

AGE Millions of years before present	ERA	PERIOD	EPOCH	FORMATION	MEMBER	MAX. THICK (m)	BASIC LITHOLOGY						
	CENOZOIC	QUATERNARY	RECENT				TOP SOIL AND DUNE SANDS.						
			PLEISTOCENE	GLACIAL DRIFT		140	CLAY, SAND, GRAVEL, BOULDERS AND PEAT.						
50	CENOZOIC	TERTIARY	PLIOCENE										
			MIOCENE										
			OLIGOCENE										
			EOCENE										
65	CENOZOIC	TERTIARY	PALEOCENE	TURTLE MOUNTAIN	PEACE GARDEN GOODLANDS	120	SHALE, CLAY, SAND, LIGNITE BEDS. LOCATED ONLY IN TURTLE MOUNTAIN.						
			MESOZOIC	CRETACEOUS	LATE CRETACEOUS	BOISSEVAIN		30	SAND AND SANDSTONE, GREENISH-GREY. LOCATED ONLY IN TURTLE MOUNTAIN.				
PIERRE SHALE	COULTER					340	SHALES, GREY, NON-CALCAREOUS, LOCAL IRONSTONE, BENTONITE NEAR BASE, GAS SHOW.						
	ODANAH												
	MILLWOOD												
PEMBINA													
GAMMON FERRUGINOUS													
CARLILE	BOYNE	75			● SHALE, DARK GREY, CALCAREOUS, NON-CALCAREOUS, BENTONITIC BANDS.								
MORDEN		55			● SHALE, GREY SPECKLED, CALCAREOUS, BENTONITIC, SLIGHTLY PETROLIFEROUS.								
FAVEL	ASSINIBOINE	40			● SHALE, DARK GREY, NON-CALCAREOUS, RARE IRONSTONE CONCRETIONS, LOCAL SAND AND SILT.								
ASHVILLE	KELD	40			● SHALE, GREY WITH HEAVY CALCAREOUS SPECKS, LIMESTONE BANDS AND BENTONITE.								
	BELLE FOURCHE		115	● SHALE, DARK GREY, NON-CALCAREOUS, FINE-GRAINED QUARTZ SANDSTONE OR SAND "ZONE".									
WESTGATE													
100	MESOZOIC	CRETACEOUS	EARLY CRETACEOUS	SWAN RIVER		75	● SANDSTONE AND SAND, FINE-GRAINED WITH SILTS AND GREY, NON-CALCAREOUS CLAYS, PYRITIC, GLAUCONITIC.						
			LATE JURASSIC	SUCCESS	S2	23	WEATHERED RED SHALE, SPHAEROSIDERITE CONCRETIONS, SANDY, KAOLINITIC.						
WASKADA		200		BANDED, GREEN BENTONITIC SHALE AND CALCAREOUS, GLAUCONITIC SANDSTONE.									
MELITA	UPPER LOWER	*		BANDS OF SANDY LIMESTONE, VARI-COLOURED SHALE AND SANDSTONE. OIL PRODUCING									
150	MESOZOIC	JURASSIC	MIDDLE JURASSIC	RESTON		45	LIMESTONE, BUFF AND SHALES, GREY.						
			AMARANTH	UPPER: EVAPORITE	45	ANHYDRITE AND/OR GYPSUM, WHITE AND BANDED DOLOMITE AND SHALE.							
200	MESOZOIC	JURASSIC	MID TO LATE TRIASSIC	AMARANTH	LOWER: RED BEDS	40	* SHALE, RED TO SILTSTONE, DOLOMITIC. OIL PRODUCING						
250	MESOZOIC	PERMIAN		ST. MARTIN COMPLEX		300	CARBONATE BRECCIA AND TRACHYANDESITE (CRYPTO-EXPLOSION STRUCTURE).						
300		PENNSYLVANIAN											
350	PALEOZOIC	MISSISSIPPIAN		MADISON GROUP	CHARLES	DANDO EVAP.	20	MASSIVE ANHYDRITE AND DOLOMITE.					
