

STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH SECTION SUBSURFACE INFORMATION		BORING LOG		Boring No.: B-202						
WINHALL STP CULV (31) Bridge 47		Page No.: 1 of 2		Pin No.: 11b268						
Checked By: J. MacGregor		Boring Crew: J. Leonhardt, K. Owens		Casing Sampler						
Date Started: 9/19/12 Date Finished: 9/20/12		Type: WASH BORE SS		Groundwater Observations						
VTSPG NAD83: N 249746.50 ft E 1524704.41 ft		I.D.: 4 in 1.38 in		Date	Depth (ft)					
Station: 33+52.5 Offset: 10.9S		Hammer Wt: 140 lb. 140 lb.		09/19/12	16.0					
Ground Elevation: 1640.5 ft		Hammer Fall: 30 in. 30 in.								
		Hammer/Rod Type: Auto/NW								
		Rig: CME 75 ATV Mounted CE = 1.4								
Depth (ft)	Strata (1)	Run (Dip deg.)	Core Rec. (RCD %)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
0.0	0.0 ft - 1.0 ft, Augered through asphalt pavement.									
2.5	A-1-b, f.m.c. SAND, Some f.c. Gravel, little silt, very compact, Light brown, Moist, Rec. = 1.4 ft, Fill			27-27-32-33 (59)						
5.0	A-4, f.m.c. SAND, AND SILT, little f.c. gravel, very compact, brown/red, Moist, Rec. = 0.6 ft, Fill			24-29-28-25 (57)	13.1	17.3	43.0	39.7		
10.0	A-4, SILT, Some f.m.c. Sand, little f.c. gravel, medium compact, brown, MTW, Rec. = 0.4 ft, Fill			9-10-8-7 (18)						
15.0	A-2-4, f.m.c. SAND, Some Silt, little f.c. gravel, very compact, brown, Wet, Rec. = 0.5 ft, Fill			10-6-50/5* (R)						
17.5	A-1-b, f.m.c. SAND, Some f.c. Gravel, little silt, medium compact, Dark brown, Wet, Rec. = 0.5 ft, Fill			10-12-12-8 (24)	22.8	31.8	49.8	18.4		
20.0	A-1-b, becomes very compact, Rec. = 0.2 ft, Fill Cobbles/Boulders, 18.5 ft - 20.2 ft, Fill			9-7-50/1* (R)						
20.0	20.0 ft - 20.2 ft, Gray, Marble, Boulder fragment recovered in R-1. NXDC	R-1	100	12-16-19-22 (35)						
22.5	A-4, Clayey SILT, Some f.m.c. Sand, hard, brown, Moist, Rec. = 1.3 ft, Glacial Till			17-31-52-	15.6	15.9	38.7	45.4	20	2
	A-4, Clayey SILT, AND f.m.c. SAND, little f.c. gravel, hard, brown, Moist, Rec. = 1.7 ft, Glacial Till									

BOTTOM OF CULVERT  
APPROX. EL. 1619.0

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Notes:  
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
2. N Values have not been corrected for hammer energy. CE 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.

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27.5				50/3* (83)						
30.0	A-4, becomes medium compact, Rec. = 1.7 ft, Zones of weathered gravel/cobble/boulder in bottom 5" of sample.			12-11-16-31 (27)						
35.0	A-4, Clayey SILT, Some f.m.c. Sand, little f.c. gravel, hard, brown/white, Moist, Rec. = 1.5 ft, Glacial Till, Zones of weathered gravel/cobbles/boulders in sample.			24-48-64-60 (112)						
40.0	A-4, Clayey SILT, Some f.m.c. Sand, trace f. gravel, hard, brown, Moist, Rec. = 1.5 ft, Glacial Till			15-27-33-40 (60)						
41.0	Hole stopped @ 41.0 ft									
42.5	Remarks: Groundwater observations made during drilling may not represent static conditions. Gravel fragments recovered in sample at 1' are likely from cobble/boulder. Coarse gravel fragment blocking shoe of spoon of sample at 14'. Roller bit grinding 18.5'-20'. Roller bit grinding 28.5'-30'. Hard drilling at 30'.									

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PROJECT NAME: WINHALL  
PROJECT NUMBER: STP CULV(31)

FILE NAME: z11b268bor\_log\_br47.dgn PLOT DATE: 9/25/2014  
PROJECT LEADER: M. CHENETTE DRAWN BY: L. BUXTON  
DESIGNED BY: VTRANS CHECKED BY: VTRANS  
BORING LOG 2 - BR47 SHEET 21 OF 60

