



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

# FIELD BOREHOLE LOG

BOREHOLE NO.: **MW-149**

TOTAL DEPTH: **106**

## PROJECT INFORMATION

PROJECT: **DDMT**  
SITE LOCATION: **Memphis, TN**  
JOB NO.: **6301-04-0002**  
LOGGED BY: **Amy Callaway**  
PROJECT MANAGER: **Tom Holmes**  
DATE DRILLED: **6/7/04**

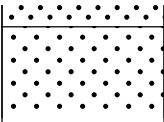
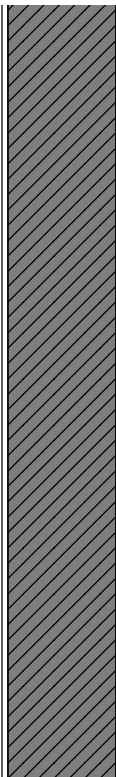
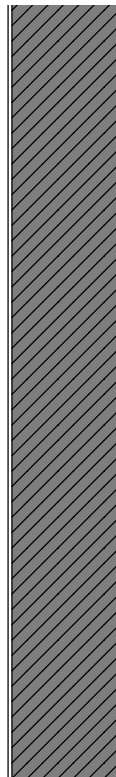
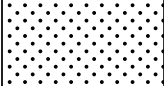
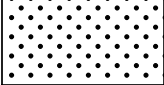

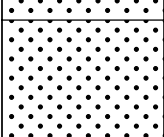
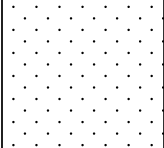

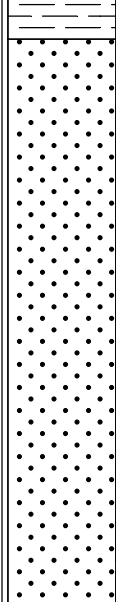
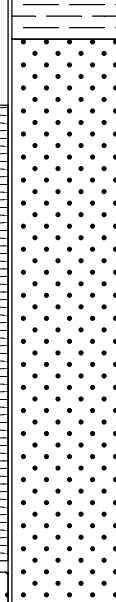
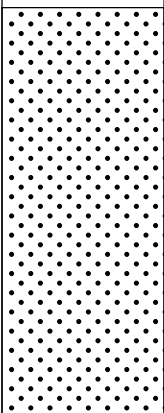
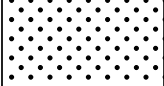


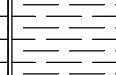
## DRILLING INFORMATION

DRILLING CO.: **ProSonic**  
DRILLER: **David Wilcox**  
RIG TYPE: **RotoSonic**  
TOP OF CASING  
ELEVATION: **287.18'**  
GROUND SURFACE  
ELEVATION: **287.44'**

### NOTES:

- 1) Drilling technique: 0 to 106.0 ft, bgs 6-inch diameter borehole with roto sonic.
- 2) Well construction: 2-inch diameter schedule 40 PVC casing set to 100.0 ft, bgs with 20 ft of 0.01-inch slot well screen.
- 3) Well screens the fluvial aquifer.
- 4) ▼ Stabilized water level measured on 8/19/04

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	FID ppm	WELL COMPLETION	WELL DESCRIPTION
0		CL	dark brown silty CLAY, moderately plastic, trace organics, moist to wet	0.0		Grouted Annulus
		CL	brown, silty CLAY, slightly plastic, medium stiff, dry			
-5				0.0		
		CL	brown, silty CLAY, medium plastic, soft, moist on outside			
-10				0.0		
		CL	brown, silty CLAY, medium stiff, slightly plastic, dry			
-15				0.0		
		CL	brown, silty CLAY, soft, slighty plastic			
-20				0.0		
		CL	mottled brown and light gray silty CLAY, medium stiff, slightly plastic			
-25				0.0		
		CL	mottled brown silty CLAY, trace medium grain sand, medium stiff			
		CL	reddish brown fine grain sandy CLAY, stiff, non-plastic, rounded, medium to coarse size chert fragments			
-30				0.0		
		SP-SC	reddish brown slightly clayey fine grain SAND, soft, rounded coarse size chert (25%) nodules, loose			
		SP	reddish brown fine grain SAND, subangular to rounded, medium to cobble size chert (50%) fragments			
-35		SP	reddish brown fine grain SAND, trace rounded chert fragments, loose, moist	0.7		
		NR	no recovery			
		SP-SC	reddish brown, slightly clayey fine grain SAND, loose	1.5		
-40						

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	FID ppm	WELL COMPLETION		WELL DESCRIPTION
-45		SP SP-SC	fine grain SAND with trace rounded, coarse size chert fragments yellowish orange, slightly clayey fine grain SAND, loose to very loose	1.3			
		NR	no recovery				
-50		SW	yellow to light gray fine to coarse grain SAND, trace (<5%) cobble size chert nodules, loose	0.7			
		SP	yellowish orange, fine grain SAND, trace (<5%) rounded coarse size, chert fragments, loose				
-55		SP	rounded, medium to coarse size chert fragments (30%), with fine grain SAND	1.0			
		NR	no recovery				
-60		SP SP SP	rounded, medium to coarse size chert fragments (30%), with fine grain SAND				
		SP	yellowish orange slightly clayey fine grain SAND, loose	2.8			
-65			yellowish orange fine grain SAND, trace rounded, medium to coarse chert fragments (<15%)	5.0			
-70		SM	yellow silty fine grain SAND, loose to very loose, dry to moist	9.4			
-75		SP	reddish orange fine grain SAND, trace very rounded coarse size (<5%) chert nodules, soft, wet	8.0			Bentonite Seal  Sand Pack / Screened Interval
		NR	no recovery				
-80		SP	yellowish orange fine to medium grain SAND, with rounded to well rounded, coarse size chert nodules (10-15%), poorly graded	NA			
-85				NA			
-90				NA			
-95				NA			
-100		SP	fine and medium grain SAND with rounded to well-rounded, coarse size chert fragments (15%), poorly graded, wet	NA			
		CH	gray fat CLAY	NA			
-105			Boring Terminated at 106 feet bgs	NA			
							Bentonite Plug