



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

BORING LOG

JOHNSON  
BRF 030-2(26)  
VT-15 BR-32

Boring No.: B-101

Page No.: 1 of 1

Pin No.: 88B193

Checked By: NSM

Boring Crew: PORTER, GARROW, WERNER  
Date Started: 4/04/11 Date Finished: 4/06/11  
VTSPG NAD83: N 780951.19 ft E 1582693.19 ft  
Station: 93+20 Offset: -35.80  
Ground Elevation: 488.59 ft

Casing Type: WB I.D.: 3 in Hammer Wt: N.A. Hammer Fall: N.A. Hammer/Rod Type: Auto/AWJ Rig: CME 45C TRACK  
Sampler SS 1.5 in 140 lb. 30 in. CE = 1.34

Groundwater Observations		
Date	Depth (ft)	Notes
04/05/11	8.8	AM
04/06/11	8.9	AM

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 %
		A-2-4, SiSa, brn, Moist, Rec. = 0.8 ft				2-3-4-4 (7)	12.8	20.0	59.9	20.1
		A-1-b, GrSa, brn, Moist, Rec. = 0.9 ft				1-2-3-5 (5)	9.5	29.0	54.0	17.0
		A-4, SaSi, brn, Moist, Rec. = 1.5 ft				3-2-2-2 (4)	19.4	3.0	44.2	52.8
		A-2-4, SiSa, brn, Moist, Rec. = 1.8 ft				3-3-3-3 (6)	17.1	2.0	71.4	26.6
		A-2-4, GrSa, brn, Wet, Rec. = 1.0 ft				4-10-11-9 (21)	17.2	22.5	61.5	16.0
10		A-1-a, SaGr, brn, Wet, Rec. = 0.8 ft, Lab Note: Sample was rusty-orange color while washing.				4-5-5-6 (10)	13.2	57.8	32.9	9.3
		A-1-a, SaGr, brn, Wet, Rec. = 0.7 ft, Lab Note: Sample was rusty-orange color while washing.				8-9-10-10 (19)	10.3	66.8	24.0	9.2
		A-1-b, GrSa, brn, Wet, Rec. = 0.8 ft				9-8-5-5 (13)	14.7	38.8	51.4	9.8
		A-1-b, GrSa, brn, Wet, Rec. = 1.0 ft				6-5-6-7 (11)	13.0	41.1	49.2	9.7
20		A-1-a, SaGr, brn, Wet, Rec. = 0.8 ft				8-9-13-13 (22)	10.4	52.9	36.4	10.7
		Field Note: No Recovery, Rock in end of sampler. Appears to be SaGr.				15-12-12-12 (24)				
		A-1-b, Sa, brn, MTW, Rec. = 1.0 ft				4-6-6-8 (12)	17.9	13.7	77.3	9.0
30		A-1-b, GrSa, brn, MTW, Rec. = 0.7 ft, Lab Note: Sample was mostly fine sand, but had two large stones that were included in the gradation.				8-12-9-14 (21)	18.9	24.0	72.9	3.1
		A-2-4, SiSa, brn, MTW, Rec. = 0.7 ft				5-8-10-12 (18)	24.6		65.0	35.0
40		A-4, SaSi, gry, MTW, Rec. = 1.0 ft					23.9		44.3	55.7
		A-4, Si, gry, MTW, Rec. = 1.1 ft				4-5-9-12 (14)	30.0		10.1	89.9
		A-4, GrSaSi, gry, MTW, Rec. = 0.6 ft					15.8	21.9	34.3	43.8
50		A-2-4, SiSa, gry, Wet, Rec. = 0.7 ft				5-10-15-15 (25)	22.2	5.4	63.2	31.4
		51.7 ft - 56.7 ft, Gray, Quartz-muscovite-chlorite Gneiss, Hard, Unweathered, Very good rock, BXDC	1 (40)	98 (88)	4 4 4 4					Top of Bedrock @ 51.7 ft
60		56.7 ft - 61.7 ft, Gray, Quartz-muscovite-chlorite Gneiss, Hard, Unweathered, Very good rock, BXDC	2 (40)	100 (98)	3 3 3 3					
		Hole stopped @ 61.7 ft			3					

