



NCDOT GEOTECHNICAL ENGINEERING UNIT

BORELOG REPORT

| | | | |
|---------------------------------------|--------------------------|-------------------------|---------------------------|
| PROJECT NO. 34410.1.25 | ID. R-2248E | COUNTY MECK | GEOLOGIST Stickney, J. K. |
| SITE DESCRIPTION CHARLOTTE OUTER LOOP | | | GROUND WTR (ft) |
| BORING NO. B16 | STATION N/A | OFFSET N/A | ALIGNMENT -Y17- |
| COLLAR ELEV. 797.9 ft | TOTAL DEPTH 32.0 ft | NORTHING 593,919 | EASTING 1,468,070 |
| DRILL MACHINE CME-550X | DRILL METHOD H.S. Augers | HAMMER TYPE Automatic | |
| START DATE 03/05/10 | COMP. DATE 03/05/10 | SURFACE WATER DEPTH N/A | DEPTH TO ROCK 32.0 ft |

| ELEV (ft) | DRIVE ELEV (ft) | DEPTH (ft) | BLOW COUNT | | | BLOWS PER FOOT | | | | | SAMP. NO. | LOG | SOIL AND ROCK DESCRIPTION | | | | |
|-----------|-----------------|------------|------------|-------|-------|----------------|----|----|----|-----|-----------|-----|---------------------------|----------------|---|--|--------------|
| | | | 0.5ft | 0.5ft | 0.5ft | 0 | 25 | 50 | 75 | 100 | | | | ELEV. (ft) | DEPTH (ft) | | |
| 800 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | 797.9 | GROUND SURFACE 0.0 | | |
| 795 | 793.6 | 4.3 | 0 | 1 | 2 | 3 | | | | | | | | | RESIDUAL BRN., SOFT TO STIFF, MOIST TO SAT., SILTY AND SANDY CLAY (A-7) | | |
| 790 | 788.6 | 9.3 | 4 | 6 | 6 | 12 | | | | | | | | | | | |
| 785 | 783.6 | 14.3 | 4 | 4 | 4 | 8 | | | | | | | | | | | |
| 780 | 778.6 | 19.3 | 1 | 4 | 4 | 8 | | | | | | | | | | | |
| 775 | 773.6 | 24.3 | 1 | 2 | 3 | 5 | | | | | | | | | | | |
| 770 | 768.6 | 29.3 | 2 | 4 | 6 | 10 | | | | | | | | | | | |
| 765 | | | | | | | | | | | | | | 766.1 765.9 | WEATHERED ROCK SEVERELY WEATHERED CRYSTALLINE ROCK Boring Terminated BY AUGER REFUSAL at Elevation 765.9 ft ON CRYSTALLINE ROCK BORING LOCATED AT METRIC STATION 19+05 -Y17-, CENTERLINE. | | |
| 760 | | | | | | | | | | | | | | | | | 31.8 32.0 |
| 755 | | | | | | | | | | | | | | | | | |
| 750 | | | | | | | | | | | | | | | | | |
| 745 | | | | | | | | | | | | | | | | | |
| 740 | | | | | | | | | | | | | | | | | |
| 735 | | | | | | | | | | | | | | | | | |
| 730 | | | | | | | | | | | | | | | | | |
| 725 | | | | | | | | | | | | | | | | | |
| 720 | | | | | | | | | | | | | | | | | |

NCDOT BORE SINGLE R2248E_Y17_Y17B_BORINGS GPJ NC_DOT_GDT 03/16/10



NCDOT GEOTECHNICAL ENGINEERING UNIT

BORELOG REPORT

| | | | |
|---------------------------------------|-------------------------------|-------------------------|---------------------------|
| PROJECT NO. 34410.1.25 | ID. R-2248E | COUNTY MECK | GEOLOGIST Stickney, J. K. |
| SITE DESCRIPTION CHARLOTTE OUTER LOOP | | | GROUND WTR (ft) |
| BORING NO. B46 | STATION N/A | OFFSET N/A | 0 HR. 10.0 |
| COLLAR ELEV. 799.9 ft | TOTAL DEPTH 50.8 ft | NORTHING 593,975 | 24 HR. 2.8 |
| DRILL MACHINE CME-550X | DRILL METHOD NW Casing w/ SPT | HAMMER TYPE Automatic | |
| START DATE 03/10/10 | COMP. DATE 03/10/10 | SURFACE WATER DEPTH N/A | DEPTH TO ROCK N/A |

