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no. 641

Harder and Chamberlin, (1915)				Lacourt, (1936) (Ouro Prêto area)				Barbosa, (1954)				THIS REPORT						
Age	Series	Formation	Lithology	Age	Series	Division	Lithology	Age	Series	Formation	Lithology	Age	Series	Group	Formation	Lithology	Sedimentary environment	Maximum thickness, in meters (approximate)
Tertiary and Recent			Canga, alluvium, gravel	Tertiary and Recent			Canga, alluvium, gravel	Tertiary and Recent			Canga, alluvium, gravel	Cretaceous(?) Tertiary(?) Recent			(Unnamed)	Canga, lacustrine and stream sand, clay, gravel, alluvium, and colluvium	Continental	100
Miocene or Pliocene			Clay, silt, lignite	Tertiary			Lake and stream sediments, minor lignite	Miocene or Pliocene			Lake and stream sediments, minor lignite	Tertiary			Floralia	Lake and stream sediments, minor lignite	Continental	100
			Profound erosional and angular unconformity				Profound angular and erosional unconformity				Profound angular and erosional unconformity					Profound angular and erosional unconformity		
Algonkian	Minas	Itacolomi	Quartzite, phyllite, talc schist	Middle Algonkian	Itacolomi	Upper	Crossbedded sericitic quartzite		Itacolomi		Sericitic quartzite, conglomerate, phyllite, and itabirite lenses		Itacolomi	(undivided)		Type area: orthoquartzite, and protoquartzite, conglomerate, grit Santo Antônio facies; protoquartzite, phyllite, phyllitic quartzite, conglomerate	Paralic Molasse?	2,000? 1,000?
						Middle	Phyllite											
						Lower	Sericitic quartzite, conglomerate				Angular and erosional unconformity					Angular and profound erosional unconformity		
		Piracicaba	Argillaceous and quartzitic schist, quartzite, iron-formation, dolomite, limestone			Upper	Hematitic phyllite		Piracicaba		Phyllite, quartzite, dolomite, itabirite		Piracicaba	Minas	Sabará	Chlorite schist and phyllite, metatuff, graywacke, tilloid, conglomerate, quartzite, minor iron-formation	Eugeosynclinal Flysch	3,000+
																Local erosional unconformity		
															Barreiro	Phyllite and graphitic phyllite	Stable shelf (blanket)	150
															Taboões	Orthoquartzite	Stable shelf (blanket)	125
															Fêcho do Funil	Quartzose phyllite, dolomitic phyllite, siliceous dolomite	Stable shelf (blanket)	410
															Cercadinho	Ferruginous quartzite, quartzite, grit, phyllite, ferruginous phyllite, minor conglomerate and dolomite	Stable shelf (blanket)	600
																Local erosional unconformity		
			?				?				?				Gandarela	Dolomite and minor limestone, dolomitic itabirite, itabirite, dolomitic phyllite	Stable shelf (blanket)	600
		Itabira	Itabirite, limestone				Itabirite and dolomite		Itabira		Itabirite, dolomite, phyllite		Itabira		Cauê	Itabirite (oxide-facies iron-formation, dolomitic itabirite, minor phyllite and dolomite	Stable shelf (blanket)	350+
		Batatal	Argillaceous schist				Gray phyllite						Caraça		Batatal	Phyllite, slightly graphitic phyllite, minor metachert and oxide-facies iron-formation	Stable shelf (blanket)	250
		Caraça	Quartzite, quartz, schist			Middle	Itacolumite (sericitic quartzite)		Caraça	(Shown on map as Caraça Formation)	Quartzite, conglomeratic quartzite, conglomerate				Moeda	Paralic facies: orthoquartzite and grit, conglomerate, phyllite Blanket facies: Sericitic quartzite, quartzose phyllite, protoquartzite	Stable shelf	1,000 150
																Local erosional unconformity		
						Lower	(These rocks not present in Ouro Prêto area)						Tamanduá		(Unnamed)	Dolomitic phyllite, dolomitic iron-formation (oxide-facies), quartzose phyllite	Stable shelf	300
															Cambotas	Orthoquartzite, conglomerate, grit, conglomeratic quartzite, minor quartzose phyllite	Paralic prismatic	1,000
																Erosional and angular unconformity		
													Rio das Velhas	Maquiné	Casa Forte	Protoquartzite, grit, conglomerate, minor phyllite and subgraywacke	Eugeosynclinal Molasse	400+
															Palmital	Phyllite, quartzose phyllite, protoquartzite, graywacke, subgraywacke, minor basal conglomerate	Eugeosynclinal Molasse	1,400
																Local erosional and possibly angular unconformity		
			Unconformity								Angular and erosional unconformity			Nova Lima	(Undivided)	Phyllite, largely chloritic, graywacke, carbonate-facies iron-formation, metavolcanics, minor quartzite, tilloid, conglomerate, and dolomite Rb—Sr age on muscovite 2800 million years before present	Eugeosynclinal (Flysch)	4,000+
Archean			Basement complex: schist, gneiss, granite, amphibolite, metavolcanics				Hematitic phyllite, biotite schist	Barbacena			Greenschist, limestone quartzite, ultramafic and metavolcanic rock gneissic equivalents					No basement rocks exposed in the Quadrilátero Ferrífero; all granitic rocks are intrusive		
				Archean			Granitic rocks, granite through granodiorite. Gabbro, migmatite, mica schist, granitic gneiss, so forth											

DIAGRAM SHOWING DEVELOPMENT OF STRATIGRAPHIC COLUMN OF THE QUADRILÁTERO FERRÍFERO, BRAZIL, 1915–65

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