-5.3 Waste management

H-6. Reclamation and restoration

H-7. Project planning (**PG Only**):

E-7.1 Scope of work and cost estimate

E-7.2 Literature and regulatory review

E-7.3 Site-specific maps and health & safety plan

E-7.4 Site-specific data