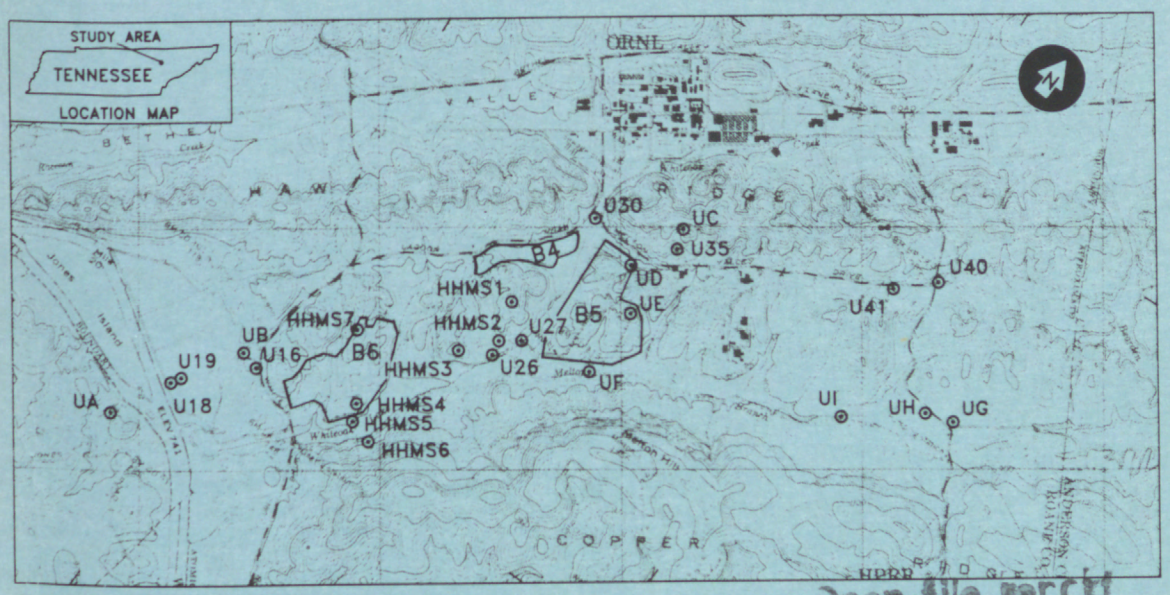
Open-File Report 89-61

CONSTRUCTION DATA AND RETRIEVAL PROCEDURES FOR SELECTED WELLS DRILLED FROM 1985 THROUGH 1987 AT OAK RIDGE NATIONAL LABORATORY, TENNESSEE



Prepared by the

U.S. GEOLOGICAL SURVEY

in cooperation with the

U.S. DEPARTMENT OF ENERGY
DEFENSE WASTE AND ENVIRONMENTAL RESTORATION PROGRAM

CONSTRUCTION DATA AND RETRIEVAL PROCEDURES FOR SELECTED WELLS DRILLED FROM 1985 THROUGH 1987 AT OAK RIDGE NATIONAL LABORATORY, TENNESSEE

By Harold H. Zehner

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Knoxville, Tennessee
1989

DEPARTMENT OF THE INTERIOR

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CONSTRUCTION DATA AND RETRIEVAL PROCEDURES FOR SELECTED WELLS DRILLED FROM 1985 THROUGH 1987 AT OAK RIDGE NATIONAL LABORATORY, TENNESSEE

by Harold H. Zehner

ABSTRACT

Twenty-eight wells were constructed by the U.S. Geological Survey for use in describing the ground-water flow system in Melton Valley, at the Oak Ridge National Laboratory in eastern Tennessee. The wells were installed at 18 locations in Melton Valley and along the Clinch River during the period 1985 through 1987. During the same period, 19 wells were constructed by Oak Ridge National Laboratory at 7 locations in or near radioactive-waste burial grounds in Melton Valley. Construction data for all 47 wells are in the U.S. Geological Survey Ground-Water Site Inventory data system, where information is also stored for 450 wells that were completed at the laboratory in earlier years. The data can be electronically retrieved by personnel who have access to the U.S. Geological Survey Prime computer located in Nashville, Tennessee, and retrieval procedures are given in the report.

Nine wells were installed by augering, and the remainder were installed by air-rotary drilling. The latter wells were completed in two-well or three-well clusters for the purpose of obtaining direction and magnitude of hydraulic gradients in the vertical direction. Approximately 200-foot intervals were cored at four locations. Geophysical logs were obtained at 16 wells installed by air-rotary drilling. Water-level data were recorded continuously at most of the wells from about the time of completion until the end of the 1988 water year.

INTRODUCTION

The U.S. Geological Survey (Geological Survey), in cooperation with the U.S. Department of Energy, is conducting a hydrogeologic investigation at the Oak Ridge National Laboratory (ORNL) near Oak Ridge, Tennessee. The purpose of the investigation is to describe the ground-water and surface-water systems in Melton Valley, where three radioactive-waste burial grounds (locally called "solid waste storage areas" at ORNL) are located. Wells were installed by the Geological Survey to provide hydrogeologic information on the valley. Wells were installed by ORNL to provide hydrologic data for their work in burial-ground areas. In

addition to seven three-well clusters, single wells were installed by ORNL in 1987 at several sites. Only the three-well clusters are described in this report. Water-level data were collected by the Geological Survey at all of the wells described in this report to aid in describing the hydrology of Melton Valley, and to use in the development of a ground-water flow model of the valley.

WELL LOCATIONS AND NAMES, DRILLING PROCEDURE, AND DATA COLLECTION

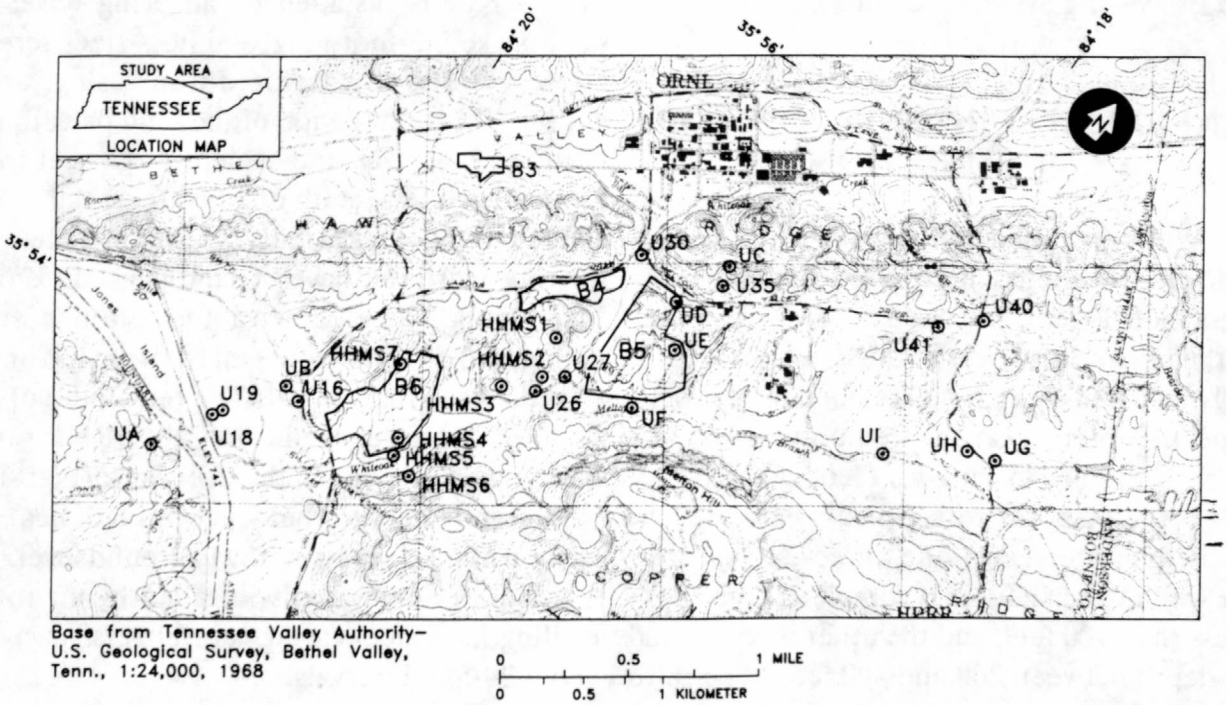
Wells were augered and drilled by the Geological Survey at 18 sites in Melton Valley and near the Clinch River (fig. 1). Wells installed by augering are named U16, U18, U19, U26, U27, U30, U35, U40, and U41. Well clusters installed by air-rotary drilling are named UA, UB, and so on through UI. Rock cores were taken from well clusters UB, UD, UF, and UG, from a depth of about 25 feet to depths near the bottoms of the wells. The name of the shallower well at a cluster has a "1" designation, such as UA1 or UB1, and the deeper well has a "2" designation, such as UA2 or UB2. Geophysical logs were obtained at the nine wells with a "2" designation. Lithologic and geophysical-log information from the drilled wells are described by Tucci and Hanchar, in press).

Wells (locally called hydraulic head-measuring stations by ORNL personnel) were air-rotary drilled by ORNL at seven clusters in and near burial-ground areas (fig. 1). Well clusters are named HHMS1, HHMS2, and so forth through HHMS7. The clusters have three wells each. The name of the deepest well at a cluster has an "A" designation, such as 1A or 2A. The shallowest well has a "C" designation, and the intermediate-depth well has a "B" designation. Wells 7B and 7C were finished later than well 7A, and are not included in this report. Geophysical logs were obtained at all wells with an "A" designation. Well-construction, lithologic, and geophysical-log information for these wells are described by R. Dreier (Martin-Marietta Energy Systems, written commun., 1987). Preliminary interpretations of hydrologic data from the wells are given by L. Toran and K. Solomon (Martin-Marietta Energy Systems, written commun., 1987), and L. Toran (Martin-Marietta Energy Systems, written commun., 1988).

Water spray was injected during air-rotary drilling, except at well UC1 which was drilled with air injection only. Drilling foam was injected during coring operations. Sodium benzoate was the chemical tracer used for detecting drilling water and drilling foam in wells drilled by the Geological Survey. Fluorescein was the tracer used for detecting drilling water in wells drilled by ORNL.

Water-level data were recorded continuously (1-hour intervals) at all of the Geological Survey and ORNL wells, beginning about the time of well completion. Except for wells U40 and UI2, the data were collected until the end of the 1988 water year. Collection of continuous data ended at well U40 in May 1987 because less frequent data collection was sufficient for this site. Data are now collected quarterly at well U40. Continuous data collection ended at well UI2 in February 1988, when the recovering water level rose above the top of the well casing. Pressure-gage readings are now collected at well UI2 about weekly.

Construction information and periodic water-level data from wells described in this report are stored in the Ground-Water Site



Base from Tennessee Valley Authority–U.S. Geological Survey, Bethel Valley, Tenn., 1:24,000, 1968

EXPLANATION

B4 BURIAL GROUND AND NUMBER

UA WELL-CLUSTER SITE DRILLED BY U.S. GEOLOGICAL SURVEY

UI SINGLE-WELL SITE AUGERED BY U.S. GEOLOGICAL SURVEY

HHMS1 WELL-CLUSTER SITE (HYDRAULIC HEAD-MEASURING STATION) DRILLED BY OAK RIDGE NATIONAL LABORATORY

Figure 1.--Locations of U.S. Geological Survey wells drilled during the period 1985 through 1987, and of hydraulic head-measuring stations 1 through 7, at Oak Ridge National Laboratory.

Inventory (GWSI) system on the Geological Survey Prime computer in Nashville, Tennessee. Continuous water-level data are also stored on the Prime computer, but are in the Automated Data Processing System (ADAPS).

GENERAL DESCRIPTIONS OF WELL CONSTRUCTION

Wells installed by augering are at nine single-well locations (fig 1.), completed at depths of less than 50 feet, and open to the rocks for all but the upper 3 to 5 feet of the borehole length. Wells installed by drilling are open to the rocks in specific intervals at the well bottoms, mostly less than 25 feet in length. Geological Survey wells installed by air rotary-drilling are in eight two-well clusters and one three-well cluster. One well at each cluster is completed at a depth of less than 100 feet, and the other is completed at a depth between 200 and 300 feet. The third well (UG3) at one cluster is completed at a depth of 200 feet.

At each HHMS well cluster, the well with an "A" designation is about 400 feet deep, the well with a "B" designation is about 200 feet deep, and the well with a "C" designation is less than about 100 feet deep. Most construction data for wells completed by ORNL were obtained from R. Dreier (Martin-Marietta Energy Systems, written commun., 1987). Exceptions were altitude, well depth, and, in some cases, hole depth. Altitudes and well depths were measured by Geological Survey personnel, and these measurements were stored in the GWSI data base. Differences between Geological Survey and ORNL values are only a few hundredths to a few tenths of a foot for most wells. Where well depth measured by the Geological Survey was greater than the depth of the deepest hole given by R. Dreier (Martin-Marietta Energy Systems, written commun., 1987), the Geological Survey measurement was used.

All wells installed by augering have: a sand-packed, 3-foot-long, stainless-steel screen at the bottom of galvanized-iron casing; drill-cuttings fill from the top of the sand pack to the bottom of the seal; and cement-grout seal from ground level to a depth of 3 to 5 feet. All of the shallower Geological Survey wells installed by air-rotary drilling have: a sand-packed, 5-foot-long, stainless-steel screen at the bottom of steel casing; and cement-grout seal from the top of the sand pack to ground level. The remainder of the Geological Survey wells, and all ORNL wells, have: open hole below the deepest casing; steel casing; and cement-grout seal from at or near the bottom of the deepest casing to ground level. All Geological Survey wells installed by air-rotary drilling have steel casing centralizers spaced at about 20-foot intervals.

ACKNOWLEDGMENTS

Appreciation is expressed to Dale Huff of Martin-Marietta Energy Systems for administrative support, RaNaye Dreier, Laura Toran, and Larry Voorhees of Martin-Marietta Energy Systems for supplying geologic-formation data on wells drilled by ORNL.

