

BORING LOG														
Project Name										Boring No.:				
Readsboro BRF 0105 (3) Readsboro, VT										GB-4				
GeoDesign Rep.:										Page No.:				
GeoDesign Inc. 1233 Shelburne Road, Suite E-1 Windsor, VT 05099 Tel: (802) 674-2033										1 of 2				
File No.:										Checked By.:				
750-03.6m										RSA				
Boring Company: M & W Soils Engineering			Casing: H.S.A.		Sampler: SS		Groundwater Observations:							
Foreman: Jim Ferguson			Type: H.S.A.		SS		Date and Time		Depth (m)		Elevation (m)	Notes		
GeoDesign Rep.: Jason Gaudette			I.D./O.D.: 11 cm / 5 cm				4/29/02 2:30 PM		2.44		358.56	wet soils		
Date Started: April 29, 2002			Date Finished: May 1, 2002		Hammer Wt.: NA		63.5 kg		4/29/02 2:30 PM		2.44		358.56	wet soils
N. Coordinate: 322.84 m			E. Coordinate: 5.00 m		Hammer Fall: NA		75 cm		5/1/02 8:30 AM		1.98		359.02	Open Hole
Ground Surface Elevation (meters): 381.00			Rig Type: Acker Truck Mounted		Other:									
Station: 1059.2			Offset: 5.00 m RT											
Sample Information														
Depth (m)	Casing Blows/30 cm				Depth (m)	Blows / 0.15 m Interval				Casing Time (min./30cm)	PID Result	Classification System: Boremeter	Sample Description	Strata Description
	Number	Type	Penetration (cm)	Recovery (cm)		0-0.15	0.15-0.30	0.30-0.45	0.45-0.60					
1	S1	SS	61	30	0.61	4	4	6	3	-	-	(S1) Loose, light to dark brown fine to coarse SAND, little fine Gravel, trace to little Silt, moist.	0.12 ASPHALT Gravelly SAND (FILL)	
2	S2	SS	61	20	1.22	7	3	5	7	-	-	(S2) Loose, similar to S1 except bottom 10,16 cm beige brown to green, moist.	352.47 Possible Steeply Dipping BEDROCK (Continued)	
3	S3	SS	23	23	2.59	28	50/0.08	-	-	-	-	(S3) Very dense, dark gray to black with orange-red oxidized seams, fine micaceous SAND, little Silt, trace fine Gravel, moist. Fractured cobble in spoon tip.	358.56 2.44 Disturbed GLACIAL TILL (with Boulders)	
4	S4	SS	46	25	3.90	16	28	42	-	-	-	(S4) Very dense, green-gray fine to medium SAND, little Silt, trace fine to coarse Gravel, moist.	357.34 3.66 GLACIAL TILL (with Cobbles)	
5	S5	SS	28	28	5.12	33	50/0.13	-	-	-	-	(S5) Very dense, similar to S4 except with coarse Sand.	354.29 6.71	
(0 m) Groundsurface elevation is estimated from VAOT Main Line Profile based on locations taped from existing features and plotted by GeoDesign. Elevations and locations should be considered accurate only to the degree implied by the method used. (0.61-1.52 m) Observed increased drilling resistance through possible coarse gravel and cobble fill. (1.98 m) Hard grinding resistance observed through possible cobble estimated 15.2-20.3 cm diameter. (2.50 m) Observed HSA refusal on possible boulder. Borehole left open for possible coring at a later date. Borehole reamtemped on May 1, 2002 using 10.8 cm o.d. SSA to further advance hole. Penetrated possible cobble estimated 15.2 cm diameter.														
Notes: 1) Soil Samples screened in the field using a Thermal Environmental Systems Model SSS Photoanalyzer Detector. The meter was calibrated relative to a benzene-in-air standard. ND = None Detected, - = Sample Not Screened. 2) Stratification Lines Represent Approximate Boundary Between Material Types. Transitions May Be Gradual. 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. AC = After Coring Back. 4) Sample Type Coding: A = Auger, C = Core, PS = Piston Sampler, SS = Split Barrel (Split Spoon), ST = Shelby Tube, V = Vane. 5) Proportions Used: Trace = 1-10%, Little = 10-20%, Some = 20-30%, And = 35-50%.														
Boring No.: GB-4														

