

C201514 (R-4758)

Jackson-Swain Counties

SUBSURFACE INFORMATION

CAUTION NOTICE

THE SUBSURFACE INFORMATION AND THE SUBSURFACE INVESTIGATION ON WHICH IT IS BASED WAS MADE FOR THE PURPOSE OF STUDY, PLANNING AND DESIGN, AND NOT FOR CONSTRUCTION OR PAY PURPOSES. THE VARIOUS FIELD BORING LOGS, ROCK CORES, AND SOIL TEST DATA AVAILABLE MAY BE REVIEWED OR INSPECTED IN RALEIGH BY CONTACTING THE N.C. DEPARTMENT OF TRANSPORTATION, GEOTECHNICAL UNIT @ (919) 250-4088. NEITHER THE SUBSURFACE PLANS AND REPORTS, NOR THE FIELD BORING LOGS, ROCK CORES, OR SOIL TEST DATA IS PART OF THE CONTRACT.

GENERAL SOIL AND ROCK STRATA DESCRIPTIONS AND INDICATED BOUNDARIES ARE BASED ON A GEOTECHNICAL INTERPRETATION OF ALL AVAILABLE SUBSURFACE DATA AND MAY NOT NECESSARILY REFLECT THE ACTUAL SUBSURFACE CONDITIONS BETWEEN BORINGS OR BETWEEN SAMPLED STRATA WITHIN THE BOREHOLE. THE LABORATORY SAMPLE DATA AND THE IN SITU (ON-PLACE) TEST DATA CAN BE RELED ON ONLY TO THE DEGREE OF RELIABILITY INHERENT IN THE STANDARD TEST METHOD. THE OBSERVED WATER LEVELS OR SOIL MOISTURE CONDITIONS INDICATED IN THE SUBSURFACE INVESTIGATIONS ARE AS RECORDED AT THE TIME OF THE INVESTIGATION. THESE WATER LEVELS OR SOIL MOISTURE CONDITIONS MAY VARY CONSIDERABLY WITH TIME ACCORDING TO CLIMATIC CONDITIONS INCLUDING TEMPERATURES, PRECIPITATION AND WIND, AS WELL AS OTHER NON-CLIMATIC FACTORS.

THE BIDDER OR CONTRACTOR IS CAUTIONED THAT DETAILS SHOWN ON THE SUBSURFACE PLANS ARE PRELIMINARY ONLY AND IN MANY CASES THE FINAL DESIGN DETAILS ARE DIFFERENT. FOR BIDDING AND CONSTRUCTION PURPOSES, REFER TO THE CONSTRUCTION PLANS AND DOCUMENTS FOR FINAL DESIGN INFORMATION ON THIS PROJECT. THE DEPARTMENT DOES NOT WARRANT OR GUARANTEE THE SUFFICIENCY OR ACCURACY OF THE INVESTIGATION MADE, NOR THE INTERPRETATIONS MADE OR OPINION OF THE DEPARTMENT AS TO THE TYPE OF MATERIALS AND CONDITIONS TO BE ENCOUNTERED. THE BIDDER OR CONTRACTOR IS CAUTIONED TO MAKE SUCH INDEPENDENT SUBSURFACE INVESTIGATIONS AS HE DEEMS NECESSARY TO SATISFY HIMSELF AS TO CONDITIONS TO BE ENCOUNTERED ON THIS PROJECT. THE CONTRACTOR SHALL HAVE NO CLAIM FOR ADDITIONAL COMPENSATION OR FOR AN EXTENSION OF TIME FOR ANY REASON RESULTING FROM THE ACTUAL CONDITIONS ENCOUNTERED AT THE SITE DIFFERING FROM THOSE INDICATED IN THE SUBSURFACE INFORMATION.

