APPROX. EL OF BOTTOM OF NEW BOX CULVERT

GEODESIGN INCORPORATED

GeoDesign, Inc.
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1233 Shelburne Rd., Suite 360
So. Burlington, VT 05403
Phone: 802-652-5140

BORING LOG

Project Name

Beebe Pond Culvert BR #98
VT Rt 30
Hubbardton, VT

Boring No.: **B-1**
Page No.: 1 of 2
File No.: 837-31.8
Checked By: DTH

Boring Company: TransTech Drilling Services
Foreman: John Leonhardt
GeoDesign Rep.: Alan Baribault
Date Started: December 21, 2011 Date Finished: December 21, 2011
N. Coordinate: E. Coordinate:
Ground Surface Elevation (feet): 629
Station: Offset: ft

	Casing:	Sampler:
Type:	H.S.A.	SS
I.D.:	3.25 in.	1.38 in.
Hammer Wt.:	NA	140 lbs
Hammer Fall:	NA	30 in.
Rig Type:	CME 75 ATV	
Hammer Type:	Automatic	

Groundwater Observations			
Date	Depth (ft)	Elev. (ft)	Notes
▼ 12/21/11, 13:10	10.0	619.0	wet sample
▼ 12/21/11, 13:20	7.2	621.8	in HSA
▼			
▼			

Depth (ft)	Casing Blows/ft	Sample Information: Number	Type	Penetration (inches)	Recovery (inches)	Depth (ft)	Blows / 6 inch Interval: 0 - 6	6 - 12	12 - 18	18 - 24	Coring Time (min./ft)	Moisture Content (%)	Strata Description: Depth & Elevation(feet)	Symbol	Sample Description: Classification System:
													Asphalt 628.5		
													Fill (Clay & Silt / Sand, possible cobbles / boulders)		
		S1	SS	24	2	3	9	11	11	5					S1) Medium dense, brown to black fine to coarse SAND, some Clay & Silt, trace fine to coarse Gravel (1 piece asphalt), moist (Slough).
5															
		S2	SS	24	7	5	6	8	13	11					S2) Medium dense, brown CLAY & SILT, some fine to coarse Sand, little fine to coarse Gravel, moist.
7													▼ 622.0		
		S3	SS	24	9	7	5	3	4	3			Silty, Gravelly Sand with possible cobbles / boulders		S3) Loose, brown fine to coarse SAND, some Clay & Silt, trace coarse Gravel, moist.
10															
		S4	SS	24	7	10	1	1	1	2					S4) Very loose, brown fine to coarse SAND, some fine Gravel, little Silt, wet.
		S5	SS	24	8	12	1	2	1	1					S5) Similar to S4.
15		S6	SS	24	8	14	3	2	1	2					S6) Similar to S4.
		S7	SS	24	14	16	3	2	3	7					S7) Loose/medium;
17															
		S8	SS	24	14	18	8	17	17	11			Sandy, Gravelly Clay & Silt 612.0		S7A (upper 7 inches): Similar to S4, no sample (discarded prematurely by driller). S7B (lower 7 inches): Gray CLAY & SILT (layered), trace fine to coarse Sand, trace fine Gravel, wet. PP = 1 to 1.25 tsf.
20															
		S9	SS	24	6	20	5	5	24	15					S8) Very stiff to hard, gray CLAY & SILT, some fine to coarse Sand, trace fine Gravel, wet.
21															
		S10	SS	24	8	22	15	19	16	15			Gravelly Sandy Clay & Silt w/ occassional silt layers (Glacial Till) 608.0		S9) Very stiff to hard, gray CLAY & SILT, some fine to coarse Sand, little fine to coarse Gravel, moist. PP = 3.0 to >4.5 tsf.
25		S11	SS	12	7	24	9	50/6"							S10) Hard, gray CLAY & SILT, some fine to coarse Sand, little fine to coarse Gravel, moist.
		S12	SS	17	3	26	19	20	45/5"						S11) Hard/refusal, gray CLAY & SILT, some fine to coarse Gravel (possible cobble fragments in spoon tip), some fine to coarse Sand, moist.
		S13	SS	24	16	28	64	20	24	16					S12) Similar to S10 with yellowish cobble fragments.
30															

Remarks

1) Ground surface elevation estimated by GeoDesign using site plan dated 9/27/2011 provided by VHB.
2) Maintained head of water in augers below 10 feet deep.
3) Depth of fill estimated.
4) Boring terminated at 32 feet with no refusal.

Notes:
1) Stratification Lines Represent Approximate Boundary Between Material Types, Transitions May Be Gradual.
2) Water Level Readings Have Been Made At Times And Under Conditions Stated, Fluctuations Of Groundwater May Occur Due To Other Factors Than Those Present At The Time Measurements Were Made. A.C. = After coring. N.R. = Not Recorded.
3) Sample Type Coding: A=Auger; C=Core; D=Driven; G=Grab; PS=Piston Sampler; SS=Split Barrel (Split Spoon); ST=Shelby Tube; Geo=GeoProbe V=Vane; WOR/H=Weight of Rod/Hammer
4) Proportions Used: Trace = 1-10%; Little = 10-20%; Some = 20-35%; And = 35-50%.
5) Stratification lines represent approximate boundary between material types, transitions may be gradual.

Boring No.: **B-1**

VT BORING LOG MC 5/21/04 837-31.8 BEEBE POND BR#98.GPJ GEODESIGN STANDARD.GDT 3/19/12

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		S14	SS	24	8	30	9	12	19	22					S13) Hard/dense, gray CLAY & SILT and fine to coarse SAND, some fine to coarse Gravel, moist.
															S14) Hard, gray CLAY & SILT, some fine to coarse Sand, little (+) fine to coarse Gravel, moist.
32													Bottom of Exploration at 32.0 ft 597.0		
35															
40															
45															
50															
55															
60															

Remarks

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Vanasse Hangen Brustlin, Inc.

PROJECT NAME: HUBBARDTON	
PROJECT NUMBER: ER STP 0161(27)	
FILE NAME: zllc290borlogs.dgn	PLOT DATE: 7/16/2012
PROJECT LEADER: M.A. COLGAN	DRAWN BY: E.A. FIALA
DESIGNED BY: VTRANS	CHECKED BY: S.G. FARNSWORTH
BORING LOGS (1 OF 2)	SHEET 58 OF 70