



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

# FIELD BOREHOLE LOG

BOREHOLE NO.: **MW-141**

TOTAL DEPTH: **181**


## PROJECT INFORMATION

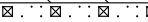

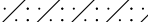
PROJECT: **DDMT**  
SITE LOCATION: **Memphis, TN**  
JOB NO.: **6301-04-0002**  
LOGGED BY: **Amy Callaway**  
PROJECT MANAGER: **Tom Holmes**  
DATE DRILLED: **6/16/04**

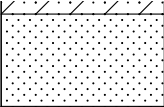
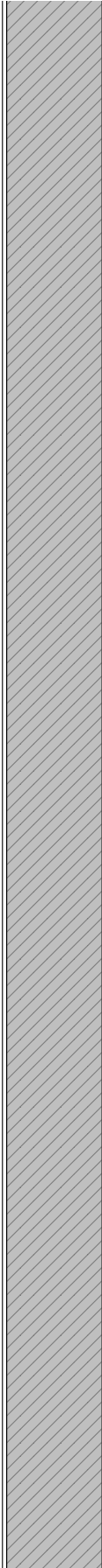
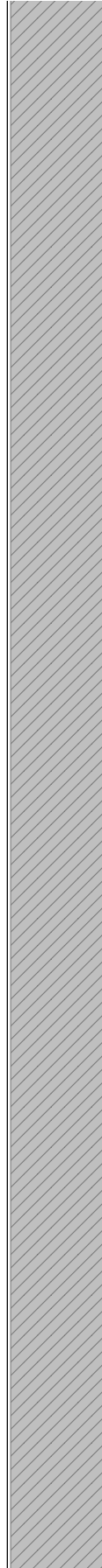
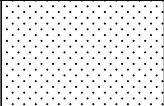
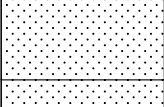
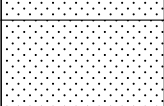
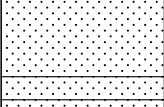
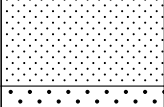
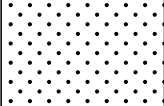
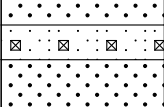
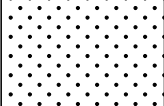
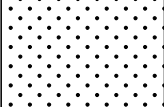
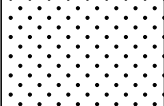
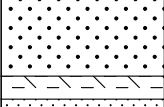
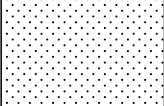

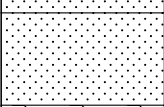
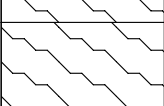
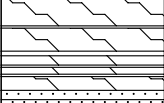
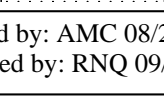

## DRILLING INFORMATION

DRILLING CO.: **ProSonic**  
DRILLER: **David Wilcox**  
RIG TYPE: **RotoSonic**  
TOP OF CASING  
ELEVATION: **303.71'**  
GROUND SURFACE  
ELEVATION: **303.70'**

### NOTES:

- 1) Drilling technique: 0 to 181 ft, bgs 6-inch diameter borehole with roto sonic.
- 2) Well construction: 2-inch diameter schedule 40 PVC casing set to 169 ft, bgs with 20 ft of 0.01-inch slot well screen.
- 3) Well screens the intermediate aquifer.
- 4)  Stabilized water level measured on 6/24/04

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	FID ppm	WELL COMPLETION		WELL DESCRIPTION
0		NR	no recovery	0.0			Grouted Annulus
		CH	dark yellowish brown (10YR 4/4) fat CLAY				
-5		GP	poorly graded GRAVEL	0.0			
		CL	dark yellowish brown (10YR 4/4) silty CLAY				
-10				0.0			
-15				0.0			
-20				0.2			
-25				0.0			
-30		CL	dark yellowish brown (10YR 4/4) silty CLAY with trace of sand	0.0			
		CL	yellowish brown (10YR 5/3) sandy CLAY				
-35		SP	light yellowish brown (10YR 6/4) fine grain SAND with clay	0.0			
		SC	light yellowish brown (10YR 6/4) fine grain SAND				
-40			white (10YR 8/1) and red (10R 4/6) and strong brown (7.5YR 5/8) clayey SAND	0.0			

