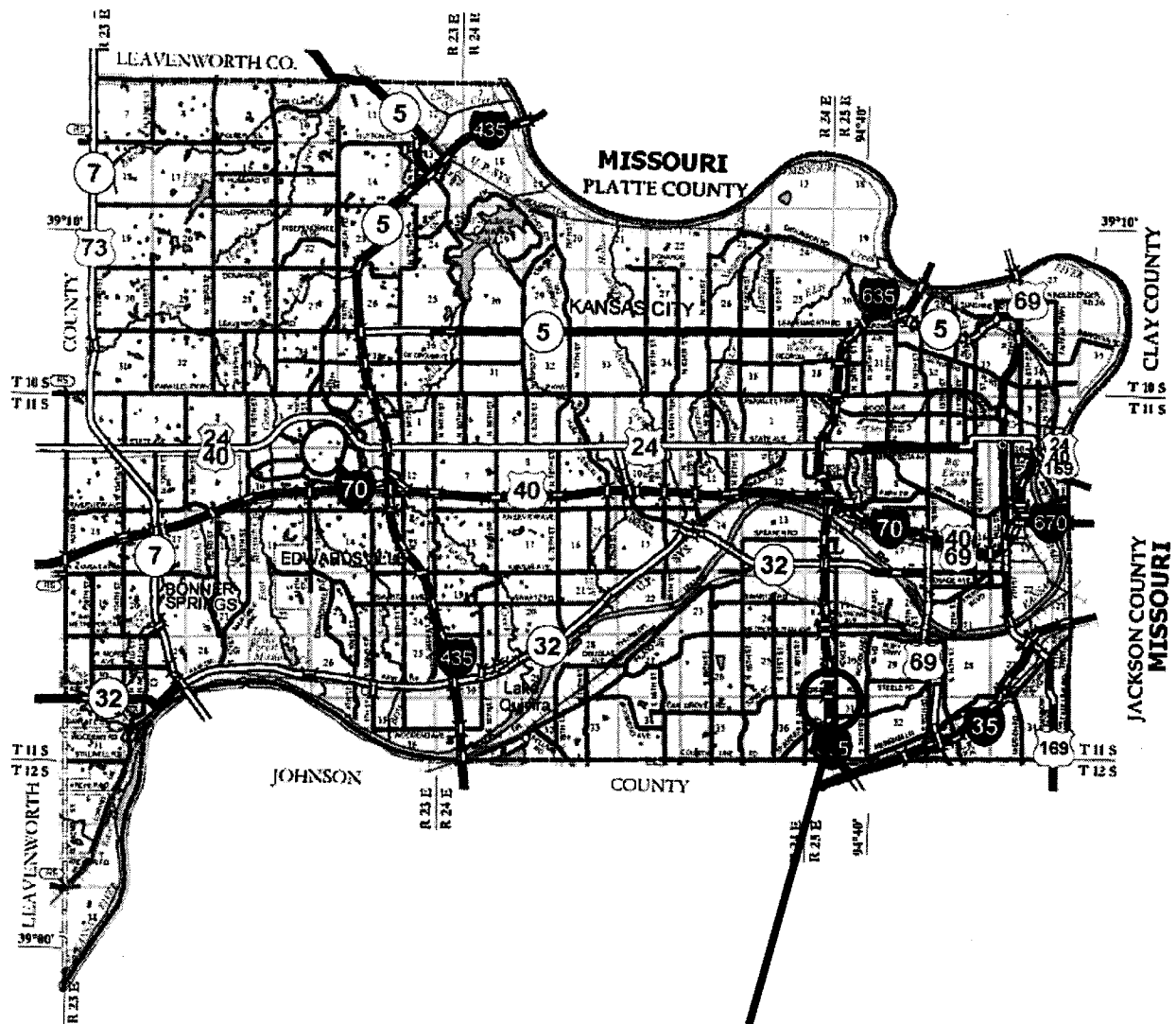




635-105 KA-2093-01 Gibbs Rd. over I-635

1.43 miles North of I-35

Wyandotte County

CD 02

N: 39.058622 E: -94.679289 (Approximate)

SE ¼, SE ¼, SW ¼, Sect 30, T11S, R25E

9/5/2012

KANSAS DEPARTMENT OF TRANSPORTATION



RTE./CO.	I-635 / Wyandotte	SOUNDING NO.	CD 02	SHEET 1 of 4	
BRIDGE STA.	154+97.14	PROJ. NO.	635-105 KA-2093-01	BRIDGE NO.	1.05(326)
SITE NAME				Gibbs Rd over I-635	
HOLE STA.				49+22, 72.0' Rt CL	
GEOLOGIST	R. Crow, P.G.	SCALE 1 inch = 5.0 feet		DATE	September 5, 2012
DRILLER	R. Vervynck	RIG TYPE	CME 55	TOP HOLE ELEV.	1007.97
GW ELEV.	1002.0	TOTAL DEPTH	97.4	M/B ELEV.	1002.97

