



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

BORING LOG

BETHEL-RANDOLPH
STP 2921(1)
VT-12

Boring No.: **B-101**

Page No.: **1 of 1**

Pin No.: **10C244**

Checked By: **MLM**

Boring Crew: WHITLOCK, GARROW, HOOK

Date Started: 11/12/13 Date Finished: 11/12/13

VTSPG NAD83: N 487585.99 ft E 1601547.28 ft

Station: 143+39 Offset: 9.50

Ground Elevation: 573.7 ft

Type:	WB	SS
I.D.:	4.25 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
11/12/13	11.1	While drilling.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
0.0 - 0.81		Asphalt Pavement, 0.0 ft - 0.81 ft					
0.81 - 1.0		A-1-b, SaGr, brn, Moist, Rec. = 1.0 ft	12-17-14-11 (31)	7.8	47.1	39.6	13.3
1.0 - 3.0		Lab Note, Lots of broken Concrete with sand & gravel, brn-gry, Moist, Rec. = 1.1 ft, Lost water return at 3.0 ft.	10-17-18-13 (35)	14.0	41.7	41.3	17.0
3.0 - 3.8		A-1-a, SaGr with some broken Concrete, brn, Moist, Rec. = 0.8 ft, Broken Rock was within sample.	5-6-25-10 (31)	13.2	59.4	28.4	12.2
3.8 - 4.5		A-1-a, SaGr, brn, Moist, Rec. = 0.7 ft, Broken Rock was within sample.	3-5-3-7 (8)	14.4	59.8	27.6	12.6
4.5 - 5.5		A-1-b, SaGr, brn, Moist, Rec. = 1.0 ft, Broken Rock was within sample.	16-19-16-10 (35)	12.2	48.3	33.1	18.6
5.5 - 6.5		A-1-b, GrSa, brn-gry, Moist, Rec. = 1.0 ft	5-5-1-4 (6)	19.3	38.0	47.6	14.4
6.5 - 7.6		A-1-a, SaGr, brn-gry, Moist, Rec. = 1.1 ft, Broken Rock was within sample.	9-11-11-13 (22)	10.4	65.3	23.0	11.7
7.6 - 17.0		Field Note:, Cleaned out casing. Appears to be sandy silt, Water returned at 17.0 ft.	29-31-21-24 (52)				
17.0 - 20.0							
20.0 - 21.2		A-4, SaSi, brn-gry, Moist, Rec. = 1.2 ft	4-3-2-3 (5)	26.8	11.3	27.2	61.5
21.2 - 27.0							
27.0 - 28.0		A-4, GrSaSi, brn-gry, Moist, Rec. = 1.0 ft	14-9-5-4 (14)	20.3	28.5	29.8	41.7
28.0 - 27.0		Hole stopped @ 27.0 ft					
27.0 - 30.0		Remarks: 1. Hole collapsed at 8.8 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 BETHEL-RANDOLPH STP 2921(1).GPJ - VERMONT AOT.GDT 12/12/13



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BORING LOG

BETHEL-RANDOLPH
STP 2921(1)
VT-12

Boring No.: **B-102**

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Pin No.: 10C244

Checked By: MLM

Boring Crew: JUDKINS, GARROW, HOOK
 Date Started: 11/13/13 Date Finished: 11/13/13
 VTSPG NAD83: N 487584.77 ft E 1601524.35 ft
 Station: 143+49 Offset: -10.60
 Ground Elevation: 574.4 ft