DATE DRILLED: 7/26/05	ELEVATION:	NOTES:
DRILLING METHOD: 3/4" H.S.A.	BORING DEPTH: 31.0	
LOGGED BY: J. JACOBSON	WATER LEVEL: NOT ENCOUNTERED @ TOB	
DRILLER: OAKES AND MULLINS	DRILL RIG: Mobile B-56	

DEPTH (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	WATER LEVEL	ELEVATION (feet)	SAMPLE NO.	SAMPLE TYPE	STANDARD PENETRATION TEST DATA (blows/ft)					N VALUE
							10	20	30	60	80	
0		Pavement (4 inches)			1	⊗						
0		Crushed Stone (5 inches)			2	⊗						
5		FILL/COLLUVIUM: Dense, slightly moist, gray, silty SAND (SM) with weathered rock fragments			3	⊗						
5		RESIDUUM: Dense to very dense, moist, gray, silty SAND and weathered rock fragments (GW)										
8.0		Auger Refusal @ 8.0'										
10						REC 67% RQD 27%						
15						REC 53% RQD 33%						
20		MASSIVE BEDROCK: Hard to very hard, gray and white, medium crystalline biotite GNEISS				REC 27% RQD 0%						
25						REC 1% RQD 0%						
30		SOIL SEAM: Dark brown, silty SAND				REC 42% RQD 26%						
30		MASSIVE BEDROCK: Hard to very hard, gray and white, medium crystalline biotite GNEISS				REC 60% RQD 60%						
31.0		Boring Terminated @ 31.0'										

