



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

BORING LOG

Williston-Essex  
STP SGNL(46)  
VT 2A

Boring No.: **B-101**

Page No.: 1 of 1

Pin No.: 15t017

Checked By: ZMH

Boring Crew: HOOK, JUDKINS, GARROW

Date Started: 3/29/16 Date Finished: 3/31/16

VTSPG NAD83: N 732020.02 ft E 1486709.90 ft

Station: 199+54.90 Offset: -46.00

Ground Elevation: 495.3 ft

Type: \_\_\_\_\_  
I.D.: 3.25 in  
Hammer Wt: N.A.  
Hammer Fall: N.A.  
Hammer/Rod Type: Auto/AWJ  
Rig: CME 55 TRACK CE = 1.41

Casing H.S.A. Sampler SS

Groundwater Observations

Date	Depth (ft)	Notes
03/31/16	15.4	W.T. during 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 %	
5		A-1-a, SaGr, gry-brn, Moist, Rec. = 1.2 ft, Lab note: Asphalt pavement, broken rock, and plant material was within sample.				4-8-10-25 (18)	4.8	66.8	24.9	8.3			
		A-1-a, SaGr, gry, Moist, Rec. = 1.5 ft, Lab note: Asphalt pavement and broken rock was within sample.				45-25-20-R@3.5" (45)	2.8	56.4	32.3	11.3			
		A-1-a, SaGr, gry, Moist, Rec. = 0.6 ft, Lab note: Broken rock was within sample				30-17-27-28 (44)	4.3	69.1	20.9	10.0			
		A-1-a, SaGr, gry, Moist, Rec. = 0.5 ft, Lab note: Broken rock was within sample Field Note: NXDC, Cleaned out casing				R@6.0" (R)	9.4	61.0	25.9	13.1			
10		A-1-a, SaGr, gry, Moist, Rec. = 0.8 ft, Lab note: Broken rock was within sample Field Note: NXDC, Cleaned out casing				14-10-8-7 (18)	7.6	73.2	22.2	4.6			
		A-1-a, Gr, gry, Moist, Rec. = 0.9 ft, Lab note: Broken rock was within sample				8-10-17-17 (27)	7.1	79.2	17.1	3.7			
15		Field Note: NXDC, Cleaned out casing											
		A-6, Cl, brn-gry, Moist, Rec. = 0.9 ft				14-6-6-10 (12)	27.6	4.7	9.8	85.5	39	15	
20		A-1-b, SiSaGr, brn, Moist, Rec. = 0.2 ft											
		20.3 ft - 25.3 ft, Light gray/green, Phyllite, with quartz veins. Penetrative rust staining along vertical joint at 21.1 to 21.3. Surface rust staining and slickensides present on remaining joints. Moderately hard, Slightly weathered, Poor rock, NX, RMR=28	1 (40-45)	88 (9)	5	R@3.5" (R)	11.2	34.7	45.0	20.3			
25		25.3 ft - 30.3 ft, Light gray/green, Phyllite, with quartz veins. Surface rust staining on joints.. Moderately hard, Very slightly weathered, Fair rock, NX, RMR=46	2 (40-45)	86 (63)	5								
30													

Hole stopped @ 30.3 ft

Remarks:

- Hole collapsed at 15.9 feet.
- 1.) Refusal with H.S.A. at 6.8 feet.
- 2.) Continued hole with 4.0 inch washbore drilling from 6.8 feet.

Notes:

- 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
- <<SUB>><<SUB>> 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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STATE OF VERMONT  
AGENCY OF TRANSPORTATION  
CONSTRUCTION AND  
MATERIALS BUREAU  
CENTRAL LABORATORY

BORING LOG

Williston-Essex  
STP SGNL(46)  
VT 2A

Boring No.: **B-102**

Page No.: 1 of 1

Pin No.: 15t017

Checked By: ZMH

Boring Crew: JUDKINS, GARROW  
Date Started: 4/07/16 Date Finished: 4/11/16  
VTSPG NAD83: N 732034.63 ft E 1486760.79 ft  
Station: 20+06.80 Offset: -30.50  
Ground Elevation: 497.4 ft

Type: WB Casing SS Sampler  
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 CE = 1.41