Bit Type	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION (TSF)	ELASTIC MODULUS (PSF)	N60 COUNT (SPT)	ELEVATION
8" Hollow Augers	Mantle			1008.0	Silty clay, gravel, fill				
	Plattsburg		5.0	1003.0	Limestone, very shaly				
NQ2 Diamond	Bonner Springs Shale Formation		1	1000					
			8.4	999.6	Shale, gray, sandy, limy				
			2	10.6	Shale, greenish gray, clayey	69	8250000		997.67
			12.8	995	Shale, gray, sandy, limy				
			13.6	994.4	Sandstone, shaly, gray, micaceous, light and dark gray varves	25	8120000		992.47
				990					
			4	19.8	Shale, gray, sandy, light and dark gray varves	41	7620000		987.47
				985					
			5	23.3	Shale, gray, clayey, weak				
			6	26.4	Shale, light and dark gray varves, laminar, micro cross beds	48	6120000		980.97

BOREHOLE REPORT - KANSAS DOT.GDT - 10/30/12 13:04 - Q:\GEOLOGY\BRIDGE\635-105 KA-2093-01\GIBBS RD OVER 635.GPJ

KANSAS DEPARTMENT OF TRANSPORTATION

RTE./CO.	I-635 / Wyandotte	SOUNDING NO.	CD 02	SHEET 2 of 4	
BRIDGE STA.	154+97.14	PROJ. NO.	635-105 KA-2093-01	BRIDGE NO.	1.05(326)
SITE NAME	Gibbs Rd over I-635			HOLE STA.	49+22, 72.0' Rt CL

Bit Type	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION (TSF)	ELASTIC MODULUS (PSF)	N60 COUNT (SPT)	ELEVATION
NO2 Diamond	Farley Limestone Member		6	975	Shale, light and dark gray varves, laminar, micro cross beds	54	8100000		977.47
			7						
			36.2	971.8	Limestone, nearly white, hard, dense, fine, fossiliferous	399	2.23E+08		970.17
			37.8	970	Limestone, gray, hard, fossil fragments				
			38.2	969.8	Shale, gray, limy				
			38.4	969.6	Limestone, gray, hard, fossil fragments				
			39.0	969.0	Shale, very limy, fossiliferous, laminar	50	6120000		967.77
			42.8	965	Shale, gray, firm				
			46.0	962.0	Shale, very limy, sandy, gray	56	9920000		960.37
			51.4	956.6	Limestone, hard, granular, gray, stylolytic seams	520	2.03E+08		955.17
			53.8	954.2	Limestone, gray, porous				
			54.8	953.2	Limestone, very hard, gray, wavy bedded, stylolytic seams	510	2.09E+08		952.87
			57.8	950	Limestone, shaly, fossiliferous				
Island Ck Shale Mbr			58.2	949.8	Limestone, very hard, fine, gradual transition to				
			59.5	948.5	Shale, gray, sandy, limy				
			60.7	947.3	Sandstone, shaly, gray				
			61.8	946.2	Shale, sandy, gray with small white fossil fragments				
			62.8	945	Shale, sandy, gray				



KANSAS DEPARTMENT OF TRANSPORTATION

RTE./CO.	I-635 / Wyandotte	SOUNDING NO.	CD 02	SHEET 3 of 4	
BRIDGE STA.	154+97.14	PROJ. NO.	635-105 KA-2093-01	BRIDGE NO.	1.05(326)
SITE NAME	Gibbs Rd over I-635			HOLE STA.	49+22, 72.0' Rt CL

Bit Type	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION (TSF)	ELASTIC MODULUS (PSF)	N60 COUNT (SPT)	ELEVATION
			13		Shale, sandy, gray				
			67.6	940	940.4				
			69.2		938.8				
			69.8		938.2				
					Shale, gray				
					Shale with coarse material and fossil debris, gray				
					Limestone, hard, wavy bedded, light and dark gray, stylolytic seams				
				935					
				930					
				925					
				920					
				915					
			97.1	910.9	Shale, gray				
			97.3	910.7	QUINDARO MEMBER				
			97.4	910.57	No return T.D. = 97.4				

BOREHOLE REPORT - KANSAS DOT.GDT - 10/30/12 13:04 - Q:\GEOLOGY\BRIDGE\635-105 KA-2093-01\GIBBS RD OVER 635.GPJ

NQ2 Diamond
Argentine Limestone Member



KANSAS DEPARTMENT OF TRANSPORTATION

RTE./CO.	I-635 / Wyandotte	SOUNDING NO.	CD 02	SHEET 4 of 4	
BRIDGE STA.	154+97.14	PROJ. NO.	635-105 KA-2093-01	BRIDGE NO.	1.05(326)
SITE NAME	Gibbs Rd over I-635			HOLE STA.	49+22, 72.0' Rt CL

