GEODESIGN INCORPORATED

Geotechnical Engineers and Environmental Consultants
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BORING LOG

Project Name

VAOT BHO 1442 (29)

Weathersfield, Vermont

Boring No.: B-3
Page No.: 3 of 3
File No.: 750-04.2
Checked By: JEL

Boring Company: VAOT
Foreman: Reg Holt/Randy Tallman
GeoDesign Rep.: Jason Gaudette/Aaron Humphrey
Date Started: January 29, 2004 Date Finished: May 11, 2004
N. Coordinate: E. Coordinate:
Ground Surface Elevation (feet): 598
Station: Offset: ft

	Casing:	Sampler:
Type:	FJ	SS
I.D.:	3.0 in.	1.38 in.
Hammer Wt.:	300 lbs	140 lbs
Hammer Fall:	30 in.	30 in.
Rig Type:	CME 45C	
Hammer Type:	Trailer Mount	

Groundwater Observations				
Date	Depth (ft)	Elev. (ft)	Notes
2/4/04	29.0	570.4	Wet Soil

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: Burmister
		C-8	C	60	33	49.8					6		Bedrock (Schist) (Continued)		C-8) Fair quality, moderately hard, slightly weathered along fractures, gray SCHIST. Fractures at approximately 15 to 30 degrees from horizontal @ 3.5" - 9" spacing.
											4				
											9				
											8				
55											7				
		C-9	C	5	5	54.8					6/5"				C-9) Excellent quality, moderately hard, slightly weathered along ends, gray SCHIST.
		C-10	C	49	48	55.2					10				C-10) Poor quality, moderately hard, slightly weathered along fractures and gray SCHIST, fractures @ approximately 15 to 30 degrees from horizontal.
											7				
											11				
											10		59.3		
60													Bottom of Exploration at 59.3 ft 541.6		
65															
70															
75															

Remarks

10) Core barrel "dropped" from 39.3' - 39.8'. Siltation of river started during C-5. Lost 25 gallons of water in 15 minutes.
11) Spun casing to 42.5', after C-6, spun casing to 43.5'
12) First 2.5' of C-5 was very soft, driller inferred weathered rock due to drilling resistance and change in color of return water. No coring times recorded.
13) At 55.2' core barrel stopped turning and no water returned. Lost 25 gallons in 6 minutes.
14) During C-10 wash water changed color from brown to clear/white at 55.7'. Lost 100 gallons in 20 minutes.

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; V=Vane; WOR/H=Weight of Rod/Hammer
4) Proportions Used: Trace = 1-10%; Little = 10-20%; Some = 20-35%; And = 35-50%

Boring No.: B-3

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BORING LOG

Project Name

VAOT BHO 1442 (29)

Weathersfield, Vermont

Boring No.: B-4
Page No.: 1 of 2
File No.: 750-04.2
Checked By: JEL

Boring Company: VAOT
Foreman: Reg Holt/Randy Tallman
GeoDesign Rep.: Jason Gaudette
Date Started: February 24, 2004 Date Finished: March 1, 2004
N. Coordinate: E. Coordinate:
Ground Surface Elevation (feet): 572
Station: Offset: ft

	Casing:	Sampler:
Type:	FJ	SS
I.D.:	3.0 in.	1.38 in.
Hammer Wt.:	300 lbs	140 lbs
Hammer Fall:	30 in.	30 in.
Rig Type:	CME 45C	
Hammer Type:	Skid Mount	

Groundwater Observations			
Date	Depth (ft)	Elev. (ft)	Notes

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: Burmister
													Gravelly Sand (fill)		
		S1	SS	24	9	2	15	38	10	18					S-1) Dense, dark brown, fine to medium SAND, little fine Gravel, trace to little Silt. Noted white piece of pottery/ceramic.
													4		
		S2	SS	5	3	4	100/5"						Boulder 568.1		S-2) Very dense/ Refusal. Gray schistose rock stuck in spoon tip.
5													5		
		S3	SS	9	2	6	28	75/3"					Sandy Silt 567.1		S-3) Very dense/ Refusal. Gray, micaceous SILT and fine SAND, with schistose rock fragments.
													6.8		
		C-1	C	12	8	7.5					8		Boulder 565.3		C-1) Dark gray to green, hard, very slightly weathered along fracture planes, closely jointed, very poor quality schist.
		S-4	SS	24	16	8.5	14	24	28	45			8.5		
10													Saprolite 563.6		S-4) Very dense, similar to S-3, except with 1/8 to 1/4" thick layers of coarser Sand. Bottom 3": Light brown instead of gray, micaceous.
		S-5	SS	24	16	10.5	28	65	54	65					S-5) Very dense, light brown Silt and fine SAND, trace Gravel, very micaceous, drier than above.
		S-6	SS	24	18	12.5	28	39	42	66					S-6) Very dense, similar to S-5 with demolished schistose rock fragments and coarser layers.
													14.5		
15		S-7	SS	24	12	14.5	11	24	30	55			Saprolite/ Weathered Bedrock 557.7		S-7) Very dense, similar to S-6 with brown, Sandy Silt seams. Moist.
20															
		C-2	C	12	0	20					8				C-2) No Recovery
		C-3	C	60	58	21					9		21.7		S-8) Attempted spoon sample at 21' with refusal on possible bedrock. No penetration. Recovered small (i.e. <2" long) pieces of garnet bearing Chlorite SCHIST from core through casing.
											13		Bedrock (Schist) 550.6		
											14.5				
25											10.15				C-3) Gray-green (fresh) to light brown (weathered), moderately hard, closer to

Remarks

1) Ground surface elevation estimated form topographic base plan provided by VAOT. Borehole advanced using 3.5" O.D. carbide cutting shoe, except where noted.
2) Brown wash water observed after advancing borehole past 1'.
3) Approximately 5" of material stuck in bottom of casing prior to sampling S-3.
4) Higher resistance observed at 6.8' while advancing casing. Advanced casing to 7.5' and prepared to core.
5) Observed harder drilling resistance at 17.5' and further at 19.5' deep during casing advance.

Notes:
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Boring No.: B-4

VT BORING LOG MC 5/20/4 FOR CONVERSION TO DFX 750-04.2 LOGS 7-20-04.GPJ GEODESIGN STANDARD.GDT 2/15/5

BORING LOG #3

PROJECT NAME: WEATHERSFIELD
PROJECT NUMBER: BHO 1442(29)

FILE NAME: /96j234/str/s96j234bor.dgn PLOT DATE: 15-MAR-2007
PROJECT LEADER: W. SYMONDS DRAWN BY: J. TOUCHETTE
DESIGNED BY: T. SUMNER CHECKED BY: T. SUMNER
sj234log3.1 SHEET 16 OF 60