



Ted Wynne Engineering/Contractor, Inc.

417 WELSHWOOD DRIVE • SUITE 114 • NASHVILLE, TN 37211

PHONE: 615- 331-7660 • FAX: 615- 333-0764

April 10, 2002

Mr. William D. Stalker
Market Manager- Large Commercial Products & Services
Tennessee Valley Authority
535 Marriott Drive, HRT108-401
Nashville, Tennessee 37214

Re: University School
Nashville, Tennessee

This office performed a thermal conductivity test on one (1) 300 feet deep, 6 inch diameter vertical bore, backfilled with drilled tailings, April 4, 2002. The following information was derived from test data:

Thermal Conductivity	1.35 BTU/HR-F
Ground Temperature	59.0 F

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

The driller's log is enclosed herewith. According to the Driller's Log submitted to our office the bore hole penetrated no water source.

We feel that based upon on our Engineering experience and the geological formation indicated by the Driller's log that the test hole was not backfilled properly.

Please let us know if any additional information is needed.

Sincerely,

TED WYNNE ENGINEERING CONTRACTORS, INC.


Ted Wynne, P.E.

jh





TENNESSEE WATER WELL DRILLERS REPORT
 DEPARTMENT OF ENVIRONMENT & CONSERVATION

THIS REPORT TO BE SUBMITTED BY DRILLER WITHIN 30 DAYS
 AFTER COMPLETION OF DRILLING WATER WELL WITH REQUIRED FEE
 TO: DIRECTOR, DIVISION OF WATER SUPPLY, 401 CHURCH ST.
 U.S.C TOWER 6TH FLOOR, NASHVILLE, TENNESSEE 37243-1549

OFFICE USE ONLY

Well No.: _____
 Date Rec'd: _____
 Check#: _____
 Amount Rec'd: _____
 Receipts: _____ CDR

<p>(1) WELL CONTRACTOR Firm Name: <u>Henry Drilling & Pump Co. LE 227</u> Operator: <u>Johnny Henry</u> Driller Tag: <u>gen test hole</u></p>	<p>(2) WELL OWNER Name: <u>University School</u> or Company: <u>CU TUA</u> Address: <u>P.O. Box 292409</u> City: <u>Nashville</u> State: <u>Tn 37229</u> Phone # () _____</p>															
<p>(2) WELL LOCATION County: _____ Order: _____ Map No. _____ (W) (X) (Y) (Z) or _____ Latitude: _____ Longitude: _____ Well Address: <u>University School</u> City: _____ Zip: _____ _____ (N) (E) (S) (W) of _____ LANDMARK: _____</p>	<p>(10) PROPOSED USE OF WELL Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Monitor <input type="checkbox"/> Test <input type="checkbox"/> Farm <input type="checkbox"/> Irrigation <input type="checkbox"/> Heat Pump <input type="checkbox"/> Municipal <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____</p>															
<p>(3) TYPE OF WORK Date drilled (if left side): <u>3/27/02</u> New Well <input type="checkbox"/> Deepen <input type="checkbox"/> Rework <input type="checkbox"/> Backfill And Abandon <input type="checkbox"/></p>	<p>(11) PRIMARY CASING Diameter _____ Inches Top Set _____ Above In Ground From Land Surface to _____ Ft. below ground Type: Plastic <input type="checkbox"/> Steel <input type="checkbox"/> Galvanized <input type="checkbox"/> Concrete <input type="checkbox"/> Other <input type="checkbox"/> None <input type="checkbox"/> Wall Thickness _____ or SDR# _____</p>															
<p>(4) WELL COMPLETION DATA Date Completed _____ Static Level _____ Ft. Total Depth: <u>300</u> Ft. Estimated Y. oc. _____ GPM Depth to bedrock: <u>10</u> Ft.</p>	<p>(12) WELL FINISH Open Hole <input type="checkbox"/> Screen <input type="checkbox"/> Slotted or Perforated Pipe <input type="checkbox"/> From _____ Ft. To _____ Ft. Screen, Plastic <input type="checkbox"/> Metal <input type="checkbox"/> Slot Size _____ In. Gravel Pack From _____ Ft. to _____ Ft.</p>															
<p>(5) WATER-BEARING ZONES DEPTH IN FT. GPM WATER QUALITY</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>										<p>(13) BACK FILL MATERIAL Bentonite <input type="checkbox"/> Cement <input type="checkbox"/> From 3 Ft. to 10 Ft. From _____ To _____ From _____ To _____ Castings: <u>0</u> <u>300</u> Sand _____ Bentonite _____ Cement _____ Other (specify) _____</p>						
<p>(6) WELL TEST Tested By: Pumping <input type="checkbox"/> Blowing <input type="checkbox"/> Sealing <input type="checkbox"/> Stand _____ Ft. Pumping Level _____ Ft. After _____ Hr. _____ Min. At _____ GPM Development Time Prior to Test _____ Hr. _____ Min.</p>	<p>(14) LINER CASING Yes <input type="checkbox"/> No <input type="checkbox"/> Type: Plastic <input type="checkbox"/> Steel <input type="checkbox"/> Diameter _____ In. From _____ Ft. to _____ Ft. Packers installed? Yes <input type="checkbox"/> No <input type="checkbox"/> Location: _____ Ft. and _____ Ft.</p>															
<p>(7) FORMATION LOG DEPTH IN FT. FROM TO DESCRIPTION (NOTE ROCK COLOR & TYPE & SANDS)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>10</td><td>115</td><td>gray</td></tr> <tr><td>115</td><td>180</td><td>brown</td></tr> <tr><td>180</td><td>300</td><td>gray</td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>	10	115	gray	115	180	brown	180	300	gray							<p>(15) ANTICIPATED WATER QUALITY Clear <input type="checkbox"/> Cloudy <input type="checkbox"/> Oily <input type="checkbox"/> Muddy <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Bad <input type="checkbox"/> Iron <input type="checkbox"/> Sulfur <input type="checkbox"/> Gas <input type="checkbox"/> Oil <input type="checkbox"/> Salt <input type="checkbox"/> Other <input type="checkbox"/> (specify) _____</p>
10	115	gray														
115	180	brown														
180	300	gray														
<p>(8) COMMENTS <u>No voids</u> <u>No water</u> <u>Northwest corner</u> <u>Backfill w/ loop</u></p>	<p>(16) GENERAL INFORMATION Well Disinfected: Yes <input type="checkbox"/> No <input type="checkbox"/> Well Capped: Yes <input type="checkbox"/> No <input type="checkbox"/> Well located greater than 50 feet from septic tank & field line: Yes <input type="checkbox"/> No <input type="checkbox"/> From information provided by: <input type="checkbox"/> Property owner (provide written statement by owner); <input type="checkbox"/> Driller determination <input type="checkbox"/> Health Department permit Drilling process water obtained from: Well <input type="checkbox"/> Springbox <input type="checkbox"/> Public Supply <input type="checkbox"/> Surface Supply <input type="checkbox"/> Pump installed by Driller: Yes <input type="checkbox"/> No <input type="checkbox"/></p>															

I certify that the above information is true and accurate to the best of my knowledge. Signed _____ Licensed Driller
 License No. _____
 Distributors: White - Central Office Canary - Driller Pink - Homeowner