

National Uranium Resource Evaluation

## USER'S GUIDE TO NURE HSSR TAPE FORMATS

**Bendix Field Engineering Corporation**  
Grand Junction, Colorado

March 1984



PREPARED FOR THE U.S. DEPARTMENT OF ENERGY  
Assistant Secretary for Nuclear Energy  
Grand Junction Area Office, Colorado

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USER'S GUIDE TO NURE HSSR TAPE FORMATS

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### ABSTRACT

Four U.S. Department of Energy (DOE) laboratories—Savannah River Laboratory, Lawrence Livermore Laboratory, Los Alamos Scientific Laboratory, and Oak Ridge Gaseous Diffusion Plant—participated in the Hydrogeochemical and Stream Sediment Reconnaissance (HSSR) survey which was conducted as a part of the DOE National Uranium Resource Evaluation (NURE) program. Each of these laboratories archived analytical data on magnetic tape in one of 49 different formats. This report describes the characteristics of the 49 formats, with a view to assisting users wishing to access the NURE HSSR data.

## INTRODUCTION

Significant amounts of data were acquired during the Hydrogeochemical and Stream Sediment Reconnaissance (HSSR) survey which was conducted as a part of the U.S. Department of Energy (DOE) National Uranium Resource Evaluation (NURE) program. These data, on waters and stream sediments, were archived by Lawrence Livermore Laboratory, Savannah River Laboratory, Los Alamos Scientific Laboratory, and Oak Ridge Gaseous Diffusion Plant in a variety of tape formats. The data tapes are available to the private sector in machine-readable form at nominal cost from the DOE Grand Junction, Colorado, Area Office.\*

Previously open-filed reports containing FORTRAN computer programs for reading, editing, and sorting the data, as well as for processing the data for statistical analysis and for generating sample-location and element-concentration maps, are listed among the References at the end of this report.

The sections that follow describe the peculiarities of the various tape formats the DOE laboratories used to archive the results of analyses performed on the HSSR samples. The information contained in these sections was compiled from published reports, internal data-format documents, written communications, dumps of the HSSR tapes, and oral communications associated with tape verification for Quality Assessment purposes.

The format nomenclature used in this report is consistent with the nomenclature used in the Department of Energy NURE Data Tape Catalog since the inception of the NURE program. Where possible, names for the various tape-format categories are exactly as provided by the participating DOE laboratories at the time the formal specification was first announced, despite the fact that laboratory names have in some cases subsequently changed. Format prefix ORNL refers to data collected by the Oak Ridge Gaseous Diffusion Plant, prefix LLL to data collected by Lawrence Livermore National Laboratory, prefix LASL to data collected by Los Alamos National Laboratory, and prefix SRL to data collected by Savannah River Laboratory.

The number of formats used by each of the four laboratories is shown in Table 1. The characteristics of these formats are detailed in Appendices A through D. A list of HSSR files available on magnetic tape is presented in Appendix E.

Table 1. NURE HSSR Tape Formats

<u>Laboratory</u>	<u>Number of Formats</u>
Lawrence Livermore Laboratory	2
Savannah River Laboratory	15
Los Alamos Scientific Laboratory	18
Oak Ridge Gaseous Diffusion Plant	14

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LAWRENCE LIVERMORE LABORATORY DATA

Lawrence Livermore Laboratory (LLL)\* released its data in two tape formats. Tape Format 1 contains two distinct card types. For each site number, Card Type 1 carries a location record with Universal Transverse Mercator (UTM) coordinates, and Card Type 2 carries the sample description and records of analytical results. In cases where the laboratory did not report analytical results for a listed element, Card Type 2 for that element does not exist. As a result, the number of cards per sample varies. Characteristics of Card Types 1 and 2 for LLL Tape Format 1 are detailed in Appendix A, Tables LLL-1-1 and LLL-1-2, respectively.

