

MACTEC Engineering and Consulting 3200 Town Point Dr, Suite 100 Kennesaw, GA 30144

FIELD BOREHOLE LOG

BOREHOLE NO.: **DR1-8** TOTAL DEPTH: **121**

| PROJECT INFORMATION | | DRILLING INFORMATION | | |
|---------------------|-------------------|------------------------------|--------------|--|
| PROJECT: | DDMT | DRILLING CO.: | ProSonic | |
| SITE LOCATION: | Memphis, TN | DRILLER: | David Wilcox | |
| JOB NO.: | 6301-04-0002 | RIG TYPE: | RotoSonic | |
| LOGGED BY: | Amy Callaway | TOP OF CASING | 290.02' | |
| PROJECT MANAGER: | Tom Holmes | ELEVATION: GROUND SURFACE | 2,000 | |
| DATE DRILLED: | 6/20/04 | ELEVATION: | 290.37' | |

NOTES:

- 1) Drilling technique: 0 to 121 ft, bgs 6-inch diameter borehole with rotosonic.
- 2) Well construction: 2-inch diameter schedule 40 PVC casing set to 112.3ft, bgs with 20 ft of 0.01-inch slot well screen.
- 3) Well screens the fluvial aquifer.
- 4) _ Stabilized water level measured on 6/25/04

| DEPTH | SOIL | ***** | COIL DESCRIPTION | FID | WELL | WELL |
|--------------------|-------------|----------|--|-----|------------|-----------------|
| DEPTH SOIL SYMBOLS | | USCS | SOIL DESCRIPTION | ppm | COMPLETION | DESCRIPTION |
| 0- | | FILL | Asphalt and fill material | 0.0 | | Grouted Annulus |
| - | | | brown (7.5YR 4/4) SILT with some clay | | | |
| -5 | | | | 0.0 | | |
| | | CL | brown (7.5YR 4/3) silty CLAY | 0.0 | | |
| | -7-7-7-7 | | | | | |
| -10 | -7-7-7-7 | | | 0.0 | | |
| - | -7-7-7-7 | CI | | | | |
| -15 — | - | CL | brown (7.5YR 4/3) silty CLAY, with trace of sand | 0.0 | | |
| | -/-/-/-/ | CL | strong brown (7.5YR 5/6) and pinkish gray (7.5YR 7/2) and brown (7.5YR 4/3) sandy CLAY | 0.0 | | |
| | - | | and brown (7.5 Y R 4/3) sandy CLAY | | | |
| -20 — | - | | | 0.0 | | |
| | -/-/-/-/- | | | | | |
| -25 — | 7:7:7:7:7:7 | SC | dark red (10YR 3/6) and reddish yellow (7.5YR 6/6) | 0.0 | | |
| | | SW | clayey fine grain SAND red (2.5YR 4/8) gravelly fine grain SAND with some | 0.0 | | |
| - | | SP | clay | | | |
| -30 — | | SW | yellowish red (5YR 5/8) very fine grain SAND with trace of gravel | 0.1 | | |
| | | | yellowish red (5YR 5/8) gravelly, fine to medium grain SAND | | | |
| -35 — | | CL SP | brownish yellow (10YR 6/8) and yellowish red 5YR 5/6 sandy CLAY | 0.0 | | |
| | | NR | reddish yellow (7.5YR 6/8) fine grain SAND | | | |
| | | SP | no recovery | | | |
| -40 - | | | strong brown (7.5YR 4/6) fine grain SAND, with trace of gravel | 6.8 | | |

