GZA GeoEnvironmental, Inc. *Engineers and Scientists*

Cornwall BRS 0172(6)S
Cornwall, Vermont

Boring No.: B-203
Page: 1 of 3
File No.: 22721.3
Check: TAD

Contractor: NH Boring
Foreman: Bob Doherty
Logged by: Jay Hodkinson
Date Start/Finish: 9-10-01 / 9-13-01
Boring Location: Sta. 1+197.6, 22.0 mL
GS Elev.: 42.9+/- Datum: NAVD 88

| | Auger/ Casing | Sampler |
|---|---|---|
| Type: | HW | SS |
| I.D.: | 102mm | 35mm |
| Hammer Wt.: | 136.1kg | 63.5kg |
| Hammer Fall: | 0.76m | 0.76m |
| Rig Type: | CME 45 | |

GROUNDWATER READINGS

| Date | Time | Depth | Casing | Stab |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |

| Depth (m) | Sample Information: No. | Pen./ Rec. (m) | Depth (m) | Blows (/0.15m) | N Value | Sample Description & Classification | Stratum Desc. | Remarks | Equipment Installed |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | No Equipment Installed |
| 2 | S-1 | 0.61/ 0.05 | 1.52- 2.13 | push | | VS: 16.5 kPa, Vane tip at 1.98m (6.5 feet). Gray-brown, CLAY & SILT, with layers of ORGANIC SILT. (A-7-6) | CLAY & SILT with Layers of ORGANIC SILT | 1 | |
| 3 | S-2 | 0.61/ 0.38 | 3.05- 3.66 | push | | VS: 19.1 kPa, Vane tip at 3.51m (11.5 feet). Gray, CLAY & SILT, with layers of ORGANIC SILT. (A-7-6) | | | |
| 4 | S-3 | 0.61/ 0.43 | 4.57- 5.18 | 3-1 2-1 | 3 | Soft, gray, CLAY & SILT, with layers of ORGANIC SILT. (A-7-6) | | | |
| 5 | | | | | | | 5.49m | 2 | |
| 6 | S-4 | 0.61/ 0.33 | 6.10- 6.71 | 6-10 12-14 | 22 | Medium dense, gray, fine to medium SAND, trace Silt. (A-3) | SAND | 3 | |
| 7 | | | | | | | | | |
| 8 | S-5 | 0.61/ 0.18 | 7.62- 8.23 | 6-9 14-18 | 23 | Medium dense, gray, fine to medium SAND, little Silt. (A-3) | | 4 | |
| 9 | | | | | | | | | |

REMARKS

1. VS=Vane Shear Test. Split spoon sample was driven through the soil disturbed by the VS test.
2. Change in strata at 5.49m (18 feet) based on drill action.
3. Blow counts may be artificially high due to approximately 0.3m (1 foot) of "blow-in sands" in casing.
4. Water was at top of casing approximately 0.15m (6 inches) above ground surface approximately 14 hours of stabilization time.

Stratification lines represent approximate boundary between soil types, transitions may be gradual. 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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| Depth (m) | Sample Information: No. | Pen./ Rec. (m) | Depth (m) | Blows (/0.15m) | N Value | Sample Description & Classification | Stratum Desc. | Remarks | Equipment Installed |
|---|---|---|---|---|---|---|---|---|---|
| 10 | S-6 | 0.61/ 0.13 | 9.14- 9.75 | 5-5 8-19 | 13 | Medium dense, gray, fine SAND and Silt, trace Gravel. (A-4) | | | |
| 11 | S-7 | 0.61/ 0.20 | 10.67- 11.28 | 4-4 4-4 | 8 | Loose, gray, fine to medium SAND, trace Silt. (A-3) | | | |
| 12 | S-8 | 0.61/ 0.13 | 12.19- 12.80 | WOR-3 5-5 | 8 | Loose, gray, fine SAND, some Silt. (A-3) | | | |
| 13 | S-9 | 0.61/ 0.30 | 13.72- 14.33 | 4-3 3-3 | 6 | Loose, gray, Clayey SILT, little fine Sand. (A-5) | | | |
| 14 | | | | | | | SAND | | |
| 15 | S-10 | 0.61/ 0.41 | 15.24- 15.85 | 12-4 4-5 | 8 | Loose, gray, fine SAND, some Silt, trace Gravel. (A-2-4) | | | |
| 16 | | | | | | | | | |
| 17 | S-11 | 0.30/ 0.15 | 16.76- 17.07 | 5-5 60/ 0mm | 65 | Very dense, gray, fine SAND, some Silt. (A-3) | | | |
| 18 | | | | | | | | | |
| 19 | S-12 | 0.61/ 0.25 | 18.29- 18.90 | 4-5 5-4 | 10 | Loose, gray, fine SAND, some Silt. (A-3) | | 5 | |

REMARKS

5. Drilling change at 19.51m (64 feet).

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Check: TAD

| Depth (m) | Sample Information: No. | Pen./ Rec. (m) | Depth (m) | Blows (/0.15m) | N Value | Sample Description & Classification | Stratum Desc. | Remarks | Equipment Installed |
|---|---|---|---|---|---|---|---|---|---|
| 20 | S-13 | 0.61/ 0.33 | 19.81- 20.42 | 44-53 51-54 | 104 | Very dense, fine to medium SAND, some Silt, little Clay, trace Gravel. (A-2-4) | | | |
| 21 | | | | | | | | | |
| 22 | S-14 | 0.61/ 0.33 | 21.34- 21.95 | 10-26 30-28 | 56 | Very dense, fine to medium SAND, trace Silt with 0.10m (4 inch) layer of SAND and Silt, some Gravel. (A-1-b) | SAND | | |
| 23 | S-15 | 0.61/ 0.00 | 22.86- 23.47 | 8-10 13-25 | 23 | No recovery. | | 6 7 | |
| 24 | | | | | | | | | |
| 25 | S-16 | 0.61/ 0.08 | 24.38- 24.99 | 26-13 13-18 | 26 | Medium dense, gray, fine to coarse SAND, some Silt, little Gravel. (A-2-4) | 24.38m | | |
| 26 | S-17 | 0.61/ 0.25 | 25.91- 26.52 | 24-32 28-34 | 60 | Very dense, gray, fine to coarse SAND and Silt, little Gravel. (A-4) | GLACIAL TILL | | |
| 27 | | | | | | | | | |
| 28 | S-18 | 0.61/ 0.25 | 27.43- 28.04 | 34-46 32-30 | 78 | Very dense, gray, fine to coarse SAND and Silt, little Gravel. (A-4) | | | |
| 29 | | | | | | Bottom of boring at 28.04m (92 feet). No refusal. | 28.04m | | |
| 30 | | | | | | | | | |

REMARKS

6. Water flowing out of the borehole.
7. Approximately 0.46m (1.5 feet) of wash in sample.

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DATUM
VERTICAL NAVD 88
HORIZONTAL NAD 83(92)

# BORING LOG SHEET 8

| PROJECT: | PROJECT NO.: |
|---|---|
| CORNWALL | BRS 0172 (6) |

DESIGN FILE NAME: z85e042bor logs.dgn
IPARM FILE NAME:
SURVEYED BY:
SQUAD LEADER: C.C. BENDA
DATE: 03/01

PLOT DATE: 2/5/2010
SURVEY DATE:
DRAWN BY: J. HODKINSON
SHEET: 76 OF 144