ESTIMATED
PILE TIP
EL=349.50

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750-03.6m										RSA				
Boring Company: M & W Soils Engineering			Casing: H.S.A.		Sampler: SS		Groundwater Observations:							
Foreman: Jim Ferguson			Type: H.S.A.		SS		Date and Time		Depth (m)		Elevation (m)	Notes		
GeoDesign Rep.: Jason Gaudette			I.D./O.D.: 11 cm / 5 cm				4/29/02 2:30 PM		2.44		358.56	wet soils		
Date Started: April 29, 2002			Date Finished: May 1, 2002		Hammer Wt.: NA		63.5 kg		4/29/02 2:30 PM		2.44		358.56	wet soils
N. Coordinate: 322.84 m			E. Coordinate: 5.00 m		Hammer Fall: NA		75 cm		5/1/02 8:30 AM		1.98		359.02	Open Hole
Ground Surface Elevation (meters): 381.00			Rig Type: Acker Truck Mounted		Other:									
Station: 1059.2			Offset: 5.00 m RT											
Sample Information														
Depth (m)	Casing Blows/30 cm				Depth (m)	Blows / 0.15 m Interval				Casing Time (min./30cm)	PID Result	Classification System: Boremeter	Sample Description	Strata Description
	Number	Type	Penetration (cm)	Recovery (cm)		0-0.15	0.15-0.30	0.30-0.45	0.45-0.60					
1	S1	SS	61	30	0.76	6	7	11	9	-	-	(S1) Medium dense, light to dark brown with black seams, fine to medium SAND, little fine Gravel, trace Silt, moist.	352.47 Possible Steeply Dipping BEDROCK (Continued)	
2	S2	SS	61	25	1.37	9	13	6	3	-	-	(S2) Medium dense, similar to S1 except with little Silt, trace coarse Gravel, wet.	352.47 8.53 Bottom of Borehole at 8.53 m	
3	S3	SS	61	25	1.98	5	13	8	6	-	-	(S3) Medium dense, similar to S1 except with red orange oxidation and small wood pieces.		
4	S4	SS	61	15	2.59	7	3	6	11	-	-	(S4) Loose, similar to S2.		
5	S5	SS	61	30	3.20	12	13	13	12	-	-	(S5) Medium dense, light brown to oxidized orange fine to medium SAND, little fine to coarse Gravel, trace Silt with fractured rock pieces in spoon tip, moist.		
6	S6	SS	61	25	3.81	16	17	31	37	-	-	(S6) Dense, similar to S5 with gray pulverized cobble pieces. Bottom 5.1 cm wetter.		
7	S7	SS	46	30	4.42	37	32	38	-	-	-	(S7) Very dense, similar to S5 except with some coarse Gravel and pulverized white Cobble (possibly pushing).	357.87 4.63 BOULDERS	
8	S8	SS	46	41	5.49	19	45	44	-	-	-	(S8) Very dense, brown to oxidized orange micaceous fine to medium SAND, some fine to coarse Gravel and decomposed schistose rock fragments, wet.	357.01 5.49 Possible GLACIAL TILL	
9	C1	C	3	3	6.16	-	-	-	8.0	-	-	(C1) Recovered approximately 2.5 cm of dark gray with white banding, gneissic rock, and gray fine to medium SAND, some Silt.	356.34 6.16 Possible BOULDER Bottom of Borehole at 6.19 m	
(2.83 m) Very hard SSA grinding resistance observed on large boulder SSA refusal at 2.93 m. 10.2 cm o.d. flush joint casing lowered and borehole advanced with roller bit. (4.27-5.18 m) Observed increased drilling resistance during roller bit advance through possible cobbles within glacial till. (6.71-8.56 m) Observed increased drilling resistance during roller bit advance through possible weathered bedrock. Possibly drilling on steeply dipping bedrock with roller bit "walking" along face.														
Notes: 1) Soil Samples screened in the field using a Thermal Environmental Systems Model SSS Photoanalyzer Detector. The meter was calibrated relative to a benzene-in-air standard. ND = None Detected, - = Sample Not Screened. 2) Stratification Lines Represent Approximate Boundary Between Material Types. Transitions May Be Gradual. 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. AC = After Coring Back. 4) Sample Type Coding: A = Auger, C = Core, PS = Piston Sampler, SS = Split Barrel (Split Spoon), ST = Shelby Tube, V = Vane. 5) Proportions Used: Trace = 1-10%, Little = 10-20%, Some = 20-30%, And = 35-50%.														
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BOT. OF FTG.
ELEV.
357.000