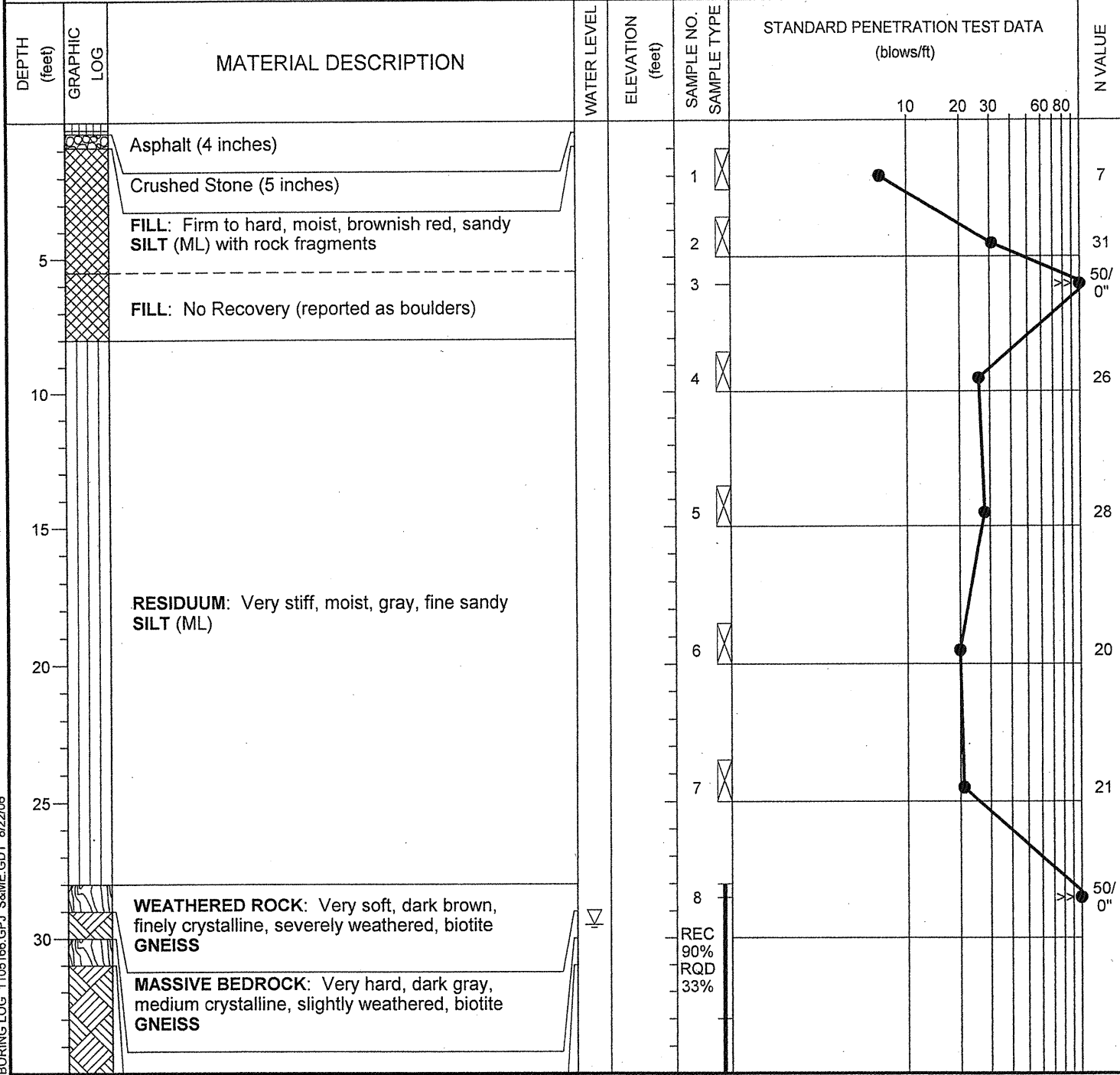
BORING LOG 1105166.GPJ S&ME.GDT 8/22/06

NOTES:

2. BORING, SAMPLING AND PENETRATION TEST DATA IN GENERAL ACCORDANCE WITH ASTM D-1586.
3. STRATIFICATION AND GROUNDWATER DEPTHS ARE NOT EXACT.
4. WATER LEVEL IS AT TIME OF EXPLORATION AND WILL VARY.



DATE DRILLED: 7/26/05	ELEVATION:	NOTES:
DRILLING METHOD: 3/4" H.S.A.	BORING DEPTH: 38.0	
LOGGED BY: J. JACOBSON	WATER LEVEL: 29.5' @ TOB	
DRILLER: MULLINS AND RAMEY	DRILL RIG: Mobile B-56	



BORING LOG 1105166.GPJ S&ME.GDT 8/22/06

NOTES:

1. THIS LOG IS ONLY A PORTION OF A REPORT PREPARED BY S&ME CONSULTANTS, INC.
2. BORING, SAMPLING AND PENETRATION TEST DATA IN GENERAL ACCORDANCE WITH ASTM D-1586.
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DATE DRILLED: 7/26/05	ELEVATION:	NOTES:
DRILLING METHOD: 3/4" H.S.A.	BORING DEPTH: 38.0	
LOGGED BY: J. JACOBSON	WATER LEVEL: 29.5' @ TOB	
DRILLER: MULLINS AND RAMEY	DRILL RIG: Mobile B-56	

DEPTH (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	WATER LEVEL	ELEVATION (feet)	SAMPLE NO. SAMPLE TYPE	STANDARD PENETRATION TEST DATA (blows/ft)					N VALUE
						10	20	30	60	80	
		WEATHERED ROCK: Very soft, dark brown, finely crystalline, severely weathered, biotite GNEISS			REC 100% RQD 86%						
		MASSIVE BEDROCK: Hard to very hard, gray and white, medium crystalline, slightly weathered, biotite GNEISS <i>(continued)</i> Boring Terminated @ 38.0'									

