



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

BORING LOG

Culvert No. 63 N&S and 64 N&S
 South Burlington, VT
 IM CULV (24)

Boring No.: B-1
 Page No.: 1 of 1
 Pin No.: 11a216
 Checked By: ASP

Boring Crew: Drilex/Terracon (CR)
 Date Started: 1/29/14 Date Finished: 1/29/14
 VTSPG NAD83: N 710018.79 ft E 1471211.55 ft
 Station: 1943+61.94 Offset: 53.09RT
 Ground Elevation: 333.0 ft

Casing Sampler
 Type: HSA SS
 I.D.: 4.25 in 2 in
 Hammer Wt: N.A. 140 lb.
 Hammer Fall: N.A. N.A.
 Hammer/Rod Type: Auto
 Rig: CME 55 ATV CE = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
01/29/14	2.0	While sampling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
0.0 - 1.2		4-inches topsoil, Rec. = 1.2 ft A-4, SiSaGr, with wood and roots	17-4-5-47 (9)	48.6	5.8	26.5	67.7
1.2 - 2.5		A-6, SiGrSa, Rec. = 0.4 ft	4-5-5-6 (10)	22.1	28.6	22.8	48.6
2.5 - 3.0		No recovery, Rec. = 0.0 ft	1-1-1-2 (2)				
3.0 - 7.5		A-6, Si, Rec. = 1.0 ft	2-2-2-2 (4)	39.3		2.7	97.3
7.5 - 10.0							
10.0 - 12.5		A-1-b, GrSiSa, Rec. = 1.2 ft	3-17-3-3 (20)	7.7	52.6	23.3	24.1
12.5 - 15.0		A-4, SiSaGr, Rec. = 0.8 ft	7-8-10-7 (18)	11.2	20.5	34.4	45.1
15.0 - 17.5		A-1-b, SaGrSi, Rec. = 0.8 ft	4-4-6-8 (10)	7.9	39.6	41.8	18.6
17.5 - 20.0		A-2-4, SaGrSi, Rec. = 1.0 ft	6-8-7-11 (15)	15.0	28.7	44.8	26.5
20.0 - 22.5		A-2-4, SaGrSi, Rec. = 1.5 ft	12-12-13-15 (25)	9.6	33.1	38.6	28.3
20.0 - 22.5		Hole stopped @ 20.0 ft					

Notes:
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 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.

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BORING LOG

Culvert No. 63 N&S and 64 N&S
 South Burlington, VT
 IM CULV (24)

Boring No.: B-2
 Page No.: 1 of 1
 Pin No.: 11a216
 Checked By: ASP

Boring Crew: Drilex/Terracon (CR)
 Date Started: 1/29/14 Date Finished: 1/29/14
 VTSPG NAD83: N 709922.44 ft E 1471155.75 ft
 Station: 1943+93.09 Offset: 53.82LT
 Ground Elevation: 331.0 ft

Casing: HSA Sampler: SS
 I.D.: 4.25 in 2 in
 Hammer Wt: N.A. 140 lb.
 Hammer Fall: N.A. N.A.
 Hammer/Rod Type: Auto
 Rig: CME 55 ATV CE = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
01/29/14	2.0	While sampling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	
0.0 - 1.0		4-inches topsoil, Rec. = 1.0 ft A-4, SiSaGr	17-8-3-4 (11)	30.4	9.5	36.6	53.9	
1.0 - 1.6		A-4, SiSa, Rec. = 0.6 ft	6-6-7-6 (13)	35.3	2.7	21.0	76.3	
1.6 - 2.3		A-4, SiSa, Rec. = 0.7 ft, (See Lab note)	2-2-2-3 (4)	38.0				
2.3 - 4.1		A-7-6, CL, Rec. = 1.8 ft	5-5-5-5 (10)	38.5	2.6	2.5	94.9	
4.1 - 5.1		A-7-6, CL, Rec. = 1.0 ft, (See Lab note)	3-2-3-3 (5)	42.8				
5.1 - 6.3		A-7-6, CH, Rec. = 1.2 ft	woh/18" 2 (0)	51.6		0.6	99.4	
6.3 - 7.8		A-7-6, CH, Rec. = 1.5 ft, (See Lab note)	1-1-1-1 (2)	48.7				
7.8 - 9.1		A-7-6, CL, Rec. = 1.3 ft	woh/12" 1-2 (1)	49.4		0.9	99.1	
9.1 - 10.4		A-7-6, CL, Rec. = 1.3 ft, (See Lab note)	woh/12" 1-1 (1)	52.5				
10.4 - 18.0		Hole stopped @ 18.0 ft						
18.0 - 20.0								
20.0 - 22.5								

