SOIL BORING LOGS

GEODESIGN INCORPORATED
P.O. Box 699, Windsor, VT 05089, Tel: (802) 674-2033
1233 Shelburne Road, Suite E-1, South Burlington, VT 05403, Tel: (802) 652-5140

BORING LOG

Project Name: Shelburne-South Burlington NH EGC 019-4(19)

Boring No.: B-216
Page No.: 1 of 1
File No.: 750-03.8
Checked By: RSA

Boring Company: M&W Soils Engineering
Foreman: Mike Hitchcock
GeoDesign Rep.: Aaron Humphrey
Date Started: September 9, 2002 Date Finished: September 9, 2002
N. Coordinate: 39710.0 ft E. Coordinate: 50.0 ft
Ground Surface Elevation (feet): 156.1
Station: 39710 Offset: 50.0 ft R

	Casing:	Sampler:
Type:	H.S.A.	SS
I.D./O.D.:	3.25 in.	2.0 in.
Hammer Wt.:	NA	140 lbs
Hammer Fall:	NA	30 in.
Rig Type:	Acker Soil Max	
Other:	Truck mounted	

Groundwater Observations			
Date and Time	Depth (ft)	Elevation (ft)	Notes
▽ 9/9/02 12:00 PM			rmrk (24')
▽ 9/9/02 5:40 PM	6.0	150.1	open hole
▽ 9/10/02 4:15 PM	12.0	144.1	open hole
▽			

Depth (ft)	Casing Blows/ft	Sample Info: Number	Type	Penetration (inches)	Recovery (inches)	Depth (ft)	Blows / 6 inch Interval: 0 - 6	6 - 12	12 - 18	18 - 24	Coring Time (min./ft)	PID Result	Sample Description (Classification System: Burmister)	Symbol	Strata Description (Elevation & Depth (feet))
															156.1
		1	SS	24.0	12.0	0.0	7	8	11	12		-	S-1) Medium dense, gray fine to coarse SAND, some fine Gravel, trace Root Fibers, dry.		SAND and GRAVEL (Fill)
															154.1
		2	SS	24.0	15.0	2.0	10	11	11	11		-	S-2) Medium dense, brown-gray fine to coarse SAND and SILT, trace fine Gravel, dry.		2.0 SILT and SAND (Fill)
															151.1
5		3	SS	24.0	17.0	4.0	8	9	20	24		-	S-3) Similar to S-2.		5.0 SILT and SAND ▽
		4	SS	24.0	16.0	6.0	26	24	31	38		-	S-4) Similar to S-2, except very dense.		
		5	SS	24.0	17.0	8.0	16	22	20	24		-	S-5) Similar to S-4.		
10															
		6	SS	0.0	0.0	10.0	100/0"					-	S-6) Refusal, no sample recovery.		
		7	SS	24.0	16.0	12.0	16	22	21	23		-	S-7) Dense, gray SILT and fine SAND, moist.		
15		8	SS	24.0	19.0	14.0	15	27	31	42		-	S-8) Similar to S-7.		
															134.1
															22.0 Possible Weathered BEDROCK
20		9	SS	24.0	18.0	19.0	22	28	26	31		-	S-9) Similar to S-7.		132.1
															24.0 Bottom of Borehole at 24.0 ft
25															
30															

Remarks: (0): Boring performed at proposed VAOT staked boring location. Groundsurface elevation and station/offset based on VAOT survey data. (10'): SS sampler refusal on possible cobble or boulder. (10-11'): Observed higher drilling resistance through possible cobble or boulder. (22'): Depth of strata based on observed higher drilling resistance. (24'): Observed auger refusal on possible boulder or bedrock. Groundwater not encountered during drilling. Borehole was left open for observations until end of drilling on 09/11/02.

