(A COMPARISON OF FORMER AND PRESENT CLASSIFICATIONS)

		Howe	(196	RMER CLASSIFIC	ompson (1995) ^b	PRESENT CLASSIFICATION Gentile and Thompson (2004) ^c								
				INDIA	N CAVE SS.	2	INDIAN CAVE	SS.						
				STOTLER FM.	DRY SH. MBR.		"GRANDHAVEN MBR." ?? DRY SH. MBR.	STOTLER FM.						
			ROUP		DOVER LS. MBR.		DOVER LS. MBR.		SUBGROUP					
			RICHARDSON SUBGROUP	PILLSBURY SH.				PILLSBURY SH.	RICHARDSON SUBG					
			RICH		MAPLE HILL LS. MBR. NYMAN COAL BED		MAPLE HILL LS. MBR. NYMAN COAL BED		RIC					
				ZEANDALE FM.	WAMEGO SH. MBR.		WAMEGO SH. MBR.	ZEANDALE FM.						
					TARKIO LS. MBR.		TARKIO LS. MBR.							
				WILLARD SH.				WILLARD SH.						
		□	SGROUP		ELMONT LS. MBR.		ELMONT LS. MBR.		SUBGROUP	۵				
		р В	NEMAHA SUBGROUP	EMPORIA FM.	READING LS. MBR.		HARVEYVILLE SH. MBR. READING LS. MBR.	EMPORIA FM.	NEMAHA SUB	ROUF				
		о В П		AUBURN SH.		 		AUBURN SH.		SEEG				
		B A U		BERN FM.	WAKARUSA LS. MBR. SOLDIER CREEK SH. MBR.		WAKARUSA LS. MBR. SOLDIER CREEK SH. MBR.	BERN FM.	_	z				
		× ×			BURLINGAME LS. MBR. SILVER LAKE SH. MBR.	<u> </u>	BURLINGAME LS. MBR. SILVER LAKE SH. MBR.			A B A				
					RULO LS. MBR. ELMO COAL BED	<u></u>	RULO LS. MBR. ELMO COAL BED			≥				
					CEDAR VALE SH. MBR.		CEDAR VALE SH. MBR.							
				SCRANTON FM.	HAPPY HOLLOW MBR.		HAPPY HOLLOW LS. MBR.	SCRANTON FM.						
			SGROUP						SUBGROUP					
<u>≥</u> ⊔			SACFOX SUBGROUP		WHITE CLOUD MBR.		WHITE CLOUD SH. MBR.		SACFOX SUE					
≻ S	S E S										G E	S Ш	Σ	
z 4	П П			HOWARD FM.	UTOPIA LS. MBR. WINZELER SH. MBR. CHURCH LS. MBR. AARDE SH. MBR.		UTOPIA LS. MBR. WINZELER SH. MBR. CHURCH LS. MBR. AARDE SH. MBR.	HOWARD FM.			∀	П П	Ш Н	∑
z	S N				NODAWAY COAL BED BACHELOR CREEK LS. MBR.		NODAWAY COAL BED		-		S (S	σ z	S Y S	ď
\ \ \				SEVERY FM.				SEVERY SH.			L A	<u> </u>	S U B	v.
න 	- В В				COAL CREEK LS. MBR. HOLT SH. MBR.		COAL CREEK LS. MBR. HOLT SH. MBR.				ZHE	\ \ \	Z	= C
л П	>				DUBOIS LS. MBR. TURNER CREEK SH. MBR. SHELDON LS. MBR.	BPO	DUBOIS LS. MBR. TURNER CREEK SH. MBR. SHELDON LS. MBR.				ر ا ا ا	> S	Z Z	111
				TOPEKA FM.	JONES POINT SH. MBR. CURZON LS. MBR.		JONES POINT SH. MBR. CURZON LS. MBR.	TOPEKA FM.			Z	Z Z Ш	\ \ \	Z
					IOWA POINT SH. MBR.		IOWA POINT SH. MBR.	CALHOUN SH.			- B	<u>ح</u>	o z	4
					HARTFORD LS. MBR.		HARTFORD LS. MBR.			\ \ \ \ \ \	ВРЕ	Д Ш Д	1 C	
				CALHOUN SH.	ERVINE CREEK LS. MBR.		ERVINE CREEK LS. MBR.)			
					LARSH-BURROAK SH. MBR.		LARSH-BURROAK SH. MBR.							