Notes:

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BORING LOG

Culvert No. 63 N&S and 64 N&S
 South Burlington, VT
 IM CULV (24)

Boring No.: B-3
 Page No.: 1 of 1
 Pin No.: 11a216
 Checked By: ASP

Boring Crew: Drillex/Terracon (CR)
 Date Started: 1/29/14 Date Finished: 1/29/14
 VTSPG NAD83: N 709830.36 ft E 1471193.23 ft
 Station: 1943+26.43 Offset: 53.12RT
 Ground Elevation: 333.0 ft

Casing: HSA Sampler: SS
 I.D.: 4.25 in 2 in
 Hammer Wt: N.A. 140 lb.
 Hammer Fall: N.A. N.A.
 Hammer/Rod Type: Auto
 Rig: CME 55 ATV CE = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
01/29/14	2.0	While sampling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	
0.0 - 1.3		4-inches topsoil, Rec. = 1.3 ft A-4, SiSaGr	5-7-9-17 (16)	28.6	8.8	9.0	82.2	
1.3 - 2.5		No recovery, Rec. = 0.0 ft	4-3-3-3 (6)					
2.5 - 5.0		A-7-5, CH, Rec. = 1.5 ft	2-3-4-6 (7)	36.9	0.1	3.1	96.8	
5.0 - 7.5		A-7-5, CH, Rec. = 1.8 ft, (See Lab note)	4-6-6-6 (12)	39.3				
7.5 - 10.0		A-7-5, CH, Rec. = 1.2 ft	1-2-2-3 (4)	45.0		2.7	97.3	
10.0 - 12.5		A-7-5, CH, Rec. = 1.3 ft, (See Lab note)	woh/6"- 2-2-2 (4)	42.6				
12.5 - 15.0		A-7-6, CH, Rec. = 1.4 ft	2-2-3-2 (5)	49.2		1.9	98.1	
15.0 - 17.5		A-6, CL, Rec. = 1.7 ft, (See Lab note)	1-1-1-1 (2)	47.4				
17.5 - 18.0		A-6, CL, Rec. = 1.5 ft	woh/15"- 1/3"-1 (1)	45.8		0.7	99.3	
18.0 - 20.0	Hole stopped @ 18.0 ft							
20.0 - 22.5								

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BORING LOG

Culvert No. 63 N&S and 64 N&S
 South Burlington, VT
 IM CULV (24)

Boring No.: B-4
 Page No.: 1 of 1
 Pin No.: 11a216
 Checked By: ASP

Boring Crew: Drilex/Terracon (CR)
 Date Started: 1/29/14 Date Finished: 1/29/14
 VTSPG NAD83: N 709729.65 ft E 1471171.44 ft
 Station: 1943+28.39 Offset: 49.90LT
 Ground Elevation: 335.0 ft

Casing Sampler
 Type: HSA SS
 I.D.: 4.25 in 2 in
 Hammer Wt: N.A. 140 lb.
 Hammer Fall: N.A. N.A.
 Hammer/Rod Type: Auto
 Rig: CME 55 ATV CE = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
01/29/14	2.0	While sampling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
0.0 - 0.6		4-inches topsoil, Rec. = 0.6 ft A-4, SiSaGr	6-4-4-6 (8)	27.5	7.1	17.6	75.3
0.6 - 1.0		A-4, SiSaGr, Rec. = 0.4 ft	4-3-4-4 (7)	24.7	13.0	28.3	58.7
1.0 - 2.4		A-7-5, CH, Rec. = 1.3 ft, (See Lab note)	2-4-4-6 (8)	33.6			
2.4 - 4.0		A-7-5, CH, Rec. = 1.5 ft	4-5-7-5 (12)	38.9	3.7	2.7	93.6
4.0 - 5.6		A-7-5, CH, Rec. = 1.6 ft, (See Lab note)	2-2-2-4 (4)	38.9			
5.6 - 7.3		A-7-6, CH, Rec. = 1.7 ft	1-1-2-3 (3)	52.3		1.3	98.7
7.3 - 9.1		A-7-6, CL, Rec. = 1.8 ft, (See Lab note)	2-2-2-2 (4)	49.1			
9.1 - 11.1		Shelby tube sample, Rec. = 2.0 ft					
11.1 - 12.8		A-7-6, CL, Rec. = 1.7 ft	woh/18" - 2 (0)	53.1		0.7	99.3

