NORTH CAROLINA DIVISION OF HIGHWAYS

GEOTECHNICAL UNIT

SOIL AND ROCK CLASSIFICATION, LEGEND, AND ABBREVIATIONS

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ROCK (WR) SOFT WEATHERED DIFFICULTY USING POWER AUGERS AND YIELDS PROCK (SWR) SPT VALUES > 1000 BPF BUT (SPT REFUSAL SPT REFUSAL S L INCH OF PENETRATION PER 500 BLOWS. AN INFERRED ROCK LINE INDICATES THE LEVEL AT WHICH AUGERS COULD NO LONGER PENETRATE. THE HARD ROCK SYMBOL IS SHOWN WHEN ROCK IS CORED AND ONLY TO THAT DEPTH CORED. A DESCRIPTION OF ROCK IS GIVEN, INCLUDING: CORE RECOVERY (REC.) - TOTAL LENGTH OF THE CORE RUN TIMES 100%. ROCK QUALITY DESIGNATION (ROD) - TOTAL LENGTH OF SOUND ROCK SEGMENTS RECOVERED THAT ARE LONGER THAN OR EQUAL TO 4'DIVIDED BY THE TOTAL LENGTH OF THE CORE RUN TIMES 100%. ROCK QUALITY DESIGNATION (ROD) - TOTAL LENGTH OF THE CORE RUN TIMES 100%. SEAL 188 SEAL 188 SEAL PROJECT GEOLOGIST J.W.MANN SUBMITTED BY F.R. GLASS PERSONNEL B.L. CREASMAN SUBMITTED BY F.R. GLASS PERSONNEL B.L. CREASMAN	WEATHERED DIE			F.		. 3		
WEATHERED ROCK (SWR) DIFFICULTY USING POWER AUGERS AND VIELDS ROCK (SWR) SPT VALUES > 100 BPF BUT < SPT REFUSAL S L INCH OF PENETRATION PER 50 BLOWS. 1 SPT REFUSAL S L INCH OF PENETRATION PER 50 BLOWS. 2 AN INFERRED ROCK LINE INDICATES THE LEVEL AT WHICH AUGERS COULD NO LONGER PENETRATE. THE HARDR ROCK SYMBOL IS SHOWN WHEN ROCK IS CORED AND ONLY TO THAT DEPTH CORED. A DESCRIPTION OF ROCK IS GIVEN, INCLUDING: CORE RECOVERY (REC.) - TOTAL LENGTH OF THE CORE RUN TIMES 100%. ROCK QUALITY DESIGNATION (ROD) - TOTAL LENGTH OF SOUND ROCK SEGMENTS RECOVERED THAT ARE LONGER THAN OR EQUAL TO 4" DIVIDED BY THE TOTAL LENGTH OF THE CORE RUN TIMES 100%. ROCK QUALITY DESIGNATION (ROD) - TOTAL LENGTH OF THE CORE RUN TIMES 100%. ROCK QUALITY DESIGNATION (ROD) - TOTAL LENGTH OF THE CORE RUN TIMES 100%. SEAL 188 SEAL 188 SEAL 188 SEAL 188 SEAL 188 DIFFICULTY USING POWER AUGERS AND VIELDS FRAG(S). FRACTURED SPT REFUSAL FRACC, FRACTURED FRACTION FRAG(S). FRACTURED SPT VALUES > 100 BPF BUT < SPT REFUSAL STATE FRACTURED SPT VALUES > 100 BPF BUT < SPT REFUSAL SPT VANE SHEAR TES GRAVITY OF SIX SHEAR TES GROWER TEST VANE SHEAR TES GROWER GROUND WATER MED WATER ME	ROCK COST MATE	ERIAL THAT CAN BE PENETRATED WITH	SOME	-		JS SLI.	SLIGHTLY	
SPT REFUSAL \$\lequip 1\$ Inch of Penetration per 50 blows. 2 AN INFERED ROCK LINE INDICATES THE LEVEL AT WHICH AUGERS COULD NO LONGER PENETRATE. THE HARD ROCK SYMBOL IS SHOWN WHEN ROCK IS CORED AND ONLY TO THAT DEPTH CORED. A DESCRIPTION OF ROCK IS GIVEN, INCLUDING: CORE RECOVERY (REC.) - TOTAL LENGTH OF ROCK RECOVERED IN THE CORE BARREL DIVIDED BY THE TOTAL LENGTH OF THE CORE RUN TIMES 100%. ROCK QUALITY DESIGNATION (ROD) - TOTAL LENGTH OF SOUND ROCK SEGMENTS RECOVERED THAT ARE LONGER THAN OR EQUAL TO 4' DIVIDED BY THE TOTAL LENGTH OF THE CORE RUN TIMES 100%. ROCK QUALITY DESIGNATION (ROD) - TOTAL LENGTH OF THE CORE RUN TIMES 100%. LENGTH OF THE CORE RUN TIMES 100%. STATE PROJECT NO. 8.2711301 T.I.P. NO. 8-2905 F.A. NO. BRZ-1179(D) COUNTY ASHE ROUTE SR 1179 SITE DESCRIPTION BRIDG NO. 113 ON SR 1179 OVER SOUTH FORK NEW RIVER PROJECT GEOLOGIST J.W. MANN SUBMITTED BY F.R. GLASS PERSONNEL B.L. CREASMAN	WEATHERED DIFF	ICULTY USING POWER AUGERS AND YIE	LDS			1		