DATA RETRIEVAL AND EXAMPLE OF COMPUTER RETRIEVAL SESSION

Each well described in this report has about 50 to 100 well-construction and other data parameters, with each parameter stored under a GWSI code number. A list of code numbers and code descriptions can be obtained by personnel

with access to the Geological Survey Prime computer by retrieving all codes for a single well (including empty fields) in "dump format." The procedure for retrieving a table in dump format is explained in this section of the report. The unique identifier for any well is the station identification number (ID), which is GWSI code C001. Some codes contain one value, such as ground-level altitude (code C016). Others may contain more than one value, such as water-level measurement (code C237). Procedures for retrieving single values may be different than those for retrieving multiple values when a specific time interval or range of values is wanted, and these procedures are explained in this section.

Data retrieval is made from the GWSI system by answering a series of prompts. The prompts can be considered as consisting of the following groups:

(a) selection of type of computer input and output;
(b) "gross selection of sites," such as by site identification number or location;
(c) limitations to site selection, by which a subgroup of stations is selected from the group obtained by "gross selection of sites"--the limitations are based on conditions entered by the user;
(d) format of the data to be output;
(e) types of data (GWSI code numbers) to be output; and
(f) restriction of output, by which only specific data are output--restrictions are based on conditions entered by the user, and are particularly useful when retrieving multiple-value parameters.

Specific instructions for retrieval consist of a sample GWSI retrieval, which is shown below. Additional information can be obtained at most GWSI prompts by replying to the prompt with a question mark, as shown in the example session. Supplementary information is inserted where more detailed remarks are considered to be useful, and italicized text is used to distinguish the more detailed remarks from the information supplied by the GWSI software. The default reply to a GWSI prompt is shown as an abbreviation for a carriage return, such as "< CR > =". In the GWSI session shown below, a blank next to the "< CR > =" prompt means the default reply was accepted.

The user is encouraged to fully utilize the options for "limitations to site selection" and "restrictions to output" because they provide a kind of statistical analysis that can be output in table format. For example, a subgroup of the "gross selection of sites" could be only those wells at ORNL that are in a stated depth range, and the water-level data output for that subgroup could consist only of measurements made in a specific range of time. The options are particularly useful for the large data base of ORNL wells, which contains 50 to 100 data parameters (not including individual water-level measurements) for about 500 wells. More detailed remarks for using the two options are contained in the GWSI session.

GWSI

Simply type GWSI to start the program.

```
**************************************************************************
* MAIN MENU FOR WRD GWSI PROCESSING SYSTEM - REV NWIS 88.1 - 01/29/88 *
**************************************************************************

CODE  PROGRAM DESCRIPTION
- - - -  - - - - - - - - - - - - - - -
  1 : QUERY ENTRY (GWINPUT)
  2 : FULL SCREEN ENTRY (HDRINP)
  3 : RUN EDIT PROCEDURE (ON 1-2)          7 : RUN EDIT PROCEDURE IN BATCH
  4 : UPDATE GW FILES (FROM 3)             8 : UPDATE GW DATA IN BATCH
  5 : UPDATE SITEFILE ONLY (RUNS 2,3,4)
  6 : GW RETRIEVAL/TABLES
  9 : COPY FILE (FROM 1-2) TO DIRECTORY WATIN
 10 : PLOT HYDROGRAPHS

 95 : UTILITIES SUBMENU
 96 : DOCUMENTATION SUBMENU
 97 : GO TO LOCAL MENU
 98 : EXIT TO MAIN MENU (DEFAULT)
 99 : EXIT TO PRIMOS

 ENTER PRIMOS COMMAND OR SELECT PROGRAM CODE? 6
```

Any data retrieval is made through option 6.

```
 GWSI RETRIEVAL/TABLING - Rev 88.1   ENTER SET-UP PARAMETERS --

 Enter "?" if you need help to respond to queries:
 Enter set-up parameters (T/V,I/C/R, < CR > = TI): ?
 GWSI RETRIEVAL/TABLING - Rev 88.1   ENTER SET-UP PARAMETERS --

 You must specify one of two options for level of detail you require:
    (T)   Terse, minimum expanation will be provided.
    (V)   Verbose, detailed explanation will be provided.

 You must also specify one of three options for generating
 the parameters required for this program:
    ( I )  Interactive, you will be prompted to provide all necessary data.
    (C)   Control file, required data will be read from a control file
          which was created in a previous run of this program.
          You will be allowed to over-ride any data obtained from the control file.
    (R)   Resume after phantom/batch, no processing required, but use this program
          to display/spool output from previously processed phantom/batch job.
```

For example, if you wished detail explanation and were processing interactive you would enter "VI".

Enter <CR> to continue ...
Enter set-up parameters (T/V,I/C/R, <CR> =TI):

Enter root path name (<CR> =GW): ?

You may specify a "root" name that will be used to build the path names of the files that will be created during this retrieval. Your root name will be concatenated with standard suffixes to create the path names required. For example, if you were building a retrieval for the "Stillwater Project" you might specify a root name of "STILLWATER". Then pathnames beginning with "STILLWATER." (STILLWATER.CTRL, STILLWATER.TABLE etc) would be created.

Enter root path name (<CR> =GW):
GWSI RETRIEVAL/TABLING - Rev 88.1 GROSS SITE SELECTION --

Which field do you wish to use for gross selection of sites (1-11)? ?

You must choose one of the following site file fields to be used for gross selection of sites --

(1) Agency with site ID (C4&C1)
(2) State-County (C7&C8)
(3) Primary Aquifer (C714)
(4) Hydrologic Unit (C20)
(5) Water Use (C24)
(6) Project Number (C5)
(7) Drainage Basin (C801)
(8) Use of Site (C23)
(9) Station Name (C12)
(10) Latitude range (C9)
(11) Longitude range (C10)

You will later be given an opportunity to further qualify your selection by specifying a latitude-longitude boundary and/or by specifying tests to be performed on any GWSI fields.

"Gross site selection" of a group of wells in an area, for which the user does not have well identification numbers, can be done by any one of options 2 through 11. Commonly used options for such a case are state and county, latitude range, or longitude range. For example, all wells at Oak Ridge National Laboratory (ORNL) could be selected by specifying Tennessee (state code 47) and Roane county (county code 145), or the latitude or longitude boundaries of the ORNL area. If a retrieval by state–county is specified, some wells outside the ORNL area would be included. A subgroup containing only wells in Roane County that are located at ORNL can be obtained by the "detail testing" described at the next prompt. If latitude or longitude ranges are used, the selection of sites can be further restricted by stating a latitude-longitude polygon at the next prompt.

Which field do you wish to use for gross selection of sites (1-11)? 1
GWSI RETRIEVAL/TABLING - Rev 88.1 GROSS SITE SELECTION --

SELECTION BY AGENCY/SITE ID --
Do you wish to load agency-site ids from a file (Y/N, <CR> =N)? ?
You may load agency-site identification from a file where:
cols 1-5 : agency code
6-20 : site number

Do you wish to load agency-site ids from a file (Y/N, <CR> =N)? Y
Enter name of file (<CR> =GW.SITES): RUN.IDS

Selection of data retrieval by site identification number has several advantages. The data are retrieved in the order of identification number entry. Retrieval is more rapid than a general site selection, such as a retrieval by county. Data are retrieved only for the sites given, and further selection of a subgroup of the sites may not be necessary.

Station identification numbers may be entered from the terminal, or may be read from an existing file. If a large group is to be retrieved, particularly if several retrievals are made for the same wells, it is best to enter the station identification numbers in a file. The file name is then entered at this prompt. The file format is one agency code and 15-digit station identification number per line, for example:
USGS 355505084174301
No preceding spaces are in the line, but characters following the identification number can be included – they are ignored when the file is read. The agency code is USGS for all ORNL well data.

Gross site selection can be made by specifying the well names (option 9, which is actually the local well number, code C012). However, the wells retrieved by this option are those which have local well numbers beginning with the characters in the reply to this prompt; that is, the search is done from the left to right part of the local well number. For selection of several sites by this option, the local well numbers would have to begin with the same characters or digits. For retrieval by local well number, it is best to make a gross site selection by state and county, or by latitude or longitude range, then specify "detail testing" by local well number at the next prompt.

GWSI RETRIEVAL/TABLING - Rev 88.1 QUALIFY SITE SELECTION

Current limitations to site selection --

(1) Polygon: Sites are not restricted by latitude-longitude polygon
(2) Detail tests: Sites are not restricted by detail testing
(3) Site types to be included: (SP) Spring
(GW) Ground water other than spring
(4) Maximum number of sites to retrieve by gross select (0 = no limit): 0
(5) Max no sites to pass polygon, detail & type tests (0 = no limit): 0
(6) Maximum number of records to output for tabling (0 = no limit): 0

The "detail tests" option (number 2), combined with the later prompt of "restricting data output", is one of the most useful routines available in a GWSI retrieval. With this option, conditional tests can be made by use of the operators shown. As a result of the pass-or-fail tests, a subgroup of wells is selected from the larger group obtained by "gross site selection" at the previous prompt. The detail tests are

conditions in the form of an equation containing a GWSI code, an operator, and another GWSI code or a value.

Enter item number to change, R to list items or <CR> to continue: 2
GWSI RETRIEVAL/TABLING - Rev 88.1 DETAIL SITE SELECT --

Do you wish to specify any detail testing (Y/N, <CR> =N)? ?

You may specify up to 20 detail tests to further restrict selection of sites.
Detail tests may be done on any GWSI fields,key or non-key,
including fields in GWSI related (non sitefile) fields.

Enter <CR> when ready to continue ...
GWSI RETRIEVAL/TABLING - Rev 88.1 DETAIL SITE SELECT --

Tests consist of a field, an operator and a test value.
Available operators are --

EQ Equals	NE Not equal
GT Greater Than	LT Less Than
GE Greater than or Equal to	LE Less Than or Equal to
IN In range of	EX Outside range

For character strings only--

CN Contains	NC does Not contain

Test values are numbers or character strings as appropriate. Character string fields will be tested to the length of the test string with a maximum of 20 characters. If trailing spaces are part of the test, the test value must be enclosed in single quotes.

To test date fields, enter test value as yyyymmdd.
To test for missing fields use "--" for the test value. The only operators applicable to missing fields are "EQ" or "NE". For example, the following would insure that well depth (C28) is not missing and is less than 100 feet —
C28 NE -- AND C28 LT 100

Enter <CR> when ready to continue ...
GWSI RETRIEVAL/TABLING - Rev 88.1 DETAIL SITE SELECT --

If more than one test is made the tests must be connected with OR or AND.
Note that "AND" connectors are evaluated before "OR" connectors.
For example, to specify that:
(1) Depth of well (C28) be less than 100 feet or greater than 500 feet
- AND -
(2) Altitude (C16) be greater than 4000 feet
you must set up the following tests --
C28 LT 100 AND C16 GT 4000 OR C28 GT 500 AND C16 GT 4000

If, instead, you specified --
C28 LT 100 OR C28 GT 500 AND C16 GT 4000
you would select records with --

(1) Depth of well less than 100 feet

- OR -

(2) Depth of well greater than 500 feet and altitude greater than 4000 feet.

As explained previously at the "gross selection of sites" prompt, data for all ORNL well data stored in GWSI could be retrieved by selecting all wells in Roane County, but such a selection would include wells from outside the ORNL area. Wells in Roane County that are located only at ORNL can be retrieved by using the "detail test" option. Only wells located at ORNL contain the letters "ORNL" in the local well number (code C012). The subset of wells in Roane County which are at ORNL is retrieved by the condition "C012 CN ORNL", where "CN" is the operator meaning "contains" as applied to a character string. Also explained previously, the "gross selection of sites" by local well number at the previous prompt is executed by a left-to-right comparison of the local well number to an entered character string. A "detail test" by local well number, however, matches an entered character string to an identical character string anywhere within the local well number.

"Detail test" operations can be linked. For example, to retrieve the subset of all wells in Roane County which are at ORNL and which have well depth (code C028) greater than 100 feet, the test equation would be:
C012 CN ORNL AND C028 GT 100

Do you wish to specify any detail testing (Y/N, < CR > = N)? Y

Enter test field/test string: C060 GT 198410 AND C028 GT 100 AND C016 GT 800

Conditions in this example are date of construction after October 1984, depth of well greater than 100 feet, and altitude of well greater than 800 feet.

Must related file test(s) be passed for all occurrences (Y/N/M, < CR > = N)? ?

You have specified one or more tests which apply to related files. These are files which may have multiple occurrences for each occurrence of the sitefile. You must select one of the following three responses:

- Y All tests must be passed for all occurrences of related files in order for sites to be selected.
- N Tests must be passed for one or more occurrences of related files for sites to be selected.
- M Some tests must be passed for all occurrences while others need only be passed for one occurrence. If you select this option, you will be prompted to respond on a test-by-test basis.

Some parameters in GWSI can have only one value, for example, ground-level altitude at a well. Others may have more than one value, such as date of water-level measurement. If a code is chosen for "detail testing" of a code which may have more than one value, a reply must be made at this prompt as to whether or not the test is to be passed for all occurrences. Care must be taken at this point to be sure the retrieval contains all the data wanted. Examples are given in the following paragraph.

If the dates of all water-level measurements made since 1980 were wanted for a group of wells, and the reply were made that the test be passed for all occurrences, the only wells which would be retrieved would be those at which all water-level measurements were made after 1980. If there were a pre-1981 measurement for a well, that well would not be retrieved. If the selection were made that the test be passed only for one or more occurrences, then any well with post-1980 water-level measurements would be selected, even if there were pre-1981 measurements for the well. However, all water-level measurements made prior to 1981 might also be included in the latter retrieval. Obtaining only the post-1980 data (or limited number of values for any multi-value parameter) for a set of wells would be accomplished by the appropriate response to the later prompt of "restricting data output", as described in a following section.

