

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







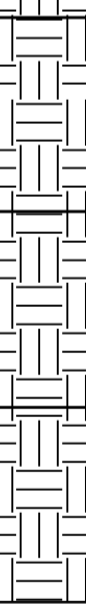
HOLE NO.: B-1
SHEET 1 OF 1
DATE STARTED: 7/17/98
DATE COMPLETED: 7/18/98

PROJECT NAME: GROTON
SITE NAME: BR-4
STATION: 100+115.00
GROUND EL.: 300.51

PROJECT NUMBER: TH2-9435
SITE NO.: TH-1
OFFSET: 6.00
G.W. DEPTH:

BORING CREW
CREW CHIEF: MCGLYNN
DRILLER: CHABOT E J
LOGGER: HOLT
ADDITIONAL CREW:

BORING RIG: TRACTOR
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 | |
|-------|---|---|----------------------------------|------------------------|-------------|-----------|------------|----|----|--|
| |  | 0.30m-1.98m, Boulders, 1.98m wash water changed to brown. | | | | | | | | |
| |  | A-4, SaSi, brn, Moist, Rec. = 0.46m | 76 | 20 | 0.6 | 41.3 | 58.1 | | | |
| 5 |  | A-2-4, SiSa, brn, Moist, Rec. = 0.15m | R | 13.4 | 6.4 | 69.8 | 23.8 | | | |
| |  | A-1-b, Sa, brn, Moist, Rec. = 0.23m | R | 14.8 | 13.6 | 76.1 | 10.3 | | | |
| |  | A-2-4, SiSa, gry, Moist, Rec. = 0.07m | R | 18.4 | 6.1 | 70.9 | 23 | | | |
| |  | 9.14m-9.36m, Weathered granite | R | Top of bedrock @ 9.37m | | | | | | |
| 10 |  | Run #1: BXMDC, 9.37m-9.98m, Rec. = 0.23m, See Geologist's Report. | RUN | REC% | RQD% | Dip° | | | | |
| | | Run #2: BXMDC, 9.98m-11.50m, Rec. = 0.43m, See Geologist's Report. | 1 | 37 | 0 | — | | | | |
| | | Run #3: BXMDC, 11.50m-13.03m, Rec. = 0.88m, See Geologist's Report. | 2 | 28 | 0 | — | | | | |
| | | Run #4: BXMDC, 13.03m-14.55m, Rec. = 0.80m, See Geologist's Report. | 3 | 58 | 0 | — | | | | |
| | | | 4 | 53 | 0 | — | | | | |
| | | | Hole stopped @ 14.55m in bedrock | | | | | | | |

GEOLOGISTS REPORT:

Run #1: White granite, Very hard, Slightly weathered, Closely spaced horizontal jointing, Poor competency.

Run #2: Same as Run#1.

Run #3: Same as Run#1.

Run #4: Same as Run#1.

**STATE OF VERMONT
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HOLE NO.: B-2
SHEET 1 OF 1
DATE STARTED: 9/16/98
DATE COMPLETED: 9/17/98

PROJECT NAME: GROTON
SITE NAME: BR-4
STATION: 100+130.00
GROUND EL.: 299.290

PROJECT NUMBER: TH2-9435
SITE NO.: TH-1
OFFSET: 0.00
G.W. DEPTH:

BORING CREW
CREW CHIEF: MCGLYNN
DRILLER: CHABOT E J
LOGGER:
ADDITIONAL CREW:

BORING RIG: TRACTOR
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-1-b, GrSa, brn, Moist, Rec. = 0.43m | 37 | 12.7 | 30 | 56.5 | 13.5 | | |
| | | A-1-b, GrSa, brn, Moist, Rec. = 0.07m | R | 12.6 | 46.4 | 50 | 3.6 | | |
| 5 | | A-1-b, Sa, brn, Moist, Rec. = 0.15m | R | 14.9 | 16 | 72.7 | 11.3 | | |
| | | A-4, SaSi, brn, Moist, Rec. = 0.20m | R | 19.9 | 1.7 | 29.7 | 68.6 | | |
| | | BXMDC, 7.65m-8.99m, Rec. = 0.99m, Boulder | | | | | | | |
| | | | | Top of bedrock @ 9.14m | | | | | |
| | | Run #1: BXMDC, 9.14m-10.29m, Rec. = 1.09m, See Geologist's Report | RUN | REC% | RQD% | Dip° | | | |
| 10 | | | 1 | 95 | 76 | — | | | |
| | | Run #2: BXMDC, 10.29m-11.56m, Rec. = 1.19m, See Geologist's Report | 2 | 94 | 28 | — | | | |
| | | Run #3: BXMDC, 11.56m-12.22m, Rec. = 0.64m, See Geologist's Report | 3 | 97 | 26 | — | | | |
| | | | | Hole stopped @ 12.22m | | | | | |

GEOLOGISTS REPORT:

Run #1: White granite, Very hard, Very slightly weathered, Competent.