2 AN INFERRED ROCK LINE INDICATES THE LEVEL AT WHICH AUGERS COULD NO LONGER PENETRATE. THE HARD ROCK IS SHOWN WHEN ROCK IS CORED AND ONLY TO THAT DEPTH CORED. A DESCRIPTION OF ROCK IS GIVEN, INCLUDING: CORE RECOVERY (REC.) - TOTAL LENGTH OF ROCK RECOVERED IN THE CORE BARREL DIVIDED BY THE TOTAL LENGTH OF THE CORE RUN TIMES 100%. ROCK QUALITY DESIGNATION (RQD) - TOTAL LENGTH OF SOUND ROCK SEGMENTS RECOVERED THAT ARE LONGER THAN OR EQUAL TO 4' DIVIDED BY THE TOTAL LENGTH OF THE CORE RUN TIMES 100%. ROCK QUALITY DESIGNATION (RQD) - TOTAL LENGTH OF THE CORE RUN TIMES 100%. STATE PROJECT NO. 8.2713301 TILP, NO. 8-2905 F.A. NO. BRZ-11790) COUNTY ASHE ROUTE SR 1179 SITE DESCRIPTION BRIDG NO. 113 ON SR 1179 OVER SOUTH FORK NEW RIVER PROJECT GEOLOGIST J.W. MANN SUBMITTED BY F.R. GLASS PERSONNEL B.L. CREASMAN	MINING MOCK 19#10 3. I	71000710007100			GRAVEL	VST '	VANE SHEAR TEST	
AN INFERRED ROCK LINE INDICATES THE LEVEL AT WHICH ADDERS COOLED NO LOCK TO THAT DEPTH CORED. A DESCRIPTION OF ROCK IS GIVEN, INCLUDING: CORE RECOVERY (REC.) - TOTAL LENGTH OF ROCK RECOVERED IN THE CORE BARREL DIVIDED BY THE TOTAL LENGTH OF THE CORE RUN TIMES 100%. ROCK QUALITY DESIGNATION (ROD) - TOTAL LENGTH OF SOUND ROCK SEGMENTS RECOVERED THAT ARE LONGER THAN OR EQUAL TO 4' DIVIDED BY THE TOTAL LENGTH OF THE CORE RUN TIMES 100%. STATE PROJECT NO. 8.2711301 T.I.P. NO. B-2905 F.A. NO. BRZ-117910 SITE DESCRIPTION BRIDG NO. 113 ON SR 1179 OVER SOUTH FORK NEW RIVER PROJECT GEOLOGIST J.W. MANN SUBMITTED BY F.R. GLASS PERSONNEL B.L. CREASMAN	SPT REFUSAL ≤ 1 INCH OF PENETRATION PER		DENETRATE					
A DESCRIPTION OF ROCK IS GIVEN, INCLUDING: CORE RECOVERY (REC.) - TOTAL LENGTH OF ROCK RECOVERED IN THE CORE BARREL DIVIDED BY THE TOTAL LENGTH OF THE CORE RUN TIMES 100%. ROCK QUALITY DESIGNATION (RQD) - TOTAL LENGTH OF SOUND ROCK SEGMENTS RECOVERED THAT ARE LONGER THAN OR EQUAL TO 4' DIVIDED BY THE TOTAL LENGTH OF THE CORE RUN TIMES 100%. LENGTH OF THE CORE RUN TIMES 100%. STATE PROJECT NO. 8.2711301 T.I.P. NO. B-2905 F.A. NO. BRZ-IIT9(I) COUNTY ASHE ROUTE SR IIT9 SITE DESCRIPTION BRIDG NO. II3 ON SR IIT9 OVER SOUTH FORK NEW RIVER PROJECT GEOLOGIST J.W. MANN SUBMITTED BY F.R. GLASS PERSONNEL B.L. CREASMAN	AN INFERRED ROCK LINE INDICATES THE LEVEL AT WHICH AUGERS COULD NO LONGER FENERALIZED THE HARD ROCK SYMBOL IS SHOWN WHEN ROCK IS CORED AND ONLY TO THAT DEPTH CORED.			MED.				
