



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

BORING LOG

ROCHESTER
ER-STP 0162(19)
VT-73 BR-13

Boring No.: B-101

Page No.: 1 of 1

Pin No.: 11C334

Checked By: CEE

Boring Crew: SALISBURY, GARROW
Date Started: 3/29/12 Date Finished: 3/30/12
VTSPG NAD83: N 492752.70 ft E 1528645.50 ft
Station: 104+03 Offset: 20.50
Ground Elevation: 1500.2 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
		NWTD

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 %
5		A-1-b, SaGr, brn, Moist, Rec. = 1.3 ft				2-2-7-7 (9)	7.9	48.0	35.9	16.1
		A-1-a, SaGr, brn, Moist, Rec. = 1.8 ft, NXDC				8-28-35-34 (63)	6.6	51.6	33.6	14.8
		A-1-b, SaGr, brn, Moist, Rec. = 1.2 ft				9-25-28-26 (53)	9.0	46.9	36.3	16.8
		A-1-a, SaGr, brn, Moist, Rec. = 1.4 ft				15-25-31-26 (56)	9.1	52.1	32.4	15.5
		A-1-a, SaGr, brn, Moist, Rec. = 1.0 ft, NXDC				10-10-12-10 (22)	9.2	53.8	31.6	14.6
		A-1-a, SaGr, brn, Moist, Rec. = 1.2 ft, NXDC				6-10-14-16 (24)	7.5	55.6	30.3	14.1
		A-1-a, SaGr, brn, Moist, Rec. = 1.0 ft, Lost water return at 14.0 ft. Changed bit.				10-7-6-13 (13)	9.3	67.9	24.1	8.0
		Field Note: NXDC, Cobbles								
20		A-1-a, SaGr, brn, Moist, Rec. = 0.6 ft, The Gravel = 3 broken stones				5-6-4-R@3.5"	10.7	62.1	31.4	6.5
		Field Note: NXDC, Cobbles								
25		20.0 ft - 25.0 ft, Light gray, Quartz-muscovite Schist, with quartzite. Hard, Unweathered, Good rock, NXMDC, RMR = 76	1 (30)	98 (98)	3	Top of Bedrock @ 20.0 ft				
					3					
					3					
					4					
30		25.0 ft - 30.0 ft, Light gray, Quartz-muscovite Schist, with quartzite. Hard, Good rock, NXMDC, Slightly weathered along joint surface at 27.25 feet. Remainder of run is unweathered. RMR = 76	2 (30)	100 (100)	3					
					3					
					3					
					4					
35		Hole stopped @ 30.0 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. 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 No.: B-102
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 Checked By: CEE

Boring Crew: SALISBURY, GARROW
 Date Started: 4/03/12 Date Finished: 4/03/12
 VTSPG NAD83: N 492834.70 ft E 1528676.60 ft
 Station: 104+75 Offset: -29.50
 Ground Elevation: 1491.0 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
		None Taken

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (ROD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
5		Field Note:, NXDC, Cobbles								
		A-1-a, SaGr, brn, Moist, Rec. = 0.4 ft				8-R@2.5"	8.9	53.6	33.5	12.9
		Field Note:, NXDC, Boulders & Cobbles								
10		Field Note:, Drilling break								
		Field Note:, NXDC, Boulders & Cobbles								
		Field Note:, Drilling break								
		Field Note:, NXDC, Boulders & Cobbles, Advanced casing to 15.0 feet.								
		Field Note:, NXDC								
15		15.0 ft - 20.0 ft, Light gray, Quartz-muscovite Schist, with quartzite. Hard, Unweathered, Good rock, NXMDC, Evenly scattered small magnetite throughout run. RMR = 71	1 (50)	98 (94)	5	Top of Bedrock @ 15.0 ft				
20		20.0 ft - 25.0 ft, Light gray, Quartz-muscovite Schist, with quartzite. Hard, Unweathered, Good rock, NXMDC, Evenly scattered small magnetite throughout run. RMR = 64	2 (50)	100 (64)	2					
25		Hole stopped @ 25.0 ft								

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BORING LOG 2 ROCHESTER ER-STP 0162(19) RPJ VERMONT AOT.GDT 6/1/12



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ROCHESTER
 ER-STP 0162(19)
 VT-73 BR-13