Groundwater Observations

Date	Depth (ft)	Notes
04/11/16		No W.T. to depth

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 - 0.42 ft										
		A-1-a, SaGr, gry, Moist, Rec. = 1.2 ft, Lab Note: A lot of broken rock and some asphalt pavement was within sample. Field Note:, Cleaned out casing				15-18-13-16 (31)	5.4	72.5	21.1	6.4		
		A-1-a, SaGr, gry, Moist, Rec. = 0.5 ft, Lab Note: A lot of broken rock was within sample.				16-13-10-10 (23)	6.7	69.1	23.2	7.7		
		A-3, Sa, brn, Moist, Rec. = 0.8 ft Field Note:, Cleaned out casing				7-3-3-4 (6)	6.1	3.4	87.3	9.3		
		A-3, Sa, gry, MTW, Rec. = 1.0 ft Field Note:, Cleaned out casing					15.3	6.0	87.3	6.7		
		A-1-b, SaGr, gry, Moist, Rec. = 0.5 ft, Lab Note: Broken rock was within sample. Field Note:, Cleaned out casing				4-8-12-18 (20)	8.4	55.0	38.2	6.8		
		A-1-a, Gr, gry, Moist, Rec. = 0.5 ft, Lab Note: Sample consisted entirely of clean broken rock. Field Note:, Cleaned out casing				10-8-9-10 (17)	6.4	91.3	8.3	0.4		
		A-1-a, Gr, gry, Moist, Rec. = 0.9 ft, Lab Note: A lot of broken rock and asphalt pavement was within sample.				11-15-8-R@3.5" (23)	6.8	88.1	10.9	1.0		
		Field Note:, Cleaned out casing										
		A-6, SiCl, gry, Moist, Rec. = 1.2 ft, Lab Note: Wood fibers were within sample.				2-3-5-5 (5)	30.3	0.7	19.0	80.3	39	16
		Field Note:, Pushed Shelby Tube, gry, Moist										
		Field Note:, Cleaned out casing										
		A-4, GrSaSi, brn, Moist, Rec. = 0.8 ft, Lab Note: Sample tested non-plastic.				5-6-R@2.5" (R)	11.7	28.4	33.6	38.0		
		21.6 ft - 26.2 ft, Light gray/green, Phyllite, with quartz veins. Rust staining on joints. Moderately hard, Very slightly weathered, Fair rock, NX, RMR=41	1 (40-45)	90 (36)	5							
					8							
					5							
					5							
					5							
		26.2 ft - 31.2 ft, Light gray/green, Phyllite, with quartz veins. Massive quartz vein at 28.8 to 29.25 feet. Rust staining along joints. Moderately hard, Very slightly weathered, Poor rock, NX, RMR=36	2 (40-45)	92 (21)	5							
					3							
					3							
					5							
					4							

Hole stopped @ 31.2 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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STATE OF VERMONT  
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CONSTRUCTION AND  
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CENTRAL LABORATORY

BORING LOG

Williston-Essex  
STP SGNL(46)  
VT 2A

Boring No.: B-103

Page No.: 1 of 1

Pin No.: 15t017

Checked By: ZMH

Boring Crew: JUDKINS, GARROW  
Date Started: 4/06/16 Date Finished: 4/07/16  
VTSPG NAD83: N 731976.84 ft E 1486809.40 ft  
Station: 200+16.30 Offset: 44.40  
Ground Elevation: 497.6 ft

Casing: WB Sampler: SS  
Type: WB 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 CE = 1.41

Groundwater Observations

Date	Depth (ft)	Notes
04/07/16	12.3	W.T. before drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
		Asphalt Pavement, 0.0 ft - 0.55 ft							
		A-1-a, SaGr, brn, Moist, Rec. = 0.6 ft, Lab Note: Broken rock was within sample.	6-6-5-5 (11)	5.5	63.3	28.6	8.1		
		A-3, GrSa, gry-brn, Moist, Rec. = 0.8 ft, Lab Note: Broken rock was within sample.	4-3-3-6 (6)	5.1	27.6	64.9	7.5		
5		A-1-b, GrSa, gry-brn, Moist, Rec. = 1.7 ft, Lab Note: Broken rock was within sample. Field Note:, NXDC, Cleaned out casing	12-17-20-21 (37)	5.7	41.9	46.4	11.7		
		A-1-b, SaGr, gry, Moist, Rec. = 1.0 ft, Lab Note: Broken rock was within sample. Field Note:, NXDC, Cleaned out casing. Cobbles and boulders	16-16-R@ (R)	10.3	46.9	35.3	17.8		
10		A-1-a, SaGr, gry, Moist, Rec. = 1.0 ft	15-9-6-4 (15)	7.0	66.0	24.8	9.2		
		A-2-4, SiSa, blk, Moist, Rec. = 0.5 ft, Lab Note: A trace (6.33%) of organic material was within sample (AASHTO T-267).		32.4	14.9	52.5	32.6		
15		A-6, SiCl, gry, Moist, Rec. = 1.7 ft	6-7-11-15 (18)	23.6	16.2	27.3	56.5	34	13
		Field Note:, NXDC, Cleaned out casing							
20		A-1-b, SiSaGr, gry, Moist, Rec. = 0.4 ft, Lab Note: Broken rock and some clay was within sample. Insufficient sample size to perform Atterberg limit tests.	R@6" (R)	8.7	49.0	25.7	25.3		
		Field Note:, NXDC, Cleaned out casing							
25		A-1-a, SaGr, gry, Moist, Rec. = 0.2 ft, Lab Note: Broken rock and some clay was within sample. Insufficient sample size to perform Atterberg limit tests. Hole stopped @ 25.2 ft	R@2.5" (R)	10.6	56.3	32.5	11.2		

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BORING LOG

Williston-Essex  
STP SGNL(46)  
VT 2A

Boring No.: B-104  
Page No.: 1 of 1  
Pin No.: 15t017  
Checked By: ZMH

Boring Crew: GARROW, JUDKINS, HOOK  
Date Started: 3/31/16 Date Finished: 4/05/16  
VTSPG NAD83: N 732006.80 ft E 1486848.13 ft  
Station: 200+64.80 Offset: 40.40  
Ground Elevation: 499.5 ft

Casing WB Sampler SS  
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 CE = 1.41

