



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

BORING LOG

HIGHGATE
STP SCR(12)
VT-78 BR-10 CULVERT MM2.37

Boring No.: **B-101**

Page No.: 1 of 1

Pin No.: 13C134

Checked By: CCB

Boring Crew: DAIGNEAULT, HALL

Date Started: 8/12/13 Date Finished: 8/12/13

VTSPG NAD83: N 890591.03 ft E 1495758.78 ft

Station: 125+38 Offset: -9.00

Ground Elevation: 285.44 ft

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

Groundwater Observations

Date	Depth (ft)	Notes
08/12/13	26.0	While 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 %	LL %	PI %
		Asphalt Pavement, 0.0 ft - 1.0 ft										
		A-2-4, SiSa, brn, Moist, Rec. = 1.1 ft				12-12-11-10 (23)	11.3	2.6	73.4	24.0		
		A-4, SiSa, brn, Moist, Rec. = 1.0 ft				5-5-6-6 (11)	14.9	8.2	56.2	35.6		
10		Field Note: No Recovery				7-8-6-5 (14)						
		A-2-4, SiSa, brn, Moist, Rec. = 1.1 ft				7-12-9-6 (21)	17.4	2.9	63.8	33.3		
20		A-2-4, Sa, brn, Moist, Rec. = 0.8 ft				8-7-9-5 (16)	16.7	6.0	77.8	16.2		
		A-6, SiCl, gry, Moist, Rec. = 0.9 ft, Decayed Wood was within sample.				1-1-2-13 (3)	26.0	0.3	15.7	84.0	29	14
		Visual Description: Wood, brn, Moist, Rec. = 0.5 ft, (Possible Log Mat)										
30		Field Note: No Recovery				4-7-6-4 (13)						
		Visual Description: Broken Rock with Silt, blk, Moist, Rec. = 0.2 ft				R@9.5"						
40		38.0 ft - 43.0 ft, Laminated black, Slate, and meta-greywacke. Moderately soft to moderately hard, Slightly weathered, Poor rock, NXMDC, Drillers report numerous thin drilling breaks throughout run. May be Boulders. RMR = 30	1 (0)	34 (8)	2							
		43.0 ft - 48.0 ft, Black, Slate, and meta-greywacke. Moderately soft to moderately hard, Slightly weathered, Poor rock, NXMDC, Drillers report numerous thin drilling breaks throughout run. May be Boulders. RMR = 30	2 (0)	36 (0)	2							
					2							
					2							
					2							
					3							
50		Hole stopped @ 48.0 ft										
		Remarks: Hole collapsed at 36.0 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 HIGHGATE STP SCR(12).GPJ VERMONT AOT.GDT 9/25/13



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Boring No.: B-102
 Page No.: 1 of 1
 Pin No.: 13C134
 Checked By: CCB

Boring Crew: DAIGNEAULT, HALL, JUDKINS
 Date Started: 8/09/13 Date Finished: 8/19/13
 VTSPG NAD83: N 890639.50 ft E 1495793.67 ft
 Station: 125+49 Offset: -66.00
 Ground Elevation: 259.09 ft

Casing: WB Sampler: 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 = 1.46

Groundwater Observations

Date	Depth (ft)	Notes
08/09/13	10.2	While drilling.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Groundwater Observations					
							Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
0-5		A-4, SaSi, brn, Moist, Rec. = 1.6 ft, Grass & Roots were within sample.				WH-1-WH-1 (1)	31.5	0.4	42.4	57.2		
5-10		A-7-6, Cl, gry, Moist, Rec. = 2.0 ft				WH-WH-WH-2 (WH)	31.3	2.9	4.1	93.0	47	26
10-15		A-6, SiCl, gry, Moist, Rec. = 0.9 ft A-1-b, SaSiGr, gry, Moist, Rec. = 0.7 ft, Lab Note: Mostly Broken Rock with Silt.				1-3-27-29 (30)	22.2 8.1	6.9 52.6	13.9 23.7	79.2 23.7	31	15
15-20		A-1-b, SaGr, gry, Moist, Rec. = 0.6 ft, Lab Note: Mostly Broken Rock with Silty Sand				R@8.5"	7.0	64.1	25.8	10.1		
20-21.5		17.5 ft - 21.5 ft, Black, Slate, Moderately soft, Slightly weathered, Poor rock, NXMDC, RMR = 30	1 (20)	93 (0)	5 3 4 5		Top of Bedrock @ 17.5 ft					
Hole stopped @ 21.5 ft												
Remarks: Hole collapsed at 13.0 ft.												