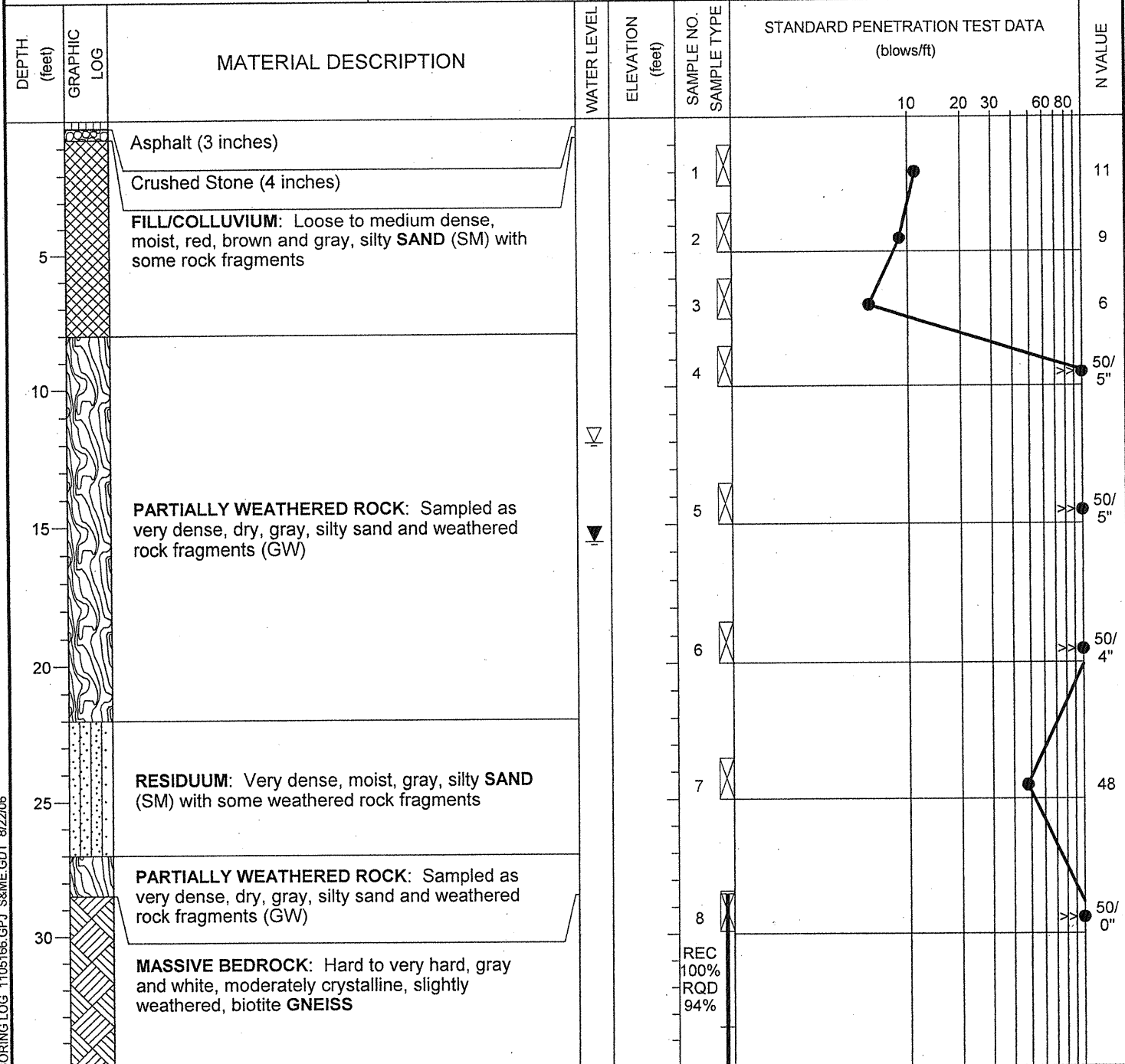
BORING LOG 1105166.GPJ S&ME_GDT 8/22/06

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DATE DRILLED: 7/28/05	ELEVATION:	NOTES:
DRILLING METHOD: 3/4" H.S.A.	BORING DEPTH: 38.5	
LOGGED BY: J. JACOBSON	WATER LEVEL: 12.0' @ TOB	
DRILLER: OAKES AND MULLINS	DRILL RIG: Mobile B-56	

