



Boring Crew: J. Leonhardt (TransTech), J.Wimett (GeoDesign)		Casing		Sampler		Groundwater Observations					
Date Started: 2/27/13	Date Finished: 2/28/13	Type: FJ	SS	Date	Depth (ft)	Notes					
VTSPG NAD83: N 562294.00 ft E 1612786.00 ft		I.D.: 4 in	1.38 in								
Station: 11+47	Offset: 12'L	Hammer Wt: N.A.	140 lb.								
Ground Elevation: 1275 ft		Hammer Fall: N.A.	30 in.								
		Hammer/Rod Type: Safety/AWJ									
		Rig: CME 45C SKID	CE = 1								

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
0-5		Water Column.							
13-15	x x x	S1 (13'-15'): Very loose, no recovery. Inferred Lake Bottom Sediment (Organic Silt / Organic Matter) Rec. = 0.0 ft	WOR-WOR-1 (0)						
20-22	x x x	S2 (20'-22'): Very loose, brown ORGANIC SILT and ORGANIC MATTER, trace fine Gravel, trace Glass, trace fine Sand, wet. (Lake Bottom Sediment). Rec. = 0.1 ft (AASHTO M145 Classification: A-4.)	WOR-WOR-WOR (0)	166.1	6.7	8.7	84.6	NP	NP
25-27	x x x	S3 (25'-27'): Medium dense, gray fine to coarse SAND and fine to coarse GRAVEL, some Silt, wet. (Glacial Moraine) Rec. = 0.3 ft (AASHTO M145 Classification: A-2-4.)	7-14-10-8 (24)	8.9	48.4	22.8	28.8	NP	NP
30-32	x x x	S4 (30'-32'): Dense, gray fine to coarse SAND and SILT, little fine Gravel, wet. (Glacial Moraine) Rec. = 0.3 ft (AASHTO M145 Classification: A-4.)	9-11-25-35 (36)	10.1	22.9	35.7	41.4	NP	NP
35-37.5		Inferred nested boulders.							
37.5-40		C1 (35.5' - 37.5'): Gray LIMESTONE BOULDER/COBBLE PIECES.							
40-40.75		S5 (40'-40.75') Refusal, gray fine to coarse SAND and SILT, some fine to coarse Gravel, wet. (Glacial Till) Rec. = 0.75 ft (AASHTO M145 Classification: A-4.)	22-50/3" (R)	9.6	42.8	18.6	38.6	NP	NP
45-45.5		S6 (45'-45.5') Refusal, gray fine to coarse SAND, some fine to coarse Gravel, some Silt, wet. (INFERRED ROLLERBIT CUTTINGS)							

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
3. 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.



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Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
0-50		Rec. = 0.5 ft (AASHTO M145 Classification: A-1-b.)	80-50/0" (R)	9.2	56.9	20.1	23.0	NP	NP
50-50.9		S7 (50'-50.9') Refusal, gray fine to coarse SAND and SILT, some fine to coarse Gravel, wet. (Glacial Till)							
50.9-50.9		Rec. = 0.9 ft (AASHTO M145 Classification: A-4.) Hole stopped @ 50.9 ft No refusal to 50.9' depth.	31-100/5" (R)	9.1	40.0	23.7	36.3	NP	NP
50.9-55		Remarks: 1) Ground surface elevation, northing, easting, and stationing are estimated from concept plans provided by TY Lin dated December 17, 2012. Borehole performed ~4' east of proposed hinge point due to accessibility. 2) Hammer correction factor is assumed to be 1.0 (rope and cathead safety hammer). 3) Performed borehole through lake ice. Lake bottom sediments noted to begin at 13' below ice level. Casing sunk under own weight through lake bottom sediments until 23.5' deep. 4) Note increase in resistance during casing and roller bit advance at 23.5' deep. 5) Advance casing to 30' deep. Driller added EZ-Mud to the wash tub and advanced the borehole open hole below 30' deep. 6) Advance roller bit through inferred boulder from 32.5' to 35.5'. Attempt core run to break through boulders from 35.5' to 37.5'. Break through inferred nested boulders at 37' deep. 7) Telescope through 4" casing and inferred nested boulder layer with 3" flush joint casing to 40' deep. 8) Exploration terminated at 50.9 feet due to crooked borehole causing difficulty advancing the roller bit and clearing cuttings. 9) Visual soil descriptions are per the Burmister system. Lab testing gradations reported are per AASHTO M145.							

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GEODESIGN BORING LOG: BBB-04.5 FLOATING BRIDGE FORMAL.GPJ VERMONT A01.GBT 5/7/13

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