

Figure 8. Gamma ray log and bulk density log cross section from northwestern Pennsylvania to southwestern Virginia illustrating the low density marker at the base of the Java Formation.

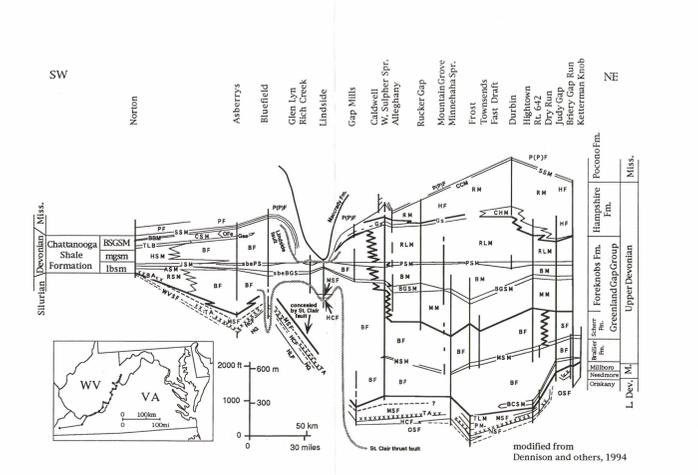


Figure 9. Devonian stratigraphic cross section extending from the area of this study 283 miles northeast to the vicinity of Spruce Knob, West Virginia (modified from Dennison and others, 1994).

ABBREVIATIONS AND STRATIGRAPHIC NAMES

ASM	Angola Shale Member of the Chattanooga Shale Formation	MSM	Minnehaha Springs Member of the Scherr and Brallier Formations
BA	Beipre Ash	NSF	Needmore Shale Formation
BSCM	Back Creek Siltstone Member of the Brallier Formation	OFS	Oswayo Formation equivalent
BF	Brallier Formation	OSF	Oriskany (Ridgeley) Sandstone Formation
BGSM	Briery Gap Sandstone Member of the Foreknobs Formation	PF	Price Formation
BM	Blizzard Member	PM	Parcell Member of the Millboro Shale Formation
BGSM	Big Stone Gap Shale Member of Chattanooga Shale Formation	PMP	Price Formation
BSM	Beres (Cloyd) Sandstone Member of the Pocono (Price) Formation	PSM	Pound Sandstone Member of the Foreknobs Formation
CCM	Cloyd Conglomerate Member of Price Formation	RLM	Red Lick Member of the Foreknobs Formation
CHM	Canon Hill Member of the Hampshire Formation	RM	Rowlesburg Member of the Hampshire Formation
CSM	Cleveland Shale Member of the Chattanooga Shale Formation	RSM	Rhinestreet Shale Member of the Chattanooga Shale Formation
FF	Foreknobs Formation of the Greenland Gap Group	shBGSM	siltstone bundle equivalent to the Briery Gap Sandstone Member
GM	Gordon sand (of subsurface exposed on outcrop)	shPSM	siltstone bundle equivalent to the Pound Sandstone Member
Gse	Gordon sand equivalent sandstone	SSM	Sunbury Shale Member of Price, Pocono, and Chattanooga Formations
HCF	Hantersville Chert Formation	TA	Tioga Ash
HF	Hampshire Formation	TLB	Three Lick Bed of the Chattanooga Shale
HG	Helderberg Group		
HLP	Hancock Limestone Formation		
HSM	Huron Shale Member of the Chattanooga Shale Formation		
JSM	Java Shale Member of the Chattanooga Shale Formation		
lbsm	lower black shale member of the Chattanooga Shale Formation		
mgs	middle gray shale member of the Chattanooga Shale Formation		
MM	Millow Member of the Foreknobs Formation		
MSP	Millboro Shale Formation		

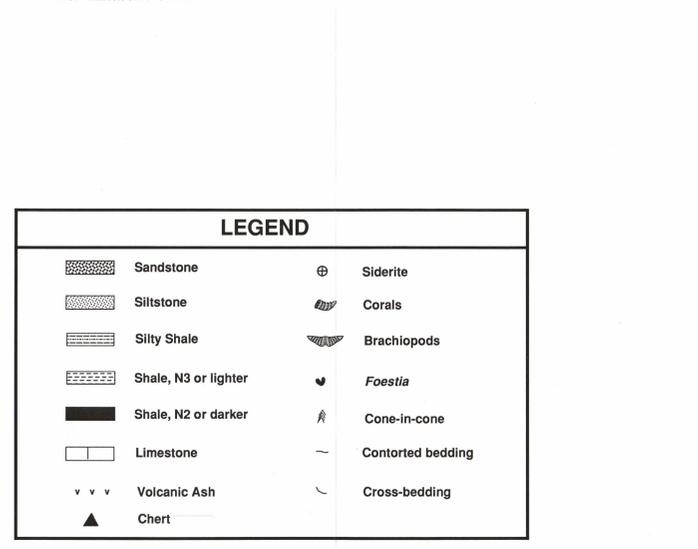


Figure 7. Composite outcrop section and outcrop gamma ray log with correlation to gamma ray logs of the Wise-204 and Wise-209 wells.