Notes: 1) Soil Samples screened in the field using a thermal Environmental Systems Model 580S Photoionization 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
Rock
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 = 20-35%; And = 35-50%

Boring No.: **B-216**

OFFICES LOG WL 750-03.8.GPJ GEODSGN.GDT 1/22/03

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BORING LOG

Project Name: Shelburne-South Burlington NH EGC 019-4(19)

Boring No.: B-218
Page No.: 1 of 1
File No.: 750-03.8
Checked By: RSA

Boring Company: M&W Soils Engineering
Foreman: Mike Hitchcock
GeoDesign Rep.: Aaron Humphrey
Date Started: September 10, 2002 Date Finished: September 10, 2002
N. Coordinate: 39690.0 ft E. Coordinate: 50.0 ft
Ground Surface Elevation (feet): 154.0
Station: 39900 Offset: 50.0 ft R

	Casing:	Sampler:
Type:	H.S.A.	SS
I.D./O.D.:	3.25 in.	2.0 in.
Hammer Wt.:	NA	140 lbs
Hammer Fall:	NA	30 in.
Rig Type:	Acker Soil Max	
Other:	Truck mounted	

Groundwater Observations			
Date and Time	Depth (ft)	Elevation (ft)	Notes
▽ 9/10/02 12:00 PM			rmrk (19.5')
▽ 9/10/02 2:15 PM	12.5	141.5	open hole
▽ 9/11/02 4:00 PM	12.5	141.5	open hole
▽			

Depth (ft)	Casing Blows/ft	Sample Info: Number	Type	Penetration (inches)	Recovery (inches)	Depth (ft)	Blows / 6 inch Interval: 0 - 6	6 - 12	12 - 18	18 - 24	Coring Time (min./ft)	PID Result	Sample Description (Classification System: Burmister)	Symbol	Strata Description (Elevation & Depth (feet))
															154.0
		1	SS	24.0	13.0	0.0	3	5	12	11		-	S-1) Medium dense, brown fine to coarse SAND, little fine Gravel, little Silt, dry.		SAND and GRAVEL (Fill)
															152.0
		2	SS	24.0	14.0	2.0	11	10	9	9		-	S-2) Very stiff, brown SILT and CLAY, laminated, dry.		2.0 SILT and CLAY
															150.0
5		3	SS	24.0	12.0	4.0	11	13	27	19		-	S-3) Dense, brown fine to medium SAND, some Silt, moist.		4.0 SILT and SAND
		4	SS	24.0	15.0	6.0	17	22	26	34		-	S-4) Dense, brown fine SAND and SILT, moist.		
		5	SS	24.0	22.0	8.0	21	28	37	40		-	S-5) Similar to S-4, except very dense.		
10															
		6	SS	24.0	14.0	10.0	11	15	14	16		-	S-6) Similar to S-4, expect medium dense.		
		7	SS	2.0	0.0	12.0	100/2"					-	S-7) Refusal, no sample recovery.		▽
		8	SS	24.0	18.0	13.0	12	24	33	31		-	S-8) Very dense, gray SILT and fine SAND, moist.		
15															
															135.0
															19.0 Possible Weathered BEDROCK
20															19.5 Bottom of Borehole at 19.5 ft
25															
30															

Remarks: (0): Boring performed at proposed VAOT staked boring location. Groundsurface elevation and station/offset based on VAOT survey data. (12'): SS sampler refusal on possible cobble or boulder. (12-13'): Observed higher drilling resistance through possible cobble or boulder. (19'): Depth of strata change based on observed higher drilling resistance. (19.5'): Observed auger refusal on possible boulder or bedrock. Groundwater not encountered during drilling. Borehole was left open for observed until end of drilling on 09/11/02.

Notes: 1) Soil Samples screened in the field using a thermal Environmental Systems Model 580S Photoionization Detector. The meter was calibrated relative to a benzene-in-air standard. ND = None Detected, - = Sample Not Screened
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Boring No.: **B-218**

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SHELBURNE – SOUTH BURLINGTON

SURVEYED BY V.S.C. INC. DATE
DRAWN BY E.A.A. INC. DATE
TRACED BY E.A.A. INC. DATE

PROJECT NH-EGC-019-4(28)
SOIL BORING DRAWING NO. 7
SHEET NO. 231 OF 283

DATUM
VERTICAL NGVD 1929
HORIZONTAL NAD 1927

4/4/03