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 55 TRACK C = 1.46

Groundwater Observations

Date	Depth (ft)	Notes
11/13/13	9.9	While drilling.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Asphalt Pavement, 0.0 ft - 0.6 ft					
5		A-1-b, SaGr, brn, Moist, Rec. = 0.6 ft	11-25-13-9 (38)	5.6	42.5	41.3	16.2
		A-1-b, SiGrSa, brn, Moist, Rec. = 1.1 ft	7-6-7-7 (13)	13.0	30.9	46.7	22.4
		A-1-b, SiGrSa, brn, Moist, Rec. = 1.0 ft, Lost water return at 7.0 ft.	4-5-8-8 (13)	13.6	32.2	44.8	23.0
10		A-1-a, SaGr, brn, MTW, Rec. = 1.1 ft, Broken Rock was within sample. Water returned at 8.0 ft.	6-16-18-8 (34)	12.4	61.3	26.4	12.3
		A-2-4, SiGrSa, brn, MTW, Rec. = 0.8 ft	3-12-7-3 (19)	23.9	29.3	45.8	24.9
15		A-4, SiSa, brn, MTW, Rec. = 1.2 ft	1-1-2-2 (3)	31.6	10.5	46.1	43.4
		A-1-b, SaGr, brn, Moist, Rec. = 1.0 ft, Broken Rock was within sample.	3-6-6-11 (12)	14.2	50.4	34.8	14.8
15		A-1-b, SaGr, brn, Moist, Rec. = 0.9 ft, Broken Rock was within sample.	8-7-8-9 (15)	12.2	49.3	34.7	16.0
20		A-2-4, SiGrSa, brn, Moist, Rec. = 1.0 ft	9-12-14-12 (26)	13.2	34.5	39.2	26.3
25		A-2-4, Sa, brn, Moist, Rec. = 0.9 ft	4-4-8-9 (12)	18.6	11.7	74.1	14.2
30		Hole stopped @ 27.0 ft					
30		Remarks: 1. Hole collapsed at 19.5 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 BETHEL-RANDOLPH STP 2921(1).GPJ VERMONT AOT.GDT 12/12/13



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BORING LOG

BETHEL-RANDOLPH
STP 2921(1)
VT-12

Boring No.: **B-103**

Page No.: **1 of 1**

Pin No.: **10C244**

Checked By: **MLM**

Boring Crew: **DAIGNEAULT, GARROW, HOOK**

Date Started: **11/14/13** Date Finished: **11/14/13**

VTSPG NAD83: **N 495288.19 ft E 1601184.93 ft**

Station: **226+89** Offset: **6.20**

Ground Elevation: **596.6 ft**

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 45C SKID** **C = 1.33**

Groundwater Observations

Date	Depth (ft)	Notes
11/14/13	5.7	After drilling.
11/14/13	11.4	Casing removed.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Asphalt Pavement, 0.0 ft - 0.38 ft					
		A-1-b, SaGr, brn-gry, Moist, Rec. = 1.3 ft, Asphalt Pavement was within sample.	15-17-21-13 (38)	5.4	50.1	39.1	10.8
5		A-2-4, SiGrSa, brn-gry, Moist, Rec. = 1.5 ft	10-11-12-9 (23)	11.3	30.3	40.0	29.7
		A-2-4, SiGrSa, brn-gry, Moist, Rec. = 0.8 ft	5-3-2-4 (5)	14.6	31.3	39.4	29.3
		A-4, SiSa, brn-gry, Moist, Rec. = 1.0 ft	5-4-5-4 (9)	16.0	12.1	52.1	35.8
10		A-4, GrSaSi, brn-gry, Moist, Rec. = 1.0 ft	1-3-3-6 (6)	26.1	23.4	31.4	45.2
		A-1-b, SaGr, brn-gry, Moist, Rec. = 0.4 ft, Broken Rock was within sample.	4-4-7-6 (11)	14.0	50.5	34.4	15.1
		Field Note: No Recovery. Appears to be sandy silt					
15		A-2-4, SiSa, brn, MTW, Rec. = 0.3 ft	4-4-4-4 (8)	21.0	10.5	59.5	30.0
		A-4, Si, gry, MTW, Rec. = 0.7 ft		28.4	2.4	16.6	81.0
20		A-4, SaSi, brn, MTW, Rec. = 1.2 ft	4-3-2-3 (5)	29.8	0.9	49.4	49.7
25		A-4, SaSi, brn-gry, MTW, Rec. = 1.0 ft	2-2-3-4 (5)	29.7	1.2	45.9	52.9
		Hole stopped @ 27.0 ft					
30		Remarks: 1. Hole collapsed at 20.3 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 BETHEL-RANDOLPH STP 2921(1).GPJ VERMONT AOT.GDT 12/12/13



