



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

BORING LOG

STOWE
 BHF 0235(11)
 VT-108 BR-2

Boring No.: **B-101**

Page No.: 1 of 1

Pin No.: 87E052

Checked By: _____

Boring Crew: JUDKINS, GARROW, NIETO
 Date Started: 1/14/14 Date Finished: 1/15/14
 VTSPG NAD83: N 716758.65 ft E 1591328.51 ft
 Station: 3+52 Offset: -10.80
 Ground Elevation: 703.43 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 C_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 | Groundwater Observations | | | | |
|-------------|------------|---|----------------|---------------------|-----------------------|--------------------------|--------------------|----------|--------|---------|
| | | | | | | Blows/6" (N Value) | Moisture Content % | Gravel % | Sand % | Fines % |
| 0.0 - 0.2 | | Field Note: No Recovery | | | | R@1.0" | | | | |
| 0.2 - 4.5 | | Field Note: NXDC, Cleaned out casing. | | | | | | | | |
| 4.5 - 9.0 | | A-1-b, SiSaGr, gry-brn, Moist, Rec. = 0.9 ft, Lab Note: Broken Rock was within sample. | | | | 4-3-4-6 (7) | 22.5 | 52.6 | 24.9 | 22.5 |
| 9.0 - 11.0 | | 9.0 ft - 11.0 ft, First two feet of run is possible Boulder.. NXMDC | 1 (70) | 100 (0) | 3 | | | | | |
| 11.0 - 12.0 | | 11.0 ft - 12.0 ft, Dark gray & black, Carbonaceous biotite-muscovite-quartz Phyllite, with quartz laminae. Moderately soft, Unweathered, Fair rock, RMR = 44 | | | 8 | | | | | |
| 12.0 - 17.0 | | 12.0 ft - 17.0 ft, Dark gray & black, Carbonaceous biotite-muscovite-quartz Phyllite, with quartz laminae. Moderately soft, Unweathered, Fair rock, NXMDC, RMR = 49 | 2 (70) | 96 (30) | 4 | | | | | |
| 17.0 - 19.0 | | 17.0 ft - 19.0 ft, Dark gray, Carbonaceous biotite-muscovite-quartz Phyllite, with quartz laminae. Moderately soft, Unweathered, Fair rock, NXMDC, RMR = 54 | 3 (70) | 90 (70) | 3 | | | | | |
| 19.0 - 20.0 | | Hole stopped @ 19.0 ft | | | | | | | | |
| 20.0 - 22.5 | | Remarks: 1. Drilling was performed from the bridge deck. 2. Asphalt Pavement depth was 0.20 ft. 3. Concrete depth was 0.90 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_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 STOWE BHF 0235(11).GPJ VERMONT AOT.GDT 1/31/14



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BORING LOG

STOWE
 BHF 0235(11)
 VT-108 BR-2

Boring No.: **B-102**

Page No.: 1 of 1

Pin No.: 87E052

Checked By: _____

Boring Crew: JUDKINS, GARROW, NIETO
 Date Started: 1/17/14 Date Finished: 1/17/14
 VTSPG NAD83: N 716764.62 ft E 1591346.47 ft
 Station: 3+48 Offset: 7.70
 Ground Elevation: 702.41 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_r = 1.46

