# DRILL HOLE LOG

# BORING NO. 08-OR7-B1



**PROJECT:** I-15 UTAH COUNTY CORRIDOR - OR7, UNIV. PKWY OVER SANDHILL RD
**CLIENT:** UTAH DEPARTMENT OF TRANSPORTATION
**LOCATION:** N:271,205 E:581,415
**DRILLING METHOD:** 08-CME-55 / N.W. CASING TO 30'
**DRILLER:** D. SAMPSON
**DEPTH TO WATER - INITIAL:** N.M. **AFTER 24 HOURS:** 17.7'

**PROJECT NUMBER:** 200801.200
**DATE STARTED:** 12/29/08
**DATE COMPLETED:** 12/30/08
**GROUND ELEVATION:** 4603.4'
**LOGGED BY:** M.H., C.S., J.B.

| Elev. (ft) | Depth (ft) | Lithology | Sample Type | Sample Rec. (in) | Sample See Legend | USCS (AASHTO) | Material Description | | Dry Density (pcf) | Moisture Content (%) | Atter. Liquid Limit | Atter. Plast. Index | Gradation Gravel (%) | Gradation Sand (%) | Gradation Silt/Clay (%) | Other Tests |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 14 | 10,9,9,(38) | GP-GM<br>SM<br>GP-GM | lt. brown, moist, m. dense<br>brown, moist<br>lt. brown, moist, med. dense | GRAVEL W/SILT & SAND (fill)<br>SILTY SAND (fill)<br>GRAVEL W/SILT & SAND (fill) | | | | | | | | |
| 4600 | 5 | | | 8 | 5,5,4,(20) | SP-SM (A-2-4(0)) | brown, moist, med. dense | SAND W/SILT & GRAVEL (fill) | | 13.7 | | NP | 24 | 64 | 12 | |
| 4595 | 10 | | | 16 | 1,3,3,(10) | SM<br>ML (A-4(0)) | dk. brown, moist<br>lt. brown, wet. loose | SILTY SAND | | 22.2 | | NP | 0 | 40 | 60 | |
| 4590 | | | | 16 | 2,5,7,(19) | ML | lt. brown, wet. med. dense | SANDY SILT | | | | | | | | |
| | 15 | | | 17 | 0.35<br>4,2,2,(6) | CL-ML<br>ML (A-4(0)) | lt. brown, moist, firm<br>lt. brown, wet. loose | SILTY CLAY W/SAND | | 29.9 | | NP | 0 | 31 | 69 | 16% -0.005 mm |
| 4585 | | | | 12 | 0,3,2,(7) | ML | lt. brown, wet. loose | SANDY SILT | | | | | | | | |
| | 20 | | | 17 | 3,3,2,(6) | SM (A-2-4(0)) | lt. brown, wet. loose | | | 27.0 | | NP | 0 | 66 | 34 | 11% -0.005 mm |
| 4580 | | | | 17 | 1,2,3,(6) | SM | lt. brown, wet. loose | SILTY SAND | | | | | | | | |
| | 25 | | | 18 | 2,2,2,(5) | ML (A-4(0)) | brown, wet. loose | SILT W/SAND | | 34.8 | | NP | 0 | 19 | 81 | 15% -0.005 mm |
| 4575 | | | | 18 | 0.26<br>1,2,2,(5) | CL-ML<br>ML | brown, moist, firm<br>brown, wet. loose | SILTY CLAY W/SAND sand lenses<br>SILT W/SAND | | | | | | | | |
| | 30 | | | 17 | 1,2,3,(6)<br>0.38 | CL (A-7-6(22)) | brown, moist, firm | | | 37.0 | 43 | 21 | 0 | 4 | 96 | 47% -0.005 mm |
| 4570 | | | | 18 | Pushed<br>0.36 | CL (A-6(16)) | brown, moist, firm | | 83.0 | 34.5 | 37 | 16 | 0 | 3 | 97 | CT<br>CU |
| | 35 | | | 18 | 3,3,5,(9)<br>0.33 | CL | brown, moist, firm | | | | | | | | | |
| 4565 | | | | | | | | | | | | | | | | |
| | 40 | | | 17 | Pushed<br>0.35 | CL (A-7-6(22)) | brown, moist, firm | LEAN CLAY sand lenses | 92.7 | 32.2 | 41 | 21 | 0 | 1 | 99 | UU |
| 4560 | | | | | | | | | | | | | | | | |
| | 45 | | | 18 | 5,5,6,(11)<br>0.71 | CL | brown, moist, stiff | | | | | | | | | |
| 4555 | | | | | | | | | | | | | | | | |

DH_LOGV1 08-OR7.GPJ US EVAL.GDT 2/23/09

RB&G ENGINEERING, INC.

