APPROX. EL 410.10
BOTTOM OF FOOTING

BORING LOG

GEODESIGN INCORPORATED

GeoDesign, Inc.
P.O. Box 699
Windsor, VT 05089
Phone: 802-674-2033/Fax: 802-674-5943

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

Project Name: Giddings Brook Culvert BR #96, VT Rt 30, Hubbardton, Vermont

Boring No.: B-1
Page No.: 1 of 2
File No.: 837-31.7
Checked By: DTH

Boring Company: TransTech Drilling Services
Foreman: John Loenhardt
GeoDesign Rep.: Joshua Gilman
Date Started: December 20, 2011 Date Finished: December 20, 2011
N. Coordinate: E. Coordinate:
Ground Surface Elevation (feet): 425
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	
Hammer Type:	Automatic	

Groundwater Observations			
Date	Depth (ft)	Elev. (ft)	Notes
▼ 12/20/11, 13:00	7.0	418.0	Wet sample

Sample Information

Depth (ft)	Casing Blows/ft	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 (%)
5		S1	SS	24	8	5	4	9	8	5		
		S2	SS	9	9	7	6	50/3"				
10												
15		S3	SS	24	6	14	6	5	6	5		
		S4	SS	24	10	16	6	3	2	2		
		S5	SS	24	8	18	2	1	2	1		
20		S6	SS	24	10	20	3	4	1	2		
		S7	SS	24	11	22	3	2	1	2		
25		S8	SS	24	7	25	2	2	2	2		
30												

Strata Description — Depth & Elevation(feet)

- Asphalt
- Fill 424.5 (Silty Sand & Gravel with inferred cobbles / boulders)
- 10 Silty Sand 415.0 & Gravel

Symbol

Sample Description — Classification System: Burmister

- S1) Medium dense, gray brown fine to coarse GRAVEL, some fine to coarse Sand, little Silt, moist.
- S2) Refusal, similar to S1 except wet.
- S3) Medium dense, brown fine to coarse GRAVEL and fine to coarse SAND, little Silt, wet.
- S4) Loose, similar to S3.
- S5) Very loose, brown fine to coarse SAND and fine Gravel, little Silt, wet.
- S6) Loose, brown fine to coarse SAND, little Silt, trace fine Gravel, wet.
- S7) Very loose, brown fine to coarse SAND, some fine to coarse Gravel, little Silt, wet.
- S8) Loose, brown fine to coarse SAND, some Silt, trace fine Gravel, wet.

Remarks

1) Ground surface elevation estimated in the field by GeoDesign using site plan dated 9/26/2011 provided by VHB.
2) Following HSA refusal at 5 feet deep in B-1A (no samples collected), driller offset hole 2 feet south to B-1B and resumed.
3) Following sampling of S1 at B-1B, hole became out of plumb. Driller offset 5 feet north to B-1C and resumed.
4) When borehole B-1C became out of plumb (no samples collected), driller offset 2 feet north to B-1D.
5) One sample was collected at B-1B, and the rest were collected at B-1D.
6) Maintained head of water in augers below stream level.

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.B. = 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.

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		S9	SS	24	9	30	2	2	3	1		
35		S10	SS	24	12	35	4	4	5	6		
40		S11	SS	24	10	40	2	3	3	3		
45		S12	SS	24	15	45	2	3	3	5		
50												
55												
60												

Strata Description — Depth & Elevation(feet)

- Silty Sand & Gravel *(Continued)*
- 42.5 Stratified 382.5 Sand and Silt/Clay
- 47 Bottom 378.0 of Exploration at 47.0 ft

Symbol

Sample Description — Classification System: Burmister

- S9) Loose, brown fine to coarse SAND, some fine to coarse Gravel, little Silt, wet.
- S10) Similar to S9.
- S11) Similar to S9.
- S12) Medium / Loose, tan brown stratified CLAY & SILT and fine to coarse SAND, trace Silt, wet.

Remarks

7) Depth of fill estimated.
8) Boring terminated at 47 feet deep with no refusal.

Notes:
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VHB Vanasse Hangen Brustlin, Inc.

PROJECT NAME: HUBBARDTON	
PROJECT NUMBER: ER STP 0161(26)	
FILE NAME: zllc288borlogs.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 25 OF 70

VHB 57478.01

VT BORING LOG MC 5/21/04 837-31.7-GIDDINGS BROOK BR#96 GP-1 GEODESIGN STANDARD .GDT 3/19/12