

**NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
GEOTECHNICAL UNIT BORING LOG**

PROJECT NO 8.2761001		ID B-3266		COUNTY WILKES		GEOLOGIST L.L.ACKER						
SITE DESCRIPTION BR. 264 ON SR-1567 OVER N. FORK REDDIES RIVER						GND WATER						
BORING NO B1-A		NORTHING 0.00		EASTING 0.00		0 HR 1.40m						
ALIGNMENT -L-		BORING LOCATION 12+34.500		OFFSET 3.00m LT		24 HR N/A						
COLLAR ELEV 388.94m		TOTAL DEPTH 15.26m		START DATE 11/13/03		COMPLETION DATE 11/14/03						
DRILL MACHINE CME-45				DRILL METHOD SPT CORE BORING		HAMMER TYPE AUTOMATIC						
SURFACE WATER DEPTH				DEPTH TO ROCK 8.88m		Log B1-A, Page 1 of 1						
ELEV	DEPTH	BLOW CT			PEN (m)	BLOWS PER 30cm				SAMPLE NO	LOG	SOIL AND ROCK DESCRIPTION
		15cm	15cm	15cm		0	25	50	75			
388.94												
388.00	1.11	5	8	22	0.30							Ground Surface
386.00	2.63	2	3	11	0.30							ALLUVIUM: BROWN LOOSE SILTY SAND
384.00	4.16	17	47	53	29.50					SS-21		ALLUVIUM: SILTY SAND, GRAVEL AND BOULDERS
382.00												SAPROLITE: DARK GRAY, MICACEOUS SILTY SAND
380.00												WEATHERED ROCK: SEVERELY WEATHERED BIOTITE GNEISS
378.00												WEATHERED ROCK: SEV. WEATHERED BIOTITE GNEISS WITH HARD ROCK SEAMS REC=37 RQD=0
376.00												HARD ROCK: MOD. TO MOD. SEV. WEATHERED BIOTITE GNEISS REC=72 RQD=15
374.00												HARD ROCK: MOD. SEV. WEATHERED GRANITE REC=62 RQD=30
373.68										RS-1		HARD ROCK: SLI. WEATHERED BIOTITE GNEISS REC=100 RQD=32
												HARD ROCK: FRESH BIOTITE GNEISS REC=98 RQD=88
												TERMINATED BORING IN HARD ROCK AT ELEVATION 373.68 METERS.

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WILKES COUNTY

CORE BORING REPORT

B1-A

CORE 1: 4.66 – 6.16      REC=42% RQD=0%  
 CORE 2: 6.16 – 7.68      REC=51% RQD=0%  
 CORE 3: 7.68 – 9.20      REC=31% RQD=0%  
 CORE 4: 9.20 – 10.72      REC=67% RQD=18%  
 CORE 5: 10.72 – 12.24      REC=70% RQD=16%  
 CORE 6: 12.24 – 13.76      REC=76% RQD=20%  
 CORE 7: 13.76 – 15.26      REC=96% RQD=87%

LAYER 1: 4.66 – 8.88 Very soft to moderately hard, very severely to moderately severely weathered biotite gneiss; most not recovered. Granite layer around 7 to 8 meters depth, very severely weathered. Longest piece 9 cm. Joints indeterminate. REC=37% RQD=0%

LAYER 2: 8.88 – 12.26 Medium hard to hard with soft seams, moderately to moderately severely weathered biotite gneiss. Very close to close fractured, 54 pieces, longest piece 15 cm. Foliated at 20 degrees; about 50 joints on foliation. 3 joints at 20-30 degrees. 1 joint at 60 degrees. All joints smooth to moderately rough, coated with Fe- and Mn-oxides. REC=72% RQD=15%

LAYER 3: 12.26 – 13.17 Medium hard, moderately severely weathered granite. Very close to close fractured, 10 pieces, longest piece 16 cm. Mostly rubble, joints indeterminate. REC=62% RQD=30%

LAYER 4: 13.17 – 13.76 Hard, slightly weathered biotite gneiss. Very close to close fractured, 13 pieces, longest piece 19 cm. 12 joints on foliation at 10 degrees, smooth, coated with a little Fe-oxide or alum. REC=100% RQD=32%

LAYER 5: 13.76 – 15.26 Hard, fresh biotite gneiss. Close fractured, 7 pieces, longest piece 33 cm. 8 joints on foliation at 10-20 degrees, smooth, clean. REC=98% RQD=88%