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Boring Company: M & W Soils Engineering			Casing: H.S.A.		Sampler: SS		Groundwater Observations:							
Foreman: Jim Ferguson			Type: H.S.A.		SS		Date and Time		Depth (m)		Elevation (m)	Notes		
GeoDesign Rep.: Jason Gaudette			I.D./O.D.: 11 cm / 5 cm				4/30/02 8:25 AM		1.37		361.13	Wet soil		
Date Started: April 30, 2002			Date Finished: April 30, 2002		Hammer Wt.: NA		63.5 kg		4/30/02 8:25 AM		1.37		361.13	Wet soil
N. Coordinate: 338.02 m			E. Coordinate: 4.39 m		Hammer Fall: NA		75 cm		5/1/02 8:30 AM		1.98		359.02	Open Hole
Ground Surface Elevation (meters): 382.50			Rig Type: Acker Truck Mounted		Other:									
Station: 1109			Offset: 4.39 m RT											
Sample Information														
Depth (m)	Casing Blows/30 cm				Depth (m)	Blows / 0.15 m Interval				Casing Time (min./30cm)	PID Result	Classification System: Boremeter	Sample Description	Strata Description
	Number	Type	Penetration (cm)	Recovery (cm)		0-0.15	0.15-0.30	0.30-0.45	0.45-0.60					
1	S1	SS	61	30	0.76	6	7	11	9	-	-	(S1) Medium dense, light to dark brown with black seams, fine to medium SAND, little fine Gravel, trace Silt, moist.	0.09 ASPHALT SAND and GRAVEL FILL (with Cobbles)	
2	S2	SS	61	25	1.37	9	13	6	3	-	-	(S2) Medium dense, similar to S1 except with little Silt, trace coarse Gravel, wet.		
3	S3	SS	61	25	1.98	5	13	8	6	-	-	(S3) Medium dense, similar to S1 except with red orange oxidation and small wood pieces.		
4	S4	SS	61	15	2.59	7	3	6	11	-	-	(S4) Loose, similar to S2.		
5	S5	SS	61	30	3.20	12	13	13	12	-	-	(S5) Medium dense, light brown to oxidized orange fine to medium SAND, little fine to coarse Gravel, trace Silt with fractured rock pieces in spoon tip, moist.		
6	S6	SS	61	25	3.81	16	17	31	37	-	-	(S6) Dense, similar to S5 with gray pulverized cobble pieces. Bottom 5.1 cm wetter.		
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9	C1	C	3	3	6.16	-	-	-	8.0	-	-	(C1) Recovered approximately 2.5 cm of dark gray with white banding, gneissic rock, and gray fine to medium SAND, some Silt.	356.34 6.16 Possible BOULDER Bottom of Borehole at 6.19 m	
(0 m) Groundsurface elevation is estimated from VAOT Main Line Profile based on locations taped from existing features and plotted by GeoDesign. Elevations and locations should be considered accurate only to the degree implied by the method used. (1.52-2.59 m) Observed slight drilling resistance through estimated coarse gravel and some cobbles during HSA advance. (3.19-3.86 m) Observed harder drilling resistance during HSA advance through estimated cobbles and small boulders. Possible boulder at 3.96-4.27m. (4.42 m) Drillers note HSA filling with wet soil prior to SS sample.														
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Boring No.: GB-5A														

PROJECT NAME: READSBORO
 PROJECT NUMBER: BRF 0105 (3)
 FILE NAME: 89J088/STR/s89J088bor.dgn PLOT DATE: 07-MAR-2012
 PROJECT LEADER: J. LACROIX DRAWN BY: M.EVANS-MONGEON
 DESIGNED BY: W. PELLETIER CHECKED BY: W. PELLETIER
 BORING LOG SHEET 3 SHEET 31 OF 90