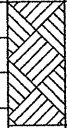


BORING LOG 1105166.GPJ S&ME.GDT 8/22/06

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PROJECT: CHEROKEE HIGHWAY 19 WALLS CHEROKEE, NORTH CAROLINA S&ME Project No. 1411-05-166				BORING LOG B-3						
DATE DRILLED: 7/28/05		ELEVATION:		NOTES:						
DRILLING METHOD: 3/4" H.S.A.		BORING DEPTH: 38.5								
LOGGED BY: J. JACOBSON		WATER LEVEL: 12.0' @ TOB								
DRILLER: OAKES AND MULLINS		DRILL RIG: Mobile B-56								
DEPTH (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	WATER LEVEL	ELEVATION (feet)	SAMPLE NO. SAMPLE TYPE	STANDARD PENETRATION TEST DATA (blows/ft)				N VALUE
						10	20	30	60	
		MASSIVE BEDROCK: Hard to very hard, gray and white, moderately crystalline, slightly weathered, biotite GNEISS <i>(continued)</i> Boring Terminated @ 38.5'			REC 100% RQD 77%					

BORING LOG 1105166.GPJ S&ME.GDT 8/22/06

NOTES:

- 1
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DATE DRILLED: 7/27/05	ELEVATION:	NOTES:
DRILLING METHOD: 3/4" H.S.A.	BORING DEPTH: 21.0	
LOGGED BY: J. JACOBSON	WATER LEVEL: 12.5' @ TOB	
DRILLER: OAKES AND MULLINS	DRILL RIG: Mobile B-56	

DEPTH (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	WATER LEVEL	ELEVATION (feet)	SAMPLE NO. SAMPLE TYPE	STANDARD PENETRATION TEST DATA (blows/ft)					N VALUE	
						10	20	30	60	80		
0-3	[Cross-hatch pattern]	Asphalt (3 inches)			1							
3-6	[Cross-hatch pattern]	Crushed Stone (3 inches)			2							
6-10	[Dotted pattern]	FILL/COLLUVIUM: Loose to medium dense, moist, reddish brown, silty fine SAND (SM)			3							
10-13	[Dotted pattern]	RESIDUUM: Loose, dry, gray, silty SAND and weathered rock fragments (GW)			4							
13-21	[Diagonal lines]	MASSIVE BEDROCK: Hard to very hard, gray and white, moderately crystalline, slightly weathered, biotite GNEISS	▽		REC 77% RQD 29%							
			▽		REC 82% RQD 57%							
					REC 100% RQD 100%							
		Boring Terminated @ 21.0'										

