

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			
	<i>Wallbridge Unconformity</i>						
	TIPPECANOE	Devonian	ORISKANY		10-125'	Quartz arenite; white, gray, tan; abundant fossils	Orogenic Calm
HELDERBERG GROUP			LICKING CREEK	70-150' 17-50' 70-600'	Carbonates of many kinds; sometimes with cherts, or interbedded with shale or quartz arenites; fossils very abundant		
			MANDATA				
		NEW SCOTLAND					
Silurian		(Salina in WVa.)	TONOLOWAY		50-250'	Tidal carbonates; ALM, ALD; mud cracks; salt casts; evaporitic to west	
		CAYUGA	WILLS CREEK	BLOOMSBURG	0-400'	Bloomsburg; red very fine sands/silts/shale	
			WILLIAMSPORT				
			MCKENZIE				
		CLINTON	KEEFER	MASSA-NUTTEN	70' 650' 50-250'	700-1200'	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
			ROSE HILL				
	TUSCARORA						
SAUK	Cambrian	JUNIATA		0-200'	Red X-bedded ss; Skolithus; bedded white, coarse X-bedded sands	Divergent Continental Margin	
		OSWEGO	"Cub ss"	0-375'	Hum-mocky		
		REEDSVILLE	MARTINSBURG	3000'	Clastic hummocky sequences Feldspathic/lithic Bouma sequences		
		"TRENTON GROUP"	Oranda (Liberty Hall)	40-60'	Carbonate hummocky sequences Gray silty/shale		
		"BLACK RIVER GROUP"	EDINBURG (Lantz Mills)	425-600'	Carbonate hummocky sequences Black massive micrites and shale		
		LINCOLNSHIRE		25-170'	Micrites, bio- and pelmicrites, chert		
		NEW MARKET		40-250'	abundant fossils, darkens up section Very pure micrites; tidal features		
		<i>Knox Unconformity</i>					
		BEEKMANTOWN (Rockdale Run)		2500'	Thick bedded dolomite, black chert; tidal		
		STONEHENGE (Chepultepec)		500'	Thick bedded micrite, blue; tidal features		
Ven-dian	Cambrian	CONOCOCHEAQUE		2500'	LS/dolo/qtz arenite; abndt tidal structures	Rifting Opening of the Protoatlantic	
		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		
		WEVERTON	HARPERS	2000'	Crs feldspathic shale and graded sandstones		
		CATOCTIN		2000'	Subareal, tholeiitic, flood basalts (now greenschist)		
		SWIFT RUN (LYNCHBURG)					
<i>East of Blue Ridge</i>							
GRENVILLE BASEMENT							

L.S.Fichter, 1991 (reformatted 1996)