Tape Format 2 contains five different card types. Data for sediment samples are carried on Card Types 1 and 2; data for water samples are carried on Card Types 3, 4, and 5.

Sediment-sample data occur on ten records, one Card Type 1 record and nine Card Type 2 records. Card Type 1 records include sample-location coordinates and sample-description information. Card Type 2 records carry element symbols as Data Items 4, 7, 10, and 13 (see Table 2). Each of the nine Card Type 2 records contains data for specific elements; the absence of a chemical symbol indicates the absence of analytical data for that element. Characteristics of Card Types 1 and 2 for LLL Tape Format 2 are detailed in Appendix A, Tables LLL-2-1 and LLL-2-2, respectively.

Data on LLL water samples are reported on four records, one Card Type 3, one Card Type 4, and two Card Type 5. The Card Type 3 record includes location and sample-description information. The Card Type 4 record contains element symbols as Data Items 6, 9, 12, 15, 18, and 21 (see Table 3). The two Card Type 5 records contain the element symbols shown in Table 4. Characteristics of Card Types 3, 4, and 5 for LLL Tape Format 2 are detailed in Appendix A, Tables LLL-2-3, LLL-2-4, and LLL-2-5, respectively.

Table 2. Element Symbols for LLL Card Type 2 Records

Record Number	Element Symbol				
	Data Item	4	7	10	13
1		AG	AL	AS	BA
2		BR	CA	CE	CL
3		CO	CR	CS	DY
4		EU	FE	HF	HG
5		K	LA	LU	MG
6		MN	NA	RB	SB
7		SC	SM	SR	TA
8		TB	TH	TI	U
9		V	W	YB	ZN

\*Now Lawrence Livermore National Laboratory.

Table 3. Element Symbols for LLL Card Type 4 Records

Record Number	Data Item	Element Symbol					
		6	9	12	15	18	21
1		AL	AS	CA	CD	CU	FE

Table 4. Element Symbols for LLL Card Type 5 Records

Record Number	Data Item	Element Symbol						
		4	7	10	13	16	19	22
1		K	LI	MG	MO	NA	P	SI
2		TI	V	ZN	*	*	*	*

\*Not used.



## SAVANNAH RIVER LABORATORY DATA

Savannah River Laboratory (SRL) released its data in 15 different tape formats. These tape formats differ not only in the number of data records for each sample but also in the data structure within each record. Table 5 indicates the number of data records in each SRL tape format. A description of each data record is provided as header information at the beginning of each tape; this header information must be skipped in order to access the data. The header information is concluded by a record containing the message

DATA FOLLOWS THIS CARD

or

DATA FOLLOW THIS CARD

somewhere within Card Columns 1 through 80. An example of the header information provided on SRL tapes is presented in Table 6.

Because each SRL sample has more than one data record, the records must be read in sets of two, three, or four, depending on the tape format. The data-record characteristics for each SRL tape format are detailed in Appendix B, Tables SRL-1-1 through SRL-15-4.

Table 5. Data Records in Each SRL Tape Format

<u>Tape Format</u>	<u>Number of Data Records</u>	<u>Tape Format</u>	<u>Number of Data Records</u>
1	3	9	2
2	4	10	3
3	3	11	3
4	3	12	4
5	3	13	3
6	4	14	4
7	2	15	4
8	4		

Table 6. Example of SRL Header Information

---

THIS TAPE CONTAINS NEUTRON-ACTIVATION-ANALYSIS INFORMATION FOR GROUNDWATERS IN THE WALKER LAKE 1-DEGREE-BY-2-DEGREE QUADRANGLE. THE DATA ARE ON THREE 80-SPACE CARD IMAGES PER SITE AND HAVE THE FORMAT DESCRIBED BELOW.

\*CARD1-

COL.1-9 SRL I.D. NUMBER  
COL.11-38 DOE I.D. NUMBER  
COL.40-43 PH  
COL.45-49 CONDUCTIVITY  
COL.51-55 ALKALINITY  
COL.57-64 URANIUM (P.P.B.)  
COL.67-71 SCINTILLOMETER READING (COUNTS PER SECOND)  
COL.73-78 BROMINE (P.P.B.)