**LEGEND:**

DISTURBED SAMPLE — 2,3,2,(6) — Blow Count per 6"; $(N_1)_{60}$ Value; 0.45 — Torvane (tsf)

UNDISTURBED SAMPLE — PUSHED; 0.45 — Torvane (tsf)

**OTHER TESTS**
UC = Unconfined Compression
CT = Consolidation
DS = Direct Shear
UU = Unconsolidated, Undrained
CU = Consolidated, Undrained
HYD = Hydrometer

# DRILL HOLE LOG

# BORING NO. 08-OR7-B1



**PROJECT:** I-15 UTAH COUNTY CORRIDOR - OR7, UNIV. PKWY OVER SANDHILL RD
**CLIENT:** UTAH DEPARTMENT OF TRANSPORTATION
**LOCATION:** N:271,205 E:581,415
**DRILLING METHOD:** 08-CME-55 / N.W. CASING TO 30'
**DRILLER:** D. SAMPSON
**DEPTH TO WATER - INITIAL:** N.M. **AFTER 24 HOURS:** 17.7'

**PROJECT NUMBER:** 200801.200
**DATE STARTED:** 12/29/08
**DATE COMPLETED:** 12/30/08
**GROUND ELEVATION:** 4603.4'
**LOGGED BY:** M.H., C.S., J.B.

| Elev. (ft) | Depth (ft) | Lithology | Sample Type | Sample Rec. (in) | Sample See Legend | Sample USCS (AASHTO) | Material Description | | Dry Density (pcf) | Moisture Content (%) | Atter. Liquid Limit | Atter. Plast. Index | Gradation Gravel (%) | Gradation Sand (%) | Gradation Silt/Clay (%) | Other Tests |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 15 | Pushed 0.99+ | CL (A-4(8)) | brown, moist, very stiff | | 97.3 | 23.0 | 31 | 9 | 0 | 6 | 94 | CT UC |
| 4550 | 55 | | | 16 | 6,11,18,(28) 0.77 | CL | brown, moist, stiff | LEAN CLAY sand lenses | | | | | | | | |
| 4545 | 60 | | | 10 | Pushed | ML (A-4(0)) | brown, wet | SILT W/SAND few clay lenses | 95.3 | 24.0 | | NP | 0 | 26 | 74 | |
| | | | | 16 | 4,9,17,(24) | ML | brown, wet, med. dense | | | | | | | | | |
| 4540 | 65 | | | 18 | 6,6,11,(15) 0.40 | CL SP-SM | gray, moist, firm | LEAN CLAY sand lenses | | | | | | | | |
| | | | | | | | gray, wet, med. dense | | | | | | | | | |
| 4535 | 70 | | | 18 | 16,21,26,(41) | SP-SM (A-2-4(0)) | gray, wet, dense | SAND W/SILT few clay lenses | | 19.1 | | NP | 0 | 88 | 12 | |
| 4530 | 75 | | | 15 | 21,29,31,(51) | SP-SM/SM | gray, wet, very dense | | | | | | | | | |
| 4525 | 80 | | | 18 | 24,31,35,(54) | SP-SM/SM | gray, wet, very dense | SAND W/SILT TO SILTY SAND few clay lenses | | | | | | | | |
| 4520 | 85 | | | 18 | 26,30,35,(52) | SP-SM/SM | gray, wet, very dense | | | | | | | | | |
| 4515 | 90 | | | | | | | | | | | | | | | |
| 4510 | 95 | | | | | | | | | | | | | | | |
| 4505 | | | | | | | | | | | | | | | | |

DH_LOGV1 08-OR7.GPJ US EVAL.GDT 2/23/09

RB&G ENGINEERING, INC.