Groundwater Observations

Date	Depth (ft)	Notes
04/06/16	17.3	W.T. after drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
5		A-1-a, SaGr, gry-brn, Moist, Rec. = 0.7 ft, Lab Note: Broken rock and plant material was within sample.	1-4-6-12 (10)	6.1	62.1	24.2	13.7
		A-1-a, SaGr, gry-brn, Moist, Rec. = 0.9 ft, Lab Note: Broken rock was within sample.	6-14-21-7 (35)	2.2	69.1	22.2	8.7
10		A-3, Sa, brn-gry, Moist, Rec. = 1.2 ft, Lab Note: Broken rock was within sample. Field Note:, Cleaned out casing	7-5-5-6 (10)	5.8	16.8	73.0	10.2
		A-1-b, SaGr, brn-gry, Moist, Rec. = 1.3 ft, Lab Note: Broken rock was within sample. Field Note:, Cleaned out casing	8-6-6-7 (12)	9.4	50.3	39.5	10.2
		A-1-b, SaGr, gry-brn, Moist, Rec. = 1.4 ft, Lab Note: Broken rock and a trace of clay was within sample. Sample tested non-plastic. Field Note:, Cleaned out casing	5-6-14-18 (20)	9.8	49.2	32.3	18.5
15		A-1-a, SaGr, gry, Moist, Rec. = 1.2 ft, Lab Note: Broken rock and a trace of clay was within sample. Sample tested non-plastic.	13-15-11-10 (26)	10.0	63.2	26.0	10.8
		Field Note:, Cleaned out casing					
		A-1-b, SiSaGr, gry, Moist, Rec. = 0.5 ft, Lab Note: A trace of clay was within sample. Sample tested non-plastic.	7-11-16-16 (27)	10.7	43.4	32.5	24.1
20		Field Note:, Cleaned out casing					
		A-4, SaGrSi, gry, Moist, Rec. = 1.5 ft, Lab Note: A trace of clay was within sample. Sample tested non-plastic.	38-28-R@6.0" (R)	10.5	30.5	24.6	44.9
		Field Note:, Cleaned out casing					
25		Hole stopped @ 24.8 ft					
		Remarks: Hole Collapsed at 16.3 feet.					

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CENTRAL LABORATORY

BORING LOG

Williston-Essex  
STP SGNL(46)  
VT 2A

Boring No.: **B-105**

Page No.: 1 of 1

Pin No.: 15t017

Checked By: ZMH

Boring Crew: GARROW, NIETO  
Date Started: 5/20/16 Date Finished: 5/20/16  
VTSPG NAD83: N 732224.84 ft E 1487003.73 ft  
Station: 203+23.30 Offset: -44.90  
Ground Elevation: 497.3 ft

Casing: WB Sampler: SS  
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 CE = 1.41

Groundwater Observations

Date	Depth (ft)	Notes
05/20/16	5.9	W.T. after drilling.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Asphalt pavement., 0.0 ft - 0.7 ft							
		A-1-A, SaGr, gry, Moist, Rec. = 1.1 ft, Lab Note: A lot of broken rock was within the sample.			12-15-13-9 (28)	5.2	64.4	26.6	9.0
		A-3, Sa, Lt/brn, Moist			6-4-4-5 (8)	6.3	9.4	80.4	10.2
5		Field Note:, NXDC, Cleaned out casing							
		A-1-B, GrSa, gry, Moist			2-2-2-6 (8)	14.1	45.4	51.6	3.0
		Field Note:, NXDC, Cleaned out casing							
		A-4, GrSaSi, gry-Lt/brn, Moist			2-2-2-5 (4)	18.9	23.3	35.2	41.5
		Field Note:, NXDC, Cleaned out casing							
10		A-4, SaSi, Lt/brn-gry, Moist, Lab Note: A thin rust colored layer was within the sample.			7-8-7-10 (15)	13.8	15.9	32.1	52.0
		A-4, GrSaSi, Lt/brn, Moist			3-R (R)	13.7	23.4	25.2	51.4
		Field Note:, NXDC, Cleaned out casing							
15									
		16.5 ft - 21.5 ft, Gray, Vuggy Phyllite, with quartz veins. Vugs are on weathered rusty surface from 16.5-17.0 ft. Rust staining on joints. Moderately hard, Slightly weathered, Poor rock, NX, RMR=39	R-1 (40-45)	84 (13)					
20									
		Hole stopped @ 21.5 ft							
		Remarks: Hole collapsed at 21.5 feet.							
25									

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
 <<SUB><<SUB>> 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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CENTRAL LABORATORY

**BORING LOG**

**Williston-Essex  
STP SGNL(46)  
VT 2A**

Boring No.: B-106  
Page No.: 1 of 1  
Pin No.: 15t017  
Checked By: ZMH

Boring Crew: JUDKINS, GARROW  
Date Started: 4/12/16 Date Finished: 4/12/16  
VTSPG NAD83: N 732205.78 ft E 1487101.32 ft  
Station: 203+83.90 Offset: 33.90  
Ground Elevation: 499.7 ft

Casing: WB Sampler: SS  
Type: WB 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 = 1.41

