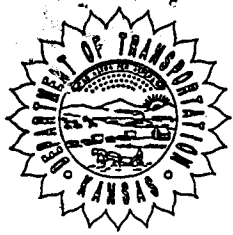


Core Box



KANSAS DEPARTMENT OF TRANSPORTATION

RTE./CO. 75-89	SOUNDING NO. CD #3	SHEET 1 OF 3
BRIDGE STA. 99+490.118	PROJ. NO. K-5666-01	BRIDGE NO. 75-89-18.01
SITE NAME N.B. US-75 over Ks. River		HOLE STA. 99+222.7, 18m Pt NB ☒
GEOLOGIST David Streiler Randy Billinger	SCALE: 1:100 (10mm = 1 Meter)	DATE 7-20-98
DRILLER Rob Veruynck Bob Bergman	RIG TYPE Mobile B-61	TOP HOLE ELEV. 282.59
GROUNDWATER ELEV 272.84	TOTAL DEPTH 43.88	M/B ELEV. 280.19

NE 27-1-98

BIT TYPE	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH Meters	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION kPa	STANDARD PENETRATION OR CASING DRIVE	
							BLOWS	ELEV
			0.0		Top Hole Elevation 282.59			
Casing	Mantle		2.40	280.19	Silty clay			
Winteler Mbr.			2.95	279.64	Limestone, shaly, weathered.	135.6		279.41
Church Mbr.			3.60	278.99	Shale, brown-gray, weathered	40697.3		278.54
Acade Mbr.			4.49	278.10	Limestone, gray, very hard			
			5.37	277.22	Shale, dark gray to black	3557.0		277.22
			5.76	276.83	Coal			
	Severy Formation			275	Shale, sandy, gray.			
				270				
			14.78	267.81	coal bed 0.10m thick			
				267	Shale, gray clayey			

SOUNDING NO. CD #3

PROJECT NO. K-5666-01

SHEET 2 OF 3

DATE 7-20-98

RTE./CO. 75-89

TOTAL DEPTH 43.88

THE 282.59

BIT TYPE	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION	STANDARD PENETRATION OR CASING DRIVE	
							BLOWS	ELEV
				267.0				
	Severy Fm.		17.66	264.93	Shale, gray, clayey	3876.9		264.92
	Cook Mbr.		18.9	263.69	Limestone, gray. upper portion shaly	25682.9		264.0
	Port Mbr.		19.54	263.05	Shale, black, fissile	48825.1		262.8
	Bois Mbr.		20.56	262.03	Limestone, gray			
	Sheldon Mbr.		20.81	261.78	shale, dark gray, limy	19692.7		261.59
	Jones Mbr.		21.47	261.12	Limestone, light gray to gray-green			
	Point Mbr.		22.41	260.18	Shale, gray-green	1865.0		260.37
						41439.7		259.99
	Curzon Mbr.				Limestone, gray	30821.7		259.3
			25.41	257.18		54515.5		257.58
	Point Mbr.		25.79	256.8	Shale, gray-green	14869.8		256.63
	Ho Mbr.				Limestone, gray	35753.7		255.66
			27.35	255.24		3416.3		255.03
	Calhoun Formation				Shale, gray, sandy. Thin sandstone lenses.			
				252				
				250				
			34.40	248.19				
				247	Sandstone, shaly. Sandy shale lenses.			