Must related file test(s) be passed for all occurrences (Y/N/M, <CR> = N)? Y

Enter item number to change, R to list items or <CR> to continue:
GWSI RETRIEVAL/TABLING - Rev 88.1 FORMAT OF OUTPUT --

Specify format (1 = Std, 2 = Dump 3 = Subfile, 4 = Special (<CR> = 1): ?

The following output formats are available --

(1) Standard table with fields appearing horizontally across the page while sites/records are listed vertically down the page. Up to 20 pages (132 columns each) of fields may be specified. You may specify that certain fields appear on each page whenever more than one page is required to list all the fields requested.

(2) Dump-format table in which selected fields for a single site appear vertically down the page. This format is advantageous for presenting the data for a site in a compact form.

(3) Subfile format in which selected fields appear in a machine-readable form in a file without column headings or spaces between fields. This format is useful as input to other programs for plotting, statistical analysis, etc. A table listing the fields available in the subfile together with field locations and field lengths is produced.

(4) Special formats, water levels.

A standard table is usually used for retrieval of a limited number of codes because placing many headings and values horizontally across the page is not practical. Subfile format is usually used for producing a file to be read by a computer program, and each line of the file contains the value for every code selected with no spaces between code fields. Subfile format should also be used for a limited number of fields. If standard-table or subfile format is selected and a code with multiple values is retrieved, the file will contain one code value per line. Special format is used for retrieving water-level data in a table format with three-letter month, day, year, value, and method of measurement shown. Several other types of special-format tables can be used when this option is selected. Water-level data may also be retrieved under the standard-table, dump-format, or subfile-format options.

Specify format (1 = Std, 2 = Dump 3 = Subfile, 4 = Special (< CR > = 1): 1

Enter file name for output table (< CR > = GW.TABLE):

Enter the title you wish to appear at the top of each page (upper/lower case) --

GWSI RETRIEVAL/TABLING - Rev 88.1 STANDARD FORMAT --

Enter codes for fields to be output, "SPACE" to force spacing or
"PAGE" to force next field on new page (< CR > to end) --

(Pg:01,Col:001) - Enter field code/options: C001
(Pg:01,Col:018) - Enter field code/options: C012
(Pg:01,Col:044) - Enter field code/options: C060
(Pg:01,Col:058) - Enter field code/options: C028
(Pg:01,Col:068) - Enter field code/options: C235
(Pg:01,Col:080) - Enter field code/options:

Do you wish to restrict output of related files (Y/N, < CR > = N)? ?

You have selected one or more fields which exist in related (non-sitefile) GWSI files which have varying numbers of records for each site. You may restrict your output to include only those records you wish by testing values of fields in the records or by specifying the occurrences you wish to select.

This option, used in conjunction with the "detailed tests" option described previously, can be used to select only data meeting specific conditions. At the "detailed tests" option, any code could be selected for placing conditions on which wells would be retrieved. Under this "restriction of output" option, only the following code types may be selected: (a) codes selected for output at the previous prompt, and (b) codes for which more than one value may be stored. If requirement (a) is not met, an error message results when the code is entered. If requirement (b) is not met, this prompt for "restricting output" does not appear.

Under the "detail tests" option explained previously, an example was given in which a condition might be made with the intention of retrieving all water-level data collected after 1980 for a group of wells. Specifying the requirement that only the sub-set of wells with water-level data collected after 1980 be retrieved, there were the possibilities that: any well containing pre-1981 water-level data might be rejected; or all water-level data, including that collected prior to 1981, might be output. Using the "detail test" option in conjunction with the option of "restricting output", the data wanted would be retrieved. With the detail test, the condition would be made that the retrieval include only the subset of wells which contained water-level data collected after 1980. At the option following the "detail tests," the selection "N" would be made, for which only one or more occurrences of the post-1980 water-level measurement be sufficient for well selection. At the present "restriction of output" option, the condition would be made that only measurements made after 1980 would be output. The output table would then contain only wells which had measurements made after 1980, and only the post-1980 water-level measurements would be written into the table.

Do you wish to restrict output of related files (Y/N, < CR > = N)? Y

Enter test field/test string: ?

You must specify a field to be tested. You will then be prompted to enter an operator and a test value. After entering the first test, you will be prompted to enter as many other tests as you wish. Alternatively, you may enter the entire test string in response to this first prompt. For example, you could respond with:

C16 GT 1000

to this first prompt rather than responding:

C16
GT
1000

to different prompts.
You may continue test strings by adding a space and a ~ to the string. For example, if you enter:

C12 GE 23N AND C12 LE 25N ~

in response to this query, you will be prompted to enter a continuation line which may also be continued, etc.

Enter test field/test string: C235 GT 198709

The condition in this example is that the date of water-level measurement (C235) be after September 1987.

Restrict output in any other related files (Y/N, <CR> =N)?
[JGWSI RETRIEVAL/TABLING - Rev 88.1 REVIEW FORMAT OF OUTPUT --

Current output format specifications --
(01) Table type: 1 (Standard)
(02) File name: GW.TABLE
(03) Title:
(04) Spool destination:
(05) Spool form type:
(06) Forms page length: 58
(07) Round numeric values on output? Y
(08) Rounding exceptions: (none)
(09) Force upper case? N
(10) Page break field: (none)
(11) Fields to be output --
C001 C012 C060 C028 C235
(12) Output of related file records will be restricted by --
C235 GT 198709
(13) Permute related files? N
(14) Output will not be sorted

Enter item number to change , R to list items or <CR> to continue: 6
Page length? 800

If the output file is not in subfile format, but is to be used as a reading file for a computer program, page headings would probably not be wanted below the beginning of the file. Page length would therefore

be specified as a large number of lines. However, page length greater than about 800 to 900 lines will produce an error message during processing.

Enter item number to change , R to list items or < CR > to continue:
[JGWSI RETRIEVAL/TABLING - Rev 88.1 REVIEW/MODIFY SPECIFICATIONS --

Enter review/modify parameters (C/R/M,GPDLFSTA, < CR > = C): ?
At this time you may specify one of three options:
(R) Review current specifications
(M) Modify selected specifications
(C) Continue (set-up is complete)

If you specify R or M you must also specify one or more of the following:
(G) Gross site selection
(P) Polygon site selection
(D) Detail site selection
(L) Limit retrieval by site type, number sites/records
(F) Format of output
(S) Sorting specifications
(T) Temporary fields (review only)
(A) All
For example, if you wished to review gross site selection and sorting specifications, you would enter "RGS".

Enter review/modify parameters (C/R/M,GPDLFSTA, < CR > = C):
[JGWSI RETRIEVAL/TABLING - Rev 88.1 SPECIFICATIONS COMPLETE.

Enter name of program control file (< CR > = GW.CTRL):

Enter processing parameters (I/P/B/R/Q,S,@.., < CR > = I): ?

At this time you may specify one of five options for further processing:
(I) Interactive (R) Review modify the set-up
(P) Phantom (Q) Quit (terminate) the retrieval
(B) Batch
If you specify phantom/batch, further processing of your retrieval will not be done interactively. You will be prompted to specify names for files required for processing. A como file will be created. When the phantom/batch job is complete you may re-enter this program to display/spool the output if you wish.

PROCESSING GWSI FILES ...
FORMATTING TABLE/FILE ...

TABLE IS READY IN THE FILE: GW.TABLE

NUMBER SITES RETRIEVED BY GROSS SELECTION: 47
NUMBER SITES PASSING SITE TYPE, POLYGON AND DETAIL TESTS: 47
NUMBER RECORDS OUTPUT FOR TABLING: 61

Enter file disposition parameters (C/R/S/X,D/E, < CR > = C): ?

The output file is complete. At this time you may specify one of the following options for disposition of the file:

C Continue, no action on file
R Review file on CRT (will prompt for spool after review)
S Append control file and spool to printer
X Spool without control file

Further, you may add one of the following options:

D Delete the file (after above action)
E Delete the file and the control file

For example, to spool the file, then delete the file and control file you would enter "SE".

Enter file disposition parameters (C/R/S/X,D/E, < CR > = C):

Enter < CR > to exit, "A" to run another retrieval:

A file of station numbers for ORNL wells (for future use in "gross site selection" by ID number) can easily be made by retrieving all wells in Roane County at the "gross site selection" option, having a "detail test" which states that all well numbers which contain "ORNL" are to be retrieved, and specifying at other prompts that codes C004 (agency code) and C001 (station ID) be retrieved in "subfile" format. Because characters following the station ID are ignored when reading the file as an input file, the local well number (code C012) could be included after the station ID in the retrieval, for easy reference to well names.

**** STOP

PRESS RETURN FOR MENU OR ENTER PRIMOS COMMAND?

```
**********************************************************************
 *  MAIN MENU FOR WRD GWSI PROCESSING SYSTEM - REV NWIS 88.1 - 01/29/88 *
**********************************************************************

CODE  PROGRAM DESCRIPTION
----  -------------------
 1 : QUERY ENTRY (GWINPUT)
 2 : FULL SCREEN ENTRY (HDRINP)
 3 : RUN EDIT PROCEDURE (ON 1-2)          7 : RUN EDIT PROCEDURE IN BATCH
 4 : UPDATE GW FILES (FROM 3)             8 : UPDATE GW DATA IN BATCH
 5 : UPDATE SITEFILE ONLY (RUNS 2,3,4)
 6 : GW RETRIEVAL/TABLES
 9 : COPY FILE (FROM 1-2) TO DIRECTORY WATIN
10 : PLOT HYDROGRAPHS

95 : UTILITIES SUBMENU
96 : DOCUMENTATION SUBMENU
97 : GO TO LOCAL MENU
98 : EXIT TO MAIN MENU (DEFAULT)
99 : EXIT TO PRIMOS
```

```
ENTER PRIMOS COMMAND OR SELECT PROGRAM CODE?
          TOTAL ELAPSED WALL TIME IS:   0 HR   7 MI  47.78485 SEC
          TOTAL ELAPSED CPU  TIME IS:   0 HR   0 MI   4.34692 SEC
```

WELL-CONSTRUCTION DATA

Construction data for wells described in this report are given at the end of this section. Values are in inch-pound units, latitude and longitude are in degrees, minutes, and seconds. The GWSI-retrieved abbreviation for text contained in a GWSI code is shown and, with the exception of aquifer code, the description is shown in parentheses next to the abbreviation. Descriptions of aquifer codes are given in table 1.

Data for a few GWSI codes, which are judged to be of limited use to most readers, are not included in this section, but are stored in the GWSI system. Examples of data not included are project number and types of instruments at a well site.

Table 1.--*Descriptions of aquifer codes*

AQUIFER CODE	DESCRIPTION
111ALVM	Holocene alluvium
361CKMG	Chickamauga limestone
371NCCK	Nolichucky Shale of Conasauga Group
374MRVL	Maryville Limestone of Conasauga Group
374RGVL	Rogersville Limestone of Conasauga Group
374PPKV	Pumpkin Valley Shale of Conasauga Group
377ROME	Rome Formation

GWSI CODES, PARAMETERS, AND VALUES

RN:M-UA1 ORNL

C001	Site ID (station number)	355343084201501
C012	Local well number	RN:M-UA1 ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355343
C010	Longitude	0842015
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	762.0
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	V (Valley)
C021	Date well constructed	19861028
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	52.0
C028	Depth of well	50.5
C029	Source of depth data	S (Rept agency)
C714	Aquifer code	371NCCK
C803	Agency use of site code	A (Active)
C060	Date of construction	19861028
C063	Name of contractor	PDR ENGR'G
C064	Source of construction data	S (Rept agency)
C065	Method of construction	A (Air rotary)
C066	Type of finish	G (Gravel-scrn)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	42
C069	Method of development	S (Surged)
C071	Special treatment during development	M (Mechanical)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	20.0
C075	Diameter of this interval	12.3
C073	Depth to top of this interval	20.0
C074	Depth to bottom of this interval	52.0
C075	Diameter of this interval	9.7
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	18.9
C079	Diameter of this casing string	10.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.2
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	45.1
C079	Diameter of this casing string	6.3
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.2

RN:M-UA1 ORNL--Continued

C083	Depth to top of this open interval	41.6
C084	Depth to bottom of this open interval	50.5
C085	Type of openings in this interval	L (Louvered)
C086	Material in this interval	R (Stnless stl)
C087	Diameter of this open interval	6.3
C088	Width of openings	.06
C161	Owner	US DEPT ENERGY
C193	Date of water-quality measurement	19870916
C195	Aquifer sampled	371NCCK
C196	Water-quality parameter code	00003 (Depth spld)
C197	Value of water-quality parameter	50.5

RN:M-UA2 ORNL

C001	Site ID (station number)	355343084201401
C012	Local well number	RN:M-UA2 ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355343
C010	Longitude	0842014
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	761.9
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	V (Valley)
C021	Date well constructed	19861028
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	169.0
C028	Depth of well	156.3
C029	Source of depth data	S (Rept agency)
C714	Aquifer code	371NCCK
C803	Agency use of site code	A (Active)
C060	Date of construction	19861028
C063	Name of contractor	PDR ENGR'G
C064	Source of construction data	S (Rept agency)
C065	Method of construction	A (Air rotary)
C066	Type of finish	X (Open hole)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	140
C069	Method of development	S (Surged)
C071	Special treatment during development	M (Mechanical)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	19.5
C075	Diameter of this interval	14.0
C073	Depth to top of this interval	19.5
C074	Depth to bottom of this interval	153
C075	Diameter of this interval	9.7
C073	Depth to top of this interval	153
C074	Depth to bottom of this interval	169
C075	Diameter of this interval	5.6
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	19.3
C079	Diameter of this casing string	10.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.2
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	140
C079	Diameter of this casing string	6.3
C080	Casing material	S (Steel)

