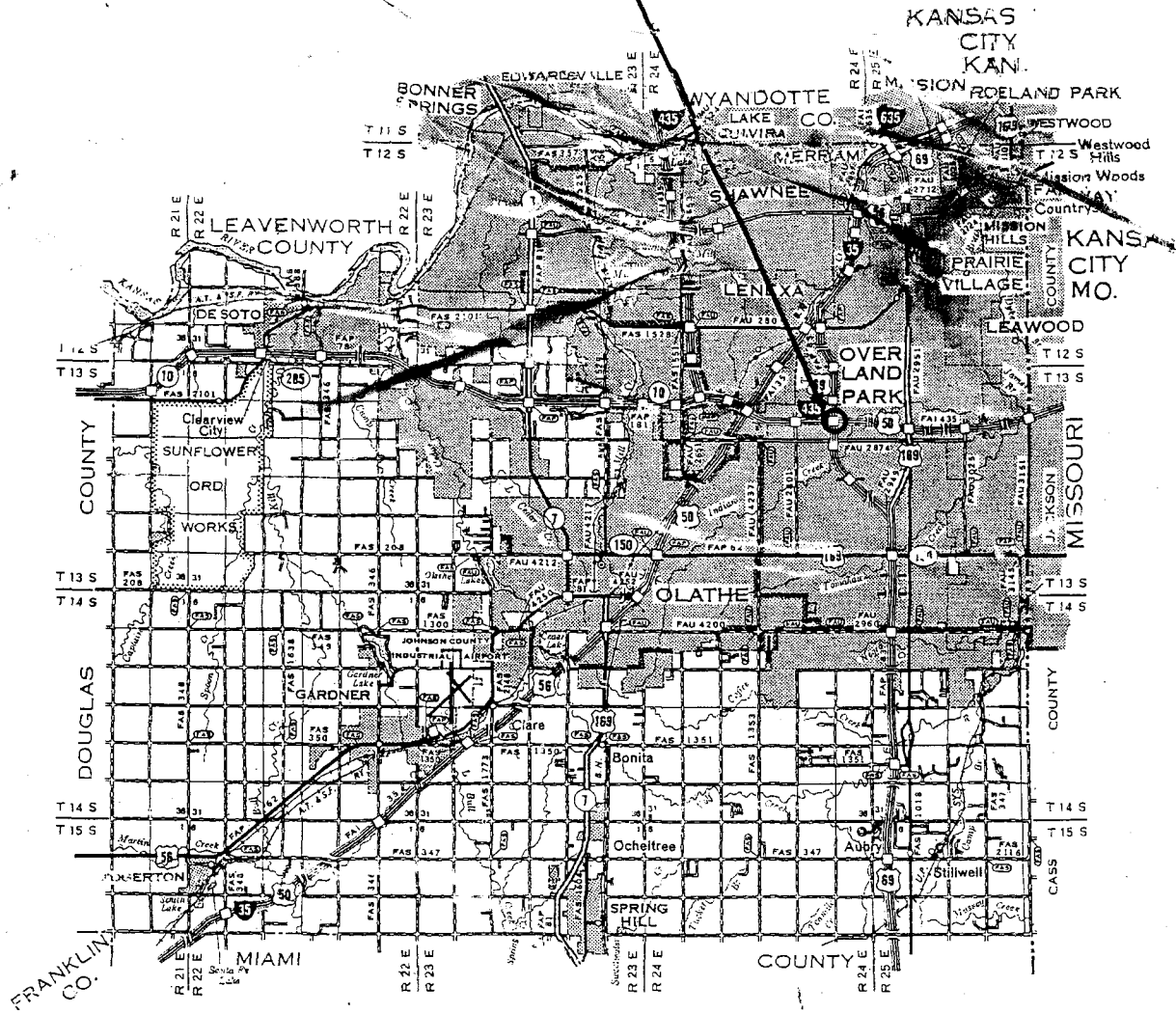


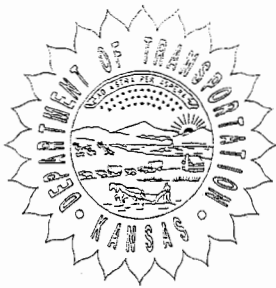
435-46 K-8262-61
Flyover ramp 69S-435E
Bridge No. 69-46-14.35(344)