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BORING LOG

BETHEL-RANDOLPH
 STP 2921(1)
 VT-12

Boring No.: **B-104**

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Pin No.: 10C244

Checked By: MLM

Boring Crew: JUDKINS, GARROW, HOOK
 Date Started: 11/15/13 Date Finished: 11/15/13
 VTSPG NAD83: N 495329.18 ft E 1601181.93 ft
 Station: 227+18 Offset: -11.00
 Ground Elevation: 598.6 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 45C SKID $C_r = 1.33$

Groundwater Observations

Date	Depth (ft)	Notes
11/15/13	11.9	While drilling.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
0.0 - 0.34		Asphalt Pavement, 0.0 ft - 0.34 ft					
0.34 - 0.9		A-1-b, GrSa, brn, Moist, Rec. = 0.9 ft	8-11-8-7 (19)	6.7	35.1	47.7	17.2
0.9 - 1.0		A-2-4, GrSiSa, brn, Moist, Rec. = 1.0 ft	5-3-7-10 (10)	12.7	23.8	46.7	29.5
1.0 - 1.1		Visual Description:, GrSiSa, brn, Moist, Rec. = 0.1 ft, Material similar as 3-5 ft.	8-9-10-9 (19)				
1.1 - 1.8		A-4, SiSa, gry-brn, Moist, Rec. = 1.1 ft	7-5-4-6 (9)	15.9	14.2	48.4	37.4
1.8 - 2.5		A-1-b, SiSaGr, gry-brn, Moist, Rec. = 0.7 ft	2-2-2-1 (4)	18.1	42.5	32.3	25.2
2.5 - 3.4		Field Note:, No Recovery. Appears to be silt	2-1-WH-2 (1)				
3.4 - 4.3		A-4, SiSa, gry-brn, MTW, Rec. = 0.9 ft	2-7-5-3 (12)	26.3	15.6	43.1	41.3
4.3 - 5.8		A-4, SaSi, gry-brn, MTW, Rec. = 1.5 ft	4-4-3-4 (7)	31.9	5.5	29.8	64.7
5.8 - 7.3							
7.3 - 8.8		A-4, SiSa, gry-brn, MTW, Rec. = 1.5 ft	3-3-2-3 (5)	31.7	2.1	55.1	42.8
8.8 - 10.0							
10.0 - 11.2		Field Note:, No Recovery. Appears to be sand	3-4-4-3 (8)				
11.2 - 12.4		A-4, SiSa, gry-brn, MTW, Rec. = 1.2 ft	3-3-4-4 (7)	28.6	0.1	61.2	38.7
12.4 - 29.0		Hole stopped @ 29.0 ft					
		Remarks: 1. Hole collapsed at 19.9 ft.					

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
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 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 BETHEL-RANDOLPH STP 2921(1).GPJ. VERMONT AOT.GDT. 12/12/13



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BETHEL-RANDOLPH
STP 2921(1)
VT-12

Boring No.: **B-105**

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Pin No.: 10C244

Checked By: MLM

Boring Crew: JUDKINS, GARROW, HOOK
Date Started: 11/19/13 Date Finished: 11/20/13
VTSPG NAD83: N 499282.11 ft E 1602265.95 ft
Station: 269+61 Offset: 7.00
Ground Elevation: 689.8 ft