**Groundwater Observations**

Date	Depth (ft)	Notes
04/12/16	14.2	W.T. after 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 %
0.0 - 0.6	Concrete	Concrete, 0.0 ft - 0.6 ft								
5	A-1-a	A-1-a, SaGr, gry, Moist, Lab Note: Broken rock was within sample.				5-9-14-19 (23)	3.5	63.5	26.2	10.3
5	A-2-4	A-2-4, Sa, brn, Moist Field Note:, Cleaned out casing				15-16-12-14 (28)	8.5	1.3	87.2	11.5
5	A-1-b	A-1-b, SaGr, gry, Moist, Lab Note: Broken rock and a very small amount of clay was within sample. The Sample tested non-plastic. Field Note:, Cleaned out casing				16-12-11-12 (23)	11.3	55.3	26.5	18.2
5	A-2-4	A-2-4, SaSiGr, gry, Moist, Lab Note: Some clay was within sample. Sample tested non plastic. Field Note:, Cleaned out casing				11-10-5-7 (15)	13.8	41.5	24.3	34.2
10	A-2-4	A-2-4, SiGrSa, brn, Moist, Lab Note: Sticks and twigs and some clay was within sample. Sample tested non-plastic. Field Note:, Cleaned out casing				9-8-6-11 (14)	17.5	33.6	34.0	32.4
10	A-4	A-4, GrSaSi, brn, Moist, Lab Note: Some clay was within sample. Sample tested non-plastic.				5-5-6-7 (11)	14.6	27.1	30.9	42.0
15		Field Note:, Cleaned out casing				20-20-R @ 3.5" (R)				
15	A-1-a	A-1-a, SaGr, brn-gry, Moist, Lab Note: Broken rock was within sample.					9.1	63.3	22.7	14.0
17.0 - 22.0		17.0 ft - 22.0 ft, Light gray to green, Phyllite, with quartz veins. Rust staining on joints and few slickensides. Moderately hard, Very slightly weathered, Poor rock, NX, RMR=25	1 (45)	100 (0)	5					
20					2					
20					4					
20					4					
20					6					
22.0 - 27.0		22.0 ft - 27.0 ft, Light gray to green, Phyllite, with quartz veins and rare pyrite. Faint rust and orange staining along joints. Moderately hard, Unweathered, Fair rock, NX, RMR=49	2 (40)	100 (64)	5					
25					7					
25					8					
25					7					
25					6					
27.0		Hole stopped @ 27.0 ft								
30		Remarks: Hole collapsed @ 14.1. 1.)Moved boring due to underground utilities. Offset 36.0								

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
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BORING LOG

Williston-Essex  
STP SGNL(46)  
VT 2A

Boring No.: B-107  
Page No.: 1 of 1  
Pin No.: 15t017  
Checked By: ZMH

Boring Crew: NIETO, JUDKINS, COLETTI  
Date Started: 5/13/16 Date Finished: 5/13/16  
VTSPG NAD83: N 732491.94 ft E 1487305.79 ft  
Station: 207+23.20 Offset: -39.90  
Ground Elevation: 499.7 ft

Casing: WB Sampler: SS  
Type: WB 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 CE = 1.41

Groundwater Observations		
Date	Depth (ft)	Notes
05/13/16	6.3	W.T. taken during

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-2-4, SiSa, brn, Moist, Rec. = 0.6 ft, Lab Note: A lot of grass and grass roots were within sample.				1-3-4-5 (7)	14.7	19.1	46.1	34.8
		Field Note:, Roller Cone, cleaned out casing				4-2-2-2 (4)				
10		A-4, GrSaSi, brn-gry, Moist, Rec. = 0.4 ft, Lab Note: Broken rock was within sample.				4-3-2-2 (5)	16.8	27.3	32.7	40.0
		A-2-4, SiSaGr, brn, Moist, Rec. = 0.7 ft, Lab Note: Broken rock was within sample. Field Note:, Roller Cone, cleaned out casing				2-1-2-3 (3)	8.8	45.0	27.7	27.3
15		A-4, SaGrSi, brn, Moist, Rec. = 1.6 ft, Lab Note: Broken rock was within sample. Field Note:, Roller Cone, cleaned out casing				8-13-31-24 (44)	10.8	30.3	25.9	43.8
		A-4, SaSi, brn-gry, Moist, Rec. = 1.9 ft, Lab Note: Broken rock was within sample.				8-21-27-32 (48)	12.5	19.0	24.6	56.4
20		Field Note:, Roller Cone, cleaned out casing								
		A-1-b, SiSaGr, brn-gry, Moist, Rec. = 1.2 ft, Lab Note: Broken rock was within sample.				9-12-16-14 (28)	10.2	39.5	38.9	21.6
25		Field Note:, Roller Cone, cleaned out casing								
		A-1-a, SaGr, gry-brn, Moist, Rec. = 0.3 ft, Lab Note: A lot of broken rock was within sample.				3-11-R@4.5" (R)	7.1	60.2	25.1	14.7
30		22.3 ft - 27.3 ft, Pale green to gray, Phyllite, with rare quartz veins. Massive quartz vein at 22.3 ft to 22.5 ft. Slight brown and orange staining on joints. Low RQD could be due to mechanical breakage.. Moderately hard, Very slightly weathered, Poor rock, NXMDC, RMR=39	R-1 (45)	100	5					
					7					
					8					
					6					
		Hole stopped @ 27.3 ft			7					
		Remarks: Hole collapsed at 6.3 feet.								

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
 <<SUB>><<SUB>> 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.

2010 COPY 2 WILLISTON-ESSEX STP SGNL(46).GPJ VERMONT AOT.GDT 1/11/17



STATE OF VERMONT  
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MATERIALS BUREAU  
CENTRAL LABORATORY

BORING LOG

Williston-Essex  
STP SGNL(46)  
VT 2A

Boring No.: B-108  
Page No.: 1 of 1  
Pin No.: 15t017  
Checked By: ZMH

Boring Crew: NIETO, GARROW, EMERSON  
Date Started: 5/12/16 Date Finished: 5/12/16  
VTSPG NAD83: N 732589.46 ft E 1487379.41 ft  
Station: 208+40.80 Offset: -55.80  
Ground Elevation: 502.3 ft

Casing: WB Sampler: SS  
Type: WB 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 = 1.41

