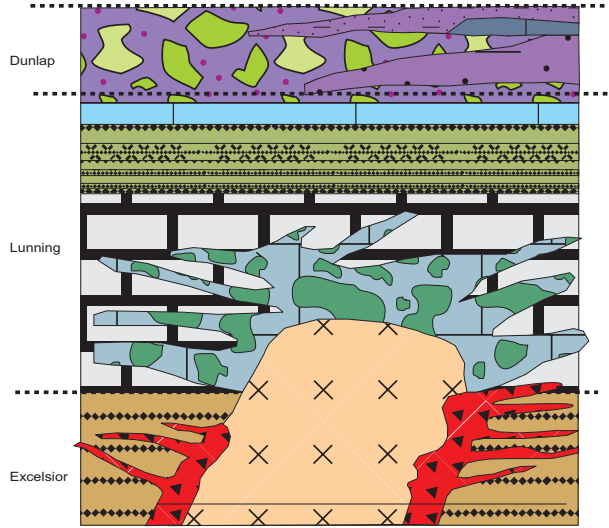
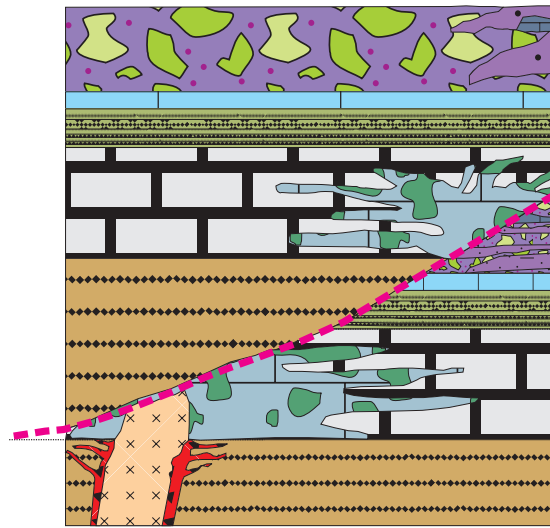


# Pine Tree Simple Genetic Model (not to scale)



## Stage 1 : Copper Bearing Skarn Event

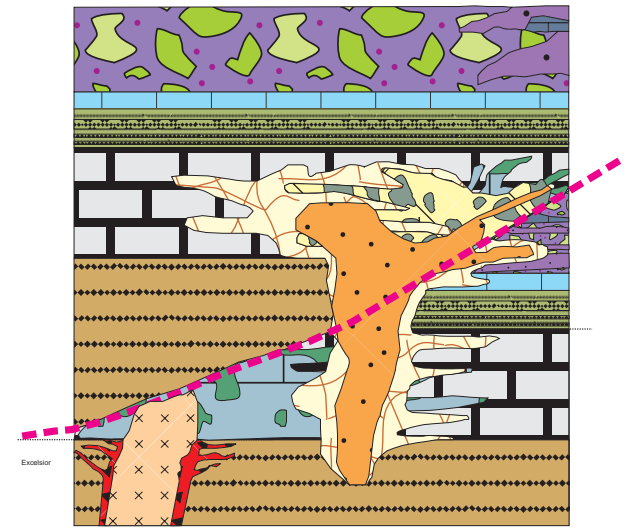
Intrusion into Excelsior and lower Lunning formation and creation of iron rich garnet pyroxene skarns in the limestone and limy parts of the sequence. Copper, silver and tungsten bearing mineralization deposited. Garnet-pyroxene skarn zoned from pyroxene-rich margin to higher temperature garnet-rich core near intrusion. Intense iron alteration halo associated with skarn. Exact intrusion not identified to date, probably Jurassic in age. Pre or Post Dunlap is unknown.



