



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

BORING LOG

CRAFTSBURY
 BO 1449(34)
 TH-4 BR-4

Boring No.: **B-101**

Page No.: 1 of 1

Pin No.: 13J100

Checked By: _____

Boring Crew: JUDKINS, HOOK, DAIGNEAULT

Date Started: 2/27/14 Date Finished: 2/27/14

VTSPG NAD83: N 787498.10 ft E 1678685.90 ft

Station: 12+00 Offset: -4.00

Ground Elevation: 1021.5 ft

Type: WB
 I.D.: 4 in
 Hammer Wt: N.A. N.A.
 Hammer Fall: N.A. N.A.
 Hammer/Rod Type: _____
 Rig: CME 45C SKID C_c = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
03/05/14	12.8	AM

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Groundwater Observations					
						Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	
5		Field Note: Drilled to find bedrock, No samples were taken.									
10											
15											
20											
25											
30											
35			34.0 ft - 39.0 ft, Dark-bluish-gray, Micaceous quartz-rich Limestone, Moderately hard, Unweathered, Poor rock, NXMDC, Quartz vein at 34.75 feet. RMR = 39	1 (30)	44 (0)	8	Top of Bedrock @ 34.0 ft				
						10					
						10					
						9					
						10					
40			Hole stopped @ 39.0 ft								
45			Remarks: 1. Hole collapsed at 17.0 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. 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 CRAFTSBURY BO 1449(34).GPJ VERMONT AOT.GDT 3/20/14



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CRAFTSBURY
 BO 1449(34)
 TH-4 BR-4

Boring No.: B-102
 Page No.: 1 of 1
 Pin No.: 13J100
 Checked By: _____

Boring Crew: JUDKINS, HOOK, DAIGNEAULT
 Date Started: 3/05/14 Date Finished: 3/05/14
 VTSPG NAD83: N 787589.50 ft E 1678714.10 ft
 Station: 12+93 Offset: 13.00
 Ground Elevation: 1027.0 ft

Casing Sampler
 Type: WB
 I.D.: 4 in
 Hammer Wt: N.A. N.A.
 Hammer Fall: N.A. N.A.
 Hammer/Rod Type: _____
 Rig: CME 45C SKID C = 1.33

Groundwater Observations		
Date	Depth (ft)	Notes
03/05/14	2.3	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:, Drilled to find bedrock, No samples were taken.								
10										
15										
20										
25		24.5 ft - 29.5 ft, Dark-bluish-gray, Micaceous quartz-rich Limestone, Moderately hard, Unweathered, Fair rock, NXMDC, Quartz vein at 26.9 feet. RMR = 44	1 (30)	94 (40)	3 4 5 6 4	Top of Bedrock @ 24.5 ft				
30		Hole stopped @ 29.5 ft								
35		Remarks: 1. Hole collapsed at 11.9 ft.								
40										
45										

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BORING LOG 2 CRAFTSBURY BO 1449(34).GPJ - VERMONT AOT.GDT 3/20/14



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CRAFTSBURY
BO 1449(34)
TH-4 BR-4

Boring No.: **B-103**

Page No.: 1 of 1

Pin No.: 13J100

Checked By: _____

Boring Crew: JUDKINS, HOOK, NIETO
Date Started: 1/31/14 Date Finished: 2/10/14
VTSPG NAD83: N 787581.20 ft E 1678684.90 ft
Station: 12+82 Offset: -16.00
Ground Elevation: 1025.0 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 45C TRACK C = 1.34

