

STATE OF VERMONT AGENCY OF TRANSPORTATION CONSTRUCTION AND MATERIALS BUREAU CENTRAL LABORATORY		BORING LOG		Boring No.: B-104					
LINCOLN BRF 0188(8) TH-1 BR-19		Page No.: 1 of 1		Pin No.: 10J066					
Checked By: CCB		Boring Crew: GARROW, WELLS		Casing Sampler					
Type: WB SS		Date Started: 12/22/11 Date Finished: 12/27/11		Groundwater Observations					
I.D.: 4 in 1.5 in		Date		Date					
Hammer Wt: N.A. 140 lb.		Date		Notes					
Hammer Fall: N.A. 30 in.		Date		Notes					
Hammer/Rod Type: Auto/AWJ		Date		Notes					
Rig: CME 45C SKID C <sub>c</sub> = 1.33		Date		Notes					
Station: 504+39.6 Offset: 9.60		Date		Notes					
Ground Elevation: 999.53 ft		Date		Notes					
Depth (ft)	Strata (1)	Run (Dip deg.)	Cone Rec. % (RCR %)	Drill Rate (min/ft)	Blows/ft (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
0.0 - 0.7	Asphalt Pavement, 0.0 ft - 0.7 ft								
0.7 - 1.7	A-1-b, SaGr, bm, Moist, Rec. = 1.7 ft				40-30-18-13 (48)	6.0	49.8	36.8	13.4
1.7 - 2.5	A-1-a, Gr, gry, Wet, Rec. = 0.8 ft				14-15-12-3 (27)	9.4	77.7	17.5	4.8
2.5 - 5.0	A-1-a, SaGr, gry, Dry, Rec. = 1.0 ft				25-17-21-11 (38)	2.6	67.1	20.7	12.2
5.0 - 7.5	A-1-a, SaGr, gry, Moist, Rec. = 1.2 ft				3-4-7-6 (11)	11.8	63.8	26.0	10.2
7.5 - 10.0	Field Note: Stone in sampler. Appears to be Gravel, gry, Wet NXDC, Concrete, 9.2 ft - 11.1 ft				R@2.5"				
10.0 - 11.1	11.1 ft - 15.1 ft, Gray, Phyllitic Schist, with some large quartz veins. Moderately hard, Unweathered, Good rock, NXMDC, RMR = 66	1 (45)	90 (83)	9					
11.1 - 12.5	Top of Bedrock @ 11.1 ft								
12.5 - 15.0	15.1 ft - 16.1 ft, Gray, Phyllitic Schist, with some large quartz veins. Moderately hard, Unweathered, Good rock, NXMDC, RMR = 62	2 (45)	80 (70)	20					
15.0 - 16.1	Hole stopped @ 16.1 ft								

Top of Footing  
Abutment 2  
Elev. = 993.00  
(UPPER)

Top of Footing  
Abutment 2  
Elev. = 983.00  
(LOWER)

BORING LOG 2 LINCOLN BRF 0188(8) GPJ VERMONT AOT.GDT 11/21/14

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<sub>c</sub> is the hammer energy correction factor.  
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.

STATE OF VERMONT AGENCY OF TRANSPORTATION CONSTRUCTION AND MATERIALS BUREAU CENTRAL LABORATORY		BORING LOG		Boring No.: B-105					
LINCOLN BRF 0188(8) TH-1 BR-19		Page No.: 1 of 1		Pin No.: 10J066					
Checked By: CCB		Boring Crew: GARROW, SALISBURY, THOMAS		Casing Sampler					
Type: WB SS		Date Started: 12/08/11 Date Finished: 12/08/11		Groundwater Observations					
I.D.: 4 in 1.5 in		Date		Date					
Hammer Wt: N.A. 140 lb.		Date		Notes					
Hammer Fall: N.A. 30 in.		Date		Notes					
Hammer/Rod Type: Auto/AWJ		Date		Notes					
Rig: CME 45C SKID C <sub>c</sub> = 1.33		Date		Notes					
Station: 503+38.4 Offset: -18.00		Date		Notes					
Ground Elevation: 993.58 ft		Date		Notes					
Depth (ft)	Strata (1)	Run (Dip deg.)	Cone Rec. % (RCR %)	Drill Rate (min/ft)	Blows/ft (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
0.0 - 2.5	A-2-4, GrSiSa with grass & roots, bm, Moist, Rec. = 0.5 ft				WH-WH-WH-2 (WH)	24.8	24.9	48.4	26.7
2.5 - 5.0	A-1-b, SiSaGr, bm, MTD, Rec. = 0.6 ft. Broken Rock was within sample.				7-12-11-10 (23)	7.8	43.7	30.8	25.5
5.0 - 7.5	Visual Classification, SiSa with Broken Rock, bm, Dry, Rec. = 0.2 ft. Insufficient sample for testing. Material similar as 6-8 ft.				9-7-9-5 (16)				
7.5 - 10.0	A-2-4, GrSiSa, bm, MTW, Rec. = 0.9 ft. Broken Rock was within sample.				7-12-12-17 (24)	11.0	26.0	46.9	27.1
10.0 - 11.1	Field Note: NXDC, Cobbles								
11.1 - 12.5	9.4 ft - 12.4 ft, Light gray, Phyllitic Schist, with some quartz veins. Quartz vein at 12.1 to 12.4 ft has slight orange staining along joint. Moderately hard, Unweathered, Good rock, NXMDC, RMR = 71	1 (23)	100 (80)	7					
12.5 - 15.0	12.4 ft - 16.4 ft, Gray, Phyllitic Schist, with some quartz veins. Yellow/orange stained joints at 14.0 to 14.2 feet. Moderately hard, Unweathered, Good rock, NXMDC, RMR = 71	2 (7)	93 (80)	4					
15.0 - 16.4	16.4 ft - 19.4 ft, Gray, Phyllitic Schist, with quartz veins. Orange stained joint at 16.4 feet. Moderately hard, Unweathered, Good rock, NXMDC, RMR = 71	3 (7)	80 (80)	5					
16.4 - 19.4	Hole stopped @ 19.4 ft								