**LEGEND:**

DISTURBED SAMPLE — 2,3,2,(6) — Blow Count per 6"; $(N_1)_{60}$ Value; 0.45 — Torvane (tsf)

UNDISTURBED SAMPLE — PUSHED 0.45 — Torvane (tsf)

**OTHER TESTS**
UC = Unconfined Compression
CT = Consolidation
DS = Direct Shear
UU = Unconsolidated, Undrained
CU = Consolidated, Undrained
HYD = Hydrometer

# DRILL HOLE LOG

# BORING NO. 08-OR7-B2



**PROJECT:** I-15 UTAH COUNTY CORRIDOR - OR7, UNIV. PKWY OVER SANDHILL RD
**CLIENT:** UTAH DEPARTMENT OF TRANSPORTATION
**LOCATION:** N:271,272 E:581,237
**DRILLING METHOD:** 08-CME-55 / N.W. CASING TO 30'
**DRILLER:** D. SAMPSON
**DEPTH TO WATER - INITIAL:** ▽ 17.0' **AFTER 24 HOURS:** ▼ N.M.

**PROJECT NUMBER:** 200801.200
**DATE STARTED:** 12/23/08
**DATE COMPLETED:** 12/24/08
**GROUND ELEVATION:** 4599.4'
**LOGGED BY:** M.H., B.H., J.B.

| Elev. (ft) | Depth (ft) | Lithology | Sample Type | Sample Rec. (in) | Sample See Legend | USCS (AASHTO) | Material Description | | Dry Density (pcf) | Moisture Content (%) | Atter. Liquid Limit | Atter. Plast. Index | Gradation Gravel (%) | Gradation Sand (%) | Gradation Silt/Clay (%) | Other Tests |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | ■ | 6 | 7,8,12,(43) | SM | brown, moist, dense | | | | | | | | | |
| 4595 | 5 | | ■ | 10 | 4,4,4,(18) | SM (A-2-4(0)) | brown, wet, med. dense | SILTY SAND W/GRAVEL (fill) | | 30.4 | | NP | 18 | 57 | 25 | |
| | | | ■ | 8 | 3,4,3,(14) | SM | brown, very moist, med. dense | | | | | | | | | |
| 4590 | 10 | | ■ | 6 | 6,4,4,(14) | SM | brown, very moist, med. dense | | | | | | | | | |
| | | | ■ | 18 | 5,4,5,(14) | ML (A-4(0)) | brown, wet, med. dense | SANDY SILT | | 26.0 | | NP | 0 | 35 | 65 | |
| 4585 | 15 | | ■ | 18 | 4,5,5,(14) | ML | brown, wet, med. dense | SANDY SILT sand layers to 3" thick | | | | | | | | |
| ▽ | | | ■ | 18 | 3,2,3,(7) | ML (A-4(0)) | lt. brown, wet, loose | SILT W/SAND | | 29.2 | 24 | 2 | 0 | 22 | 78 | 15% -0.005 mm |
| 4580 | 20 | | ■ | 17 | 3,3,3,(8) | ML (A-4(0)) | lt. brown, wet, loose | SANDY SILT | | 28.9 | | NP | 0 | 49 | 51 | DS |
| | | | ■ | 18 | 2,2,3,(6) | ML | lt. brown, wet, loose | | | | | | | | | |
| 4575 | 25 | | ■ | 18 | 3,1,2,(4) 0.29 | ML (A-4(0)) | lt. brown, wet, very loose | SILT W/SAND sand layers | | 33.8 | | NP | 0 | 27 | 73 | |
| | | | | | | CL | lt. brown, moist, firm | | | | | | | | | |
| | | | ■ | 18 | 0,2,1,(4) 0.38 | CL (A-6(20)) | lt. brown, moist, firm | | | 37.2 | 40 | 19 | 0 | 3 | 97 | |
| 4570 | 30 | | ⊠ | 17 | Pushed 0.25 | CL (A-6(21)) | lt. brown, moist, soft to firm | | 83.9 | 38.5 | 40 | 20 | 0 | 1 | 99 | CT UU |
| 4565 | 35 | | ■ | 18 | 3,3,4,(8) 0.35 | CL | lt. brown, moist, firm | LEAN CLAY silt and/or sand lenses & layers to 1" thick | | | | | | | | |
| 4560 | 40 | | ⊠ | 18 | Pushed 0.28 | CL (A-6(15)) | lt. brown, moist, firm | | 96.8 | 27.1 | 33 | 15 | 0 | 1 | 99 | CT UC |
| 4555 | 45 | | ■ | 16 | 5,6,12,(18) 0.19 | CL | lt. brown, moist, soft | LEAN CLAY interbedded w/silt lenses & layers to 1" thick | | | | | | | | |
| 4550 | | | | | | | | SILTY CLAY few silt lenses | | | | | | | | |

DH_LOGV1 08-OR7.GPJ US EVAL.GDT 2/23/09

RB&G ENGINEERING, INC.

