



BORING LOG

Westminster
IM SCRIP(20)
I-91

Boring No.: **B-101**
Page No.: **1 of 2**
Pin No.: **16d057**
Checked By: **END**

Boring Crew: Whitlock, Judkins, Nieto
Date Started: 4/27/16 Date Finished: 5/02/16
VTSPG NAD83: N 201088.82 ft E 1648410.77 ft
Station: 1359+31.47 Offset: -3.56
Ground Elevation: 349.8 ft

Type: _____
I.D.: _____
Casing: WB
Sampler: SS
Hammer Wt: N.A. 140 lb.
Hammer Fall: N.A. 30 in.
Hammer/Rod Type: Auto/AWJ
Rig: CME 45C SKID C = 1.42

Groundwater Observations		
Date	Depth (ft)	Notes
04/27/16	18.9	W.T. after drilling
04/28/16	28.2	W.T. before drilling
04/29/16	44.2	W.T. before drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (ROD %)	Drill Rate minutes/ft	Blows/ft (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
0		Asphalt Pavement, 0.0 ft - 0.35 ft A-1-a, SaGr, gry-brn, Moist, Rec. = 1.0 ft, Lab Note: Broken rock was within sample.				14-15-15-19 (30)	6.8	58.1	28.8	13.1
5		Field Note: NXDC, Cleaned out casing A-1-b, SiSaGr, brn, Moist, Rec. = 0.9 ft				3-9-11-10 (20)	14.4	39.0	36.4	24.6
10		Field Note: NXDC, Cleaned out casing A-1-a, SaGr, gry-brn, Moist, Rec. = 0.8 ft, Lab Note: A lot of broken rock was within sample.				9-16-13-9 (29)	7.3	60.6	26.8	12.6
15		Field Note: NXDC, Cleaned out casing A-1-b, SiGRsa, brn-gry, Moist, Rec. = 1.2 ft				10-14-17-18 (31)	13.2	35.0	43.6	21.4
20		Field Note: NXDC, Cleaned out casing A-2-4, GrSiSa, brn-gry, Moist, Rec. = 1.6 ft				7-14-15-16 (29)	14.2	23.9	46.9	29.2
25		Field Note: NXDC, Cleaned out casing A-1-b, SiSaGr, brn, Moist, Rec. = 1.5 ft				7-13-13-21 (26)	12.5	38.5	37.5	24.0
30		Field Note: NXDC, Cleaned out casing A-1-b, GrSa, brn-gry, Moist, Rec. = 1.3 ft, Lab Note: Some broken and weathered rock was within sample.				13-16-19-31 (35)	10.8	40.8	42.1	17.1
35		Field Note: NXDC, Cleaned out casing A-2-4, SiSaGr, Lt/brn, Moist, Rec. = 0.9 ft				17-17-15-17 (32)	12.6	45.6	27.3	27.1
40		A-1-b, SiGRsa, brn, Moist, Rec. = 0.9 ft Field Note: NXDC, Cleaned out casing A-2-4, SiSa, Lt/brn-brn, Moist, Rec. = 1.1 ft				7-14-14-23 (28) 13-15-22-22 (37) 16-13-12-15 (25)	11.6 14.1 24.1	36.3 32.3 1.9	43.4 47.2 52.3	20.3 20.5 45.8
45		A-4, SiSa, Lt/brn, Moist, Rec. = 1.5 ft, Lab Note: Pieces of brown broken glass were within sample. A-2-4, Sa, Lt/brn, Moist, Rec. = 1.1 ft, Lab Note: Small sticks and wood fibers were within sample. A-2-4, SiSa, Lt/brn, Moist, Rec. = 1.2 ft, Lab Note: Small sticks and wood fibers were within sample. A-4, SiSa, gry-Dk/gry, Moist, Rec. = 1.5 ft				7-10-12-19 (22) 7-14-14-7 (28) 7-11-11-13 (22)	18.5 19.8 22.0	7.6 3.1 0.6	73.6 72.9 58.3	18.8 24.0 41.1

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.



