

# BORING LOG INFORMATION

BORING LOG		Boring No.:																																																																																																																
Project Name		B-10																																																																																																																
Springfield STP 016-2 (10)S		Page No.: 2 of 2																																																																																																																
Springfield, VT		File No.: 750-03.3																																																																																																																
Checked By: RSA																																																																																																																		
Boring Company: M and W Soils Engineering Foreman: Mike Hitchcock GeoDesign Rep.: Jason Casella Date Started: April 23, 2021 Date Finished: Apr 28, 01 N. Coordinate: E. Coordinate: Ground Surface Elevation (feet): 456.2 Other: #		Casing: 3.0 in. Sampler: 2.0 in. Date and Time: Hammer Wt.: NA, 140 lbs. 4/23/21 11:45 AM Depth (ft): 4.9 Elevation (ft): 491.0 Notes: Casing Rig Type: Mobile Drill B-47 Track																																																																																																																
<table border="1"> <thead> <tr> <th colspan="2">Sample Information</th> <th>Sample Description</th> <th>Strata Description</th> </tr> <tr> <th>Depth (ft)</th> <th>Blows / 6 inch interval</th> <th></th> <th></th> </tr> <tr> <th>0-6</th> <th>6-12</th> <th>12-18</th> <th>18-24</th> </tr> </thead> <tbody> <tr> <td>2.0</td> <td>25</td> <td></td> <td></td> </tr> <tr> <td>4.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>6.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>8.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>10.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>12.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>14.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>16.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>18.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>20.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>22.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>24.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>26.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>28.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>30.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>32.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>34.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>36.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>38.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>40.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>42.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>44.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>46.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>48.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>50.0</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Sample Information		Sample Description	Strata Description	Depth (ft)	Blows / 6 inch interval			0-6	6-12	12-18	18-24	2.0	25			4.0				6.0				8.0				10.0				12.0				14.0				16.0				18.0				20.0				22.0				24.0				26.0				28.0				30.0				32.0				34.0				36.0				38.0				40.0				42.0				44.0				46.0				48.0				50.0				C2 Rock type similar to above, except moderate fracturing, fresh.	Bedrock (Phyllite/Schist/Quartzite) (Continued)
Sample Information		Sample Description	Strata Description																																																																																																															
Depth (ft)	Blows / 6 inch interval																																																																																																																	
0-6	6-12	12-18	18-24																																																																																																															
2.0	25																																																																																																																	
4.0																																																																																																																		
6.0																																																																																																																		
8.0																																																																																																																		
10.0																																																																																																																		
12.0																																																																																																																		
14.0																																																																																																																		
16.0																																																																																																																		
18.0																																																																																																																		
20.0																																																																																																																		
22.0																																																																																																																		
24.0																																																																																																																		
26.0																																																																																																																		
28.0																																																																																																																		
30.0																																																																																																																		
32.0																																																																																																																		
34.0																																																																																																																		
36.0																																																																																																																		
38.0																																																																																																																		
40.0																																																																																																																		
42.0																																																																																																																		
44.0																																																																																																																		
46.0																																																																																																																		
48.0																																																																																																																		
50.0																																																																																																																		
(20.4-30.8'): Rock cored using BX (1.42" diameter) core barrel sampler.																																																																																																																		