| ELEV (ft) | DRIVE ELEV (ft) | DEPTH (ft) | BLOW COUNT | | | BLOWS PER FOOT | | | | | SAMP. NO. | LOG MOI | SOIL AND ROCK DESCRIPTION | DEPTH (ft) | | |
|-----------|-----------------|------------|------------|-------|-------|----------------|----|----|----|-----|-----------|---------|---------------------------|------------|--|------|
| | | | 0.5ft | 0.5ft | 0.5ft | 0 | 25 | 50 | 75 | 100 | | | | | | |
| 800 | | | | | | | | | | | | | | 799.9 | GROUND SURFACE | 0.0 |
| 795 | 795.3 | 4.6 | 5 | 5 | 5 | | | | | | | | | 791.9 | RESIDUAL TAN, STIFF, MOIST SANDY CLAY (A-7) | 8.0 |
| 790 | 790.3 | 9.6 | 5 | 9 | 18 | | | | | | | | | 786.9 | RESIDUAL TAN, V. STIFF, MOIST SANDY SILT (A-4) | 13.0 |
| 785 | 785.3 | 14.6 | 8 | 15 | 19 | | | | | | | | | | RESIDUAL TAN, MED. DENSE TO V. DENSE, SILTY SAND (A-2-4) | |
| 780 | 780.3 | 19.6 | 11 | 22 | 31 | | | | | | | | | | | |
| 775 | 775.3 | 24.6 | 15 | 28 | 41 | | | | | | | | | | | |
| 770 | 770.3 | 29.6 | 22 | 33 | 56 | | | | | | | | | | | |
| 765 | 765.3 | 34.6 | 9 | 11 | 13 | | | | | | | | | | | |
| 760 | 760.3 | 39.6 | | | | | | | | | | | | 760.9 | WEATHERED ROCK SEVERELY WEATHERED CRYSTALLINE ROCK | 39.0 |
| 755 | 755.3 | 44.6 | | | | | | | | | | | | | | |
| 750 | 750.3 | 49.6 | | | | | | | | | | | | | | |
| 745 | | | | | | | | | | | | | | | | |
| 740 | | | | | | | | | | | | | | | | |
| 735 | | | | | | | | | | | | | | | | |
| 730 | | | | | | | | | | | | | | | | |
| 725 | | | | | | | | | | | | | | | | |
| 720 | | | | | | | | | | | | | | | | |

NCDOT BORE SINGLE R2248E_Y17_Y17B_BORINGS.GPJ NC_DOT.GDT 03/16/10

Boring Terminated at Elevation 749.1 ft IN SEVERELY WEATHERED CRYSTALLINE ROCK

BORING LOCATED AT METRIC STATION 18+80 -Y17-, CENTERLINE.



NCDOT GEOTECHNICAL ENGINEERING UNIT BORELOG REPORT

| | | | |
|---------------------------------------|--------------------------|-------------------------|-----------------------|
| PROJECT NO. 34410.1.25 | ID. R-2248E | COUNTY MECK | GEOLOGIST Todd, R. W. |
| SITE DESCRIPTION CHARLOTTE OUTER LOOP | | | GROUND WTR (ft) |
| BORING NO. B47 | STATION N/A | OFFSET N/A | ALIGNMENT -Y17B- |
| COLLAR ELEV. 778.2 ft | TOTAL DEPTH 12.7 ft | NORTHING 593,897 | EASTING 1,469,385 |
| DRILL MACHINE CME-550X | DRILL METHOD H.S. Augers | HAMMER TYPE Automatic | |
| START DATE 03/11/10 | COMP. DATE 03/11/10 | SURFACE WATER DEPTH N/A | DEPTH TO ROCK 12.7 ft |

| ELEV (ft) | DRIVE ELEV (ft) | DEPTH (ft) | BLOW COUNT | | | BLOWS PER FOOT | | | | | SAMP. NO. | MOI | LOG | SOIL AND ROCK DESCRIPTION | | |
|-----------|-----------------|------------|------------|-------|-------|----------------|----|----|----|-----|-----------|-----|-----|---------------------------|------------|---|
| | | | 0.5ft | 0.5ft | 0.5ft | 0 | 25 | 50 | 75 | 100 | | | | ELEV. (ft) | DEPTH (ft) | |
| 780 | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | 778.2 | GROUND SURFACE 0.0 |
| | | | | | | | | | | | | | | | | RESIDUAL BRN., STIFF, MOIST, SILTY CLAY (A-7) |
| 775 | 774.9 | 3.3 | | | | | | | | | | | | | | |
| | | | 3 | 4 | 4 | | | | | | | | | | 772.2 | 6.0 |
| | | | | | | | | | | | | | | | | RESIDUAL BRN., V. STIFF, MOIST SANDY SILT (A-4) |
| 770 | 769.9 | 8.3 | | | | | | | | | | | | | | |
| | | | 5 | 11 | 15 | | | | | | | | | | 766.9 | 11.3 |
| | | | | | | | | | | | | | | | 765.5 | 12.7 |
| 765 | | | | | | | | | | | | | | | | WEATHERED ROCK SEVERELY WEATHERED CRYSTALLINE ROCK |
| | | | | | | | | | | | | | | | | Boring Terminated BY AUGER REFUSAL at Elevation 765.5 ft ON CRYSTALLINE ROCK |
| 760 | | | | | | | | | | | | | | | | BORING LOCATED AT METRIC STATION 24+33 -Y17B-, CENTERLINE. |
| 755 | | | | | | | | | | | | | | | | |
| 750 | | | | | | | | | | | | | | | | |
| 745 | | | | | | | | | | | | | | | | |
| 740 | | | | | | | | | | | | | | | | |
| 735 | | | | | | | | | | | | | | | | |
| 730 | | | | | | | | | | | | | | | | |
| 725 | | | | | | | | | | | | | | | | |
| 720 | | | | | | | | | | | | | | | | |
| 715 | | | | | | | | | | | | | | | | |
| 710 | | | | | | | | | | | | | | | | |
| 705 | | | | | | | | | | | | | | | | |
| 700 | | | | | | | | | | | | | | | | |

