DocuSign Envelope ID: C7E663BE-D6EE-447A-99B7-2811175CD21E

NCDOT GEOTECHNICAL ENGINEERING UNIT
BORELOG REPORT

WBS 38380.1.1	TIP B-4475	COUNTY COLUMBUS	GEOLOGIST Wrike, C. M.	
SITE DESCRIPTION BRIDGE NO. 85 ON -L- (SR 1119) OVER TOM'S FORK CREEK				GROUND WTR (ft)
BORING NO. EB1-A	STATION 15+21	OFFSET 15 ft LT	ALIGNMENT -L-	0 HR. N/A
COLLAR ELEV. 64.7 ft	TOTAL DEPTH 56.8 ft	NORTHING 123,021	EASTING 2,059,845	24 HR. 4.4
DRILL RIG/HAMMER EFF./DATE GFO1042 CME-550 91% 05/23/2012		DRILL METHOD Mud Rotary	HAMMER TYPE Automatic	
DRILLER Smith, R. E.	START DATE 07/31/12	COMP. DATE 07/31/12	SURFACE WATER DEPTH N/A	

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 25 50 75 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION ELEV. (ft)	DEPTH (ft)
65											
	64.7	0.0	2	2	2	4				64.7 GROUND SURFACE	0.0
										ROADWAY EMBANKMENT TAN SAND, MOIST	
60	60.7	4.0	2	1	1	2				60.7	4.0
										ALLUVIAL BROWN SAND WITH TRACE ORGANIC MATERIAL, MOIST TO SATURATED	
	56.9	7.8	2	3	4	7					
55										53.7	11.0
	51.9	12.8	6	7	4	11				**ALLUVIAL** TAN SAND, SAT.	
50										48.7	16.0
	46.9	17.8	WOH	WOH	WOH	0				**COASTAL PLAIN** GRAY GREEN SILTY CLAY, WET (YORKTOWN FORMATION)	
45											
	41.9	22.8	WOH	WOH	WOH	0					
40											
	36.9	27.8	WOH	1	0	1					
35										33.7	31.0
	31.9	32.8	4	5	5	10				**COASTAL PLAIN** GRAY SAND WITH SHELL FRAGMENTS, SATURATED (YORKTOWN FORMATION)	
30											
	26.9	37.8	1	6	7	13					
25											
	22.7	42.0	60/0.1			60/0.1				22.7 / 22.1	42.0 / 42.6
20										**COASTAL PLAIN** GRAY SANDY SILT WITH SILTSTONE LAYERS, WET (PEEDEE FORMATION)	
	19.2	45.5	14	10	32	42					
15										15.8 / 15.5	48.9 / 49.2
	11.9	52.8	8	100/0.3		100/0.3				11.9 / 10.6	52.8 / 54.1
10											
	8.0	56.7	60/0.1			60/0.1				8.0 / 7.9	56.7 / 56.8
										Boring Terminated at Elevation 7.9 ft in Moderately Hard Siltstone	

WBS 38380.1.1	TIP B-4475	COUNTY COLUMBUS	GEOLOGIST Wrike, C. M.	
SITE DESCRIPTION BRIDGE NO. 85 ON -L- (SR 1119) OVER TOM'S FORK CREEK				GROUND WTR (ft)
BORING NO. B1-A	STATION 15+66	OFFSET 6 ft LT	ALIGNMENT -L-	0 HR. N/A
COLLAR ELEV. 53.8 ft	TOTAL DEPTH 57.2 ft	NORTHING 123,066	EASTING 2,059,853	24 HR. N/A
DRILL RIG/HAMMER EFF./DATE GFO1042 CME-550 91% 05/23/2012		DRILL METHOD Mud Rotary	HAMMER TYPE Automatic	
DRILLER Smith, R. E.	START DATE 07/26/12	COMP. DATE 07/26/12	SURFACE WATER DEPTH 5.7ft	