RN:M-UA2 ORNL--Continued

C081	Wall thickness of this casing	.2
C083	Depth to top of this open interval	140
C084	Depth to bottom of this open interval	153
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	9.6
C083	Depth to top of this open interval	153
C084	Depth to bottom of this open interval	156
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	5.6
C161	Owner	US DEPT ENERGY
C199	Type of log	C (Caliper)
C199	Type of log	J (Gamma)
C199	Type of log	N (Neutron)
C199	Type of log	U (Gamma-gamma)

RN:M-UB1 ORNL

C001	Site ID (station number)	355406084195701
C012	Local well number	RN:M-UB1 ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355406
C010	Longitude	0841957
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	760.7
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	S (Hillside)
C021	Date well constructed	19861107
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	35.5
C028	Depth of well	33.7
C029	Source of depth data	S (Rept agency)
C714	Aquifer code	374MRVL
C803	Agency use of site code	A (Active)
C060	Date of construction	19861107
C063	Name of contractor	PDR ENGR'G
C064	Source of construction data	S (Rept agency)
C065	Method of construction	A (Air rotary)
C066	Type of finish	G (Gravel-scrn)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	26
C069	Method of development	S (Surged)
C071	Special treatment during development	M (Mechanical)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	25.0
C075	Diameter of this interval	14.0
C073	Depth to top of this interval	25.0
C074	Depth to bottom of this interval	35.5
C075	Diameter of this interval	9.7
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	21.8
C079	Diameter of this casing string	10.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.2
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	28.4
C079	Diameter of this casing string	6.3
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.2
C083	Depth to top of this open interval	25.9
C084	Depth to bottom of this open interval	33.7
C085	Type of openings in this interval	L (Louvered)

RN:M-UB1 ORNL--Continued

C086	Material in this interval	R (Stnless stl)
C087	Diameter of this open interval	6.3
C088	Width of openings	.06
C161	Owner	US DEPT ENERGY
C193	Date of water-quality measurement	19870916
C195	Aquifer sampled	374MRVL
C196	Water-quality parameter code	00003 (Depth spld)
C197	Value of water-quality parameter	33

RN:M-UB2 ORNL

C001	Site ID (station number)	355405084195801
C012	Local well number	RN:M-UB2 ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355405
C010	Longitude	0841958
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	761.0
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	S (Hillside)
C021	Date well constructed	19861107
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	126.1
C028	Depth of well	125.7
C029	Source of depth data	S (Rept agency)
C714	Aquifer code	374MRVL
C803	Agency use of site code	A (Active)
C060	Date of construction	19861107
C063	Name of contractor	PDR ENGR'G
C064	Source of construction data	S (Rept agency)
C065	Method of construction	A (Air rotary)
C066	Type of finish	X (Open hole)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	101
C069	Method of development	S (Surged)
C071	Special treatment during development	M (Mechanical)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	25.1
C075	Diameter of this interval	15.5
C073	Depth to top of this interval	25.1
C074	Depth to bottom of this interval	107
C075	Diameter of this interval	9.7
C073	Depth to top of this interval	107
C074	Depth to bottom of this interval	126
C075	Diameter of this interval	5.6
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	25.1
C079	Diameter of this casing string	10.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.2
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	101
C079	Diameter of this casing string	6.3
C080	Casing material	S (Steel)

RN:M-UB2 ORNL--Continued

C081	Wall thickness of this casing	.2
C083	Depth to top of this open interval	101
C084	Depth to bottom of this open interval	107
C085	Type of openings in this interval	(Open hole)
C087	Diameter of this open interval	9.6
C083	Depth to top of this open interval	107
C084	Depth to bottom of this open interval	126
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	5.6
C161	Owner	US DEPT ENERGY
C193	Date of water-quality measurement	19870916
C195	Aquifer sampled	374MRVL
C196	Water-quality parameter code	00003 (Depth spld)
C197	Value of water-quality parameter	125
C199	Type of log	C (Caliper)
C199	Type of log	J (Gamma)
C199	Type of log	N (Neutron)
C199	Type of log	U (Gamma-gamma)

RN:M-UC1 ORNL

C001	Site ID (station number)	355515084184301
C012	Local well number	RN:M-UC1 ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355519
C010	Longitude	0841843
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	959.8
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	H (Hilltop)
C021	Date well constructed	19861120
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	86.2
C028	Depth of well	86.2
C029	Source of depth data	S (Rept agency)
C714	Aquifer code	377ROME
C803	Agency use of site code	A (Active)
C060	Date of construction	19861120
C063	Name of contractor	PDR ENGR'G
C064	Source of construction data	S (Rept agency)
C065	Method of construction	A (Air rotary)
C066	Type of finish	G (Gravel-scrn)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	77
C069	Method of development	S (Surged)
C071	Special treatment during development	M (Mechanical)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	86.2
C075	Diameter of this interval	9.6
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	81.0
C079	Diameter of this casing string	6.3
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.2
C083	Depth to top of this open interval	77
C084	Depth to bottom of this open interval	86.2
C085	Type of openings in this interval	L (Louvered)
C086	Material in this interval	R (Stnless stl)
C087	Diameter of this open interval	6.3
C088	Width of openings	.06
C161	Owner	US DEPT ENERGY
C193	Date of water-quality measurement	19870915
C195	Aquifer sampled	377ROME
C196	Water-quality parameter code	00003 (Depth spld)
C197	Value of water-quality parameter	86

RN:M-UC2 ORNL

C001	Site ID (station number)	355515084184201
C012	Local well number	RN:M-UC2 ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355519
C010	Longitude	0841842
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	957.4
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	H (Hilltop)
C021	Date well constructed	19861120
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	206.7
C028	Depth of well	204.9
C029	Source of depth data	S (Rept agency)
C714	Aquifer code	361CKMG
C803	Agency use of site code	A (Active)
C060	Date of construction	19861120
C063	Name of contractor	PDR ENGR'G
C064	Source of construction data	S (Rept agency)
C065	Method of construction	A (Air rotary)
C066	Type of finish	X (Open hole)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	188
C069	Method of development	S (Surged)
C071	Special treatment during development	M (Mechanical)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	26.6
C075	Diameter of this interval	15.5
C073	Depth to top of this interval	26.6
C074	Depth to bottom of this interval	207
C075	Diameter of this interval	9.7
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	26.6
C079	Diameter of this casing string	10.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.2
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	188
C079	Diameter of this casing string	6.3
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.2
C083	Depth to top of this open interval	188
C084	Depth to bottom of this open interval	205
C085	Type of openings in this interval	X (Open hole)

RN:M-UC2 ORNL--Continued

C087	Diameter of this open interval	9.6
C161	Owner	US DEPT ENERGY
C193	Date of water-quality measurement	19870915
C195	Aquifer sampled	361CKMG
C196	Water-quality parameter code	00003 (Depth spld)
C197	Value of water-quality parameter	204
C199	Type of log	C (Caliper)
C199	Type of log	J (Gamma)
C199	Type of log	N (Neutron)
C199	Type of log	U (Gamma-gamma)

RN:M-UD1 ORNL

C001	Site ID (station number)	355507084184701
C012	Local well number	RN:M-UD1 ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355507
C010	Longitude	0841847
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	802.2
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	V (Valley)
C021	Date well constructed	19861209
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	29.8
C028	Depth of well	29.0
C029	Source of depth data	S (Rept agency)
C714	Aquifer code	374PPKV
C803	Agency use of site code	A (Active)
C060	Date of construction	19861209
C063	Name of contractor	PDR ENGR'G
C064	Source of construction data	S (Rept agency)
C065	Method of construction	A (Air rotary)
C066	Type of finish	G (Gravel-scrn)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	17
C069	Method of development	S (Surged)
C071	Special treatment during development	M (Mechanical)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	29.8
C075	Diameter of this interval	9.8
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	23.6
C079	Diameter of this casing string	6.25
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.2
C083	Depth to top of this open interval	17.2
C084	Depth to bottom of this open interval	29.0
C085	Type of openings in this interval	L (Louvered)
C086	Material in this interval	R (Stnless stl)
C087	Diameter of this open interval	6.3
C088	Width of openings	.06
C161	Owner	US DEPT ENERGY
C193	Date of water-quality measurement	19870915
C195	Aquifer sampled	374PPKV
C196	Water-quality parameter code	00003 (Depth spld)
C197	Value of water-quality parameter	29

RN:M-UD2 ORNL

C001	Site ID (station number)	355506084184701
C012	Local well number	RN:M-UD2 ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355506
C010	Longitude	0841847
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	801.4
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	V (Valley)
C021	Date well constructed	19861208
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	207.0
C028	Depth of well	205.5
C029	Source of depth data	S (Rept agency)
C714	Aquifer code	374PPKV
C803	Agency use of site code	A (Active)
C060	Date of construction	19861208
C063	Name of contractor	PDR ENGR'G
C064	Source of construction data	S (Rept agency)
C065	Method of construction	A (Air rotary)
C066	Type of finish	X (Open hole)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	180
C069	Method of development	S (Surged)
C071	Special treatment during development	M (Mechanical)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	22.0
C075	Diameter of this interval	15.3
C073	Depth to top of this interval	22.0
C074	Depth to bottom of this interval	187
C075	Diameter of this interval	9.9
C073	Depth to top of this interval	187
C074	Depth to bottom of this interval	207
C075	Diameter of this interval	6.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	19.7
C079	Diameter of this casing string	10.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.2
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	180
C079	Diameter of this casing string	6.3
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.2

RN:M-UD2 ORNL--Continued

C083	Depth to top of this open interval	180
C084	Depth to bottom of this open interval	187
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	9.9
C083	Depth to top of this open interval	187
C084	Depth to bottom of this open interval	205
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	6.2
C161	Owner	US DEPT ENERGY
C199	Type of log	C (Caliper)
C199	Type of log	J (Gamma)
C199	Type of log	N (Neutron)
C199	Type of log	U (Gamma-gamma)

RN:M-UE1 ORNL

C001	Site ID (station number)	355457084184001
C012	Local well number	RN:M-UE1 ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355457
C010	Longitude	0841840
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	864.0
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	H (Hilltop)
C021	Date well constructed	19861216
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	76.7
C028	Depth of well	76.1
C029	Source of depth data	S (Rept agency)
C714	Aquifer code	374MRVL
C803	Agency use of site code	A (Active)
C060	Date of construction	19861216
C063	Name of contractor	PDR ENGR'G
C064	Source of construction data	S (Rept agency)
C065	Method of construction	A (Air rotary)
C066	Type of finish	G (Gravel-scrn)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	69
C069	Method of development	S (Surged)
C071	Special treatment during development	M (Mechanical)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	76.7
C075	Diameter of this interval	9.8
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	70.7
C079	Diameter of this casing string	6.25
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.2
C083	Depth to top of this open interval	69.0
C084	Depth to bottom of this open interval	76.1
C085	Type of openings in this interval	L (Louvered)
C086	Material in this interval	R (Stnless stl)
C087	Diameter of this open interval	6.3
C088	Width of openings	.06
C161	Owner	US DEPT ENERGY
C193	Date of water-quality measurement	19870918
C195	Aquifer sampled	374MRVL
C196	Water-quality parameter code	00003 (Depth spld)
C197	Value of water-quality parameter	76

RN:M-UE2 ORNL

C001	Site ID (station number)	355458084184002
C012	Local well number	RN:M-UE2 ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355458
C010	Longitude	0841840
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	860.9
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	H (Hilltop)
C021	Date well constructed	19861215
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	197.7
C028	Depth of well	195.4
C029	Source of depth data	S (Rept agency)
C714	Aquifer code	374MRVL
C803	Agency use of site code	A (Active)
C060	Date of construction	19861215
C063	Name of contractor	PDR ENGR'G
C064	Source of construction data	S (Rept agency)
C065	Method of construction	A (Air rotary)
C066	Type of finish	X (Open hole)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	176
C069	Method of development	S (Surged)
C071	Special treatment during development	M (Mechanical)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	19.5
C075	Diameter of this interval	15.3
C073	Depth to top of this interval	19.5
C074	Depth to bottom of this interval	185
C075	Diameter of this interval	9.9
C073	Depth to top of this interval	185
C074	Depth to bottom of this interval	198
C075	Diameter of this interval	6.1
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	19.5
C079	Diameter of this casing string	10.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.2
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	176
C079	Diameter of this casing string	6.3
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.2

RN:M-UE2 ORNL--Continued

C083	Depth to top of this open interval	176
C084	Depth to bottom of this open interval	185
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	9.9
C083	Depth to top of this open interval	185
C084	Depth to bottom of this open interval	195
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	6.1
C161	Owner	US DEPT ENERGY
C199	Type of log	C (Caliper)
C199	Type of log	J (Gamma)
C199	Type of log	N (Neutron)
C199	Type of log	U (Gamma-gamma)

RN:M-UF1 ORNL

C001	Site ID (station number)	355444084184101
C012	Local well number	RN:M-UF1 ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355444
C010	Longitude	0841841
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	766.3
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	V (Valley)
C021	Date well constructed	19870200
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	23.5
C028	Depth of well	23.5
C029	Source of depth data	S (Rept agency)
C714	Aquifer code	374MRVL
C803	Agency use of site code	A (Active)
C060	Date of construction	19870200
C063	Name of contractor	PDR ENGR'G
C064	Source of construction data	S (Rept agency)
C065	Method of construction	A (Air rotary)
C066	Type of finish	G (Gravel-scrn)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	16
C069	Method of development	S (Surged)
C071	Special treatment during development	M (Mechanical)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	23.5
C075	Diameter of this interval	9.5
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	18.0
C079	Diameter of this casing string	6.3
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.2
C083	Depth to top of this open interval	16.5
C084	Depth to bottom of this open interval	23.5
C085	Type of openings in this interval	L (Louvered)
C086	Material in this interval	R (Stnless stl)
C087	Diameter of this open interval	6.3
C088	Width of openings	.06
C161	Owner	US DEPT ENERGY
C193	Date of water-quality measurement	19870916
C195	Aquifer sampled	374MRVL
C196	Water-quality parameter code	00003 (Depth spld)
C197	Value of water-quality parameter	23