**LEGEND:**

DISTURBED SAMPLE ■ 2,3,2,(6) ← Blow Count per 6"; $(N_1)_{60}$ Value
0.45 ← Torvane (tsf)

UNDISTURBED SAMPLE ⊠ PUSHED
0.45 ← Torvane (tsf)

**OTHER TESTS**
UC = Unconfined Compression
CT = Consolidation
DS = Direct Shear
UU = Unconsolidated, Undrained
CU = Consolidated, Undrained
HYD = Hydrometer

# DRILL HOLE LOG

# BORING NO. 08-OR7-B2



**PROJECT:** I-15 UTAH COUNTY CORRIDOR - OR7, UNIV. PKWY OVER SANDHILL RD
**CLIENT:** UTAH DEPARTMENT OF TRANSPORTATION
**LOCATION:** N:271,272 E:581,237
**DRILLING METHOD:** 08-CME-55 / N.W. CASING TO 30'
**DRILLER:** D. SAMPSON
**DEPTH TO WATER - INITIAL:** ▽ 17.0' **AFTER 24 HOURS:** ▼ N.M.

**PROJECT NUMBER:** 200801.200
**DATE STARTED:** 12/23/08
**DATE COMPLETED:** 12/24/08
**GROUND ELEVATION:** 4599.4'
**LOGGED BY:** M.H., B.H., J.B.

| Elev. (ft) | Depth (ft) | Lithology | Sample Type | Rec. (in) | See Legend | USCS (AASHTO) | Material Description | Dry Density (pcf) | Moisture Content (%) | Atter. Liquid Limit | Atter. Plast. Index | Gradation Gravel (%) | Gradation Sand (%) | Gradation Silt/Clay (%) | Other Tests |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 17 | Pushed 0.68 | CL-ML (A-4(5)) | lt. brown, moist, stiff | 103.0 | 23.1 | 26 | 7 | 0 | 6 | 94 | UC |
| 4545 | 55 | | | 18 | 6,6,8,(13) 0.25 | CL-ML | lt. brown, moist, soft to firm — SILTY CLAY few silt lenses | | | | | | | | |
| 4540 | 60 | | | | | CL-ML | lt. brown, moist | | | | | | | | |
| | | | | 15 | Pushed | SM (A-2-4(0)) | brown, wet | | 22.6 | | NP | 0 | 73 | 27 | |
| | | | | 18 | 4,7,13,(18) | SM | brown, wet, med. dense | | | | | | | | |
| 4535 | 65 | | | 16 | 12,14,18,(29) | SM | gray, wet, med. dense | | | | | | | | |
| 4530 | 70 | | | 15 | 14,16,21,(32) | SM (A-2-4(0)) | gray, wet, dense — SILTY SAND possible thin clay layers (driller's observation) | | 23.2 | | NP | 0 | 79 | 21 | |
| 4525 | 75 | | | 16 | 15,13,25,(32) | SM | gray, wet, dense | | | | | | | | |
| 4520 | 80 | | | 10 | 24,28,27,(45) | SM | gray-brown, wet, dense | | | | | | | | |
| 4515 | 85 | | | 14 | 17,21,29,(40) | SM (A-2-4(0)) | gray-brown, wet, dense — SILTY SAND | | 21.4 | | NP | 0 | 87 | 13 | |
| 4510 | 90 | | | 15 | 21,32,39,(56) | SM | gray-brown, wet, very dense | | | | | | | | |
| 4505 | 95 | | | | | | | | | | | | | | |
| 4500 | | | | | | | | | | | | | | | |

DH_LOGV1 08-OR7.GPJ US EVAL.GDT 2/23/09

RB&G ENGINEERING, INC.