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 25 50 75 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
60										WATER SURFACE (07/26/12)
55	53.8	0.0	WOH	WOH	WOH	0				53.8 GROUND SURFACE 0.0
										ALLUVIAL BROWN MODERATELY ORGANIC SANDY SILT, WET
50	48.8	5.0	WOH	WOH	WOH	0				49.8 4.0
										COASTAL PLAIN GRAY GREEN SILTY CLAY, WET (YORKTOWN FORMATION)
45										
	42.3	11.5	WOH	WOH	2	2				
40										
	37.3	16.5	WOH	2	2	4				36.8 17.0
35										**COASTAL PLAIN** GRAY SAND WITH SHELL FRAGMENTS, SATURATED (YORKTOWN FORMATION)
	32.3	21.5	5	5	6	11				
30										
	27.3	26.5	6	6	12	18				
25										
	23.1	30.7	60/0.1			60/0.1				23.1 / 22.5 30.7 / 31.3
20										**COASTAL PLAIN** GRAY SILTSTONE (PEEDEE FORMATION)
	17.3	36.5	7	32	25	57				**COASTAL PLAIN** GRAY SANDY SILT, WET (PEEDEE FORMATION)
15										
	12.3	41.5	60	60/0.1		60/0.1				12.3 41.5
10										**COASTAL PLAIN** GRAY SANDY SILT WITH SILTSTONE LAYERS, WET (PEEDEE FORMATION)
	7.3	46.5	6	15	60/0.1	60/0.1				8.7 45.1 / 7.3 46.5 / 5.7 48.1
5										
	2.3	51.5	100/0.2			100/0.2				2.3 51.5
0										
	-2.7	56.5	61	100/0.2		100/0.2				-3.4 57.2
										Boring Terminated at Elevation -3.4 ft in Moderately Hard Siltstone

NCDOT BORE DOUBLE B4475_GEO_BRDG0085_SPT_BORINGS.GPJ NC_DOT.GDT 11/12/13

DocuSign Envelope ID: C7E663BE-D6EE-447A-99B7-2811175CD21E

NCDOT GEOTECHNICAL ENGINEERING UNIT
BORELOG REPORT

WBS 38380.1.1	**TIP** B-4475	**COUNTY** COLUMBUS	**GEOLOGIST** Wrike, C. M.	
SITE DESCRIPTION BRIDGE NO. 85 ON -L- (SR 1119) OVER TOM'S FORK CREEK				**GROUND WTR (ft)**
BORING NO. B1-B	**STATION** 15+66	**OFFSET** 6 ft RT	**ALIGNMENT** -L-	**0 HR.** N/A
COLLAR ELEV. 54.5 ft	**TOTAL DEPTH** 43.2 ft	**NORTHING** 123,066	**EASTING** 2,059,865	**24 HR.** N/A
DRILL RIG/HAMMER EFF./DATE GFO 1042 CME-550 91% 05/23/2012		**DRILL METHOD** Mud Rotary	**HAMMER TYPE** Automatic	
DRILLER Smith, R. E.	**START DATE** 08/01/12	**COMP. DATE** 08/01/12	**SURFACE WATER DEPTH** 5.2ft	

