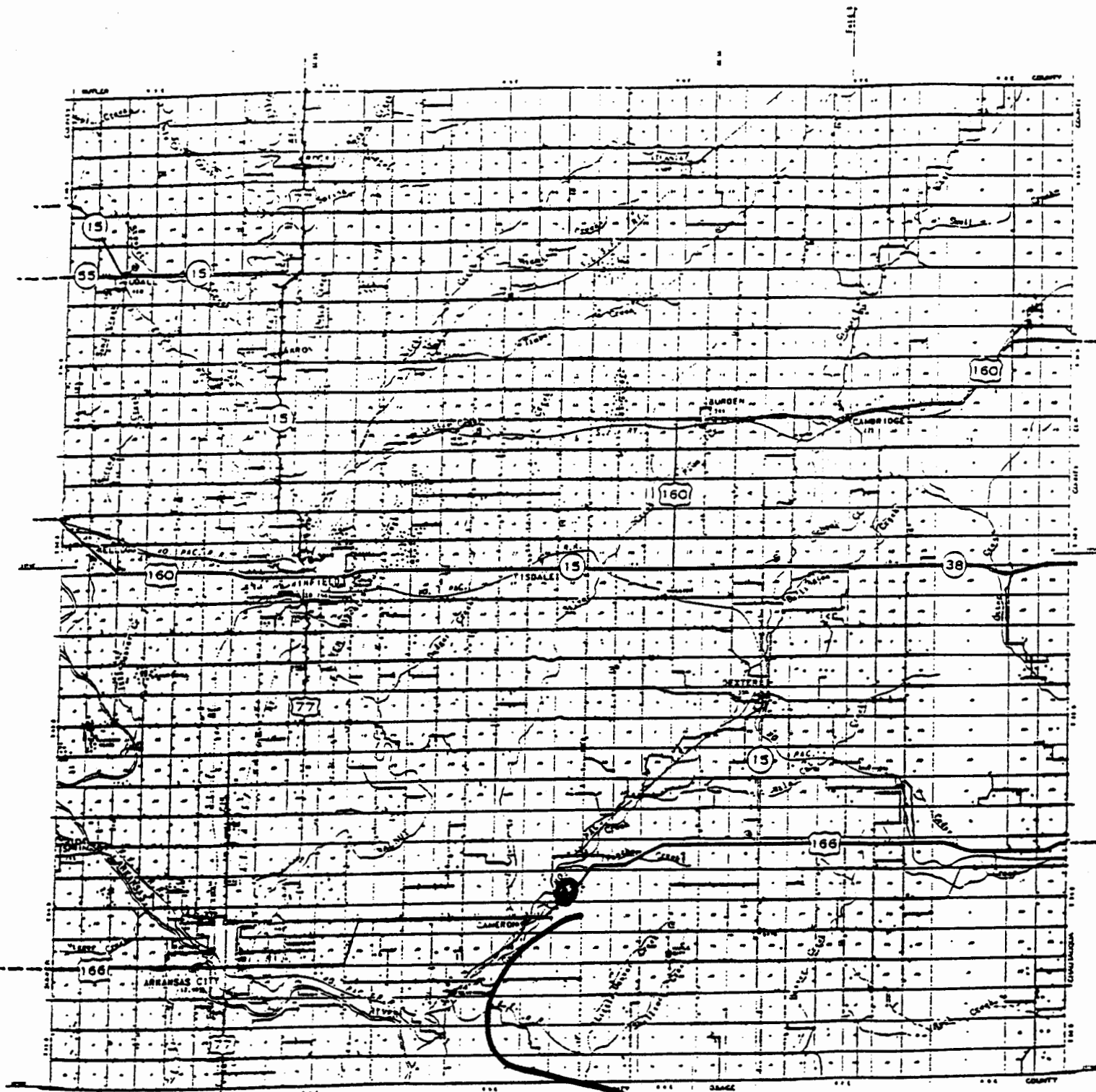


BRIDGE FOUNDATION GEOLOGY REPORT

Job No. 02905163C



COWLEY-18

4355-01

166-18 K-435501
Cowley County
Bridge at Sta. 599+75

C-13-345-5E

0-44

Council Grove

Crowe limestone to creek SH

LOG OF STATION: 599+97, BORING NO. B-1-3

OWNER KANSAS DEPARTMENT OF TRANSPORTATION		ENGINEER COOK, FLATT & STROBELL								
SITE COWLEY COUNTY, KANSAS		PROJECT 166-18K-4355-01								
GRAPHIC LOG	DESCRIPTION	DEPTH (FT.)	SAMPLES			TESTS				
			HORIZON	SPT - N BLOWS/FT.	TYPE	RECOVERY, in.	KDOT TEXTURAL SYMBOL	IN-SITU MOISTURE, %	IN-SITU DRY DENSITY, PCF	KDOT SAMPLE NUMBER
	Surface Elevation: 1092.98 ft. Station: 599+97									
1.5	SILTY CLAY LOAM , Very Dark Gray Brown, 10YR 3/2	1091.5			PA					
6.0	SILTY CLAY , Dark Brown, 10YR 3/3	1087.0	5	1	SS	15	26.1			
14.0	SILTY CLAY , Brown to Dark Brown, 10YR 4/3	1079.0	10	2	SS	18	29.1			41,17,24
19.0	SILTY CLAY LOAM , Dark Brown, 10YR 3/3	1074.0	15	3	SS	18	25.4			
20.5	SILTY CLAY , trace Chert Fragments, Brown to Dark Brown, 10YR 4/3	1072.5	20	4	SS	2	31.2			
25.5	SILTY CLAY , Trace Chert Fragments, Brown to Dark Brown, 10YR 4/3	1067.5	25		PA		23.4			
28.0	**WEATHERED LIMESTONE.	1065.0	30							
	**LIMESTONE , Whitish Gray, (Crouse) Shale Break @ 31.6' to 31.9' and 32.6' to 33.0'									



Continued Next Page

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

WATER LEVEL OBSERVATIONS			BORING STARTED 6-29-93	
WL	8.0	W.D.	7.0	A.B.
WL				
WL	6.2 24hrs A.B.		BORING COMPLETED 6-29-93	
			RIG CME 55	FOREMAN BR
			APPROVED EMK	JOB # 02905163C



LOG OF STATION: 599+97, BORING NO. B-1-3

OWNER KANSAS DEPARTMENT OF TRANSPORTATION		ENGINEER COOK, FLATT & STROBELL								
SITE COWLEY COUNTY, KANSAS		PROJECT 166-18K-4355-01								
GRAPHIC LOG	DESCRIPTION	DEPTH (FT.)	SAMPLE NUMBER	SAMPLES			TESTS			
				SPT - N BLOWS/FT.	TYPE	RECOVERY, in.	KOOT TEXTURAL SYMBOL	IN-SITU MOISTURE, %	IN-SITU DRY DENSITY, PCF	UNCONFINED STRENGTH PSF
	33.0 **LIMESTONE, Gray, (Crouse)	1060.0								
	34.6 **SHALE, Maroon, (Easy Creek)	1058.4								
	39.5	1053.5								
	BOTTOM OF BORING ** Classification estimated from disturbed samples. Core samples and petrographic analysis may reveal other rock types.									

THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

WATER LEVEL OBSERVATIONS			Terracon		BORING STARTED		6-29-93		
WL	8.0	W.D.			7.0	A.B.	BORING COMPLETED		6-29-93
WL							RIG	CME 55	FOREMAN BR
WL	6.2 24hrs A.B.				APPROVED	EMK	JOB #	02905163C	