



PROJECT NO. 8.2502001		ID. B-3885		COUNTY Orange		GEOLOGIST D. Goodnight									
SITE DESCRIPTION Bridge No. 174 Over Cane Creek on SR 1958							GROUND WATER (ft)								
BORING NO. B2-B		BORING LOCATION 18+19.0		OFFSET 15.0 ft RT		ALIGNMENT -L-		0 HR. 8.20							
COLLAR ELEV. 421.10 ft		NORTHING 792907.87		EASTING 1923475.51				24 HR. 8.00							
TOTAL DEPTH 36.90 ft		DRILL MACHINE CME 45 Skid Rig		DRILL METHOD Wash Rotary 2.94 in. Tricone		HAMMER TYPE 140 lb. Manual									
DATE STARTED 7/24/03		COMPLETED 7/28/03		SURFACE WATER DEPTH NA											
ELEV. (ft)	DEPTH (ft)	BLOW COUNT			BLOWS PER FOOT					SAMP. NO.	LOG MOI	SOIL AND ROCK DESCRIPTION			
		0.5ft	0.5ft	0.5ft	0	20	40	60	80				100		
421.1													421.1	0.00	
420.1	1.0	3	3	2									421.1	0.00	
417.6	3.5	3	2	2									413.1	8.0	Alluvial: Medium Stiff, Brown to Tan, Coarse to Fine Sandy, Silty CLAY with Gravel and Rootlets (A-6)
415.1	6.0	4	4	4									411.7	9.4	Weathered Rock: Tan, Metavolcanic Rock
412.6	8.5	13	87/4										411.7	9.4	Crystalline Rock: Moderately Severely to Moderately Weathered, Medium Hard to Moderately Hard, Brown and Green-Gray, Metavolcanic Rock with Very Close to Close Fracture Spacing
													393.8	27.3	Crystalline Rock: Slightly to Very Slightly Weathered, Hard, Green-Gray, Metavolcanic Rock with Close to Moderately Close Fracture Spacing
393.1	28.0												384.2	36.9	Coring Terminated at 36.9 feet (Elev. 384.2) in Crystalline Rock (Metavolcanic)
389.2	31.9														Drilling Fluid Properties: Water



PROJECT NO. 8.2502001		ID. B-3885		COUNTY Orange		GEOLOGIST D. Goodnight				
SITE DESCRIPTION Bridge No. 174 Over Cane Creek on SR 1958							GROUND WATER (ft)			
BORING NO. B2-B		BORING LOCATION 18+19.0		OFFSET 15.0 ft RT		ALIGNMENT -L-		0 HR. 8.20		
COLLAR ELEV. 421.10 ft		NORTHING 792907.87		EASTING 1923475.51				24 HR. 8.00		
TOTAL DEPTH 36.90 ft		DRILL MACHINE CME 45 Skid Rig		DRILL METHOD Wash Rotary 2.94 in. Tricone		HAMMER TYPE 140 lb. Manual				
DATE STARTED 7/24/03		COMPLETED 7/28/03		SURFACE WATER DEPTH NA						
CORE SIZE NQ				TOTAL RUN 27.5 ft		DRILLER W. Whichard				
ELEV. (ft)	DEPTH (ft)	RUN (ft)	DRILL RATE (Min/ft)	RUN		SAMP. NO.	STRATA		LOG	DESCRIPTION AND REMARKS
				REC. (%)	RQD (%)		REC. (%)	RQD (%)		
										Begin Coring @ 9.4 ft
411.7	9.4	2.5	5:26	(1.0)	(0.0)		(12.6)	(3.1)		Crystalline Rock: Moderately Severely to Moderately Weathered, Medium Hard to Moderately Hard, Brown and Green-Gray, Metavolcanic Rock with Very Close to Close Fracture Spacing
409.2	11.9	5.0	6:14	40%	0%		70%	17%		
			2:03/0.5	(4.4)	(1.3)					7 joints at 60-70° with Abundant Iron Staining 4 joints at 30-45° Partially Open Vertical Fractures at 15.7-16.3 feet; 21.1-21.9 feet Numerous joints at Various Angles with Iron Staining on joint Surfaces Very Broken
			3:36	88%	26%					
404.2	16.9	5.0	4:33							Core Loss in Extremely Fractured Zones at 9.4-10.9 feet; 11.9-12.5 feet; 20.2-20.3 feet; 23.9-26.9 feet; 26.9-27.0 feet
			6:03							
			3:35							Crystalline Rock: Slightly to Very Slightly Weathered, Hard, Green-Gray, Metavolcanic Rock with Close to Moderately Close Fracture Spacing
			3:57	(4.9)	(1.8)					
			3:13	98%	36%					3 joints at 50-60° 1 joint at 80° 5 joints at 5-10°
399.2	21.9	5.0	3:35							
			3:19							Note: Left 0.5 feet in Bottom of Hole on Run 6 (Assumed to be 0.5 feet Crystalline Rock)
			3:35	(2.0)	(0.0)					
394.2	26.9	5.0	3:26	40%	0%					Coring Terminated at 36.9 feet (Elev. 384.2) in Crystalline Rock (Metavolcanic)
			3:39							
			4:00							Drilling Fluid Properties: Water
			2:54							
			7:13	(4.9)	(3.3)		(9.6)	(8.1)		
			5:54	98%	66%	RS-7	100%	84%		
389.2	31.9	5.0	6:20							
			4:15							
			3:43							
			3:52	(5.0)	(4.8)	RS-8				
			7:10	100%	96%					
			5:42							
384.2	36.9		4:00							
			5:54							
			5:29							
			5:05							

NCDOT CORE SINGLE 07103020.GPJ NC\_DOT.GDT 8/18/03

DOT B ... NCLF ... 20.GPJ NC\_DOT.GDT 8/18/03