NCDOT BORE SINGLE R2248E_Y17_Y17B_BORINGS.GPJ NC_DOT_GDT 03/16/10



NCDOT GEOTECHNICAL ENGINEERING UNIT

BORELOG REPORT

| | | | |
|---------------------------------------|---------------------|-------------------------------|-----------------------|
| PROJECT NO. 34410.1.25 | ID. R-2248E | COUNTY MECK | GEOLOGIST Todd, R. W. |
| SITE DESCRIPTION CHARLOTTE OUTER LOOP | | | GROUND WTR (ft) |
| BORING NO. B48 | STATION N/A | OFFSET N/A | ALIGNMENT -Y17A- |
| COLLAR ELEV. 765.8 ft | TOTAL DEPTH 45.2 ft | NORTHING 594,061 | EASTING 1,466,562 |
| DRILL MACHINE CME-550X | | DRILL METHOD NW Casing w/ SPT | HAMMER TYPE Automatic |
| START DATE 03/15/10 | COMP. DATE 03/15/10 | SURFACE WATER DEPTH N/A | DEPTH TO ROCK N/A |

| ELEV (ft) | DRIVE ELEV (ft) | DEPTH (ft) | BLOW COUNT | | | BLOWS PER FOOT | | | | | SAMP. NO. | LOG MOI | L O G | SOIL AND ROCK DESCRIPTION | DEPTH (ft) |
|-----------|-----------------|------------|------------|-------|-------|----------------|----|----|----|-----|-----------|---------|-------|--|------------|
| | | | 0.5ft | 0.5ft | 0.5ft | 0 | 25 | 50 | 75 | 100 | | | | | |
| 770 | | | | | | | | | | | | | | | |
| 765 | | | | | | | | | | | | | | GROUND SURFACE | 0.0 |
| 760 | 760.8 | 5.0 | 1 | 2 | 2 | | | | | | | | W | ALLUVIAL GRAY, SOFT, WET, SANDY SILT (A-4) | |
| 755 | 755.8 | 10.0 | 8 | 11 | 12 | | | | | | | | M | RESIDUAL GRAY/TAN, MED. DENSE TO DENSE, MOIST, SILTY SAND (A-2-4) | 6.5 |
| 750 | 750.8 | 15.0 | 8 | 12 | 14 | | | | | | | | M | | |
| 745 | 745.8 | 20.0 | 8 | 13 | 18 | | | | | | | | M | | |
| 740 | 740.8 | 25.0 | 8 | 13 | 17 | | | | | | | | M | | |
| 735 | 735.8 | 30.0 | 11 | 10 | 11 | | | | | | | | M | RESIDUAL TAN, V. STIFF, MOIST, SANDY SILT (A-4) | 28.0 |
| 730 | 730.8 | 35.0 | 100/0.1 | | | | | | | | | | | WEATHERED ROCK SEVERELY WEATHERED CRYSTALLINE ROCK | 33.0 |
| 725 | 725.8 | 40.0 | 100/0.2 | | | | | | | | | | | | |
| 720 | 720.8 | 45.0 | 100/0.2 | | | | | | | | | | | | 45.2 |
| 715 | | | | | | | | | | | | | | Boring Terminated at Elevation 720.6 ft IN SEVERELY WEATHERED CRYSTALLINE ROCK | |
| 710 | | | | | | | | | | | | | | BORING LOCATED AT METRIC STATION 22+02 -Y17A-, CENTERLINE. | |
| 705 | | | | | | | | | | | | | | | |
| 700 | | | | | | | | | | | | | | | |
| 695 | | | | | | | | | | | | | | | |
| 690 | | | | | | | | | | | | | | | |

NCDOT BORE SINGLE R2248E_Y17_Y17B_BORINGS.GPJ_NC_DOT.GDT 03/16/10