



Ted Wynne Engineering/Contractor, Inc.

417 WELSHWOOD DRIVE • SUITE 114 • NASHVILLE, TN 37211
PHONE: 615-331-7660 • FAX: 615-333-0764

March 30, 2000

Mrs. Ginna French
Tennessee Valley Authority
4125 Greenway Drive
Knoxville, Tennessee 37918

MARY BLOUNT ELEMENTARY

Re: Blount Co. Elementary School Hole Test
Maryville, Tennessee

This office performed a thermal conductivity test on one (1) 300 feet deep, 6 inch diameter vertical bore, backfilled with crushed stone, March 29, 2000. The following data was derived from test data:

Thermal Conductivity	1.60 BTU/HR-F
Ground Temperature	58.4 F

We feel that based on our observation of the terrain, the above is representative of the area where a field of Vertical Heat Exchangers will be located for this project.

The driller's logs are enclosed herewith. According to the Driller's Log submitted to our office the bore hole penetrated more than one water source, thus our office recommends that any future holes drilled should be Grouted to prevent transfer of water from one elevation to another.

Please let us know if any additional information is needed.

Sincerely,

TED WYNNE ENGINEERING CONTRACTORS, INC.

Ted Wynne
Ted Wynne, P.E.

jh



CORUM WELL DRILLING AND PUMP SERVICE

Mike Corum
8724 Thorngrove Pike
Knoxville, TN 37914
(423) 933-3055
FAX: (423) 933-7909

3-22-00

DRILLING FORMATION REPORT FOR BLOUNT COUNTY ELEMENTARY BURKART PROPERTY SITE STUDY.

HOLE NO# 1
0-60 RED CLAY
60-70 OPENING
70-84 RED CLAY
84-87 LIMESTONE ROCK
87-89 OPENING
89-116 RED CLAY

NOTE :GROUND BLOWING OUT UNDER AND AROUND DRILL , STOPPED DRILLING AND
MOVED

HOLE NO# 2
0-58 BROWN SHELL *shale*
58-80 BROWN SHELL BROKEN FORMATION

80-85 OPENING
85-86 BROWN SHELL
86-87 WATER
87-100 BROWN SHELL
100-110 BROKEN FORMATION
110-165 BROWN SHELL
165-213 BLUE SHELL
213-225 BROWN SHELL
225-305 BLUE SHELL

HOLE NO # 3
0-45 BROWN SHELL 45-50 BLUE & BROWN SHELL BROKEN FORMATION..50-51 WATER 20
GPM-- 51-100 BROKEN FORMATION -- 100-210 BLUE SLATE-- 210-211 WATER 6 GPM.-----
211-300 BLUE SLATE--

Thermal Conductivity Calculation

Project Blount County Elementary School
Location Maryville, Tn

Hole depth:
Hole depth 300

Test date: 3/29/00

Ground Te 58.4
OSAT: 54

Test began @ 3:30 PM 0.5 days
Terminated @ 3:30 AM

Final Temp
To bore: 80.5
From bore: 70.3

Heater Watts: 4000
Pump Watts: 200
Flow: 3 GPM
t: 0.5
d 0.18 3/4" Pipe size

Kg= 1.6