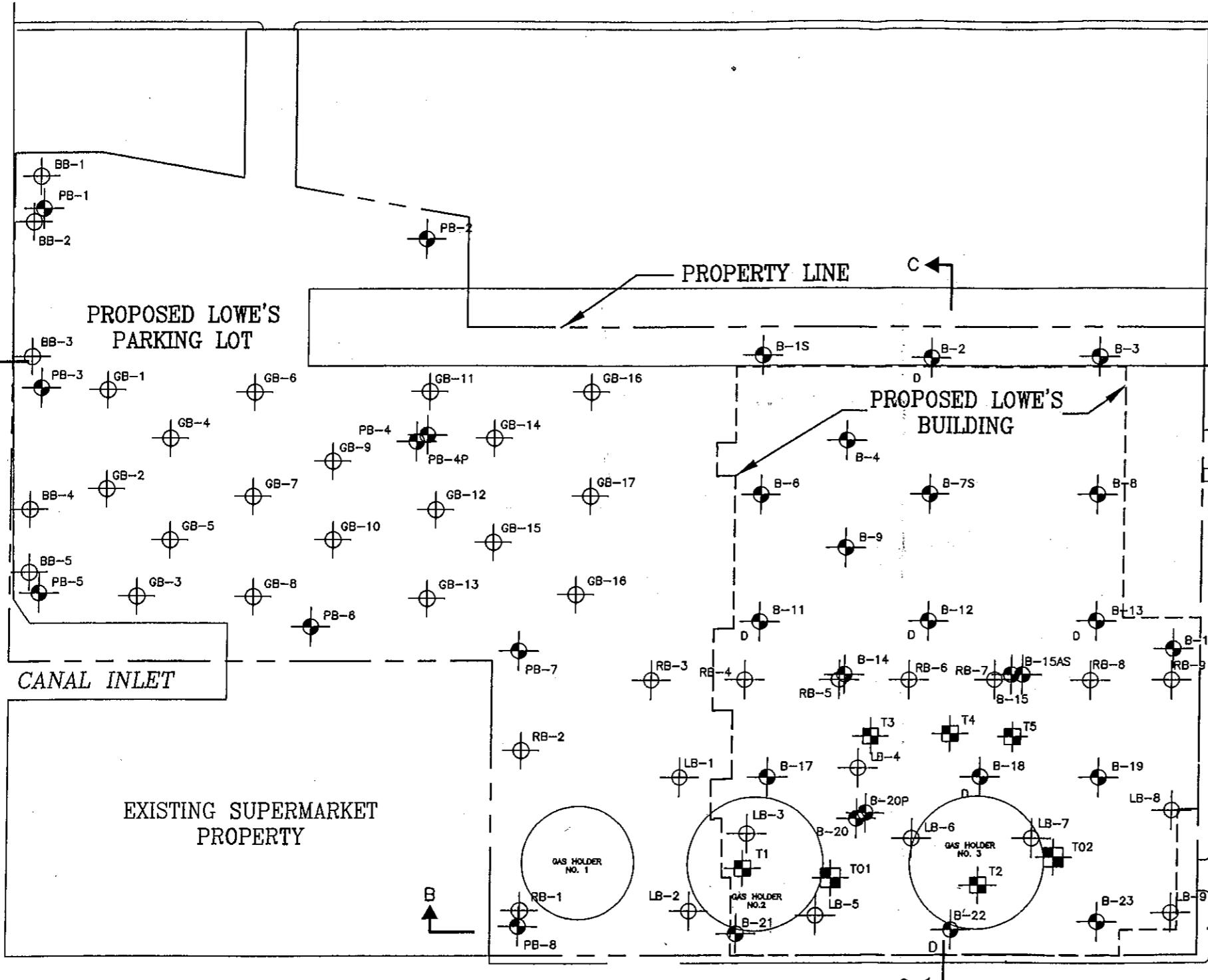


Mueser Rutledge Consulting Engineers Logs – 2002

GOWANUS CANAL



NOTES:

1. FOR GENERAL NOTES SEE DRAWING NO. GS-1.
2. FOR GEOLOGIC SECTIONS SEE DRAWINGS NOS. GS-1, GS-2, AND GS-3.

GRAPHIC SCALE

30' 20' 10' 0 30' 60'

HAMILTON PL.

2ND AVENUE

LEGEND:

PROJECT MRCE BORINGS:

| | |
|---------|---|
| ● B-1 | - BUILDING BORING, 82 FEET DEEP |
| ● B-2 | - BUILDING BORING, 102 FEET DEEP |
| ● PB-1 | - PARKING LOT BORING, 82 FEET DEEP |
| ● B-1S | - UNDISTURBED SAMPLE TAKEN IN BORING |
| ● B-20P | - 30 FOOT DEEP OBSERVATION WELL INSTALLED IN BORING |

2002 SUPPLEMENTAL BORINGS:

| | |
|------|--|
| ■ T1 | - BORING TO INVESTIGATE REMNANTS OF FORMER GAS HOLDERS AND OIL TANKS |
|------|--|

PREVIOUS BORINGS:

| | |
|--------|---------------|
| ● LB-1 | - 1998 BORING |
| ● RB-1 | - 1998 BORING |
| ● BB-1 | - 1998 BORING |
| ● GB-1 | - 1998 BORING |

1 12-12-02 J.C. ADDED SUPPLEMENTAL BORINGS AND
REV. DATE BY UNDERGROUND TANK LOCATIONS
MODIFIED LOCATIONS OF PREVIOUS BORINGS

DESCRIPTION

LOWE'S HOME CENTER

BROOKLYN NEW YORK

AKRF ENGINEERING, P.C.

NEW YORK NEW YORK

MUESER RUTLEDGE CONSULTING ENGINEERS

225 WEST 34th STREET, NEW YORK, NY 10122

| | | | |
|---------|--------------|--------------|----------|
| SCALE | MADE BY J.C. | DATE 1-14-01 | FILE NO. |
| GRAPHIC | CH'KO BY | DATE | 9446 |

DRAWING NO.
B-1

BORING
LOCATION PLAN

MUESER RUTLEDGE CONSULTING ENGINEERS

SHEET 1 OF 3
FILE NO. 9446
BORING NO. B-14
SURFACE ELEV. _____

PROJECT Lucke's Home Center

PROJECT LOCATION Brooklyn, NY

RES. ENGR. R. NUNO

| DAILY PROGRESS | SAMPLE | | | SAMPLE DESCRIPTION | STRATA | DEPTH | CASING BLOWS | REMARKS |
|---|--------|-------|--|--|--------|-------|---|---|
| | NO. | DEPTH | BLOWS/6" | | | | | |
| 1400 Wed. 20° 1350 | 1D | 10-16 | 10-16 | Brown f-sand, sm silt, t. gl, wood (sm) | (4) | 10 | drilled AHEAD 8" CONCRETE SURFACE 2" ASPHALT | Autumn Hammer AHEAD 8" CONCRETE SURFACE 2" ASPHALT |
| | | 3 | 3-2 | | | | | |
| | 2D | 3 | 3-3 | Brown M-f sand, sm silt, t. gl, | | | | |
| | | 5 | 3-3 | (fill) (in) | | | | |
| | 3D | 5 | 2-2 | DO-2D (fill) (sm) | | | | |
| | | 7 | 1-1 | | | | | |
| | 4D | 7 | 2-1 | DO-2D (fill) (cm) | | | | |
| | | 9 | 1-1 | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| 1420 Thurs. 20° Cloudy CG40 | 5D | 10 | Wet (12") | gray-brown f-sand, sm silt, t. gl, | (5) | 14.7 | 10 | SOIL, Rattle Box of TUBE, |
| | | 12 | 1-1 | gl, Br. sil (fill) (sp. dry) | | | | |
| | 6D | 12 | Wet (12") | gray-brown f-sand, sm silt, t. gl, | | | | |
| | | 14 | 1-1 | Br. sil (fill) (in) | | | | |
| | 7D | 14 | 2-1 | Br. (5")-DO-6D (fill) (in) | | | | |
| | | 16 | 1-2 | Br. (5")-f-sand, gray org. silty clay, t. gl, fract (in) | | | | |
| | 8D | 16 | Precip. 24" | SOIL, gray org. silty clay, t. gl, f-sand, veg, | | | | |
| | | 18 | Prec. 24" | Peat (cm) | | | | |
| | 9D | 18 | 1-2 | Top (4") Br. Peat (pt) | | | | |
| | | 20 | 1-2 | Br. (13") Br. silty f-sand, t. gl, (in) | | | | |
| 1440 | 10D | 20 | 3-1 | DO-4D (Br.) (sm) | (6) | 25 | 10 | SOIL, Rattle Box of TUBE, |
| | | 12 | 3-3 | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | 11D | 25 | 7-7 | gray m-f sand, sm silt (sm) | | | | |
| | | 27 | 9-11 | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | 12D | 30 | 2-4 | Br. (3")-gray silty f-sand, t. gl, (sm) | | | | |
| | | 32 | 5-12 | Br. (5") Br. M-f sand, t. gl, (sm-in) | | | | |
| 1460 | 13D | 35 | 8-16 | Br. M-f sand, t. gl, (sm-in) | (7) | 30 | 10 | SOIL, Rattle Box of TUBE, |
| | | 37 | 13-15 | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | 14D | 40 | 5-6 | DO-12D, t. gl, (sp. dm) | | | | |
| | | 42 | 6-5 | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | 15D | 45 | 1-1 | Br. tan, sil, sm f-sand, t. gl, (in) | | | | |
| | | 47 | 1-1 | | | | | |
| 16D | 50 | 11-14 | tan Br. f-t sand, t. gl, and, sil (cm) | (8) | 45 | 10 | SOIL, Rattle Box of TUBE, | |
| | 52 | 14-12 | | | | | | |

MUESER RUTLEDGE CONSULTING ENGINEERS

PROJECT Lowe's HOME CTR.

SHEET 2 OF 3
FILE NO. 9446
BORING NO. B-1
SURFACE ELEV.

PROJECT LOCATION: Brooklyn, NY

RES. ENGR.

MUESER RUTLEDGE CONSULTING ENGINEERS

PROJECT Lowe's Home Center
LOCATION Brooklyn, NY
BORING LOCATION

BORING NO. B1W
SHEET 3 OF 3
FILE NO. 9446
SURFACE ELEV.
DATUM

BORING EQUIPMENT AND METHODS OF STABILIZING BOREHOLE

| | | | | | | | | | |
|------------------------|---------------------------|-------------------------------|----------|-------------|---|---|--|-----------------------------|-----------|
| TYPE OF BORING RIG | | TYPE OF FEED DURING CORING | | CASING USED | | <input checked="" type="checkbox"/> YES | | <input type="checkbox"/> NO | |
| TRUCK | <u>SWEET</u> | MECHANICAL | <u>X</u> | DIA., IN. | <u>4</u> | DEPTH, FT. FROM | <u>0</u> | TO | <u>20</u> |
| SKID | | HYDRAULIC | <u>X</u> | DIA., IN. | | DEPTH, FT. FROM | | TO | |
| BARGE | | OTHER | | DIA., IN. | | DEPTH, FT. FROM | | TO | |
| OTHER | | | | | | | | | |
| TYPE AND SIZE OF: | | | | | DRILLING MUD USED | | | | |
| D-SAMPLER | <u>2" O.D. SPLIT SPAN</u> | | | | <input checked="" type="checkbox"/> YES | | <input type="checkbox"/> NO | | |
| U-SAMPLER | <u>SLABBY TUBE</u> | | | | <u>4 1/8", 3 1/8", 2 1/8", 1 1/2"</u> | | | | |
| S-SAMPLER | | | | | <u>SPN-X-YES</u> | | | | |
| CORE BARREL | | | | | | | | | |
| CORE BIT | | | | | | | | | |
| DRILL RODS | <u>N</u> | | | | | | | | |
| AUGER USED | | | | | <input type="checkbox"/> YES | | <input checked="" type="checkbox"/> NO | | |
| TYPE AND DIAMETER, IN. | | | | | | | | | |
| CASING HAMMER, LBS. | | | | | <u>300</u> | AVERAGE FALL, IN. | <u>24</u> | | |
| SAMPLER HAMMER, LBS. | | | | | <u>40</u> | AVERAGE FALL, IN. | <u>30</u> | | |

WATER LEVEL OBSERVATIONS IN BOREHOLE

PIEZOMETER INSTALLED YES NO **SKETCH SHOWN ON** _____

| | | | | |
|------------------------|-----------------|----------------|--------------------|-------------------|
| STANDPIPE: | TYPE | ID, IN. | LENGTH, FT. | TOP ELEV. |
| INTAKE ELEMENT: | TYPE | OD, IN. | LENGTH, FT. | TIP ELEV. |
| FILTER: | MATERIAL | OD, IN. | LENGTH, FT. | BOT. ELEV. |

PAY QUANTITIES

2.5" DIA. DRY SAMPLE BORING LIN. FT. 70 + 1 NO. OF 3' SHELBY TUBE SAMPLES —
 3.5" DIA. U-SAMPLE BORING LIN. FT. — NO. OF 3' UNDISTURBED SAMPLES —
 CORE DRILLING IN ROCK LIN. FT. — OTHER: disturbances (boulders) 2.9

BOeing CONTRACTOR

DRILLER M. Regan
REMARKS Sealed borehole upon completion
DATE 1/1/01

RESIDENT ENGINEER

NOTES: (Mark a copy of each page and mail or fax to your distributor or dealer.)