RN:M-UF2 ORNL

C001	Site ID (station number)	355444084184201
C012	Local well number	RN:M-UF2 ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355444
C010	Longitude	0841842
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	767.0
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	V (Valley)
C021	Date well constructed	19870130
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	211.0
C028	Depth of well	211.0
C029	Source of depth data	S (Rept agency)
C714	Aquifer code	374MRVL
C803	Agency use of site code	A (Active)
C060	Date of construction	19870130
C063	Name of contractor	PDR ENGR'G
C064	Source of construction data	S (Rept agency)
C065	Method of construction	A (Air rotary)
C066	Type of finish	X (Open hole)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	183
C069	Method of development	S (Surged)
C071	Special treatment during development	M (Mechanical)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	12.0
C075	Diameter of this interval	15.3
C073	Depth to top of this interval	12.0
C074	Depth to bottom of this interval	191
C075	Diameter of this interval	9.6
C073	Depth to top of this interval	191
C074	Depth to bottom of this interval	211
C075	Diameter of this interval	6.0
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	12.0
C079	Diameter of this casing string	10.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.2
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	183
C079	Diameter of this casing string	6.3
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.2

RN:M-UF2 ORNL--Continued

C083	Depth to top of this open interval	183
C084	Depth to bottom of this open interval	191
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	9.6
C083	Depth to top of this open interval	191
C084	Depth to bottom of this open interval	211
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	6.0
C161	Owner	US DEPT ENERGY
C199	Type of log	C (Caliper)
C199	Type of log	J (Gamma)
C199	Type of log	N (Neutron)
C199	Type of log	U (Gamma-gamma)

RN:M-UG1 ORNL

C001	Site ID (station number)	355517084171701
C012	Local well number	RN:M-UG1 ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355517
C010	Longitude	0841717
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	864.2
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	H (Hilltop)
C021	Date well constructed	19870100
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	32.0
C028	Depth of well	31.0
C029	Source of depth data	S (Rept agency)
C714	Aquifer code	371NCCK
C803	Agency use of site code	A (Active)
C060	Date of construction	19870100
C063	Name of contractor	PDR ENGR'G
C064	Source of construction data	S (Rept agency)
C065	Method of construction	A (Air rotary)
C066	Type of finish	G (Gravel-scrn)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	25
C069	Method of development	S (Surged)
C071	Special treatment during development	M (Mechanical)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	10.0
C075	Diameter of this interval	15.3
C073	Depth to top of this interval	10.0
C074	Depth to bottom of this interval	32.0
C075	Diameter of this interval	9.6
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	26.0
C079	Diameter of this casing string	6.3
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.2
C083	Depth to top of this open interval	25.0
C084	Depth to bottom of this open interval	31.0
C085	Type of openings in this interval	L (Louvered)
C086	Material in this interval	R (Stnless stl)
C087	Diameter of this open interval	6.3
C088	Width of openings	.06
C161	Owner	US DEPT ENERGY
C193	Date of water-quality measurement	19870917
C195	Aquifer sampled	371NCCK
C196	Water-quality parameter code	00003 (Depth spld)
C197	Value of water-quality parameter	31

RN:M-UG2 ORNL

C001	Site ID (station number)	355516084171801
C012	Local well number	RN:M-UG2 ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355516
C010	Longitude	0841718
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	864.1
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	H (Hilltop)
C021	Date well constructed	19870107
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	300.8
C028	Depth of well	300.8
C029	Source of depth data	S (Rept agency)
C714	Aquifer code	374MRVL
C803	Agency use of site code	A (Active)
C060	Date of construction	19870107
C063	Name of contractor	PDR ENGR'G
C064	Source of construction data	S (Rept agency)
C065	Method of construction	A (Air rotary)
C066	Type of finish	X (Open hole)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	246
C069	Method of development	S (Surged)
C071	Special treatment during development	M (Mechanical)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	12.0
C075	Diameter of this interval	15.3
C073	Depth to top of this interval	12.0
C074	Depth to bottom of this interval	254
C075	Diameter of this interval	9.9
C073	Depth to top of this interval	254
C074	Depth to bottom of this interval	301
C075	Diameter of this interval	6.0
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	12.0
C079	Diameter of this casing string	10.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.2
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	246
C079	Diameter of this casing string	6.3
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.2

RN:M-UG2 ORNL--Continued

C083	Depth to top of this open interval	246
C084	Depth to bottom of this open interval	254
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	9.9
C083	Depth to top of this open interval	254
C084	Depth to bottom of this open interval	301
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	6.0
C161	Owner	US DEPT ENERGY
C199	Type of log	C (Caliper)
C199	Type of log	J (Gamma)
C199	Type of log	N (Neutron)
C199	Type of log	U (Gamma-gamma)

RN:M-UG3 ORNL

C001	Site ID (station number)	355516084171901
C012	Local well number	RN:M-UG3 ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355516
C010	Longitude	0841719
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	862.6
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	H (Hilltop)
C021	Date well constructed	19870200
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	200.0
C028	Depth of well	200.0
C029	Source of depth data	S (Rept agency)
C714	Aquifer code	374MRVL
C803	Agency use of site code	A (Active)
C060	Date of construction	19870200
C063	Name of contractor	PDR ENGR'G
C064	Source of construction data	S (Rept agency)
C065	Method of construction	A (Air rotary)
C066	Type of finish	X (Open hole)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	180
C069	Method of development	S (Surged)
C071	Special treatment during development	M (Mechanical)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	11.5
C075	Diameter of this interval	15.3
C073	Depth to top of this interval	11.5
C074	Depth to bottom of this interval	190
C075	Diameter of this interval	9.5
C073	Depth to top of this interval	190
C074	Depth to bottom of this interval	200
C075	Diameter of this interval	5.6
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	11.5
C079	Diameter of this casing string	10.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.2
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	186
C079	Diameter of this casing string	6.3
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.2

RN:M-UG3 ORNL--Continued

C083	Depth to top of this open interval	180
C084	Depth to bottom of this open interval	190
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	9.5
C083	Depth to top of this open interval	190
C084	Depth to bottom of this open interval	200
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	5.5
C161	Owner	US DEPT ENERGY
C193	Date of water-quality measurement	19870918
C195	Aquifer sampled	374MRVL
C196	Water-quality parameter code	00003 (Depth spld)
C197	Value of water-quality parameter	200

RN:M-UH1 ORNL

C001	Site ID (station number)	355515084172401
C012	Local well number	RN:M-UH1 ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355515
C010	Longitude	0841724
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	847.0
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	S (Hillside)
C021	Date well constructed	19870100
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	26.0
C028	Depth of well	26.0
C029	Source of depth data	S (Rept agency)
C714	Aquifer code	371NCCK
C803	Agency use of site code	A (Active)
C060	Date of construction	19870100
C063	Name of contractor	PDR ENGR'G
C064	Source of construction data	S (Rept agency)
C065	Method of construction	A (Air rotary)
C066	Type of finish	G (Gravel-scrn)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	19
C069	Method of development	S (Surged)
C071	Special treatment during development	M (Mechanical)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	26.0
C075	Diameter of this interval	9.5
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	21.0
C079	Diameter of this casing string	6.3
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.2
C083	Depth to top of this open interval	19.0
C084	Depth to bottom of this open interval	26.0
C085	Type of openings in this interval	L (Louvered)
C086	Material in this interval	R (Stnless stl)
C087	Diameter of this open interval	6.3
C088	Width of openings	.06
C161	Owner	US DEPT ENERGY
C193	Date of water-quality measurement	19870917
C195	Aquifer sampled	371NCCK
C196	Water-quality parameter code	00003 (Depth spld)
C197	Value of water-quality parameter	26

RN:M-UH2 ORNL

C001	Site ID (station number)	355515084172501
C012	Local well number	RN:M-UH2 ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355515
C010	Longitude	0841725
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	847.0
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	S (Hillside)
C021	Date well constructed	19870114
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	289.0
C028	Depth of well	288.4
C029	Source of depth data	S (Rept agency)
C714	Aquifer code	374MRVL
C803	Agency use of site code	A (Active)
C060	Date of construction	19870114
C063	Name of contractor	PDR ENGR'G
C064	Source of construction data	S (Rept agency)
C065	Method of construction	A (Air rotary)
C066	Type of finish	X (Open hole)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	230
C069	Method of development	S (Surged)
C071	Special treatment during development	M (Mechanical)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	10.0
C075	Diameter of this interval	15.3
C073	Depth to top of this interval	10.0
C074	Depth to bottom of this interval	238
C075	Diameter of this interval	9.5
C073	Depth to top of this interval	238
C074	Depth to bottom of this interval	289
C075	Diameter of this interval	6.0
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	10.0
C079	Diameter of this casing string	10.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.2
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	230
C079	Diameter of this casing string	6.3
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.2

RN:M-UH2 ORNL--Continued

C083	Depth to top of this open interval	230
C084	Depth to bottom of this open interval	238
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	9.5
C083	Depth to top of this open interval	238
C084	Depth to bottom of this open interval	288
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	6.0
C161	Owner	US DEPT ENERGY
C199	Type of log	C (Caliper)
C199	Type of log	J (Gamma)
C199	Type of log	N (Neutron)
C199	Type of log	U (Gamma-gamma)

RN:M-UI1 ORNL

C001	Site ID (station number)	355505084174201
C012	Local well number	RN:M-UI1 ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355505
C010	Longitude	0841742
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	803.6
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	V (Valley)
C021	Date well constructed	19870200
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	25.0
C028	Depth of well	25.0
C029	Source of depth data	S (Rept agency)
C714	Aquifer code	371NCCK
C803	Agency use of site code	A (Active)
C060	Date of construction	19870200
C063	Name of contractor	PDR ENGR'G
C064	Source of construction data	S (Rept agency)
C065	Method of construction	A (Air rotary)
C066	Type of finish	G (Gravel-scrn)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	18
C069	Method of development	S (Surged)
C071	Special treatment during development	M (Mechanical)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	25.0
C075	Diameter of this interval	9.6
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	20.0
C079	Diameter of this casing string	6.3
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.2
C083	Depth to top of this open interval	18.0
C084	Depth to bottom of this open interval	25.0
C085	Type of openings in this interval	L (Louvered)
C086	Material in this interval	R (Stnless stl)
C087	Diameter of this open interval	6.3
C088	Width of openings	.06
C161	Owner	US DEPT ENERGY
C193	Date of water-quality measurement	19870917
C195	Aquifer sampled	371NCCK
C196	Water-quality parameter code	00003 (Depth spld)
C197	Value of water-quality parameter	25

RN:M-UI2 ORNL

C001	Site ID (station number)	355505084174301
C012	Local well number	RN:M-UI2 ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355505
C010	Longitude	0841743
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	802.7
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	V (Valley)
C021	Date well constructed	19870219
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	210.0
C028	Depth of well	210.0
C029	Source of depth data	S (Rept agency)
C714	Aquifer code	374MRVL
C803	Agency use of site code	A (Active)
C060	Date of construction	19870219
C063	Name of contractor	PDR ENGR'G
C064	Source of construction data	S (Rept agency)
C065	Method of construction	A (Air rotary)
C066	Type of finish	X (Open hole)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	186
C069	Method of development	S (Surged)
C071	Special treatment during development	M (Mechanical)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	6.0
C075	Diameter of this interval	15.3
C073	Depth to top of this interval	6.0
C074	Depth to bottom of this interval	190
C075	Diameter of this interval	9.6
C073	Depth to top of this interval	190
C074	Depth to bottom of this interval	210
C075	Diameter of this interval	5.6
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	6.0
C079	Diameter of this casing string	10.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.2
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	186
C079	Diameter of this casing string	6.3
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.2

RN:M-UI2 ORNL--Continued

C083	Depth to top of this open interval	186
C084	Depth to bottom of this open interval	190
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	9.6
C083	Depth to top of this open interval	190
C084	Depth to bottom of this open interval	210
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	5.6
C161	Owner	US DEPT ENERGY
C199	Type of log	C (Caliper)
C199	Type of log	J (Gamma)
C199	Type of log	N (Neutron)
C199	Type of log	U (Gamma-gamma)

RN:M-U16 ORNL

C001	Site ID (station number)	355408084195101
C012	Local well number	RN:M-U16 ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355408
C010	Longitude	0841951
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	782.6
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.1
C019	Topographic setting	S (Hillside)
C021	Date well constructed	19851108
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	41.7
C028	Depth of well	41.7
C029	Source of depth data	S (Rept agency)
C714	Aquifer code	374MRVL
C803	Agency use of site code	A (Active)
C060	Date of construction	19851108
C063	Name of contractor	USGS
C064	Source of construction data	S (Rept agency)
C065	Method of construction	B (Augered)
C066	Type of finish	S (Screen)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	5
C069	Method of development	B (Bailed)
C073	Depth to top of this interval	.00
C074	Depth to bottom of this interval	41.7
C075	Diameter of this interval	4.0
C077	Depth to top of this casing string	.00
C078	Depth to bottom of this casing string	38.5
C079	Diameter of this casing string	2.0
C080	Casing material	G (Galv. iron)
C081	Wall thickness of this casing	.13
C083	Depth to top of this open interval	5
C084	Depth to bottom of this open interval	41.7
C085	Type of openings in this interval	M (Mesh)
C086	Material in this interval	R (Stnless stl)
C087	Diameter of this open interval	2.0
C088	Width of openings	.06
C161	Owner	US DEPT ENERGY