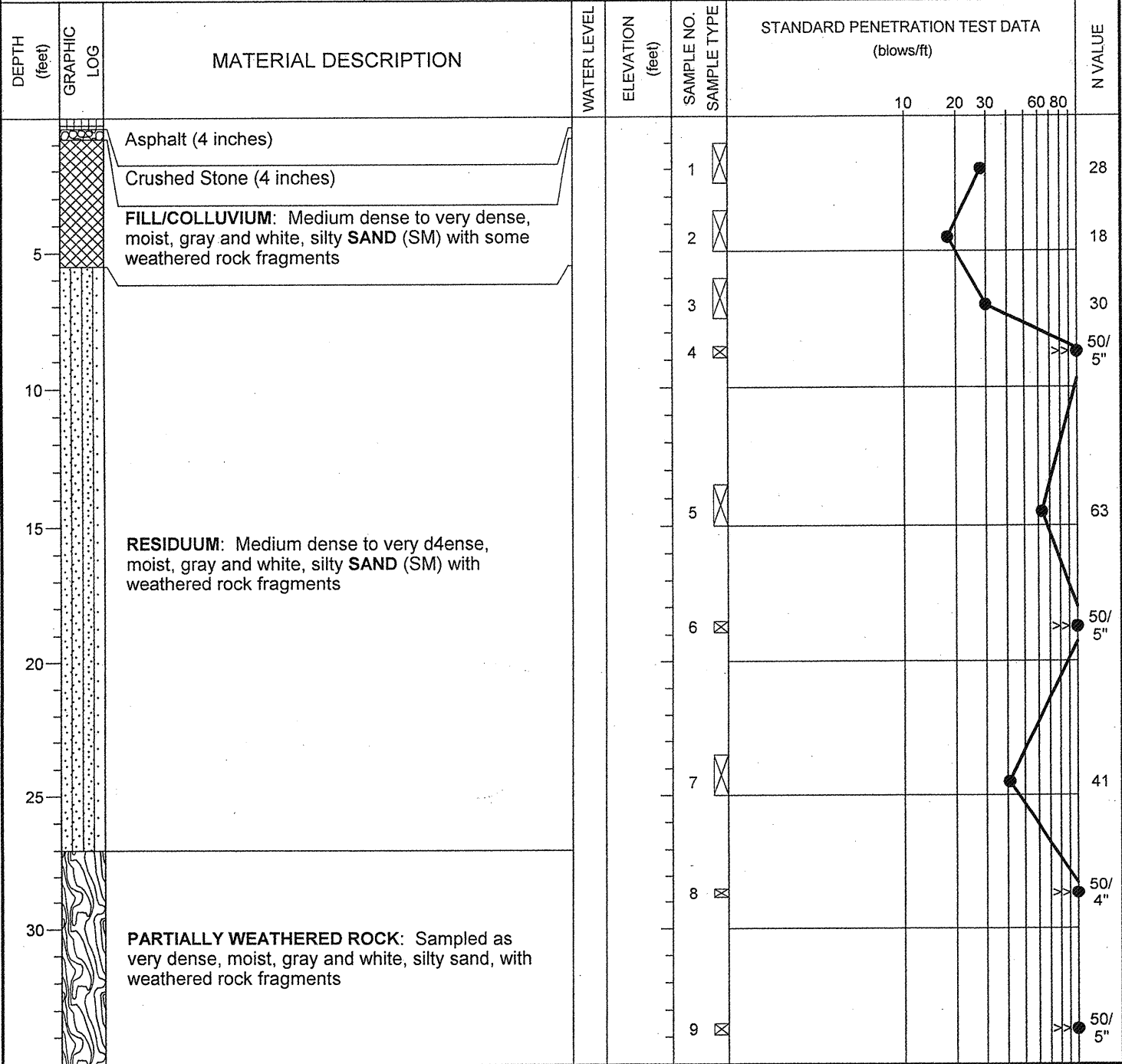
BORING LOG 1105166.GPJ S&ME.GDT 8/22/06

NOTES:

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DATE DRILLED: 7/27/05	ELEVATION:	NOTES:
DRILLING METHOD: 3/4" H.S.A.	BORING DEPTH: 50.0	
LOGGED BY: J. JACOBSON	WATER LEVEL: 48.0' @ TOB	
DRILLER: OAKES AND MULLINS	DRILL RIG: Mobile B-56	



BORING LOG 1105166.GPJ S&ME.GDT 8/22/06


NOTES:

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DATE DRILLED: 7/27/05	ELEVATION:	NOTES:
DRILLING METHOD: 3/4" H.S.A.	BORING DEPTH: 50.0	
LOGGED BY: J. JACOBSON	WATER LEVEL: 48.0' @ TOB	
DRILLER: OAKES AND MULLINS	DRILL RIG: Mobile B-56	

DEPTH (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	WATER LEVEL	ELEVATION (feet)	SAMPLE NO. SAMPLE TYPE	STANDARD PENETRATION TEST DATA (blows/ft)					N VALUE	
						10	20	30	60	80		
40		PARTIALLY WEATHERED ROCK: Sampled as very dense, moist, gray and white, silty sand, with weathered rock fragments <i>(continued)</i>	▼	48.0	10						50/ 1"	
45			▼	47.0	11	☒						50/ 5"
50			▼	46.0	12	☒						50/ 2"
50		Boring Terminated @ 50.0'										

