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

BORING LOG

ROCHESTER
BRF 0162(16)
VT-73 BR-15

Boring No.: B-101
Page No.: 1 of 1
Pin No.: 10C418
Checked By: NSM

Boring Crew: SALISBURY, GARROW
Date Started: 4/11/12 Date Finished: 4/11/12
VTSPG NAD83: N 495621.99 ft E 1542259.40 ft
Station: 262+40.14 Offset: -15.44
Ground Elevation: 1004.1 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 45C TRACK	CE = 1.34

Groundwater Observations

Date	Depth (ft)	Notes
04/12/12	10.8	AM

ABUTMENT NO 1
BOTTOM OF
PILE CAP
EL 995.0

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-2-4, SlGrSa, brn, Moist, Rec. = 1.4 ft				2-2-3-3 (5)	14.4	22.1	56.6	21.3
		A-1-b, GrSa, brn, Moist, Rec. = 0.6 ft, NXDC				4-4-3-3 (7)	8.0	39.8	43.1	17.1
5		A-1-b, GrSa, brn, Moist, Rec. = 1.0 ft, NXDC				4-3-3-3 (6)	12.5	35.8	54.6	9.6
		Field Note:, No Recovery				2-3-2-3 (5)				
		Field Note:, No Recovery				R@5.0"				
10		Field Note:, NXDC, Cobbles Visual Description:, Broken Rock with silty sand, brn, Moist, Rec. = 0.2 ft				5- R@1.0"	28.5			
		Field Note:, NXDC, Cobbles								
15		A-1-b, SaGr, brn, Wet, Rec. = 0.4 ft				5-3-3-4 (6)	16.5	48.7	38.8	12.5
		Visual Description:, Broken Rock with sandy gravel, brn, Moist, Rec. = 0.4 ft, NXDC				4-6-13-15 (19)	14.9			
		A-1-b, SaGr, brn, Moist, Rec. = 1.2 ft				12-12-15-17 (27)	13.3	43.0	42.5	14.5
20										
		Field Note:, NXDC, Gravel								
		A-1-b, SaGr, brn, Moist, Rec. = 1.4 ft				9-11-13-15 (24)	12.7	42.7	42.4	14.9
25										
		Field Note:, NXDC, Cobbles								
30		A-1-b, SlSaGr, brn, Moist, Rec. = 1.0 ft, Broken Rock was within sample. NXDC.				5-17-7-4 (24)	14.7	45.7	30.9	23.4
						24- R@1.0"	9.4			
35		Visual Description:, Broken Rock with some weathering, gry, Moist, Rec. = 0.6 ft				Top of Bedrock @ 35.0 ft				
		35.0 ft – 40.0 ft, Light-greenish-gray to pale-green, chlorite-muscovite-quartz Schist, with minor beds of quartzite. Moderately hard, Unweathered, Fair rock, NXMDC, Closely spaced joints. RMR = 44	1 (65)	96 (42)	4 2 3 4 4					
40		40.0 ft – 45.0 ft, Light-greenish-gray to pale-green, chlorite-muscovite-quartz Schist, with minor beds of quartzite. Moderately hard, Unweathered, Fair rock, NXMDC, Closely spaced joints. RMR = 49	2 (65)	96 (78)	4 4 4 5 4					
45		Hole stopped @ 45.0 ft								

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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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BORING LOG

ROCHESTER
BRF 0162(16)
VT-73 BR-15

Boring No.: B-104
Page No.: 1 of 1
Pin No.: 10C418
Checked By: NSM

Boring Crew: SALISBURY, GARROW
Date Started: 4/12/12 Date Finished: 4/16/12
VTSPG NAD83: N 495555.70 ft E 1542284.34 ft
Station: 263+00.23 Offset: 18.71
Ground Elevation: 1000.2 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 45C TRACK	CE = 1.34

Groundwater Observations

Date	Depth (ft)	Notes
04/16/12	7.8	AM

ABUTMENT NO 2
BOTTOM OF
PILE CAP
EL 993.0

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. = 1.2 ft, NXDC				2-3-17-5 (20)	15.3	39.3	44.9	15.8
		Field Note:, NXDC, Cobbles SaGr, grn, Moist, Rec. = 0.6 ft, 3.0 ft – 3.8 ft, Lots of Broken Weathered Rock.				10- R@3.5"	8.5	62.1	24.4	13.5
5		Field Note:, NXDC, Boulders & Cobbles, Very hard rock. Had to change bit.								
10		Field Note:, NXDC, Cobbles Visual Description:, Wood with sandy gravel, blk, Moist, Rec. = 0.3 ft Field Note:, NXMDC, Concrete, Possible spread footing.				8- R@2.5"				
		Field Note:, NXDC, Sand								
15		A-1-b, GrSa, brn, Moist, Rec. = 0.8 ft, Broken Rock was within sample. NXDC. A-4, Si, brn, Moist				7-13-16-16 (29)	12.3 28.4	42.0 0.2	44.0 5.9	14.0 93.9
20		A-4, Si, gry, Moist, Rec. = 0.8 ft, A very thin layer of clay was noticeable, but the total sample was non-plastic. Rec. = 1.2 ft				5-4-4-6 (8) 7-5-5-8 (10)	34.1	2.5	1.7	95.8
25		SaGr, grn-brn, Moist, Rec. = 1.2 ft, 24.0 ft – 26.0 ft, Lots of Broken and some Weathered Rock. NXDC.				8-12-10-14 (22)	11.2	60.3	26.8	12.9
		Field Note:, NXDC, Cobbles								
30		SaGr, grn-brn, Moist, Rec. = 1.0 ft, 29.0 ft – 31.0 ft, Lots of Broken and some Weathered Rock. NXDC.				18-30-18-35 (48)	10.5	50.5	30.8	18.7
		Lab Note, Boulder								
35		32.0 ft – 36.0 ft, Light-greenish-gray to pale-green, chlorite-muscovite-quartz Schist, with minor beds of quartzite. Moderately hard, Slightly weathered, Poor rock, NXMDC, Closely spaced joints. RMR = 33	1 (65)	97 (12)	2 4 3 3	Top of Bedrock @ 32.0 ft				
40		36.0 ft – 41.0 ft, Light-greenish-gray to pale-green, chlorite-muscovite-quartz Schist, with minor beds of quartzite. Moderately hard, Poor rock, NXMDC, Top 0.4' moderately to severely weathered. 38.0' – 38.4' moderately weathered. Remainder of core run unweathered. Closely spaced joints. RMR = 33	2 (65)	56 (8)	3 5 3 5 5					
45		Hole stopped @ 41.0 ft								

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Notes:
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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.

EST. PILE PENETRATION

Vanasse Hangen Brustlin, Inc.

PROJECT NAME:	ROCHESTER
PROJECT NUMBER:	BRF 0162(16)
FILE NAME: z10c418borlogs.dgn	PLOT DATE: 8/19/2013
PROJECT LEADER: G.S. GOODRICH	DRAWN BY: E.A. FIALA
DESIGNED BY: VTRANS	CHECKED BY: S.E. BURBANK
BR 15 BORING LOGS	SHEET 82 OF 238

VHB 57526

BORING LOG 2 ROCHESTER BRF 0162(16).GPJ VERMONT AOT.GDT 4/30/12