1. Make a 1. 3D sketch

2. In daily progress column indicate depth at beginning and end of work day, calendar date, day of week, time at beginning and end of work day and weather conditions.
 3. All samples shall be numbered in consecutive order regardless of type; dry samples D, wash samples W, shelby tube samples S, fixed piston samples U. Assign NR to lost samples and record blows. Make another sample attempt immediately below the lost sample.
 4. Mark each U-sample with job number, boring number, sample number, depth, penetration and recovery. Indicate method by which penetration of tube sampler was obtained.
 5. Record blows on spoon sampler per six inches of penetration. Note all blows and penetrations when taken at less than six-inch interval.
 6. List changes of material in strata column and list generalized strata descriptions.
 7. List under remarks the manner by which changes in material were detected, all obstructions, any loss or gain of wash water including amount and any unusual occurrences.
 8. For rock core, the recovery and the RQD (Rock Quality Designation) should be shown in both inches and percent of run length in the blows per six inches column. All core runs shall be numbered in consecutive order. A run number is given even if recovery is zero.
 9. Include sample description by Unified Soil Classification System.
 10. Obtain water level at the beginning of each day and at all other times when stable water conditions exist.

BORING NO. B-14

MUESER RUTLEDGE CONSULTING ENGINEERS

SHEET 1 OF 3
FILE NO. 0446
BORING NO. BZ
SURFACE ELEV. R-NUNZ

PROJECT Lewis' Home CNTL.PROJECT LOCATION Brooklyn, NY

RES. ENGR.

| DAILY PROGRESS | SAMPLE | | SAMPLE DESCRIPTION | STRATA | DEPTH | CASING BLOWS | REMARKS |
|----------------|--------|-------|--------------------|---|-------|--------------|---------|
| | NO. | DEPTH | BLOWS/6" | | | | |
| 3/1/83/01 | 10 | 1 | 12-9 | BLT-W sand, silt, Tr. silt, cinders (fill) | | | |
| WED. | | 3 | 6-3 | (sn) | | | |
| 3/2/01 | 20 | 3 | 5-6 | DO - 10 ft (fill) (sn) | | | |
| | | 5 | 4-4 | | | | |
| 18°F Cloudy | 30 | 5 | 3-1 | gray H. f sand, silt, cinders, Tr. cinders (fill) | (F) | | |
| | | 7 | 2-2 | (fill) (sn) | | | |
| | 40 | 7 | 3-9 | DO - 30 ft (fill) (sn) | | | |
| | | 9 | 10-11 | | | | |
| | 50 | 10 | 4-1 | DO - 30 ft (fill) (sn) | | | |
| | | 12 | 1-1 | | | | |
| | 60 | 12 | 3-3 | Top (1') - Blk cinders, Tr. silt (fill) (cinders) | | | |
| | | 14 | 2-2 | Bottom (4') - BEN peat | | | |
| | 70 | 15 | 3-2 | SOIL Gray gray silty clay, Tr. veg. (ch) | (O) | | |
| | | 17 | 1-1 | | | | |
| | 80 | 17 | 2-2 | Top (1') - DO - 70 (ch) | | | |
| | | 19 | 4-4 | Bottom (6') - BEN peat (pt) | | | |
| | 90 | 20 | 2-4 | gray f - tan sand, silt, cinders (sn) | | | |
| | | 22 | 4-5 | | | | |
| | 100 | 25 | 3-9 | gray-brown f sand, Tr. silt (sp-sn) | | | |
| | | 27 | 17-13 | | | | |
| | 110 | 30 | 3-4 | SOIL Stiff gray clayey silt, Tr. f - tan sand (nh) | | | |
| | | 32 | 7-7 | | | | |
| | 120 | 35 | 10-15 | BEN H-f sand, Tr. s. s. t (sp-sn) | | | |
| | | 37 | 25-20 | | | | |
| | 130 | 40 | 10-10 | DO - 120 (sp-sn) | | | |
| | | 42 | 17-14 | | | | |
| | 140 | 45 | 12-13 | Dry BEN f - sand, Tr. silt (sp-sn) | | | |
| | | 47 | 15-7 | | | | |
| | 150 | 50 | 12-18 | BEN H-f sand, Tr. silt, silt (sp-sn) | | | |
| | | 52 | 21-23 | | | | |

MUESER RUTLEDGE CONSULTING ENGINEERS

PROJECT new 5 Home Center

SHEET 2 OF 3
FILE NO. 0446
BORING NO. B-2
SURFACE ELEV.

PROJECT LOCATION Brooklyn NY

RES. ENGR.

2. Number

MUESER RUTLEDGE CONSULTING ENGINEERS

PROJECT Lowe's HOME CENTER
LOCATION Brockley, MD
BORING LOCATION

BORING NO. 3-2
SHEET 3 OF 3
FILE NO. 9446
SURFACE ELEV.
DATUM

BORING EQUIPMENT AND METHODS OF STABILIZING BOREHOLE

| | | | | | | | | |
|--------------------|---------------------|---|-------------|---|-----------------------------|---|----|----|
| TYPE OF BORING RIG | | TYPE OF FEED DURING CORING | CASING USED | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | | |
| TRUCK | CHASSIS | MECHANICAL | DIA., IN. | 4 | DEPTH, FT. FROM | 0 | TO | 20 |
| SKID | | HYDRAULIC | DIA., IN. | | DEPTH, FT. FROM | | TO | |
| BARGE | | OTHER | DIA., IN. | | DEPTH, FT. FROM | | TO | |
| OTHER | | | | | | | | |
| TYPE AND SIZE OF: | | DRILLING MUD USED | | | | | | |
| D-SAMPLER | 2" dia. split spoon | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | | | | | | |
| U-SAMPLER | | DIAMETER OF ROTARY BIT, IN. | | | | | | |
| S-SAMPLER | | 4 1/2, 3 1/2 | | | | | | |
| CORE BARREL | | TYPE OF DRILLING MUD | | | | | | |
| CORE BIT | | Quick-Slime | | | | | | |
| DRILL RODS | N | AUGER USED | | | | | | |
| | | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | | | | | | |
| | | TYPE AND DIAMETER, IN. | | | | | | |
| | | CASING HAMMER, LBS. | | | | | | |
| | | 300 AVERAGE FALL, IN. | | | | | | |
| | | SAMPLER HAMMER, LBS. | | | | | | |
| | | 140 AVERAGE FALL, IN. | | | | | | |
| | | 30 | | | | | | |

WATER LEVEL OBSERVATIONS IN BOREHOLE

PIEZOMETER INSTALLED YES NO **SKETCH SHOWN ON** _____

| | | | | |
|------------------------|-----------------|----------------|--------------------|-------------------|
| STANDPIPE: | TYPE | ID, IN. | LENGTH, FT. | TOP ELEV. |
| INTAKE ELEMENT: | TYPE | OD, IN. | LENGTH, FT. | TRIP ELEV. |
| FILTER: | MATERIAL | OD, IN. | LENGTH, FT. | BOT. ELEV. |

SAY QUANTITIES

2.5" DIA. DRY SAMPLE BORING UN. FT. 82 1/2 NO. OF 3" SHELBY TUBE SAMPLES —
3.5" DIA. U-SAMPLE BORING UN. FT. — NO. OF 3" UNDISTURBED SAMPLES —
CORE DRILLING IN ROCK UN. FT. — OTHER: —

ROBING CONTRACTORS

DRILLER R. Lynch HELPERS E. FELGANS

REMARKS *Entered bore hole 100' completion.*

RE: NUNEZ DATE 01/04/01

NOTES: *For example, the following table shows the relationship between the number of days from the date of the first report to the date of the final report and the percentage of cases reported by the 5th day after the first report.*

1. Make a separate log of each boring and each unsuccessful boring attempt. Keep a copy of all logs in the field.
2. In daily records, column indicate depth at beginning and end of work day, calendar date, day of week, time at beginning and end

The environmental impact of heavy-duty particulate P_{10} was analyzed in the Bay Area.

3. All samples shall be numbered in consecutive order regardless of type, by categories: A. Water samples; B. Sediment samples; C. Benthic infauna samples. Assign NR to lost samples and recent plows. Make another sample attempt immediately.

the sample was taken at 10 cm depth, and the number of individuals per sample was recorded.

4. Mark each U-sample with job number, boeing number, sample number, depth, penetration and recovery. Indicate method by which penetration of tube sampler was obtained.

5. Record blows on spoon sampler per six inches of penetration. Note all blows and penetrations when taken at less than six-inch interval.

6. List changes of material id, strata column and list generalized strata descriptions.
List sampling strategies that measure by which changes in material were detected. All obstructions, any loss or gain of wash water

1. **REPORT OF ACCIDENTS** The operator by means of changes of position or location in the locomotive, any kind of signal or other device, including amount and any unusual occurrences.

8 For rock core, the recovery and the ratio between sand and broken material PQD (Rock Quality Designation) should be shown in both inches and percent of run length. At every point where the samples are in consecutive order, a run number is given even if

This shows per six houses covered. As more houses start to be revalued at conservative prices, a total number is greater than recovery is 2020.

9. Include sample description by Unified Soil Classification System.
10. Octane number level at the beginning of each day and at all other times when stable water conditions exist.

10. Obtain water level at the beginning of each day and as soon after sunrise when surface water discharge is least.

BORING NO. 3-2

MUESER RUTLEDGE CONSULTING ENGINEERS

PROJECT Lowe's Home Center

SHEET 1 OF 3
FILE NO. 94446
BORING NO. B-3
SURFACE ELEV.

PROJECT LOCATION Bronx, NY

RES. ENGR.

B-3 NUMBER

| DAILY PROGRESS | SAMPLE | | | SAMPLE DESCRIPTION | STRATA | DEPTH | CASING BLOWS | REMARKS |
|----------------------|--------|-------|----------|--|--------|-------|--------------|--------------------|
| | NO. | DEPTH | BLOWS/6" | | | | | |
| 01/02/01 | 10 | 0 | 76-45 | Brown M-f SAND, Silt, Tr. Brick, silt | | | | |
| Thurs. | | 2 | 27-24 | | | | | 2+ asphalt surface |
| clear | 20 | 2 | 15-18 | DO-10, Tr. cinders (fill) (sm) | | | | |
| windy | 4 | 10-9 | | | | | | |
| 18°F | 30 | 4 | 5-5 | gray-Brown M-f sand, silt, Tr. veg. (fill) | | | | |
| WIND WATER CUT | | 6 | 3-3 | | | | | (sm) |
| | 40 | 6 | 3-2 | gray-Brown M-f sand, Tr. silt, cinders, shale | | | | |
| | | 8 | 1-1 | organic fill (sm) | | | | |
| | 50 | 9 | 1-2 | gray-Brown M-f sand, silt, light veg. | | | | |
| | | 10 | 3-3 | cinders, shale (fill) (sm) | | | | |
| | 60 | 10 | 2-2 | gray-Brown M-f sand, Tr. silt, shale | | | | |
| | | 12 | 1-2 | cinder, brick (fill) (sp-sil) | | | | |
| | 70 | 12 | 1-2 | DO-GD (fill) (sm) | | | | |
| | | 14 | 1-1 | | | | | |
| | 80 | 15 | 1-1 | Top (2') - gray-Brown silty f. sand, Tr. veg (fill) (sm) | | | | |
| | | 17 | 2-2 | BOT (6') - Brown Peat (pt) | | | | |
| | 90 | 17 | 2-2 | DO-BD BOT (pt) | | | | |
| | | 19 | 2-3 | | | | | |
| | 100 | 20 | 1-2 | Brown f. sand, silt, silt (sm) | | | | |
| | | 22 | 3-3 | | | | | |
| | 110 | 25 | 6-8 | Brown M-f sand, Tr. silt, C. sand (sp-sm) | | | | |
| | | 27 | 9-8 | | | | | |
| | 120 | 30 | 3-3 | gray-Brown M-f sand, silt (sm) | | | | |
| | | 32 | 6-4 | | | | | |
| | 130 | 35 | 3-5 | gray-Brown silt, f-n sand, Tr. wet (sm) | | | | |
| | | 37 | 5-5 | | | | | |
| | 140 | 40 | 5-6 | gray-Brown M-f sand, Tr. silt, (sp-sm) | | | | |
| | | 42 | 9-9 | Tr. HHA | | | | |
| 14/15 10/31/01 | | | | | | | | |
| 07/00 | | | | | | | | |
| 08/01 | | | | | | | | |
| 3°F 30°F | 150 | 45 | 5-5 | DO-140 (sp-sm) | | | | |
| | | 47 | 5-7 | | | | | |
| | 160 | 50 | 7-10 | Brown f-c sand, silt, Tr. silt (sp-sm) | | | | |
| | | 52 | 14-15 | | | | | |

MUESER RUTLEDGE CONSULTING ENGINEERS

PROJECT LAW & HOME CENTRE

SHEET 2 OF 3
FILE NO. 9446
BORING NO. B-3
SURFACE ELEV.