Groundwater Observations		
Date	Depth (ft)	Notes
05/12/16	6.1	W.T. after drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
5	[Diagonal Hatching]	A-4, SiSa, brn, Moist, Rec. = 0.9 ft, Lab Note: A lot of grass, grass roots, and some wood fibers were within sample. Field Note:, NXDC, cleaned out casing	3-2-4-4 (6)	24.6	10.6	48.6	40.8
		A-4, SaGrSi, brn-gry, Moist, Rec. = 1.1 ft	3-5-6-7 (11)	13.2	30.3	28.7	41.0
		A-4, SaSi, Lt/brn, Moist, Rec. = 1.7 ft	4-4-6-10 (10)	13.0	17.7	29.6	52.7
		A-4, SaGrSi, Lt/brn-gry, Moist, Rec. = 1.3 ft Field Note:, NXDC, cleaned out casing	8-11-14-22 (25)	10.3	26.8	26.5	46.7
10	[Diagonal Hatching]	A-4, GrSaSi, Lt/brn-gry, Moist, Rec. = 1.2 ft, Lab Note: Broken rock was within sample. Field Note:, Roller Cone, cleaned out casing	20-24-44-R@2.5" (68)	10.2	29.6	30.4	40.0
		A-4, GrSaSi, Lt/gry-Lt/brn, Moist, Rec. = 0.6 ft	40-30-R@3.5" (R)	10.1	23.2	26.4	50.4
15	[Diagonal Hatching]	Field Note:, Roller Cone, cleaned out casing					
		A-4, GrSaSi, gray, Moist, Rec. = 0.3 ft	9-R@3.5" (R)	9.7	23.2	28.9	47.9
		Field Note:, NXDC, cleaned out casing					
20	[Diagonal Hatching]	Field Note:, NXDC, cleaned out casing					
		A-1-b, SiSaGr, Lt/gry-Lt/brn, Moist, Rec. = 0.3 ft	R@5" (R)	10.6	50.8	26.1	23.1
25	[Diagonal Hatching]	Field Note:, NXDC, cleaned out casing					
		A-1-b, SaGr, Moist, Lab Note: Sample consisted entirely of broken and weathered rock. Hole stopped @ 25.3 ft	R@3.5" (R)	9.2	47.2	39.0	13.8

Remarks:  
Hole collapsed at 22.7 feet.

Notes:  
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
2. <<SUB>><<SUB>> 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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 CENTRAL LABORATORY

BORING LOG

Williston-Essex  
 STP SGNL(46)  
 VT 2A

Boring No.: B-109

Page No.: 1 of 1

Pin No.: 15t017

Checked By: ZMH

Boring Crew: JUDKINS, GARROW, COLETTI  
 Date Started: 5/10/16 Date Finished: 5/16/16  
 VTSPG NAD83: N 732589.46 ft E 1487410.01 ft  
 Station: 207+59.70 Offset: 74.30  
 Ground Elevation: 497.2 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 TRACK CE = 1.41

Groundwater Observations

Date	Depth (ft)	Notes
05/11/16	1.8	W.T. before drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
5		A-4, GrSaSi, brn-gry, Moist, Rec. = 1.2 ft	2-3-4-5 (7)	17.6	21.2	36.2	42.6
		A-4, SaSi, Lt/brn-gry, Moist, Rec. = 1.3 ft	6-7-7-9 (14)	12.3	13.1	34.8	52.1
		A-4, SaSi, Lt/brn-gry, Moist, Rec. = 1.3 ft	10-R@3.5" (R)	12.6	15.2	29.2	55.6
10		A-4, SaSi, Lt/brn-Lt/gry, Moist, Rec. = 1.2 ft, Lab Note: Broken rock was within sample	21-13-14-19 (27)	12.4	18.9	35.2	45.9
		A-4, GrSaSi, Lt/brn-Lt/gry, Moist, Rec. = 1.3 ft, Lab Note: Broken rock was within sample	13-11-17-R@1" (28)	12.8	23.0	24.8	52.2
		Field Note: NXDC, through boulder					
15		Field Note: NXDC, cleaned out casing					
		A-2-4, SiGrSa, Lt/brn-Lt/gry, Moist, Rec. = 1.3 ft, Lab Note: Broken rock was within sample	22-31-27-R@3.5" (58)	10.9	39.9	33.8	26.3
		Field Note: NXDC, cleaned out casing					
20		A-1-b, SiSaGr, brn-gry, Moist, Rec. = 0.9 ft, Lab Note: Broken and weathered rock was within sample.	48-R@5" (R)	15.2	42.0	33.5	24.5
		Field Note: NXDC, cleaned out casing					
		Visual Description: Broken and weathered rock, gry, Moist, Rec. = 0.1 ft, Lab Note: Insufficient sample size for testing.	R@1"				
25		Remarks: Hole Collapsed at 15.9 feet.					

Hole stopped @ 25.1 ft

Remarks:  
Hole Collapsed at 15.9 feet.

