

**STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIALS & RESEARCH DIVISION
SUBSURFACE INFORMATION**



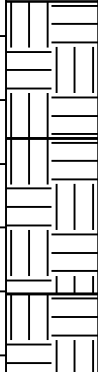
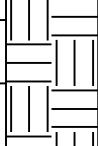

HOLE NO.: BI
SHEET 1 OF 1
DATE STARTED: 4/27/99
DATE COMPLETED: 4/27/99

PROJECT NAME: WESTFORD
SITE NAME: BR #2
STATION: I+089.00
GROUND EL.: 173.098

PROJECT NUMBER: TH3-9436
SITE NO.: TH #7
OFFSET: -3.00
G.W. DEPTH:

BORING CREW
CREW CHIEF: MCGLYNN
DRILLER: MCGLYNN
LOGGER: CHABOT
ADDITIONAL CREW: YOUNG

BORING RIG: SKID RIG
BORING TYPE: WASH BORE
SAMPLE TYPE: SPLIT BARREL

DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS <i>(Description)</i>	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
		A-2-4, SiGrSa, W, brn, rec. = 0.18m	5	14.2	35.1	41.8	23.1		
		A-2-4, SiSa, M, brn, rec. = 0.20m Trace of Organics (wood)	6	25.5	16.4	56.3	27.3		
		RUN#1: BXMDC 3.73m-4.80m rec. = 0.46m See Geologist's Report		RUN	REC%	RQD%	DIP°		
				1	43	0	75		
5		RUN#2: BXMDC 4.80m-6.02m rec. = 1.09m See Geologist's Report		2	89	50	75		
		RUN#3: BXMDC 6.02m-6.66m rec. = 0.29m See Geologist's Report		3	45	23	75		
		Hole Stopped @ 6.66m							
10									

GEOLOGISTS REPORT:

Run #1: Gray, metagraywacke. Moderately hard. Moderately weathered.
Poor competency.

Run #2: Gray, metagraywacke. Moderately hard. Unweathered.
Fair competency.

Run #3: Gray phyllite with quartz veins. Unweathered. Fair competency.

**STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIALS & RESEARCH DIVISION
SUBSURFACE INFORMATION**




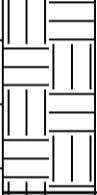
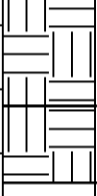
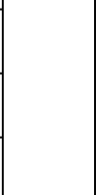
HOLE NO.: B2
SHEET 1 OF 1
DATE STARTED: 4/23/99
DATE COMPLETED: 4/23/99

PROJECT NAME: WESTFORD
SITE NAME: BR #2
STATION: I+089.00
GROUND EL.: 172.964

PROJECT NUMBER: TH3-9436
SITE NO.: TH #7
OFFSET: 1.00
G.W. DEPTH:

BORING CREW
CREW CHIEF: MCGLYNN
DRILLER: MCGLYNN
LOGGER: CHABOT
ADDITIONAL CREW: YOUNG

BORING RIG: SKID RIG
BORING TYPE: WASH BORE
SAMPLE TYPE: SPLIT BARREL

DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
		A-2-4, GrSiSa, MTW, brn rec.=0.45m	9	17.8	20.3	53.1	26.6		
		A-1-b, SaGr, W, brn, rec.=0.27m.	12	16.5	41	33.8	25.2		
		BXMDC 3.72m-3.92m, Boulders		Top of Bedrock @ 3.92					
5		RUN#1: BXMDC 4.17m-5.69m rec.=0.54m. See Geologist's Report		RUN	REC%	RQD%	DIP°		
				1	36	36	45		
		RUN#2: BXMDC 5.69m-6.63m rec.=0.73m. See Geologist's Report		2	78	70	65		
		RUN#3: BXMDC 6.63m-7.23m rec.=0.60m. See Geologist's Report		3	100	95	65		
		Hole Stopped @ 7.23m							
10									

GEOLOGISTS REPORT:

Run #1: Gray, metagraywacke with quartz veins. Moderately hard. unweathered. Poor recovery. Drillers reported that drilling breaks were encountered. Poor competency.

