

VT Trans		STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH SECTION SUBSURFACE INFORMATION		BORING LOG		Boring No.: <u>B-3</u>					
				Richford BRF 0302(29) Richford, VT GeoDesign # 750-09.13		Page No.: <u>1 of 3</u>					
						Pin No.: <u>12j158</u>					
						Checked By: <u>JFW</u>					
Boring Crew: J. Leonhardt (TransTech), A. Baribault (GeoDesign)		Casing		Sampler		Groundwater Observations ⁽³⁾					
Date Started: <u>9/05/13</u> Date Finished: <u>9/06/13</u>		Type: <u>FJ</u>		N.A.		Date					
VTSPG NAD83: <u>N 909729.53 ft E 1592615.18 ft</u>		I.D.: <u>4 in</u>		<u>2 in</u>		Depth (ft)					
Station: <u>44+58</u> Offset: <u>6' L</u>		Hammer Wt: <u>140 lb.</u>		<u>N.A.</u>		Notes					
Ground Elevation: <u>437 ft</u>		Hammer Fall: <u>30 in.</u>		<u>N.A.</u>		09/06/13 9.7 In casing (15 hrs.)					
		Hammer/Rod Type: <u>Auto/NWJ</u>									
		Rig: <u>CME 550X ATV</u>		<u>C_E = -1.5</u>							
Depth (ft)	Strata ⁽¹⁾	CLASSIFICATION OF MATERIALS (Description)		Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value) ⁽²⁾	Moisture Content %	Gravel %	Sand %	Fines %
0		6" Asphalt									
0-5	X X X X	Inferred Fill									
5-10	X X X X	Inferred Silt/Sand									
10-20	X X X X	Inferred Glacial Till									
20-50	X X X X	Inferred Glacial Till									
50		Hole stopped @ 50.0 ft									
55		Remarks: 1) Hammer efficiency correction factor is assumed. Strata breaks and composition are inferred from roller bit and casing resistance observed during borehole advance and soil samples collected in nearby Borings B-1 and B-4. Elevation, station and offset are estimated by GeoDesign from site plans provided by VTrans and taped measurements from existing features made in the field by GeoDesign personnel. They should be considered accurate only to the degree implied by the method of location used. 2) Casing driven to 8' deep. Note advancement rate slowed considerably at approximately 7.7' deep. 3) Wash water observed to be grayish-brown in color from surface to 12' deep before turning gray below 12' deep. 4) Noted grinding of roller bit from approximately 7.5' to 8.5' deep on inferred gravel. 5) Infer strata change to Silt / Sand at 8.5' deep due to significant increase in bit advancement rate. 6) Infer strata change to glacial till due to decrease in bit advancement rate at 17' deep. 7) Note decrease in advancement rate at 22' deep through inferred dense glacial till soils. Consistent, slow rate from 22' to 41.5' deep, with an increase from 41.5' to 43.5' deep									
Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual. 2. N Values have not been corrected for hammer energy. C _E is the hammer energy correction factor. 3. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.											

BOTTOM OF FOOTING
ELEV 420.00

GEODESIGN BORING LOG 750-09.13 RICHFORD VTRANS.GPJ VERMONT AOT.GDT 10/9/13

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				Richford BRF 0302(29) Richford, VT GeoDesign # 750-09.13		Page No.: <u>2 of 3</u>					
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5-10	X X X X	Inferred Silt/Sand									
10-20	X X X X	Inferred Glacial Till									
20-45	X X X X	Inferred Glacial Till									
45-50	X X X X	C1 (45' to 50'): Poor quality, moderately hard, fine grained, silvery gray-green with white GNEISS. With occasional Quartz bedding. Fractures between 30 and 70 degrees from horizontal.		C1	72 (38)	2.25					
50		Hole stopped @ 50.0 ft									
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PROJECT NAME:	RICHFORD
PROJECT NUMBER:	BRF 0302(29)
FILE NAME:	s12j158bor.dgn
PROJECT LEADER:	C. CARLSON
DESIGNED BY:	H. SALLS
BORING LOGS 4	
PLOT DATE:	11-DEC-2014
DRAWN BY:	R. PELLETT
CHECKED BY:	H. SALLS
SHEET	18 OF 36