STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIALS & RESEARCH SECTION
SUBSURFACE INFORMATION

BORING LOG

Hartford, VT

I91 Bridge 43 N/S

Boring No.: B-208
Page No.: 1 of 1
Pin No.: s12a132
Checked By: ASP

Boring Crew: Drilex/Jason, MJR
Date Started: 4/02/14 Date Finished: 4/03/14
VTSPG NAD83: N 417615.23 ft E 1683383.96 ft
Station: 251+21.16 Offset: 41.48
Ground Elevation: 546.61 ft

	Casing	Sampler
Type:	Auger/WB	SS
I.D.:	4.5 in	2 in
Hammer Wt:	300 lb.	140 lb.
Hammer Fall:	N.A.	30 in.
Hammer/Rod Type:		Auto
Rig:	CME 50	CE = 1.33

Groundwater Observations		
Date	Depth (ft)	Notes
04/03/14	0.0	Due to water used during drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Spin 4" casing to 12", start coring at 14"								
2.5		1.0 ft – 5.0 ft, Gray-green ANDESITE, hard, fresh, joints moderately close, rough, some smooth surfaces; foliation near vertical .	1	91 (89)	2.75 2.5 2.5 2					
5.0		5.0 ft – 9.0 ft, Similar as above, very slight weathering, near vertical foliation, joint set at 45°, hard, close, smooth.	2	93 (85)	2.5 2.75 2.5 2.75					
7.5		9.0 ft – 10.0 ft, Similar as above, 45° joint set.	3	100 (68)	3					
10.0		10.0 ft – 15.0 ft, Similar as above, severe vertical fracturing in upper 2 feet, moderately weathered, open to closed, vertical foliation with quartz filling.	4	100 (65)	2.3 3 3 3.3 5.2					
12.5										
15.0		15.0 ft – 20.0 ft, Similar as above, hard, 45° joint set, open to closed, moderate to fresh weathering, vertical to near vertical foliation with quartz filling.	5	100 (66)	2.7 2.7 2.2 2.3 2.6					
17.5										
20.0		Hole stopped @ 20.0 ft								
22.5										

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. CE is an estimated value.
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.
4. Ground surface elevations indicated on the boring logs were estimated based on the grading plan provided by VAOT.

Terracon

2010 COPY J114515.GPJ VERMONT AOT.GDT 5/30/14

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BORING LOG

HARTFORD
IM 91-2(79)
I-91 BR-43

Boring No.: **B-209**
Page No.: 1 of 1
Pin No.: 12A132
Checked By: BLS

Boring Crew: DAIGNEAULT, NIETO, JUDKINS
Date Started: 5/07/14 Date Finished: 5/08/14
VTSPG NAD83: N 417447.61 ft E 1683272.04 ft
Station: 149+67.32 Offset: 41.40
Ground Elevation: 573.65 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.5 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.
Hammer/Rod Type:		Auto/AWJ
Rig:	CME 55 TRACK	C_e = 1.46

Groundwater Observations		
Date	Depth (ft)	Notes
05/08/14	26.7	AM

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		A-1-b, GrSa, brn, Moist, Rec. = 1.1 ft				1-2-4-6 (6)	5.1	43.1	47.9	9.0
		Field Note:, Roller Coned ahead and cleaned out casing.								
5		A-1-b, GrSa, brn, Moist, Rec. = 0.7 ft, Lab Note: Broken Rock was within sample.				8-6-7-9 (13)	11.1	42.1	44.1	13.8
		Field Note:, Roller Coned ahead and cleaned out casing.								
10		Visual Description:, GrSa with some Broken Rock, brn, Moist, Rec. = 0.3 ft, Rock stuck in sampler. Insufficient sample for testing.				8-12-16-19 (28)	7.9			
15		A-2-4, Sa, Lt/brn, Moist, Rec. = 1.5 ft				13-14-17-15 (31)	11.9	2.2	80.7	17.1
		Field Note:, Roller Coned ahead and cleaned out casing.								
20		A-2-4, GrSiSa, brn, Moist, Rec. = 1.3 ft, Lab Note: Broken Rock was within sample.				13-13-15-16 (28)	13.2	24.1	47.8	28.1
		Field Note:, Roller Coned ahead and cleaned out casing.								
25		A-2-4, SiSa, brn, Moist, Rec. = 1.3 ft, Lab Note: Broken Rock was within sample.				8-9-15-14 (24)	13.6	19.2	51.1	29.7
		Field Note:, Roller Coned ahead and cleaned out casing.								
30		A-2-4, SiGrSa, brn, Moist, Rec. = 0.9 ft, Lab Note: Broken Rock was within sample.				24-22-22-14 (44)	12.4	37.1	39.5	23.4
35		35.0 ft - 40.0 ft, Dark-greenish-gray to medium-bluish-gray metamorphosed andesitic and basaltic Tuff, Moderately hard, Unweathered, Poor rock, NXMDC, Near vertical fracture from 36.25' to 39.2'. RMR = 36	1 (85)	84 (18)	6 7 6 5 6	Top of Bedrock @ 35.0 ft				
40		Hole stopped @ 40.0 ft								
45		Remarks: Hole collapsed at 27.1 ft.								

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 is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.

BORING LOG 2 HARTFORD IM 91-2(79).GPJ VERMONT AOT.GDT 5/30/14

PROJECT NAME: HARTFORD
PROJECT NUMBER: IM 091-2(79)

FILE NAME: s12a132bor_new.dgn
PROJECT LEADER: K. HIGGINS
DESIGNED BY: W. LAMMER
BORING LOGS 7

PLOT DATE: 15-DEC-2014
DRAWN BY: W. LAMMER
CHECKED BY: J. SALVATORI
SHEET 79 OF 166