11-13-24E
E/2 E/2



Johnson County

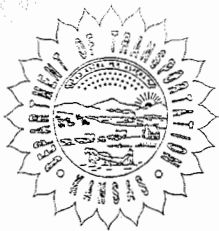
KANSAS DEPARTMENT OF TRANSPORTATION



RTE./CO. 435-46	SOUNDING NO. CD#1	SHEET 1 OF 2
BRIDGE STA. 14+200.600 (342) 13+975.538 (341)	PROJ. NO. 435-46 K-8262-01	BRIDGE NO. 69-46-1429(342)
SITE NAME RAMP 69N-435E OVER RAMP 435E-ANTIOCH		HOLE 14+186.600, 33.5 m Lt STA. B Ramp 69N-435E
GEOLOGIST ROCKY CROW	SCALE 1:100 (10mm=1m)	DATE 9/25/2003
DRILLER JIM BURNS	RIG TYPE CME-55	TOP HOLE ELEV. 286.666
GW ELEV. 14	TOTAL DEPTH 28.53	M/B ELEV. 276.916

*CD#1 Sta. 14+177.276, 5.9 m Lt B Ramp 69S-435E(341) = 14+186.600, 33.5 m Lt B Ramp 69N-435E(342)

BIT TYPE	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION	STANDARD PENETRATION TEST (SPT)	
							N COUNT	ELEVATION
				287	286.666	13+171.5, 4		
					Silty clay, tan-brown, stiff	13+905.6, 3 m x 10		
6" Hollow Stem Augers				286				
				285			291	284.54
				284				
				283				
				282			201	281.55
				281				
				280				
				279			212	278.50
				278				
			9.75	277	276.916			
Diamond	Liberty Memorial Formation			276	Shale, orange-olive, weathered			
				275	274.746			
			11.92	274	Shale, gray, with olive and rust colors, laminated, sandy	1460		273.93



KANSAS DEPARTMENT OF TRANSPORTATION

RTE./CO. 435-46	SOUNDING NO. CD#1	SHEET 2 OF 2
BRIDGE STA. 14+200.600 (342) 13+975.538 (341)	PROJ. NO. 435-46 K-8262-01	BRIDGE NO. 69-46-14.29(342)
SITE NAME RAMP 69N-435E OVER RAMP 435E-ANTIOCH		HOLE 14+186.600, 33.5 m Li STA. B Ramp 69N-435E*

BIT TYPE	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION	STANDARD PENETRATION TEST (SPT)	
							N COUNT	ELEVATION
	Liberty Mem. Fm		2			1261		272.62
			14.93	272	271.736 (272.18) 14.9 Limestone, high-energy rip-up clasts, fossil debris, shaly			
				271	Limestone, hard, gray, wavy bedded $\Delta D = 2 \text{ ft}$ $D = \frac{1}{4}''$	99100		271.19
	Raytown Limestone Mbr		4	270	269.676 14.7	20700		269.66
			17.36	269	269.306 Shale, gray, laminated			
				269	Limestone, very hard, gray, fossiliferous			
	Muncie CK Member		5	268	Limestone, hard, gray, shaly	75400		267.50
			19.17	267	267.496			
			19.48	267	267.186 Two shales separated by a thin, granular limestone			
	Paola Ls Mbr		6	267	266.796 Limestone, hard, gray, micritic 269.5			
			19.87	266	266.666 Shale, sandy, wavy-bedded, fossiliferous, hard	2430		266.25
			21.00	266	265.666			
	Chanute Formation		7	265	Sandstone, very shaly, hard, many thin light and dark layers	2460		264.94
			8	264				
			23.80	263	262.866	2680		263.26
				262	Shale, gray, clayey			
			25.48	261	261.186	261		261.40
	Drum Limestone Fm		10	261	Limestone, hard, gray, wavy-bedded, stylolitic	78800		260.40
			27.28	259	259.386			
	Quivira Member		28.22	259	258.446 Shale, olive-gray, clayey			
			28.42	258	258.286 Limestone, hard, gray, stylolitic, somewhat granular			
			28.53	258	258.136 Shale, very limy, olive-gray			