				DEER CREEK FM.		***************************************	ROCK BLUFF LS. MBR. OSKALOOSA SH. MBR.	DEER CREEK FM.						
					OZAWKIE LS. MBR.	a — b	OZAWKIE LS. MBR.		:	0 0				
										ლ ლ				
		0 0 0		TECUMSEH SH.			RAKES CREEK SH. MBR.	TECUMSEH SH.		Ш Ш Z				
		<u>ი</u>			OST LS.		OST LS. MBR. KENOSHA SH. MBR.		1	≶				
		Ш			AVOCA LS. MBR.		AVOCA LS. MBR.		1	S T				
		Z ≥			KING HILL SH. MBR. BEIL LS. MBR.		KING HILL SH. MBR. BEIL LS. MBR.							
		Σ S		LECOMPTON FM.	QUEEN HILL SH. MBR. BIG SPRINGS LS. MBR.		QUEEN HILL SH. MBR. BIG SPRINGS LS. MBR.	LECOMPTON FM.						
					DONIPHAN SH. MBR.		DONIPHAN SH. MBR.							
					SPRING BRANCH LS. MBR.		SPRING BRANCH LS. MBR.		_					
					STULL SH. MBR.		STULL SH. MBR.	KANWAKA SH.						
				KANWAKA FM.	0: 4::		CLAY CREEK LS. MBR.	.v.attraivA off.						
				KANWAKA FM.	CLAY CREEK LS. MBR. JACKSON PARK SH. MBR.		JACKSON PARK SH. MPD							
				KANWAKA FM.			JACKSON PARK SH. MBR. KEREFORD LS. MBR.		_					
				KANWAKA FM.	JACKSON PARK SH. MBR.									
				KANWAKA FM.	JACKSON PARK SH. MBR. KEREFORD LS. MBR.		KEREFORD LS. MBR.							
				OREAD FM.	JACKSON PARK SH. MBR. KEREFORD LS. MBR. HEUMADER SH. MBR.		KEREFORD LS. MBR. HEUMADER SH. MBR.	OREAD FM.						
					JACKSON PARK SH. MBR. KEREFORD LS. MBR. HEUMADER SH. MBR. PLATTSMOUTH LS. MBR. HEEBNER SH. MBR.		KEREFORD LS. MBR. HEUMADER SH. MBR. PLATTSMOUTH LS. MBR. HEEBNER SH. MBR.	OREAD FM.						

FORMER CLASSIFICATION Howe (1961) ^a , revised by Thompson (1995) ^b					PRESENT CLASSIFICATION Gentile and Thompson (2004) ^c									
										Ш				
				"UPPER UNNAMED SH. MBR."	<u></u> , <u></u> ,,,,	WATHENA SH. MBR.				STAG				
В	_ _			AMAZONIA LS. MBR.		AMAZONIA LS. MBR.				N A I				
я П	n 0		LAWRENCE FM.			IRELAND SS. FACIES	LAWRENCE SH.			HEL				
S	G R			"LOWER UNNAMED SH. MBR."		PIGEON HILL SH. MBR.		۵	L	Z 9~)				
LIA	L A S				 	ROBBINS SH. FACIES		=)	A A				
R G L	1 9 0			HASKELL LS. MBR.		SHOEMAKER LS. MBR.	CASS FM.	ַ		RGIL				
> -	0 0			VINLAND SH. MBR.		HASKELL LS. MBR. VINLAND SH. MBR.	CASS FW.	\ <	(>				
			STRANGER FM.	WESTPHALIA LS. MBR. UPPER SIBLEY COAL?		WESTPHALIA LS. MBR. UPPER SIBLEY COAL BED TONGANOXIE SS. MBR.			0 C L	פ				
	<u> </u>		IATAN LS.	TONGANOXIE SS. MBR. ?										
	n 0		IAIAN EO.			IATAN LS. MBR.	STRANGER FM.							
	<u>ධ</u> ස													
	Ш		WESTON SH.			WESTON SH. MBR.								
	P E D					KITAKI LS. MBR.								
				SOUTH BEND LS. MBR.		GRETNA SH. MBR LITTLE KAW LS. MBR.	SOUTH BEND FM.							