BORING LOG 2 JOHNSON BRF 030-2(26) GPJ VERMONT AOT.GDT 7/18/11

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 LOG

JOHNSON  
BRF 030-2(26)  
VT-15 BR-32

Boring No.: B-102  
Page No.: 1 of 1  
Pin No.: 88B193  
Checked By: NSM

Boring Crew: PORTER, GARROW  
Date Started: 6/20/11 Date Finished: 6/20/11  
VTSPG NAD83: N 780902.65 ft E 1582687.80 ft  
Station: 93+05 Offset: 10.68  
Ground Elevation: 488.78 ft

Casing Type: AUGER  
Sampler Type: AUGER  
I.D.:  
Hammer Wt: N.A.  
Hammer Fall: N.A.  
Hammer/Rod Type:  
Rig: CME 45C SKID CE =

Groundwater Observations		
Date	Depth (ft)	Notes
06/20/11	8.9	

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Field Note:, Asphalt Pavement					
		Field Class:, GrSa, brn, Moist					
		Field Class:, SiSa, brn, Moist					
10							
		Field Class:, GrSiSa, brn, MTW					
20		Field Class:, SiSa, brn, Wet					
30							
		Field Class:, Cobbles, Wet					
40		Field Class:, SiSa, brn, Wet					
50							
		Field Class:, GrSa, brn, Wet					
		Field Note:, No Recovery					
60		Hole stopped @ 55.6 ft TLOB, CNPF					
		Remarks: 1. 20 feet of solid stem auger was lost in hole.					

BORING LOG 2 JOHNSON BRF 030-2(26).GPJ VERMONT.ADT.GDT 7/18/11

- Notes:
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BORING LOG

JOHNSON  
BRF 030-2(26)  
VT-15 BR-32

Boring No.: B-103

Page No.: 1 of 1

Pin No.: 88B193

Checked By: NSM

Boring Crew: WERNER, WHITLOCK, HOLT  
Date Started: 4/18/11 Date Finished: 4/25/11  
VTSPG NAD83: N 780959.34 ft E 1582749.14 ft  
Station: 93+75 Offset: -32.60  
Ground Elevation: 484.34 ft

Casing Type: WB  
Sampler Type: SS  
I.D.: 3 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

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 %
		A-2-4, SiSa, brn, Moist, Rec. = 0.4 ft				WH-WH-WH-2 (WH)	27.3	13.3	60.0	26.7
		A-1-a, SaGr, brn, Wet, Rec. = 0.7 ft, Broken rock was within sample.				3-7-7-4 (14)	13.5	58.6	34.0	7.4
10		A-3, Sa, brn, Wet, Rec. = 1.6 ft				6-2-3-3 (5)	24.8	5.3	87.3	7.4
		A-2-4, SiSa, brn, Wet, Rec. = 2.0 ft				4-3-2-4 (5)	23.8	1.0	74.6	24.4
20		A-2-4, Sa, brn, Wet, Rec. = 2.0 ft				1-2-3-4 (5)	22.1	4.5	77.4	18.1
		A-1-b, GrSa, brn, Wet, Rec. = 2.0 ft				22-13-11-10 (24)	17.6	27.1	63.3	9.6
30		A-2-4, Sa, brn, Wet, Rec. = 2.0 ft				19-10-8-10 (18)	18.0	16.7	69.7	13.6
		A-2-4, SiSa, brn, Wet, Rec. = 1.2 ft				3-4-3-4 (7)	24.9	8.7	56.9	34.4
40		A-4, SiSa, gry, Wet, Rec. = 1.4 ft				1-4-4-4 (8)	25.0	8.3	52.9	38.8
		A-2-4, SiSa, gry, Wet, Rec. = 0.9 ft				1-3-4-7 (7)	23.5	2.0	73.5	24.5
50		47.4 ft - 48.6 ft, Gray, Quartz-muscovite-chlorite Gneiss, Hard, Unweathered, Good rock, BXMDC, (RMR = 67)	1 (35)	67 (0)	6	Top of Bedrock @ 47.4 ft				
		48.6 ft - 52.4 ft, Gray, Quartz-muscovite-chlorite Gneiss, Hard, Unweathered, Good rock, BXMDC, (RMR = 77)	2 (35)	63 (61)	4					
		Hole stopped @ 52.4 ft			4					
					7					
					6					

