



MAP EXPLANATION

- Qal Alluvium
- Qn Newman terrace deposits
- Qb Buck Creek(?) terrace deposits
- Qe Glacial drift
- (Pst, underlying formation identified where known)
- Stotler Limestone
- Pillsbury Shale
- Zandale Limestone
- Willard Shale
- Emporia Limestone
- Auburn Shale
- Bern Limestone
- Scranton Shale
- Howard Limestone
- Sevier Shale
- Topeka Limestone
- Calhoun Shale
- Deer Creek Limestone
- Lecompton Limestone
- Kanwaka Shale
- Oread Limestone

Contact
Dashed where approximately located; short dashed where inferred; dotted where connected; quartered where continuity of bed is unknown

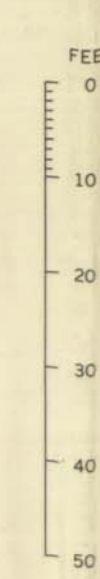
Structure contours
Drawn on base of Topeka Limestone. Dashed where approximately located; short dashed where datum is eroded. Contour interval 20 feet. Datum is mean sea level

USGS Permian and Carboniferous fossil locality
USGS foraminiferal collection locality
Dry and abandoned well
R, reported location

NOTE: Minor deviations between the geologic contacts and topographic contours are due to slumping, changes in soil thickness, and variations in thickness of the shale units

STRATIGRAPHIC SECTION EXPLANATION

- Sandstone
- Siltstone
- Sandy siltstone
- Claystone
- Silty claystone
- Black fissile claystone
- Calcareous claystone
- Limestone
- Wavy-bedded limestone
- Argillaceous limestone
- Channel deposit
- 1946-PC (12983) Fossil collection from mapped area
- 12992 Fossil collection from outside mapped area



3000
70,000

GENERALIZED STRATIGRAPHIC SECTION OF EXPOSED ROCKS

SYSTEM	SERIES	GROUP	FORMATION	MEMBER	THICKNESS, IN FEET	LOCALITY
QUATERNARY			Stotler Limestone	Dry Shale	2-4	12967
				Dover Limestone	2-2.4	
CARBONIFEROUS	Wabaussee	Pillsbury	Pillsbury Shale		40	
				Maple Hill Limestone	1.3-2.4	12971
				Warrego Shale	12	
			Tarkio Limestone	1.8-4.5	12968, 12991	
		Willard	Willard Shale		40-47	
				Elmo Limestone	3.3-4.6	
				Harveyville Shale	10.5-14.4	
				Reading Limestone	1.8-2.6	12956A
		Auburn	Auburn Shale		25-45	
				Wakarusa Limestone	3-4.3	12990, 12993
		Bern	Bern Limestone		2.6-15.2	
				Soldier Creek Shale	1.6-11.8	12976, 12978, 12979
				Burlingame Limestone	1.6-11.8	
		Silver Lake	Silver Lake Shale		19-26	
				Rulo Limestone	0.2-4.1	19455-PC, 19454-PC, 19453-PC
Cedar Vale	Cedar Vale Shale		30-35			
		Happy Hollow Limestone	0.3-0.5			
Scranton	Scranton Shale					
		Utopia Limestone	5-7	12992, 13000, 13001		
Howard	Howard Limestone		0.9-4.8	19451-PC		
		Winzler Shale	1.1-2.4	19449-PC (12982)		
		Aerde Shale	0.8-8	12986, 12981		
Sevier	Sevier Shale		30-55			
		Coal Creek Limestone	4.5	19447-PC (12996), 19448-PC		
Topeka		Holt Shale	1.7-3.5			
		Du Bois Limestone	0.6-2.4			
		Turner Creek Shale	2.7-4.4			
		Sheldon Limestone	1.3-3.5			
		Jones Point Shale	2.4-5.8			
Curzon	Curzon Limestone		4.5-10.5	12998		
		Iowa Point Shale	0.1-1.5	12999		
		Hartford Limestone	3.1-8.2	12995		
		Coal bed				
Calhoun	Calhoun Shale		30-40			
		Ervine Creek Limestone	13-18	19445-PC (12993), 12994		
Deer Creek	Deer Creek Limestone		4	19444-PC (12984), 19446-PC (12983)		
		Bur oak and Larsh Shale	4			
		Rock Bluff Limestone	1.8-2.8			
Ozarkia	Ozarkia Shale		6-8.5			
		Ozarkia Limestone	6-10	19443-PC		
Lecompton	Lecompton Limestone		60-70			
		Avoca Limestone	3-4			
		King Hill Shale	8-11			
		Bell Limestone	8.5-10	19442-PC (12985)		
Spring Branch	Spring Branch Limestone		2.3-3.6	12986		
		Big Springs Limestone	2-3			
		Doniphan Shale	2-6			
Stull	Stull Shale		7.4-14	12987		
		Stull Shale	20-35			
Clay Creek	Clay Creek Limestone		3-4			
		Jackson Park Shale	44-47			
Oread	Oread Limestone		5-7	12988		
		Heumader Shale	4	19441-PC (12989)		
		Plattsmouth Limestone	14-16			
		Heebner Shale	5.5-6			
Leavenworth	Leavenworth Limestone		1.6			
		Snyderville Shale	6			

GEOLOGIC MAP OF EASTERN SHAWNEE COUNTY AND PARTS OF ADJACENT COUNTIES, KANSAS