



N.C.D.O.T. GEOTECHNICAL UNIT
BORING LOG

PROJECT NO. 34209.1.1		ID No. I-4025A		COUNTY Yadkin/Surry		GEOLOGIST D. Goodnight/P. Weaver							
SITE DESCRIPTION Bridge No. 13 on I-77 SBL Over Yadkin River, Yadkin Valley RR, and NC 268						GROUND WATER (ft)							
BORING NO. B4-A CS		BORING LOCATION 29+65		OFFSET 31ft LT		ALIGNMENT -SBL-							
COLLAR ELEV. 878.0 ft		NORTHING 915140.02		EASTING 1462938.02		0 HR. 12.8							
TOTAL DEPTH 51.5 ft		DRILL MACHINE CME 850		DRILL METHOD Wash Rotary/HQ Core		HAMMER TYPE 140 lb./Automatic							
DATE STARTED 3/26/04		COMPLETED 3/31/04		SURFACE WATER DEPTH NA									
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG	SOIL AND ROCK DESCRIPTION	
		0.5ft	0.5ft	0.5ft	0	20	40	60	80				100
878.0													878.0 0.00
877.0	1.0	3	3	3								M	ALLUVIAL: Medium Stiff to Soft, Brown, Clayey, Fine Sandy SILT with a Little Mica
874.5	3.5											M	
872.0	6.0	2	2	2								M	
869.5	8.5	2	2	3								M	
		WOH	2	2									
864.5	13.5											W	RESIDUAL: Medium Dense, Tan, Silty, Coarse to Fine SAND with Rock Fragments
		3	8	15									865.0 13.0
859.5	18.5											SS-12	RESIDUAL: Hard, Tan, Saprolitic, Clayey, Coarse to Fine Sandy SILT
		12	18	24									861.0 17.0
854.5	23.5												WEATHERED ROCK: Grey and Brown with White; Severely Weathered; Soft to Medium Hard; Biotite Schist with Very Close to Close Fracture Spacing
		100/0.4											856.0 22.0
851.3	26.7												CRYSTALLINE ROCK: White and Grey with Brown, Moderately Weathered, Medium to Moderately Hard, Biotite Schist with Very Close to Close Fracture Spacing and with Garnet
		60/0.2											848.6 29.4
846.3	31.7											RS-5	CRYSTALLINE ROCK: Grey with White and Pink, Slightly to Very Slightly Weathered, Moderately Hard, Biotite Schist with Close to Moderately Close Fracture Spacing
		60/0.1											845.5 32.5
													826.5 51.5
Coring Terminated at Elevation 826.5 feet in Crystalline Rock: Biotite Schist													
Note: Bentonite slurry used as drilling fluid; Density = 63.0 lbs./cu. ft.													

NCDOT BORE SINGLE 07104006.GPJ NC_DOT.GDT 7/13/04



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CORE BORING REPORT

WBS ELEMENT NO. 34209.1.1		ID No. I-4025A		COUNTY Yadkin/Surry		GEOLOGIST D. Goodnight/P. Weaver				
SITE DESCRIPTION Bridge No. 13 on I-77 SBL Over Yadkin River, Yadkin Valley RR, and NC 268						GROUND WATER (ft)				
BORING NO. B4-A CS		BORING LOCATION 29+65		OFFSET 31ft LT		ALIGNMENT -SBL-				
COLLAR ELEV. 878.0 ft		NORTHING 915140.02		EASTING 1462938.02		0 HR. 12.8				
TOTAL DEPTH 51.5 ft		DRILL MACHINE CME 850		DRILL METHOD Wash Rotary/HQ Core		HAMMER TYPE 140 lb./Automatic				
DATE STARTED 3/26/04		COMPLETED 3/31/04		SURFACE WATER DEPTH NA						
CORE SIZE HQ		TOTAL RUN 27.2 ft		DRILLER R. Toothman						
ELEV. (ft)	DEPTH (ft)	RUN (ft)	DRILL RATE (Min/ft)	RUN		SAMP. NO.	STRATA		LOG	DESCRIPTION AND REMARKS
				REC. (%)	ROD (%)		REC. (%)	ROD (%)		
										Begin Coring @ 24.0 ft
854.0	24.0	2.7	5:34	(1.0)	(NA)		(1.5)	(NA)		WEATHERED ROCK: Grey, and Brown with White; Severely Weathered; Soft to Medium Hard; Biotite Schist with Very Close to Close Fracture Spacing
851.3	26.7		4:06	37%			29%			
851.1	26.9	4.8	5:25/0.7	(2.3)	(0.0)					Majority is very broken
			7:07/0.8	48%	0%					848.6 29.4
846.3	31.7		7:40				(2.5)	(0.0)		CRYSTALLINE ROCK: White and Grey with Brown, Moderately Weathered, Medium to Moderately Hard, Biotite Schist with Very Close to Close Fracture Spacing and with Garnet
846.2	31.8	4.9	6:21	(4.9)	(3.0)		83%	0%		
			8:53	100%	61%	RS-5	(19.0)	(15.2)		845.5 32.5
			4:19				100%	80%		Majority of jts @ 10° to 20° with heavy iron staining
841.3	36.7	5.0	4:33/0.9	(5.0)	(3.7)					3 jts @ 40° with heavy iron staining
			4:38	100%	74%					CRYSTALLINE ROCK: Grey with White and Pink, Slightly to Very Slightly Weathered, Moderately Hard, Biotite Schist with Close to Moderately Close Fracture Spacing
			5:06							Numerous pink and white feldspar porphyroblasts
836.3	41.7	4.8	7:34	(4.8)	(3.8)					Majority of jts @ 10° to 20°
			5:18	100%	79%					2 jts @ 60° to 70°
			5:26							2 jt @ 30°
831.5	46.5	5.0	4:42	(5.0)	(4.7)					Very close fracture spacing 32.9 feet to 33.0 feet, 33.8 feet to 33.9 feet, 34.3 feet to 34.6 feet, 37.7 feet to 37.8 feet, 38.7 feet to 38.8 feet, 41.0 feet to 41.1 feet, and 44.2 feet to 44.3 feet
			5:11	100%	94%					Note: Run No. 5 cut short to allow retrieval of 0.2 feet of core not retrieved from previous run
			5:40							826.5 51.5
826.5	51.5		10:12/0.8							Coring Terminated at Elevation 826.5 feet in Crystalline Rock: Biotite Schist
			6:26							Note: Bentonite slurry used as drilling fluid; Density = 63.0 lbs./cu. ft.
			7:27							
			5:41							
			7:02							
			9:15							

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