RN:M-U18 ORNL

C001	Site ID (station number)	355357084195801
C012	Local well number	RN:M-U18 ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355357
C010	Longitude	0841958
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	751.1
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.1
C019	Topographic setting	G (Floodplain)
C021	Date well constructed	19851101
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	26.0
C028	Depth of well	21.8
C029	Source of depth data	S (Rept agency)
C714	Aquifer code	111ALVM
C803	Agency use of site code	A (Active)
C060	Date of construction	19851101
C063	Name of contractor	USGS
C064	Source of construction data	S (Rept agency)
C065	Method of construction	B (Augered)
C066	Type of finish	S (Screen)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	3
C069	Method of development	B (Bailed)
C073	Depth to top of this interval	.00
C074	Depth to bottom of this interval	26.0
C075	Diameter of this interval	4.0
C077	Depth to top of this casing string	.00
C078	Depth to bottom of this casing string	18.6
C079	Diameter of this casing string	2.0
C080	Casing material	G (Galv. iron)
C081	Wall thickness of this casing	.13
C083	Depth to top of this open interval	3
C084	Depth to bottom of this open interval	21.8
C085	Type of openings in this interval	M (Mesh)
C086	Material in this interval	R (Stnless stl)
C087	Diameter of this open interval	2.0
C088	Width of openings	.06
C161	Owner	US DEPT ENERGY

RN:M-U19 ORNL

C001	Site ID (station number)	355352084195701
C012	Local well number	RN:M-U19 ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355352
C010	Longitude	0841957
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	756.4
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.1
C019	Topographic setting	G (Floodplain)
C021	Date well constructed	19851101
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	30.7
C028	Depth of well	29.1
C029	Source of depth data	S (Rept agency)
C714	Aquifer code	111ALVM
C803	Agency use of site code	A (Active)
C060	Date of construction	19851101
C063	Name of contractor	USGS
C064	Source of construction data	S (Rept agency)
C065	Method of construction	B (Augered)
C066	Type of finish	S (Screen)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	3
C069	Method of development	B (Bailed)
C073	Depth to top of this interval	.00
C074	Depth to bottom of this interval	30.7
C075	Diameter of this interval	4.0
C077	Depth to top of this casing string	.00
C078	Depth to bottom of this casing string	25.9
C079	Diameter of this casing string	2.0
C080	Casing material	G (Galv. iron)
C081	Wall thickness of this casing	.13
C083	Depth to top of this open interval	3
C084	Depth to bottom of this open interval	29.1
C085	Type of openings in this interval	M (Mesh)
C086	Material in this interval	R (Stnless stl)
C087	Diameter of this open interval	2.0
C088	Width of openings	.06
C161	Owner	US DEPT ENERGY

RN:M-U26 ORNL

C001	Site ID (station number)	355431084191001
C012	Local well number	RN:M-U26 ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355431
C010	Longitude	0841910
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	755.7
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.1
C019	Topographic setting	V (Valley)
C021	Date well constructed	19851107
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	13.0
C028	Depth of well	9.2
C029	Source of depth data	S (Rept agency)
C714	Aquifer code	374MRVL
C803	Agency use of site code	A (Active)
C060	Date of construction	19851107
C063	Name of contractor	USGS
C064	Source of construction data	S (Rept agency)
C065	Method of construction	B (Augered)
C066	Type of finish	S (Screen)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	3
C069	Method of development	B (Bailed)
C073	Depth to top of this interval	.00
C074	Depth to bottom of this interval	13.0
C075	Diameter of this interval	4.0
C077	Depth to top of this casing string	.00
C078	Depth to bottom of this casing string	6.0
C079	Diameter of this casing string	2.0
C080	Casing material	G (Galv. iron)
C081	Wall thickness of this casing	.13
C083	Depth to top of this open interval	3
C084	Depth to bottom of this open interval	9.2
C085	Type of openings in this interval	M (Mesh)
C086	Material in this interval	R (Stnless stl)
C087	Diameter of this open interval	2.0
C088	Width of openings	.06
C161	Owner	US DEPT ENERGY

RN:M-U27 ORNL

C001	Site ID (station number)	355441084190101
C012	Local well number	RN:M-U27 ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355441
C010	Longitude	0841901
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	759.6
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.1
C019	Topographic setting	V (Valley)
C021	Date well constructed	19851105
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	11.1
C028	Depth of well	11.1
C029	Source of depth data	S (Rept agency)
C714	Aquifer code	374MRVL
C803	Agency use of site code	A (Active)
C060	Date of construction	19851105
C063	Name of contractor	USGS
C064	Source of construction data	S (Rept agency)
C065	Method of construction	B (Augered)
C066	Type of finish	S (Screen)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	3
C069	Method of development	B (Bailed)
C073	Depth to top of this interval	.00
C074	Depth to bottom of this interval	11.1
C075	Diameter of this interval	4.0
C077	Depth to top of this casing string	.00
C078	Depth to bottom of this casing string	7.9
C079	Diameter of this casing string	2.0
C080	Casing material	G (Galv. iron)
C081	Wall thickness of this casing	.13
C083	Depth to top of this open interval	3
C084	Depth to bottom of this open interval	11.1
C085	Type of openings in this interval	M (Mesh)
C086	Material in this interval	R (Stnless stl)
C087	Diameter of this open interval	2.0
C088	Width of openings	.06
C161	Owner	US DEPT ENERGY

RN:M-U30 ORNL

C001	Site ID (station number)	355511084190101
C012	Local well number	RN:M-U30 ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355511
C010	Longitude	0841901
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	777.7
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.1
C019	Topographic setting	V (Valley)
C021	Date well constructed	19851023
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	19.7
C028	Depth of well	19.7
C029	Source of depth data	S (Rept agency)
C714	Aquifer code	377ROME
C803	Agency use of site code	A (Active)
C060	Date of construction	19851023
C063	Name of contractor	USGS
C064	Source of construction data	S (Rept agency)
C065	Method of construction	B (Augered)
C066	Type of finish	S (Screen)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	3
C069	Method of development	B (Bailed)
C073	Depth to top of this interval	.00
C074	Depth to bottom of this interval	19.7
C075	Diameter of this interval	4.0
C077	Depth to top of this casing string	.00
C078	Depth to bottom of this casing string	16.5
C079	Diameter of this casing string	2.0
C080	Casing material	G (Galv. iron)
C081	Wall thickness of this casing	.13
C083	Depth to top of this open interval	3
C084	Depth to bottom of this open interval	19.7
C085	Type of openings in this interval	M (Mesh)
C086	Material in this interval	R (Stnless stl)
C087	Diameter of this open interval	2.0
C088	Width of openings	.06
C161	Owner	US DEPT ENERGY

RN:M-U35 ORNL

C001	Site ID (station number)	355514084183901
C012	Local well number	RN:M-U35 ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355514
C010	Longitude	0841839
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	859.6
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.1
C019	Topographic setting	H (Hilltop)
C021	Date well constructed	19860116
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	32.3
C028	Depth of well	31.2
C029	Source of depth data	S (Rept agency)
C714	Aquifer code	374PPKV
C803	Agency use of site code	A (Active)
C060	Date of construction	19860116
C063	Name of contractor	USGS
C064	Source of construction data	S (Rept agency)
C065	Method of construction	B (Augered)
C066	Type of finish	S (Screen)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	5
C069	Method of development	B (Bailed)
C073	Depth to top of this interval	.00
C074	Depth to bottom of this interval	32.3
C075	Diameter of this interval	4.0
C077	Depth to top of this casing string	.00
C078	Depth to bottom of this casing string	28.0
C079	Diameter of this casing string	2.0
C080	Casing material	G (Galv. iron)
C081	Wall thickness of this casing	.13
C083	Depth to top of this open interval	5
C084	Depth to bottom of this open interval	31.2
C085	Type of openings in this interval	M (Mesh)
C086	Material in this interval	R (Stnless stl)
C087	Diameter of this open interval	2.0
C088	Width of openings	.06
C161	Owner	US DEPT ENERGY

RN:M-U40 ORNL

C001	Site ID (station number)	355534084175101
C012	Local well number	RN:M-U40 ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355534
C010	Longitude	0841751
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	866.2
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.1
C019	Topographic setting	H (Hilltop)
C021	Date well constructed	19851107
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	21.4
C028	Depth of well	21.4
C029	Source of depth data	S (Rept agency)
C714	Aquifer code	374PPKV
C803	Agency use of site code	A (Active)
C060	Date of construction	19851107
C063	Name of contractor	USGS
C064	Source of construction data	S (Rept agency)
C065	Method of construction	B (Augered)
C066	Type of finish	S (Screen)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	4
C069	Method of development	B (Bailed)
C073	Depth to top of this interval	.00
C074	Depth to bottom of this interval	21.4
C075	Diameter of this interval	4.0
C077	Depth to top of this casing string	.00
C078	Depth to bottom of this casing string	18.2
C079	Diameter of this casing string	2.0
C080	Casing material	G (Galv. iron)
C081	Wall thickness of this casing	.13
C083	Depth to top of this open interval	4
C084	Depth to bottom of this open interval	21.4
C085	Type of openings in this interval	M (Mesh)
C086	Material in this interval	R (Stnless stl)
C087	Diameter of this open interval	2.0
C088	Width of openings	.06
C161	Owner	US DEPT ENERGY

RN:M-U41 ORNL

C001	Site ID (station number)	355540084174201
C012	Local well number	RN:M-U41 ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355540
C010	Longitude	0841742
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	880.9
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.1
C019	Topographic setting	V (Valley)
C021	Date well constructed	19860116
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	20.6
C028	Depth of well	19.6
C029	Source of depth data	S (Rept agency)
C714	Aquifer code	374PPKV
C803	Agency use of site code	A (Active)
C060	Date of construction	19860116
C063	Name of contractor	USGS
C064	Source of construction data	S (Rept agency)
C065	Method of construction	B (Augered)
C066	Type of finish	S (Screen)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	6
C069	Method of development	B (Bailed)
C073	Depth to top of this interval	.00
C074	Depth to bottom of this interval	20.6
C075	Diameter of this interval	4.0
C077	Depth to top of this casing string	.00
C078	Depth to bottom of this casing string	16.4
C079	Diameter of this casing string	2.0
C080	Casing material	G (Galv. iron)
C081	Wall thickness of this casing	.13
C083	Depth to top of this open interval	6
C084	Depth to bottom of this open interval	19.6
C085	Type of openings in this interval	M (Mesh)
C086	Material in this interval	R (Stnless stl)
C087	Diameter of this open interval	2.0
C088	Width of openings	.06
C161	Owner	US DEPT ENERGY

RN:M-1A ORNL

C001	Site ID (station number)	355447084190601
C012	Local well number	RN:M-1A ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355447
C010	Longitude	0841906
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	869.9
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	H (Hilltop)
C021	Date well constructed	19860521
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	400.6
C028	Depth of well	400.6
C029	Source of depth data	R (Other reported)
C714	Aquifer code	374RGVL
C803	Agency use of site code	A (Active)
C060	Date of construction	19860521
C063	Name of contractor	A.L. CLARK
C064	Source of construction data	R (Other)
C065	Method of construction	A (Air rotary)
C066	Type of finish	X (Open hole)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	380
C069	Method of development	S (Surged)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	11.0
C075	Diameter of this interval	20.0
C073	Depth to top of this interval	11.0
C074	Depth to bottom of this interval	39.8
C075	Diameter of this interval	15.0
C073	Depth to top of this interval	39.8
C074	Depth to bottom of this interval	380
C075	Diameter of this interval	10.0
C073	Depth to top of this interval	380
C074	Depth to bottom of this interval	401
C075	Diameter of this interval	5.6
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	11.0
C079	Diameter of this casing string	16.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	39.8
C079	Diameter of this casing string	11.8

RN:M-1A ORNL--Continued

C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	380
C079	Diameter of this casing string	6.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C083	Depth to top of this open interval	380
C084	Depth to bottom of this open interval	401
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	5.6
C161	Owner	US DEPT ENERGY
C199	Type of log	C (Caliper)
C199	Type of log	G (Geologist)
C199	Type of log	E (Electric)
C199	Type of log	J (Gamma)
C199	Type of log	N (Neutron)
C199	Type of log	S (Sonic)
C199	Type of log	U (Gamma-gamma)
C199	Type of log	T (Temperature)

RN:M-1B ORNL

C001	Site ID (station number)	355447084190501
C012	Local well number	RN:M-1B ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355447
C010	Longitude	0841905
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	869.9
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	H (Hilltop)
C021	Date well constructed	19860317
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	201.2
C028	Depth of well	201.1
C029	Source of depth data	R (Other reported)
C714	Aquifer code	374MRVL
C803	Agency use of site code	A (Active)
C060	Date of construction	19860317
C063	Name of contractor	A.L. CLARK
C064	Source of construction data	R (Other)
C065	Method of construction	A (Air rotary)
C066	Type of finish	X (Open hole)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	182
C069	Method of development	S (Surged)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	13.0
C075	Diameter of this interval	20.0
C073	Depth to top of this interval	13.0
C074	Depth to bottom of this interval	62.3
C075	Diameter of this interval	15.0
C073	Depth to top of this interval	62.3
C074	Depth to bottom of this interval	182
C075	Diameter of this interval	10.0
C073	Depth to top of this interval	182
C074	Depth to bottom of this interval	201
C075	Diameter of this interval	5.6
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	13.0
C079	Diameter of this casing string	16.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	62.3

RN:M-1B ORNL--Continued

C079	Diameter of this casing string	11.8
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	182
C079	Diameter of this casing string	6.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C083	Depth to top of this open interval	182
C084	Depth to bottom of this open interval	201
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	5.6
C161	Owner	US DEPT ENERGY
C199	Type of log	G (Geologist)
C199	Type of log	E (Electric)
C199	Type of log	J (Gamma)
C199	Type of log	N (Neutron)
C199	Type of log	U (Gamma-gamma)

RN:M-1C ORNL

C001	Site ID (station number)	355446084190501
C012	Local well number	RN:M-1C ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355446
C010	Longitude	0841905
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	869.7
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	H (Hilltop)
C021	Date well constructed	19860320
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	101.1
C028	Depth of well	101.1
C029	Source of depth data	R (Other reported)
C714	Aquifer code	374MRVL
C803	Agency use of site code	A (Active)
C060	Date of construction	19860320
C063	Name of contractor	A.L. CLARK
C064	Source of construction data	R (Other)
C065	Method of construction	A (Air rotary)
C066	Type of finish	X (Open hole)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	60
C069	Method of development	S (Surged)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	10.3
C075	Diameter of this interval	15.0
C073	Depth to top of this interval	10.3
C074	Depth to bottom of this interval	60.3
C075	Diameter of this interval	10.0
C073	Depth to top of this interval	60.3
C074	Depth to bottom of this interval	101
C075	Diameter of this interval	5.6
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	10.3
C079	Diameter of this casing string	11.8
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	60.3
C079	Diameter of this casing string	6.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C083	Depth to top of this open interval	63.7

