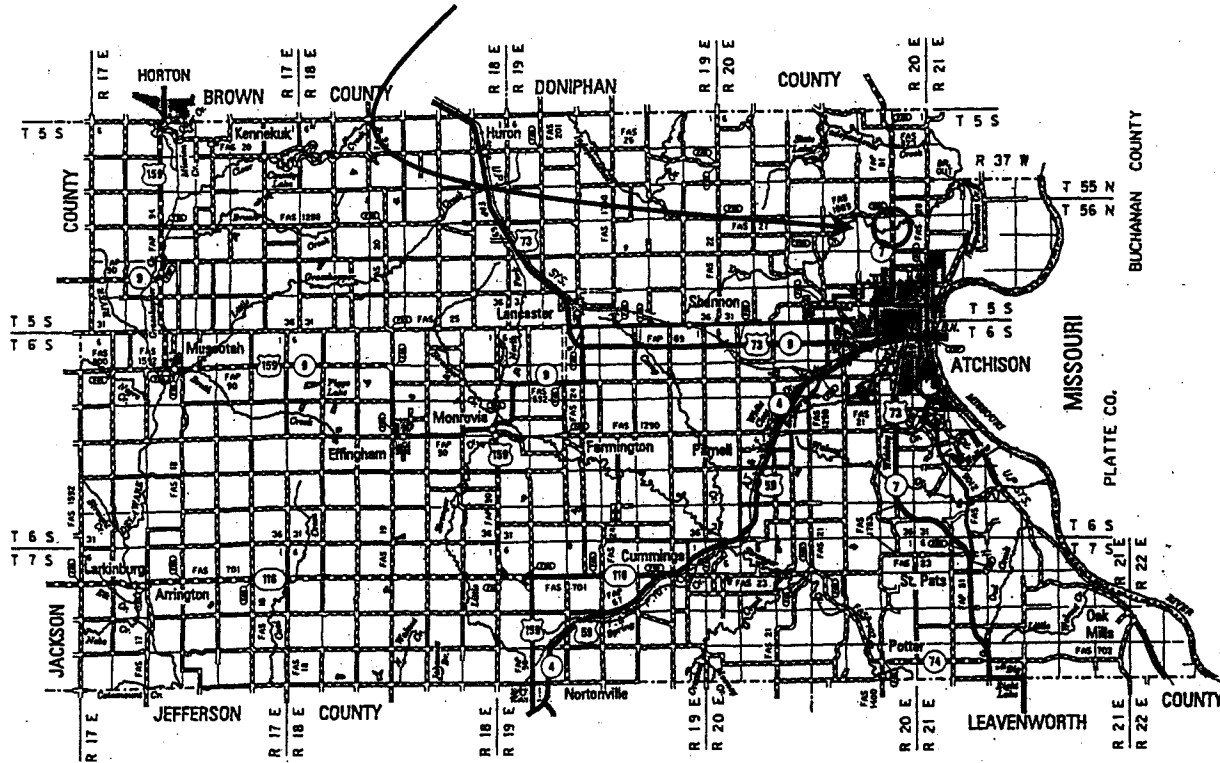


SE NE 23-5-20E

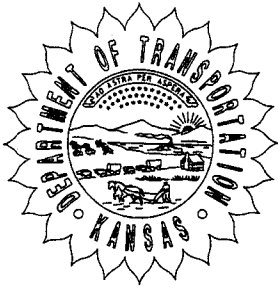
27-1-6

Project 7-3 K-7373-01
K-7 over Deer Creek

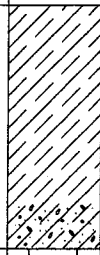
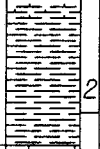
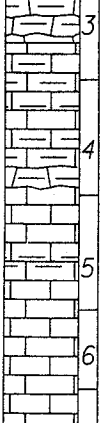


Atchison County

KANSAS DEPARTMENT OF TRANSPORTATION



RTE./CO. 7-3	SOUNDING NO. 1	SHEET 1 OF 1
BRIDGE STA. 2+188.426	PROJ.NO. K-7373-01	BRIDGE NO. 1514 (056)
SITE NAME K-7 over Deer Creek	HOLE STA. 2+174.426 11m It	
GEOLOGIST Denesha	SCALE 1:100 (10mm=1m)	DATE 1/21/03
DRILLER Vervynick	RIG TYPE B-61	TOP HOLE ELEV. 253.64
GW ELEV. 44 250.90	TOTAL DEPTH 12.77	M/B ELEV. 250.41