PROJECT LOCATION BROOKLYN, NY

RES. ENGR. J.C. NUNEZ

MUESER RUTLEDGE CONSULTING ENGINEERS

PROJECT Lewis's Home Service
 LOCATION Buckeye Rd
 BORING LOCATION _____

BORING NO. B-3
 SHEET 3 OF 3
 FILE NO. 4440
 SURFACE ELEV. _____
 DATUM _____

BORING EQUIPMENT AND METHODS OF STABILIZING BOREHOLE

| | | | | |
|--------------------|-------------------------------|-----------------------------|---|--|
| TYPE OF BORING RIG | TYPE OF FEED DURING CORING | CASING USED | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |
| TRUCK | MECHANICAL | DIA., IN. | 4 | DEPTH, FT. FROM |
| SKID | HYDRAULIC | DIA., IN. | | TO |
| BARGE | OTHER | DIA., IN. | | DEPTH, FT. FROM |
| OTHER | | | | TO |
| TYPE AND SIZE OF: | | DRILLING MUD USED | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |
| D-SAMPLER | 2" O.D. split spoon | DIAMETER OF ROTARY BIT, IN. | 3 1/8" | 5 1/8" 2 15/16" |
| U-SAMPLER | | TYPE OF DRILLING MUD | QUICK SET | |
| S-SAMPLER | | AUGER USED | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO |
| CORE BARREL | | TYPE AND DIAMETER, IN. | | |
| CORE BIT | | CASING HAMMER, LBS. | 200 | AVERAGE FALL, IN. |
| DRILL BOOS | N | SAMPLER HAMMER, LBS. | 140 | AVERAGE FALL, IN. |

WATER LEVEL OBSERVATIONS IN BOREHOLE

| DATE | TIME | DEPTH OF HOLE (FEET) | DEPTH OF CASING (FEET) | DEPTH TO WATER (FEET) | CONDITIONS OF OBSERVATION |
|----------|------|----------------------------|------------------------------|-----------------------------|---|
| 01/02/01 | | 8 | 5 | 7 | obstruct Sample 40 saturated with water |
| | | | | | |
| | | | | | |
| | | | | | |

PIEZOMETER INSTALLED YES NO

SKETCH SHOWN ON _____

| | | | |
|----------------------|---------|-------------|------------|
| STANDPIPE: TYPE | ID, IN. | LENGTH, FT. | TOP ELEV. |
| INTAKE ELEMENT: TYPE | OD, IN. | LENGTH, FT. | TIP ELEV. |
| FILTER: MATERIAL | OD, IN. | LENGTH, FT. | BOT. ELEV. |

PAY QUANTITIES

| | | | | |
|-----------------------------|----------|----|-------------------------------|---|
| 2.5" DIA. DRY SAMPLE BORING | LIN. FT. | 82 | NO. OF 3" SHELBY TUBE SAMPLES | — |
| 3.5" DIA. U-SAMPLE BORING | LIN. FT. | — | NO. OF 3" UNDISTURBED SAMPLES | — |
| CORE DRILLING IN ROCK | LIN. FT. | — | OTHER: | — |

BORING CONTRACTOR

JBD Co.

DRILLER M. T. Regas HELPERS D. Keith / TERRY Fulton

REMARKS Granted borehole upon completion.

RESIDENT ENGINEER J. Z. Nunez DATE 01/03/01

NOTES:

1. Make a separate log of each boring and each unsuccessful boring attempt. Keep a copy of all logs in the field.
2. In daily progress column indicate depth at beginning and end of work day, calendar date, day of week, time at beginning and end of work day and weather conditions.
3. All samples shall be numbered in consecutive order regardless of type; dry samples D, wash samples W, shelby tube samples S, fixed piston samples U. Assign NR to lost samples and record blows. Make another sample attempt immediately below the lost sample.
4. Mark each U-sample with job number, boring number, sample number, depth, penetration and recovery. Indicate method by which penetration of tube sampler was obtained.
5. Record blows on spoon sampler per six inches of penetration. Note all blows and penetrations when taken at less than six-inch interval.
6. List changes of material in strata column and list generalized strata descriptions.
7. List under remarks the manner by which changes in material were detected, all obstructions, any loss or gain of wash water including amount and any unusual occurrences.
8. For rock cores, the recovery and the RQD (Rock Quality Designation) should be shown in both inches and percent of run length in the blows per six inches column. All core runs shall be numbered in consecutive order. A run number is given even if recovery is zero.
9. Include sample description by Unified Soil Classification System.
10. Obtain water level at the beginning of each day and at all other times when stable water conditions exist.

BORING NO. B-3

MUESER RUTLEDGE CONSULTING ENGINEERS

SHEET 1 OF 5
FILE NO. 9446
BORING NO. 84U
SURFACE ELEV.

PROJECT Lewis Home CenterPROJECT LOCATION Brooklyn NYRES. ENGR. P. Alvarez

| DAILY PROGRESS | SAMPLE | | | SAMPLE DESCRIPTION | STRATA | DEPTH | CASING BLOWS | REMARKS |
|---|--------|-------|----------|--|--------|-------|--------------|-------------------------|
| | NO. | DEPTH | BLOWS/6" | | | | | |
| 01/01/01 WED. 25°F WINDY 0645 | 10 | 1 | 3-4 | BRN M. / SAND, Tr. silt, cinders, | 10 | 1 | frilled | 17" & 20" stab. |
| | | 3 | 6-7 | Brick (fill) (sp. sm) | | | SWRDS | |
| | 20 | 3 | 9-9 | BRK M. / SAND, sm silt, Tr. wood, | 20 | 3 | | |
| | | 5 | 12-21 | cinders, brick (fill) (sm) | | | | |
| | 30 | 5 | 19-25 | BRK M. / SAND, sm org, silt, Tr. cinders, | 30 | 5 | | Top broke, charged |
| | | 6-4 | Kn/s" | Brick (fill) (sm) | | | LAND | top by hammer, |
| | 40 | 7 | 8-4 | BRK M. / SAND, sm cinders, silt, Tr. org, | 40 | 7 | | soil too, in the |
| | | 9 | 5-15 | Brick (fill) (sm) | | | | tip of the spoon. |
| | 50 | 10 | 14-4 | No Recovery | 50 | 10 | | |
| | | 12 | 4-4 | | | | | 2nd attempt no |
| | 60 | 12 | 4-1 | No Recovery | 60 | 12 | | recovery, new top. |
| | | 14 | 3-1 | | | | | |
| | 70 | 15 | 7-6 | Br gravel to wood (fill) (sp) (cinders) | 70 | 15 | | |
| | | 17 | 11-6 | | | | | Possible wash, 7-11" |
| | 80 | 17 | 2-4 | BRK M. / SAND, sm cinders, Tr. org, silt | 80 | 17 | | (fill) (sm) |
| | | 19 | 4-3 | | | | | (refraction) over waves |
| | 90 | 20 | 8-24" | soft gray org, silty clay, Tr. sand (OH) | 90 | 20 | | |
| | | 22 | 6-21 | | | | | |
| | 100 | 22 | wow/24" | Do - 9u (OH) | 100 | 22 | | |
| | | 24 | | | | | | |
| | 110 | 25 | wow-5 | Brown silty f - SAND, Tr. Mica (sm) | 110 | 25 | | |
| | | 27 | 6-7 | | | | | |
| | 120 | 30 | 15-20 | Brown gray M. / SAND, Tr. silt (sp-sm) | 120 | 30 | | |
| | | 32 | 22-27 | | | | | |
| | | | | stiff: | | | | |
| | 130 | 35 | 9-6 | gray org, silty clay, sm f (and Tr. org) | 130 | 35 | | |
| | | 37 | 7-11 | | | | | |
| | 140 | 37 | 8-12" | Top - Do - 13D (OH) | 140 | 37 | | |
| | | 39 | R-12" | Bot. stiff gray silt (and) / SAND, Tr. clay (melt sp-sm) | 140 | 39 | | TUBE stopped @ 38FT. |
| | 150 | 40 | 32-40 | BRN M. / SAND, Tr. silt, Mica (sp-sm) | 150 | 40 | | |
| | | 42 | 41-39 | | | | | |
| | 160 | 45 | 12-13 | Do - 15D (sp-sm) | 160 | 45 | | |
| | | 47 | 18-12 | | | | | |
| | 170 | 50 | 13-11 | Do - 15D (sp-sm) | 170 | 50 | | |
| | | 52 | 16-14 | | | | | |

MUESER RUTLEDGE CONSULTING ENGINEERS

PROJECT Lowe's Home Center

PROJECT LOCATION Brocklyn, NY

RES. ENGR.

SHEET 2 OF 2

FILE NO. 9442

BORING NO. R-44

SURFACE ELEV

MUESER RUTLEDGE CONSULTING ENGINEERS

PROJECT Lowe's Home Center
LOCATION Brocklyn NY
BORING LOCATION street → ft south

BORING NO. B-44
SHEET 3 OF 3
FILE NO. 9446
SURFACE ELEV.
DATUM

BORING EQUIPMENT AND METHODS OF STABILIZING BOREHOLE

| | | | | | | | | |
|--------------------|---------------------|---|-------------|---|-----------------------------|---|----|----|
| TYPE OF BORING RIG | | TYPE OF FEED DURING CORING | CASING USED | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | | |
| TRUCK | | MECHANICAL | DIA., IN. | 4 | DEPTH, FT. FROM | 0 | TO | 20 |
| SKID | <u>Axle</u> | HYDRAULIC | X | | DEPTH, FT. FROM | | TO | |
| BARGE | | OTHER | | | DEPTH, FT. FROM | | TO | |
| OTHER | | | | | | | | |
| TYPE AND SIZE OF: | | DRILLING MUD USED | | | | | | |
| D-SAMPLER | 2" O.D. split spoon | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | | | | | | |
| U-SAMPLER | Shelly TURE | DIAMETER OF ROTARY BIT, IN. | | | | | | |
| S-SAMPLER | | 2 ¹ / ₂ , 3 ⁷ / ₈ | | | | | | |
| CORE BARREL | | TYPE OF DRILLING MUD | | | | | | |
| CORE BIT | Thin wall bit | QUICK GEL | | | | | | |
| DRILL RODS | N | ALUGER USED | | | | | | |
| | | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | | | | | | |
| | | TYPE AND DIAMETER, IN. | | | | | | |
| | | | | | | | | |
| | | CASING HAMMER, LBS. | | | | | | |
| | | 340 | | | | | | |
| | | AVERAGE FALL, IN. | | | | | | |
| | | 24 | | | | | | |
| | | SAMPLER HAMMER, LBS. | | | | | | |
| | | 140 | | | | | | |
| | | AVERAGE FALL, IN. | | | | | | |
| | | 30 | | | | | | |

WATER LEVEL OBSERVATIONS IN BOREHOLE

| DATE | TIME | DEPTH OF HOLE (FEET) | DEPTH OF CASING (FEET) | DEPTH TO WATER (FEET) | CONDITIONS OF OBSERVATION |
|------|------|----------------------------|------------------------------|-----------------------------|---------------------------|
| | | | | | NO OBSERVATION. |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

PIEZOMETER INSTALLED YES NO **SKETCH SHOWN ON** _____

STANDPIPE: **TYPE** _____ **ID, IN.** _____ **LENGTH, FT.** _____ **TOP ELEV.** _____

INTAKE ELEMENT: **TYPE** _____ **OD, IN.** _____ **LENGTH, FT.** _____ **TIP ELEV.** _____

FILTER: **MATERIAL** _____ **OD, IN.** _____ **LENGTH, FT.** _____ **BOT. ELEV.** _____

PAY QUANTITIES

2.5" DIA. DRY SAMPLE BORING UN. FT. 78 1/2 NO. OF 3" SHELBY TUBE SAMPLES 2
 3.5" DIA. U-SAMPLE BORING UN. FT. 3 NO. OF 3" UNDISTURBED SAMPLES —
 CORE DRILLING IN ROCK UN. FT. — OTHER: —

