

SE 1/4, SE 1/4, Sec 24, T34S, R13E
Montgomery Co., KS

KANSAS DEPARTMENT OF TRANSPORTATION



RTE./CO.	US-166 / Montgomery	SOUNDING NO.	CH-01	SHEET 1 of 3
		PROJ. NO.	166-63 KA-3906-01	BRIDGE NO.
SITE NAME	US-166 over ATSF Railway			HOLE STA. 127+29, 72.0' Lt CL
GEOLOGIST	T. LeSage, G.T.	SCALE	1 inch = 5.0 feet	DATE June 15, 2016
DRILLER	J. Burns	RIG TYPE	CME 55	TOP HOLE ELEV. 788.95
GW ELEV.	777.8	TOTAL DEPTH	36.9	M/B ELEV. 788.0
GPS COORDINATES	37.067404, -95.928542			

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 Stem Augers	Ma- ntle		1.0	789.0	Clay				
				788.0	Clayey Shale, gray, soft				
	Weston Sh	1	7.5	781.5	Iron rich concretion, red-brown, hard	2.3	152000		781.55
			7.6	781.4	Limy Clayey Shale, gray, medium soft				
			9.6	779.4	Iron rich concretion, red-brown, hard	7.1	311000		778.55
			9.8	779.2	Clayey Shale, slightly limy, medium soft, swells				
	South Bend Ls	2	12.9	776.1	Sandy Limy Shale, brown to gray, medium hard				
			13.5	775.5	Clayey Limy Shale, gray, soft				
			14.3	774.7	Sandy Limy Shale, brown to gray	1.5	29200		774.45
			14.6	774.4	Shaley Limestone, blue-gray, hard, abundant fossils including crinoids, slightly weathered, weathers red-brown				
NQ2 Diamond	South Bend Ls	3	16.0	773.0	Sandstone, blue-gray, CaCO ₃ cemented, hard, becomes shaly towards base, vertical fracture from 17.2 to 17.6	67.0	1.76E+07		772.95
						320.0	1.25E+08		771.95
			18.0	771.0	Clayey Shale, gray, soft				
			20.1	768.9	Shaley Sandstone, laminated, hard				
	Rock Lake Sh	4	21.0	768.0	Clayey Shale, gray to dark gray, soft	3.0	246000		767.15
		5	23.9	765.1	Sandy Shale, gray to dark gray, medium hard, laminated, breaks along horizontal planes, gradational upper contact				
		6	26.9	762.1	Shaley Sandstone, light to dark gray, medium hard, breaks along horizontal planes	106.0	2.55E+07		761.65

BOREHOLE REPORT - KANSAS DOT GDT - 12/19/16 11 01 - CITYSONBRIDGESMONTGOMERY COUNTY YKA-3906-01 (US-166 OVER ATSF RAILWAY) GINTKA-3906-01B GPJ



KANSAS DEPARTMENT OF TRANSPORTATION

RTE./CO.	US-166 / Montgomery	SOUNDING NO.	CH-01	SHEET 2 of 3
		PROJ. NO.	166-63 KA-3906-01	BRIDGE NO.
SITE NAME	US-166 over ATSF Railway			HOLE STA. 127+29, 72.0' Lt CL

BOREHOLE REPORT - KANSAS DOT GDT - 12/19/16 11:01 - CITYSONBRIDGES/MONTGOMERY COUNTY/KA-3906-01 (US-166 OVER ATSF RAILWAY)/GINT/KA-3906-01B.GPJ

Bit Type	GEOLOGIC NAME	STRATIGRAPHIC COLUMN	DEPTH	ELEVATION	CLASSIFICATION OF MATERIALS DESCRIPTION AND REMARKS	UNCONFINED COMPRESSION (TSF)	ELASTIC MODULUS (PSF)	N60 COUNT (SPT)	ELEVATION
NQ2 Diamond	Rock Lake Sh		6	757.1	Shaley Sandstone, light to dark gray, medium hard, breaks along horizontal planes	325.0	9.48E+07		757.25
			7	755	Shaley Sandstone, light to dark gray, hard, laminated	301.0	1.07E+08		755.45
			36.5	752.5	Shale, black, medium soft I.D. = 36.9	139.0	4.78E+07		752.85
			36.9	752.05					



KANSAS DEPARTMENT OF TRANSPORTATION

RTE./CO.	US-166 / Montgomery	SOUNDING NO.	CH-01	SHEET 3 of 3
		PROJ. NO.	166-63 KA-3906-01	BRIDGE NO.
SITE NAME	US-166 over ATSF Railway			HOLE STA. 127+29, 72.0' Lt 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> <tr> <th>Core</th> <th>Depth</th> <th>Elev.</th> <th>Cut</th> <th>Rec</th> <th>Rec %</th> <th>R D</th> </tr> <tr><td>1</td><td>5.0</td><td>783.95</td><td>2.6</td><td>2.5</td><td>96</td><td>23</td></tr> <tr><td>2</td><td>7.6</td><td>781.35</td><td>4.7</td><td>5.2</td><td>111</td><td>79</td></tr> <tr><td>3</td><td>12.3</td><td>776.65</td><td>4.9</td><td>5.1</td><td>104</td><td>78</td></tr> <tr><td>4</td><td>17.2</td><td>771.75</td><td>4.8</td><td>5.0</td><td>104</td><td>50</td></tr> <tr><td>5</td><td>22.0</td><td>766.95</td><td>4.9</td><td>5.1</td><td>104</td><td>63</td></tr> <tr><td>6</td><td>26.9</td><td>762.05</td><td>5.0</td><td>5.2</td><td>104</td><td>76</td></tr> <tr><td>7</td><td>31.9</td><td>757.05</td><td>5.0</td><td>5.0</td><td>100</td><td>80</td></tr> <tr> <td>Total</td> <td>36.9</td> <td>752.05</td> <td>31.9</td> <td>33.1</td> <td>104</td> <td></td> </tr> </table> Box 1 → 5' - 16' Box 2 → 16' - 26.7' Box 3 → 26.7' - 36.9'	Core	Depth	Elev.	Cut	Rec	Rec %	R D	1	5.0	783.95	2.6	2.5	96	23	2	7.6	781.35	4.7	5.2	111	79	3	12.3	776.65	4.9	5.1	104	78	4	17.2	771.75	4.8	5.0	104	50	5	22.0	766.95	4.9	5.1	104	63	6	26.9	762.05	5.0	5.2	104	76	7	31.9	757.05	5.0	5.0	100	80	Total	36.9	752.05	31.9	33.1	104					
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