Run #2: Same as Run#1, but severely weathered (11.09m-11.29m & 11.44m-11.56m), Fairly competent.

Run #3: Same as Run #1.

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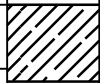
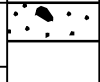
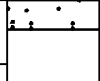
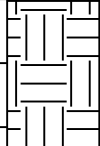
HOLE NO.: B-3
SHEET 1 OF 1
DATE STARTED: 9/23/98
DATE COMPLETED: 9/23/98

PROJECT NAME: GROTON
SITE NAME: BR-4
STATION: 100+135.00
GROUND EL.: 300.759

PROJECT NUMBER: TH2-9435
SITE NO.: TH-1
OFFSET: -12.00
G.W. DEPTH:

BORING CREW
CREW CHIEF: MCGLYNN
DRILLER: CHABOT E J
LOGGER: MERRILL
ADDITIONAL CREW:

BORING RIG: TRACTOR
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, Sa, brn, MTW, Rec. = 0.28m | 3 | 24.6 | 16.4 | 72.3 | 11.3 | | |
| |  | A-1-b, SaGr, brn, Moist, Rec. = 0.20m | 59 | 10.8 | 51.8 | 38.8 | 9.4 | | |
| 5 |  | A-2-4, SiSa, brn, Moist, Rec. = 0.23m | R | 16.1 | 8.2 | 61 | 30.8 | | |
| |  | A-4, SiSa, brn, Moist, Rec. = 0.24m | 77 | 14.7 | 2.7 | 59.2 | 38.1 | | |
| |  | A-1-b, Sa, brn, Moist, Rec. = 0.18m | R | 14.1 | 15.7 | 69.3 | 15 | | |
| |  | A-1-b, SiSa, brn, Moist, Rec. = 0.11m | R | 16.3 | 18.7 | 60.8 | 20.5 | | |
| 10 | | 10.50-10.51m, No Rec. | R | Top of bedrock @ 10.51m | | | | | |
| |  | Run #1: BXMDC, 10.51m-11.72m, Rec. = 0.46m, See Geologist's Report | RUN | REC% | RQD% | Dip° | | | |
| | | | 1 | 38 | 0 | — | | | |
| | | | | Hole stopped @ 11.72 m | | | | | |

GEOLOGISTS REPORT:

Run #1: White granite, Very hard, Severely weathered, Uncompetent

**STATE OF VERMONT
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HOLE NO.: B-4
SHEET 1 OF 1
DATE STARTED: 9/24/98
DATE COMPLETED: 9/24/98

PROJECT NAME: GROTON
SITE NAME: BR-4
STATION: 100+155.00
GROUND EL.: 300.132

PROJECT NUMBER: TH2-9435
SITE NO.: TH-1
OFFSET: -6.00
G.W. DEPTH:

BORING CREW
CREW CHIEF: MCGLYNN
DRILLER: CHABOT E J
LOGGER: MERRILL
ADDITIONAL CREW:

BORING RIG: TRACTOR
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 |
|-------|--------|---|-----------------------|----------------|-------------|-----------|------------|----|----|
| | | No Rec. | 20 | | | | | | |
| | | No Rec. | R | | | | | | |
| 5 | | A-2-4, Sa, brn, Moist, Rec. = 0.18m | R | 15.6 | 13.8 | 69.7 | 16.5 | | |
| | | A-4, SiSa, brn, Moist, Rec. = 0.12m | R | 19.7 | 2 | 61.4 | 36.6 | | |
| | | A-2-4, Sa, brn, Moist, Rec. = 0.07m | R | 16.4 | 10.4 | 75.5 | 14.1 | | |
| 10 | | A-4, SaSi, brn, Moist, Rec. = 0.23m | R | 19.6 | 5.5 | 45 | 47.5 | | |
| | | No Rec. | R | | | | | | |
| | | | | Hole stopped @ | | | 10.52 m | | |

