

B.F.
ABUT.
NO. 1

DATE:		SUBSURFACE LOG		PJT. NO. AD-02-069	
START 10/7/2002				HOLE NO. B-1	
FINISH 10/7/2002				SURF. ELEV. 236.92	
SHEET 1 OF 1				GW. DEPTH See Notes	
PROJECT: Bridge Reconstruction		LOCATION: Bostwick Rd. over Vermont Railway			
Project BRD 1445 (30)		T/O Shelburne, Vermont			
STATION: 19+99.103		OFFSET: 18.155' LT			
DEPTH FT.	SAMPL. NO.	BLOWS ON SAMPLER	REC. (FT)	SOIL OR ROCK CLASSIFICATION	NOTES
	1	2 4 4 4 8		TOPSOIL	North side of west abutment.
				Possible Fill: Brown SILT with embedded SHALE FRAGMENTS (Moist - Medium)	No water present in hole prior to introducing water for core drilling.
5	2	4 4 5 5 9 15		Similar: rootlets noted	At completion of core drilling, water level at ground surface (introduced water).
10				Brown, laminated SILT & CLAY (Moist - Medium)	Hard auger advance at approx. 18'.
15	3	5 5 6 4 11 15		Similar, with partings of fine sand; stiff, moist	Drilled from 19.2' to 20.0' with tri-cone bit.
20	4	3 11 14 7 25		Gray SHALE FRAGMENTS (Damp - Very Compact) Iversville Shale, Gray, hard, weathered, laminated SLATE (weakly metamorphosed shale) with very hard, bedded siltstone layers. Veined with calcite and cut by 60 degree fractures (slaty cleavage) roughly parallel to relic bedding. Fracture surfaces frequently rust-stained. Completely shattered zones noted in recovered core, and as blockages wedged in core barrel washed away by drilling operation.	Core drilled from 20.0' to 30.0'. Run 1: 20.0' - 25.0' 3.2' Recovery (16%) ROD = 26%. Run 2: 25.0' - 30.0' 3.4' Recovery (16%) ROD = 28%. NX Core
30	5	50/2		Boring Terminated @ 30.0'	No losses of water noted while coring.
N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW DRILLER: Mike Leshgan DRILL RIG TYPE: CME 75 CLASSIFICATION: Visual by Geologist METHOD OF INVESTIGATION: #25' ID. Hollow Stem Auger, NX Diamond Core					

B.F.
ABUT.
NO. 2

DATE:		SUBSURFACE LOG		PJT. NO. AD-02-069	
START 10/8/2002				HOLE NO. B-2	
FINISH 10/8/2002				SURF. ELEV. 237.14	
SHEET 1 OF 1				GW. DEPTH See Notes	
PROJECT: Bridge Reconstruction		LOCATION: Bostwick Rd. over Vermont Railway			
Project BRD 1445 (30)		T/O Shelburne, Vermont			
STATION: 20+92.594		OFFSET: 7.000' RT			
DEPTH FT.	SAMPL. NO.	BLOWS ON SAMPLER	REC. (FT)	SOIL OR ROCK CLASSIFICATION	NOTES
	1	4 8 8 7 6		ASPHALT	South side of east abutment.
				Fill: Brown SHALE FRAGMENTS in SILT, SAND and GRAVEL matrix (Moist - Stiff)	Samples above 20' are "wet" due to introduction of water for casing advance and cleanout.
5	2	1 2 3 2 5 10		No recovery; loose material, washed away by drilling operation	No recovery; loose material, washed away by drilling operation
10				No recovery; cuttings similar to Sample 1	
15	3	4 3 3 2 6 10		Brown SILT with embedded SHALE FRAGMENTS (Moist/Wet - Medium)	Samples become wet with groundwater at approx. 17'. At completion of core drilling, water level at ground surface (introduced water).
20	4	2 2 4 3 6 12		Brown fine SAND & SILT with seams of silt & clay; conformed bedding (?) (Wet - Loose)	Gray fine SAND & SILT with gray clay seams (Wet - Firm)
25	5	1 2 3 6 5 10		Gray laminated SILT & CLAY (Wet - Stiff)	Core drilled from 33.0' to 43.0'
30	6	9 10 10 11 20 15		Iversville Shale, Gray, hard, weathered, laminated SLATE (weakly metamorphosed shale) with very hard, bedded siltstone layers. Veined with calcite and cut by 60 degree fractures (slaty cleavage) roughly parallel to relic bedding. Fracture surfaces frequently rust-stained. Completely shattered zones noted in recovered core, and as blockages wedged in core barrel washed away by drilling operation.	Run 1: 33.0' - 38.0' 3.5' Recovery (10%) ROD = 16%. Run 2: 38.0' - 43.0' 4.8' Recovery (96%) ROD = 22%. NX Core
35	7	8 10 7 5 17 20		Run 1 highly weathered and fractured throughout, with very frequent calcite veins and silken-sided surfaces. Run 2 less weathered and veined, with silken-sided surfaces throughout. Boring Terminated @ 43.0'	No losses of water noted while coring.
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N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW DRILLER: Mike Leshgan DRILL RIG TYPE: CME 75 CLASSIFICATION: Visual by Geologist METHOD OF INVESTIGATION: # Flush Joint Casing, NX Diamond Core					