RN:M-1C ORNL--Continued

C084	Depth to bottom of this open interval	101
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	5.6
C161	Owner	US DEPT ENERGY
C199	Type of log	G (Geologist)
C199	Type of log	E (Electric)
C199	Type of log	J (Gamma)
C199	Type of log	N (Neutron)
C199	Type of log	U (Gamma-gamma)

RN:M-2A ORNL

C001	Site ID (station number)	355438084190401
C012	Local well number	RN:M-2A ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355438
C010	Longitude	0841904
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	807.0
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	H (Hilltop)
C021	Date well constructed	19860515
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	400.6
C028	Depth of well	400.3
C029	Source of depth data	R (Other reported)
C714	Aquifer code	374RGVL
C803	Agency use of site code	A (Active)
C060	Date of construction	19860515
C063	Name of contractor	A.L. CLARK
C064	Source of construction data	R (Other)
C065	Method of construction	A (Air rotary)
C066	Type of finish	X (Open hole)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	380
C069	Method of development	S (Surged)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	10.4
C075	Diameter of this interval	20.0
C073	Depth to top of this interval	10.4
C074	Depth to bottom of this interval	43.3
C075	Diameter of this interval	15.0
C073	Depth to top of this interval	43.3
C074	Depth to bottom of this interval	380
C075	Diameter of this interval	10.0
C073	Depth to top of this interval	380
C074	Depth to bottom of this interval	401
C075	Diameter of this interval	5.6
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	10.4
C079	Diameter of this casing string	16.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	43.3
C079	Diameter of this casing string	11.8

RN:M-2A ORNL--Continued

C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	380
C079	Diameter of this casing string	6.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C083	Depth to top of this open interval	380
C084	Depth to bottom of this open interval	400
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	5.6
C161	Owner	US DEPT ENERGY
C199	Type of log	C (Caliper)
C199	Type of log	G (Geologist)
C199	Type of log	E (Electric)
C199	Type of log	J (Gamma)
C199	Type of log	N (Neutron)
C199	Type of log	S (Sonic)
C199	Type of log	U (Gamma-gamma)
C199	Type of log	T (Temperature)

RN:M-2B ORNL

C001	Site ID (station number)	355438084190402
C012	Local well number	RN:M-2B ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355438
C010	Longitude	0841904
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	807.8
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	H (Hilltop)
C021	Date well constructed	19860521
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	201.1
C028	Depth of well	201.1
C029	Source of depth data	R (Other reported)
C714	Aquifer code	374MRVL
C803	Agency use of site code	A (Active)
C060	Date of construction	19860521
C063	Name of contractor	A.L. CLARK
C064	Source of construction data	R (Other)
C065	Method of construction	A (Air rotary)
C066	Type of finish	X (Open hole)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	183
C069	Method of development	S (Surged)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	15.0
C075	Diameter of this interval	20.0
C073	Depth to top of this interval	15.0
C074	Depth to bottom of this interval	39.8
C075	Diameter of this interval	15.0
C073	Depth to top of this interval	39.8
C074	Depth to bottom of this interval	184
C075	Diameter of this interval	10.0
C073	Depth to top of this interval	184
C074	Depth to bottom of this interval	201
C075	Diameter of this interval	5.6
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	15.0
C079	Diameter of this casing string	16.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	39.8
C079	Diameter of this casing string	11.8

RN:M-2B ORNL--Continued

C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	184
C079	Diameter of this casing string	6.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C083	Depth to top of this open interval	184
C084	Depth to bottom of this open interval	201
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	5.6
C161	Owner	US DEPT ENERGY
C199	Type of log	G (Geologist)
C199	Type of log	E (Electric)
C199	Type of log	J (Gamma)
C199	Type of log	N (Neutron)
C199	Type of log	U (Gamma-gamma)

RN:M-2C ORNL

C001	Site ID (station number)	355437084190501
C012	Local well number	RN:M-2C ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355437
C010	Longitude	0841905
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	807.5
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	H (Hilltop)
C021	Date well constructed	19860417
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	81.3
C028	Depth of well	81.3
C029	Source of depth data	R (Other reported)
C714	Aquifer code	374MRVL
C803	Agency use of site code	A (Active)
C060	Date of construction	19860417
C063	Name of contractor	A.L. CLARK
C064	Source of construction data	R (Other)
C065	Method of construction	A (Air rotary)
C066	Type of finish	X (Open hole)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	62
C069	Method of development	S (Surged)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	20.4
C075	Diameter of this interval	15.0
C073	Depth to top of this interval	20.4
C074	Depth to bottom of this interval	62.3
C075	Diameter of this interval	10.0
C073	Depth to top of this interval	62.3
C074	Depth to bottom of this interval	81.3
C075	Diameter of this interval	5.6
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	20.4
C079	Diameter of this casing string	11.8
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	62.3
C079	Diameter of this casing string	6.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C083	Depth to top of this open interval	62.3

RN:M-2C ORNL--Continued

C084	Depth to bottom of this open interval	81.3
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	5.6
C161	Owner	US DEPT ENERGY
C199	Type of log	G (Geologist)
C199	Type of log	E (Electric)
C199	Type of log	J (Gamma)
C199	Type of log	N (Neutron)
C199	Type of log	U (Gamma-gamma)

RN:M-3A ORNL

C001	Site ID (station number)	355433084191301
C012	Local well number	RN:M-3A ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355433
C010	Longitude	0841913
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	818.9
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	H (Hilltop)
C021	Date well constructed	19860505
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	400.4
C028	Depth of well	398.5
C029	Source of depth data	R (Other reported)
C714	Aquifer code	374RGVL
C803	Agency use of site code	A (Active)
C060	Date of construction	19860505
C063	Name of contractor	A.L. CLARK
C064	Source of construction data	R (Other)
C065	Method of construction	A (Air rotary)
C066	Type of finish	X (Open hole)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	380
C069	Method of development	S (Surged)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	18.7
C075	Diameter of this interval	20.0
C073	Depth to top of this interval	18.7
C074	Depth to bottom of this interval	61.0
C075	Diameter of this interval	15.0
C073	Depth to top of this interval	61.0
C074	Depth to bottom of this interval	381
C075	Diameter of this interval	10.0
C073	Depth to top of this interval	381
C074	Depth to bottom of this interval	400
C075	Diameter of this interval	5.6
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	18.7
C079	Diameter of this casing string	16.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	61.0
C079	Diameter of this casing string	11.8

RN:M-3A ORNL--Continued

C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	381
C079	Diameter of this casing string	6.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C083	Depth to top of this open interval	381
C084	Depth to bottom of this open interval	398
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	5.6
C161	Owner	US DEPT ENERGY
C199	Type of log	C (Caliper)
C199	Type of log	G (Geologist)
C199	Type of log	E (Electric)
C199	Type of log	J (Gamma)
C199	Type of log	N (Neutron)
C199	Type of log	S (Sonic)
C199	Type of log	U (Gamma-gamma)
C199	Type of log	T (Temperature)

RN:M-3B ORNL

C001	Site ID (station number)	355333084191301
C012	Local well number	RN:M-3B ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355333
C010	Longitude	0841913
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	819.2
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	H (Hilltop)
C021	Date well constructed	19860509
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	212.5
C028	Depth of well	212.5
C029	Source of depth data	R (Other reported)
C714	Aquifer code	374MRVL
C803	Agency use of site code	A (Active)
C060	Date of construction	19860509
C063	Name of contractor	A.L. CLARK
C064	Source of construction data	R (Other)
C065	Method of construction	A (Air rotary)
C066	Type of finish	X (Open hole)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	189
C069	Method of development	S (Surged)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	19.1
C075	Diameter of this interval	20.0
C073	Depth to top of this interval	19.1
C074	Depth to bottom of this interval	51.0
C075	Diameter of this interval	15.0
C073	Depth to top of this interval	51.0
C074	Depth to bottom of this interval	190
C075	Diameter of this interval	10.0
C073	Depth to top of this interval	190
C074	Depth to bottom of this interval	212
C075	Diameter of this interval	5.6
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	19.1
C079	Diameter of this casing string	16.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	51.0
C079	Diameter of this casing string	11.8

RN:M-3B ORNL--Continued

C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	190
C079	Diameter of this casing string	6.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C083	Depth to top of this open interval	190
C084	Depth to bottom of this open interval	212
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	5.6
C161	Owner	US DEPT ENERGY
C199	Type of log	G (Geologist)
C199	Type of log	E (Electric)
C199	Type of log	J (Gamma)
C199	Type of log	N (Neutron)
C199	Type of log	U (Gamma-gamma)

RN:M-3C ORNL

C001	Site ID (station number)	355433084191302
C012	Local well number	RN:M-3C ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355433
C010	Longitude	0841913
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	818.3
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	H (Hilltop)
C021	Date well constructed	19860514
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	81.1
C028	Depth of well	81.1
C029	Source of depth data	R (Other reported)
C714	Aquifer code	374MRVL
C803	Agency use of site code	A (Active)
C060	Date of construction	19860514
C063	Name of contractor	A.L. CLARK
C064	Source of construction data	R (Other)
C065	Method of construction	A (Air rotary)
C066	Type of finish	X (Open hole)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	62
C069	Method of development	S (Surged)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	23.0
C075	Diameter of this interval	15.0
C073	Depth to top of this interval	23.0
C074	Depth to bottom of this interval	62.0
C075	Diameter of this interval	10.0
C073	Depth to top of this interval	62.0
C074	Depth to bottom of this interval	81.1
C075	Diameter of this interval	5.6
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	23.0
C079	Diameter of this casing string	11.8
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	62.0
C079	Diameter of this casing string	6.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C083	Depth to top of this open interval	62.0

RN:M-3C ORNL--Continued

C084	Depth to bottom of this open interval	81.1
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	5.6
C161	Owner	US DEPT ENERGY
C199	Type of log	G (Geologist)
C199	Type of log	E (Electric)
C199	Type of log	J (Gamma)
C199	Type of log	N (Neutron)
C199	Type of log	U (Gamma-gamma)

RN:M-4A ORNL

C001	Site ID (station number)	355412084192601
C012	Local well number	RN:M-4A ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355412
C010	Longitude	0841926
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	790.0
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	H (Hilltop)
C021	Date well constructed	19860904
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	401.3
C028	Depth of well	401.3
C029	Source of depth data	R (Other reported)
C714	Aquifer code	374MRVL
C803	Agency use of site code	A (Active)
C060	Date of construction	19860904
C063	Name of contractor	A.L. CLARK
C064	Source of construction data	R (Other)
C065	Method of construction	A (Air rotary)
C066	Type of finish	X (Open hole)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	380
C069	Method of development	S (Surged)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	21.0
C075	Diameter of this interval	20.0
C073	Depth to top of this interval	21.0
C074	Depth to bottom of this interval	39.0
C075	Diameter of this interval	15.0
C073	Depth to top of this interval	39.0
C074	Depth to bottom of this interval	380
C075	Diameter of this interval	10.0
C073	Depth to top of this interval	380
C074	Depth to bottom of this interval	401
C075	Diameter of this interval	5.6
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	21.0
C079	Diameter of this casing string	16.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	39.0
C079	Diameter of this casing string	11.8

RN:M-4A ORNL--Continued

C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	380
C079	Diameter of this casing string	6.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C083	Depth to top of this open interval	380
C084	Depth to bottom of this open interval	401
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	5.6
C161	Owner	US DEPT ENERGY
C199	Type of log	C (Caliper)
C199	Type of log	G (Geologist)
C199	Type of log	E (Electric)
C199	Type of log	J (Gamma)
C199	Type of log	N (Neutron)
C199	Type of log	S (Sonic)
C199	Type of log	U (Gamma-gamma)
C199	Type of log	T (Temperature)

RN:M-4B ORNL

C001	Site ID (station number)	355413084192601
C012	Local well number	RN:M-4B ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355413
C010	Longitude	0841926
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	787.4
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	H (Hilltop)
C021	Date well constructed	19860916
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	215.5
C028	Depth of well	215.5
C029	Source of depth data	R (Other reported)
C714	Aquifer code	371NCCK
C803	Agency use of site code	A (Active)
C060	Date of construction	19860916
C063	Name of contractor	A.L. CLARK
C064	Source of construction data	R (Other)
C065	Method of construction	A (Air rotary)
C066	Type of finish	X (Open hole)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	175
C069	Method of development	S (Surged)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	17.0
C075	Diameter of this interval	20.0
C073	Depth to top of this interval	17.0
C074	Depth to bottom of this interval	40.6
C075	Diameter of this interval	15.0
C073	Depth to top of this interval	40.6
C074	Depth to bottom of this interval	175
C075	Diameter of this interval	10.0
C073	Depth to top of this interval	175
C074	Depth to bottom of this interval	215
C075	Diameter of this interval	5.6
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	17.0
C079	Diameter of this casing string	16.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	40.6
C079	Diameter of this casing string	11.8

RN:M-4B ORNL--Continued

C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	175
C079	Diameter of this casing string	6.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C083	Depth to top of this open interval	175
C084	Depth to bottom of this open interval	215
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	5.6
C161	Owner	US DEPT ENERGY
C199	Type of log	G (Geologist)
C199	Type of log	E (Electric)
C199	Type of log	J (Gamma)
C199	Type of log	N (Neutron)
C199	Type of log	U (Gamma-gamma)