**LEGEND:**

DISTURBED SAMPLE — 2,3,2,(6) — Blow Count per 6"; $(N_1)_{60}$ Value; 0.45 — Torvane (tsf)

UNDISTURBED SAMPLE — PUSHED 0.45 — Torvane (tsf)

**OTHER TESTS**
UC = Unconfined Compression
CT = Consolidation
DS = Direct Shear
UU = Unconsolidated, Undrained
CU = Consolidated, Undrained
HYD = Hydrometer

# DRILL HOLE LOG

# BORING NO. 08-OR7-B3



**PROJECT:** I-15 UTAH COUNTY CORRIDOR - OR7, UNIV. PKWY OVER SANDHILL RD
**CLIENT:** UTAH DEPARTMENT OF TRANSPORTATION
**LOCATION:** N:271,027 E:581,606
**DRILLING METHOD:** 96-CME-55 / N.W. CASING TO 40'
**DRILLER:** E. RICHARDSON
**DEPTH TO WATER - INITIAL:** ▽ 26.5' **AFTER 24 HOURS:** ▼ N.M.

**PROJECT NUMBER:** 200801.200
**DATE STARTED:** 11/25/08
**DATE COMPLETED:** 11/26/08
**GROUND ELEVATION:** 4613.3'
**LOGGED BY:** J. PRICE, J. BOONE

| Elev. (ft) | Depth (ft) | Lithology | Sample Type | Rec. (in) | See Legend | USCS (AASHTO) | Material Description | Dry Density (pcf) | Moisture Content (%) | Atter. Liquid Limit | Atter. Plast. Index | Gradation Gravel (%) | Gradation Sand (%) | Gradation Silt/Clay (%) | Other Tests |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 7" ASPHALT | | | | | | | | |
| | | | | 17 | 25,35,40,(99+) | GP-GM (A-1-b) | brown, slightly moist, very dense — GRAVEL W/SILT & SAND possible cobbles (fill) | | 5.6 | | NP | 53 | 39 | 8 | |
| 4610 | | | | | | | | | | | | | | | |
| | 5 | | | 17 | 21,28,27,(99+) | SP-SM | brown, moist, very dense — SAND W/SILT & GRAVEL possible cobbles (fill) | | | | | | | | |
| 4605 | | | | | | | | | | | | | | | |
| | 10 | | | 15 | 29,38,50,(99+) | SP-SM (A-2-4(0)) | brown, very moist, very dense | | 13.8 | | NP | 25 | 63 | 12 | |
| | | | | | | GM | gray-brown to gray, very moist, very dense — SILTY GRAVEL W/SAND possible cobbles (fill) | | | | | | | | |
| 4600 | | | | 12 | 36,50/6",(REF) | SM | gray, moist, very dense — SILTY SAND W/GRAVEL (fill) | | | | | | | | |
| | 15 | | | 5 | 48,50/4",(REF) | GM (A-1-b) | gray, wet, very dense — SILTY GRAVEL W/SAND possible cobbles (fill) | | 11.1 | | NP | 49 | 35 | 16 | |
| 4595 | | | | 18 | 16,12,9,(26) | ML | gray, wet, med. dense | | | | | | | | |
| | 20 | | | 18 | 4,7,8,(18) | ML (A-4(0)) | gray, wet, med. dense — SILT W/SAND occasional silty clay layer to 1.5" thick, thin sand layers to 0.5" thick | | 27.8 | | NP | 0 | 29 | 71 | 11% -0.005 mm |
| 4590 | | | | 14 | 12,14,7,(23) | ML | gray, wet, med. dense | | | | | | | | |
| | 25 | | | 8 | 2,3,5,(9) | ML (A-4(0)) | brown, wet, loose | | 31.2 | | NP | 0 | 26 | 74 | |
| 4585 | | | | 17 | 3,2,5,(8) | SM (A-4(0)) | brown, wet, loose — SILTY SAND few clay lenses | | 27.9 | | NP | 0 | 62 | 38 | |
| | 30 | | | 16 | 4,2,2,(4) | SM (A-4(0)) | brown, wet, very loose | | 26.3 | | NP | 0 | 54 | 46 | 14% -0.005 mm |
| 4580 | | | | 17 | 3,2,2,(4) | ML (A-4(0)) | brown, wet, very loose — SANDY SILT | | 26.1 | | NP | 0 | 49 | 51 | 13% -0.005 mm |
| | 35 | | | 18 | 1,2,3,(5) 0.32 | ML | brown, wet, loose | | | | | | | | |
| | | | | | | CL | brown, moist, firm | | | | | | | | |
| 4575 | | | | | | | LEAN CLAY | | | | | | | | |
| | 40 | | | 16 | Pushed 0.48 | CL (A-6(19)) | brown, moist, firm | 89.6 | 41.8 | 39 | 18 | 0 | 1 | 99 | CT UU |
| 4570 | | | | | | | | | | | | | | | |
| | 45 | | | 18 | 11,16,13,(27) | SM | brown, wet, med. dense, 1" clay layer — SILTY SAND | | | | | | | | |
| 4565 | | | | | | | SANDY SILT clay & sand layers to 1" thick | | | | | | | | |