	_			ROCK LAKE SH. MBR.			ROCK LAKE SH.	٥	ւ					
	0 0		STANTON FM.	STONER LS. MBR.		STONER LS. MBR.		=)					
	<u>ი</u>			EUDORA SH. MBR.	• • • •	EUDORA SH. MBR.	STANTON FM.	(פ					
	ڻ ع			CAPTAIN CREEK LS. MBR.		CAPTAIN CREEK LS. MBR.		2	z					
	_		VILAS SH.				VILAS SH.	2	0 Z					
	A		PLATTSBURG	SPRING HILL LS. MBR.		SPRING HILL LS. MBR.	PLATTSBURG	1	∀					
			FM.	HICKORY CREEK SH. MBR.		HICKORY CREEK SH. MBR.	FM.							
				MERRIAM LS. MBR.	·····	MERRIAM LS. MBR.								
			BONNER SPRING	GS SH.		BONNER SPRINGS SH. MBR.								
				FARLEY LS. MBR.	······································	"UPPER LS. FACIES" FARLEY "MIDDLE SH. FACIES" LS. "LOWER LS. FACIES" MBR.	LANE SH.							
		ZARAH SUBGROUP		ISLAND CREEK SH. MRD	· · · · · · · · · · · · · · · · · · ·	ISLAND CREEK SH. MBR.								
			WYANDOTTE FM.	ISLAND CREEK SH. MBR.		TOD THE GREEK OF IT. HISTOR		ZARAH SUBGROUP		Ш	S			
		RAH SUI		ARGENTINE LS. MBR.		ARGENTINE LS. MBR.		RAH SUE		T A G	ш	Б	≥	
		ZA		ARGENTINE LS. MBR.		ARGENTINE LS. WIBA.	WYANDOTTE FM.	ZA		တ	S E R	⊢ S \	<u>ц</u>	
				QUINDARO SH. MBR. FRISBIE LS. MBR.		QUINDARO SH. MBR. FRISBIE LS. MBR.				Q 4 -	Z	B S Y	>	
			LANE SH.						S CITY GROUP	> 0	z			
			LANE SH.			LIBER	TY MEMORIAL SH.			S = S	\ \	Z 4	0	
— В —			IOLA FM	RAYTOWN LS. MBR.		RAYTOWN LS. MBR.				(X)	> S Z	z «	Ш	
SER	_		IOLA FM.	MUNCIE CREEK SH. MBR. PAOLA LS. MBR.	••••	MUNCIE CREEK SH. MBR. PAOLA LS. MBR.	IOLA FM.			Z 4	Z W	\ \ \	2 0	
Z	0 0									2	ا م	o z	A R B	
<u>~</u>	ى 7		CHANUTE SH.				CHANUTE SH.			8 8 0	P E	Z Ш С	S	
s o u	≻ ⊢	SUBGROUP	DRUM LS.	CORBIN CITY LS. ?						_ _ ∑)	-		
S - W	- ن	INN SI		CEMENT CITT MBR.		CEMENT CITY LS. MBR. QUIVIRA SH. MBR.	DEWEY FM.	_ 						
	S A S			QUIVIRA SH. MBR.		"BELTON SS."	NELLIE BLY FM.		S A					
	Z 4 ×		CHERRYVALE FM.	WESTERVILLE LS. MBR.		WESTERVILLE LS. MBR.		LINN SUBGRO	У У	1				
						-	CHERRYVALE							
				WEA SH. MBR.		WEA SH. MBR.	FM.							
				BLOCK LS. MBR.		BLOCK LS. MBR.								
				FONTANA SH. MBR.		FONTANA SH. MBR.								
			DENNIS FM.	WINTERSET LS. MBR.		WINTERSET LS. MBR.	DENNIS FM.							
		UP		STARK SH. MBR.		STARK SH. MBR.								
		SUBGRO	GALESBURG SH.	CANVILLE LS. MBR.		CANVILLE LS. MBR.	GALESBURG SH.	JBGROU						
		BRONSON SUBGROUP		BETHANY FALLS LS. MBR.		BETHANY FALLS LS. MBR.		BRONSON SUBGROUP						
		BRC	SWOPE FM.	HUSHPUCKNEY SH. MBR.		HUSHPUCKNEY SH. MBR.	SWOPE FM.	BRO						
			LADORE FM.	MIDDLE CREEK LS. MBR.		MIDDLE CREEK LS. MBR.	ELM BRANCH SH.							
_			HERTHA FM.	SNIABAR LS. MBR. MOUND CITY SH MBR.		SNIABAR LS. MBR. MOUND CITY SH. MBR.	HERTHA FM.							