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IM SCRIP(20)
I-91

Boring No.: **B-101**
Page No.: **2 of 2**
Pin No.: **16d057**
Checked By: **END**

Boring Crew: Whitlock, Judkins, Nieto
Date Started: 4/27/16 Date Finished: 5/02/16
VTSPG NAD83: N 201088.82 ft E 1648410.77 ft
Station: 1359+31.47 Offset: -3.56
Ground Elevation: 349.8 ft

Type: _____
I.D.: _____
Casing: WB
Sampler: SS
Hammer Wt: N.A. 140 lb.
Hammer Fall: N.A. 30 in.
Hammer/Rod Type: Auto/AWJ
Rig: CME 45C SKID C = 1.42

Groundwater Observations		
Date	Depth (ft)	Notes
04/27/16	18.9	W.T. after drilling
04/28/16	28.2	W.T. before drilling
04/29/16	44.2	W.T. before drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (ROD %)	Drill Rate minutes/ft	Blows/ft (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
55		A-2-4, SiSa, gry-Dk/brn, Moist, Rec. = 1.7 ft, Lab Note: Small sticks, wood fibers, and a very small amount of clay were within sample. Sample tested non-plastic. A-4, SiGr, gry-brn, Moist, Rec. = 0.3 ft, Lab Note: A very small amount of clay was within sample. Sample tested non-plastic. A-4, Si, gry, Moist, Rec. = 0.2 ft, Lab Note: Clay was within sample. Insufficient sample size to perform Atterberg limit tests. A-4, SiSa, red-brn, Moist, Rec. = 0.5 ft, Lab Note: Sample was rust colored.				7-14-16-18 (30) 10-16-16-12 (32) 5-13-12-12 (25) 7-10-10-11 (20)	21.5 18.1 29.5 24.5 27.8	1.8 45.9	66.8 13.1	31.4 41.0
60		A-4, SiSa, Lt/brn-Lt/gry, Moist, Rec. = 0.3 ft Field Note: NXDC, Cleaned out casing A-1-b, SiSaGr, gry, Moist, Rec. = 0.5 ft				14-16-17-23 (33)	9.7	52.0	26.5	21.5
65		Field Note: NXDC, Cleaned out casing Field Note: No Recovery, Rec. = 0.0 ft				10-3-5-7 (8)				
70		Field Note: NXDC, Cleaned out casing Field Note: No Recovery, Rec. = 0.0 ft Field Note: NXDC, Cleaned out casing				R (R)				
75		75.0 ft - 80.0 ft, Silvery-gray, Biotite-muscovite-quartz phyllitic SCHIST, with rare pyrite. Quartz vein at 76 to 76.7 feet. Medium hard, Unweathered, Poor rock, BX, RMR=34 Low RQD could be due to mechanical breakage	1 (0)	46 (0)	13 (7) 4 (4) 5 (5) 3 (3)					Top of Bedrock @ 75.0 ft
80		80.0 ft - 85.0 ft, Silvery-gray to dark gray, Biotite-muscovite phyllitic SCHIST, with few plagioclase veins and rare pyrite. Quartz vein at 80.55 to 80.70 feet. Medium hard, Unweathered, Poor rock, BX, RMR=34 Low RQD could be due to mechanical breakage	2 (0)	16 (0)	3 (4) 4 (5) 5 (5) 4 (4)					
85		85.0 ft - 90.0 ft, Silvery-gray to dark gray, Biotite-muscovite phyllitic SCHIST, with few plagioclase veins and rare pyrite. Faint rust staining present on pyrite inclusions. Medium hard, Unweathered, Poor rock, BX, RMR=34 Low RQD could be due to mechanical breakage	3 (0)	36 (0)	4 (4) 4 (4) 6 (6) 4 (4)					
90		Hole stopped @ 90.0 ft								
95		Remarks: Hole collapsed at 46.4 feet. 1.) Changed over to 3 inch casing at 70 feet.								