DH_LOGV1 08-OR7.GPJ US EVAL.GDT 2/23/09

RB&G ENGINEERING, INC.

**LEGEND:**

DISTURBED SAMPLE — 2,3,2,(6) = Blow Count per 6"; $(N_1)_{60}$ Value; 0.45 = Torvane (tsf)

UNDISTURBED SAMPLE — PUSHED; 0.45 = Torvane (tsf)

**OTHER TESTS**
UC = Unconfined Compression
CT = Consolidation
DS = Direct Shear
UU = Unconsolidated, Undrained
CU = Consolidated, Undrained
HYD = Hydrometer

# DRILL HOLE LOG

# BORING NO. 08-OR7-B3



**PROJECT:** I-15 UTAH COUNTY CORRIDOR - OR7, UNIV. PKWY OVER SANDHILL RD

**CLIENT:** UTAH DEPARTMENT OF TRANSPORTATION

**LOCATION:** N:271,027 E:581,606

**DRILLING METHOD:** 96-CME-55 / N.W. CASING TO 40'

**DRILLER:** E. RICHARDSON

**DEPTH TO WATER - INITIAL:** ▽ 26.5' **AFTER 24 HOURS:** ▼ N.M.

**PROJECT NUMBER:** 200801.200

**DATE STARTED:** 11/25/08

**DATE COMPLETED:** 11/26/08

**GROUND ELEVATION:** 4613.3'

**LOGGED BY:** J. PRICE, J. BOONE

| Elev. (ft) | Depth (ft) | Lithology | Sample Type | Sample Rec. (in) | Sample See Legend | Sample USCS (AASHTO) | Material Description | Dry Density (pcf) | Moisture Content (%) | Atter. Liquid Limit | Atter. Plast. Index | Gradation Gravel (%) | Gradation Sand (%) | Gradation Silt/Clay (%) | Other Tests |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 18 | 9,9,16,(21) | ML (A-4(0)) | brown, wet, med. dense | | 28.7 | 23 | 2 | 0 | 30 | 70 | |
| 4560 | 55 | | | | | | | | | | | | | | |
| 4555 | 60 | | | | | | | | | | | | | | |
| 4550 | 65 | | | | | | | | | | | | | | |
| 4545 | 70 | | | | | | | | | | | | | | |
| 4540 | 75 | | | | | | | | | | | | | | |
| 4535 | 80 | | | | | | | | | | | | | | |
| 4530 | 85 | | | | | | | | | | | | | | |
| 4525 | 90 | | | | | | | | | | | | | | |
| 4520 | 95 | | | | | | | | | | | | | | |
| 4515 | | | | | | | | | | | | | | | |

DH_LOGV1 08-OR7.GPJ US EVAL.GDT 2/23/09

RB&G ENGINEERING, INC.

