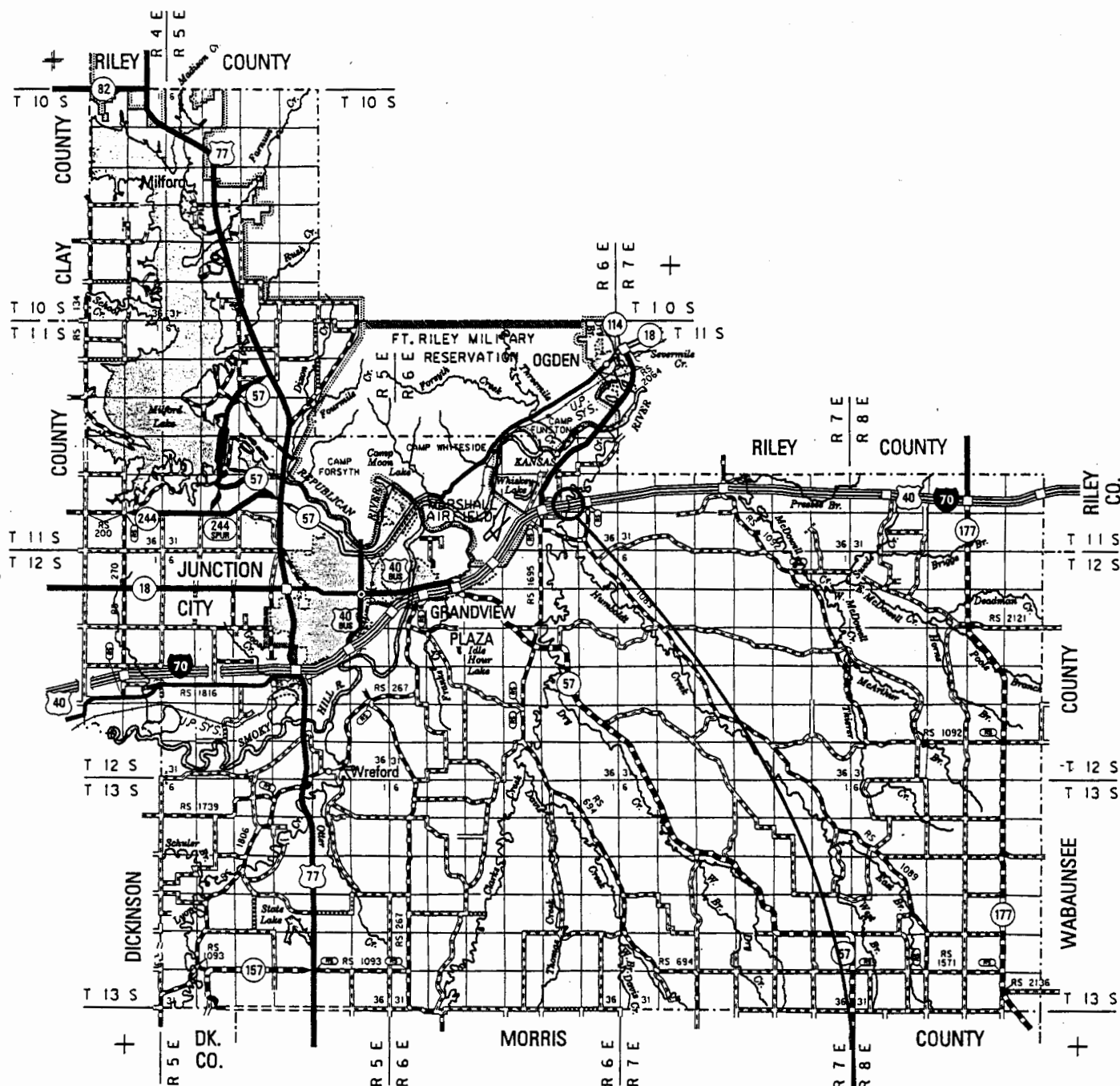




GEOTECHNICAL UNIT
GEOLOGY SECTION

BRIDGE FOUNDATION GEOLOGY REPORT

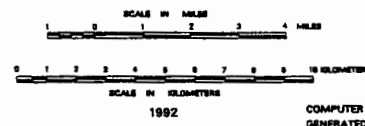
Project No. 70-31 K-5086-01

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

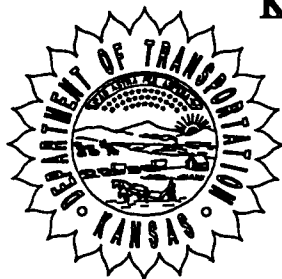
GEARY COUNTY

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. 260+30.08	8. PROJECT NO. K-5086-01	13. BRIDGE NO. 70-31-14.12
3. DESCRIPTION I-70 over Clark's Creek EB	9. VERTICLE SCALE 1" = 10'	14. HOLE STA. 259+28.65' Rt project
4. GEOLOGIST Art Peterson	10. RIG B-61	15. DATE 3-16-95
5. DRILLER Bob Bergman	11. TOTAL DEPTH OF HOLE 87' ±	16. ELEVATION TOP OF HOLE 1062.9
6. GROUND WATER ELEV. 1044.4		17. ELEVATION TOP OF ROCK 1015.0

BIT TYPE & NO.	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION	STANDARD PENETRATION OR CASING DRIVE	
							BLOWS	ELEV.
					Pier # 1			
					T.H.E.I. = 1062.9			
Tricone	Alluvium		5' ±	1060	Limestone riprap, silty clay brown			
				1057.9				
				1050	Silty clay, brown to dark brown			
				1040				
	Cottonwood Ls. Mbr		32' ±	1030	1030.3 Silty clay with gravel, brown			
			34' ±	1028.5				
				1020	Coarse gravel, limestone, chert with silt binder,			
				1015.1				
Diamond Core Bit	Eskridge shale fm.		54' ±	1010	Limestone, upper 2' jointed, buff to lt gray, fossiliferous (Fusulines)	Ref 75BPT		1015.0
				1008.7		Sq #1	Q=87.195	1012.0
				1003.8	Shale, gray to green, limy contains limestone stringers	Sq #2	Q=226.36	1010.0
