

VT		STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH SECTION SUBSURFACE INFORMATION		BORING NUMBER: B302a SHEET 1 of 8 DATE STARTED: 6/03/13 DATE COMPLETED: 6/04/13						
PROJECT NAME: Newport City STP 134-3(22) SITE NAME: Route 191 Landslide STATION: - OFFSET: - VTSR#: N 888103.78 ft E 1721020.69 ft		PROJECT NUMBER: GA1 133-87312 SITE NUMBER: - GROUND ELEVATION: 834.33 ft GROUNDWATER DEPTH: 35.0 ft 6/04/13 PROJECT PIN NUMBER: -		The actual location of this boring is shown on the plan view of the boring log.						
BORING CREW: Boart Longyear DRILLER: Jason Koering LOGGER: Helena Hollauer BORING RIG: 600T Sonic		BORING TYPE: Sonic SAMPLE TYPE: Continuous Core HAMMER TYPE: N/A CHECKED BY: -								
DEPTH (ft)	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	WELL DIAGRAM	BLOWS PER FT IN VALUE	M.C. (%)	AASHTO GRAVEL (%)	AASHTO SAND (%)	AASHTO FINES (%)	LL (%)	PI (%)
0.0 ft - 1.0 ft		Dark brown to black, wet, TOPSOIL.								
1.0 ft - 2.0 ft		A-4, dark brown, wet, silt-gravel, (SM).								
2.0 ft - 10.0 ft		A-4, gray-brown and gray, med. silty, fine to medium SAND, trace gravel, trace clay, gravel is rounded to subangular, (SM).								
10.0 ft - 19.0 ft		A-4, dark gray, dry, SILT, some fine sand, little gravel, (ML).			7.3	14.1	24.2	61.7		
19.0 ft - 19.3 ft		A-4, dark gray, damp, SILT, some fine SAND, 3/4" thick, (ML).								
19.3 ft - 22.0 ft		A-4, gray, dry, SILT, some fine sand, little gravel, fine clay, (ML).								
22.0 ft - 35.0 ft		A-4, dark gray, dry, SILT, some fine sand, little clay, grading at about 30' to same but slight increase medium sand, A-4, trace gravel, (ML).			14.3	2.0	23.0	75.0		

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PROJECT NAME: Newport City STP 134-3(22) SITE NAME: Route 191 Landslide STATION: - OFFSET: - VTSR#: N 888103.78 ft E 1721020.69 ft		PROJECT NUMBER: GA1 133-87312 SITE NUMBER: - GROUND ELEVATION: 834.33 ft GROUNDWATER DEPTH: 35.0 ft 6/04/13 PROJECT PIN NUMBER: -		The actual location of this boring is shown on the plan view of the boring log.						
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35.0 ft - 35.1 ft		A-4, brown-gray, fine to medium SAND (clean), (SP).								
35.1 ft - 36.0 ft		A-4, dark gray, dry to damp, dense, silty, fine to medium SAND, little gravel, (SM).								
36.0 ft - 44.0 ft		A-4, dark gray, dry, silty, fine SAND, little gravel, (SM). Brown, dense, medium sand layers at approx. 39', 43', and 44'.								
44.0 ft - 46.0 ft		A-4, dark gray, dry, medium dense, silty, fine SAND, little gravel. Presence of clean brown sand. (SM). Relatively softer (medium dense) than 36' to 44'.								
46.0 ft - 60.0 ft		A-4, dark gray, dry, very dense, SILT, little fine sand, grading to dark gray.								

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60.0 ft - 74.0 ft		A-4, dark gray, dry, fine to medium SAND, some gravel, some silt, (SM).			11.2	0.0	12.3	87.7	21	1
74.0 ft - 79.0 ft		A-4, dark gray, dry, silty, fine to medium SAND, some gravel, some silt, (SM).								
79.0 ft - 81.0 ft		A-4, dark gray, dry, silty, fine to medium SAND, some gravel, some silt, (SM).								
81.0 ft - 81.2 ft		A-4, dark gray, dry, silty, fine to medium SAND, some gravel, some silt, (SM).			8.1	26.8	45.0	28.2		

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81.2 ft - 81.5 ft		CL, silty sandstone +/- silty on silty surfaces.								
81.5 ft - 82.5 ft		A-4, dark gray and light gray, dry, SILT with siltstones, little sand, trace gravel, (ML).								
82.5 ft - 93.0 ft		Cobbles								
93.0 ft - 98.0 ft		A-4, brown-gray, dry, silty, fine to coarse SAND, trace gravel. At 94' grad to gray-brown, fine to coarse SAND, some gravel, some silt, (SM).			18.3	1.3	16.4	82.3		
98.0 ft - 104.0 ft		A-4, gray-brown, dry, fine to coarse SAND, some gravel, some silt, (SM).								