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 SKID C₁ = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
11/20/13	8.0	While drilling.
11/21/13	8.0	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 %
		Asphalt Pavement, 0.0 ft - 0.33 ft								
		Grindings, 0.33 ft - 0.6 ft								
		A-1-b, GrSa, Lt/brn, Moist, Rec. = 0.9 ft				20-21-16-17 (37)	5.1	39.2	44.7	16.1
5		A-1-a, SaGr, gry-brn, Moist, Rec. = 1.2 ft, Broken Rock was within sample.				12-12-11-7 (23)	6.9	55.3	31.3	13.4
		A-1-b, SiSaGr, Lt/brn, Moist, Rec. = 1.4 ft, Broken Rock was within sample.				9-6-6-5 (12)	11.5	42.7	35.8	21.5
		Visual Description:, SaGr, brn, Moist, Rec. = 0.1 ft, Insufficient sample for testing.				4-2-2-6 (4)				
10		A-1-a, SaGr, gry-brn, Moist, Rec. = 0.9 ft, Broken Rock was within sample.				10-32-10-7 (42)	12.1	54.5	34.3	11.2
		Field Note:, No Recovery. Cleaned out casing. Appears to be gravelly sand				5-8-8-11 (16)				
		Field Note:, No Recovery. Cleaned out casing. Appears to be sandy silt				4-4-4-5 (8)				
15		A-4, Si, gry-brn, Wet, Rec. = 2.0 ft				3-3-2-3 (5)	34.4	4.7	2.4	92.9
		Field Note:, Switched to CME 55 track rig. CME 45 skid rig broke down								
20		A-2-4, SiGrSa, brn, Moist, Rec. = 0.9 ft, Broken Rock was within sample.				14-R@5.0" (R)	16.4	32.0	40.6	27.4
		Field Note:, Cleaned out casing. Appears to be silty sandy gravel								
25		25.0 ft - 30.0 ft, Gray, Biotite-plagioclase-quartz Schist, Moderately hard, Unweathered, Good rock, NXMDC, RMR = 73	1 (30)	100 (86)	3					
					3					
					3					
					3					
					5					
30		30.0 ft - 35.0 ft, Gray, Biotite-plagioclase-quartz Schist, Moderately hard, Unweathered, Good rock, NXMDC, RMR = 76	2 (30)	100 (94)	3					
					3					
					2					
					2					
					2					
35		Hole stopped @ 35.0 ft								
		Remarks: 1. Hole collapsed at 19.3 ft.								

Notes:
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2. N Values have not been corrected for hammer energy. C₁ 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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BORING LOG

BETHEL-RANDOLPH
STP 2921(1)
VT-12

Boring No.: B-106
Page No.: 1 of 1
Pin No.: 10C244
Checked By: MLM

Boring Crew: JUDKINS, GARROW, HOOK
Date Started: 11/20/13 Date Finished: 11/21/13
VTSPG NAD83: N 499283.24 ft E 1602246.04 ft
Station: 269+70 Offset: -9.40
Ground Elevation: 689.8 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
11/21/13	7.9	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 %
		Asphalt Pavement, 0.0 ft - 0.37 ft								
		Grindings, 0.37 ft - 1.0 ft				21-13-10-10 (23)	6.7	38.6	44.0	17.4
		A-1-b, GrSa, brn, Moist, Rec. = 0.9 ft				12-10-14-9 (24)	7.4	55.1	31.9	13.0
5		A-1-a, SaGr, brn, Moist, Rec. = 0.9 ft, Broken Rock was within sample.				6-35-44-R@2.5" (79)	12.0	57.2	27.4	15.4
		A-1-a, SaGr, brn, Moist, Rec. = 0.6 ft, Broken Rock was within sample.				13-10-8-6 (18)	14.9	37.1	16.9	46.0
10		A-4, GrSi, brn, Moist, Rec. = 0.4 ft, Broken Rock was within sample.				6-8-5-4 (13)	11.0	55.3	23.1	21.6
		A-1-b, SiSaGr, brn, Moist, Rec. = 0.6 ft				4-5-5-5 (10)	28.9	6.5	11.8	81.7
		A-4, Si, gry, MTW, Rec. = 0.9 ft				2-3-3-3 (6)	37.3	1.5	2.2	96.3
15		A-4, Si, gry, MTW, Rec. = 1.1 ft, Lab Note: There were mini concretions within sample.				1-2-3-4 (5)	25.6	3.6	3.2	93.2
		A-4, Si, gry, MTW, Rec. = 0.9 ft, Lab Note: There were mini concretions within sample.								
		Field Note: NXDC								
20		Field Note: No Recovery								
		20.0 ft - 25.0 ft, Gray, Biotite-plagioclase-quartz Schist, Moderately hard, Unweathered, Good rock, NXMDC, RMR = 73	1 (30)	94 (86)	4	R@Top of Bedrock @ 20.0 ft				
					3					
					3					
					3					
25		25.0 ft - 30.0 ft, Gray, Biotite-plagioclase-quartz Schist, Moderately hard, Unweathered, Good rock, NXMDC, RMR = 73	2 (30)	88 (84)	3					
					2					
					3					
					3					
					4					
30		Hole stopped @ 30.0 ft								
		Remarks: 1. Hole collapsed at 7.8 ft.								