RN:M-4C ORNL

C001	Site ID (station number)	355413084192602
C012	Local well number	RN:M-4C ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355413
C010	Longitude	0841926
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	787.3
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	H (Hilltop)
C021	Date well constructed	19860917
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	61.5
C028	Depth of well	61.5
C029	Source of depth data	R (Other reported)
C714	Aquifer code	371NCCK
C803	Agency use of site code	A (Active)
C060	Date of construction	19860917
C063	Name of contractor	A.L. CLARK
C064	Source of construction data	R (Other)
C065	Method of construction	A (Air rotary)
C066	Type of finish	X (Open hole)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	40
C069	Method of development	S (Surged)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	20.5
C075	Diameter of this interval	15.0
C073	Depth to top of this interval	20.5
C074	Depth to bottom of this interval	40.8
C075	Diameter of this interval	10.0
C073	Depth to top of this interval	40.8
C074	Depth to bottom of this interval	61.5
C075	Diameter of this interval	5.6
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	20.5
C079	Diameter of this casing string	11.8
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	40.8
C079	Diameter of this casing string	6.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C083	Depth to top of this open interval	40.8

RN:M-4C ORNL--Continued

C084	Depth to bottom of this open interval	61.5
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	5.6
C161	Owner	US DEPT ENERGY
C199	Type of log	G (Geologist)
C199	Type of log	E (Electric)
C199	Type of log	J (Gamma)
C199	Type of log	N (Neutron)
C199	Type of log	U (Gamma-gamma)

RN:M-5A ORNL

C001	Site ID (station number)	355408084192503
C012	Local well number	RN:M-5A ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355408
C010	Longitude	0841925
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	766.9
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	V (Valley)
C021	Date well constructed	19860908
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	400.4
C028	Depth of well	400.4
C029	Source of depth data	R (Other reported)
C714	Aquifer code	374MRVL
C803	Agency use of site code	A (Active)
C060	Date of construction	19860908
C063	Name of contractor	A.L. CLARK
C064	Source of construction data	R (Other)
C065	Method of construction	A (Air rotary)
C066	Type of finish	X (Open hole)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	380
C069	Method of development	S (Surged)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	10.5
C075	Diameter of this interval	20.0
C073	Depth to top of this interval	10.5
C074	Depth to bottom of this interval	42.8
C075	Diameter of this interval	15.0
C073	Depth to top of this interval	42.8
C074	Depth to bottom of this interval	380
C075	Diameter of this interval	10.0
C073	Depth to top of this interval	380
C074	Depth to bottom of this interval	400
C075	Diameter of this interval	5.6
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	10.5
C079	Diameter of this casing string	16.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	42.8
C079	Diameter of this casing string	11.8

RN:M-5A ORNL--Continued

C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	380
C079	Diameter of this casing string	6.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C083	Depth to top of this open interval	380
C084	Depth to bottom of this open interval	400
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	5.6
C161	Owner	US DEPT ENERGY
C199	Type of log	C (Caliper)
C199	Type of log	G (Geologist)
C199	Type of log	E (Electric)
C199	Type of log	J (Gamma)
C199	Type of log	N (Neutron)
C199	Type of log	S (Sonic)
C199	Type of log	U (Gamma-gamma)
C199	Type of log	T (Temperature)

RN:M-5B ORNL

C001	Site ID (station number)	355410084192401
C012	Local well number	RN:M-5B ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355410
C010	Longitude	0841924
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	766.3
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	V (Valley)
C021	Date well constructed	19860912
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	219.4
C028	Depth of well	219.4
C029	Source of depth data	R (Other reported)
C714	Aquifer code	371NCCK
C803	Agency use of site code	A (Active)
C060	Date of construction	19860912
C063	Name of contractor	A.L. CLARK
C064	Source of construction data	R (Other)
C065	Method of construction	A (Air rotary)
C066	Type of finish	X (Open hole)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	195
C069	Method of development	S (Surged)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	8.0
C075	Diameter of this interval	20.0
C073	Depth to top of this interval	8.0
C074	Depth to bottom of this interval	42.0
C075	Diameter of this interval	15.0
C073	Depth to top of this interval	42.0
C074	Depth to bottom of this interval	195
C075	Diameter of this interval	10.0
C073	Depth to top of this interval	195
C074	Depth to bottom of this interval	219
C075	Diameter of this interval	5.6
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	8.0
C079	Diameter of this casing string	16.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	42.0
C079	Diameter of this casing string	11.8

RN:M-5B ORNL--Continued

C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	195
C079	Diameter of this casing string	6.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C083	Depth to top of this open interval	195
C084	Depth to bottom of this open interval	219
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	5.6
C161	Owner	US DEPT ENERGY
C199	Type of log	G (Geologist)
C199	Type of log	E (Electric)
C199	Type of log	J (Gamma)
C199	Type of log	N (Neutron)
C199	Type of log	U (Gamma-gamma)

RN:M-5C ORNL

C001	Site ID (station number)	355409084192502
C012	Local well number	RN:M-5C ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355409
C010	Longitude	0841925
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	766.7
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	V (Valley)
C021	Date well constructed	19860916
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	63.0
C028	Depth of well	63.0
C029	Source of depth data	R (Other reported)
C714	Aquifer code	371NCCK
C803	Agency use of site code	A (Active)
C060	Date of construction	19860916
C063	Name of contractor	A.L. CLARK
C064	Source of construction data	R (Other)
C065	Method of construction	A (Air rotary)
C066	Type of finish	X (Open hole)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	42
C069	Method of development	S (Surged)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	7.0
C075	Diameter of this interval	15.0
C073	Depth to top of this interval	7.0
C074	Depth to bottom of this interval	42.1
C075	Diameter of this interval	10.0
C073	Depth to top of this interval	42.1
C074	Depth to bottom of this interval	63.0
C075	Diameter of this interval	5.6
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	7.0
C079	Diameter of this casing string	11.8
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	42.1
C079	Diameter of this casing string	6.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C083	Depth to top of this open interval	42.1

RN:M-5C ORNL--Continued

C084	Depth to bottom of this open interval	63.0
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	5.6
C161	Owner	US DEPT ENERGY
C199	Type of log	G (Geologist)
C199	Type of log	E (Electric)
C199	Type of log	J (Gamma)
C199	Type of log	N (Neutron)
C199	Type of log	U (Gamma-gamma)

RN:M-6A ORNL

C001	Site ID (station number)	355405084191801
C012	Local well number	RN:M-6A ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355405
C010	Longitude	0841918
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	761.4
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	S (Hillside)
C021	Date well constructed	19860918
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	402.7
C028	Depth of well	402.7
C029	Source of depth data	R (Other reported)
C714	Aquifer code	371NCCK
C803	Agency use of site code	A (Active)
C060	Date of construction	19860918
C063	Name of contractor	A.L. CLARK
C064	Source of construction data	R (Other)
C065	Method of construction	A (Air rotary)
C066	Type of finish	X (Open hole)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	380
C069	Method of development	S (Surged)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	11.0
C075	Diameter of this interval	20.0
C073	Depth to top of this interval	11.0
C074	Depth to bottom of this interval	39.0
C075	Diameter of this interval	15.0
C073	Depth to top of this interval	39.0
C074	Depth to bottom of this interval	380
C075	Diameter of this interval	10.0
C073	Depth to top of this interval	380
C074	Depth to bottom of this interval	403
C075	Diameter of this interval	5.6
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	11.0
C079	Diameter of this casing string	16.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	39.0
C079	Diameter of this casing string	11.8

RN:M-6A ORNL--Continued

C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	380
C079	Diameter of this casing string	6.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C083	Depth to top of this open interval	380
C084	Depth to bottom of this open interval	403
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	5.6
C161	Owner	US DEPT ENERGY
C199	Type of log	C (Caliper)
C199	Type of log	G (Geologist)
C199	Type of log	E (Electric)
C199	Type of log	J (Gamma)
C199	Type of log	N (Neutron)
C199	Type of log	S (Sonic)
C199	Type of log	U (Gamma-gamma)
C199	Type of log	T (Temperature)

RN:M-6B ORNL

C001	Site ID (station number)	355406084191901
C012	Local well number	RN:M-6B ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355406
C010	Longitude	0841919
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	761.8
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	S (Hillside)
C021	Date well constructed	19860923
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	165.4
C028	Depth of well	165.4
C029	Source of depth data	R (Other reported)
C714	Aquifer code	371NCCK
C803	Agency use of site code	A (Active)
C060	Date of construction	19860923
C063	Name of contractor	A.L. CLARK
C064	Source of construction data	R (Other)
C065	Method of construction	A (Air rotary)
C066	Type of finish	X (Open hole)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	145
C069	Method of development	S (Surged)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	11.5
C075	Diameter of this interval	20.0
C073	Depth to top of this interval	11.5
C074	Depth to bottom of this interval	37.5
C075	Diameter of this interval	15.0
C073	Depth to top of this interval	37.5
C074	Depth to bottom of this interval	145
C075	Diameter of this interval	10.0
C073	Depth to top of this interval	145
C074	Depth to bottom of this interval	165
C075	Diameter of this interval	5.6
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	11.5
C079	Diameter of this casing string	16.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	37.5
C079	Diameter of this casing string	11.8

RN:M-6B ORNL--Continued

C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	145
C079	Diameter of this casing string	6.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C083	Depth to top of this open interval	145
C084	Depth to bottom of this open interval	165
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	5.6
C161	Owner	US DEPT ENERGY
C199	Type of log	G (Geologist)
C199	Type of log	E (Electric)
C199	Type of log	J (Gamma)
C199	Type of log	N (Neutron)
C199	Type of log	U (Gamma-gamma)

RN:M-6C ORNL

C001	Site ID (station number)	355406084191902
C012	Local well number	RN:M-6C ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355406
C010	Longitude	0841919
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	762.0
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	S (Hillside)
C021	Date well constructed	19860925
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	60.8
C028	Depth of well	60.8
C029	Source of depth data	R (Other reported)
C714	Aquifer code	371NCCK
C803	Agency use of site code	A (Active)
C060	Date of construction	19860925
C063	Name of contractor	A.L. CLARK
C064	Source of construction data	R (Other)
C065	Method of construction	A (Air rotary)
C066	Type of finish	X (Open hole)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	40
C069	Method of development	S (Surged)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	8.6
C075	Diameter of this interval	15.0
C073	Depth to top of this interval	8.6
C074	Depth to bottom of this interval	40.8
C075	Diameter of this interval	10.0
C073	Depth to top of this interval	40.8
C074	Depth to bottom of this interval	60.8
C075	Diameter of this interval	5.6
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	8.6
C079	Diameter of this casing string	11.8
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	40.8
C079	Diameter of this casing string	6.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C083	Depth to top of this open interval	40.8

RN:M-6C ORNL--Continued

C084	Depth to bottom of this open interval	60.8
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	5.6
C161	Owner	US DEPT ENERGY
C199	Type of log	G (Geologist)
C199	Type of log	E (Electric)
C199	Type of log	J (Gamma)
C199	Type of log	N (Neutron)
C199	Type of log	U (Gamma-gamma)

RN:M-7A ORNL

C001	Site ID (station number)	355422084193501
C012	Local well number	RN:M-7A ORNL
C002	Type of site	W (Well)
C003	Record classification	C (Field checked)
C004	Source agency code	USGS
C007	State code	47 (Tenn)
C008	County code	145 (Roane)
C009	Latitude	355422
C010	Longitude	0841935
C011	Lat-long accuracy code	F (5 sec)
C014	Name of location map	BETHEL VALLEY, TN
C015	Scale of location map	1:24000
C016	Altitude of land surface	808.5
C017	Method altitude determined	L (Level)
C018	Altitude accuracy	.10
C019	Topographic setting	S (Hillside)
C021	Date well constructed	19860902
C023	Primary use of site	O (Observation)
C024	Primary use of water	U (Unused)
C027	Hole depth	402.6
C028	Depth of well	402.6
C029	Source of depth data	R (Other reported)
C714	Aquifer code	374RGVL
C803	Agency use of site code	A (Active)
C060	Date of construction	19860902
C063	Name of contractor	A.L. CLARK
C064	Source of construction data	R (Other)
C065	Method of construction	A (Air rotary)
C066	Type of finish	X (Open hole)
C067	Type of surface seal	G (Grout)
C068	Depth to bottom of seal	382
C069	Method of development	S (Surged)
C073	Depth to top of this interval	.0
C074	Depth to bottom of this interval	19.5
C075	Diameter of this interval	20.0
C073	Depth to top of this interval	19.5
C074	Depth to bottom of this interval	31.3
C075	Diameter of this interval	15.0
C073	Depth to top of this interval	31.3
C074	Depth to bottom of this interval	383
C075	Diameter of this interval	10.0
C073	Depth to top of this interval	383
C074	Depth to bottom of this interval	403
C075	Diameter of this interval	5.6
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	19.5
C079	Diameter of this casing string	16.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	31.3
C079	Diameter of this casing string	11.8

RN:M-7A ORNL--Continued

C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C077	Depth to top of this casing string	.0
C078	Depth to bottom of this casing string	383
C079	Diameter of this casing string	6.0
C080	Casing material	S (Steel)
C081	Wall thickness of this casing	.25
C083	Depth to top of this open interval	383
C084	Depth to bottom of this open interval	403
C085	Type of openings in this interval	X (Open hole)
C087	Diameter of this open interval	5.6
C161	Owner	US DEPT ENERGY
C199	Type of log	C (Caliper)
C199	Type of log	G (Geologist)
C199	Type of log	E (Electric)
C199	Type of log	J (Gamma)
C199	Type of log	N (Neutron)
C199	Type of log	S (Sonic)
C199	Type of log	U (Gamma-gamma)
C199	Type of log	T (Temperature)

REFERENCE

Tucci, Patrick, and Hanchar, D.W., 1989, Lithologic, geophysical, and well-construction data for observation wells in the Melton Valley area, Oak Ridge Reservation, Tennessee: U.S. Geological Survey Water-Resources Investigations Report 88-4197, 22 p. [in press].