BORING LOG		Boring No.:																																																																												
Project Name		B-11																																																																												
Springfield STP 016-2 (10)S		Page No.: 1 of 2																																																																												
Springfield, VT		File No.: 750-03.3																																																																												
Checked By: RSA																																																																														
Boring Company: M and W Soils Engineering Foreman: Mike Hitchcock GeoDesign Rep.: Jason Casella Date Started: April 24, 2021 Date Finished: Apr 28, 01 N. Coordinate: E. Coordinate: Ground Surface Elevation (feet): 457.7 Other: #		Casing: 3.25 in. Sampler: 2.0 in. Date and Time: Hammer Wt.: NA, 140 lbs. 4/24/21 10:30 AM Depth (ft): 13.0 Elevation (ft): 450.7 Notes: Casing Rig Type: Mobile Drill B-47 Track																																																																												
<table border="1"> <thead> <tr> <th colspan="2">Sample Information</th> <th>Sample Description</th> <th>Strata Description</th> </tr> <tr> <th>Depth (ft)</th> <th>Blows / 6 inch interval</th> <th></th> <th></th> </tr> <tr> <th>0-6</th> <th>6-12</th> <th>12-18</th> <th>18-24</th> </tr> </thead> <tbody> <tr> <td>0.5</td> <td>1</td> <td>2</td> <td>2</td> </tr> <tr> <td>2.0</td> <td>5</td> <td>9</td> <td>11</td> </tr> <tr> <td>4.0</td> <td>6</td> <td>6</td> <td>5</td> </tr> <tr> <td>6.0</td> <td>8</td> <td>5</td> <td>3</td> </tr> <tr> <td>8.0</td> <td>2</td> <td>2</td> <td>1</td> </tr> <tr> <td>10.0</td> <td>3</td> <td>1</td> <td>1</td> </tr> <tr> <td>12.0</td> <td>4</td> <td>4</td> <td>7</td> </tr> <tr> <td>14.0</td> <td>5</td> <td>18</td> <td>23</td> </tr> <tr> <td>16.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>18.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>20.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>22.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>24.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>26.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>28.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>30.0</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Sample Information		Sample Description	Strata Description	Depth (ft)	Blows / 6 inch interval			0-6	6-12	12-18	18-24	0.5	1	2	2	2.0	5	9	11	4.0	6	6	5	6.0	8	5	3	8.0	2	2	1	10.0	3	1	1	12.0	4	4	7	14.0	5	18	23	16.0				18.0				20.0				22.0				24.0				26.0				28.0				30.0				S1 Loose, brown, fine to medium SAND, some SILT, trace Roots S2 Medium dense, light brown, fine to coarse SAND, little SILT, trace Gravel S3 Top 8" Medium dense, similar to SS sample S2 Bottom 4" Greenish gray, fine to medium SAND, some Silt with oxidized partings S4 Loose, no recovery S5 Loose, brown, fine to coarse SAND, little Gravel, trace Silt S6 Loose, green brown, SILT and fine to medium SAND, trace wood/roof Fibers S7 Medium dense, greenish brown, fine to medium SAND, some Silt, trace fine Gravel S8 Dense, greenish brown, SILT, some fine Sand Bottom 2" layered (1/8" thick) S9 Very dense, similar to above, layered with fine to medium SAND	463.2 Top Soil 0.5 Fine to Coarse Sandy Fill 456.2 5.5 Gravely Sandy Fill 451.7 12.0 Disturbed Glacial Till 450.7 13.0 Layered Silty Fine Sands
Sample Information		Sample Description	Strata Description																																																																											
Depth (ft)	Blows / 6 inch interval																																																																													
0-6	6-12	12-18	18-24																																																																											
0.5	1	2	2																																																																											
2.0	5	9	11																																																																											
4.0	6	6	5																																																																											
6.0	8	5	3																																																																											
8.0	2	2	1																																																																											
10.0	3	1	1																																																																											
12.0	4	4	7																																																																											
14.0	5	18	23																																																																											
16.0																																																																														
18.0																																																																														
20.0																																																																														
22.0																																																																														
24.0																																																																														
26.0																																																																														
28.0																																																																														
30.0																																																																														
(0): Ground surface elevation was determined by survey. Location is estimated from topographic base plan based on locations taped from existing features and plotted by GeoDesign. (5-8): Observed slight grinding resistance through gravel/cobble. (17-18): Obstructions observed during HSA auger advance (cobble)																																																																														