				MOUND CITY SH MBR. OVID COAL BED CRITZER LS. MBR.		GUTHRIE MOUNTAIN SH. MBR. OVID COAL BED CRITZER LS. MBR. LOCUST CREEK COAL BEDS								
				"UNNAMED MBR."		BLUE MOUND SH. MBR.								
	<u>ا</u> ه		"UPPER			J. J			T T					
	R O U		UNNAMED FM."	"KNOBTOWN FACIES"		KNOBTOWN LS. MBR.)) Y					
	U Z			WARRENSBURG SS. MBR.		WELDON RIVER SS. MBR.		(5 2					
	0					"CHARITON CONGL."	SHALE HILL FM.		2) -					
	Z «							<	Z K					
	ν 8		"MIDDLE					<	ກ ≮ ⊔					
	Ш		UNNAMED	"UNNAMED SH. MBR."	—		_		-	i .				

	MISSOURIAN SER.		PLEASANTON GROUP		"LOWER UNNAMED FM."	"UNNAMED MBR." HEPLER SS. MBR.		GRAIN VALLEY COAL BED "UPPER UNNAMED SH." EAST BRANCH SS. MBR.	HEPLER FM.	PLEASANTON	GROUP			
					HOLDENVILLE SH.			COOPER CREEK LS. MBR. "UPPER UNNAMED SH. MBR."	LOST BRANCH FM.	SUBGROUP				
				JР	LENAPAH FM.	SNI MILLS LS. MBR. PERRY FARM SH. MBR. NORFLEET LS. MBR.	8-3:	SNI MILLS LS. MBR. DAWSON COAL BED "UPPER UNNAMED SH. MBR." IDENBRO LS. BED PERRY FARM MBR. NORFLEET LS. MBR.	MEMORIAL SH.	HOLDENVILLE SUBO				
		0		SE SUBGROUP	NOWATA FM.	WALTER JOHNSON SS. MBR. LAREDO COAL BED		WALTER JOHNSON SS. MBR.	NOWATA SH.	T	<u>а</u>			
			2	APPANOOSE	ALTAMONT FM.	WORLAND LS. MBR. LAKE NEOSHO SH. MBR. AMORET LS. MBR.		WORLAND LS. MBR. LAKE NEOSHO SH. MBR. AMORET LS. MBR.	ALTAMONT FM.	_	GRO			
		Z C	>		BANDERA FM.	BANDERA QUARRY MBR. MULBERRY COAL BED		BANDERA QUARRY SS. MBR. FARLINGTON LS. BED MULBERRY COAL BED	BANDERA SH.	SUBGROUP	N 0 -			
		2	≥		PAWNEE FM.	COAL CITY LS. MBR. MINE CREEK SH. MBR. MYRICK STATION LS. MBR. ANNA SH. MBR.		COAL CITY LS. MBR. MINE CREEK SH. MBR. MYRICK STATION LS. MBR. ANNA SH. MBR.	PAWNEE FM.	APPANOOSE	A R M A			
		Σ	IAI	UP	LABETTE FM. HIGGINSVILLE LS	ENGLEVALE SS. MBR. ALVIS COAL BED S.	<u></u>		LABETTE SH. HIGGINSVILLE LS.		Σ			
				T SCOTT SUBGROUP	LITTLE OSAGE FM.	FLINT HILL SS. MBR. HOUX LS. MBR. SUMMIT COAL BED		FLINT HILL SS. FACIES BLACK WATER CREEK SH. MBR. HOUX LS. MBR. BINKLEY SH. MBR.	LITTLE OSAGE FM.	SCOTT SUBGROUP				
	E S			FORT	BLACKJACK CRE			MORGAN SCHOOL SH. MBR. "UPPER LS. MBR." "MIDDLE SH. MBR." "LOWER LS. MBR."	BLACKJACK CREEK LS.	FORT 8				
	SERIE				EXCELLO SH. MULKY FM.	MULKY COAL BED BREEZY HILL LS. MBR.		MULKY COAL BED BREEZY HILL LS. MBR.	EXCELLO SH. MULKY FM.					