BOEING CONTRACTOR

DRILLER R. J. WOOD HELPER E. F. GORDON

REMARKS *Carries both side up on construction*

RESIDENT ENGINEER _____ **ENR NO.** _____ **DATE** 6/1/01

NOTES:

In weekly reports, project managers indicate strength of beginning and end of work day, calendar date, raw of week, time of beginning and end

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2. If early progress continues rapidly as beginning and end of work day, calendar date, day of week, time at beginning and end of work day and weather conditions.
 3. All samples shall be numbered in consecutive order regardless of type; dry samples D, wash samples W, shelby tube samples S, fixed piston samples U. Assign NFI to lost samples and record blows. Make another sample attempt immediately below the lost sample.
 4. Mark each U-sample with job number, boring number, sample number, depth, penetration and recovery. Indicate method by which penetration of tube sampler was obtained.
 5. Record blows on spoon sampler per six inches of penetration. Note all blows and penetrations when taken at less than six-inch interval.
 6. List changes of material in strata column and list generalized strata descriptions.
 7. List under remarks the manner by which changes in material were detected, all obstructions, any loss or gain of wash water including amount and any unusual occurrences.
 8. For rock core, the recovery and the RQD (Rock Quality Designation) should be shown in both inches and percent of run length in the blows per six inches column. All core runs shall be numbered in consecutive order. A run number is given even if recovery is zero.
 9. Include sample description by Unified Soil Classification System.
 10. Obtain water level at the beginning of each day and at all other times when stable water conditions exist.

BORING NO. 3-44

MUESER RUTLEDGE CONSULTING ENGINEERS

PROJECT Lowe's Home Center
 PROJECT LOCATION Brooklyn, NY

RES. ENGR. R. NUNER

SHEET 1 OF 3
 FILE NO. 9446
 BORING NO. B-64
 SURFACE ELEV. -

| DAILY PROGRESS | SAMPLE | | | SAMPLE DESCRIPTION | STRATA | DEPTH | CASING BLOWS | REMARKS |
|--|--------|-------|----------|--|--------|-------|--------------|-----------------------|
| | NO. | DEPTH | BLOWS/6" | | | | | |
| 01/05/00 | 10 | 1 | 9-9 | BEN f-n sand, sm silt, Tr. veg. Chunks, | | | | Driven 7" conc. slab. |
| | | 3 | 29-44 | brick (fill) (sm) | | | | AHEAD |
| Friid. 20°sqf Cloudy. 0945 hrs. | 20 | 3 | 22-45 | BEN f-c sand, sm silt, Tr. veg. | | | | |
| | | 44 | 103/5" | wooden brick (fill) (sm) | | | | |
| | 30 | 5 | 70-41 | BEN H. gravel, sm silt, Tr. silt (cm) | | | | |
| | | 63 | 100/4" | (sp. gr.) | | | | |
| | 40 | 7 | 12-28 | WOOD (fill) | | | | |
| | | 9 | 6-5 | | | | | |
| | 50 | 10 | 9-6 | gray silty c-f sand, sm silt, Tr. veg. | | | | |
| | | 12 | 3-2 | chunks (fill) (sm) | | | | |
| | 60 | 12 | 7-10 | 70-50 (fill) (sm) | | | | |
| | | 14 | 3-2 | | | | | R= 2" |
| | 70 | 15 | 14-3 | NO RECOVERY | | | | |
| | | 8 | 2-2 | | | | | |
| | 80 | 17 | 1-2 | BEN c-f sand, sm silt, Tr. silt, | | | | |
| | | 19 | 1-2 | brick (fill) (sm) | | | | |
| 1400hrs | | | | | | | | |
| 01/06/01 | 94 | 20 | 8-24" | soft gray, org. silty clay, Tr. veg. (sh) | | | | |
| | | 22 | 8-16" | | | | | |
| Moist Cloudy | 100 | 22 | 4-3 | red (r) BEN Peat, sp. org. silty clay (pl) | | | | |
| | | 24 | 3-5 | BEN (g) BEN silty f-sand, Tr. veg. (sh) | | | | |
| 35°F 0645 | 110 | 25 | 6-6 | BEN f-sand, sm silt, Tr. mica (sp. sm) | | | | |
| | | 27 | 7-12 | | | | | |
| | 120 | 30 | 19-17 | gray n-f sand, Tr. silt, mica (sp. sm) | | | | |
| | | 32 | 27-22 | | | | | |
| | 130 | 35 | 9-13 | 70-20 Tr. silt pebbles (sp. sm) | | | | |
| | | 37 | 15-17 | | | | | |
| | 140 | 40 | 17-25 | BEN H. f-sand, Tr. silt (sp. sm) | | | | |
| | | 42 | 33-36 | | | | | |
| | 150 | 45 | 10-21 | BEN f-sand, sm silt, Tr. mica (sh) | | | | |
| | | 47 | 29-24 | | | | | |
| | 160 | 50 | 16-28 | BEN f-n sand, Tr. silt, dol. (sp. sm) | | | | |
| | | 52 | 31-24 | mica | | | | |

BORING NO. 2 ft.

MUESER RUTLEDGE CONSULTING ENGINEERS

PROJECT Lowe's HOME CENTER

SHEET 2 OF 3

SU E NO 9446

BOBING NO B-64

SURFACE FLEX

PROJECT LOCATION Broadway

RES. ENGR.

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MUESER RUTLEDGE CONSULTING ENGINEERS

PROJECT Louis Home Center
LOCATION Brooklyn, NY
BORING LOCATION As Planned

BORING NO. B-6(1)
SHEET 3 OF 3
FILE NO. 9446
SURFACE ELEV.
DATUM

BORING EQUIPMENT AND METHODS OF STABILIZING BOREHOLE

| | | | | |
|-----------------------------|---|-----------------------------|---|--|
| TYPE OF BORING RIG TRUCK | TYPE OF FEED DURING CORING MECHANICAL | CASING USED DIA., IN. | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |
| SKID | HYDRAULIC | DIA., IN. | DEPTH, FT. FROM | TO |
| BARGE | OTHER | DIA., IN. | DEPTH, FT. FROM | TO |
| OTHER | | DIA., IN. | DEPTH, FT. FROM | TO |
| TYPE AND SIZE OF: | | DRILLING MUD USED | | |
| D-SAMPLER | 2' O.D. SPIN SPOON | DIAMETER OF ROTARY BIT, IN. | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |
| S-SAMPLER | SWELLING TUBE | TYPE OF DRILLING MUD | 2 1/8", 3 1/8" | SWELL GEL |
| S-SAMPLER | | | | |
| CORE BARREL | | AUGER USED | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO |
| CORE BIT | THIN WALL bit (carb. fiber) | TYPE AND DIAMETER, IN. | | |
| DRILL RODS | N | | | |
| | | CASING HAMMER, LBS. | 300 | AVERAGE FALL, IN. |
| | | SAMPLER HAMMER, LBS. | 140 | AVERAGE FALL, IN. |

WATER LEVEL OBSERVATIONS IN BOREHOLE

PIEZOMETER INSTALLED YES NO **SKETCH SHOWN ON** _____

| | | | | |
|------------------------|-----------------|----------------|--------------------|-------------------|
| STANDPIPE: | TYPE | ID, IN. | LENGTH, FT. | TOP ELEV. |
| INTAKE ELEMENT: | TYPE | OD, IN. | LENGTH, FT. | TIP ELEV. |
| FILTER: | MATERIAL | OD, IN. | LENGTH, FT. | BOT. ELEV. |

PAY QUANTITIES

2.5" DIA. DRY SAMPLE BORING LIN. FT. 75.7 NO. OF 3' SHELBY TUBE SAMPLES 1
 3.5" DIA. U-SAMPLE BORING LIN. FT. 2 NO. OF 3' UNDISTURBED SAMPLES 1
 CORE DRILLING IN ROCK LIN. FT. — OTHER: obstruction (boulders) 3.5 FT.

BORING CONTRACTOR

-380-

NO. OF 21' SKEL BY THREE SAMPLERS

DRILLER J. H. MCGEE HELPERS E. F. LEE AND

REMARKS *Indicates a temporary wood support.*

RESIDENT ENGINEER _____ **DATE** 21-09-01

RESIDENT ENGINEER _____ DATE 8/10/01
NOTES: _____

1. Make a separate log of each boring and each unsuccessful boring attempt. Keep a copy of all logs in the field.

2. In daily progress column indicate depth at beginning and end of work day, calendar date, day of week, time at beginning and end of work shift, weather conditions.

3. All samples shall be numbered in consecutive order regardless of type; dry samples D, wash samples W, sieve by tube

samples S, fixed piston samples U. Assign NFR to lost samples and record blows. Make another sample attempt immediately before the next blow.

4. Mark each U-sample with job number, boring number, sample number, depth, penetration and recovery. Indicate method below the first sample.

by which penetration of tube sampler was obtained. Note all hours and minutes on what holes at least three measurements.

5. RECORD DRAWS ON SPOON SAMPLER PER SIX FEET OF PENETRATION. NOTE ALL DRAWS AND PENETRATIONS WHEN TAKEN AT 10-FOOT TEST SIX-FEET INTERVAL.
6. LIST CHANCES OF MATERIAL IN STRATA COLUMN AND LIST GENERALIZED STRATA DESCRIPTIONS.

7 List under remarks the manner by which changes in material were detected, all obstructions, any loss or gain of wash water

8. For each race, the recovery and the RQD (Rock Quality Designation) should be shown in both inches and percent of run length.

All core runs shall be numbered in consecutive order. A run number is given even if

4. Include sample description by Unified Soil Classification System.

13. Obtain water level at the beginning of each day and at all other times when stable water conditions exist.

BORING NO. 10-9-X

SEARCHING NO. 3-60

MUESER RUTLEDGE CONSULTING ENGINEERS

PROJECT

Lowe's HOME CENTER

SHEET 1 OF
FILE NO. 944K
BORING NO. B7U
SURFACE ELEV.

PROJECT LOCATION

Brooklyn, NY

RES. ENGR.

T. MUNIZ

| DAILY PROGRESS | SAMPLE NO. | DEPTH | BLOWS/6" | SAMPLE DESCRIPTION | STRATA | DEPTH | CASING BLOWS | REMARKS |
|--------------------------|------------|-------|----------|---|--------|-------|--------------|-----------------------|
| 11/15/01 | | | | | | | | |
| BUHL drilling 32'F | 10 | 1 | 7-8 | BDW F-H SAND, SILT, GLY, TR. CINERS, | | | | Drilled 8" core, slab |
| LT SWELL 1030hrs | | 3 | 40-34 | Brick (fill) (cm) | | | | baked |
| | 20 | 3 | 40-23 | DO-10, TR. CONC. (fill) (cm) | | | | |
| | | 5 | 17-12 | | (F) | | | |
| | 30 | 5 | 21-15 | BDW-BLK H. f. SAND, SILT, TR. GL. CINERS | | | | |
| | | 7 | 9-11 | | | | | |
| | 40 | 7 | 13-10 | DO-30 (fill) (cm) | | | | |
| | | 9 | 14-14 | | | | | |
| | 50 | 10 | 26-19 | DO-30 (fill) (cm) | | | | |
| | | 12 | 11-9 | | | | | |
| | 60 | 12 | 12-11 | BDW C-f. SAND, SILT, GL. ROCK, TR. | | | | |
| | | 14 | 6-4 | CLAYEAT, (fill) (sp-1m) | | | | |
| | 70 | 15 | 4-7 | NO RECOVERY | | | | |
| | | 17 | 5-2 | | | | | |
| | 80 | 17 | 2-2 | HED. gray org; S. H. clay, TR. silt, f. sand | | | | P.R. = 5 TTSF |
| | | 19 | 2-1 | | | | | |
| | 90 | 20 | P=24" | DO-80 (OH) | | | | |
| | | 22 | R=18" | | | | | |
| | 100 | 22 | P=24" | TOP - DO 80 (OH) | | | | |
| | | 24 | R=22" | BOT - BKN DENT (PE) | | | | |
| | 110 | 24 | WOR=2 | TOP (1") Silt, gray org, silty clay, TR. f. sand, | | | | |
| | | 26 | 2-3 | BENT (OH) | | | | |
| | | | | BOT (1") BKN Silt, H. f. SAND, TR. silt (cm) | | | | |
| | 120 | 30 | 20-21 | BDW H. f. SAND, TR. SILT, GLY (sp-sm) | | | | |
| | | 32 | 26-17 | | | | | |
| | 130 | 35 | WOR=4 | HED. gray org, silty clay, TR. f. sand & vegetat | | | | |
| | | 37 | 8-11 | | | | | |
| | 140 | 40 | 15-21 | gray BDW H. f. SAND, TR. SILT (sp-sm) | | | | |
| | | 42 | 23-25 | | | | | |
| | 150 | 45 | 11-14 | DO-14D (sp-sm) | | | | |
| | | 47 | 14-17 | | | | | |
| 1400 | | | | | | | | |
| 11/16/01 | | | | | | | | |
| 0800 | | | | | | | | |
| BAHN P.M. | 160 | 50 | 15-13 | LG-14D (sp-sm) | | | | |
| | | 52 | 18-19 | | | | | |

BORING NO. 07

MUESER RUTLEDGE CONSULTING ENGINEERS

PROJECT Work Home Sync

SHEET 2 OF 5
FILE NO. 4446
BORING NO. B74
SURFACE ELEV.