CORE RECOVERY (REC.) - TOTAL LENGTH OF RUCK RECOVERED IN THE CORE RUN TIMES 100%. ROCK QUALITY DESIGNATION (RQD) - TOTAL LENGTH OF SOUND ROCK SEGMENTS RECOVERED THAT ARE LONGER THAN OR EQUAL TO 4' DIVIDED BY THE TOTAL LENGTH OF THE CORE RUN TIMES 100%. STATE PROJECT NO. 3.2711301 T.J.P. NO. B-2905 F.A. NO. BRZ-1179(1) COUNTY ASHE ROUTE SR 1179 SITE DESCRIPTION BRIDG NO. 113 ON SR 1179 OVER SOUTH FORK NEW RIVER PROJECT GEOLOGIST J.W. MANN SUBMITTED BY F.R. GLASS PERSONNEL B.L. CREASMAN	A DESCRIPTION OF ROCK IS GIVEN, INCLUDING:			DENCH MARK	DESIGN MADE. BY 2 DV MAN IN SOUTHEAST CORNER OF CONCRETE WINGWALL			
ROCK QUALITY DESIGNATION (RQD) - TOTAL LENGTH OF SOUND ROCK SEGMENTS RECOVERED THAT ARE LONGER THAN OR EQUAL TO 4' DIVIDED BY THE TOTAL LENGTH OF THE CORE RUN TIMES 100%. TILP, NO. B-2905 F.A. NO. BRZ-1179(I) COUNTY ASHE ROUTE SR 1179 SITE DESCRIPTION BRIDG NO. 113 ON SR 1179 OVER SOUTH FORK NEW RIVER PROJECT GEOLOGIST J.W. MANN SUBMITTED BY F.R. GLASS PERSONNEL B.L. CREASMAN	CORE RECOVERY (REC.) - TOTAL LENGTH OF ROCK RECOVERED IN THE CORE BARREL DIVIDED RY THE TOTAL LENGTH OF THE CORE RUN TIMES 100%.			BENCH MARK				
ARE LONGER THAN OR EQUAL TO 4' DIVIDED BY THE TOTAL LENGTH OF THE CORE RUN TIMES 100%. T.I.P. NO. B-2905 F.A. NO. BRZ-II79(I) COUNTY ASHE ROUTE SR II79 SITE DESCRIPTION BRIDG NO. II3 ON SR II79 OVER SOUTH FORK NEW RIVER PROJECT GEOLOGIST J.W. MANN SUBMITTED BY F.R. GLASS PERSONNEL B.L. CREASMAN	ROCK QUALITY DESIGNATION (RQD) - TOTAL LENGTH OF SOUND ROCK SEGMENTS RECOVERED THAT ARE LONGER THAN OR EQUAL TO 4'DIVIDED BY THE TOTAL				ELEV. 2822.64 FT.			
COUNTY ASHE ROUTE SR 1179 SEAL 188 SEAL PROJECT GEOLOGIST J.W. MANN SUBMITTED BY F.R. GLASS PERSONNEL B.L. CREASMAN				STATE PROJE	STATE PROJECT NO			
SEAL PROJECT GEOLOGISTJ.W. MANN SUBMITTED BYF.R. GLASS	LENGTH OF	THE CORE RUN TIMES 100%.		T,I,P, NO. <u>B-2905</u> F,A, NO. <u>BRZ-II79(I)</u>				
PROJECT GEOLOGIST J.W. MANN SUBMITTED BY F.R. GLASS PERSONNEL B.L. CREASMAN	JULY CAROLING			COUNTY ASHE ROUTE SR 1179				
PERSONNEL B.L. CREASMAN	A PORTICE NO PORTION AND A PROPERTY OF THE PRO			SITE DESCRIPTION BRIDG NO. 113 ON SR 1179 OVER SOUTH FORK NEW RIVER				
PERSONNEL B.L. CREASMAN	\$\frac{1}{188} \rightarrow \frac{1}{2} \			PROJECT GE	EOLOGISTJ.W.	MANN SUBMITTE	D BY F.R. GLASS	
1 Th To 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 100 01 /2	- 0 MI		1				
RE, RIDDLE DATE QUIRMITTED	1 1 1 2 1 0 COG 13 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			R.E. RIDDLE D.O. CHEEK DATE SUBMITTED				
GLASS State	GLASS Signature				E.A. SMITH			
REV. 8/1	Signotur				· · · · · · · · · · · · · · · · · · ·		REV. 8/11/9	

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.

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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.

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