NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
GEOTECHNICAL UNIT BORING LOG

PROJECT NO. 33465.1.1	**ID.** B-4110	**COUNTY** DURHAM	**GEOLOGIST** J. L. PEDRO
SITE DESCRIPTION BRIDGE NO. 5 ON -L- (SR 1616) OVER MOUNTAIN CREEK			**GROUND WATER**
BORING NO. B1-A	**BORING LOCATION** 17+77	**OFFSET** 17.0' LT	**ALIGNMENT** -L-	**0 HR.** N/A
COLLAR ELEVATION 385.0'	**NORTHING** 874397	**EASTING** 2028841	**24 HR.** 9.7'
TOTAL DEPTH 49.8'	**DRILL MACHINE** CME-550	**DRILL METHOD** N-CASING	**HAMMER TYPE** AUTOMATIC
START DATE 5/26/05	**COMPLETION DATE** 5/26/05	**SURFACE WATER DEPTH** N/A	**DEPTH TO ROCK** 15.0'

ELEV.	DEPTH (FT.)	BLOW COUNT 0.5'	0.5'	0.5'	PEN. (FT.)	BLOWS PER FOOT 0 25 50 75 100	SAMPLE NUMBER	MOI.	LOG	SOIL AND ROCK DESCRIPTION
385.0										
	2.4	1	1	2	1.0	X 3	SS-9	M		ROADWAY EMBANKMENT, ORANGE, SANDY SILTY CLAY
380.0	4.9	1	1	2	1.0	X 3		M		
	7.4	2	3	2	1.0	X 5		M		
375.0	9.9	2	4	2	1.0	X 6	SS-10	M		
	12.4	2	10	24	1.0	X 34	SS-11	W		ALLUVIAL, GRAY-BROWN, SITLY AND SANDY CLAY WITH TRACE ORGANICS
370.0	14.9	60			0.1	60/0.1 X				GREEN-BROWN, SAND WITH WEATHERED FRAGMENTS
365.0	19.9	100			0.5	100+ X				CRYSTALLINE ROCK (METAVOLCANIC TUFF)
360.0	24.9	60			0.1	60/0.1 X				WEATHERED ROCK (METAVOLCANIC TUFF)
355.0	28.8						RS-1			CRYSTALLINE ROCK (LIGHT GRAY, SLIGHTLY TO VERY SLIGHTLY WEATHERED, MODERATELY HARD, CLOSELY FRACTURED, METAVOLCANIC TUFF)
350.0										REC=84% RQD=25%
345.0										
340.0										
335.0						CORING TERMINATED AT ELEVATION 335.2 FEET IN CRYSTALLINE ROCK (METAVOLCANIC TUFF)				
330.0										
325.0										
320.0										
315.0										
310.0										
305.0										

CORE BORING REPORT

PROJECT: **33465.1.1** ID: **B-4110** COUNTY: **Durham** BORING NO: **B1-A**

DESCRIPTION: Bridge No. 5 on -L- (SR 1616) over Mountain Creek

LOCATION OF BORING: -L- Sta. 17+77, Offset 17 LT COMPLETION DATE: 5/26/05

COLLAR or GROUND ELEVATION: 385.0 ft CORE SIZE: NXWL GEOLOGIST: J. L. Pedro

CORE EQUIPMENT: CME-550, N-casing, NXWL DRILLER: H. R. Conley

ELEV (ft)	DEPTH (ft)	DRILL RATE (min/ft)	RUN (ft)	REC (ft) (%)	RQD (ft) (%)	SAMPLE NUMBER	FIELD CLASSIFICATION and REMARKS
360.0	25.0	1:05					Light gray, slightly weathered, moderately hard, closely fractured, metavolcanic tuff
		0:57		4.0	1.4		(25.0'-26.5' highly weathered and fractured); nearly horizontal fractures at 27.5', 28.3', 28.5', 28.6';
		0:50	4.8				40 degree fracture at 28.8'; nearly vertical fracture from 29.4' to 29.8'
		0:47		(83%)	(29%)	RS-1	
355.2	29.8	0:30/0.8'				28.8-29.4	
355.2	29.8	0:44					Light gray, slightly weathered, moderately hard, closely fractured, metsvolcanic tuff
		0:42		4.5	2.0		(29.8'-30.6') highly fractured; 31.1', nearly horizontal fractures at 31.2', 31.4', 32.7'; 45 degree fracture
		0:47	5.0				at 31.6'; 70 degree fracture from 32.3' to 32.7'; 60 degree fracture at 34.1'
		0:45		(90%)	(40%)		
350.2	34.8	0:56					
350.2	34.8	1:01					Light gray, slightly weathered, moderately hard, closely fractured, metavolcanic tuff
		0:43		3.9	1.1		(36.2-37.2' weathered seam - core barrel dropped 1' during run)
		1:39	5.0				80 degree fracture from 35.4' to 36.1'; nearly vertical fracture at 37.7'; 70 degree fracture at 38.4'
		1:43		(78%)	(22%)		
345.2	39.8	2:28					
345.2	39.8	1:09					Light gray, slightly weathered, moderately hard, closely fractured, metavolcanic tuff
		0:38		5.0	1.2		(39.8'-41.1' very fractured from 10 degrees to vertical); 30 degree fracture at 41.4';
		0:44	5.0				10 degree fracture at 41.5'; nearly horizontal fracture at 42.0'; 60 degree fracture at 42.8';
		1:11		(100%)	(24%)		20 degree fracture at 44.5'
340.2	44.8	0:58					
340.2	44.8	0:38					Light gray, slightly weathered, moderately hard, closely fractured, metavolcanic tuff
		0:41		3.4	0.6		(44.8'-47.4' washed away); 60 degree fracture at 47.5'; nearly horizontal fracture at 48.4'
		0:49	5.0				
		0:56		(68%)	(12%)		
335.2	49.8	0:47					
							BOREHOLE TERMINATED AT ELEVATION OF 335.2 FEET, IN METAVOLCANIC ROCK.