Notes:  
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BORING LOG 2 JOHNSON BRF 030-2(26) GPJ VERMONT DOT.GDT 7/18/11



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BORING LOG

JOHNSON  
BRF 030-2(26)  
VT-15 BR-32

Boring No.: B-104

Page No.: 1 of 1

Pin No.: 88B193

Checked By: NSM

Boring Crew: PORTER, GARROW, WERNER  
Date Started: 4/07/11 Date Finished: 4/11/11  
VTSPG NAD83: N 780905.41 ft E 1582757.69 ft  
Station: 93+75 Offset: 22.00  
Ground Elevation: 488.1 ft

Casing Type: WB  
Sampler Type: SS  
I.D.: 3 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
04/08/11	9.5	AM
04/12/11	7.8	AM, After hard rain

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, GrSa, brn, Moist, Rec. = 0.4 ft				2-2-3-4 (5)	8.5	40.0	49.0	11.0	
		A-1-b, GrSa, brn, Moist, Rec. = 1.2 ft				2-6-5-3 (11)	9.8	33.7	50.1	16.2	
		Field Note: No Recovery., Sand on tip of sampler.				3-5-6-5 (11)					
		A-1-b, SaGr, brn, Wet, Rec. = 0.9 ft				3-4-4-5 (8)	10.8	46.0	45.3	8.7	
		Visual Classification, SaGr, brn, Wet, Rec. = 0.2 ft, Insufficient sample for testing. No water return at 9.5 ft.				9-6-4-2 (10)	13.9				
10		A-1-a, SaGr, gry, Wet, Rec. = 0.6 ft, Lots of broken rock was within sample.				2-14-26-24 (40)	11.8	63.2	23.9	12.9	
		Field Note: Sampler hit rock (cobble)				(NA)-3-2-2 (5)	19.5	18.8	68.1	13.1	
15		A-1-b, Sa, brn, Wet, Rec. = 0.4 ft, Lab Note: Sample was rusty-orange color.				2-4-4-4 (8)					
		Field Note: No Recovery.				2-3-8-9 (11)	16.5	32.4	55.4	12.2	
20		A-1-b, GrSa, brn, Wet, Rec. = 1.1 ft, Lab Note: Sample was rusty-orange color.				9-7-7-7 (14)	12.9	48.2	41.7	10.1	
		A-1-b, SaGr, brn, Wet, Rec. = 0.8 ft, Lab Note: Sample was rusty-orange color.									
25		A-2-4, SiSa, brn, Wet, Rec. = 1.0 ft				3-4-5-4 (9)	23.9		76.6	23.4	
30		A-4, SiSa, brn, Wet, Rec. = 1.4 ft				2-3-4-5 (7)	28.3		61.1	38.9	
35		31.2 ft - 36.2 ft, Gray, Quartz-muscovite-chlorite Gneiss, Milky white Quartz vein from 31.6 to 33.5 ft.. Hard, Unweathered, Very good rock, BXDC	1 (40)	100 (84)	5						
40		36.2 ft - 41.2 ft, Gray, Quartz-muscovite-chlorite Gneiss, Hard, Unweathered, Very good rock, BXDC	2 (40)	96 (96)	4						
Hole stopped @ 41.2 ft											

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BORING LOG 2 JOHNSON BRF 030-2(26) GPJ VERMONT AOT.GDT 7/18/11