B.F.
ABUT.
NO. 2

DATE:		SUBSURFACE LOG		PJT. NO. AD-02-069	
START 10/9/2002				HOLE NO. B-4	
FINISH 10/9/2002				SURF. ELEV. 237.05	
SHEET 1 OF 1				GW. DEPTH See Notes	
PROJECT: Bridge Reconstruction		LOCATION: Bostwick Rd. over Vermont Railway			
Project BRD 1445 (30)		T/O Shelburne, Vermont			
STATION: 21+02.408		OFFSET: 6.000' LT			
DEPTH FT.	SAMPL. NO.	BLOWS ON SAMPLER	REC. (FT)	SOIL OR ROCK CLASSIFICATION	NOTES
	1	8 7 5 6 12 05		ASPHALT	North side of east abutment.
				Fill: Brown rounded fine to medium GRAVEL and fine to coarse SAND, some silt (Moist - Firm)	
5	2	2 2 2 2 4 08		Brown SILT with embedded SHALE FRAGMENTS (Moist - Soft)	
10				Similar to Sample 2	
15	3	2 3 2 1 5 08		Brown SILT & CLAY, trace fine sand as matrix material and as partings (Wet - Very Soft)	Samples become wet with groundwater at approx. 15'. At completion of core drilling, water level at ground surface (introduced water).
20	4	2 1 1 1 2 10		Brown, grading gray, interbedded SILT & CLAY (Wet - Very Soft)	
25	5	1 1 1 1 2 10		Gray SILT & very fine SAND with partings of clay & fine sand (Wet - Medium)	
30	6	2 7 6 4 13 15		Gray fine SAND & SILT (Wet - Hard)	
35	7	11 14 12 13 26 15		Gray SILT & fine to medium SAND with embedded rounded medium GRAVEL & SHALE FRAGMENTS (Wet)	Core drilled from 36.0' to 41.0'. Run 1: 36.0' - 41.0' 2.8' Recovery (56%) ROD = 8%. NX Core
40	8	8 6		Iversville Shale, Gray, hard, weathered, laminated SLATE (weakly metamorphosed shale) with very hard, bedded siltstone layers. Veined with calcite and cut by 60 degree fractures (slaty cleavage) roughly parallel to relic bedding. Fracture surfaces frequently rust-stained. Completely shattered zones noted in recovered core, and as blockages wedged in core barrel washed away by drilling operation. Boring Terminated @ 41.0'	No losses of water noted while coring.
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N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW DRILLER: Mike Leshgan DRILL RIG TYPE: CME 75 CLASSIFICATION: Visual by Geologist METHOD OF INVESTIGATION: # Flush Joint Casing, NX Diamond Core					

NOTES

- BOTTOM OF FOOTING ELEVATION AT ABUTMENT NO. 1 = 223.20
- BOTTOM OF FOOTING ELEVATION AT ABUTMENT NO. 2 = 226.00

LEGEND

B.F. BOTTOM OF FOOTING ELEVATION

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NO. 1

DATE:		SUBSURFACE LOG		PJT. NO. AD-02-069	
START 10/8/2002				HOLE NO. B-2	
FINISH 10/8/2002				SURF. ELEV. 237.24	
SHEET 1 OF 1				GW. DEPTH See Notes	
PROJECT: Bridge Reconstruction		LOCATION: Bostwick Rd. over Vermont Railway			
Project BRD 1445 (30)		T/O Shelburne, Vermont			
STATION: 19+89.525		OFFSET: 6.250' RT			
DEPTH FT.	SAMPL. NO.	BLOWS ON SAMPLER	REC. (FT)	SOIL OR ROCK CLASSIFICATION	NOTES
	1	5 5 4 4 9 15		ASPHALT	South side of west abutment.
				Possible Fill: Brown SILT with embedded SHALE FRAGMENTS (Moist - Medium)	Samples 1 & 2 are "wet" due to introduction of water for casing advance and cleanout.
5	2	2 1 1 2 2 10		Similar, very soft	
10				Brown laminated SILT & CLAY (Moist - Medium)	
15	3	2 7 7 9 14 15		Similar, with partings of fine sand; stiff, wet	Drilled from 17.5' to 18.5' with tri-cone bit.
20	4	9 12 15 14 27 15		Iversville Shale, Gray, hard, weathered, laminated SLATE (weakly metamorphosed shale) with very hard, bedded siltstone layers. Veined with calcite and cut by 60 degree fractures (slaty cleavage) roughly parallel to relic bedding. Fracture surfaces frequently rust-stained. Completely shattered zones noted in recovered core, and as blockages wedged in core barrel washed away by drilling operation.	Core drilled from 18.5' to 28.5'. Run 1: 18.5' - 23.5' 3.0' Recovery (160%) ROD = 0%. Run 2: 23.5' - 28.5' 3.0' Recovery (60%) ROD = 16%. NX Core
30				Run 1 very fractured throughout, as are uppermost and lowermost portions of Run 2. Silken-sided surfaces noted at base of Run 1. Boring Terminated @ 28.5'	No losses of water noted while coring.
35					Samples become wet at approx. 18'. Prior to core drilling, water level inside casing at 18' below ground surface.
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N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW DRILLER: Mike Leshgan DRILL RIG TYPE: CME 75 CLASSIFICATION: Visual by Geologist METHOD OF INVESTIGATION: # Flush Joint Casing, NX Diamond Core					

STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of	SHELBURNE	Bridge No.	15
Highway No.	TH 3	Log Sta.	
		Surv. Sta.	
BOSTWICK ROAD OVER VERMONT RAILWAY			
BORING LOGS			
Designed By	SJB SERVICES, INC.	Drawn By	S. MERKMAN
Checked By	L. WIXSON	Bridge Design Supervisor	M. ZYDEL
PROJECT	SHELBURNE	PROJECT NO.	BRO 1445(30)
I.G.C. Info. MNS95402_BostwickBRIDGE.dgn		Date 05/03	
Bridge Sheet No.	BRI02	Sheet	42 of 73