**LEGEND:**

DISTURBED SAMPLE — 2,3,2,(6) — Blow Count per 6"; $(N_1)_{60}$ Value; 0.45 — Torvane (tsf)

UNDISTURBED SAMPLE — PUSHED; 0.45 — Torvane (tsf)

**OTHER TESTS**

UC = Unconfined Compression
CT = Consolidation
DS = Direct Shear
UU = Unconsolidated, Undrained
CU = Consolidated, Undrained
HYD = Hydrometer

# DRILL HOLE LOG

# BORING NO. 08-OR7-B4



**PROJECT:** I-15 UTAH COUNTY CORRIDOR - OR7, UNIV. PKWY OVER SANDHILL RD
**CLIENT:** UTAH DEPARTMENT OF TRANSPORTATION
**LOCATION:** N:271,205 E:581,050
**DRILLING METHOD:** 08-CME-55 / N.W. CASING TO 30'
**DRILLER:** D. SAMPSON
**DEPTH TO WATER - INITIAL:** ▽ 8.0' APPROX. **AFTER 24 HOURS:** ▼ N.M.

**PROJECT NUMBER:** 200801.200
**DATE STARTED:** 11/25/08
**DATE COMPLETED:** 11/26/08
**GROUND ELEVATION:** 4593.4'
**LOGGED BY:** M. HANSEN, J. BOONE

| Elev. (ft) | Depth (ft) | Lithology | Sample Type | Sample Rec. (in) | Sample See Legend | Sample USCS (AASHTO) | Material Description | | Dry Density (pcf) | Moisture Content (%) | Atter. Liquid Limit | Atter. Plast. Index | Gradation Gravel (%) | Gradation Sand (%) | Gradation Silt/Clay (%) | Other Tests |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 14" ASPHALT | | | | | | | | | |
| 4590 | | | | 10 | 20,26,25,(99+) | SM (A-1-b) | lt. brown, moist, very dense | SILTY SAND W/GRAVEL (fill) | | 11.9 | | NP | 17 | 61 | 22 | |
| | 5 | | | 13 | 13,10,11,(48) | SM (A-2-4(0)) | lt. brown, moist, dense | | | 13.1 | | NP | 0 | 67 | 33 | |
| 4585 | | | | | | | | SILTY SAND | | | | | | | | |
| | 10 | | | 15 | 6,5,6,(19) | SM | lt. brown, wet, med. dense | | | | | | | | | |
| 4580 | | | | 14 | 3,4,5,(14) | SM (A-2-4(0)) | lt. brown, wet, med. dense | | | 23.9 | | NP | 0 | 65 | 35 | |
| | 15 | | | 18 | 3,2,2,(6) | ML (A-4(0)) | lt. brown, wet, loose | SILT W/SAND many silty sand layers to 3" thick | | 31.1 | | NP | 0 | 29 | 71 | 16% -0.005 mm |
| 4575 | | | | 18 | 1,2,2,(6) 0.24 | CL (A-6(9)) | lt. brown, wet, soft | LEAN CLAY many silt lenses | | 34.4 | 27 | 12 | 0 | 12 | 88 | 21% -0.005 mm |
| | 20 | | | 18 | 3,2,3,(7) | SM | lt. brown, wet, loose | | | | | | | | | |
| 4570 | | | | 18 | 1,1,1,(3) | SM (A-4(0)) | lt. brown, wet, very loose | SILTY SAND | | 27.4 | | NP | 0 | 54 | 46 | 17% -0.005 mm |
| | 25 | | | 18 | 2,1,2,(4) 0.40 | CL | lt. brown, moist, firm | | | | | | | | | |
| 4565 | | | | 18 | Pushed 0.35 | CL (A-7-6(22)) | lt. brown, moist, firm | | 83.8 | 36.0 | 43 | 19 | 0 | 0 | 100 | CT UU |
| | 30 | | | 18 | 3,2,4,(7) 0.50 | CL | lt. brown, moist, firm to stiff | | | | | | | | | |
| 4560 | | | | 18 | 2,3,4,(8) 0.35 | CL | lt. brown, moist, firm | | | | | | | | | |
| | 35 | | | 18 | Pushed 0.31 | CL (A-6(12)) | lt. brown, moist, firm | LEAN CLAY silt lenses, occasional silty sand layer less than 0.5" thick | 94.9 | 31.5 | 32 | 12 | 0 | 1 | 99 | UC |
| 4555 | | | | | | | | | | | | | | | | |
| | 40 | | | 18 | 3,5,7,(13) 0.39 | CL | lt. brown to gray, moist, firm | | | | | | | | | |
| 4550 | | | | | | | | | | | | | | | | |
| | 45 | | | 18 | Pushed 0.37 | CL (A-6(10)) | lt. brown, moist, firm | | 95.0 | 28.6 | 29 | 11 | 0 | 3 | 97 | CT UU |
| 4545 | | | | | | | | SILTY SAND clay layers to 2" thick | | | | | | | | |

DH_LOGV1 08-OR7.GPJ US EVAL.GDT 2/23/09

RB&G ENGINEERING, INC.