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
 <<SUB>><<SUB>> 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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STATE OF VERMONT  
AGENCY OF TRANSPORTATION  
CONSTRUCTION AND  
MATERIALS BUREAU  
CENTRAL LABORATORY

BORING LOG

Williston-Essex  
STP SGNL(46)  
VT 2A

Boring No.: B-110  
Page No.: 1 of 1  
Pin No.: 15t017  
Checked By: ZMH

Boring Crew: NIETO, GARROW, COLETTI  
Date Started: 5/11/16 Date Finished: 5/11/16  
VTSPG NAD83: N 732535.09 ft E 1487471.10 ft  
Station: 208+79.00 Offset: 44.50  
Ground Elevation: 500.8 ft

Casing WB Sampler SS  
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 = 1.41

Groundwater Observations

Date	Depth (ft)	Notes
05/11/16	4.2	W.T. after 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		A-1-b, SaGr, brn, Moist, Rec. = 8.0 ft, Lab Note: Grass and grass roots were within sample.				2-3-2-2 (5)	10.6	43.7	41.9	14.4
		A-4, GrSaSi, brn-gry, Moist, Rec. = 0.9 ft				2-5-6-6 (11)	13.7	23.5	35.2	41.3
		A-4, GrSaSi, gry-brn, Moist, Rec. = 1.6 ft				5-6-6-7 (12)	12.6	22.0	30.8	47.2
		A-2-4, SaSiGr, Lt/gry-brn, Moist, Rec. = 1.2 ft				7-7-15-35 (22)	11.0	39.6	26.8	33.6
		A-1-b, SaGr, Lt/gry-Lt/brn, Moist, Rec. = 0.4 ft				R@5" (R)	9.4	49.2	33.4	17.4
15		12.5 ft - 17.5 ft, Light green/gray, Phyllite, with quartz veins. Penetrative brown and rust staining on joints. Vugs present from 12.8 to 13.6 ft. Near verticle fractures at 15.4 to 15.7 ft and 16.7 to 16.9 ft. Vuggy section is slightly weathered.. Moderately hard, Slightly weathered, Poor rock, NXMDC, RMR=30.	R-1 (45-50)	98 (14)	2	Top of Bedrock @ 12.5 ft				
					3					
					3					
					8					
20		17.5 ft - 22.5 ft, Light green/gray, Phyllite, with quartz veins. Yellow and rust staining along joints and few slickensides.. Moderately hard, Slightly to moderately weathered, Fair rock, NXMDC, RMR=41	R-2 (45)	76 (29)	4					
					5					
					5					
					5					
25	Hole stopped @ 22.5 ft									
	Remarks: Hole collapsed at 15.6 feet.									

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
 <<SUB>><<SUB>> 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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STATE OF VERMONT  
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MATERIALS BUREAU  
CENTRAL LABORATORY

BORING LOG

Williston-Essex  
STP SGNL(46)  
VT 2A

Boring No.: **B-111**

Page No.: 1 of 1

Pin No.: 15t017

Checked By: ZMH

Boring Crew: NIETO, GARROW, COLETTI  
Date Started: 5/18/16 Date Finished: 5/18/16  
VTSPG NAD83: N 733302.65 ft E 1489492.04 ft  
Station: 231+83.10 Offset: -40.60  
Ground Elevation: 508.8 ft

Casing: WB  
Sampler: SS  
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 CE = 1.41

Groundwater Observations		
Date	Depth (ft)	Notes
05/18/16	0.9	W.T. after drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
5		A-2-4, GrSa, brn, Moist, Rec. = 0.5 ft, Lab Note: A lot of grass and grass roots were within sample.	1-1-1-2 (2)	15.6	31.4	55.1	13.5
		A-4, SaSi, brn-gry, Moist, Rec. = 1.6 ft	1-3-4-6 (7)	16.1	16.9	38.1	45.0
		A-4, SaSi, brn-gry, Moist, Rec. = 1.7 ft	4-3-4-4 (7)	15.9	14.0	32.7	53.3
		A-4, SaSi, brn-Lt/gry, Moist, Rec. = 1.8 ft Field Note:, Rollercone, Cleaned out casing	5-9-10-20 (19)	13.0	18.7	29.6	51.7
10		A-4, SaSi, Lt/gry, Moist, Rec. = 0.8 ft, Lab Note: Broken rock was within sample. Sample tested non-plastic. Field Note:, Rollercone, Cleaned out casing	12-9-14-31 (23)	12.5	17.7	29.8	52.5
		A-4, GrSaSi, Lt/gry, Moist, Rec. = 1.8 ft, Lab Note: Broken rock was within sample.	16-20-28-30 (48)	10.1	27.6	34.1	38.3
15		Field Note:, Rollercone, Cleaned out casing					
		A-1-a, Gr, Lt/gry, Moist, Rec. = 0.9 ft, Lab Note: A lot of broken rock was within sample.	15-42-R@3.5" (R)	7.1	66.4	18.6	15.0
		Field Note:, Rollercone, Cleaned out casing					
20		A-1-b, SiSaGr, Lt/gry, Moist, Rec. = 1.5 ft, Lab Note: A lot of broken and weathered rock was within sample.	25-27-R@6" (R)	9.4	40.8	35.8	23.4
		Field Note:, Rollercone, Cleaned out casing					
25		A-1-b, GrSa, Lt/gry, Moist, Rec. = 0.9 ft, Lab Note: Sample consisted almost entirely of broken and weathered rock.	40-45-R@8" (R)	9.7	36.3	45.8	17.9
		Hole stopped @ 25.7 ft					
		Remarks: Hole collapsed at 18.2 feet					

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
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2010 COPY 2 WILLISTON-ESSEX STP SGNL(46) GPJ VERMONT AOT.GDT 1/11/17



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 CENTRAL LABORATORY

**BORING LOG**

**Williston-Essex  
 STP SGNL(46)  
 VT 2A**

Boring No.: **B-112**  
 Page No.: **1 of 1**  
 Pin No.: **15t017**  
 Checked By: **ZMH**