PROJECT LOCATION Brockway Mtn SURFACE ELEV. _____
RES. ENGR. J. E. NUNZI

MUESER RUTLEDGE CONSULTING ENGINEERS

PROJECT Lowe's Home Center
LOCATION Brooklyn NY
BORING LOCATION AS PLANNED

BORING NO. B-74
SHEET 3 OF 3
FILE NO. 94K16
SURFACE ELEV.
DATUM

BORING EQUIPMENT AND METHODS OF STABILIZING BOREHOLE

| | | | | | | | | |
|--------------------|-------------------------------|---|---|-----------------------------|---|------------------------------|--|----|
| TYPE OF BORING RIG | TYPE OF FEED DURING CORING | CASING USED | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | | | |
| TRUCK | MECHANICAL | DIA., IN. | 4 | DEPTH, FT. FROM | 0 | TO | 20 | |
| SKID | HYDRAULIC | DIA., IN. | | DEPTH, FT. FROM | | TO | | |
| BARGE | OTHER | DIA., IN. | | DEPTH, FT. FROM | | TO | | |
| OTHER | | | | | | | | |
| TYPE AND SIZE OF: | | | | DRILLING MUD USED | | | | |
| O-SAMPLER | 2" O.D. SPLIT SPOON | <input checked="" type="checkbox"/> YES | | | | <input type="checkbox"/> NO | | |
| U-SAMPLER | SAMPLE TUBE | DIAMETER OF ROTARY BIT, IN. | | | | 3 1/8", 2 1/2" | | |
| S-SAMPLER | | TYPE OF DRILLING MUD | | | | QUICKSET | | |
| CORE BARREL | | AUGER USED | | | | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | |
| CORE BIT | THREE-EDGED | TYPE AND DIAMETER, IN. | | | | | | |
| DRILL ROOS | N | CASING HAMMER, LBS. | | | | 300 | AVERAGE FALL, IN. | 24 |
| | | SAMPLER HAMMER, LBS. | | | | 140 | AVERAGE FALL, IN. | 30 |

WATER LEVEL OBSERVATIONS IN BOREHOLE

| DATE | TIME | DEPTH OF HOLE (FEET) | DEPTH OF CASING (FEET) | DEPTH TO WATER (FEET) | CONDITIONS OF OBSERVATION |
|------|------|----------------------------|------------------------------|-----------------------------|---------------------------|
| | | | | | No observation. |
| | | | | | |
| | | | | | |
| | | | | | |

PIEZOMETER INSTALLED YES NO SKETCH SHOWN ON _____

STANDPIPE: TYPE ID, IN. LENGTH, FT. TOP ELEV.
INTAKE ELEMENT: TYPE OD, IN. LENGTH, FT. TIP ELEV.
FILTER: MATERIAL OD, IN. LENGTH, FT. BOT. ELEV.

PAY QUANTITIES

| | | | | |
|-----------------------------|----------|------|---------------------------------------|--------|
| 2.5" DIA. DRY SAMPLE BORING | LIN. FT. | 75.5 | NO. OF 3" SHELBY TUBE SAMPLES | 2 |
| 3.5" DIA. U-SAMPLE BORING | LIN. FT. | 4 | NO. OF 3" UNDISTURBED SAMPLES | — |
| CORE DRILLING IN ROCK | LIN. FT. | — | OTHER: <i>Drill cuttings (bottom)</i> | 2.5 FT |

BORING CONTRACTOR

DRILLER T. Lypca HELMERS G. Feliciano / Louie Abbate.
REMARKS (cont'd) based on your observation

ANSWER

PRESIDENT ENGINEER _____ **DATE** **01/01/01**

NOTES.

2. In daily progress column indicate depth at beginning and end of work day, calendar date, day of week, time at beginning and end

of war

3. All samples shall be numbered in consecutive order regardless of type, dry samples D, wash samples W, slurry tube samples S, fixed piston samples U. Assign N to lost samples and record blows. Make another sample attempt immediately below the lost sample.
 4. Mark each U-sample with job number, boring number, sample number, depth, penetration and recovery. Indicate method by which penetration of tube sampler was obtained.
 5. Record blows on spoon sampler per six inches of penetration. Note all blows and penetrations when taken at less than six-inch interval.
 6. List changes of material in strata column and list generalized stratal descriptions.
 7. List under remarks the manner by which changes in material were detected, all obstructions, any loss or gain of wash water including amount and any unusual occurrences.
 8. For rock core, the recovery and the RQD (Rock Quality Designation) should be shown in both inches and percent of run length in the blows per six inches column. All core runs shall be numbered in consecutive order. A run number is given even if recovery is zero.
 9. Include sample description by Unified Soil Classification System.
 10. Obtain water level at the beginning of each day and at all other times when stable water conditions exist.

BORING NO. B7A

MUESER RUTLEDGE CONSULTING ENGINEERS

SHEET 1 OF 3
FILE NO. 9446
BORING NO. B8
SURFACE ELEV.

PROJECT Lewis Home CTRPROJECT LOCATION Brooklyn NY

RES. ENGR.

| DAILY PROGRESS | SAMPLE | | | SAMPLE DESCRIPTION | STRATA | DEPTH | CASING BLOWS | REMARKS |
|--------------------------------------|--------|-------|----------|---|--------|-------|--------------|-----------------------|
| | NO. | DEPTH | BLOWS/6" | | | | | |
| 11/21/01 MON. 25°F 0700 hrs | 10 | 1 | 16-20 | gray-brown sand, silt, fine cinders (all 6") | 1 | 1 | 0 | drilled 8" conc slab. |
| | | 2 | 27-45 | | | | | ASWAD |
| | 20 | 3 | 10-15 | DO-10 ft (6m) | | | | |
| | | 5 | 24-32 | | | | | |
| | 30 | 5 | 17-19 | gray-brown sand, silt, cinders, Tr. ash, Brick (fill) (6m) | 4 | 5 | | |
| | | 7 | 24-10 | | | | | |
| | 40 | 7 | 7-8 | DO-30, sand brick (fill) (6m) | | | | |
| | | 9 | 12-7 | | | | | |
| | 50 | 10 | 23-8 | gray-brown sand, silt, cinders, Tr. ash, Brick (fill) (6m) | 5 | 10 | | |
| | | 12 | 9-3 | | | | | |
| | 60 | 12 | 2-2 | gray-brown sand, silt, cinders, Tr. ash, cinders Brick (fill) (6m) | | | | |
| | | 14 | 7-8 | | | | | |
| | 70 | 15 | 12-8 | gray-brown sand, silt, cinders, Tr. ash, Metal (fill) (6m) | 6 | 15 | | |
| | | 17 | 8-5 | | | | | |
| | 80 | 17 | 4-3 | gray-brown sand, silt, cinders, Tr. ash, wood (fill) (6m) | 7 | 17 | | R=3" |
| | | 19 | 4-3 | | | | | |
| | 90 | 20 | 3-4 | Brick (fill) (6m) | 8 | 19.5 | | |
| | | 22 | 7-7 | | | | | |
| | 100 | 25 | 8-7 | Brick (fill) sand, Tr. ash, wood (6m) | 9 | 23.5 | | |
| | | 27 | 9-10 | | | | | |
| | 110 | 30 | 15-20 | Brick (fill) sand, Tr. ash (6m) | 10 | 26 | | |
| | | 32 | 23-17 | | | | | |
| | 120 | 35 | 7-4 | top(15")-gray ochreous silt, sand 37 11-9 | 11 | 30 | | |
| | | | | bot(5")-gray silty fine sand, Tr. ash (6m) | | | | |
| | 130 | 40 | 20-25 | gray m-f sand, Tr. ash (6m) | 12 | 35 | | |
| | | 42 | 25-34 | | | | | |
| 11/22/01 TUES. 26°F 0645 | 140 | 45 | 12-15 | DO-13D (6m) | | | | |
| | | 47 | 22-21 | | | | | |
| | 150 | 50 | 12-14 | Brick m-f sand, Tr. ash, m-f (6m) | | | | |
| | | 52 | 14-15 | | | | | |

BORING NO. 1

MUESER RUTLEDGE CONSULTING ENGINEERS

PROJECT Lowa's Home Crop

SHEET 2 OF 3
FILE NO. 9446
BORING NO. 88
SURFACE ELEV.

PROJECT LOCATION BROOKLYN NY

RES. ENGR. .

• Novels

MUESER RUTLEDGE CONSULTING ENGINEERS

PROJECT Lowe's Home Center
LOCATION Brooklyn, NY
BORING LOCATION

BORING NO. B-8
SHEET 3 OF 3
FILE NO. 9446
SURFACE ELEV.
DATUM

BORING EQUIPMENT AND METHODS OF STABILIZING BOREHOLE

| | | | | | | | | |
|--------------------|-------------|-------------------------------|-------------|---|-----------------------------|----------|----|-----------|
| TYPE OF BORING RIG | | TYPE OF FEED DURING CORING | CASING USED | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | | |
| TRUCK | <u>RENT</u> | MECHANICAL | DIA., IN. | <u>4</u> | DEPTH, FT. FROM | <u>0</u> | TO | <u>20</u> |
| SKID | | HYDRAULIC | DIA., IN. | | DEPTH, FT. FROM | | TO | |
| GARGE | | OTHER | DIA., IN. | | DEPTH, FT. FROM | | TO | |
| OTHER | | | | | | | | |

| | | | | | |
|-------------------|--------------------|-----------------------------|---|-------------------|----|
| TYPE AND SIZE OF: | | | | | |
| D-SAMPLER | 2" OD, split spoon | DRILLING MUD USED | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | | |
| U-SAMPLER | | DIAMETER OF ROTARY BIT, IN. | 3 1/2, 4 1/2, | | |
| S-SAMPLER | | TYPE OF DRILLING MUD | GULF GEL | | |
| CORE BARREL | | AUGER USED | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | | |
| CORE BIT | | TYPE AND DIAMETER, IN. | | | |
| DRILL RODS | N | CASING HAMMER, LBS. | 700 | AVERAGE FALL, IN. | 25 |
| | | SAMPLER HAMMER, LBS. | 140 | AVERAGE FALL, IN. | 30 |

WATER LEVEL OBSERVATIONS IN BOREHOLE

PIEZOMETER INSTALLED YES NO SKETCH SHOWN ON _____

| | | | | |
|------------------------|-----------------|----------------|--------------------|-------------------|
| <u>STANDPIPE:</u> | <u>TYPE</u> | <u>ID, IN.</u> | <u>LENGTH, FT.</u> | <u>TOP ELEV.</u> |
| <u>INTAKE ELEMENT:</u> | <u>TYPE</u> | <u>OD, IN.</u> | <u>LENGTH, FT.</u> | <u>TIP ELEV.</u> |
| <u>FILTER:</u> | <u>MATERIAL</u> | <u>OD, IN.</u> | <u>LENGTH, FT.</u> | <u>BOT. ELEV.</u> |

PAY QUANTITIES

2.5" DIA. DRY SAMPLE BORING LIN. FT. 70.0 NO. OF 3" SHELBY TUBE SAMPLES _____
 3.5" DIA. U-SAMPLE BORING LIN. FT. — NO. OF 3" UNDISTURBED SAMPLES _____
 CORE DRILLING IN ROCK LIN. FT. — OTHER: obstruction (bottom) 5 FT

BORING CONTRACTOR

DRILLER R. Lynch **HELPERS** E. Felleman
REMARKS

REMARKS *checklist of equipment*

RESIDENT ENGINEER _____ DATE 9-1-61
NOTES: _____

1. Make a separate log of each boring and each unsuccessful boring attempt. Keep a copy of all logs in the field.

2. In daily progress column indicate depth at beginning and end of work day, calendar date, day of week, time at beginning and end of work day.