Kansas Department of Transportation

Report of sample of Geology Cores

Laboratory No. 98-3022

Date Reported. August 14, 1998

Date Received. July 29, 1998

Specification No. -- Quantity ---

Source of material Project

Sample from Project

Submitted by Delmar Thompson, Lawrence Geology Office

Identification marks Tags with Samples

Project or POV 75-89 K-5666-01

Type of construction Bridge #75-89-18.01

TEST RESULTS

Sample No.	Station	CL Dist. m	Depth m	Description	Qu. kPa	Dry Unit Weight kg/m ³	Moisture (% of Dry Wt.)	
Core Hole #3 T.H.E.=282.59								
S1	99+222.7	18m Rt of CL of NB lane	2.73-2.87 <u>3.04-3.18</u>	Shale <u>Winzler</u>	135.6	1740	20.2	#1
S2	"	"	3.44-3.57 <u>3.98-4.05</u>	Limestone <u>Church</u>	40697.3	2669	1.2	#2
S3	"	"	5.16-5.39	Shale <u>Aarde</u>	3557.0	1895	11.2	#3
S4	"	"	17.48-17.67	Shale <u>Coal creek</u>	3896.9	2311	6.2	#4
S5	"	"	18.34-18.59	Limestone <u>Coal creek</u>	25682.9	2568	2.0	#5
S6	"	"	19.54-19.79	Limestone <u>Du Bois</u>	48825.1	2576	1.9	#6
S7	"	"	21.12-21.25 <u>20.87-21.0</u>	Limestone <u>Sheldon</u>	19692.7	2307	7.2	7
S8	"	"	22.43-22.64 <u>22.01-22.22</u>	Shale <u>Jones Point</u>	1865.0	2066	11.8	8
S9	"	"	22.83-23.02 <u>22.41-22.60</u>	Limestone <u>Curzon</u>	41439.7	2520	3.2	9
S10	"	"	23.69-23.87 <u>23.11-23.29</u>	Limestone <u>Curzon</u>	30821.7	2412	4.7	10
S11	"	"	24.79-25.01	Limestone <u>Curzon</u>	54515.5	2452	4.0	11
S12	"	"	27.14-27.34 <u>25.79-25.96</u>	Limestone <u>Hartford</u>	14869.8	2407	5.4	12
S13	"	"	26.93-27.06 <u>26.80-26.93</u>	Limestone <u>Hartford</u>	35753.7	2538	4.2	13
S14	"	"	27.48-27.69 <u>27.35-27.56</u>	Shale <u>Calhoun</u>	3416.3	2157	9.7	14
S15	"	"	35.50-35.66	Shale, Sandy "	4066.8	2224	8.5	
S16	"	"	36.85-36.99	Shale, Sandy "	4643.7	2275	6.9	
S17	"	"	39.55-39.76	Sandstone "	5216.3	1861	15.5	
S18	"	"	41.33-41.50	Shale, Sandy "	4158.2	2230	7.8	
S19	"	"	43.50-43.72	Limestone <u>Erwine Creek</u>	32768.2	2470	3.9	#19

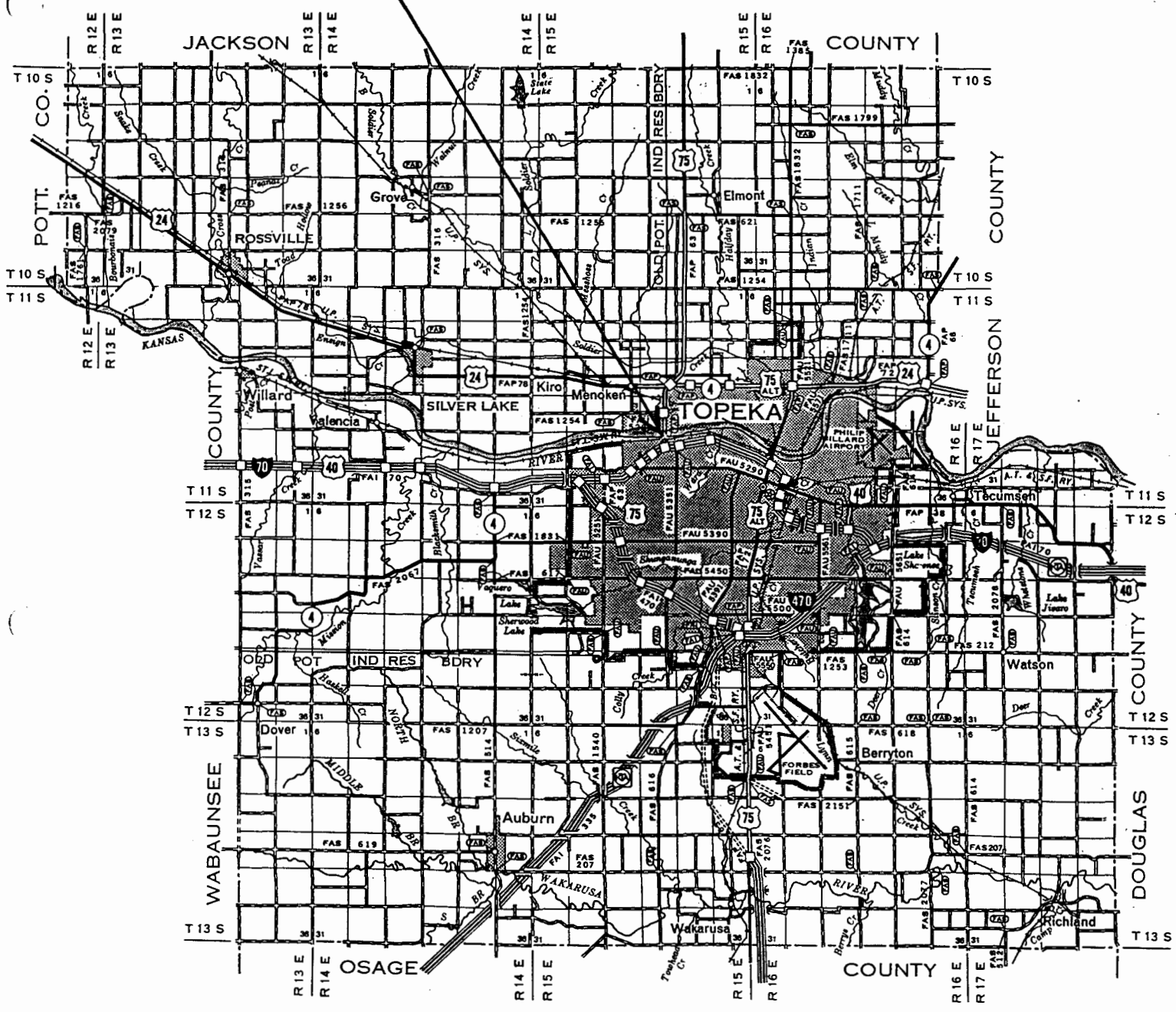
cc: L.S. Ingram
 G.R. Koontz
 [REDACTED]
 J.J. Brennan
 Soil Section
 File 18-3