Groundwater Observations		
Date	Depth (ft)	Notes
02/10/14	9.5	AM
02/10/14	4.2	Casing removed.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RCD %)	Drill Rate minutes/ft	Groundwater Observations				
						Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
5		A-1-b, SiGrSa, Dk/brn, Moist, Rec. = 0.7 ft				2-1-1-1 (2)	28.6	33.2	44.3	22.5
		A-2-4, SiSa, Dk/brn, Moist, Rec. = 0.9 ft, NXDC, Cleaned out casing.				7-4-3-3 (7)	13.4	18.5	53.9	27.6
		A-2-4, GrSiSa, Dk/brn, MTW, Rec. = 0.6 ft, NXDC, Cleaned out casing.				7-2-2-2 (4)	16.3	23.2	50.2	26.6
		A-4, SiSa, Dk/brn, MTW, Rec. = 0.4 ft				3-8-17-21 (25)	16.6	18.3	41.2	40.5
		A-4, GrSiSa, Dk/brn, Moist, Rec. = 1.0 ft, NXDC, Cleaned out casing.				11-12-15-14 (27)	13.2	20.7	42.1	37.2
10		A-4, SiSa, Dk/brn, Moist, Rec. = 0.6 ft				33-33-31-R@2.5" (64)	11.2	16.4	43.7	39.9
		Field Note: NXDC, Cleaned out casing.				33-43-R@2.5" (R)	9.8	19.6	30.9	49.5
		Field Note: NXDC, Cleaned out casing.				25-46-R@5.0" (R)	10.5	18.6	27.1	54.3
		A-4, SaSi (HP), gry, Moist, Rec. = 1.2 ft				39-49-R@1.0" (R)	11.7	18.2	28.1	53.7
		Field Note: NXDC, Cleaned out casing.				43-R@6.0" (R)	14.8	7.5	21.9	70.6
20		A-4, SaSi (HP), gry, Moist, Rec. = 0.3 ft				40-46-R@1.0" (R)	13.0	16.2	24.8	59.0
		Field Note: NXDC, Cleaned out casing.								
25		24.0 ft - 25.0 ft, Bluish-gray, Micaceous quartz-rich Limestone, Moderately hard, Unweathered, Fair rock, NXDC, RMR = 44	1 (30)	90 (0)						
		25.0 ft - 29.0 ft, Dark-gray to silvery-gray, Lustrous, carbonaceous muscovite-biotite-quartz (+/- garnet) Phyllite, and Dark-bluish-gray Micaceous quartz-rich Limestone. Medium to moderately hard, Unweathered, Fair rock, NXDC, RMR = 49	2 (30)	95 (70)	6					
					4					
					4					
					5					
30		29.0 ft - 34.0 ft, Dark-gray to silvery-gray, Lustrous, carbonaceous muscovite-biotite-quartz (+/- garnet) Phyllite, and Dark-bluish-gray Micaceous quartz-rich Limestone. Medium to moderately hard, Unweathered, Fair rock, NXDC, RMR = 53	3 (30)	98 (86)	4					
					3					
					3					
					4					
35					3					
		Hole stopped @ 34.0 ft								

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CRAFTSBURY
BO 1449(34)
TH-4 BR-4

Boring No.: **B-104**

Page No.: 1 of 1

Pin No.: 13J100

Checked By: _____

Boring Crew: DAIGNEAULT, HOOK, JUDKINS
Date Started: 2/24/14 Date Finished: 2/26/14
VTSPG NAD83: N 787507.50 ft E 1678701.40 ft
Station: 12+12 Offset: 10.00
Ground Elevation: 1022.0 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_c = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
02/26/14	12.4	While drilling.
02/27/14	13.2	AM, Open Hole.

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, GrSiSa, brn, Moist, Rec. = 1.5 ft, Cleaned out casing with roller cone.				8-34-34-R@2.5" (68)	13.9	21.2	57.3	21.5
		A-2-4, SiSa, brn, Moist, Rec. = 0.9 ft				2-5-3-2 (8)	21.5	12.7	65.0	22.3
		A-2-4, SiSa, brn, Moist, Rec. = 1.1 ft, Cleaned out with roller cone.				2-1-1-2 (2)	16.2	12.1	63.0	24.9
		Field Note: Appears to be Silty Sand, No Recovery.				3-WR-1-1 (1)				
10		Field Note: Cleaned out casing with roller cone., Casing dropped to 9.5 feet during clean out. A-2-4, GrSiSa, brn, MTW, Rec. = 0.9 ft				12-2-2-3 (4)	24.8	21.7	51.4	26.9
		Field Note: NXDC, Lost water return at 12.5 ft.								
		Field Note: NXDC								
15		Field Note: NXMDC, Silty Sand (HP), Cleaned out casing.								
		A-1-a, SaGr (HP), gry, Moist, Rec. = 0.4 ft, Lab Note: Broken Rock was within sample.				10-R@3.5" (R)	8.9	60.3	26.2	13.5
25		Field Note: NXDC								
		Visual Description: Broken Rock with silt & sand, gry, Moist, Rec. = 0.2 ft, Insufficient sample for testing. Field Note: Cleaned out casing with roller cone.				R@3.5" (R)	7.2			
30		A-4, SaSi (HP), gry, Moist, Rec. = 1.1 ft				39-49-R@1.0" (R)	15.0	7.2	31.1	61.7
		Field Note: Cleaned out casing with roller cone.				R@1.0" (R)	15.5	60.3	27.7	12.0
35		Visual Classification, Broken Rock with sand, gry, Moist, Rec. = 0.1 ft, Lab Note: Sample was mostly small pieces of Broken Rock. Core bit broke off.	1 (30)	78 (24)	5					
		35.1 ft - 40.1 ft, Dark-gray to silvery-gray, Lustrous, carbonaceous muscovite-biotite-quartz (+/- garnet) Phyllite, and Dark-bluish-gray Micaceous quartz-rich Limestone. Medium to moderately hard, Unweathered, Fair rock, NXMDC, RMR = 53			6					
40		40.1 ft - 43.1 ft, Bluish-gray, Micaceous quartz-rich Limestone, Moderately hard, Unweathered, Fair rock, NXMDC, RMR = 58	2 (30)	87 (87)	4					
		Hole stopped @ 43.1 ft			4					
45		Remarks: 1. Hole collapsed at 23.1 ft. 2. Core barrel bit broke. Bit is still in hole at 43.1 ft.			6					
					3					

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