**LEGEND:**

DISTURBED SAMPLE — 2,3,2,(6) — Blow Count per 6"; $(N_1)_{60}$ Value; 0.45 — Torvane (tsf)

UNDISTURBED SAMPLE — PUSHED 0.45 — Torvane (tsf)

**OTHER TESTS**
UC = Unconfined Compression
CT = Consolidation
DS = Direct Shear
UU = Unconsolidated, Undrained
CU = Consolidated, Undrained
HYD = Hydrometer

# DRILL HOLE LOG

# BORING NO. 08-OR7-B4



**PROJECT:** I-15 UTAH COUNTY CORRIDOR - OR7, UNIV. PKWY OVER SANDHILL RD

**CLIENT:** UTAH DEPARTMENT OF TRANSPORTATION

**LOCATION:** N:271,205 E:581,050

**DRILLING METHOD:** 08-CME-55 / N.W. CASING TO 30'

**DRILLER:** D. SAMPSON

**DEPTH TO WATER - INITIAL:** ▽ 8.0' APPROX. **AFTER 24 HOURS:** ▼ N.M.

**PROJECT NUMBER:** 200801.200

**DATE STARTED:** 11/25/08

**DATE COMPLETED:** 11/26/08

**GROUND ELEVATION:** 4593.4'

**LOGGED BY:** M. HANSEN, J. BOONE

| Elev. (ft) | Depth (ft) | Lithology | Sample Type | Sample Rec. (in) | Sample See Legend | Sample USCS (AASHTO) | Material Description | Dry Density (pcf) | Moisture Content (%) | Atter. Liquid Limit | Atter. Plast. Index | Gradation Gravel (%) | Gradation Sand (%) | Gradation Silt/Clay (%) | Other Tests |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | ■ | 18 | 8,13,17,(31) | SM | lt. brown, wet, dense — SILTY SAND, clay layers to 2" thick | | | | | | | | |
| 4540 | | | | | | | | | | | | | | | |
| | 55 | | ■ | 18 | *0.28* 5,16,23,(38) | CL / SM (*A-2-4(0)*) | gray, moist, firm — LEAN CLAY, many silt lenses; brown, wet, dense | | 21.9 | | NP | 0 | 72 | 28 | |
| 4535 | | | | | | | | | | | | | | | |
| | 60 | | ■ | 14 | 14,24,29,(50) | SM | gray, wet, dense — SILTY SAND | | | | | | | | |
| 4530 | | | | | | | | | | | | | | | |
| | 65 | | ■ | 17 | 12,20,25,(41) | SM (*A-2-4(0)*) | gray, wet, dense | | 20.4 | | NP | 0 | 79 | 21 | |
| 4525 | | | | | | | | | | | | | | | |
| | 70 | | | | | | | | | | | | | | |
| 4520 | | | | | | | | | | | | | | | |
| | 75 | | | | | | | | | | | | | | |
| 4515 | | | | | | | | | | | | | | | |
| | 80 | | | | | | | | | | | | | | |
| 4510 | | | | | | | | | | | | | | | |
| | 85 | | | | | | | | | | | | | | |
| 4505 | | | | | | | | | | | | | | | |
| | 90 | | | | | | | | | | | | | | |
| 4500 | | | | | | | | | | | | | | | |
| | 95 | | | | | | | | | | | | | | |
| 4495 | | | | | | | | | | | | | | | |

DH_LOGV1 08-OR7.GPJ US EVAL.GDT 2/23/09

RB&G ENGINEERING, INC.

**LEGEND:**

DISTURBED SAMPLE ■ 2,3,2,(6) ← Blow Count per 6"; ← $(N_1)_{60}$ Value; *0.45* ← Torvane (tsf)

UNDISTURBED SAMPLE ▨ PUSHED; *0.45* ← Torvane (tsf)

**OTHER TESTS**
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HYD = Hydrometer