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Boring No.: B-103
 Page No.: 1 of 1
 Pin No.: 13C134
 Checked By: CCB

Boring Crew: DAIGNEAULT, JUDKINS, HALL
 Date Started: 8/08/13 Date Finished: 8/08/13
 VTSPG NAD83: N 890523.91 ft E 1495749.11 ft
 Station: 125+31 Offset: 58.00
 Ground Elevation: 250.99 ft

Casing: WB Sampler: 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_r = 1.46

Groundwater Observations

Date	Depth (ft)	Notes

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
5		Visual Description: GrSiSa, brn, Moist, Rec. = 0.2 ft, Possible Fill. Field Note: NXDC, Cobbles	R@2.5"	10.1					
10		A-1-b, SiSaGr, gry, MTW, Rec. = 0.7 ft, Broken Rock was within sample. Lab Note, NXDC, Cobbles	16-9-9-9 (18)	10.5	39.7	38.8	21.5		
15		A-1-b, SiSaGr, gry, MTW, Rec. = 1.2 ft, Broken Rock was within sample. Field Note: NXDC, Cobbles	8-19-19-20 (38)	7.7	41.8	36.9	21.3		
20		A-2-4, SaGrSi, gry, Moist, Rec. = 0.9 ft, A small amount of Clay was noticeable. Broken Rock was within sample. Field Note: NXDC, Cleaned out casing.	39-36- R@1.0" (R)	8.2	33.2	25.1	41.7		
21.3		A-4, ClSi, gry, Moist, Rec. = 1.2 ft, Broken Rock was within sample.	R@8.5"	11.1	15.6	18.0	66.4	22	7
Hole stopped @ 21.3 ft									
25									
30									
35									
40									
45									

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Boring No.: B-104
 Page No.: 1 of 1
 Pin No.: 13C134
 Checked By: CCB

Boring Crew: DAIGNEAULT, HALL
 Date Started: 8/12/13 Date Finished: 8/12/13
 VTSPG NAD83: N 890573.83 ft E 1495753.91 ft
 Station: 125+37 Offset: 12.30
 Ground Elevation: 283.54 ft

Casing Sampler
 Type: WB N.A.
 I.D.: 4 in
 Hammer Wt: N.A. N.A.
 Hammer Fall: N.A. N.A.
 Hammer/Rod Type: _____
 Rig: CME 55 TRACK C. =

Groundwater Observations		
Date	Depth (ft)	Notes
08/12/13	2.3	After drilling.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
0 - 10		0.0 ft - 18.0 ft, Brown sandy water return. Easy drilling. A few to no cobbles.					
10 - 20		18.0 ft - 27.0 ft, Easy drilling. Brown sand & gray silt in area. Gray sandy silt in water return.					
20 - 30		27.0 ft - 32.0 ft, Slow advance of drill. Many spikes in water pressure. Drilling got difficult at 27.0 feet. Most likely Wood was plugging the casing. A lot of Wood in water return.					
30 - 40							
40 - 50		40.0 ft - 46.0 ft, Extremely difficult drilling. Advanced at a very slow pace. Most likely solid rock. Steady rise water pressure.					
50 - 55		Hole stopped @ 46.0 ft In Possible Bedrock.					
55 - 60		Remarks: 1. Boring advanced to determine bedrock depth. 2. Visual description of soil by drilling personnel. 3. Hole collapsed at 36.0 ft.					

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