3. All samples shall be numbered in consecutive order regardless of type; dry samples D, wash samples W, Shelby tube

samples S, fixed piston samples U. Assign NR to lost samples and record blows. Make another sample attempt immediately.

4. Mark each U-sample with job number, boring number, sample number, depth, penetration and recovery. Indicate method below the first sample.

by which penetration of tube sampler was obtained.

5. Record shown on species sampled per site includes or parentheses, move all numbers and parentheses when taken at less than one-half liter per sec.
6. List changes of material in strata column and list generalized strata descriptions.

7. List under remarks the manner by which changes in material were detected, all obstructions, any loss or gain of wash water

8. For rock core, the recovery and the RQD (Rock Quality Designation) should be shown in both inches and percent of run length.

In the blow per six inches columns. All core runs shall be numbered in consecutive order. A run number is given even if

g. Include sample description by Unified Soil Classification System.

10. Obtain water level at the beginning of each day and at all other times when stable water conditions exist.

BOILING NO. 10

BORING NO. 18

MUESER RUTLEDGE CONSULTING ENGINEERS

SHEET 1 OF 3

FILE NO. 9440

BORING NO. B41

SURFACE ELEV.

PROJECT Lowe's Home CENTER

PROJECT LOCATION Brooklyn, NY

RES. ENGR. R. NUNEZ

| DAILY PROGRESS | SAMPLE | | | SAMPLE DESCRIPTION | STRATA | DEPTH | CASING BLOWS | REMARKS |
|---|--------|-------|----------|---|--------|-------|--------------|---------------|
| | NO. | DEPTH | BLOWS/6" | | | | | |
| 01/16/01 0645 5025. 35°F Cloudy | 10 | 1 | 7-17 | Brown f-sand, silt, Tr. glb. Brick | | | Drilled | 8" Core, slab |
| | | 3 | 18-12 | Cinders (fill) (cm) | | | Ahead | |
| | 20 | 3 | 70-105' | Brown f-sand, silt, cinders, ad. Tr. brick (fill) (cm) | (4) | | | |
| | | 3.9 | | | | | | |
| | 30 | 5 | 21-27 | Brown f-m sand, silt, cinders, Tr. ad. (fill) (cm) | | | | |
| | | 7 | 29-15 | | | | | |
| | 40 | 7 | 7-6 | Almond u-f sand, silt, brick, Tr. cinders, ad. Silt (sp. sh) (fill) | | | | |
| | | 9 | 11-6 | | | | | |
| | 50 | 10 | 32-22 | Brown f-sand, silt, Tr. brick, cinders | | | | |
| | | 12 | 20-3 | | | | | |
| | 60 | 12 | 4-2 | Yellow f-sand, silt, cinders, Tr. ad. (fill) | | | | |
| | | 14 | 3-4 | | | | | |
| | 70 | 15 | 5-5 | Do-6d (fill) (cm) | | | | |
| | | 17 | 2-2 | | | | | |
| | 80 | 17 | 2-5 | Do-6d, Tr. veg (fill) (cm) | | | | |
| | | 19 | 4-2 | | | | | |
| | 90 | 20 | 3-4 | Brown f-sand, Tr. brick, RH (fill) (cm) | | | | |
| | | 22 | 5-4 | | | | | |
| | 100 | 23 | P-24" | Top-gray org. silt (cm), m f sand (ol) | | | | |
| | | 25 | R-21" | Bot.-brown silty m-f sand, Tr. veg (cm) | (2) | 3 | | |
| | 110 | 25 | 7-8 | Do-Yellow Bot. (cm) | | | | |
| | | 27 | 18-16 | | | | | |
| | 120 | 30 | 15-15 | Brown m-f sand, Tr. silt (sp. sm) | | | | |
| | | 32 | 22-21 | | | | | |
| | 130 | 35' | 8-12 | Brown silty f-n sand (cm) | | | | |
| | | 37 | 12-11 | | | | | |
| | 140 | 40 | 23-24 | Brown m-f sand, Tr. silt (sp. sm) | | | | |
| | | 42 | 23-28 | | | | | |
| | 150 | 45 | 10-16 | Do-14d, Tr. mica (sp. sm) | | | | |
| | | 47 | 13-12 | | | | | |
| | 160 | 50 | 10-14 | Brown clayey f-sand, silt, Tr. mica | | | | |
| | | 52 | 3-11 | | | | | |

MUESER RUTLEDGE CONSULTING ENGINEERS

PROJECT

Lowe's Home Center

PROJECT LOCATION

Brocklyn, N.Y.

RES. ENGR. E. NUNEZ

MUESER RUTLEDGE CONSULTING ENGINEERS

PROJECT Lowe's HOME CENTER
 LOCATION Brooklyn NY
 BORING LOCATION As planned

BORING NO. B94
 SHEET 3 OF 3
 FILE NO. 9446
 SURFACE ELEV.
 DATUM

BORING EQUIPMENT AND METHODS OF STABILIZING BOREHOLE

| TYPE OF BORING RIG | TYPE OF FEED DURING CORING | CASING USED | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |
|--------------------|-------------------------------|--|---|--|
| TRUCK | MECHANICAL | DIA., IN. <u>4</u> | DEPTH, FT. FROM | TO <u>20</u> |
| SKID | HYDRAULIC <u>X</u> | DIA., IN. | DEPTH, FT. FROM | TO |
| BARGE | OTHER | DIA., IN. | DEPTH, FT. FROM | TO |
| OTHER | | | | |
| TYPE AND SIZE OF: | | DRILLING MUD USED | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |
| D-SAMPLER | <u>2" OD. SPLIT SPOON</u> | DIAMETER OF ROTARY BIT, IN. <u>3 1/8" 2 1/4"</u> | | |
| U-SAMPLER | <u>SHELB. TUBE</u> | TYPE OF DRILLING MUD <u>Quick Gel</u> | | |
| S-SAMPLER | | | | |
| CORE BARREL | | AUGER USED | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO |
| CORE BIT | <u>TRI-WALL BIT</u> | TYPE AND DIAMETER, IN. | | |
| DRILL RODS | <u>N</u> | CASING HAMMER, LBS. <u>300</u> | AVERAGE FALL, IN. <u>24</u> | |
| | | SAMPLER HAMMER, LBS. <u>40</u> | AVERAGE FALL, IN. <u>30</u> | |

WATER LEVEL OBSERVATIONS IN BOREHOLE

| DATE | TIME | DEPTH OF HOLE (FEET) | DEPTH OF CASING (FEET) | DEPTH TO WATER (FEET) | CONDITIONS OF OBSERVATION |
|----------|------|----------------------------|------------------------------|-----------------------------|---------------------------|
| 01/17/01 | 1245 | 82 | — | 7.2 | Upon completion. |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

PIEZOMETER INSTALLED YES NO SKETCH SHOWN ON

STANDPIPE: TYPE ID, IN. LENGTH, FT. TOP ELEV.
 INTAKE ELEMENT: TYPE OD, IN. LENGTH, FT. TIP ELEV.
 FILTER: MATERIAL OD, IN. LENGTH, FT. BOT. ELEV.

PAY QUANTITIES

| | | |
|-----------------------------|-------------------|--|
| 2.5" DIA. DRY SAMPLE BORING | UN. FT. <u>80</u> | NO. OF 3" SHELB. TUBE SAMPLES <u>1</u> |
| 3.5" DIA. U-SAMPLE BORING | UN. FT. <u>2</u> | NO. OF 3" UNDISTURBED SAMPLES <u>—</u> |
| CORE DRILLING IN ROCK | UN. FT. <u>—</u> | OTHER: <u>—</u> |

BORING CONTRACTOR JED UD.

DRILLER R. Lynch HELPERS E. Feliciano

REMARKS Grew to borehole upon completion

RESIDENT ENGINEER E. Nungz

DATE 01/17/01

NOTES:

1. Make a separate log of each boring and each unsuccessful boring attempt. Keep a copy of all logs in the field.
2. In daily progress column indicate depth at beginning and end of work day, calendar date, day of week, time at beginning and end of work day and weather conditions.
3. All samples shall be numbered in consecutive order regardless of type; dry samples D, wash samples W, shelby tube samples S, fixed piston samples U. Assign NR to lost samples and record blows. Make another sample attempt immediately below the lost sample.
4. Mark each U-sample with job number, boring number, sample number, depth, penetration and recovery. Indicate method by which penetration of tube sampler was obtained.
5. Record blows on spoon sampler per six inches of penetration. Note all blows and penetrations when taken at less than six-inch interval.
6. List changes of material in strata column and list generalized strata descriptions.
7. List under remarks the manner by which changes in material were detected, all obstructions, any loss or gain of wash water including amount and any unusual occurrences.
8. For rock core, the recovery and the RQD (Rock Quality Designation) should be shown in both inches and percent of run length in the blows per six inches column. All core runs shall be numbered in consecutive order. A run number is given even if recovery is zero.
9. Include sample description by Unified Soil Classification System.
10. Obtain water level at the beginning of each day and at all other times when stable water conditions exist.

BORING NO. B94

MUESER RUTLEDGE CONSULTING ENGINEERS

SHEET 1 OF 3
FILE NO. 9442
BORING NO. B-11
SURFACE ELEV.

PROJECT Lewis's Home RentalPROJECT LOCATION Brocklyn, NYDES. ENGR. R. MANNER

| DAILY PROGRESS | SAMPLE | | | SAMPLE DESCRIPTION | STRATA | DEPTH | CASING BLOWS | REMARKS |
|----------------|--------|-------|----------|--|--------|-------|--------------|------------------|
| | NO. | DEPTH | BLOWS/6" | | | | | |
| 12/11/00 | 10 | 1 | 19-33 | BL-fn sand, sm silt, thin gravel | | | | drilled |
| Tues. | | 3 | 24-37 | clay (5-10 cm) | | | | safety hammer |
| 30' SPT | 20 | 3 | 10-11 | BD-10 (10-15 cm) | | | | approx @ surface |
| Aug 12 | | 5 | 12-15 | | | | | artificial |
| 128' SPTs. | | | | | | | | |
| | 30 | 5 | 3-3 | water saturated | | | | |
| | | 7 | 4-4 | | | | | |
| | 40 | 7 | 3-4 | gray m.f. sand, 30' (5 cm) | | | | |
| | | 9 | 6-3 | | | | | |
| | 50 | 10 | 2-1 | gray f. in sand, sm silt, thin gravel | | | | |
| | | 12 | 1-1 | | | | | |
| | 60 | 12 | 2-1 | DO-50, to water (10-15 cm) | | | | |
| | | 14 | 1-1 | | | | | |
| | 70 | 15 | 3-4 | soft gray, dry, silty clay, 5' very dense | | | | |
| | | 17 | 4-8 | | | | | |
| | 80 | 17 | 2-2 | DO-10 (5m) | | | | |
| | | 19 | 2-2 | | | | | |
| | 90 | 20 | 1-1 | gray stiff f. in sand, tr. veg, clay (5cm) | | | | |
| | | 22 | 1-1 | | | | | |
| | 100 | 25 | 8-10 | BD-fn f. sand, sm silt (cm) | | | | |
| | | 27 | 15-10 | | | | | |
| | 110 | 30 | 5-4 | gray, dry, clayey silt, tr. sand, very (5cm) | | | | |
| | | 32 | 4-5 | | | | | |
| | 120 | 35 | 10-12 | BD-fn f. sand, tr. silt, very (5cm) | | | | |
| | | 37 | 12-13 | | | | | |
| | 130 | 40 | 10-14 | BD-fn f. sand, tr. silt, very (5cm) | | | | |
| | | 42 | 21-17 | | | | | |
| | 140 | 45 | 10-13 | BD-fn f. sand, tr. silt (5m) | | | | |
| | | 47 | 12-17 | | | | | |
| | 150 | 50 | 12-14 | DO-140 (5m) | | | | |
| | | 52 | 13-12 | | | | | |