| Groundwater Observations | | |
|--------------------------|------------|-----------------|
| Date | Depth (ft) | Notes |
| 01/17/14 | 2.0 | 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 % |
|---|------------|--|----------------|---------------------|-----------------------|--------------------|--------------------|----------|--------|---------|
| 2.5 | | A-1-b, SaGr, brn-gry, Moist, Rec. = 1.2 ft, Lab Note: Broken Rock was within sample. | | | | 25-11-4-3 (15) | 6.9 | 45.3 | 36.4 | 18.3 |
| 5.0 | | A-2-4, SiGrSa, white-brn, Moist, Rec. = 0.5 ft, Lab Note: Broken Rock was within sample. | | | | 4-3-10-8 (13) | 12.8 | 28.3 | 49.4 | 22.3 |
| 5.0 | | A-2-4, GrSiSa, brn-gry, Moist, Rec. = 1.1 ft, Lab Note: Broken Rock was within sample. | | | | 4-2-2-2 (4) | 28.3 | 24.2 | 42.7 | 33.1 |
| 7.5 | | A-1-b, SaGr, brn-gry, Moist, Rec. = 0.4 ft, Lab Note: Broken Rock was within sample. | | | | 4-10-R@0.0" (R) | 15.7 | 52.8 | 29.0 | 18.2 |
| 8.0 - 13.0 | | 8.0 ft - 13.0 ft, Grayish green, Chlorite-muscovite-quartz Phyllitic Schist, with quartzofeldspathic layers. Moderately soft, Unweathered, Fair rock, NXMDC, RMR = 58 | 1 (60) | 100 (84) | 6 | | | | | |
| 13.0 - 18.0 | | 13.0 ft - 18.0 ft, Grayish green, Chlorite-muscovite-quartz Phyllitic Schist, with quartzofeldspathic layers. Moderately soft, Unweathered, Fair rock, NXMDC, RMR = 58 | 2 (60) | 100 (80) | 3 | | | | | |
| Hole stopped @ 18.0 ft | | | | | | | | | | |
| Remarks: 1. Drilling was performed from the bridge deck. 2. Asphalt Pavement depth was 0.15 ft. 3. Concrete depth was 0.67 ft. 4. Hole collapsed at 7.0 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_r 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 STOWE BHF 0235(11).GPJ VERMONT AOT.GDT 1/31/14



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BORING LOG

STOWE
BHF 0235(11)
VT-108 BR-2

Boring No.: **B-103**

Page No.: 1 of 1

Pin No.: 87E052

Checked By: _____

Boring Crew: JUDKINS, GARROW, NIETO
Date Started: 1/13/14 Date Finished: 1/14/14
VTSPG NAD83: N 716867.87 ft E 1591265.66 ft
Station: 4+78 Offset: -9.30
Ground Elevation: 704.81 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 |
|----------|------------|-----------------|
| 01/14/14 | 2.7 | While drilling. |
| 01/14/14 | 1.1 | Hole collapsed. |

| 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, gry, Moist, Rec. = 1.3 ft, Lab Note: Mostly Broken Rock pieces (Phyllite). | | | | 30-17-5-2 (22) | 14.1 | 52.1 | 29.6 | 18.3 |
| | | A-1-a, SaGr, brn-gry, Moist, Rec. = 0.7 ft, Lab Note: Mostly Broken Rock pieces (Phyllite). | | | | 3-10-8-7 (18) | 10.1 | 56.5 | 31.9 | 11.6 |
| | | A-4, SaSi, gry-Lt/brn, Moist, Rec. = 1.3 ft | | | | 3-4-5-6 (9) | 18.4 | 6.3 | 39.0 | 54.7 |
| | | A-4, GrSaSi, gry-Lt/brn, Moist, Rec. = 1.2 ft, Lab Note: Broken Rock pieces (Phyllite) were within sample. | | | | 5-6-8-R@1.0" (14) | 16.7 | 22.1 | 35.2 | 42.7 |
| | | A-1-b, SiSaGr, gry-rust, Moist, Rec. = 0.3 ft, Lab Note: Broken & Weathered Rock pieces (Phyllite) were within sample. | | | | R@3.5" | 14.4 | 39.2 | 36.9 | 23.9 |
| 10 | | A-4, SaSi, gry, Moist, Rec. = 1.2 ft, Lab Note: Broken Rock pieces (Phyllite) were within sample. | | | | 9-7-7-7 (14) | 22.3 | 10.4 | 42.0 | 47.6 |
| | | A-4, GrSaSi, gry, Moist, Rec. = 1.5 ft, Lab Note: Broken Rock pieces (Phyllite) were within sample. | | | | 4-5-8-14 (13) | 16.4 | 30.5 | 33.5 | 36.0 |
| | | A-1-b, SaGr, gry, Moist, Rec. = 1.4 ft, Lab Note: Broken Rock pieces (Phyllite) were within sample. | | | | 32-36-R@5.0" (R) R@1.0" | 11.9 | 50.9 | 31.9 | 17.2 |
| 20 | | Visual Description: Broken Rock pieces (Phyllite), gry, Moist, Rec. = 0.1 ft | 1 (60) | 80 (0) | 5 | | | | | |
| | | 16.1 ft - 21.1 ft, Dark gray, Carbonaceous biotite-muscovite-quartz Phyllite, with quartz laminae. Moderately soft, Fair rock, NXMDC, Upper part of Run was Unweathered. Lower part of Run was Moderately Weathered. RMR = 44 | | | | | | | | |
| 25 | | 21.1 ft - 26.1 ft, Dark gray, Carbonaceous biotite-muscovite-quartz Phyllite, with quartz laminae. Moderately soft, Unweathered, Fair rock, NXMDC, RMR = 54 | 2 (60) | 100 (60) | 4 | | | | | |
| | | | | | 5 | | | | | |
| | | | | | 6 | | | | | |
| | | | | | 5 | | | | | |
| | | | | | 6 | | | | | |
| Hole stopped @ 26.1 ft | | | | | | | | | | |
| 30 | | Remarks: 1. Drilling was performed from the bridge deck. 2. Asphalt Pavement depth was 0.13 ft. 3. Concrete depth was 0.97 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.