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
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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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 STP 2921(1)
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Boring No.: B-107
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 Pin No.: 10C244
 Checked By: MLM

Boring Crew: GARROW, HOOK
 Date Started: 11/26/13 Date Finished: 11/26/13
 VTSPG NAD83: N 507848.35 ft E 1600662.79 ft
 Station: 362+62 Offset: 6.50
 Ground Elevation: 675.5 ft

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
11/26/13	5.9	Casing removed.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
0.0		Asphalt Pavement, 0.0 ft - 0.04 ft					
0.04		Grindings, 0.04 ft - 1.0 ft	14-5-6-9 (11)	7.2	29.0	53.7	17.3
1.0		A-1-b, SaGr, Lt/brn, Moist, Rec. = 1.1 ft					
1.8		A-2-4, GrSiSa, brn, Moist, Rec. = 0.8 ft	8-8-17-18 (25)	12.9	28.2	37.9	33.9
2.6		Visual Description:, Broken Rock with sand, Lt/brn, Moist, Rec. = 0.3 ft, Insufficient sample for testing.		5.2			
2.9		A-4, SaSi, gry-brn, Moist, Rec. = 0.8 ft	6-6-6-6 (12)	19.8	17.9	38.4	43.7
3.7		A-4, SaSi, gry, Moist, Rec. = 1.2 ft	2-2-2-3 (4)	45.6	12.8	25.4	61.8
4.5		A-4, Si, gry-brn, Moist, Rec. = 0.9 ft	1-3-3-4 (6)	33.9	0.6	3.1	96.3
5.4		A-4, Si, Lt/brn, Moist, Rec. = 1.1 ft	WH-2-2-3 (4)	36.5	0.2	1.5	98.3
6.5		Field Note:, No Recovery, Cleaned out casing. Appears to be gravelly silt.	1-3-5-R@0.0" (8)				
7.6		Lab Note, Sample was mostly Broken Rock, gry, Moist, Rec. = 0.5 ft	31-13-8-6 (21)	9.4	79.7	12.1	8.2
8.1		A-2-4, SiSa, gry, Moist, Rec. = 0.5 ft, Lab Note: Pieces of Severely Weathered & Broken Rock were within sample.	12-9-6-6 (15)	16.2	16.3	56.6	27.1
9.6		A-2-4, SaSiGr, gry, Moist, Rec. = 1.1 ft, Lab Note: Pieces of Severely Weathered & Broken Rock were within sample.	8-5-7-12 (12)	18.2	40.9	28.7	30.4
27.0	Hole stopped @ 27.0 ft						
30.0	Remarks: 1. Hole collapsed at 20.0 ft. 2. Moved bore hole because of utilities.						

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 BETHEL-RANDOLPH STP 2921(1).GPJ VERMONT AOT.GDT 12/12/13



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

BORING LOG
 BETHEL-RANDOLPH
 STP 2921(1)
 VT-12

Boring No.: B-108
 Page No.: 1 of 1
 Pin No.: 10C244
 Checked By: MLM

Boring Crew: <u>DAIGNEAULT, GARROW, HOOK</u>	Type: <u>WB</u>	Casing: <u>WB</u>	Sampler: <u>SS</u>	Groundwater Observations		
Date Started: <u>12/02/13</u> Date Finished: <u>12/02/13</u>	I.D.: <u>4 in</u>			Date	Depth (ft)	Notes
VTSPG NAD83: <u>N 507883.96 ft E 1600644.52 ft</u>	Hammer Wt: <u>N.A.</u>			12/02/13	5.9	While drilling.
Station: <u>362+97</u> Offset: <u>8.90</u>	Hammer Fall: <u>N.A.</u>					
Ground Elevation: <u>675.8 ft</u>	Hammer/Rod Type: <u>Auto/AWJ</u>					
	Rig: <u>CME 55 TRACK</u>		<u>C_s = 1.46</u>			

