

ERA	PERIOD	FORMATION	MEMBER	MAXIMUM THICKNESS (m)	BASIC LITHOLOGY		
CENOZOIC	QUATER-NARY	(Recent)			Top soil, dune sands, lake clays, peat		
		Glacial Drift		140	Clay, sand, gravel, boulders, till		
	TERTIARY						
		Turtle Mountain	Peace Garden Goodlands	160	Shale, clay, sand, lignite		
MESOZOIC	CRETACEOUS	Boissevain		45	Sand, sandstone, greenish grey		
		Pierre Shale (First White Specks)	Couler	400	Grey shales, non-calcareous, local ironstone, bentonitic, carbonaceous		
			Odanah				
			Millwood				
			Pembina				
			Gammon Ferruginous				
		Niobrara		75	Grey speckled shale, calcareous, bentonitic		
		Morden Shale		55	Dark grey shale, non-calcareous, concretions, local sand and silt		
			Favel (Second White Specks)	Assiniboine	45	Grey shale with calcareous specks, bands of limestone and bentonite	
		Ashville	Keld	80	Dark grey shale, non-calcareous, silty, Newcastle (sand zone)-quartz sandstone		
	Belle Fourche Shale						
	Westgate						
	Newcastle						
	Swan River	Skull Creek	150	Sandstone and sand, quartzose, pyritic shale, non-calcareous			
	JURASSIC	Waskada		60	Banded green shale and calcareous sandstone, bands of limestone, varicoloured shale		
		Melita	145				
		Reston		45	Limestone, buff, and grey shales		
Amaranth		Evaporite	55	White anhydrite and/or gypsum and banded dolomite and shale			
		Red Beds	45	Red shale to siltstone, dolomitic			
PALEOZOIC	PERMIAN	St. Martin Complex		265(+)	Carbonate breccia, trachyandesite (crypto-explosion structure?)		
	PENNSYLVANIAN						
	MISSISSIPPIAN	Madison Group	Charles	20	Massive anhydrite and dolomite		
			Mission Canyon	MC-5	120	Light buff limestone, oolitic, fossiliferous, fragmental, cherty, bands of shale and anhydrite	
				MC-4			
				MC-3			
				MC-2			
		MC-1					
		Lodgepole	Flossie Lake	185	Limestone and argillaceous limestone, light brown and reddish mottled, zones of shaley, oolitic, crinoidal and cherty limestone		
			Whitewater Lake				
			Viriden				
			Scallion				
	Daly						
	Bakken	Upper	20	Two black shale zones separated by siltstone			
		Middle					
		Lower					
		DEVONIAN	Qu'Appelle Group		Three Forks	55	Red siltstone and shale, dolomitic
					Slack Group	Birdbear	40
	Duperow			120		Limestone and dolomite, argillaceous and anhydritic in places	
	Souris River (First Red)			90		Cyclical shale, limestone and dolomite, anhydritic	
	Min. Group		Dawson Bay (Second Red)	50	Limestone and dolomite, porous, anhydritic, local red and green shale		
			Erie Point Group	Winnipegosis	120	Halite, potash and anhydrite, interbedded dolomite	
				Elm Point		75	Dolomite, yellow brown, reefy
	Ashern			12	Dolomite and shale, brick red		
		SILURIAN	Interlake Group		110	Dolomite, yellow buff, fossiliferous, several argillaceous marker beds	
ORDOVICIAN	Stonewall		t-marker zone Williams Gunn	25	Dolomite, sparsely fossiliferous, t-marker defines Ordovician-Silurian boundary		
	Stony Mountain	Penitentiary	45	Dolomite, yellow buff			
		Gunn		Dolomite, dusky yellow, fossiliferous, red shale, green fossiliferous limestone bands (Gunn)			
	Red River	Fort Garry	170	Dolomitic limestone and dolomite, mottled (Tyndall Stone within Selkirk)			
		Selkirk					
		Cat Head					
		Dog Head					
	Winnipeg	Upper Unit	65	Green shale, waxy, interbedded sandstone			
Lower Unit		Sand, sandstone and quartzose					
CAMBRIAN	Deadwood		25	Black to green grey sand, waxy, glauconitic siltstone and shale			
PRECAMBRIAN					Metamorphic and crystalline rock		