Reported by: Walter C Von Demfange for

Title James J. Brennan, Soils Engineer

	tsf	lbs/ft ³	
#1	1.41	108.63	Winzeler
#2	424.67	166.62	Church
3	37.12	118.30	Aarde
4	40.66	144.27	Coal Creek
5	268.0	160.32	"
6	509.48	160.82	Du Bois
7	205.49	144.02	Sheldon
8	19.46	128.98	Jones Point
9	432.42	157.32	Carzon
10	321.62	150.58	"
11	568.86	153.07	"
12	155.16	150.26	Hartford
13	373.08	158.44	"
14	35.65	134.66	Calhoun
15	42.44	138.84	"
16	48.46	142.02	"
17	54.43	116.18	"
18	43.39	139.22	"
19	341.93	154.20	Ervine Creek

75-89 K-5666-01
N.B. US-75 over the Kansas River

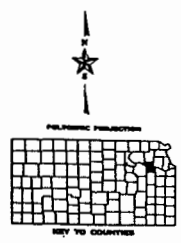


THIS RISE
sect 27 NE

LEGEND

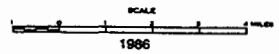
- ROADS AND ROADWAY FEATURES**
- PRIMITIVE ROAD
 - UNIMPROVED ROAD
 - GRADED AND DRAINED ROAD
 - SOIL SURFACED ROAD
 - GRAVEL OR STONE ROAD - NOT GRADED OR DRAINED
 - GRAVEL OR STONE ROAD - GRADED AND DRAINED
 - LEVEL OR STONE ROAD WITH TABULATED SURFACE
 - BITUMINOUS ROAD - LOW TYPE
 - PAVED ROAD
 - DIVIDED HIGHWAY
 - HIGHWAY WITH FULL CONTROL OF ACCESS AND INTERCHANGE

- ROAD SYSTEM DESIGNATION**
- FEDERAL-AID INTERSTATE HIGHWAY SYSTEM
 - FEDERAL-AID PRIMARY HIGHWAY SYSTEM
 - FEDERAL-AID SECONDARY HIGHWAY SYSTEM
 - INTERSTATE NUMBERED HIGHWAY
 - U.S. NUMBERED HIGHWAY
 - STATE HIGHWAY SYSTEM OR STATE NUMBERED HIGHWAY
 - END OF DESIGNATED SYSTEM OR MARKED ROUTE



GENERAL HIGHWAY MAP
SHAWNEE 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



FA SYSTEM REVISED TO MAR. 16, 1986

2480