

# Stratigraphy of the Central and Northern Shenandoah Valley, and Eastern West Virginia

Sequence	AGE	West	FORMATION	East	Thick-ness	DESCRIPTION	Interptetation		
KASKASKIA	Miss.		MAUCH CHUNK			Coarse ss, silt, shale. Channels. Plant fossils common in places. Coal	Begin Alleghenian Orogeny		
			GREENBRIAR			Carbonate dominated (oolites, biosparites)	Orogenic Calm		
			POCONO			300-1700'	Quartz sandstone & conglomerate; coarse, thick, large cross beds	Acadian Orogeny Armorica terrane collides with east coast (survives as Avalon terrane).	
		HAMPSHIRE (Catskill)			2000'	Point Bar Sequences; red			
		GREENLAND GAP GROUP (former Chemung)		FOREKNOBS SCHEER		2000'	Thick hummocky sequences; at top interbedded red and green fine sands and silts		
		BRALLIER (Portage in Pa.)				1500-1700'	Bouma sequences		
		MILLBORO (Used south of Shenandoah Co.)		Tully Harrel Mahantango Marcellus		900'	Dark gray to black silts and fine sands		
		NEEDMORE		Tioga bentonite		100-530'	Olive gray fine sands, silts, and shales; fossils abundant in places		
		Wallbridge Unconformity							
		ORISKANY				10-125'	Quartz arenite; white, gray, tan; abundant fossils	Orogenic Calm	
	HELDERBERG GROUP		LICKING CREEK		70-150'	Carbonates of many kinds; sometimes with cherts, or interbedded with shale or quartz arenites; fossils very abundant			
			MANDATA						
			NEW SCOTLAND		17-50'				
			NEW CREEK		70-600'				
			KEYSER						
TIPPECANOE	Silurian		(Salina in WVa.) TONOLOWAY			50-250'	Tidal carbonates; ALM, ALD; mud cracks; salt casts; evaporitic to west	Orogenic Calm	
			CAYUGA	WILLS CREEK	BLOOMSBURG		0-400'		Bloomsburg; red very fine sands/silts/shale
			WILLIAMSPORT						
			MCKENZIE			0-75'	Yellow calcareous shale; fossils		
		CLINTON	KEEFER	MASSA-NUTTEN		70'	Massanutten: coarse friable quartz arenites and conglomerates with large planar X-beds Tuscarora/Keefe: quartz arenites; ripples Skolithus. Rose Hill: red fine - coarse sands and shales; loads, ripples, trace fossils	Taconic Orogeny Chopawamsic/Arvonian Terrane collides with East Coast	
			ROSE HILL			650'			
			TUSCARORA			50-250'			
	Ordovician		JUNIATA	OSWEGO	"Cub ss"		0-200'	Red X-bedded ss; Skolithus; bedded w/sh	Taconic Orogeny Chopawamsic/Arvonian Terrane collides with East Coast
			REEDSVILLE	MARTINSBURG			0-375'	Clastic hummocky sequences	
			"TRENTON GROUP"	Oranda			3000'	Feldspathic/lithic Bouma sequences	
			(Liberty Hall)			40-60'	Carbonate hummocky sequences		
		"BLACK RIVER GROUP"	EDINBURG (Lantz Mills)			425-600'	Black massive micrites and shale		
			LINCOLNSHIRE			25-170'	Carbonate hummocky sequences		
			NEW MARKET			40-250'	abundant fossils, darkens up section		
	Knox Unconformity								
SAUK	Cambrian		BEEKMANTOWN (Rockdale Run)			2500'	Thick bedded dolomite, black chert; tidal	Divergent Continental Margin	
			STONEHENGE (Chepultepec)			500'	Thick bedded micrite, blue; tidal features		
			CONOCOCHEAQUE			2500'	LS/dolo/qtz arenite; abndt tidal structures		
		ELBROOK				2000'	LS/dolo/ blue-gray; tidal features		
		ROME (Waynesboro)				2000'	Red/green shale/dolo/micrite; very variable		
		SHADY				1600'	Dolomite (granular); LS at top and bottom		
		CHIL-HOWEE	ANTIETAM			500-1500'	Quartz arenite; abndt X-beds Skolithus	Rifting Opening of the Protoatlantic	
			HARPERS			2000'	Thin bedded Crs feldspathic shale and graded sandstones		
			WEVERTON			800'	Subareal, tholeiitic, flood basalts (now greenschist)		
			CATOCTIN			2000'			
		SWIFT RUN	(LYNCHBURG)						
		GRENVILLE BASEMENT		East of Blue Ridge					

L.S.Fichter, 1991 (reformatted 1996)