Boring No.: B-104

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Pin No.: 11C334

Checked By: CEE

Boring Crew: SALISBURY, GARROW
 Date Started: 4/03/12 Date Finished: 4/03/12
 VTSPG NAD83: N 492821.50 ft E 1528694.00 ft
 Station: 104+82 Offset: -8.50
 Ground Elevation: 1495.2 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
		None Taken

Depth (ft)	Strata (I)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (ROD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Asphalt Pavement, 0.0 ft - 0.5 ft								
		A-1-a, Gr, white, Moist, Rec. = 1.0 ft				5-11-12-22 (23)	6.2	72.9	19.8	7.3
		A-1-b, SaGr, brn, Moist, Rec. = 0.5 ft, NXDC					7.0	47.5	35.7	16.8
		A-1-a, SaGr, brn, Moist, Rec. = 1.0 ft, NXDC. Broken Rock was within sample.				10-19-11-7 (30)	8.5	61.0	27.6	11.4
5		A-1-b, SaGr, brn, Moist, Rec. = 0.8 ft, NXDC				10-18-R@6.0"	8.7	47.3	36.3	16.4
		A-1-b, SaGr, brn, Moist, Rec. = 1.4 ft, NXDC				18-15-15-15 (30)	8.1	47.6	36.9	15.5
10		A-1-a, SaGr, brn, Moist, Rec. = 1.2 ft, NXDC. Broken Rock (Cobbles) was within sample.				10-12-8-8 (20)	8.8	53.6	31.9	14.5
		A-1-a, SaGr, brn, Moist, Rec. = 0.9 ft, NXDC. Lots of Broken Rock pieces (Cobbles) were within sample.				38-16-26-19 (42)	9.1	61.0	29.6	9.4
		A-1-b, SaGr, brn, Moist, Rec. = 0.7 ft, Lots of Broken Rock pieces (Cobbles) were within sample.				10-R@3.5"	11.7	47.1	39.2	13.7
15		Field Note:, NXDC, Cobbles								
		15.0 ft - 20.0 ft, Light gray, Quartz-muscovite Schist, with quartzite. Hard, Unweathered, Good rock, NXMDC, Evenly scattered small magnetite throughout run. RMR = 68	1 (50)	100 (88)	3	Top of Bedrock @ 15.0 ft				
					2					
					2					
					2					
					2					
20		20.0 ft - 25.0 ft, Light gray, Quartz-muscovite Schist, with quartzite. Hard, Unweathered, Good rock, NXMDC, Evenly scattered small magnetite throughout run. RMR = 64	2 (50)	96 (62)	5					
					2					
					2					
					2					
					3					
25		Hole stopped @ 25.0 ft								

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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.

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Boring No.: B-201
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 Checked By: LAR

Boring Crew: GARROW, JUDKINS
 Date Started: 4/16/13 Date Finished: 4/16/13
 VTSPG NAD83: N 492811.37 ft E 1528653.93 ft
 Station: 121+77.6 Offset: -18.50
 Ground Elevation: 1493.68 ft

Casing Type: 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_s = 1.46

Groundwater Observations		
Date	Depth (ft)	Notes
04/16/13	7.8	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 %
5		Field Note:, NXDC, Boulder								
10		Field Note:, NXDC, Boulder								
15		Field Note:, NXDC, Boulder								
20		Field Note:, NXDC, Cobbles & Boulder								
25		21.0 ft - 26.0 ft, Light gray, Quartz-muscovite Schist, with quartzite. Hard, Unweathered, Fair rock, BXGDC, RMR = 49	1 (20)	94 (32)	6	Top of Bedrock @ 21.0 ft				
		Hole stopped @ 26.0 ft								
		Remarks: Hole moved due to guardrails.								