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	FID ppm	WELL COMPLETION		WELL DESCRIPTION
-45		SP	red (2.5YR 4/8) fine grain SAND	0.0			
-50		SP	strong brown (7.5YR 5/6) gravelly medium grain SAND; gravel is subrounded chert	0.0			
-55		SP	yellow (10YR 7/6) fine to medium grain SAND	0.0			
-60		SP	yellow (10YR 7/6) fine to medium grain SAND with trace gravel	5.1			
-65		SP	gravel and cobbles in fine to medium grain SAND	0.0			
-70		SW	yellow (10YR 7/8) fine to medium grain SAND with trace gravel	0.0			
-75		GP	brownish yellow (10YR 6/8) well graded pebbly, gravelly SAND, damp	0.8			
-80		SW	yellowish brown (10 YR 5/8) sandy GRAVEL, moist	0.1			
-85		SW	brownish yellow (10YR 6/8) well graded gravelly SAND, moist	0.0			
-90				1.0			
-95				14.9			
-100		CL	light reddish brown (5YR 6/4) sandy CLAY	0.0			
-105		SP	brownish yellow (10YR 6/8) to yellow (10YR 7/6) to white (10YR 8/1) to yellow (10YR 7/8) fine grain SAND	0.0			
-110		SP	yellow (10YR 7/8) fine to medium grain SAND	NA			
-115		SP	strong brown (7.5YR 5/8) gravelly, cobbly SAND with some clay lenses, wet	NA			
		CH	gray (7.5YR 6/1) and reddish yellow (7.5YR 6/8) fat CLAY	NA			
		CH	gray (10YR 5/1) fat CLAY	NA			
		SP	gray (10YR 5/1) SAND	NA			
		CH	gray (10YR 5/1) fat CLAY				
		SP	gray (10YR 5/1) SAND				
		SP					

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	FID ppm	WELL COMPLETION			WELL DESCRIPTION
-120		SP	gray (10YR 5/1) fat CLAY	NA				
		CL	gray (10YR 5/1) SAND					
		CL	gray (10YR 5/1) fat CLAY					
-125		CL	gray (10YR 5/1) SAND	NA				
		CL	gray (10YR 5/1) fat CLAY					
		CH	gray (10YR 5/1) SAND					
		SP	light gray (10YR 7/1) and yellow (10YR 7/8) fine grain SAND with some clay, wet	NA				
-130		CH	light gray (10YR 7/1) sandy CLAY					
		SP	light gray (10YR 7/1) fine grain SAND					
		CH	light gray (10YR 7/1) and reddish yellow (7.5 6/8) fine sandy CLAY	NA				
-135		SP	light gray (10YR 7/1) and reddish yellow (7.5 6/8) medium sandy CLAY					
		CH	light gray (10YR 7/1) fat CLAY with trace sand	NA				
-140		SP	light gray (10YR 7/1) and reddish yellow (7.5 6/8) medium to coarse grain SAND, wet					
		CH	light gray fat CLAY					
-145		SP	light gray and reddish yellow medium grain SAND, wet	NA				Bentonite Seal
		CH	light gray fat CLAY					
		SP	light gray fine to medium grain SAND, wet					
		CH	light gray CLAY	NA				
-150		SP	light gray fine to medium grain SAND, wet					
		CH	light gray CLAY	NA				
-155		SP	light gray fine to medium grain SAND, wet					
		CH	light gray CLAY	NA				
-160		SP	light gray fine to medium grain SAND, wet					
		CH	light gray CLAY	NA				
-165		SP	light gray fine to medium grain SAND, wet					
		CH	light gray (7.5YR 7/1) and reddish yellow (7.5 YR 6/8) fine grain SAND, wet	NA				
-170		SP	strong brown (7.5 YR 5/8) fine to medium grain SAND, wet					
		CH	dark gray (7.5YR 4/1) fat CLAY	NA				
-175				NA				Bentonite Plug
-180			Boring Terminated at 181 feet bgs	NA				