Run #2: Gray, metagraywacke with quartz veins. Moderately hard. unweathered. Competent.

Run #3: Same as Run #2.

**STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIALS & RESEARCH DIVISION
SUBSURFACE INFORMATION**

HOLE NO.: B3
SHEET 1 OF 1
DATE STARTED: 4/28/99
DATE COMPLETED: 4/28/99

PROJECT NAME: WESTFORD
SITE NAME: BR #2
STATION: I+089.00
GROUND EL.: 172.948

PROJECT NUMBER: TH3-9436
SITE NO.: TH #7
OFFSET: 3.00
G.W. DEPTH:

BORING CREW
CREW CHIEF: MCGLYNN
DRILLER: MCGLYNN
LOGGER: CHABOT
ADDITIONAL CREW: YOUNG

BORING RIG: SKID RIG
BORING TYPE: WASH BORE
SAMPLE TYPE: SPLIT BARREL

DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
		A-1-a, SaGr, W, brn, rec. = 0.15m.		9	70.9	23.8	5.3		
		No Sample, Boulders	2						
5									
		RUN#1: BXMDC 5.18m-5.63m, rec. = 0.39m.		1	87	67	45		
		RUN#2: BXMDC 5.63m-6.83m rec. = 0.50m. See Geologist's Report		2	42	25	50		
		RUN#3: BXMDC 6.83m-8.03m rec. = 0.70m. See Geologist's Report		3	58	42	50		
		Hole Stopped @ 8.03m							
10									

GEOLOGISTS REPORT:

- Run #1: Gray, metagraywacke. Moderately hard. Unweathered. Competent.
- Run #2: Gray, metagraywacke. Moderately hard. Unweathered.
Fair to poor recovery. Fair to poor competency.
- Run #3: Gray, metagraywacke. Moderately hard. Unweathered.
Fair competency.

**STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIALS & RESEARCH DIVISION
SUBSURFACE INFORMATION**

HOLE NO.: B4
SHEET 1 OF 1
DATE STARTED: 4/26/99
DATE COMPLETED: 4/26/99

PROJECT NAME: WESTFORD
SITE NAME: BR #2
STATION: I+097.00
GROUND EL.: 171.635

PROJECT NUMBER: TH3-9436
SITE NO.: TH #7
OFFSET: -5.00
G.W. DEPTH:

BORING CREW
CREW CHIEF: MCGLYNN
DRILLER: MCGLYNN
LOGGER: CHABOT
ADDITIONAL CREW: YOUNG

BORING RIG: SKID RIG
BORING TYPE: WASH BORE
SAMPLE TYPE: SPLIT BARREL

DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
		1.50m-1.58m: A-8, Organic (28.6%) Silt, W, brn, rec. = 0.08m.		127.8					
		A-1-a, SaGr, W, brn, rec. = 0.32m.	R	10.6	60.9	29.4	9.7		
				Top of Bedrock @ 2.36m					
		RUN#1: BXMDC 2.36m-3.12m rec. = 0.70m See Geologist's Report.		RUN	REC%	RQD%	DIP°		
				1	92	74	65		
		RUN#2: BXMDC 3.12m-4.03m rec. = 0.85m See Geologist's Report.		2	93	90	70		
		RUN#3: BXMDC 4.03m-4.23m, rec. = 0.15m		3	75	75	70		
		RUN#4: BXMDC 4.23m-4.38m, rec. = 0.13m		4	87	87	70		
5		RUN#5: BXMDC 4.38m-5.59m rec. = 1.14m See Geologist's Report.		5	94	78	75		
		Hole Stopped @ 5.59m							
10									

GEOLOGISTS REPORT:

- Run #1: Gray, metagraywacke. Moderately hard. Unweathered. Competent.
- Run #2: Same as Run #1.
- Run #3: Same as Run #1.
- Run #4: Same as Run #1.
- Run #5: 4.38m-5.02m, Gray phyllite. Medium hard. Unweathered. Competent.
5.02m-5.59m, Gray, metagraywacke. Moderately hard. Unweathered. Competent.

**STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIALS & RESEARCH DIVISION
SUBSURFACE INFORMATION**

HOLE NO.: B5
SHEET 1 OF 1
DATE STARTED: 4/21/99
DATE COMPLETED: 4/21/99

PROJECT NAME: WESTFORD
SITE NAME: BR #2
STATION: I+096.00
GROUND EL.: 172.561

PROJECT NUMBER: TH3-9436
SITE NO.: TH #7
OFFSET: -1.50
G.W. DEPTH:

BORING CREW
CREW CHIEF: MCGLYNN
DRILLER: MCGLYNN
LOGGER: CHABOT
ADDITIONAL CREW: YOUNG

BORING RIG: SKID RIG
BORING TYPE: WASH BORE
SAMPLE TYPE: SPLIT BARREL

DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS <i>(Description)</i>	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
		* - Visual Classification							
		*Broken Rock, rec.=0.10m.	70	2					
		*Broken Rock, rec.=0.20m.	26	2.9					
		*Broken Rock, rec.=0.15m.	R						
				Top of Bedrock @ 3.51m					
		RUN#1: BXMDC 3.51m-4.72m rec.=0.80m. See Geologist's Report		RUN	REC%	RQD%	DIP°		
				1	66	40	65		
5		RUN#2: BXMDC 4.72m-5.79m rec.=0.97m. See Geologist's Report		2	91	85	70		
		RUN#3: BXMDC 5.79m-6.86m rec.=0.72m. See Geologist's Report		3	67	60	70		
		Hole Stopped @ 6.86m							
10									

GEOLOGISTS REPORT:

- Run #1: Gray, metagraywacke. Moderately hard. Unweathered .
Top 0.7m broken up along quartz lenses.
Top 0.7m uncompetent. Remainder of Run is competent.
- Run #2: Gray, metagraywacke. Moderately hard. Unweathered. Competent.
- Run #3: Same as Run #2, but with quartz veins. Competent.

**STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIALS & RESEARCH DIVISION
SUBSURFACE INFORMATION**

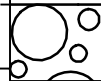
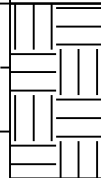
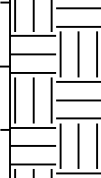
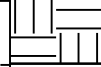
HOLE NO.: B6
SHEET 1 OF 1
DATE STARTED: 4/22/99
DATE COMPLETED: 4/22/99

PROJECT NAME: WESTFORD
SITE NAME: BR #2
STATION: I+097.00
GROUND EL.: 172.062

PROJECT NUMBER: TH3-9436
SITE NO.: TH #7
OFFSET: 4.00
G.W. DEPTH:

BORING CREW
CREW CHIEF: TALLMAN
DRILLER: MCGLYNN
LOGGER: CHABOT
ADDITIONAL CREW: YOUNG

BORING RIG: SKID RIG
BORING TYPE: WASH BORE
SAMPLE TYPE: SPLIT BARREL

DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
		* - Visual Classification							
		*Broken rock, rec.=0.03m	8	7.2					
				Top of Bedrock @ 3.00m					
		RUN#1: BXMDC 3.00m-4.37m rec.=0.87m. See Geologist's Report		RUN	REC%	RQD%	DIP°		
				1	64	50	70		
5		RUN#2: BXMDC 4.37m-5.89m rec.=1.52m. See Geologist's Report		2	100	95	70		
		RUN#3: BXMDC 5.89m-6.49m rec.=0.60m. See Geologist's Report		3	100	100	70		
		Hole Stopped @ 6.49m							
10									

GEOLOGISTS REPORT:

Run #1: 3.0m-3.5m, Gray, phyllite with quartz veins. Medium hard. Unweathered. Fair competency.
3.5m-4.37m, Gray, metagraywacke. Moderately hard. Unweathered. Competent.

Run #2: 4.37m-5.15m, Gray, metagraywacke. Moderately hard. Unweathered. Competent.
5.15m-5.50m, Gray, phyllite. Medium hard. Unweathered.
5.50m-5.89m, Same as top of run.

Run #3: Same as top of Run #2. Competent.