Boring Crew: JUDKINS, GARROW, COLETTI  
 Date Started: 5/17/16 Date Finished: 5/17/16  
 VTSPG NAD83: N 733306.73 ft E 1489577.02 ft  
 Station: 232+71.30 Offset: -39.40  
 Ground Elevation: 506.0 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 CE = 1.41

Groundwater Observations		
Date	Depth (ft)	Notes
05/17/16	0.56	W.T. taken during

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
0.0 - 0.4	Concrete	Concrete, 0.0 ft - 0.4 ft					
1.1	A-4	A-4, GrSiSa, brn, Moist, Rec. = 1.1 ft Field Note:, Cleaned out casing with rollercone	1-2-3-4 (5)	20.1	23.3	40.6	36.1
3.0 - 5.0	Rec.	Rec. = 0.0 ft, 3.0 ft - 5.0 ft Field Note:, Cleaned out casing with rollercone	5-8-6-4 (14)				
1.7	A-4	A-4, SaSi, brn-gry, Moist, Rec. = 1.7 ft, Lab Note: Sample tested non-plastic. Field Note:, Cleaned out casing with rollercone	1-3-3-2 (6)	17.0	15.2	29.7	55.1
1.5	A-4	A-4, SaSi, gry-brn, Moist, Rec. = 1.5 ft Field Note:, Cleaned out casing with rollercone	1-3-8-15 (11)	13.8	16.9	29.8	53.3
1.8	A-4	A-4, SaSi, gry-brn, Moist, Rec. = 1.8 ft	19-18-17-15 (35)	12.3	18.5	27.6	53.9
1.2	A-2-4	A-2-4, SiSaGr, gry-brn, Moist, Rec. = 1.2 ft Field Note:, Cleaned out casing, NXDC	16-15-17-14 (32)	10.3	37.5	36.9	25.6
1.1	A-2-4	A-2-4, SiGrSa, gry-brn, Moist, Rec. = 1.1 ft	33-38-R@3.5" (R)	9.6	36.3	37.1	26.6
20.0	Field Note	Field Note:, Cobbles					
26.2	Field Note	Field Note:, Cleaned out casing, NXDC					
0.6	A-2-4	A-2-4, SiGrSa, gry, Moist, Rec. = 0.6 ft, Lab Note: Sample consisted mostly of weathered rock. Hole stopped @ 26.2 ft	13-33-R@2" (R)	10.3	35.6	36.7	27.7

Remarks:  
 Hole collapsed at 13.5 feet.

Notes:  
 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
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CENTRAL LABORATORY

BORING LOG

Williston-Essex  
STP SGNL(46)  
VT 2A

Boring No.: B-113

Page No.: 1 of 1

Pin No.: 15t017

Checked By: ZMH

Boring Crew: JUDKINS, GARROW  
Date Started: 5/16/16 Date Finished: 5/16/16  
VTSPG NAD83: N 733236.44 ft E 1489560.88 ft  
Station: 23+31.80 Offset: 31.40  
Ground Elevation: 507.3 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 CE = 1.41

Groundwater Observations

Date	Depth (ft)	Notes
05/16/16	4.0	W.T. taken during

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		A-2-4, SiSaGr, brn, Moist, Rec. = 1.2 ft	4-7-4-4 (11)	8.1	46.8	27.6	25.6
		A-4, SaSi, gry, Moist, Rec. = 1.5 ft	9-9-10-12 (19)	11.2	17.9	37.4	44.7
5		A-4, SaSi, gry-brn, Moist, Rec. = 1.6 ft	11-10-5-7 (15)	12.2	16.5	29.3	54.2
		A-4, SaSi, brn, Moist, Rec. = 1.7 ft	1-12-7-8 (19)	11.9	22.9	39.5	37.6
		Field Note:, Cleaned out casing					
		A-1-b, GrSiSa, brn, Moist, Rec. = 1.0 ft	17-13-21-15 (34)	9.7	37.4	38.3	24.3
10		Field Note:, Cleaned out casing					
		A-1-b, SiGrSa, gry, Moist, Rec. = 0.4 ft	25-R@3.5" (R)	9.0	48.2	30.0	21.8
		Field Note:, Cleaned out casing					
15		A-2-4, SiSaGr, gry, Moist, Rec. = 1.2 ft, Lab Note: Broken rock was within sample.	19-14-12-19 (26)	10.4	44.5	28.1	27.4
		Field Note:, Cleaned out casing					
20		A-2-4, SaSiGr, gry, Moist, Rec. = 1.2 ft, Lab Note: A lot of broken rock was within sample.	17-33-33-R@2" (66)	9.1	44.5	25.9	29.6
		Field Note:, Cleaned out casing					
25		Visual Description:, Broken rock, gry, Moist, Rec. = 0.1 ft, Lab Note: Insufficient sample size for testing.	R@1" (R)				
		Hole stopped @ 25.1 ft					
		Remarks: Hole collapsed at 14.0 feet. 1.) Moved hole due to utilities					

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
 <<SUB>><<SUB>> 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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STATE OF VERMONT  
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 CENTRAL LABORATORY

**BORING LOG**

**Williston-Essex  
 STP SGNL(46)  
 VT 2A**

Boring No.: **B-114**

Page No.: 1 of 1

Pin No.: 15t017

Checked By: ZMH

Boring Crew: NIETO, GARROW, COLETTI  
 Date Started: 5/18/16 Date Finished: 5/19/16  
 VTSPG NAD83: N 733498.54 ft E 1492820.82 ft  
 Station: 265+26.00 Offset: -34.70  
 Ground Elevation: 485.5 ft

