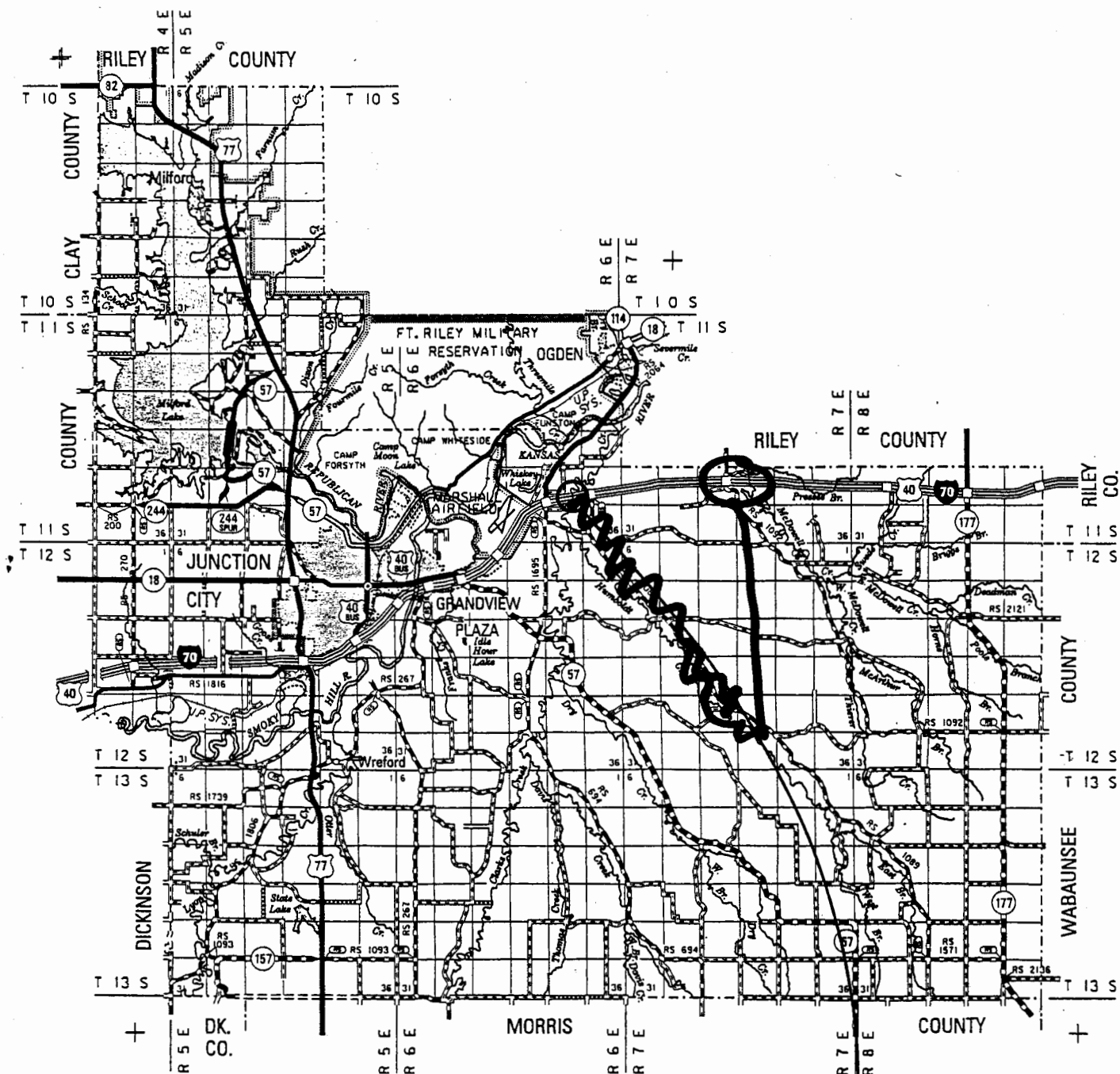




GEOTECHNICAL UNIT
GEOLOGY SECTION

BRIDGE FOUNDATION GEOLOGY REPORT

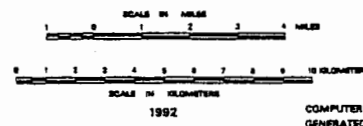
Project No. 70-31 K-5086-01

Br. No. 14.13 WB, 14.12 EB
I-70 over Clarks Creek

GEARY COUNTY

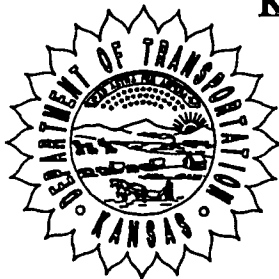
GENERAL HIGHWAY MAP GEARY COUNTY KANSAS

PREPARED BY THE
KANSAS DEPARTMENT OF TRANSPORTATION
BUREAU OF TRANSPORTATION PLANNING
IN COOPERATION WITH THE
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION



2DDP ✓

KANSAS DEPARTMENT OF TRANSPORTATION



1. ROUTE-COUNTY NO. 70-31	7. SOUNDING NO. CD#1	12. SHEET 1 OF 2
2. BRIDGE STA. 504+18.37	8. PROJECT NO. K-5086-01	13. BRIDGE NO. 70-31-18.74
3. DESCRIPTION I-70 over McDowell Creek (EB)	14. HOLE STA. 503+73, 74 Rt project	
4. GEOLOGIST Art Peterson	9. VERTICLE SCALE 1" = 10'	15. DATE 4-10-95
5. DRILLER Bob Bergman	10. RIG B-61	16. ELEVATION TOP OF HOLE 1097.2
6. GROUND WATER ELEV. 1085.1	11. TOTAL DEPTH OF HOLE 65'	17. ELEVATION TOP OF ROCK 1066.1

BIT TYPE & NO.	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION	STANDARD PENETRATION OR CASING DRIVE	
							BLOWS	ELEV.
					T.H.E. = 1097.2 (Pier #1)			
			5'	1090	Limestone rip-rap with silty clay			
					Silty clay, brown to dk brown			
			13'	1083.5				
				1080	coarse gravel with silty clay binder, brown			
			31'	1070				
				1066.1				
					Shale, green-gray, limy contains limestone stringers, upper 0' weathered	Sa #1 R&P 808PT		1065.8
			37'	1060		Sa #2 Q=13.433		1065.05
				1059.7		Sa #3 Q=248.78		1062.4
			41'		Limestone, gray, crystalline, fossiliferous, shale partings	Sa #4 Q=574.36		1059.0
			42'		1054.8 Shale, black to dk gray, fissile	Sa #5 Q=284.33		1056.25
			45'		Limestone, lt gray to gray, crystalline	Sa #6 Q=586.89		1054.3
				1052.0				1052.1
			48'	1050	Shale, dk gray, limy, contains limestone stringers	Sa #7 Q=332.69		1047.6
			50'		1046.9 Limestone, lt gray to gray, shaly			
			52'		1044.6 Shale, green to gray, limy			
			54'		1043.1 limestone, gray to buff, shaly			
				1040	Shale, gray to green contains limestone stringers (up to 0.8" thick)			
			61'	1035.9				
			65'	1032.2	Shale, green-gray to maroon, blocky contains limestone stringers			
				1030				
					Core #1: 31' - 33' (1065.7 - 1063.8)			
					Cut 1 1/2 Rec 1 1/2			
					Core Rec 79%			
					R&D 50%			

DRILLING LOG (con't sheet)			SOUNDING NO. CD#1		PROJECT NO. K-5086-01		SHEET 2 OF 2	
ELEVATION TOP OF HOLE 1097.2			GROUND WATER ELEV. 1085.1		TOTAL DEPTH OF HOLE 65 ⁰		ELEVATION TOP OF ROCK 1066.1	
BIT TYPE & NO.	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION	STANDARD PENETRATION OR CASING DRIVE	
							BLOWS	ELEV.
					Core #2, 33 ⁴ - 34 ² (1063.8 - 1063.0) cut 0 ⁸ Rec 0 ⁸ core Rec 100% RQD 47%			
					Core #3, 34 ² - 35 ⁶ (1063.0 - 1061.6) cut 1 ⁴ Rec 1 ⁴ core Rec 100% RQD 43%			
					Core #4, 35 ⁶ - 39 ⁵ (1061.6 - 1057.7) cut 3 ⁹ Rec 3 ⁷ core Rec 95% RQD 49%			
					Core #5, 39 ⁵ - 44 ⁰ (1057.7 - 1053.2) cut 4 ⁵ Rec 4 ⁴ core Rec 99% RQD 87%			
					Core #6, 44 ⁰ - 48 ⁵ (1053.2 - 1048.7) cut 4 ⁵ Rec 4 ³ core Rec 96% RQD 51%			
					Core #7, 48 ⁵ - 52 ⁵ (1048.7 - 1044.65) cut 4 ⁰ Rec 3 ⁷ core Rec 93% RQD 68%			
					Core #8, 52 ⁵ - 56 ³ (1044.65 - 1041.0) cut 3 ⁶ Rec 3 ⁴ core Rec 95% RQD 22%			
					Core #9, 56 ³ - 60 ⁵ (1041.0 - 1036.7) cut 4 ³ Rec 3 ² core Rec 86% RQD 54%			
					Core #10, 60 ⁵ - 65 ⁰ (1036.7 - 1032.2) cut 4 ⁵ Rec 4 ² core Rec 93% RQD 42%			