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104.0 ft - 108.0 ft		A-4, dark gray, dry, fine sandy SILT, trace gravel, siltstones, (ML).			7.0	22.8	45.8	31.4		
108.0 ft - 110.0 ft		A-4, dark gray and black, dry to damp, silty, fine to coarse SAND, little gravel, (SM).								
110.0 ft - 117.0 ft		A-4, medium brown, dry to damp, the sandy SILT, trace gravel, (ML).								
117.0 ft - 121.0 ft		A-4, medium brown, dry, SILT, some SAND, trace gravel to SILT, (ML).			13.7	4.8	25.3	70.1		
121.0 ft - 125.0 ft		A-4, medium brown, trace black layers, dry, the sandy SILT, trace gravel, trace clay, (MH).								

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125.0 ft - 127.0 ft		A-4, orange-brown and dark gray, dry to damp, varved SILT, (CH-MH). Banded color a few mm thick. Same material, different color.								
127.0 ft - 128.0 ft		A-4, orange-brown and dark gray, dry to damp, varved the SAND and SILT trace gravel, (CH-MH). Banded color not as apparent.								
128.0 ft - 138.0 ft		A-4, orange brown, damp, SILT, (CH-MH).								
138.0 ft - 146.0 ft		A-4, dark gray, dry, SILT, some gravel (weathered subangular phyllite), little fine to coarse sand, (MH).								
146.0 ft - 150.0 ft		A-4, dark gray and orange-brown, dry, varved SILT, siltstones, (MH).			32.2	0.0	0.9	99.1	61	29

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150.0 ft - 150.0 ft		A-4, dark brown, moist, soft, SILT, trace sand, (ML). 150' = 125, 150, 150, 125 soft 150' = 125, 150, 150, 125 soft 150' = 125, 150, 150, 125 soft			28.3	0.0	8.8	91.4		
150.0 ft - 156.0 ft		A-4, alternating dark brown, dry to damp, SILT, with orange-brown fine to medium sand layers +/- 12" thick, (ML).								
156.0 ft - 158.0 ft		Cobbles slightly weathered, dark gray and orange-brown, micaceous siltstone.								
158.0 ft - 160.0 ft		A-4, dark gray, clayey SILT, with fragments of cobble as described above, weathered by Rq, (ML).								
160.0 ft - 161.0 ft		Highly weathered micaceous rock as described above, dry.								
161.0 ft - 164.0 ft		Highly weathered micaceous rock as described above, dry.								
164.0 ft - 166.0 ft		A-4, dark brown, moist to wet, silty, fine SAND, with interspersed rock fragments (as described above), (SM).								
166.0 ft - 171.0 ft		A-4, dark brown, moist to wet, silty, fine SAND, with interspersed competent rock fragments at bottom reworked by Rq, (SM).								
171.0 ft - 176.0 ft		Dark gray, jointed micaceous PHYLITE, slightly weathered, very strong. Possible fracture zone 172.0 to 173 as described by smaller, weathered rock fragments.								

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DEPTH (ft)	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	WELL DIAGRAM	RUN	REC (%)	ROD (%)	Dr Rate (in/hr)	UCS (psi)	LL (%)	PI (%)
176.0 ft - 176.0 ft		Hole stopped @ 176.0 ft								
<p>Notes</p> <ul style="list-style-type: none"> <li>- 6" casing with continuous 4" core barrel casing used in expansion.</li> <li>- 8" hole was drilled using 8" casing and 6" core barrel to install inclinometer casing.</li> <li>- Piezometers installed at 60', 100 ft, and 166 ft.</li> <li>- 3.3" inclinometer casing installed to 176 ft.</li> <li>- Reported water level was measured with casing piezometer.</li> <li>- Denitrates indicated in soil descriptions are based on previous SPT values and field experience.</li> </ul>										