				1000	Shale, maroon to greenish gray, limy, blocky contains thin limestone stringers	Sq #3	Q=27.17	1007.5

Pushed 4" casing

DRILLING LOG (con't sheet)			SOUNDING NO. CD#1		PROJECT NO. K-5086-01		SHEET 2 OF 2	
ELEVATION TOP OF HOLE 1062.9			GROUND WATER ELEV. 1044.4		TOTAL DEPTH OF HOLE 78 [±]		ELEVATION TOP OF ROCK 1015.0	
BIT TYPE & NO.	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION	STANDARD PENETRATION OR CASING DRIVE	
							BLOWS	ELEV.
Diamond	Eskridge Shale Fm	5	71.1	990	991.8 Shale, maroon to greenish gray, limy	S _u #4	Q _u =83.55	991.1
		6	74 [±]		988.4 Shale, dark gray, laminated, contains celestite	S _u #5	Q _u =38.19	986.75
3 1/2" Hawthorne	Neva Ls. Mbr	7		980	Shale, maroon to greenish gray, limy, blocky contains thin limestone stringers			980
			86 [±]	976.9	975.4 Limestone, shaly, buff to lt gray			970
			87.5		Core#1, 47 [±] -52 [±] (1015.0-1010.0) Cut 5 [±] Rec 5 [±] Core Rec 100% RQD 100%			
					Core#2, 52 [±] -58 [±] (1010.0-1004.9) Cut 5 [±] Rec 4 [±] Core Rec 78% RQD 45%			
					Core#3, 58 [±] -63 [±] (1004.9-999.9) Cut 5 [±] Rec 3 [±] Core Rec 76% RQD 70%			
					Core#4, 63 [±] -65 [±] (999.9-997.1) Cut 2 [±] Rec 2 [±] Core Rec 100% RQD 71%			
					Core#5, 66 [±] -71 [±] (996.9-991.9) Cut 5 [±] Rec 3 [±] Core Rec 76% RQD 62%			
					Core#6, 71 [±] -74 [±] (991.9-988.4) Cut 3 [±] Rec 3 [±] Core Rec 94% RQD 91%			
					Core#7, 74 [±] -78 [±] (988.4-984.4) Cut 4 [±] Rec 4 [±] Core Rec 100% RQD 85%			