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

BORING LOG

RICHMOND
STP 0284(17)
US-2

Boring No.: **B-104**
Page No.: 1 of 1
Pin No.: 97C186
Checked By: CEE

Boring Crew: PORTER, WHITLOCK, HOLT
Date Started: 2/09/12 Date Finished: 2/09/12
VTSPG NAD83: N 701348.00 ft E 1507551.50 ft
Station: 17+55 Offset: 40.00
Ground Elevation: 302.6 ft

	Casing	Sampler
Type:	H.S.A.	SS
I.D.:	3.5 in	1.5 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig:	CME 45C SKID	C_E = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
02/10/12	5.5	AM

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
		A-2-4, SiGrSa, brn, Moist, Taken from Auger Flights.		15.3	25.3	53.9	20.8		
		A-4, SaSi, brn, Moist, Rec. = 1.5 ft	10-13-9-9 (22)	20.2		21.6	78.4		
5		A-2-4, Sa, brn, Moist, Rec. = 1.4 ft	3-4-5-7 (9)	12.0	3.5	76.9	19.6		
		A-1-b, GrSa, brn, Moist, Rec. = 1.1 ft	4-7-6-7 (13)	3.7	25.3	69.3	5.4		
		A-1-b, GrSa, brn, Moist, Rec. = 1.0 ft	3-7-9-9 (16)	9.5	40.8	50.7	8.5		
10		A-1-b, GrSa, brn, Wet, Rec. = 0.9 ft	7-8-10-8 (18)	15.8	40.4	49.8	9.8		
15		A-1-b, GrSa, brn, Wet, Rec. = 1.5 ft	14-27-24-19 (51)	13.2	35.9	54.2	9.9		
20		A-1-b, GrSa, gry, Wet, Rec. = 1.0 ft	9-11-13-21 (24)	11.7	35.7	53.8	10.5		
25		A-1-b, GrSa, gry, Wet, Rec. = 0.6 ft	9-5-6-6 (11)	14.4	32.0	48.3	19.7		
		A-4, Si, gry, Moist, Rec. = 0.7 ft		26.3	3.1	11.0	85.9	26	4
		Hole stopped @ 27.0 ft							
30									

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.

BORING LOG 2 RICHMOND STP 0284(17).GPJ VERMONT AOT.GDT 2/29/12

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

BORING LOG

RICHMOND
STP 0284(17)
US-2

Boring No.: **B-105**
Page No.: 1 of 1
Pin No.: 97C186
Checked By: CEE

Boring Crew: PORTER, HOLT
Date Started: 2/16/12 Date Finished: 2/16/12
VTSPG NAD83: N 701365.70 ft E 1507636.60 ft
Station: 18+16 Offset: -23.00
Ground Elevation: 304.2 ft

	Casing	Sampler
Type:	H.S.A.	SS
I.D.:	3.5 in	1.5 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig:	CME 45C SKID	C_E = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
		None Taken.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
		A-1-b, SaGr, brn, Moist, Taken from Auger flight.		10.2	49.6	32.0	18.4		
		A-4, GrSaSi, brn, Moist, Rec. = 1.1 ft	7-11-14-16 (25)	14.8	23.4	34.0	42.6		
5		Field Note:, No Recovery. Stone in sampler.	23-43-37-57 (80)						
		A-2-4, SiSa, brn, Moist, Rec. = 1.4 ft, Also hitting Cobbles.	18-24-21-18 (45)	9.2	18.5	50.7	30.8		
		A-2-4, SiSa, brn, Moist, Rec. = 1.6 ft	4-5-4-5 (9)	13.6	1.2	64.6	34.2		
10		A-1-b, GrSa, brn, MTW, Rec. = 1.2 ft	5-9-11-8 (20)	12.0	43.9	46.2	9.9		
15		A-1-b, GrSa, brn, Wet, Rec. = 1.2 ft	6-7-8-7 (15)	15.1	42.0	47.2	10.8		
20		A-1-b, SaGr, brn, Wet, Rec. = 1.2 ft	5-7-7-8 (14)	13.2	46.6	43.7	9.7		
25		A-1-a, SaGr, brn, Wet, Rec. = 0.6 ft	5-7-9-11 (16)	13.4	56.5	33.9	9.6		
		A-4, Si, gry, Moist, Rec. = 0.5 ft		27.6		2.2	97.8	27	3
		Hole stopped @ 27.0 ft							
30									

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.

BORING LOG 2 RICHMOND STP 0284(17).GPJ VERMONT AOT.GDT 2/29/12

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

BORING LOG

RICHMOND
STP 0284(17)
US-2

Boring No.: **B-106**
Page No.: 1 of 1
Pin No.: 97C186
Checked By: CEE

Boring Crew: PORTER, WHITLOCK, HOLT
Date Started: 2/09/12 Date Finished: 2/09/12
VTSPG NAD83: N 701295.70 ft E 1507627.60 ft
Station: 18+48 Offset: 40.00
Ground Elevation: 303.6 ft

	Casing	Sampler
Type:	H.S.A.	SS
I.D.:	3.5 in	1.5 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.
Hammer/Rod Type:	Auto/AWJ	
Rig:	CME 45C SKID	C_E = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
02/09/12	9.2	

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		A-2-4, SaSiGr, brn, Moist, Sample off auger flight.		13.0	46.5	23.2	30.3
		A-2-4, SiSa, brn, Moist, Rec. = 1.6 ft	31-40-35-38 (75)	9.6	14.6	64.3	21.1
5		A-2-4, SaSiGr, brn, Moist, Rec. = 1.5 ft	16-25-37-24 (62)	8.2	38.0	30.4	31.6
		A-2-4, GrSiSa, gry, Moist, Rec. = 1.5 ft	9-11-17-9 (18)	10.4	25.9	45.5	28.6
		A-2-4, Sa, gry, MTW		17.9	3.1	77.6	19.3
10		A-4, Si with a Trace of Organics (2.6%), gry, Moist, Rec. = 1.3 ft	2-3-5-6 (8)	35.9	0.9	11.5	87.6
15		A-4, Si with Little Organics (11.8%), Dk/gry, Moist, Rec. = 2.0 ft	WH-WH-3-2 (3)	62.1		6.9	93.1
20		A-4, Si with a Trace of Organics (2.1%), gry, MTW, Rec. = 2.0 ft	WH-WH-3-3 (3)	36.3	0.1	19.9	80.0
25		A-2-4, Sa, gry, Wet, Rec. = 1.5 ft	5-5-6-7 (11)	19.8	14.0	67.7	18.3
		Hole stopped @ 27.0 ft					
30							

Remarks:
1. First sample was off auger flight, due to frost.
2. At 27.0 feet they could not keep wet sand from coming back into auger when trying to sample deeper.

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.

BORING LOG 2 RICHMOND STP 0284(17).GPJ VERMONT AOT.GDT 2/29/12

PROJECT NAME: RICHMOND
PROJECT NUMBER: STP 0284 (17)/ CMG PARK (31)

FILE NAME: z97c186borlog.dgn
PROJECT LEADER: ERIK ATKINS
DESIGNED BY: N. BOSAN
BORING LOGS SHEET 2

PLOT DATE: 4/29/2013
DRAWN BY: N. BOSAN
CHECKED BY: E. ATKINS
SHEET 31 OF 133