



PROJECT: NE FORT GIBSON BRIDGE **PROJECT NO.:** CN-0932-06
CLIENT: HOLLOWAY, UPDIKE & BELLEN, INC. **DATE:** 03/09/2012
PROJECT LOCATION: MUSKOGEE/CHEROKEE COUNTY
LOCATION: STATION: 66+63.75, CENTERLINE **ELEVATION:** 764.62
DRILLER: BRANDON PARKS **LOGGED BY:** BRANDON PARKS
DRILLING METHOD: 4.25" HSA
DEPTH TO WATER > INITIAL: ∅ NONE **AFTER BORING:** ∅ NONE **CAVING > C:** NONE

LOG OF BORING NO. B1

Depth (feet)	Sampler	Description	Strength (tsf)	Soil Type	Graphic	Sample Number	Blow Counts	% #200	Plasticity Index	TEST RESULTS	
										Plastic Limit	Liquid Limit
0		Clayey Sand with Gravel - Strong Brown		SC A-6(5)	[Pattern]	SS-1	3	48.7	18	20	35
2.0		Sandy Lean Clay with Gravel - Strong Brown to Brown		CL A-6(4)	[Pattern]	SS-2	3 3 6 9 3	51.7	14	20	35
5.0		Silty Clayey Gravel with Sand - Strong Brown to Yellowish Brown & Brown		GM-GC A-2-4(0)	[Pattern]	SS-3	4 18 50/5	35.4	4	20	68
8.5		Weathered Sandstone - Light Yellowish Brown to Light Olive Brown			[Pattern]	SS-4	50/3			20	100
12		Sandstone - Gray			[Pattern]	TC-5	50-1 50- 1/2			20	100
18					[Pattern]	TC-6	50-2 3/4 50-1			20	100
24					[Pattern]	TC-7	50-1/2 50-0			20	100
28.0		Shale - Very Dark Gray			[Pattern]	TC-8	50-1/2 50-0			20	100
30					[Pattern]	TC-9	50- 3/8 50- 1/2			20	100
36		Boring terminated at 34 ft.									
42											



PROJECT: NE FORT GIBSON BRIDGE **PROJECT NO.:** CN-0932-06
CLIENT: HOLLOWAY, UPDIKE & BELLEN, INC. **DATE:** 3/12/2012
PROJECT LOCATION: MUSKOGEE/CHEROKEE COUNTY
LOCATION: STATION: 67+34, LEFT OF CENTERLINE **ELEVATION:** 759.31
DRILLER: BRANDON PARKS **LOGGED BY:** BRANDON PARKS
DRILLING METHOD: 4.25" HSA
DEPTH TO WATER > INITIAL: NONE **AFTER BORING:** NONE **CAVING >** NONE

LOG OF BORING NO. B2

Depth (feet)	Sampler	Description	Strength (tsf)	Soil Type	Graphic	Sample Number	Blow Counts	% <#200	Plasticity Index	TEST RESULTS	
										Plastic Limit	Liquid Limit
0		Clayey Gravel with Sand - Yellowish Brown to Brown		GC A-2-6(0)		SS-1	1 3 18	30.7	12	18	25
2.5		Lean Clay with Sand - Strong Brown to Yellowish Brown & Brown		CL A-6(14)		SS-2	3 5 4	71.0	23	25	45
5.0		Sandy Lean Clay - Strong Brown, Gray & Yellow		CL A-6(8)		SS-3	4 9 8	54.0	21	25	45
8.5		Clayey Sand with Gravel - Strong Brown to Yellowish Brown		SC A-6(1)		SS-4	3 3 6	43.5	11	25	35
12		Sandstone - Gray	13.25			TC-5	50- 7/8 50- 1/4				100
18						TC-6	25/6 26/6				
24						TC-7	50- 3/4 50- 1/4			100	
28.0		Shale - Very Dark Gray	28.0			TC-8	50- 1/4 50- 1/4				100
30						TC-9	50- 1/4 50- 1/8			100	
36						TC-10	50- 1/2 50- 1/4			100	
39		Boring terminated at 39 ft.									
42											