Created by: AMC 08/21/04 Checked by: RNQ 09/02/04

Borehole No. DR1-8

| Boreno | 1 | | | - | TT/TOT Y | TT TTT T |
|----------|----------------|----------|--|---------|------------|-------------------|
| DEPTH | SOIL | USCS | SOIL DESCRIPTION | FID | WELL | WELL |
| 221111 | SYMBOLS | | SOIL DESCRIPTION | ppm | COMPLETION | DESCRIPTION |
| | | 1 | | <u></u> | | //// |
| | | SP | yellow (10YR 7/8) fine grain SAND with some gravel | | | |
| - | | SW SP | brownish yellow (10YR 6/8) well graded SAND | | | |
| -45 | | 51 | yellow (10YR 7/8) fine grain SAND | 3.0 | | |
| | | NR | no recovery | | | |
| - | | SP | | | | |
| -50 | | SP | yellow (10YR 7/8) fine grain SAND with gravel | | | |
| - | | SP SP | yellow (10YR 7/8) fine grain SAND | 0.1 | | |
| | | 51 | yellow (10YR 7/8) fine grain SAND with gravel | | | |
| | | | yellow (10YR 7/8) very fine grain SAND with gravel | | | |
| -55 — | | SP | brownish yellow (10YR 6/8) medium grain SAND with trace gravel | .04 | | |
| | | SP SP | brownish yellow (10YR 6/8) gravelly, medium grain SAND with some cobbles | | | |
| -60 | | | brownish yellow (10YR 6/8) medium grain SAND with | 0.8 | | |
| - | | SP | trace of gravel | 0.8 | | |
| | | | strong brown (7.5YR 5/8) medium grain SAND | | | |
| -65 — | | SP | strong brown (7.5YR 5/8) gravelly, medium grain SAND with cobbles | 0.0 | | |
| | | SP | strong brown (7.5YR 5/8) coarse grain SAND | 0.0 | | |
| | | | | | | |
| 70 | | | | | | |
| -70 — | | SP | strong brown (7.5YR 5/8) gravelly coarse grain SAND | 1.0 | | |
| - | | SW | The state of the s | | | |
| | | 511 | yellow (10YR 7/6) gravelly fine grain SAND | | | |
| -75 — | | | | 0.0 | | |
| - | | | | 0.0 | | |
| | | SW | yellow (10YR 7/6) gravelly medium grain SAND | | | |
| - | | | | | | |
| -80 | | | | 0.0 | | |
| - | | | | | | |
| | | SP | yellow (10YR 7/6) fine grain SAND | | | |
| -85 — | | SP | yellow (10YR 7/6) fine grain SAND with cobbles | 0.0 | | |
| 1 1 | | NR | no recovery | 0.0 | | Bentonite Seal |
| | | | liotecovery | | | === |
| - | | SP | very pale brown (10YR 8/4) fine grain SAND with some gravel, damp | | | <u> </u> |
| -90 — | | | graver, damp | 0.0 | | Sand Pack / |
| - | | SW | yellow (10YR 7/6) gravelly fine grain SAND, moist, wet at 95 ft | | | Screened Interval |
| | | | at 75 ft | | | |
| -95 — | | | | NT A | | |
| - | | NR | no recovery | NA | | |
| | | | in receivery | | | |
| 100 | | | | | | |
| -100 | | SP | very pale brown (10YR 7/4) fine grain SAND with | NA | | |
| - | | | gravel, wet | | | |
| | | | | | | |
| -105 — | | SW | very pale brown (10YR 7/4) gravelly, fine grain SAND, wet | NT A | | |
| - | | NR | no recovery | NA | | |
| | | SP | | | | |
| - | | SP | very pale brown (10YR 7/4) gravelly, fine grain SAND, wet | | | |
| -110 | | | very pale brown (10YR 7/4) gravelly, medium to coarse | NA | | |
| | | CH | grain SAND | | | |
| - | | | yellowish brown (10YR 5/8) and pale brown (10YR 6/3) fat CLAY | | | |
| -115 | | | Int CLAT | ••• | | Bentonite Plug |
| - | | СН | gray (10VD 5/1) for CLAV | NA | | == |
| | | | gray (10YR 5/1) fat CLAY | | | |
| | | | | | | |
| <u> </u> | 1 by: AMC 08/2 | | | | | |

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Borehole No. **DR1-8** WELL WELL SOIL FID DEPTH USCS SOIL DESCRIPTION COMPLETION ppm DESCRIPTION ${\bf SYMBOLS}$ -120 Boring Terminated at 121 ft, bgs NA

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