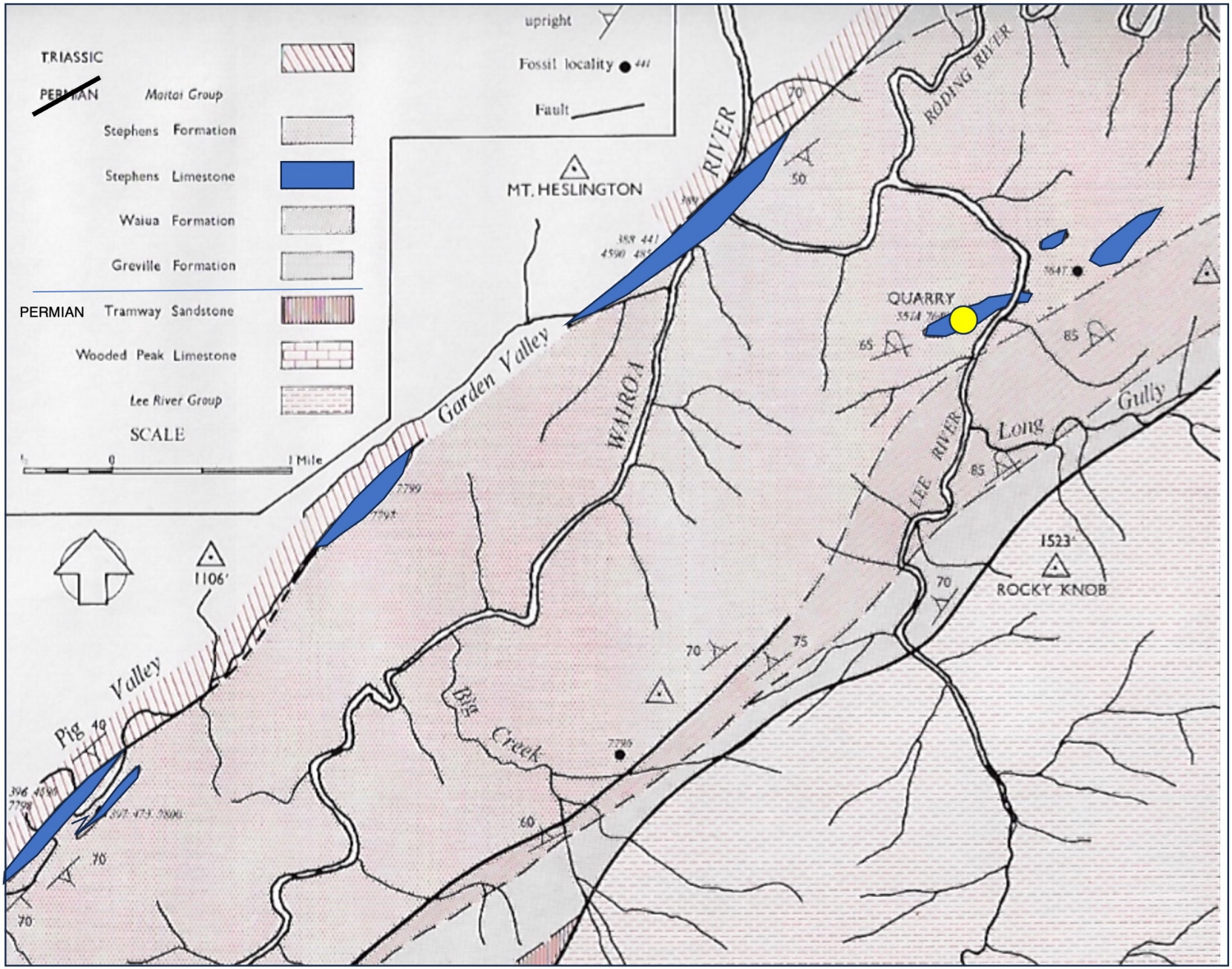
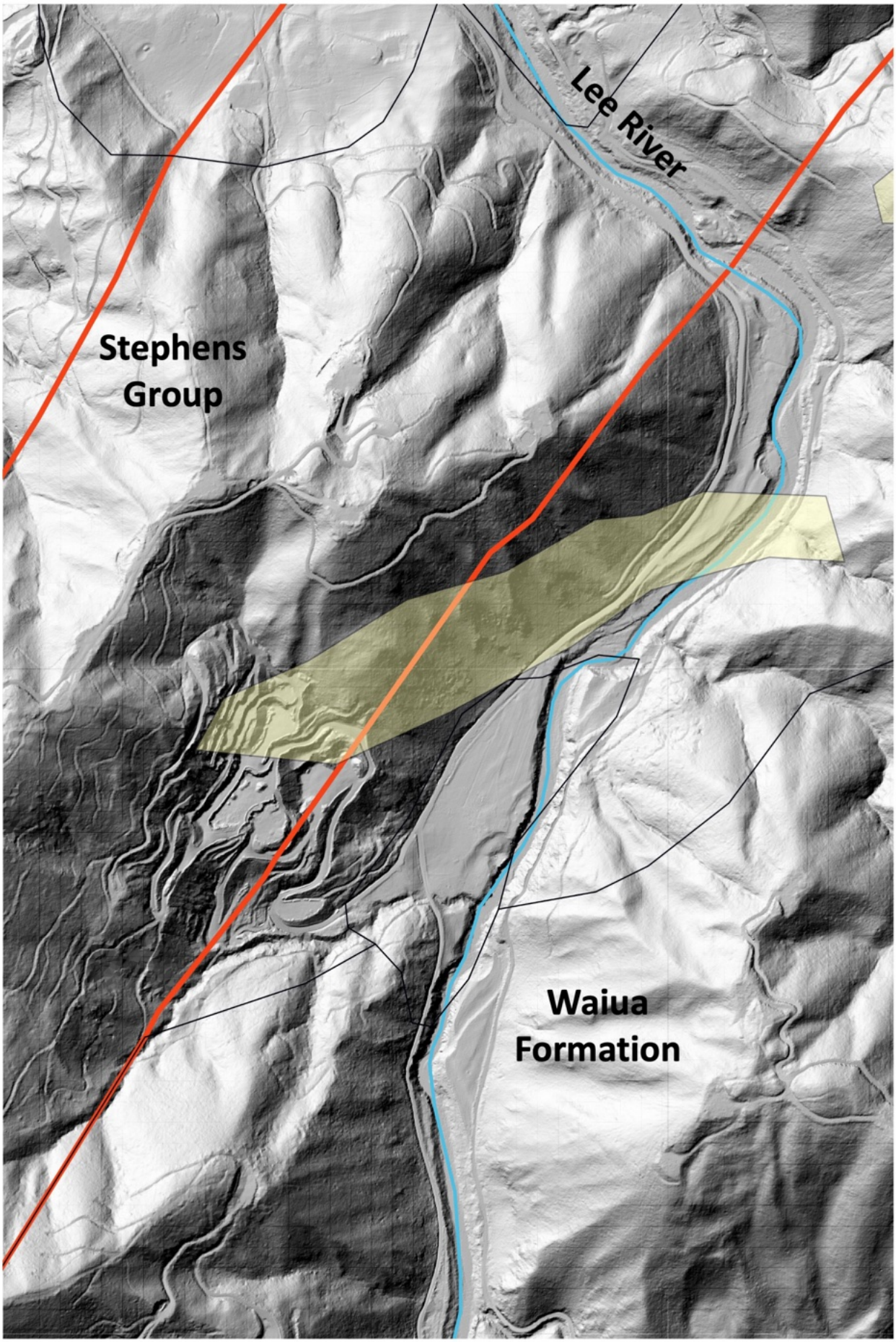
Formation/Stage (Waterhouse 1964)	Description	Comment	Terrane	Age (Current)
Stephens Limestone	Lenses of grey limestone, often broken, within the sandstones. Rare ?Permian fossils.	Now believed to be olistostomes - slabs of Permian limestone dragged into younger, Triassic strata	Dun Mountain – Maitai Terrane	Early Triassic
Stephens Group	Variable with massive green volcanic sandstone and conglomerate (especially at the base), grey siltstones and calcareous concretions.	Rare ?Triassic fossils.		
Waiua Formation	Green sandstone and siltstone and red mudstone, often laminated; occasionally ripple-marked.	Unfossiliferous		
Greville Formation	Alternating, finely laminated grey/green sandstone, siltstone and black mudstone; occasionally current-bedded.	Contains fossils including ammonites (*Durvilleoceras sp.* and *Owenites* sp.)		
Little Ben Sandstone	Hard green fine-coarse volcanogenic sandstone and minor siltstone.	Not recognised by Waterhouse. Permian-Triassic boundary now placed in Little Ben Sandstone on basis of C isotope analysis		Permian
Tramway Sandstone	Dark grey-blue, fine sandstone and siltstone, with beds of mudstone and impure limestone	Contains *Atomodesma* fossils		
Wooded Peak Limestone	Massive, dark grey and finely bedded pink/green limestone	Contains abundant *Atomodesma* fossils		
Dun Mountain Ultramafics	Serpentinised harzburgite, dunite, pyroxenite and gabbro			
Patuki Volcanics	Melange of blocks of basalt, gabbro, siltstone and sandstone on sheared serpentinitic matrix	Part of Caples Terrane	Caples Terrane	
Rai Sandstone	Green/blue sandstone, with argillite bands	Now referred to the Caples Terrane as Ward Formation. Includes *Atomodesma* fossils.		
Croisilles Volcanics	Blocks of basalt, red/green tuff and argillite in serpentinitic matrix			
Pelorus Group	Green sandstone	Now referred to the Caples Terrane as: Ward Formation Wether Formation Star Formation		
	Blue mudstone			
	Red mudstone and green sandstone			
	Green sandstone			

Geology of the Lee Valley (Waterhouse 1964)



Lee Valley showing Limestone Quarry, faults (red) and mapped limestone units (yellow)