Top of Footing  
Abutment 1  
Elev. = 988.50

BORING LOG 2 LINCOLN BRF 0188(8) GPJ VERMONT AOT.GDT 11/21/14

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STATE OF VERMONT AGENCY OF TRANSPORTATION CONSTRUCTION AND MATERIALS BUREAU CENTRAL LABORATORY		BORING LOG		Boring No.: B-106					
LINCOLN BRF 0188(8) TH-1 BR-19		Page No.: 1 of 1		Pin No.: 10J066					
Checked By: CCB		Boring Crew: GARROW, WELLS		Casing Sampler					
Type: WB SS		Date Started: 12/21/11 Date Finished: 12/22/11		Groundwater Observations					
I.D.: 4 in 1.5 in		Date		Date					
Hammer Wt: N.A. 140 lb.		Date		Notes					
Hammer Fall: N.A. 30 in.		Date		Notes					
Hammer/Rod Type: Auto/AWJ		Date		Notes					
Rig: CME 45C SKID C <sub>c</sub> = 1.33		Date		Notes					
Station: 502+99.9 Offset: 10.30		Date		Notes					
Ground Elevation: 998.07 ft		Date		Notes					
Depth (ft)	Strata (1)	Run (Dip deg.)	Cone Rec. % (RCR %)	Drill Rate (min/ft)	Blows/ft (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
0.0 - 1.0	Asphalt Pavement, 0.0 ft - 1.0 ft								
1.0 - 2.5	A-1-a, SaGr, bm, Wet, Rec. = 1.4 ft				12-10-9-7 (19)	8.5	61.4	29.7	8.9
2.5 - 5.0	A-1-a, Gr, bm, Wet, Rec. = 1.0 ft				10-4-4-2 (8)	7.4	73.4	19.5	7.1
5.0 - 7.5	A-1-a, Gr, gry, Wet, Rec. = 0.2 ft, Washed Stone Fill.				10-7-3-3 (10)	2.3	99.2	0.7	0.1
7.5 - 10.0	A-1-a, SaGr, bm, Wet, Rec. = 1.0 ft, Trace of Wood shavings.				4-R@6.0"	16.4	53.4	35.7	10.9
10.0 - 11.1	Field Note: NXDC, Cleaned out barrel. Appears to be Sandy Gravel								
11.1 - 12.5	Field Note: No Recovery. Appears to be Sandy Silt				3-4-5-5 (9)				
12.5 - 15.0	A-2-4, SiGrSa, gry, Wet, Rec. = 1.0 ft. Broken Rock was within sample.				6-7-R@6.0"	15.8	25.2	52.6	22.2
15.0 - 16.4	12.5 ft - 15.5 ft, Gray, Phyllitic Schist, with some quartz veins. Moderately hard, Unweathered, Fair rock, NXMDC, RMR = 52	1 (45)	93 (12)	5					
16.4 - 17.5	15.5 ft - 20.5 ft, Gray, Phyllitic Schist, with some quartz veins. Moderately hard, Unweathered, Good rock, NXMDC, Yellow/orange stained joint at 17.95 ft. RMR = 69	2 (45)	100 (96)	8					
17.5 - 20.5	20.5 ft - 22.5 ft, Gray, Phyllitic Schist, with quartz veins. Moderately hard, Unweathered, Good rock, NXMDC, RMR = 69	3 (45)	95 (95)	5					
20.5 - 22.5	Hole stopped @ 22.5 ft								

Top of Footing  
Abutment 1  
Elev. = 988.50

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PROJECT NAME: LINCOLN  
PROJECT NUMBER: BRF 0188 (8)  
FILE NAME: z10j066bor.dgn PLOT DATE: 8-DEC-2014  
PROJECT LEADER: G.K. DONINGTON DRAWN BY: W GERHOLD  
DESIGNED BY: P ARMANO CHECKED BY: A STOCKIN  
BORING LOG SHEET SHEET 19 OF 62