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Boring No.: B-202
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 Checked By: LAR

Boring Crew: SALISBURY, JUDKINS, DAIGNEAULT
 Date Started: 4/30/13 Date Finished: 4/30/13
 VTSPG NAD83: N 492871.46 ft E 1528691.13 ft
 Station: 122+40.3 Offset: -49.50
 Ground Elevation: 1475.5 ft

Casing Type: WB Sampler: SS
 I.D.: 3 in 1.5 in
 Hammer Wt: N.A. 140 lb.
 Hammer Fall: N.A. 30 in.
 Hammer/Rod Type: Manual/AWJ
 Rig: SMALL SKID RIG C =

Groundwater Observations		
Date	Depth (ft)	Notes
04/30/13	0.0	While drilling.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (ROD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
5		Field Note:, BXDC, Cobbles								
		Field Note:, BXDC								
5		5.0 ft - 7.0 ft, Broken Rock. Possible Top of Bedrock								Top of Bedrock @ 5.0 ft
7.0		7.0 ft - 8.8 ft, Light gray, Quartz-muscovite Schist, with quartzite. Hard, Unweathered, Good rock, BXMDC	1 (40)	82 (80)	11					
8.8		8.8 ft - 8.9 ft, Drilling break from 8.8-8.9 ft.			17					
8.9		8.9 ft - 12.0 ft, Light gray, Quartz-muscovite Schist, with quartzite. Hard, Unweathered, Good rock, RMR = 68			15					
10					11					
10					11					
12.0		Hole stopped @ 12.0 ft								
15		Remarks: Hole collapsed at 0.0 ft.								
20										
25										

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Boring No.: B-203
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 Pin No.: 11C334
 Checked By: LAR

Boring Crew: GARROW, JUDKINS
 Date Started: 4/15/13 Date Finished: 4/15/13
 VTSPG NAD83: N 492750.61 ft E 1528667.20 ft
 Station: 121+51.8 Offset: 36.40
 Ground Elevation: 1498.89 ft

Casing Type: 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
04/15/13	13.0	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 %
5										
10										
14.1		Field Note:, NXDC, Cobbles								
14.1 - 19.1		14.1 ft - 19.1 ft, Light gray, Quartz-muscovite Schist, with quartzite. Hard, Unweathered, Fair rock, BXGDC, RMR = 44	1 (20)	94 (0)	10	Top of Bedrock @ 14.1 ft				
15					2					
16					2					
17					2					
18					2					
19.1										
20		Hole stopped @ 19.1 ft								
25		Remarks: Hole collapsed at 12.8 ft.								

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ROCHESTER
 ER-STP 0162(19)
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Boring No.: **B-204**

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Pin No.: 11C334

Checked By: LAR

Boring Crew: DAIGNEAULT, JUDKINS

Date Started: 4/29/13 Date Finished: 4/30/13

VTSPG NAD83: N 492859.98 ft E 1528723.38 ft

Station: 122+60.4 Offset: -21.80

Ground Elevation: 1487.31 ft

Casing Type: WB Sampler: SS
 I.D.: 3 in 1.5 in
 Hammer Wt: N.A. 140 lb.
 Hammer Fall: N.A. 30 in.
 Hammer/Rod Type: Manual/AWJ
 Rig: SMALL SKID RIG C. =

Groundwater Observations

Date	Depth (ft)	Notes
04/30/13	13.2	While drilling.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
5		Field Note:, BXDC, Cobbles, Lost water return at 4.0 ft.								
10		Field Note:, BXDC, Cobbles								
12.8 - 13.8		Field Note:, BXDC, Cobbles								
12.8 - 13.8		12.8 ft - 13.8 ft, BXDC. Broken Rock.. Possible Top of Bedrock								Top of Bedrock @ 12.8 ft
15		13.8 ft - 19.8 ft, Light gray, Quartz-muscovite Schist, with quartzite. Hard, Unweathered, Fair rock, BXMDC, RMR = 44	1 (40)	64 (10)	6 7 7 10 14					
20		19.8 ft - 22.8 ft, Quartzite, with light gray quartz-muscovite schist. Hard Unweathered, Good rock, BXMDC, RMR = 68	2 (40)	90 (87)	11 11 20					
25		22.8 ft - 24.8 ft, Quartzite, with light gray quartz-muscovite schist. Hard Unweathered, Good rock, BXMDC, RMR = 71	3 (40)	100 (95)	20 12					
25		Hole stopped @ 24.8 ft								
		Remarks: Hole collapsed at 5.1 ft.								

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