Hole stopped @ 18.0 ft

Notes:

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BORING LOG

Culvert No. 63 N&S and 64 N&S
 South Burlington, VT

IM CULV (24)

Boring No.: B-5

Page No.: 1 of 1

Pin No.: 11a216

Checked By: ASP

Boring Crew: Drilex/Terracon (TT)
 Date Started: 1/30/14 Date Finished: 1/30/14
 VTSPG NAD83: N 711372.10 ft E 1465763.84 ft
 Station: 1999+99.37 Offset: 43.32RT
 Ground Elevation: 312.0 ft

Casing: HSA
 I.D.: 4.25 in
 Hammer Wt: N.A.
 Hammer Fall: N.A.
 Hammer/Rod Type: Auto
 Rig: CME 55 ATV

Sampler: SS
 2 in
 140 lb.
 N.A.
 CE = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
01/30/14		None Encountered

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	
0.0		4-inches topsoil, Rec. = 1.2 ft A-4, SiSaGr	5-6-9-7 (15)	20.4	14.8	32.6	52.6	
2.5		A-4, SiSa, Rec. = 1.0 ft, (See Lab note)	6-5-5-5 (10)	19.6				
5.0		A-4, SiSa, Rec. = 1.5 ft	1-2-2-2 (4)	28.3	2.7	41.5	55.8	
7.5		A-4, Si, Rec. = 1.2 ft, (See Lab note)	5-6-8-7 (14)	24.9		2.1	97.9	
10.0		A-4, Si, Rec. = 1.7 ft	2-3-4-5 (7)	28.7				
12.5		A-4, Si, Rec. = 1.3 ft	woh-woh-2-2	27.7		0.7	99.3	
15.0		A-4, Si, Rec. = 1.3 ft, (See Lab note)	4-4-4-5 (8)	27.4				
17.5		Shelby tube sample, Rec. = 0.5 ft						
20.0		A-4, Si, Rec. = 1.5 ft	1-1-1-1 (2)	27.4		0.5	99.5	
22.5		A-4, Si, Rec. = 1.5 ft, (See Lab note)	3-4-5-1 (9)	26.1				
		Hole stopped @ 21.0 ft						

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Culvert No. 63 N&S and 64 N&S
 South Burlington, VT

IM CULV (24)

Boring No.: B-6

Page No.: 1 of 1

Pin No.: 11a216

Checked By: ASP

Boring Crew: Drilex/Terracon (TT)
 Date Started: 1/30/14 Date Finished: 1/30/14
 VTSPG NAD83: N 711286.01 ft E 1465881.41 ft
 Station: 1998+85.18 Offset: 47.27LT
 Ground Elevation: 309.0 ft

Casing: HSA Sampler: SS
 I.D.: 4.25 in 2 in
 Hammer Wt: N.A. 140 lb.
 Hammer Fall: N.A. N.A.
 Hammer/Rod Type: Auto
 Rig: CME 55 ATV CE = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
01/30/14		None Encountered

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	
0.0 - 0.7		4-inches topsoil, Rec. = 0.7 ft A-4, SiSa, with wood and roots	3-3-3-3 (6)	28.3	3.0	25.4	71.6	
0.7 - 2.5		A-4, Si, Rec. = 1.8 ft, (See Lab note)	3-3-3-4 (6)	23.7				
2.5 - 5.0		A-4, Si, Rec. = 1.5 ft	4-4-5-7 (9)	27.4	0.4	2.7	96.9	
5.0 - 7.5		A-4, Si, Rec. = 1.3 ft, (See Lab note)	8-5-5-5 (10)	28.7				
7.5 - 10.0		A-4, Si, Rec. = 1.6 ft, (See Lab note)	woh-woh-2-3	29.2				
10.0 - 12.5		A-4, Si, Rec. = 1.0 ft	woh-woh-2	26.5		3.2	96.8	
12.5 - 15.0		A-4, Si, Rec. = 2.0 ft, (See Lab note)	woh-2-3-2 (5)	32.8				
15.0 - 17.5		A-4, Si, Rec. = 1.7 ft	woh-woh-1-1	30.5		0.7	99.3	
17.5 - 20.0		A-4, Si, Rec. = 1.8 ft, (See Lab note)	1-1-3-3 (4)	29.2				
20.0 - 22.5		A-4, Si, Rec. = 1.7 ft	2-2-3-3 (5)	28.7		0.6	99.4	
20.0 - 22.5		Hole stopped @ 20.0 ft						

Notes:

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