Type: \_\_\_\_\_  
 I.D.: \_\_\_\_\_  
 Hammer Wt: \_\_\_\_\_  
 Hammer Fall: \_\_\_\_\_  
 Hammer/Rod Type: \_\_\_\_\_  
 Rig: \_\_\_\_\_

Casing: WB  
 Sampler: SS  
4 in 1.5 in  
N.A. 140 lb.  
N.A. 30 in.  
Auto/AWJ  
CME 55 TRACK CE = 1.41

Groundwater Observations		
Date	Depth (ft)	Notes
05/19/16	7.6	W.T before and after

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
5		A-2-4, SiSa, brn, Moist, Rec. = 1.6 ft, Lab Note: Grass and grass roots were within sample.	1-2-3-4 (5)	11.5	14.3	63.1	22.6
		A-2-4, SiSa, Lt/brn, Moist, Rec. = 1.8 ft	4-3-3-3 (6)	8.6	4.3	71.9	23.8
		A-4, SiSa, Lt/brn, Moist, Rec. = 1.9 ft	3-6-6-7 (12)	10.5		59.4	40.6
		A-4, SaSi, brn, Moist, Rec. = 1.7 ft	6-7-7-9 (14)	21.3	0.4	24.0	75.6
		A-4, Si, brn, Moist, Rec. = 1.6 ft	5-4-5-6 (9)	27.4		15.9	84.1
10		A-4, Si, brn, Moist, Rec. = 2.0 ft, Lab Note: Sample tested non-plastic. Sample had a very strong smell like sewer.	3-2-2-1 (4)	31.0	0.1	15.2	84.7
15		A-4, Si, brn, MTW, Rec. = 1.7 ft	1-WH-1-2 (1)	33.4		2.9	97.1
20		A-4, Si, brn, MTW, Rec. = 1.8 ft, Lab Note: Sample tested non-plastic.	WH-WH-WH-1 (0)	34.0		3.1	96.9
25		A-4, Si, brn, MTW, Rec. = 1.7 ft	1-1-1-WH (2)	35.9	0.2	3.6	96.2
30		A-4, Si, brn, MTW, Rec. = 1.3 ft	WH-WH-3-4 (3)	28.5		4.0	96.0
35		A-4, Si, brn, MTW, Rec. = 1.4 ft	WH-WH-WH-WH (0)	34.0		3.6	96.4
		Hole stopped @ 37.0 ft					
40		Remarks: Hole collapsed at 34.6 feet.					

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
 <<SUB>><<SUB>> 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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STATE OF VERMONT  
AGENCY OF TRANSPORTATION  
CONSTRUCTION AND  
MATERIALS BUREAU  
CENTRAL LABORATORY

BORING LOG

Williston-Essex  
STP SGNL(46)  
VT 2A

Boring No.: **B-115**

Page No.: 1 of 1

Pin No.: 15t017

Checked By: ZMH

Boring Crew: GARROW, NIETO

Date Started: 5/19/16 Date Finished: 5/19/16

VTSPG NAD83: N 733445.57 ft E 1492897.74 ft

Station: 265+93.60 Offset: 24.80

Ground Elevation: 487.2 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 55 TRACK CE = 1.41

Groundwater Observations

Date	Depth (ft)	Notes
05/19/16	7.7	W.T. after drilling.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
5		A-2-4, SiSa, Lt/brn-orange, Moist, Rec. = 1.4 ft, Lab Note: Grass and grass roots were within sample.	WH-WH-1-2 (1)	12.3			
		A-2-4, Sa, Lt/brn-orange, Moist, Rec. = 1.6 ft, Lab Note: Roots were within sample.	1-2-2-2 (4)	7.1		82.1	17.9
10		A-4, SiSa, Lt/brn, Moist, Rec. = 1.9 ft	3-4-4-4 (8)	10.7		69.2	30.8
		A-4, SiSa, Lt/brn, Moist, Rec. = 1.8 ft	5-5-5-5 (10)	11.7		65.1	34.9
		A-4, Si, Lt/brn, Moist, Rec. = 1.4 ft	4-5-6-8 (11)	24.1		11.3	88.7
		A-4, Si, Lt/brn, Moist, Rec. = 1.6 ft	6-3-3-3 (6)	24.4	0.3	13.4	86.3
15		A-4, Si, brn, Moist, Rec. = 1.4 ft	2-WH-1-1 (1)	26.0		9.8	90.2
20		A-4, Si, brn, Moist, Rec. = 1.7 ft, Lab Note: A thin layer of clay was within sample. Sample tested non-plastic.	1-1-WH-WH (1)	48.5		3.7	96.3
25		A-4, Si, brn-gry, Moist, Rec. = 1.0 ft, Lab Note: A small amount of clay was within sample. Sample tested non-plastic.	1-1-WH-WH (1)	35.6	0.1	6.9	93.1
		A-4, Si, gry, Moist, Lab Note: A small amount of clay was within sample. Sample tested non-plastic.		38.9		0.9	
30		A-4, Si, gry, Moist, Rec. = 1.5 ft, Lab Note: A small amount of clay was within sample. Sample tested non-plastic.	1-1-WH-WH (1)	33.1		2.8	97.2
35		A-4, Si, gry, Moist, Rec. = 1.2 ft, Lab Note: A small amount of clay was within sample. Sample tested non-plastic.	WH-1-2-2 (3)	30.3		5.6	94.4
Hole stopped @ 37.0 ft							
40		Remarks: Hole collapsed at 34.5 feet.					

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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