STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIALS & RESEARCH SECTION
SUBSURFACE INFORMATION

BORING LOG

Bridge 9, VT Route 9
23770.1000.32000
Bridge 9, VT Route 9

Boring No.: **B-6**
Page No.: 3 of 4
Pin No.: ER BHF 010-1(45)
Checked By: C. Symmes

Boring Crew: J. Leonhardt, K. Owens
Date Started: 1/16/12 Date Finished: 1/18/12
VTSPG NAD83: N 140334.74 ft E 1463894.87 ft
Station: 3+46.30 Offset: 30.1 RT
Ground Elevation: 906.81 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.25 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.
Hammer/Rod Type:		Auto/NWJ
Rig:	CME 75 TRACK	C_E = 1.4

Groundwater Observations		
Date	Depth (ft)	Notes
01/17/12	2.0	At river level

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
		orange. Wet, Rec. = 0.2 ft		WH-1-1 (1)						
		(ML), **Clayey SILT,** Some f. Sand, trace f. gravel, very soft, Light brown, Wet, Rec. = 1.2 ft		WH-WH-1-1 (1)	26.2				33	9
85		(ML), becomes hard, Rec. = 1.4 ft		10-18-41-43 (59)						
		(SM), **f. SAND,** Some clayey Silt, little f.c. gravel, very compact, orange/brown, Wet, Lenses of gray/brown f.c. gravel								
		(CL)								
90		(CL), **Silty CLAY,** little f.m.c. sand, very stiff, orange/brown, Moist, Rec. = 1.6 ft, Stratified by color		12-10-13-16 (23)	27.6				37	15
95		(CL), **Silty CLAY,** little f.m.c. sand, trace f. gravel, hard, Light brown, Moist, Rec. = 0.8 ft		33-100/3" (R)						
		(GM)								
100		(GM), **Crushed GRAVEL,** Some f.m.c. Sand, little clayey silt, very compact, orange/gray, Moist, Rec. = 0.1 ft		100/3" (R)						
		(SM)								
105		(SM), **f.m.c. SAND,** Some clayey Silt, Some crushed Gravel, very compact, Light brown/white, Moist, Rec. = 0.3 ft, Lense of light brown clayey silt		100/3" (R)						
110		(SM), **Similar Soil**, Rec. = 0.2 ft		100/2" (R)						
115		(SM), **f.m.c. SAND,** Some crushed Gravel,little clayey silt, very compact, Light brown, Moist, Rec. = 0.2 ft		150/2" (R)						
		(SM), **Similar Soil**, Rec. = 0.2 ft		150/2"						

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. C_E 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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Bridge 9, VT Route 9
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Boring No.: **B-6**
Page No.: 4 of 4
Pin No.: ER BHF 010-1(45)
Checked By: C. Symmes

Boring Crew: J. Leonhardt, K. Owens
Date Started: 1/16/12 Date Finished: 1/18/12
VTSPG NAD83: N 140334.74 ft E 1463894.87 ft
Station: 3+46.30 Offset: 30.1 RT
Ground Elevation: 906.81 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.25 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.
Hammer/Rod Type:		Auto/NWJ
Rig:	CME 75 TRACK	C_E = 1.4

Groundwater Observations		
Date	Depth (ft)	Notes
01/17/12	2.0	At river level

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
				(R)						
125		(SM), **Similar Soil**, Rec. = 0.2 ft		150/3" (R)						
		Hole stopped @ 124.3 ft								

Remarks:
The description of the classification of the materials is based on USCS criteria that gravel is defined as material retained on a #4 sieve or larger. Laboratory data provided follows AASHTO classification guidelines that gravel is defined as material retained on a #10 sieve or larger.

Cobbles & boulders visible at ground surface.

Very difficult drilling ground surface to 21.0'.

Easier, smoother drilling at 21.0'.

Drilling mud added at 26.0'.

Harder drilling, chattenng drill rig at 37.0'.

Easier drilling at 53.0'.

Increased drilling resistance at 85.0'.

Greatly increased drilling resistance 95.0' to termination.

Notes:
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BORING LOG

Bridge 9, VT Route 9
23770.1000.32000
Bridge 9, VT Route 9

Boring No.: **B-7**
Page No.: 1 of 1
Pin No.: ER BHF 010-1(45)
Checked By: C. Symmes

Boring Crew: J. Leonhardt, K. Owens
Date Started: 1/26/12 Date Finished: 1/26/12
VTSPG NAD83: N 140373.29 ft E 1463964.23 ft
Station: 4+13.20 Offset: 12.8 LT
Ground Elevation: 932.27 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.25 in
Hammer Wt:	N.A.	140 lb.
Hammer Fall:	N.A.	30 in.
Hammer/Rod Type:		Auto/NWJ
Rig:	CME 75 TRACK	C_E = 1.4

Groundwater Observations		
Date	Depth (ft)	Notes

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Asphalt, 0.0 ft - 0.5 ft					
		(Granular FILL), **f.m.c. SAND,** little f.c. gravel, trace silt, compact, gray, Moist, Rec. = 0.7 ft	18-19-27 (46)				
5		(Granular FILL), **f.c. GRAVEL,** little f.m.c. sand, trace concrete, very compact, gray, Wet, Rec. = 0.1 ft	50/1" (R)				
		Hole stopped @ 5.0 ft					

Remarks:
The description of the classification of the materials is based on USCS criteria that gravel is defined as material retained on a #4 sieve or larger. Laboratory data provided follows AASHTO classification guidelines that gravel is defined as material retained on a #10 sieve or larger.

Advanced casing through asphalt pavement.

Casing refusal at 5.0', offset to B-7A.

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FILE NAME = V:\Projects\ANY\K2\23770\CADD_MSTN\zllb326_bor_log_04.dgn
DATE/TIME = 8/21/2012
USER = dgs

CHA

BORING LOGS SHEET #4

PROJECT NAME: BENNINGTON
PROJECT NUMBER: ER BHF 010-1(45)

FILE NAME: zllb326_bor_log_04.dgn
PROJECT LEADER: D.E.G.
DESIGNED BY: K.J.K.
DWG. NO.: zllb326borlog4.1

PLOT DATE: 8/21/2012
DRAWN BY: M.E.D.
CHECKED BY: D.E.G.
SHEET 20 OF 40