



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

**BORING LOG**

**Londonderry-Chester  
 STP PS19(10)  
 VT-11**

Boring No.: **B-171b**  
 Page No.: 1 of 1  
 Pin No.: 16v121  
 Checked By: SPM

Boring Crew: Gonyaw, Judkins, Olden  
 Date Started: 7/25/17 Date Finished: 7/25/17  
 VTSPG NAD83: N 279759.57 ft E 1609508.18 ft  
 Station: mm 3.97 Offset: -11.60  
 Ground Elevation: \_\_\_\_\_

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 CE = 1.42

| Groundwater Observations |            |                      |
|--------------------------|------------|----------------------|
| Date                     | Depth (ft) | Notes                |
| 07/25/17                 | 1.0        | 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 % |
|------------|------------|--|----------------|---------------------|-----------------------|--------------------|--------------------|----------|--------|---------|
| 0.0 - 0.95 |            | Asphalt Pavement, 0.0 ft - 0.95 ft   |                |                     |                       |                    |                    |          |        |         |
| 2.5        |            | A-1-b, SaGr, brn, Moist, Rec. = 1.0 ft, Lab Note: Broken and weathered rock was within sample  |                |                     |                       | 9-7-8-7 (15)       | 11.1               | 46.3     | 43.0   | 10.7    |
|            |            | A-1-b, SaGr, brn, Moist, Rec. = 0.7 ft, Lab Note: Broken and weathered rock was within sample  |                |                     |                       | 20-R@3.5" (R)      | 10.2               | 49.6     | 38.4   | 12.0    |
|            |            | Field Note:, NXDC, Cleaned out casing  |                |                     |                       |                    |                    |          |        |         |
| 5.0        |            | A-1-a, SaGr, gry, Moist, Rec. = 0.2 ft, Lab Note: Broken and weathered rock was within sample<br>Field Note:, NXDC, Cleaned out casing   |                |                     |                       | R@3.5" (R)         | 7.3                | 67.6     | 26.0   | 6.4     |
| 7.5        |            | A-1-b, SaGr, gry, Moist, Lab Note: Broken and weathered rock was within sample   | 1 (70)         | 98 (67)             | 5                     | R@2.5" (R)         | 8.8                | 49.8     | 37.1   | 13.1    |
|            |            | 7.2 ft - 11.2 ft, Dark gray-black, Biotite-quartz GNEISS, with zones of biotite and quartz that are thinly banded with zones of quartz and biotite. At 7.8 feet, a 0.75 inch thick band of quartz and carbonate cuts through core. Joints are rough. Very hard, Unweathered, Good rock, NX, RMR=61 |                |                     | 3                     |                    |                    |          |        |         |
|            |            |  |                |                     | 3                     |                    |                    |          |        |         |
|            |            |  |                |                     | 6                     |                    |                    |          |        |         |
| 12.5       |            | 11.2 ft - 12.2 ft, Dark gray-black, Biotite-quartz GNEISS, with zones of biotite and quartz that are thinly banded with zones of quartz and biotite. Joints are rough. Very hard, Unweathered, Good rock, NX, RMR=61   | 2 (70)         | 100 (100)           | 4                     |                    |                    |          |        |         |
|            |            | 12.2 ft - 15.8 ft, Black, Biotite GNEISS, with zones of biotite that are thinly banded with zones of quartz+/-carbonate and biotite. Very hard, Unweathered, Good rock, NX, RMR=64   | 3 (70)         | 100 (94)            | 4                     |                    |                    |          |        |         |
|            |            |  |                |                     | 4                     |                    |                    |          |        |         |
|            |            |  |                |                     | 4                     |                    |                    |          |        |         |
| 15.0       |            | 15.8 ft - 17.2 ft, Dark gray, Quartz-biotite GNEISS, with a roughly 0.75 inch thick band of carbonate bearing quartz that cuts across the core. Very hard, Unweathered, Good rock, RMR=64  |                |                     | 7                     |                    |                    |          |        |         |
|            |            |  |                |                     | 6                     |                    |                    |          |        |         |
| 17.5       |            | Hole stopped @ 17.2 ft   |                |                     |                       |                    |                    |          |        |         |
| 20.0       |            | Remarks:<br>Hole collapsed at 5.9 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.