GEOLOGISTS REPORT:

**STATE OF VERMONT
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HOLE NO.: B-5
SHEET 1 OF 1
DATE STARTED: 9/22/98
DATE COMPLETED: 9/22/98

PROJECT NAME: GROTON
SITE NAME: BR-4
STATION: 100+137.00
GROUND EL.: 298.135

PROJECT NUMBER: TH2-9435
SITE NO.: TH-1
OFFSET: 0.00
G.W. DEPTH:

BORING CREW
CREW CHIEF: MCGLYNN
DRILLER: CHABOT E J
LOGGER: MERRILL
ADDITIONAL CREW:

BORING RIG: TRACTOR
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 |
|-------|--------|--|-----------------------|----------------|-------------|-----------|------------|----|----|
| | | BXDC, 1.21m-1.83m, Rec. = 0.24m, Boulder | | | | | | | |
| | | | | | | | | | |
| | | A-2-4, GrSiSa, brn, Moist, Rec. = 0.18m | R | 14.6 | 21.8 | 50.7 | 27.5 | | |
| 5 | | A-4, SaSi, brn, Moist, Rec. = 0.20m | R | 19 | 3.9 | 34.9 | 61.2 | | |
| | | | | | | | | | |
| | | A-1-a, SaGr, brn, Moist, Rec. = 0.08m | R | 18.4 | 58.5 | 37.8 | 3.7 | | |
| | | | | Hole stopped @ | | | 6.10m | | |
| 10 | | | | | | | | | |

GEOLOGISTS REPORT:

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




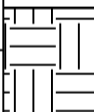




HOLE NO.: B-6
SHEET 1 OF 1
DATE STARTED: 9/17/98
DATE COMPLETED: 9/21/98

PROJECT NAME: GROTON
SITE NAME: BR-4
STATION: 100+132.00
GROUND EL.: 299.067

PROJECT NUMBER: TH2-9435
SITE NO.: TH-1
OFFSET: 8.00
G.W. DEPTH:

BORING CREW
CREW CHIEF: MCGLYNN
DRILLER: CHABOT E J
LOGGER:
ADDITIONAL CREW:

BORING RIG: TRACTOR
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 |
|-------|---|--|-----------------------|------------------|-------------|-----------|------------|----|----|
| |  | No Sample, Boulders | | | | | | | |
| |  | A-4, SiSa, brn, Moist, Rec. = 0.13m | R | 15 | 3.9 | 59.1 | 37 | | |
| 5 |  | A-1-b, SiGrSa, brn, Moist, Rec. = 0.26m | R | 12.4 | 21.8 | 58.1 | 20.1 | | |
| |  | A-4, SiSa, brn, Moist, Rec. = 0.23m | R | 15.8 | 8.4 | 50.3 | 41.3 | | |
| |  | A-4, SaSi, brn, Moist, Rec. = 0.22m | R | 16.2 | 9.2 | 39.8 | 51 | | |
| 10 |  | BXMDC, 8.83m-10.36m, No Rec. | | | | | | | |
| | | | | Top of bedrock @ | | 10.67 | m | | |
| |  | Run #1: BXMDC, 10.67m-11.61m, Rec. = 0.22m, See Geologist's Report | RUN | REC% | RQD% | Dip° | | | |
| | | | 1 | 23 | 0 | — | | | |
| |  | Run #2: BXMDC, 11.61m-11.91m, Rec. = 0.23m, | 2 | 77 | 0 | — | | | |
| |  | Run #3: BXMDC, 11.91m-12.75m, Rec. = 0.84m, See Geologist's Report | 3 | 100 | 0 | — | | | |
| |  | Run #4: BXMDC, 12.75m-13.69m, Rec. = 0.70m, See Geologist's Report | 4 | 74 | 12 | — | | | |
| |  | Run #5: BXMDC, 13.69m-13.99m, Rec. = 0.24m, See Geologist's Report | 5 | 80 | 0 | — | | | |
| | | | | Hole stopped @ | | 13.99 | m | | |

GEOLOGISTS REPORT:

Run #1: White granite, Very hard, Moderately severe weathering, Poor competency.
Run #2: Same as Run #1.
Run #3: Same as Run #1, but very severely weathered from 12.21m-12.61m.
Run #4: Same as Run #1.
Run #5: Same as Run #1.