| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| F.A.I. 80/94 | 2626.2-R-1 | LAKE COUNTY, INDIANA | 452 | 214 |
| | S.N. 016-W857 | FED. AID PROJECT- | | |

SHEET NO. S-19
20 SHEETS

CONTRACT NO. 62113 INDOT DES. NO. 0100987

## BORING NO. AR-101 (1 OF 1)

Wang Engineering, INC.
Consulting Geotechnical and Environmental Engineers
wangeng3@wangeng.com
100 Fairbank Street
Addison, IL 60101
Telephone: 630 458-0700
Fax: 630 458-0900

### BORING LOG AR-101

Page 1 of 1

WEI Job No.: 255-08-01
Client: American Consulting Engineers
Project: FAI 80/94, I-294 to US 41
Location: s13 T36N R10W & s29 R15E T36N

Datum: NGVD
Elevation: 190.97 m
North: 545272.78 m
East: 367810.09 m
Station: 8+413.59
Offset: 19.98 RT

| Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample Type | Sample No. | N Values (b/w/150 mm) | Qu (kPa) | Moisture Content (%) |
|---|---|---|---|---|---|---|---|
| 190.8 | 203-mm thick ASPHALT --PAVEMENT-- | | | | | | |
| 190.5 | Gray CRUSHED STONE --BASE COURSE-- | | | | | | |
| | Stiff to very stiff, brown and gray SILTY CLAY to CLAY --FILL-- | 1 | | 1 | 4 4 6 | 228 S | 17 |
| | | 2 | | 2 | 4 5 6 | 275 B | 18 |
| | | 3 | | 3 | 6 8 8 | 283 B | 16 |
| | | 4 | | 4 | 4 5 6 | 118 S | 18 |
| 187.8 | Medium dense, brown SAND --FILL-- | | | 5 | 7 7 8 | NP | 19 |
| 187.0 | Very stiff, brown SILTY CLAY --FILL-- | 4 | | 6 | 6 7 8 | 287 P | 12 |
| | | 5 | | 7 | 4 5 7 | 236 S | 18 |
| 185.1 | Medium dense, brown SAND --FILL-- | 6 | | 8 | 9 10 13 | NP | 17 |
| 184.7 | Stiff to very stiff, brown and gray SILTY CLAY --FILL-- | | | 9 | 5 7 9 | 267 S | 15 |
| | | 7 | | 10 | 6 9 10 | 157 S | 18 |

| Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample Type | Sample No. | N Values (b/w/150 mm) | Qu (kPa) | Moisture Content (%) |
|---|---|---|---|---|---|---|---|
| 182.4 | Hard, brown and gray CLAY | 8 | | 11 | 7 8 10 | 314 S | 19 |
| | | 9 | | 12 | 4 5 6 | 408 B | 19 |
| 181.5 | --OBSTRUCTION-- | | | 13 | 10 28 | 400 B | 17 |
| | Boring terminated at 9.45 m | 10 | | | | | |
| | | 11 | | | | | |
| | | 12 | | | | | |
| | | 13 | | | | | |
| | | 14 | | | | | |
| | | 15 | | | | | |

GENERAL NOTES
Begin Drilling 05-16-2002 Complete Drilling 05-16-2002
Drilling Contractor TSC Drill Rig CME 75
Driller C&A Logger H. Suhail Checked by B. Fugiel
Drilling Method Mud Rotary; Grouted upon completion

WATER LEVEL DATA
While Drilling ▽ –
At Completion of Drilling ▼ –
Time After Drilling – hours
Depth to Water ▽ m ▼ m
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

## BORING NO. AB-017 (1 OF 3)

Wang Engineering, INC.
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### BORING LOG AB-17

Page 1 of 3

WEI Job No.: 255-08-01
Client: American Consulting Engineers
Project: FAI 80/94, I-294 to US 41
Location: s13 T36N R10W & s29 R15E T36N

Datum: NGVD
Elevation: 191.12 m
North: 545266.08 m
East: 367829.44 m
Station: 8+434.07
Offset: 19.82 RT

| Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample Type | Sample No. | N Values (b/w/150 mm) | Qu (kPa) | Moisture Content (%) |
|---|---|---|---|---|---|---|---|
| 190.8 | 279-mm thick CONCRETE --PAVEMENT-- | | | | | | |
| 190.5 | Loose, brown, medium SAND --FILL-- | | | 1 | 3 4 4 | 144 P | 15 |
| | Stiff, gray SILTY CLAY --FILL-- | 1 | | | | | |
| 189.9 | Loose, brown SANDY LOAM --FILL-- | | | 2 | 3 4 4 | NP | 16 |
| 189.4 | Very stiff, brown to gray CLAY LOAM --FILL-- | 2 | | 3 | 3 5 5 | 287 P | 20 |
| 188.4 | Very loose to medium dense, brown, medium SAND --FILL-- | 3 | | 4 | 3 3 4 | NP | 3 |
| | | 4 | | 5 | 3 3 3 | NP | 4 |
| | | 5 | | 6 | 1 2 2 | NP | 25 |
| | | 6 | | 7 | 1 1 1 | NP | 27 |
| | | 7 | | 8 | 3 4 5 | NP | 21 |
| | | 8 | | 9 | 2 3 4 | NP | 24 |
| | | 9 | | 10 | 4 6 8 | NP | 22 |

| Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample Type | Sample No. | N Values (b/w/150 mm) | Qu (kPa) | Moisture Content (%) |
|---|---|---|---|---|---|---|---|
| 181.1 | Very stiff, dark gray CLAY LOAM --BURIED TOPSOIL-- | | | 11 | 5 6 7 | NP | 24 |
| | | 9 | | 12 | 2 1 2 | NP | 25 |
| | | 10 | | 13 | 1 2 2 | NP | 26 |
| 180.3 | Hard, brown CLAY | | | 14 | 6 8 8 | 287 P | 29 |
| | | 11 | | 15 | 3 5 6 | 393 B | 20 |
| | | 12 | | 16 | 5 7 7 | 408 B | 20 |
| 178.3 | Stiff to very stiff, gray CLAY | 13 | | 17 | 3 4 6 | 157 B | 21 |
| | | 14 | | | | | |
| | | 15 | | 18 | 3 4 8 | 212 B | 20 |

GENERAL NOTES
Begin Drilling 01-24-2002 Complete Drilling 01-25-2002
Drilling Contractor TSC Drill Rig CME 75
Driller C&J Logger B. Fugiel Checked by N. Davis
Drilling Method Mud Rotary; Grouted upon completion

WATER LEVEL DATA
While Drilling ▽ –
At Completion of Drilling ▼ –
Time After Drilling – hours
Depth to Water ▽ m ▼ m
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

## BORING NO. AB-017 (2 OF 3)

Wang Engineering, INC.
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### BORING LOG AB-17

Page 2 of 3

WEI Job No.: 255-08-01
Client: American Consulting Engineers
Project: FAI 80/94, I-294 to US 41
Location: s13 T36N R10W & s29 R15E T36N

Datum: NGVD
Elevation: 191.12 m
North: 545266.08 m
East: 367829.44 m
Station: 8+434.07
Offset: 19.82 RT

| Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample Type | Sample No. | N Values (b/w/150 mm) | Qu (kPa) | Moisture Content (%) |
|---|---|---|---|---|---|---|---|
| | | 16 | | | | | |
| | | 17 | | 19 | 3 3 3 | 196 B | 22 |
| | | 18 | | 20 | 3 3 4 | 243 B | 22 |
| | | 19 | | 21 | 3 4 6 | 220 B | 20 |
| | | 20 | | | | | |
| | | 21 | | 22 | 5 6 7 | 236 B | 22 |
| | | 22 | | | | | |
| | | 23 | | 23 | 4 4 6 | 236 B | 21 |

| Elevation (m) | SOIL AND ROCK DESCRIPTION | Depth (m) | Sample Type | Sample No. | N Values (b/w/150 mm) | Qu (kPa) | Moisture Content (%) |
|---|---|---|---|---|---|---|---|
| | | 23 | | | | | |
| | | 24 | | 24 | 4 6 8 | 157 B | 18 |
| 166.1 | Very stiff to hard, gray SILTY CLAY | 25 | | | | | |
| | | 25 | | 25 | 6 8 12 | 487 B | 13 |
| | | 26 | | | | | |
| | | 27 | | 26 | 12 13 16 | 314 S | 14 |
| | | 28 | | | | | |
| | | 29 | | 27 | 10 14 11 | 260 B | 14 |
| | | 30 | | 28 | 6 9 14 | 432 B | 14 |

GENERAL NOTES
Begin Drilling 01-24-2002 Complete Drilling 01-25-2002
Drilling Contractor TSC Drill Rig CME 75
Driller C&J Logger B. Fugiel Checked by N. Davis
Drilling Method Mud Rotary; Grouted upon completion

WATER LEVEL DATA
While Drilling ▽ –
At Completion of Drilling ▼ –
Time After Drilling – hours
Depth to Water ▽ m ▼ m
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

| | |
|---|---|
| DESIGNED | MJW |
| CHECKED | KFA |
| DRAWN | MJB |
| CHECKED | GSP |

ILLINOIS DEPARTMENT OF TRANSPORTATION
I-80/94/US 6
KINGERY-BORMAN EXPRESSWAY
BURNHAM ROAD TO US 41

**BORING LOGS (5 OF 6)**
**SECTION 2626.2-R-1**
**LAKE COUNTY, INDIANA**
**STATION 8+268.572 TO STATION 8+445.954**
**STRUCTURE NO. 016-W857**

DATE 07/04

AMERICAN CONSULTING ENGINEERS