	SIAN				LAGONDA FM.			SQUIRREL SS. FACIES	LAGONDA FM.			В В В В		
	<u>и</u>				BEVIER FM.	WHEELER COAL BED		BEVIER COAL BED WHEELER COAL BED	BEVIER FM.	_		S T A	ဟ	
	ESMO	G E		JP.	VERDIGRIS FM.	ARDMORE LS. MBR.		WHEELER MBR. ARDMORE LS. MBR. OAKLEY SH. MBR. MECCA QUARRY SH. BED	VERDIGRIS FM.			N A I V	я - п	<u>-</u>
L M	D	NSTA		IISS SUBGROUP	CROWEBURG FN	CROWEBURG COAL BED 1. FLEMING COAL BED		CROWEBURG COAL BED	CROWEBURG FM.	SUBGROUP	О В	0 2 C 0	N A I	
Y S T		N A	Д	CABANISS	FLEMING FM. ROBINSON	ROBINSON BRANCH COAL BED		ROBINSON BRANCH COAL BED	FLEMING FM. ROBINSON	CABANISS	G R O	∑ 2	X X X	_
ANS		C Y G	GROU		BRANCH FM. MINERAL FM.	MINERAL COAL BED		MINERAL COAL BED	BRANCH FM. MINERAL FM.		X E E	UPPE	ا ک د د	_
V A N			K E E (SCAMMON FM.	SCAMMON COAL BED CHELSEA SS. MBR.		SCAMMON COAL BED CHELSEA SS. MBR.	SCAMMON FM.		E R O	A N (~ L	Z U U	<
I S Y L			E R O		TEBO FM.	TIAWAH LS. MBR. TEBO COAL BED		TIAWAH LS. MBR. TEBO COAL BED	TEBO FM.	-	S H	E S -	D L E	2
PEN			СН		WEIR FM.	WEIR-PITTSBURG COAL BED		UPPER WEIR-PITTSBURG COAL BE MIDDLE WEIR-PITTSBURG COAL BE LOWER WEIR-PITTSBURG COAL BE	ED WEID EM			Z - 0 ∑	_ _ ₩	L
					SEVILLE FM.			HACKBERRY BRANCH LS. MBR.	WELBORN FM.		-	В В		
		A G E			BLUEJACKET FM	BLUEJACKET COAL BED		BLUEJACKET COAL BED "BLUEJACKET SS."	BLUEJACKET SS.					
		N S T		SUBGROUP	DRYWOOD FM.	DRYWOOD COAL BED "FLAGSTONE"		DRYWOOD COAL BED LOWER DRYWOOD COAL BED	DRYWOOD FM.	SUBGROUP				
		r e r A		KREBS SUB	ROWE FM.	ROWE COAL BED		ROWE COAL BED WARNER (NEUTRAL) COAL BED	ROWE FM.	KREBS SI				
		V E N ⊢		1	WARNER FM. HARTSHORNE ? FM.				WARNER SS. HARTSHORNE ? FM.					
						.; <u>;;;;;;;;;;;</u>	?	1		l				
					RIVERTON FM.				CHELTENHAM FM.	STACE	 1	Щ		
					"LADDEN BRANCH" LS.			Note:	GRAYDON	ואאוט	D/OR	N STAGI		
		S H			Lo.			Rests on Ordovician to Mississippian strata	CONGL.	HINIOMU	AND/OR	ATOKA		
		S E R			BURGNER FM.	5.5		C <u>OA</u> L <u>BE</u> D"		Ĺ	 7			
		z «			McLOUTH FM. (SUBSURFACE	<u>:::::::::::::::::::::::::::::::::::::</u>	·\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.	"MIDDLE RIVERTON COAL BED" "LOWER RIVERTON COAL BED"	RIVERTON SH.		AGE			
		A → X			(SUBSURFACE ONLY)						ATOKAN STAGE			
		4				?			BURGNER FM.		ATC			
					CHELTENHAM FM.				McLOUTH FM.		LAGE)	N SERIES	
						?			ONLY)	_	MORROWAN SHKIRIAN) ST		PENNSYLVANIAN	
		RR SEF			HALE FM.		?		"PRAIRIE GROVE"		MOF (~BASHK	_	/ER PENN	
		JEF	C	•					HALE FM.		Ī	_	LOWER	

FORMER CLASSIFICATION Howe (1961)^a, revised by Thompson (1995)^b

PRESENT CLASSIFICATION Gentile and Thompson (2004)^c



by Richard J. Gentile¹, Thomas L. Thompson² and Patrick S. Mulvany² Graphic Layout by Karen L. Loveland²

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Rolla, Missouri