BIT TYPE	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION kPa	STANDARD PENETRATION TEST (SPT)	
							N COUNT	ELEVATION
					TH Elev. 253.64			
8" Augers	Mantle			253	Silty, sandy-clay, light to dark brown some limestone gravel near the base			
				252				
			3.23	251		*	251.37	251
				250.41				
"NX" Diamond	Keokuk		1 4.12	250	Limestone - lt. gray, impure, brachiopods common, thin shale break, minor vertical joints	*	249.69	250
	Heumader			249	Shale - firm dark gray, finely laminated, limy near top, becomes slightly clayey near base			
			2	248		579	248.47	249
	Plattsmouth Limestone Member		6.07	247	Limestone - light to dark gray, impure with a few thin shale breaks, concentrated beds of fossils throughout, wavy bedded and vertical jointing was noted	21996	247.01	247
				246		26913	246.63	
				245		53926	246.02	246
				244		39842	245.18	245
				243		28495	244.64	
				242		45700	243.89	244
	Heebner		11.77	241	Shale - firm, dark gray to black	31823	243.09	243
			12.77	240		8217	241.32	241
				240.87 = TD		13219	240.87	241
				240	* Denotes Broken Sample			

Logs	Elevation (m)	Depth (m)	Description
CD-1 2+174.462	253.64	0.0	Soil Mantle, light brown, sandy, silty-clay
11 m Lt THE = 253.64	250.47	3.17	Limestone gravel
	250.41	3.28	Limestone, Kerford Limestone Member
	250.13	3.51	Began coring
Core #1	250.13	3.51	Limestone, lt gray, impure, fossiliferous, thin bedding,
3.51-4.12			minor vertical jointing
Cut = 0.61	249.64	4.00	Shale, break
Rec = 0.55	249.59	4.05	Limestone, dk. gray, shaley very impure
	249.52	4.12	RQD = 30%
Core #2	249.52	4.12	Shale, dk. gray, limy
4.12-5.64	249.22	4.42	Shale, dk. gray, very firm
Cut = 1.52	248.30	5.34	Shale, dk. gray, firm, slightly laminated
Rec = 1.52	248.00	5.64	RQD = 60%
Core #3	248.00	5.64	Shale, dk. gray, firm, slightly clayey
5.64-7.16	247.57	6.07	Limestone, gray, shaly firm, wavy bedded, abundant
Cut = 1.52			fossils, minor vertical jointing
Rec = 1.52	246.99	6.65	Limestone, lt. gray fossiliferous, minor shale
	246.48	7.16	RQD = 82%
Core #4	246.48	7.16	Limestone, lt gray, fossiliferous, oolitic, minor pink
7.16-8.69			calcite vugs, very shaley, dark gray at bottom tenth
Cut = 1.52	246.02	7.62	Limestone, lt. gray, lacks bedding, angular shale bed
Rec = 1.52	245.74	7.90	Limestone, lt to dk gray, abundant fossils, gradational
			shale-limestone contacts
	245.44	8.20	Limestone, lt to dk gray, wavy beds of fossils
	244.95	8.69	RQD = 96%
Core #5	244.95	8.69	Limestone, dk. to lt gray beds, dk gray fossiliferous
8.69-10.21			lt. gray minor fossils, few styolites
Cut = 1.52	244.25	9.39	Shale, dk. gray, fine bedded
Rec = 1.52	244.16	9.48	Limestone, slightly impure
	243.91	9.73	Limestone, vertical jointing, minor fossils
	243.43	10.21	RQD = 78%
Core #6*	243.43	10.21	Limestone, lt. gray to dk. gray to black, vertical joints,
10.21-11.73			abundant thin fossil beds, fusulinids, brachiopods
Cut = 1.52	243.03	10.61	Limestone, lt. gray w/shaly dk. gray, fossils present
Rec = 1.52			wavy bedded
	242.18	11.46	Limestone, dk. gray, shaly
	242.12	11.52	Limestone, lt gray, fossils sparse, but present
	241.91	11.73	RQD = 40%
* this core was extracted			
During the truck sinking	causing	the	problem with the elevations

Core #7	242.39	11.25	Limestone, lt. to dk. gray, dk. gray beds contain fossils
11.25-12.77	241.87	11.77	Shale, med. Gray firm
Cut = 1.52	241.17	12.47	Shale, dark gray to black, fine laminations
Rec = 1.52	240.87	12.77	RQD = 100%