MUESER RUTLEDGE CONSULTING ENGINEERS

PROJECT Lewis's Home Ctr.SHEET 2 OF 3
FILE NO. Q446
BORING NO. B-11
SURFACE ELEV.PROJECT LOCATION Brocklyn, N.Y.RES. ENGR. R. MUEZ

| SS | SAMPLE NO. | DEPTH BLOWS/6" | SAMPLE DESCRIPTION | STRATA | DEPTH | CASING BLOWS | REMARKS |
|-------|---------------|-------------------|---|--------|-------|-----------------|---|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| P-1D | 55 | 26-19 | BRN C-f sand, Tr. silt, mica (sp.-fm) | (S) | 55 | | |
| | 57 | 23-25 | | | | | |
| | | | | | | | |
| P-2D | 60 | 9-12 | DO - HED, Tr. silt (sp.-fm) | (60) | | | |
| | 62 | 22-22 | | | | | |
| | | | | | | | |
| P-3D | 65 | 10-11 | BRN H-f sand, Tr. c sand mica (sp fm) | (65) | | | |
| | 67 | 11-12 | | | | | |
| | | | | | | | |
| P-4D | 70 | 41-30 | RED BRN Silt, f-c sand, silt, silt (fm) | (70) | | | |
| | 72 | 45-49 | | | | | |
| | | | | | | | |
| P-5D | 75 | 46-43 | RED BRN f-c sand, silt, silt (fm) | (75) | | | |
| | 77 | 56-44 | | | | | |
| | | | | | | | |
| P-6D | 80 | 80-65 | Rock fragments & Red Bn Silt fm | (80) | | | |
| | 81.2 | 100' 2" | Sand, Tr. silt (fm) | | | | 8-3" Rock fragments in the top of the soil. |
| | | | | | | | |
| P-7D | 85 | 37-40 | RED BRN f-c sand, silt, silt, silt, silt, Tr. black | (85) | | | |
| | 87 | 41-50 | N. o.d. (fm) | | | | Rock frag. in the top of the soil. |
| | | | | | | | |
| P-8D | 90 | 13-13 | RED BRN C-f Sand, Silt, Tr. silt (sp fm) | (90) | | | |
| | 92 | 18-16 | | | | | |
| | | | | | | | |
| P-9D | 95 | 10-14 | BRN M-f sand, Tr. silt, silt (sp fm) | (95) | | | |
| | 97 | 27-20 | | | | | |
| | | | | | | | |
| P-10D | 100 | 20-20 | RED BRN Silt, f-m sand, silt, silt (fm) | (100) | | | |
| | 102 | 25-23 | | | | | E.O.B @ 102 FT. |

BORING NO. B-11

MUESER RUTLEDGE CONSULTING ENGINEERS

PROJECT Lowe's Home Center
LOCATION Brocklyn, NY
BORING LOCATION 40 ft -> 10 FT SW

BORING NO. B-1
SHEET 3 OF 3
FILE NO. 9446
SURFACE ELEV.
DATUM

BORING EQUIPMENT AND METHODS OF STABILIZING BOREHOLE

| | | | | | | |
|-----------------------------|----------------------------|---|-------------------------------|--|----------------------------------|-----------------|
| TYPE OF BORING RIG TRUCK | <u>CME 55</u> | TYPE OF FEED DURING CORING MECHANICAL | CASING USED DIA., IN. | <input checked="" type="checkbox"/> YES DEPTH, FT. FROM | <input type="checkbox"/> NO 0 | TO <u>20</u> |
| SKID | | HYDRAULIC | DIA., IN. | DEPTH, FT. FROM | | TO |
| BARGE | | OTHER | DIA., IN. | DEPTH, FT. FROM | | TO |
| OTHER | | | | | | |
| TYPE AND SIZE OF: | | | DRILLING MUD USED | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | |
| D-SAMPLER | <u>2" o.d. silt screen</u> | DIAMETER OF ROTARY BIT, IN. | <u>5 1/8", 3 1/8", 2 1/4"</u> | | | |
| U-SAMPLER | | TYPE OF DRILLING MUD | <u>QUICK SEL</u> | | | |
| S-SAMPLER | | | | | | |
| CORE BARREL | | AUGER USED | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | |
| CORE BIT | | TYPE AND DIAMETER, IN. | | | | |
| DRILL RODS | <u>N</u> | | | | | |
| | | CASING HAMMER, LBS. | <u>340</u> | AVERAGE FALL, IN. | <u>24</u> | |
| | | SAMPLER HAMMER, LBS. | <u>140</u> | AVERAGE FALL, IN. | <u>30</u> | |

WATER LEVEL OBSERVATIONS IN BOREHOLE

| DATE | TIME | DEPTH OF HOLE (FEET) | DEPTH OF CASING (FEET) | DEPTH TO WATER (FEET) | CONDITIONS OF OBSERVATION |
|------|------|----------------------------|------------------------------|-----------------------------|---------------------------|
| | | | | | No observation. |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

PIEZOMETER INSTALLED YES NO **SKETCH SHOWN ON**

| | | | | |
|-----------------|----------|---------|-------------|------------|
| STANDPIPE: | TYPE | ID, IN. | LENGTH, FT. | TOP ELEV. |
| INTAKE ELEMENT: | TYPE | OD, IN. | LENGTH, FT. | TIP ELEV. |
| FILTER: | MATERIAL | OD, IN. | LENGTH, FT. | BOT. ELEV. |

PAY QUANTITIES

2.5" DIA. DRY SAMPLE BORING UN. FT. 102 NO. OF 3" SHELBY TUBE SAMPLES ✓
 3.5" DIA. U-SAMPLE BORING UN. FT. ✓ NO. OF 3" UNDISTURBED SAMPLES ✓
 CORE DRILLING IN ROCK UN. FT. ✓ OTHER:

BORING CONTRACTOR

DRILLER R. L. GRIFFITH **HELPERS** E. H. CLARK AND

REMARKS Granted bonfire upon completion.

RESIDENT ENGINEER _____ R. LUNGE _____ DATE 12/20/90
NOTES _____

t. Make a separate log of each boring and each unsuccessful boring attempt. Keep a copy of all logs in the field.

- In daily progress column indicate depth at beginning and end of work day, calendar date, day of week, time at beginning and end of work day and weather conditions.
 - All samples shall be numbered in consecutive order regardless of type; dry samples D, wash samples W, shaly tube samples S, fixed piston samples U. Assign NR to lost samples and record blows. Make another sample attempt immediately below the lost sample.
 - Mark each U-sample with job number, boring number, sample number, depth, penetration and recovery. Indicate method by which penetration of tube sampler was obtained.
 - Record blows on spoon sampler per six inches of penetration. Note all blows and penetrations when taken at less than six-inch interval.
 - List changes of material in strata column and list generalized strata descriptions.
 - List under remarks the manner by which changes in material were detected, all obstructions, any loss or gain of wash water including amount and any unusual occurrences.
 - For rock core, the recovery and the RQD (Rock Quality Designation) should be shown in both inches and percent of run length in the blows per six inches column. All core runs shall be numbered in consecutive order. A run number is given even if recovery is zero.
 - Include sample description by Unified Soil Classification System.
 - Obtain water level at the beginning of each day and at all other times when stable water conditions exist.

BORING NO. B-11

MUESER RUTLEDGE CONSULTING ENGINEERS

SHEET 1 OF 3
FILE NO. 9440
BORING NO. B-12
SURFACE ELEV.

PROJECT

Lazar's Home Center

PROJECT LOCATION

Brooklyn NY

RES. ENGR. E. NUNER

| DAILY PROGRESS | SAMPLE | | | SAMPLE DESCRIPTION | STRATA | DEPTH | CASING BLOWS | REMARKS |
|--|--------|-------|----------|--|--------|-------|--------------|--------------------------|
| | NO. | DEPTH | BLOWS/6" | | | | | |
| 12/14/00 30' deep Tues Cloudy 12/15/00 | 10 | 0-5 | 5-10 | Bk. Bn. & f. sand, smth, Tr. silt, cinders | | | | Drilled Automatic Hammer |
| | | 2 | 23 | Brick (fill) (sm) | | | | Atmos Concrete @ surface |
| | 20 | 3 | 9-19 | Do-10x fill (sm) | | | | 4' thick |
| | | 4 | 12-6 | | | | | 10-15ft sample |
| | 30 | 4 | 1-1 | Bk. f. m. sand, smth, Tr. peat, brick | (4) | | | |
| | | 6 | 1-1 | | | | | |
| | 40 | 6 | 2-2 | Bk. clay (+1 ft sand, smth, cinders, brick, | | | | |
| | | 8 | 2-2 | wire (+fill) (sm) | | | | |
| | 50 | 8 | 2-3 | Bk. clay, f. m. sand, smth, coarse Tr. silt, | | | | |
| | | 10 | 3-4 | | | | | |
| | 60 | 10 | 2-2 | Do-5D (fill) (sm) | | | | |
| | | 12 | 1-1 | | | | | |
| | 70 | 12 | 2-2 | Do-5D (fill) (sm) | | | | |
| | | 14 | 2-1 | | | | | |
| | 80 | 14 | 1-1 | ORG-Do-5D (fill) (sm) | | | | R=12' |
| | | 16 | 1-1 | ORG-organic silty clay, smth, Tr. silt (sm) | | | | |
| | 90 | 16 | 1-1 | Do-5D-BOT (ou) | | | | |
| | | 18 | 1-1 | | | | | |
| 14/15 | 100 | 20 | 1-1 | Gray silt, f. m. sand, Tr. silt (sm) | (5) | | | |
| | | 22 | 1-2 | | | | | |
| 12/16/00 WED. | | | | | | | | |
| 12/17/00 Thurs Windy Wet | 110 | 25 | 4-6 | Bn. H. f. sand, Tr. silt (sp-sm) | | | | |
| | | 27 | 8-8 | | | | | |
| | 120 | 30 | 3-3 | Top(2")-Bn. H. f. sand, Tr. silt (sp-sm) | | | | |
| | | 32 | 2-2 | Bot(8")-Stiff gray Bn. H. f. sand (sm) | | | | |
| | | | | | | | | Bor. D=15 ft. 15' |
| | 130 | 35 | 5-8 | Bn. H. f. sand, Tr. silt (sp-sm) | | | | |
| | | 37 | 12-15 | | | | | |
| | 140 | 40 | 6-8 | Do-13D (sp-sm) | | | | |
| | | 42 | 11-11 | | | | | |
| | 150 | 45 | 3-3 | Do-13D, Tr. silt (sp-sm) | | | | |
| | | 47 | 5-4 | | | | | |
| | 160 | 50 | 4-4 | Bk. silty f. sand, Tr. silt (sm) | | | | |
| | | 52 | 6-5 | | | | | |

MUESER RUTLEDGE CONSULTING ENGINEERS

PROJECT Lewis Long Intro

SHEET 2 OF 3

FILE NO. 9446

BOEING NO B-42-

SURFACE ELEV.

PROJECT LOCATION Brooklyn, NY

RES. ENGR. J. C. NUNGZ

MUESER RUTLEDGE CONSULTING ENGINEERS

PROJECT Lowe's Home Center
 LOCATION Brooklyn, NY
 BORING LOCATION SPOT 16 FT SW

BORING NO. B-12
 SHEET 3 OF 3
 FILE NO. 9446
 SURFACE ELEV.
 DATUM

BORING EQUIPMENT AND METHODS OF STABILIZING BOREHOLE

| | | | | |
|--------------------|-------------------------------|-------------|---|-----------------------------|
| TYPE OF BORING RIG | TYPE OF FEED DURING CORING | CASING USED | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO |
| TRUCK | MECHANICAL | DIA., IN. | 4 | DEPTH, FT. FROM |
| SKID | HYDRAULIC | DIA., IN. | | DEPTH, FT. FROM |
| BARGE | OTHER | DIA., IN. | | DEPTH, FT. FROM |
| OTHER | | | | TO 20 |

| | |
|------------------------------------|---|
| TYPE AND SIZE OF: | DRILLING MUD USED |
| D-SAMPLER <u>2" x 6' SPT SPOON</u> | <input checked="" type="checkbox"/> YES |
| U-SAMPLER | DIAMETER OF ROTARY BIT, IN. |
| S-SAMPLER | TYPE OF DRILLING MUD |
| CORE BARREL | AUGER USED |
| CORE BIT | TYPE AND DIAMETER, IN. |
| DRILL RODS <u>N</u> | CASING HAMMER, LBS. |
| | SAMPLER HAMMER, LBS. |
| | AVERAGE FALL, IN. |
| | AVERAGE FALL, IN. |