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BORING LOG

STOWE
BHF 0235(11)
VT-108 BR-2

Boring No.: **B-104**

Page No.: **1 of 1**

Pin No.: **87E052**

Checked By: _____

Boring Crew: JUDKINS, GARROW, NIETO

Date Started: 1/16/14 Date Finished: 1/16/14

VTSPG NAD83: N 716874.09 ft E 1591282.08 ft

Station: 4+75 Offset: 8.00

Ground Elevation: 706.87 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 C_c = 1.46

Groundwater Observations

Date Depth (ft) Notes

01/16/14 17.5 While drilling.

| Depth (ft) | Strata (1) | CLASSIFICATION OF MATERIALS (Description) | Run (Dip deg.) | Core Rec. % (RCD %) | Drill Rate minutes/ft | Blows/6" (N Value) | Moisture Content % | Gravel % | Sand % | Fines % |
|------------|------------|--|----------------|---------------------|-----------------------|--------------------|--------------------|----------|--------|---------|
| | | Field Note:, NXDC, Cleaned out casing | | | | | | | | |
| 5 | | A-4, SaGrSi, Lt/brn, Moist, Rec. = 1.0 ft, Lab Note: Broken Rock was within sample. | | | | 6-2-2-5 (4) | 23.9 | 31.4 | 26.6 | 42.0 |
| | | A-4, SaSi, Lt/brn, Moist, Rec. = 1.3 ft, Lab Note: Sample was rust colored. | | | | 1-1-2-2 (3) | 34.1 | 7.3 | 39.6 | 53.1 |
| 10 | | A-1-b, SaGr, gry, Moist, Rec. = 0.7 ft, Lab Note: Sample was mostly Broken Rock pieces (Phyllite). | | | | 15-R@3.5" (R) | 11.8 | 44.7 | 39.4 | 15.9 |
| 15 | | Field Note:, NXDC, Cobbles & Boulders, Cleaned out casing. | | | | | | | | |
| | | A-1-b, SiSaGr, gry, Moist, Rec. = 1.4 ft, Lab Note: Broken Rock was within sample. | | | | 7-13-11-19 (24) | 13.7 | 45.0 | 34.7 | 20.3 |
| 20 | | Field Note:, NXDC, Cobbles, Cleaned out casing. | | | | | | | | |
| 25 | | 21.0 ft - 26.0 ft, Grayish green, Chlorite-muscovite-quartz Phyllitic Schist, with quartzofeldspathic layers. Moderately soft, Unweathered, Fair rock, NXMDC, RMR = 49 | 1 | 96 (44) | 4 | | | | | |
| | | 26.0 ft - 31.0 ft, Grayish green, Chlorite-muscovite-quartz Phyllitic Schist, with quartzofeldspathic layers. Moderately soft, Unweathered, Fair rock, NXMDC, RMR = 49 | 2 | 100 (36) | 4 | | | | | |
| 30 | | | | | 3 | | | | | |
| | | | | | 3 | | | | | |
| | | | | | 3 | | | | | |
| | | | | | 4 | | | | | |
| | | Hole stopped @ 31.0 ft | | | | | | | | |
| 35 | | Remarks: 1. Drilling was performed from the bridge deck. 2. Asphalt Pavement depth was 0.15 ft. 3. Concrete depth was 0.85 ft. | | | | | | | | |

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