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STATE OF VERMONT
 AGENCY OF TRANSPORTATION
 CONSTRUCTION AND
 MATERIALS BUREAU
 CENTRAL LABORATORY

BORING LOG

Westminster
 IM SCRP(20)
 I-91

Boring No.: B-103
 Page No.: 1 of 1
 Pin No.: 16d057
 Checked By: END

Boring Crew: Whitlock, Judkins, Coletti
 Date Started: 5/03/16 Date Finished: 5/04/16
 VTSPG NAD83: N 201093.99 ft E 1648529.06 ft
 Station: 1359+43.99 Offset: 59.04
 Ground Elevation: 298.3 ft

Type: _____ 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 45C TRACK C = 1.46

Groundwater Observations		
Date	Depth (ft)	Notes
05/04/16	6.4	W.T. before drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		A-2-4, SiGrSa, brn, Moist, Rec. = 1.1 ft, Lab Note: Small sticks and twigs were within sample	3-4-3-4 (7)	12.2	29.0	49.6	21.4
		A-1-a, SaGr, brn, Moist, Rec. = 1.3 ft, Lab Note: A lot of broken rock was within sample	9-7-8-10 (15)	4.7	61.9	24.8	13.3
5		A-1-a, Gr, brn, Moist, Rec. = 0.4 ft, Lab Note: A lot of broken rock was within sample Field Note:, NXDC, Cleaned out casing	11-R@5" (R)	1.8	75.5	16.7	7.8
		A-1-a, Gr, brn, Moist, Rec. = 0.7 ft, Lab Note: A lot of broken rock was within sample	3-6-6-4 (12)	10.9	69.6	19.1	11.3
		A-2-4, Sa, brn, MTW, Rec. = 1.3 ft, Lab Note: Small sticks and twigs were within sample. Sample was rust colored Field Note:, Rollercone, Cleaned out casing	2-2-3-4 (5)	26.6	7.3	78.0	14.7
10		A-4, Si, gry, MTW, Rec. = 1.2 ft, Lab Note: Small sticks, twigs, and layers of clay were within sample. Sample tested non-plastic. Field Note:, Rollercone, Cleaned out casing	1-2-3-4 (5)	35.6	8.5	11.6	79.9
		A-4, Si, gry-brn, MTW, Rec. = 1.1 ft, Lab Note: Some clay and plant material was within sample. Sample tested non-plastic.	1-2-2-2 (4)	43.3	1.3	11.7	87.0
15		A-4, SaSi, gry-red, Moist, Rec. = 1.4 ft, Lab Note: A thick rust colored layer of completely weathered rock was within sample. Sample tested non-plastic. Field Note:, Rollercone, Cleaned out casing	WH-1-2-2 (3)	45.7	3.7	20.4	75.9
		A-2-4, SiSa, gry-red, Moist, Rec. = 0.7 ft, Lab Note: A thin layer of clay was within sample. Sample was rust colored and tested non-plastic.	1-3-2-3 (5)	30.8	9.2	57.2	33.6
		A-2-4, SiSa, brn, Moist, Rec. = 1.0 ft	1-3-4-4 (7)	22.8	8.3	69.1	22.6
20		Field Note:, Rollercone, Cleaned out casing					
		A-4, SaGrSi, gry, MTW, Rec. = 0.9 ft, Lab Note: Some clay was within sample. Sample tested non-plastic.	2-3-5-6 (8)	12.8	31.9	27.3	40.8
		Field Note:, Rollercone, Cleaned out casing					
25		A-4, GrSaSi, gry, Moist, Rec. = 1.3 ft	11-12-15-19 (27)	11.1	25.8	31.1	43.1
		Field Note:, Rollercone, Cleaned out casing					
30		A-2-4, SiSaGr, gry, Moist, Rec. = 0.3 ft, Lab Note: Broken rock was within sample. Field Note:, NXDC, Cleaned out casing	R@3.5" (R)	10.3	40.2	32.1	27.7
	Hole stopped @ 32.0 ft						
35	Remarks: Hole collapsed at 15.1 feet.						

Notes:
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BORING LOG 2 WESTMINSTER IM SCRP(20).GPJ VERMONT AOT.GDT 5/26/16