BORING LOG 1105166.GPJ S&ME.GDT 8/22/06

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PROJECT:		CHEROKEE HIGHWAY 19 WALLS CHEROKEE, NORTH CAROLINA S&ME Project No. 1411-05-166		BORING LOG B-6			
DATE DRILLED: 7/29/05		ELEVATION:		NOTES:			
DRILLING METHOD: 3/4" H.S.A.		BORING DEPTH: 29.0					
LOGGED BY: J. JACOBSON		WATER LEVEL: NOT ENCOUNTERED @ TOB					
DRILLER: OAKES AND MULLINS		DRILL RIG: Mobile B-56					
DEPTH (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	WATER LEVEL	ELEVATION (feet)	SAMPLE NO. / SAMPLE TYPE	STANDARD PENETRATION TEST DATA (blows/ft)	N VALUE
0 - 3		Asphalt (3 inches)					
3 - 6		Crushed Stone (6 inches)			1		21
6 - 15		FILL: Very stiff, moist, yellow brown, fine sandy SILT (ML)			2		12
15 - 21		RESIDUUM: Stiff to very stiff, moist, yellow and brown, fine sandy SILT (ML)			3		15
21 - 25		RESIDUUM: Stiff to very stiff, moist, yellow and brown, fine sandy SILT (ML)			4		21
25 - 15		PARTIALLY WEATHERED ROCK: Sampled as very dense, moist, gray, silty sand, with some weathered rock fragments			5		50/6"
15 - 20		PARTIALLY WEATHERED ROCK: Sampled as very dense, moist, gray, silty sand, with some weathered rock fragments			6		50/4"
20 - 25		MASSIVE BEDROCK: Hard, black, gray and white, moderately crystalline, slightly weathered to moderately weathered, biotite GNEISS			REC 87% RQD 42%		
25 - 29.0		MASSIVE BEDROCK: Hard, black, gray and white, moderately crystalline, slightly weathered to moderately weathered, biotite GNEISS			REC 100% RQD 65%		
29.0		Boring Terminated @ 29.0'			REC 97% RQD 81%		

BORING LOG 1105166.GPJ S&ME.GDT 8/22/06

NOTES:

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DATE DRILLED: 8/2/05	ELEVATION:	NOTES:
DRILLING METHOD: 3 1/4" H.S.A.	BORING DEPTH: 11.0	
LOGGED BY: J. JACOBSON	WATER LEVEL: NOT ENCOUNTERED @ TOB	
DRILLER: OAKES AND MULLINS	DRILL RIG: Mobile B-56	

DEPTH (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	WATER LEVEL	ELEVATION (feet)	SAMPLE NO. SAMPLE TYPE	STANDARD PENETRATION TEST DATA (blows/ft)					N VALUE	
						10	20	30	60	80		
	[Hatched pattern]	Asphalt (2 inches)			1	☒						50/ 5"
	[Dotted pattern]	Crushed Stone (3 inches)			2	☒						50/ 3"
5	[Stippled pattern]	FILL: Stiff, moist, brownish, red, sandy SILT (ML)			3	☒						50/ 3"
	[Wavy pattern]	RESIDUUM: Very dense, moist, gray and white, silty SAND (SM) with some small weathered rock fragments			4	☒						50/ 5"
10	[Wavy pattern]	PARTIALLY WEATHERED ROCK: Sampled as very dense, moist, gray and white, silty sand, with some small weathered rock fragments										
	[Stippled pattern]	RESIDUUM: Very dense, moist, gray and white, silty SAND (SM) with some small weathered rock fragments										
		Auger Refusal @ 11.0'										

BORING LOG 1105166.GPJ, S&ME.GDT, 8/22/05

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