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Asphalt Pavement, 0.0 ft - 0.92 ft					
		A-1-b, SaGr, brn, Moist, Rec. = 0.7 ft, Lab Note: Asphalt Pavement was within sample.	8-10-11-7 (21)	10.6	48.8	36.6	14.6
		A-2-4, GrSiSa, brn, Moist, Rec. = 0.8 ft	5-7-7-8 (14)	15.2	20.6	44.3	35.1
5		A-2-4, SiGrSa, brn-gry, Moist, Rec. = 1.1 ft	12-8-7-7 (15)	15.9	32.3	38.6	29.1
		A-2-4, GrSiSa, brn-gry, MTW, Rec. = 0.7 ft	5-4-3-4 (7)	27.8	28.9	39.1	32.0
10		A-4, SaSi, brn-gry, MTW, Rec. = 0.5 ft	1-R@5.0" (R)	38.8	19.7	33.5	46.8
		Field Note:, Roller coned ahead. Cleaned out casing.					
		Field Note:, NXMDC, Boulder, Broke through rock at 17.0 ft.					
15							
		Field Note:, NXMDC, Gravelly silt was in core barrel					
20							
		A-2-4, GrSaSi, Dk/brn, MTW, Rec. = 0.4 ft, Lab Note: Broken Rock was within sample.	3-6-10-8 (16)	15.6	31.9	33.2	34.9
25		A-2-4, SiGrSa, gry, Moist, Rec. = 0.5 ft, Lab Note: Weathered & Broken Rock pieces were within sample.	6-18-R@1.0" (R)	15.1	30.0	43.0	27.0
		Hole stopped @ 26.1 ft					
30		Remarks: 1. Hole collapsed at 19.2 ft.					

Notes:
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BORING LOG 2 BETHEL-RANDOLPH STP 2921(1).GPJ VERMONT AOT.GDT 12/12/13



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BORING LOG

BETHEL-RANDOLPH
 STP 2921(1)
 VT-12

Boring No.: **B-109**

Page No.: 1 of 1

Pin No.: 10C244

Checked By: MLM

Boring Crew: JUDKINS, GARROW, HOOK

Date Started: 12/03/13 Date Finished: 12/03/13

VTSPG NAD83: N 507884.38 ft E 1600624.37 ft

Station: 363+06 Offset: -8.30

Ground Elevation: 675.7 ft

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 55 TRACK C = 1.46

Groundwater Observations

Date	Depth (ft)	Notes

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 %
0.0 - 0.07		Asphalt Pavement, 0.0 ft - 0.07 ft								
0.07 - 0.3		Lab Note, Lots of Ground Asphalt pavement was within sample, Dk/brn, Moist, Rec. = 1.1 ft				14-10-9-10 (19)	7.0	46.1	38.8	15.1
0.3 - 0.8		A-1-b, SiGrSa, Dk/brn, Moist, Rec. = 0.3 ft, Lab Note: Ground Asphalt pavement was within sample.				8-11-10-7 (21)	10.0	35.2	43.1	21.7
0.8 - 1.0		Field Note:, No Recovery				7-8-8-6 (16)				
1.0 - 1.8		A-4, GrSaSi, Dk/gry, Moist, Rec. = 0.8 ft				4-3-3-4 (6)	22.3	20.7	35.0	44.3
1.8 - 2.4		A-2-4, SiSaGr, Dk/gry, MTW, Rec. = 0.6 ft				12-8-8-13 (16)	29.5	37.6	33.5	28.9
2.4 - 3.4		A-4, SiSa, brn-gry, MTW, Rec. = 1.0 ft				3-4-7-4 (11)	31.2	19.1	40.8	40.1
3.4 - 5.0		Lab Note, Sample was mostly Broken Rock, Dk/brn, Moist, Rec. = 0.3 ft				7-5-5-8 (10)	15.7	54.6	26.3	19.1
5.0 - 17.5		A-1-b, SiSaGr, gry-brn, Moist, Rec. = 0.6 ft, Lab Note: Broken Rock was within sample.				7-5-7-6 (12)	18.0	45.8	33.8	20.4
17.5 - 20.0		Top of Bedrock @ 17.5 ft								
20.0 - 25.0		20.0 ft - 25.0 ft, Dark gray, Muscovite-biotite-quartz Phyllite, Moderately hard, Unweathered, Fair rock, NXMDC, RMR = 59	1 (40)	90 (52)	6					
25.0 - 30.0		25.0 ft - 30.0 ft, Dark gray, Muscovite-biotite-quartz Phyllite, Moderately hard, Unweathered, Good rock, NXMDC, RMR = 63	2 (40)	96 (84)	2					
30.0 - 30.0		Hole stopped @ 30.0 ft								

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