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 25 50 75 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION — ELEV. (ft)	DEPTH (ft)
60								▼		WATER SURFACE (08/01/12)	
55	54.5	0.0	WOH	WOH	WOH	0				54.5 GROUND SURFACE	0.0
	51.4	3.1	4	5	5	10				**ALLUVIAL** BROWN SANDY SILT WITH LITTLE ORGANIC MATTER, WET — 51.5	3.0
50	47.8	6.7	WOH	WOH	WOH	0				**ALLUVIAL** TAN SAND, SATURATED — 48.5	6.0
45	42.8	11.7	WOH	WOH	WOH	0				**COASTAL PLAIN** GRAY GREEN SILTY CLAY, WET (YORKTOWN FORMATION) — 39.5	15.0
40	37.8	16.7	WOH	2	3	5				**COASTAL PLAIN** GRAY SAND WITH SHELL FRAGMENTS, SATURATED (YORKTOWN FORMATION)	
35	32.8	21.7	6	4	4	8					
30	27.8	26.7	5	6	6	12					
25	22.8	31.7	6	100/0.2		100/0.2				22.3	32.2
										21.4 **COASTAL PLAIN** GRAY SANDY SILT WITH SILTSTONE LAYERS, WET (PEEDEE FORMATION)	33.1
20	19.8	34.7	8	7	9	16				17.8	36.7
	17.8	36.7	60/0.1			60/0.1				16.1	38.4
15	12.8	41.7	9	100/0.4		100/0.4				12.8	41.7
										11.3	43.2
										Boring Terminated at Elevation 11.3 ft in Moderately Hard Siltstone	

WBS 38380.1.1	**TIP** B-4475	**COUNTY** COLUMBUS	**GEOLOGIST** Wrike, C. M.
SITE DESCRIPTION BRIDGE NO. 85 ON -L- (SR 1119) OVER TOM'S FORK CREEK			**GROUND WTR (ft)**
BORING NO. EB2-B	**STATION** 16+11	**OFFSET** 13 ft RT	**ALIGNMENT** -L- — **0 HR.** N/A
COLLAR ELEV. 65.7 ft	**TOTAL DEPTH** 59.2 ft	**NORTHING** 123,111	**EASTING** 2,059,871 — **24 HR.** 4.7
DRILL RIG/HAMMER EFF./DATE GFO 1042 CME-550 91% 05/23/2012		**DRILL METHOD** Mud Rotary	**HAMMER TYPE** Automatic
DRILLER Smith, R. E.	**START DATE** 07/30/12	**COMP. DATE** 07/30/12	**SURFACE WATER DEPTH** N/A

ELEV (ft)	DRIVE ELEV (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 25 50 75 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION	
70											
65	65.7	0.0	2	4	5	9		▼		65.7 GROUND SURFACE	0.0
										ROADWAY EMBANKMENT TAN BROWN SAND, MOIST TO SATURATED — 59.7	6.0
60	61.7	4.0	3	2	1	3				**ALLUVIAL** GRAY GREEN SILTY CLAY, WET — 54.7	11.0
55	58.0	7.7	2	2	3	5				**ALLUVIAL** BROWN SANDY SILT WITH LITTLE ORGANIC MATTER, WET — 49.7	16.0
50	53.0	12.7	WOH	1	1	2				**COASTAL PLAIN** GRAY GREEN SILTY CLAY, WET (YORKTOWN FORMATION) — 39.7	26.0
45	48.0	17.7	1	1	1	2				**COASTAL PLAIN** GRAY SAND WITH SHELL FRAGMENTS, SATURATED (YORKTOWN FORMATION)	
40	43.0	22.7	1	1	1	2					
35	38.0	27.7	6	5	5	10					
30	33.0	32.7	6	5	6	11					
25	28.0	37.7	5	6	5	11					
	23.8	41.9	100/0.2			100/0.2				23.8	41.9
										22.9 **COASTAL PLAIN** GRAY SANDY SILT WITH SILTSTONE LAYERS, WET (PEEDEE FORMATION)	42.8
										22.2	43.5
										22.1	43.6
										20.6	45.1
20	18.7	47.0	8	7	93/0.3	100/0.8				20.5	45.2
										17.7	48.0
										16.2	49.5
15	13.0	52.7	100/0.3			100/0.3				13.0	52.7
										12.0	53.7
10										10.6	55.1
										8.8	56.9
	8.0	57.7	6	6	21	27				6.5	59.2
										Boring Terminated at Elevation 6.5 ft in Very Stiff Sandy Silt	

NCDOT BORE DOUBLE B4475_GEO_BRDG0085_SPT_BORINGS.GPJ NC_DOT.GDT 11/12/13