WATER LEVEL OBSERVATIONS IN BOREHOLE

| DATE | TIME | DEPTH OF HOLE (FEET) | DEPTH OF CASING (FEET) | DEPTH TO WATER (FEET) | CONDITIONS OF OBSERVATION |
|------|------|----------------------------|------------------------------|-----------------------------|---------------------------|
| | | | | | <u>No observation.</u> |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| | | | |
|----------------------|------------------------------|--|-----------------|
| PIEZOMETER INSTALLED | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | SKETCH SHOWN ON |
| STANDPIPE: TYPE | 10, IN. | LENGTH, FT. | TOP ELEV. |
| INTAKE ELEMENT: TYPE | 00, IN. | LENGTH, FT. | TIP ELEV. |
| FILTER: MATERIAL | 00, IN. | LENGTH, FT. | BOT. ELEV. |

| | | | |
|-----------------------------|----------|-------------|-----------------------------------|
| PAY QUANTITIES | | | |
| 2.5" DIA. DRY SAMPLE BORING | LIN. FT. | <u>99.5</u> | NO. OF 3" SHELBY TUBE SAMPLES |
| 3.5" DIA. U-SAMPLE BORING | LIN. FT. | <u>—</u> | NO. OF 3" UNDISTURBED SAMPLES |
| CORE DRILLING IN ROCK | LIN. FT. | <u>—</u> | OTHER: <u>distortion (boring)</u> |
| | | | <u>2.5</u> |

BORING CONTRACTOR JSDC

DRILLER M. Tsigas HELPERS D. Keith

REMARKS Grouted borehole upon completion

RESIDENT ENGINEER 12. NUMBER DATE 12/20/00

NOTES:

1. Make a separate log of each boring and each unsuccessful boring attempt. Keep a copy of all logs in the field.
2. In daily progress column indicate depth at beginning and end of work day, calendar date, day of week, time at beginning and end of work day and weather conditions.
3. All samples shall be numbered in consecutive order regardless of type; dry samples D, wash samples W, shelby tube samples S, fixed piston samples F. Assign NR to lost samples and record blows. Make another sample attempt immediately below the lost sample.
4. Mark each U-sample with job number, boring number, sample number, depth, penetration and recovery. Indicate method by which penetration of tube sampler was obtained.
5. Record blows on spoon sampler per six inches of penetration. Note all blows and penetrations when taken at less than six-inch interval.
6. List changes of material in strata column and list generalized strata descriptions.
7. List under remarks the manner by which changes in material were detected, all obstructions, any loss or gain of wash water including amount and any unusual occurrences.
8. For rock core, the recovery and the RQD (Rock Quality Designation) should be shown in both inches and percent of run length in the blows per six inches column. All core runs shall be numbered in consecutive order. A run number is given even if recovery is zero.
9. Include sample description by Unified Soil Classification System.
10. Obtain water level at the beginning of each day and at all other times when stable water conditions exist.

BORING NO. B-12

MUESER RUTLEDGE CONSULTING ENGINEERS

SHEET 1 OF 3

FILE NO. 9440

B-13

PROJECT Lowe's HOME CENTER

PROJECT LOCATION Brooklyn NY

RES. ENGR. T. NUNEZ

| DAILY PROGRESS | SAMPLE | | | SAMPLE DESCRIPTION | STRATA | DEPTH | CASING BLOWS | REMARKS |
|--|--------|-------|----------|--|--------|-------|--------------|--------------------------|
| | NO. | DEPTH | BLOWS/6" | | | | | |
| 12/20/00 WED. 11:00 AM 30' S.F. 130 hrs | 10 | 0-5 | 24-15 | dk f-t sand, sm silt, T. under, ch. | | | | Drilled Automatic Hammer |
| | | 2 | 17 | brick (fill) (sm) | | | | NHAD 4' thick concrete |
| | 10 | 2 | 7-11 | DO-10 (fill) (sm) | | | | Surface. |
| | 4 | 16-6 | | | | | | |
| | 30 | 4 | 4-4 | DO-10 (fill) (sm) | (4) | 5 | | Stiff plowable |
| | | 6 | 2-2 | | | | | NPWD |
| | 40 | 6 | 1-1 | grey dk f-n sand, sm silt, T. vegetal, | | | | |
| | | 8 | 1-1 | Brick (fill) (sm) | | | | |
| | 50 | 8 | 2-1 | DO-10, T. cinders (fill) (sm) | | | | |
| | | 10 | 2-2 | | | | | |
| | 60 | 10 | 4-2 | dk gray f-n sand, sm silt, cinders, T. ch. | | | | |
| | | 12 | 2-1 | Brick (fill) (sm) | | | | |
| | 70 | 12 | 1-1 | dk gray f-n sand, sm silt, cinders, T. | | | | |
| | | 14 | 1-1 | Brick (fill) (sm) | | | | |
| | | | | | | | | |
| | 80 | 15 | 8-6 | Black cinders, dk f-n sand, T. fault | | | | |
| | | 17 | 5-5 | fill (interior) | | | | E = 1 st |
| | 90 | 18 | 2-1 | Brick (pt) | | | | |
| | | 19 | 1-1 | | | | | |
| | 100 | 20 | WOT/18" | gray silty f-n sand, T. peat (sm) | | | | |
| | | 22 | 1 | | | | | |
| 10/15 hrs 12/21/00 Tues 26° F occasional cloudy | | | | | | | | |
| | 110 | 25 | 4-5 | BRN f-c sand, T. silt, mica (sp. sm) | (E) | 25 | | |
| | | 27 | 5-9 | | | | | |
| | | | | | | | | |
| | 120 | 30 | 8-7 | BRN silt, f-sand, T. ch. (sm) | | | | |
| | | 32 | 4-4 | | | | | |
| | | | | | | | | |
| | 130 | 35 | 2-2 | stiff gray soggy silty clay, sm f-dried | (C) | 35 | | |
| | | 37 | 7-5 | (OH) | | | | PT. 1.25 T.S.F |
| | | | | | | | | |
| | 140 | 40 | 3-5 | gray m-f sand, T. silt, mica (sp. sm) | (E) | 38.5 | | |
| | | 42 | 4-6 | | | | | |
| | | | | | | | | |
| | 150 | 45 | 4-4 | DO-10 (sp. sm) | | 40 | | |
| | | 47 | 4-7 | | | | | |
| | | | | | | | | |
| | 160 | 50 | 2-4 | gray f-n sand, sm silt (sm) | | 45 | | |
| | | 52 | 4-6 | | | | | |

BORING NO. B-13

MUESER RUTLEDGE CONSULTING ENGINEERS

PROJECT

Locci's Home Center

SHEET 2 OF 3
FILE NO. QK66
BORING NO. B-B
SURFACE ELEV.

PROJECT LOCATION

Brooklyn, NY

RES. ENGR.

T. MUNZ

| DAILY PROGRESS | SAMPLE NO. | DEPTH | SAMPLE DESCRIPTION | STRATA | DEPTH | CASING BLOWS | REMARKS |
|----------------|------------|-------|--|--------|-------|--------------|---------|
| | | | | (5) | | | |
| | | | | 33'-F | | | |
| | | | | SS | | | |
| | | | | (6) | | | |
| | | | | 58.5' | | | |
| | | | | 60 | | | |
| | | | | (T) | | | |
| | | | | 65 | | | |
| | | | | 70 | | | |
| | | | | 72 | | | |
| | | | | 74 | | | |
| | | | | 75 | | | |
| | | | | 80 | | | |
| | | | | 85 | | | |
| | | | | 90 | | | |
| | | | | 95 | | | |
| | | | | 100 | | | |
| | | | | 102 | | | |
| 110 | 55 | 5.5 | Wet/soft gravelly clay with f-sand 5ft | (5) | | | |
| 110 | 60 | 6.2 | Red-brown silty f-c sand, lf. gul. 62 10.9 rock frag (sm) | (T) | | | |
| 110 | 65 | 9.10 | Do-18'V (sm) | | | | |
| 110 | 67 | 11.17 | | | | | |
| 110 | 70 | 13.22 | Red-brown f-c sand, smooth, (sm) | | | | |
| 110 | 72 | 17.19 | | | | | |
| 110 | 75 | 12.14 | Do-20D (sm) | | | | |
| 110 | 77 | 17.21 | | | | | |
| 110 | 80 | 21.25 | Do-21D, sm rock frag, (sm) | | | | |
| 110 | 82 | 25.34 | | | | | |
| 130 | 85 | 24.13 | Red-brown f-c sand, smooth, (sm) | (T) | | | |
| 130 | 87 | 21.18 | | | | | |
| 140 | 90 | 20.17 | Do-23D (sm) | | | | |
| 140 | 92 | 13.13 | | | | | |
| 150 | 95 | 20.23 | Do-23D (sm) | | | | |
| 150 | 97 | 26.26 | | | | | |
| 160 | 100 | 21.25 | Do-23D (sm) | | | | |
| 160 | 102 | 23.23 | | | | | |

MUESER RUTLEDGE CONSULTING ENGINEERS

PROJECT Lowe's Home Center
 LOCATION Brooklyn, NY
 BORING LOCATION Joe Lee #7

BORING NO. B-13
 SHEET 3 OF 5
 FILE NO. 4446
 SURFACE ELEV.
 DATUM

BORING EQUIPMENT AND METHODS OF STABILIZING BOREHOLE

| | | | | | | | |
|--------------------|----------------------------|-----------------------------|---|--|----|----|----|
| TYPE OF BORING RIG | TYPE OF FEED DURING CORING | CASING USED | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | | |
| TRUCK | MECHANICAL | DIA., IN. | 4 | DEPTH, FT. FROM | 0 | TO | 20 |
| SQD | HYDRAULIC | X | | DEPTH, FT. FROM | | TO | |
| BARGE | OTHER | | | DEPTH, FT. FROM | | TO | |
| OTHER | | | | | | | |
| TYPE AND SIZE OF: | | DRILLING MUD USED | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | | | |
| D-SAMPLER | 2" O.D. SPLIT OPEN | DIAMETER OF ROTARY BIT, IN. | 2 5/8", 3 1/8", 4 1/8" | | | | |
| U-SAMPLER | | TYPE OF DRILLING MUD | GROUT | | | | |
| S-SAMPLER | | | | | | | |
| CORE BARREL | | AUGER USED | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO | | | |
| CORE BIT | | TYPE AND DIAMETER, IN. | | | | | |
| DRILL RODS | N | CASING HAMMER, LBS. | 200 | AVERAGE FALL, IN. | 24 | | |
| | | SAMPLER HAMMER, LBS. | 140 | AVERAGE FALL, IN. | 30 | | |

WATER LEVEL OBSERVATIONS IN BOREHOLE

| DATE | TIME | DEPTH OF HOLE (FEET) | DEPTH OF CASING (FEET) | DEPTH TO WATER (FEET) | CONDITIONS OF OBSERVATION |
|----------|------|----------------------|------------------------|-----------------------|----------------------------------|
| 12/21/00 | AM 0 | 102 | 20 | 110 ± | Mud/water level upon completion. |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

PIEZOMETER INSTALLED YES NO SKETCH SHOWN ON
 STANDPIPE: TYPE ID, IN. LENGTH, FT. TOP ELEV.
 INTAKE ELEMENT: TYPE OD, IN. LENGTH, FT. TIP ELEV.
 FILTER: MATERIAL OD, IN. LENGTH, FT. BOT. ELEV.

PAY QUANTITIES
 2.5" DIA. DRY SAMPLE BORING LIN. FT. /00 NO. OF 3" SHELBY TUBE SAMPLES
 3.5" DIA. U-SAMPLE BORING LIN. FT. = NO. OF 3" UNDISTURBED SAMPLES
 CORE DRILLING IN ROCK LIN. FT. OTHER: Construction (in ft.) 2 ft.

BORING CONTRACTOR JSA Co.
 DRILLER M. Blawie HELPERS D. Keith
 REMARKS Sealed borehole upon completion.

RESIDENT ENGINEER T. A. Jumper DATE 12/21/00

NOTES:

1. Make a separate log of each boring and each unsuccessful boring attempt. Keep a copy of all logs in the field.
2. In daily progress column indicate depth at beginning and end of work day, calendar date, day of week, time at beginning and end of work day and weather conditions.
3. All samples shall be numbered in consecutive order regardless of type; dry samples D, wash samples W, shelby tube samples S, fixed piston samples U. Assign NR to lost samples and record blows. Make another sample attempt immediately below the lost sample.
4. Mark each U-sample with job number, boring number, sample number, depth, penetration and recovery. Indicate method by which penetration of tube sampler was obtained.
5. Record blows on spoon sampler per six inches of penetration. Note all blows and penetrations when taken at less than six-inch interval.
6. List changes of material at strata column and list generalized strata descriptions.
7. List under remarks the manner by which changes in material were detected, all obstructions, any loss or gain of wash water including amount and any unusual occurrences.
8. For rock core, the recovery and the RQD (Rock Quality Designation) should be shown in both inches and percent of run length in the blows per six inches column. All core runs shall be numbered in consecutive order. A run number is given even if recovery is zero.
9. Include sample description by Unified Soil Classification System.
10. Obtain water level at the beginning of each day and at all other times when stable water conditions exist.

BORING NO. B-13