BORING LOG		Boring No.:																																																																												
Project Name		B-11																																																																												
Springfield STP 016-2 (10)S		Page No.: 2 of 2																																																																												
Springfield, VT		File No.: 750-03.3																																																																												
Checked By: RSA																																																																														
Boring Company: M and W Soils Engineering Foreman: Mike Hitchcock GeoDesign Rep.: Jason Casella Date Started: April 24, 2021 Date Finished: Apr 28, 01 N. Coordinate: E. Coordinate: Ground Surface Elevation (feet): 457.7 Other: #		Casing: 3.25 in. Sampler: 2.0 in. Date and Time: Hammer Wt.: NA, 140 lbs. 4/24/21 10:30 AM Depth (ft): 13.0 Elevation (ft): 450.7 Notes: Casing Rig Type: Mobile Drill B-47 Track																																																																												
<table border="1"> <thead> <tr> <th colspan="2">Sample Information</th> <th>Sample Description</th> <th>Strata Description</th> </tr> <tr> <th>Depth (ft)</th> <th>Blows / 6 inch interval</th> <th></th> <th></th> </tr> <tr> <th>0-6</th> <th>6-12</th> <th>12-18</th> <th>18-24</th> </tr> </thead> <tbody> <tr> <td>0.5</td> <td>25</td> <td></td> <td></td> </tr> <tr> <td>2.0</td> <td>30</td> <td></td> <td></td> </tr> <tr> <td>4.0</td> <td>30</td> <td></td> <td></td> </tr> <tr> <td>6.0</td> <td>30</td> <td></td> <td></td> </tr> <tr> <td>8.0</td> <td>30</td> <td></td> <td></td> </tr> <tr> <td>10.0</td> <td>30</td> <td></td> <td></td> </tr> <tr> <td>12.0</td> <td>30</td> <td></td> <td></td> </tr> <tr> <td>14.0</td> <td>30</td> <td></td> <td></td> </tr> <tr> <td>16.0</td> <td>30</td> <td></td> <td></td> </tr> <tr> <td>18.0</td> <td>30</td> <td></td> <td></td> </tr> <tr> <td>20.0</td> <td>30</td> <td></td> <td></td> </tr> <tr> <td>22.0</td> <td>30</td> <td></td> <td></td> </tr> <tr> <td>24.0</td> <td>30</td> <td></td> <td></td> </tr> <tr> <td>26.0</td> <td>30</td> <td></td> <td></td> </tr> <tr> <td>28.0</td> <td>30</td> <td></td> <td></td> </tr> <tr> <td>30.0</td> <td>30</td> <td></td> <td></td> </tr> </tbody> </table>	Sample Information		Sample Description	Strata Description	Depth (ft)	Blows / 6 inch interval			0-6	6-12	12-18	18-24	0.5	25			2.0	30			4.0	30			6.0	30			8.0	30			10.0	30			12.0	30			14.0	30			16.0	30			18.0	30			20.0	30			22.0	30			24.0	30			26.0	30			28.0	30			30.0	30			S10 Very dense, green brown, fine to medium SAND, little to some Silt S11 Very dense, greenish brown, fine to medium SAND, some Silt, trace fine Gravel S12 Very dense, similar to SS sample S11 except little Silt S13 Very dense, similar to SS sample S12	433.7 Layered Silty Fine Sands (Continued) 30.0 Glacial Till with cobbles and boulders. 423.2 Probable Bedrock 421.7 Bottom of Borehole at 41.0 ft
Sample Information		Sample Description	Strata Description																																																																											
Depth (ft)	Blows / 6 inch interval																																																																													
0-6	6-12	12-18	18-24																																																																											
0.5	25																																																																													
2.0	30																																																																													
4.0	30																																																																													
6.0	30																																																																													
8.0	30																																																																													
10.0	30																																																																													
12.0	30																																																																													
14.0	30																																																																													
16.0	30																																																																													
18.0	30																																																																													
20.0	30																																																																													
22.0	30																																																																													
24.0	30																																																																													
26.0	30																																																																													
28.0	30																																																																													
30.0	30																																																																													
(34): Grinding resistance observed through dense till layer on possible cobbles/gravel. (Through to 35' depth - attempted SS sample). (39-5): Hard drilling resistance during HSA auger advance on possible small boulder/cobble (40-5): Hard drilling resistance during HSA auger advance on possible bedrock. HSA refusal at 42'.																																																																														

BORING LOG		Boring No.:																																																				
Project Name		B-12																																																				
Springfield STP 016-2 (10)S		Page No.: 1 of 4																																																				
Springfield, VT		File No.: 750-03.3																																																				
Checked By: RSA																																																						
Boring Company: M and W Soils Engineering Foreman: Mike Hitchcock GeoDesign Rep.: Andrew Ellis Date Started: May 1, 2021 Date Finished: May 1, 01 N. Coordinate: E. Coordinate: Ground Surface Elevation (feet): 456.5 Other: #		Casing: 3.0 in. Sampler: 2.0 in. Date and Time: Hammer Wt.: NA, 140 lbs. 5/1/21 12:00 AM Depth (ft): 30.0 Elevation (ft): 478.5 Notes: Casing Rig Type: Mobile Drill																																																				
<table border="1"> <thead> <tr> <th colspan="2">Sample Information</th> <th>Sample Description</th> <th>Strata Description</th> </tr> <tr> <th>Depth (ft)</th> <th>Blows / 6 inch interval</th> <th></th> <th></th> </tr> <tr> <th>0-6</th> <th>6-12</th> <th>12-18</th> <th>18-24</th> </tr> </thead> <tbody> <tr> <td>6.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>12.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>15.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>18.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>20.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>22.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>24.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>26.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>28.0</td> <td></td> <td></td> <td></td> </tr> <tr> <td>30.0</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Sample Information		Sample Description	Strata Description	Depth (ft)	Blows / 6 inch interval			0-6	6-12	12-18	18-24	6.0				12.0				15.0				18.0				20.0				22.0				24.0				26.0				28.0				30.0				+/- 8" Brown, Sandy GRAVEL with cobbles +/- 12" Gray SILT and Fine Sand S1 Dense, brown, sandy GRAVEL, little gray Silt S2 Dense to very dense, similar as SS sample S1, except some cobbles	498.5 8.0 Fine Sand and Silts
Sample Information		Sample Description	Strata Description																																																			
Depth (ft)	Blows / 6 inch interval																																																					
0-6	6-12	12-18	18-24																																																			
6.0																																																						
12.0																																																						
15.0																																																						
18.0																																																						
20.0																																																						
22.0																																																						
24.0																																																						
26.0																																																						
28.0																																																						
30.0																																																						
(0): Ground surface elevation was determined by survey. Location is estimated from topographic base plan based on locations taped from existing features and plotted by GeoDesign. (0-15): Soil classification is based on visual observation of HSA cuttings. (0-19.5): HSA augered (3.25" I.D.) to 19.5' prior to installing NW casing. (0-19.5): Installed NW casing to 19.5'. Roller bit used to flush out hole prior to advancement.																																																						