## Stage 2 : Thrust faults cut through the units

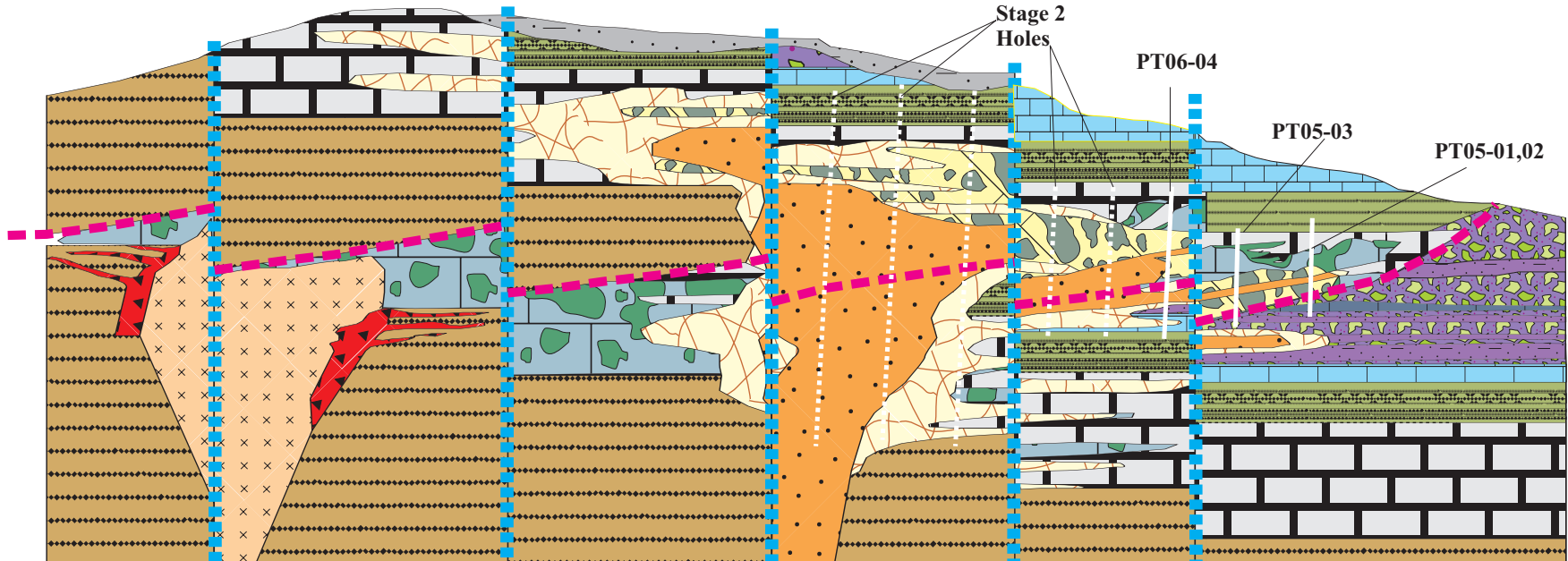
End result is blocks of copper-bearing skarn mineralization are thrust over top of the younger Jurassic Dunlap formation.

--- Thrust fault



## Stage 3 : Molybdenum-Rhenium Event

Intrusion of hyperbyssal Quartz feldspar prophyry stock with dykes/sills of QFP migrating along fractures and thrust fault. Molybdenum\_copper bearing quartz veins accompanied by intense silica-sericite alteration overprints lower Lunning and earlier skarn mineralization. Also overprints Dunlap formation rocks locally. Three distinct molybdenum bearing quartz veins observed. Intrusive event probably Cretaceous in age (copper queen)



## Stage 4 : Northwest trending fractures/faults offset sequence

Northwest trending faults (tertiary) offset sequence with west side moving upwar. Fractures are mineralized with gold, silver, arsenic, copper, lead, zinc, bismuth and indium. Copper is recrystallized probably as a result of remobilization of copper from older phases of mineralization into fractures. Mineralization in fractures shows zonation from massive lead zinc with gold and silver to massive patches of arsenopyrite with sphalerite to patches of chalcopyrite. Event related to Walker Lane Gold trend to the immediate west. Tertiary crystal tuffs unconformably overlie the Jurassic and Tertiary rock sequence. Two distinct ages of these tuffs are present indicating two extrusion events.