PROJECT: NE FORT GIBSON BRIDGE **PROJECT NO.:** CN-0932-06
CLIENT: HOLLOWAY, UPDIKE & BELLEN, INC. **DATE:** 03/10/2012
PROJECT LOCATION: MUSKOGEE/CHEROKEE COUNTY
LOCATION: STATION: 68+04, RIGHT OF CENTERLINE **ELEVATION:** 759.52
DRILLER: BRANDON PARKS **LOGGED BY:** BRANDON PARKS
DRILLING METHOD: 4.25" HSA
DEPTH TO WATER > INITIAL: ∅ NONE **AFTER BORING:** ∅ NONE **CAVING > C:** NONE

LOG OF BORING NO. B3

Depth (feet)	Sampler	Description	Strength (tsf)	Soil Type	Graphic	Sample Number	Blow Counts	% #200	Plasticity Index	TEST RESULTS		
										Plastic Limit	Water Content - ●	Liquid Limit
0		Sandy Lean Clay with Gravel - Yellowish Brown to Brown, Gray & Orange		CL A-6(8)	[Diagonal Hatching]	SS-1	3 2 2	51.6	23	10	20	30
2.5		Clayey Sand with Gravel - Strong Brown		SC A-6(3)	[Dotted]	SS-2	3 6 9	41.4	17	10	20	30
5.0		Clayey Sand with Gravel - Strong Brown		SC A-6(1)	[Diagonal Hatching]	SS-3	5 5 6	37.7	12	10	20	30
8.5		Silty Sand with Gravel - Yellowish Brown		SM A-4(0)	[Vertical Lines]	SS-4	5 6 6	41.0	NP	10	20	30
12		Sandstone - Gray	13.5		[Grid]	SS-5	27 50/2				100	100
	TC-6					50- 1 50- 1/2						
	TC-7					50- 5 50- 1/4						
18		Shale - Very Dark Gray	25.0		[Horizontal Lines]	TC-8	50- 1/4 50- 1/8				100	100
24						TC-9	50- 1/2 50- 0					
30						TC-10	50- 1/4 50- 1/8					
36												
36		Boring terminated at 36 ft.										
42												



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CLIENT: HOLLOWAY, UPDIKE & BELLEN, INC. **DATE:** 03/09/2012
PROJECT LOCATION: MUSKOGEE/CHEROKEE COUNTY
LOCATION: STATION: 68+74.25, CENTERLINE **ELEVATION:** 765.61
DRILLER: BRANDON PARKS **LOGGED BY:** BRANDON PARKS
DRILLING METHOD: 4.25" HSA
DEPTH TO WATER > INITIAL: ∅ **NONE** **AFTER BORING:** ∅ **NONE** **CAVING > C** **NONE**

LOG OF BORING NO. B4

Depth (feet)	Sampler	Description	Strength (tsf)	Soil Type	Graphic	Sample Number	Blow Counts	% <#200	Plasticity Index	TEST RESULTS	
										Plastic Limit	Liquid Limit
0		Clayey Sand with Gravel - Yellowish Brown to Brown		SC A-2-6(0)	[Graphic: Clayey Sand with Gravel]	SS-1	3	25.1	13	18	35
2.0		Clayey Gravel with Sand - Light Reddish Brown		GC A-2-6(1)	[Graphic: Clayey Gravel with Sand]	SS-2	3	32.7	13	18	35
5.0		Clayey Sand with Gravel - Yellowish Red		SC A-6(4)	[Graphic: Clayey Sand with Gravel]	SS-3	3	46.4	16	22	40
8.5		Clayey Gravel with Sand - mottled Red & Gray		GC A-6(2)	[Graphic: Clayey Gravel with Sand]	SS-4	11	41.0	16	25	45
12											
13.0		Fat Clay - Gray, mottled Red & Yellow		CH A-7-6(35)	[Graphic: Fat Clay]	SS-5	3	90.7	36	25	100
14.0		Sandstone - Gray			[Graphic: Sandstone]	TC-6	50/3				
18							50- 1/2				
24							50- 1/4				
30							50- 3/4				
34.0		Shale - Very Dark Gray			[Graphic: Shale]	TC-9	50- 1/2				
36		Boring terminated at 35 ft.				TC-10	50- 1/4				
42							50- 5/8				
							50- 1/2				