					MISSION CANYON	MC-3	MC-3b	120	* LIMESTONE, LIGHT BUFF, OOLITIC, FOSSILIFEROUS, FRAGMENTAL, CHERTY, BANDS OF SHALE AND ANHYDRITE. OIL PRODUCING				
						MC-3a							
						MC-2							
					LODGEPOLE	FLOSSIE LAKE WHITWATER LAKE VIRDEN	185	* LIMESTONE AND ARGILLACEOUS LIMESTONE, LIGHT BROWN AND REDDISH MOTTLED, SHALEY ZONES, OOLITIC, CRINOIDAL AND CHERTY. OIL PRODUCING					
					BAKKEN	SCALLION/ROUTLEDGE	20	* TWO BLACK SHALE ZONES SEPARATED BY SILTSTONE. OIL PRODUCING					
						UPPER MIDDLE LOWER							
					400	PALEOZOIC	DEVONIAN		SASK. GROUP	THREE FORKS		35	* SILTSTONE AND SHALE, RED, DOLOMITIC. OIL PRODUCING
										BIRDBEAR		40	● LIMESTONE AND DOLOMITE, YELLOW-GREY, FOSSILIFEROUS, POROUS, SOME ANHYDRITE.
										DUPEROW		170	● LIMESTONE AND DOLOMITE, ARGILLACEOUS AND ANHYDRITIC IN PLACES.
SOURIS RIVER (FIRST RED)		120	● CYCLICAL SHALE, LIMESTONE, DOLOMITE AND ANHYDRITE.										
DAWSON BAY (SECOND RED)		65	● LIMESTONE AND DOLOMITE, ANHYDRITIC. LOCAL RED AND GREEN SHALE.										
WINNIPEGOSIS	PRAIRIE EVAP.	120	HALITE, POTASH, ANHYDRITE AND DOLOMITE INTERBEDDED.										
	UPPER (REEF)	75	● DOLOMITE, LIGHT YELLOWISH-BROWN, REEFOID.										
ELM POINT	LOWER (PLATFORM)	12	LIMESTONE, FOSSILIFEROUS, HIGH-CALCIUM.										
450	PALEOZOIC	ORDOVICIAN		ELK POINT GROUP	ASHERN		12	DOLOMITE AND SHALE, BRICK RED TO VARIGATED GREEN.					
					INTERLAKE GROUP		135	● DOLOMITE, YELLOWISH-ORANGE TO GREYISH-YELLOW FOSSILIFEROUS, SILTY ZONES.					
500	PALEOZOIC	SILURIAN			UPPER	20	DOLOMITE, GREYISH-YELLOW, BEDDED.						
					LOWER		WILLIAMS	DOLOMITE, YELLOWISH-GREY, SHALY.					
450	PALEOZOIC	ORDOVICIAN			GUNTON	25	● DOLOMITE, DUSKY-YELLOW, FOSSILIFEROUS.						
					PENITENTIARY		GUNN	● SHALE, RED-GREEN, FOSSILIFEROUS LIMESTONE INTERBEDS.					
500	PALEOZOIC	ORDOVICIAN			RED RIVER	170	● DOLOMITIC LIMESTONE, MOTTLED AND MOTTLED DOLOMITE.						
					UPPER SHALE		60	SHALE, GREEN, WAXY, AND INTERBEDDED SANDSTONE.					
550	PALEOZOIC	CAMBRIAN			LOWER SANDSTONE	60	● SAND AND SANDSTONE, QUARTZOSE.						
					DEADWOOD		60	SAND, BLACK TO GREEN-GREY, WAXY, GLAUCONITIC SILTSTONE AND SHALE, GREEN-GREY TO BLACK. LOCATED ONLY IN EXTREME SOUTHWEST CORNER OF MANITOBA.					
	PRECAMBRIAN						ACID AND BASIC CRYSTALLINES AND METAMORPHICS.						

\* productive intervals

● documented oil & gas shows

Manitoba geologic column, showing productive intervals and documented oil and gas shows.