Porphyry Cu-Mo-Au

Province:

Potential: **Certainty:**

Index (out of 10):

Critical Elements (Assessment Criteria)	**Identified**	**Not Identified, but likely**	**Unlikely**	**Weighting**
Setting • Convergent plate margin: island arc and/or continental arc environment				
Source (fluid, metal, energy) • I-type, oxidised calc-alkaline to alkaline intrusives (For Copper, Molybdenum and Gold, and fluid as well as energy)				
Fluid pathway • Structures along and across the arcs important for the emplacement of volcanic-plutonic complexes • Structures associated with stratovolcanoes and volcanic- plutonic complexes important as fluid pathways				
Trap (any of the following) (predominantly structural) • Calderas and caldera-related structures • Breccia pipes and diatremes • Faults and shear zones				
Signs of mineralising process (any of the following, but if occurrences have been identified the level of certainty increases) • Wall rock alteration (any of the following):				

• propylitic • potassic • phyllic • Argilllic • Geochemical anomalies • Geophysical: ‘bulls-eye’ type of magnetic anomaly • Known occurrences porphyry copper ± molybdenum ± gold				
Preservation (any of the following but presence of sinter increases certainty because it is a more reliable criteria for assessing preservation) • Age: Mesozoic to Tertiary dominant although deposits known throughout Phanerozoic. Only a few reported in Proterozoic and Archaean • Presence of epithermal gold mineralisation could be indicative of preserved nature of the porphyry system				