Bit Type	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION (TSF)	ELASTIC MODULUS (PSF)	N60 COUNT (SPT)	ELEVATION																																																																																																																																																		
					<table><thead><tr><th>Core</th><th>Depth</th><th>Elev.</th><th>Cut</th><th>Rec</th><th>Rec %</th><th>RQD</th></tr></thead><tbody><tr><td>1</td><td>5.0</td><td>1002.97</td><td>2.8</td><td>2.8</td><td>100</td><td>32%</td></tr><tr><td>2</td><td>7.8</td><td>1000.17</td><td>5.0</td><td>5.0</td><td>100</td><td>68%</td></tr><tr><td>3</td><td>12.8</td><td>995.17</td><td>5.0</td><td>5.0</td><td>100</td><td>96%</td></tr><tr><td>4</td><td>17.8</td><td>990.17</td><td>5.0</td><td>5.0</td><td>100</td><td>94%</td></tr><tr><td>5</td><td>22.8</td><td>985.17</td><td>5.0</td><td>4.2</td><td>84</td><td>36%</td></tr><tr><td>6</td><td>27.8</td><td>980.17</td><td>5.0</td><td>5.0</td><td>100</td><td>88%</td></tr><tr><td>7</td><td>32.8</td><td>975.17</td><td>5.0</td><td>5.0</td><td>100</td><td>94%</td></tr><tr><td>8</td><td>37.8</td><td>970.17</td><td>5.0</td><td>4.9</td><td>98</td><td>94%</td></tr><tr><td>9</td><td>42.8</td><td>965.17</td><td>5.0</td><td>5.1</td><td>102</td><td>98%</td></tr><tr><td>10</td><td>47.8</td><td>960.17</td><td>5.0</td><td>5.0</td><td>100</td><td>96%</td></tr><tr><td>11</td><td>52.8</td><td>955.17</td><td>5.0</td><td>5.0</td><td>100</td><td>98%</td></tr><tr><td>12</td><td>57.8</td><td>950.17</td><td>5.0</td><td>4.7</td><td>94</td><td>94%</td></tr><tr><td>13</td><td>62.8</td><td>945.17</td><td>4.8</td><td>5.1</td><td>106</td><td>88%</td></tr><tr><td>14</td><td>67.6</td><td>940.37</td><td>4.9</td><td>4.7</td><td>96</td><td>96%</td></tr><tr><td>15</td><td>72.5</td><td>935.47</td><td>4.8</td><td>5.1</td><td>106</td><td>70%</td></tr><tr><td>16</td><td>77.3</td><td>930.67</td><td>5.0</td><td>5.0</td><td>100</td><td>100%</td></tr><tr><td>17</td><td>82.3</td><td>925.67</td><td>5.1</td><td>5.1</td><td>100</td><td>98%</td></tr><tr><td>18</td><td>87.4</td><td>920.57</td><td>5.0</td><td>5.0</td><td>100</td><td>98%</td></tr><tr><td>19</td><td>92.4</td><td>915.57</td><td>5.0</td><td>4.9</td><td>98</td><td>96%</td></tr><tr><td>Total</td><td>97.4</td><td>910.57</td><td>92.4</td><td>91.6</td><td>99</td><td>87%</td></tr></tbody></table>	Core	Depth	Elev.	Cut	Rec	Rec %	RQD	1	5.0	1002.97	2.8	2.8	100	32%	2	7.8	1000.17	5.0	5.0	100	68%	3	12.8	995.17	5.0	5.0	100	96%	4	17.8	990.17	5.0	5.0	100	94%	5	22.8	985.17	5.0	4.2	84	36%	6	27.8	980.17	5.0	5.0	100	88%	7	32.8	975.17	5.0	5.0	100	94%	8	37.8	970.17	5.0	4.9	98	94%	9	42.8	965.17	5.0	5.1	102	98%	10	47.8	960.17	5.0	5.0	100	96%	11	52.8	955.17	5.0	5.0	100	98%	12	57.8	950.17	5.0	4.7	94	94%	13	62.8	945.17	4.8	5.1	106	88%	14	67.6	940.37	4.9	4.7	96	96%	15	72.5	935.47	4.8	5.1	106	70%	16	77.3	930.67	5.0	5.0	100	100%	17	82.3	925.67	5.1	5.1	100	98%	18	87.4	920.57	5.0	5.0	100	98%	19	92.4	915.57	5.0	4.9	98	96%	Total	97.4	910.57	92.4	91.6	99	87%			
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