GEOSCIENCE GROUP

GEOSCIENCE GROUP, INC.
BORING LOG

SHEET 1 OF 1

PROJECT NO. 33410.1.1	ID. B-4044	FED. NO. BRZ-1515(2)	CO. Burke	FIELD SUPERV. D. Hardister
SITE DESCRIPTION Bridge No. 4 over Smokey Creek on SR 1515				GROUND WATER (ft)
BORING NO. B2-B	BORING LOCATION 17+45	OFFSET 11' RT	ALIGNMENT -L-	0 HR. N/M
COLLAR ELEV. 1016.7 ft	TOTAL DEPTH 26.1 ft	NORTHING 755982.47	EASTING 1227536.83	24 HR. 6.6
DRILL MACHINE CME 550x	DRILL METHOD Rotary/HQ	HAMMER TYPE Automatic	FINAL CASING DEPTH 11.4 ft	
DATE STARTED 2/9/05	COMPLETED 2/10/05	DRILLING FLUID DENSITY Creek Water	SURFACE WATER DEPTH N/A	

ELEV. (ft)	DEPTH (ft)	BLOW COUNT 0.5ft	0.5ft	0.5ft	BLOWS PER FOOT 0 20 40 60 80 100	SAMP. NO.	MOI	LOG	SOIL AND ROCK DESCRIPTION
1016.7	0.00				Ground Surface Elev. 1016.7 ft				1016.7 — 0.00
1015	3.5	1	1	1	2		W		Alluvial-Very Loose Orange-Brown Micaceous Silty Fine SAND (A-2-4)
									1010.7 — 6.0
1010	8.5	WOH	WOH	WOH	WOH	SS-4	67.0		Alluvial-Very Soft Grey Micaceous Fine Sandy Clayey SILT (A-5)
									1005.7 — 11.0
1005	11.4	60/0			60/0		M		1005.3 — 11.4 Crystalline Rock-Grey-Black-White Metamorphosed Granite; Crystalline Rock-Grey-Black and Grey-Black-White Very Slightly Weathered Very Hard Biotite Gneiss and Metamorphosed Granite with Moderately Close and Wide Fracture Spacing
1000						RS-4			
995									990.6 — 26.1
									Coring Terminated at Elev. 990.6ft in Crystalline Rock (Biotite Gneiss & Metamorphosed Granite)

CDOT_BORE11X17 GR050032.GPJ NCDOT2.GDT 2/25/05

GEOSCIENCE GROUP

GEOSCIENCE GROUP, INC.
CORE BORING REPORT

SHEET 1 OF 1

PROJECT NO. 33410.1.1	ID. B-4044	FED. NO. BRZ-1515(2)	CO. Burke	FIELD SUPERV. D. Hardister
SITE DESCRIPTION Bridge No. 4 over Smokey Creek on SR 1515				GROUND WATER (ft)
BORING NO. B2-B	BORING LOCATION 17+45	OFFSET 11' RT	ALIGNMENT -L-	0 HR. N/M
COLLAR ELEV. 1016.7 ft	TOTAL DEPTH 26.1 ft	NORTHING 755982.47	EASTING 1227536.83	24 HR. 6.6
DRILL MACHINE CME 550x	DRILL METHOD Rotary/HQ	HAMMER TYPE Automatic	FINAL CASING DEPTH 11.4 ft	
DATE STARTED 2/9/05	COMPLETED 2/10/05	DRILLING FLUID DENSITY Creek Water	SURFACE WATER DEPTH N/A	
CORE SIZE HQ	TOTAL RUN 14.7 ft	DRILLER D. Harris		

ELEV. (ft)	DEPTH (ft)	RUN (ft)	DRILL RATE (Min./ft)	RUN REC. (ft) %	RUN RQD (ft) %	SAMP. NO.	STRATA REC. %	STRATA RQD %	DESCRIPTION AND REMARKS
1005.3									Begin Coring @ 1005.30 ft
1005.3 / 1004.6	11.4 / 12.1	0.7	3:21/0.7	(0.7) 100%	(0.7) 100%		14.7 100%	14.7 100%	Crystalline Rock-Grey-Black and Grey-Black-White Very Slightly Weathered Very Hard Biotite Gneiss and Metamorphosed Granite with Moderately Close and Wide Fracture Spacing
1004.6	12.1	5.0	5:23	(5.0) 100%	(5.0) 100%				3 Jts @ 0-10°; 1 Jt @ 10-20°
			7:21						
			9:24						
			11:05						
			6:39						
999.6	17.1								
999.6	17.1	3.0	11:29	(3.0) 100%	(3.0) 100%				
			13:56						
			22:53			RS-4			
996.6	20.1								
996.6	20.1	2.0	4:47	(2.0) 100%	(2.0) 100%				
			5:10						
994.6	22.1								
994.6	22.1	4.0	9:55	(4.0) 100%	(4.0) 100%				
			10:04						
			26:33						
			33:47						
990.6	26.1								990.6 — 26.1
									Coring Terminated at Elev. 990.6ft in Crystalline Rock (Biotite Gneiss & Metamorphosed Granite)

CDOT_CORE#3-11X17 GR050032.GPJ NCDOT2.GDT 2/25/05