



9-58 K-7427-01

K-9 Over Johnson Fork Creek

Marshall County

CD 01

N: 39.681993 E: -96.485183 (Approximate)

SW ¼, SE ¼, SE ¼, Sect 23, T4S, R8E

6/28/2004



KANSAS DEPARTMENT OF TRANSPORTATION

RTE./CO. 9-58	SOUNDING NO. 1	SHEET 1 OF 2
BRIDGE STA 10+540.700	PROJ. NO. K-7427-01	BRIDGE NO. 9-58-18.04(056)
SITE NAME K9 over Johnson Fork Creek		HOLE STA. 10+531.2, 14.8m + 1
GEOLOGIST David Schmidt	SCALE: 1:100 (10mm = 1 Meter)	DATE 6/28/04
DRILLER Rob Veruynck	RIG TYPE B-61	TOP HOLE ELEV. 352.05
GROUNDWATER ELEV 347.14	TOTAL DEPTH 22.83	M/B ELEV. 341.23

BIT TYPE	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION ϕ_u (kPa)	STANDARD PENETRATION OR CASING DRME	
							BLOWS	ELEV
				352	352.05			352
	Mantle			351				351
			350		140	349.67	350	
			349				349	
			348				348	
			347				347	
			346				346	
			345				345	
			344			390	343.64	344
			343				343	
			342				342	
	10.82		341	341.23		341		
	Boca Shale Formation		340	Shale, bluish-grey, slightly micaceous.		340		
	12.80		339	339.25	N/A	339.37	339	
	Low S LS MBR		338	Dolomite, slightly argillaceous, pitted, recrystallized dolomite in voidspaces, grey, vuggy	910	339.00	338	
	14.54		337	337.51	18300	337.22	337	
	Bennet Shale Member		337	Shale, dark grey-black, fissile, low grade coal, pyrite, arborescent brachiopods			337	

Bennet Shale Member

		SOUNDING NO. 1	PROJECT NO. K-7427-01	SHEET 2 OF 2				
DATE 6/28/04		RTE./CO. 9-58	TOTAL DEPTH 22.83	THE 352.05				
BIT TYPE	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION	STANDARD PENETRATION OR CASING DRIVE	
							BLOWS	ELEV
Glenrock Ls Mbr. Bennet Sh. Mbr. Formation Johnson Shale Formation			10.46	336	Bennet shale Mon. cont. Dark grey-black, low grade coal, pyrite.	N/A	336.87	336
			16.79	335	335.59 Limestone, grey, firm, fusulinids, argillaceous	N/A	335.62	336
			17.37	335	335.26 Limey shales, shales, grey, crumbly.	55700	335.38	
			18.29	334	334.68 Shale, limey, light grey-grey	17800	334.98	335
			18.56	334	333.76 Shale, micaceous-grey, crumbly, slightly fossiliferous	19900	334.07	334
				333	333.49 Shale, blue-green, firm, slightly calcareous.	10500	332.97	333
				332		15100	332.51	
				331		5200	331.96	332
				330		20800	331.02	331
				22.01	330	330.04 Limestone, tan, grey to brown-grey, slightly argillaceous, some fossil debris, minor chert at base. Sand at very top.	11400	330.17
			22.83			19700	329.40	
	Long Creek Limestone Member							