\*CARD2-

COL.1-9 SRL I.D. NUMBER  
COL.11-17 CHLORINE (P.P.B.)  
COL.19-23 FLUORINE (P.P.B.)  
COL.25-31 HELIUM (CC/1000 LITERS OF AJR)  
COL.33-38 MANGANESE (P.P.B.)  
COL.40-45 SODIUM (P.P.B.)  
COL.48-53 VANADIUM (P.P.B.)  
COL.57-64 (U/CONDUCTIVITY) X 1000

\*CARD3-

COL.1-9 SRL I.D. NUMBER  
COL.11-15 ALUMINUM (P.P.B.)  
COL.17-23 DYSPROSIUM (P.P.B.)  
COL.25-30 MAGNESIUM (P.P.B.)  
COL.32-39 DATE SAMPLED (MM/DD/YY)  
COL.41-43 SAMPLING TEAM  
COL.45-48 WELL DEPTH (FEET)  
COL.50 CONFIDENCE IN DEPTH  
COL.52 LOCATION IN WATER SYSTEM WHERE SAMPLE WAS TAKEN  
COL.54 WELL CLASSIFICATION  
COL.56-57 WATER TEMPERATURE (C)  
COL.59 ROCK TYPE  
COL.61-64 GEOLOGIC FORMATION  
COL.66 ODOR  
COL.68-69 STATE CODE  
COL.71 CONTAMINANT1  
COL.73 CONTAMINANT2  
COL.75 CONTAMINANT3  
COL.77 CONTAMINANT4  
COL.79 SUPPLEMENTAL SAMPLE (X IF SAMPLE WAS A SUPPLEMENTAL)  
DATA FOLLOWS THIS CARD

---

LOS ALAMOS SCIENTIFIC LABORATORY DATA

Los Alamos Scientific Laboratory (LASL)\* released its data in eighteen formats. The eight general format categories initially recognized (LASL-I through LASL-VIII) contained fourteen distinct formats peculiar to the nature of the contained data. Quality Assessment verification of LASL tapes identified two additional format categories (LASL-X and LASL-XI) containing three distinct formats (see Table 7). The LASL-IX format (Appendix C, Table LASL-IX) relates only to geologic data from the Vallecito Creek special study area in the Durango Quadrangle and is not discussed further in this report. Data types represented by the 17 other formats include single-element combined water and sediment (uranium only) data, single-element water (uranium only) data, multielement water data, and multielement sediment data.

Tape Format Categories LASL-I and LASL-II represent single-element combined water and sediment (uranium only) data. Water-sample and sediment-sample data records are separated by header records that contain an asterisk (\*) in Column 1. The first header record on the tapes is followed by all the water-sample data records; the second header record is followed by all the sediment-sample data records. Examples of these formats are presented in Appendix C, Tables LASL-I and LASL-II.

Tape Format Categories LASL-IV, -V, -VI, -VII, -VIII, and -XI represent single-element water (uranium only) data. These tapes contain a title record with a '1' in the first column, followed by a page-separator record with a '1' in Column 1, 51 data records, a page-separator record, 51 data records, etc. This pattern is repeated until all samples on the tape are reported. Characteristics of single-element water data records are detailed in Appendix C, Tables LASL-IV-W, -V-W, -VI-W, -VII-W, -VIII-W, and -XI-W.

Table 7. LASL Tape Formats

LASL Format Category	Number of Data Records Per Sample			
	Single-Element Combined Water/Sediment	Single-Element Water	Multielement Water    Sediment	
I	1	-	-	-
II	1	-	-	-
III	-	-	2	4
IV	-	1	-	4
V	-	1	-	4
VI	-	1	-	4
VII	-	1	-	4
VIII	-	1	-	4
IX	-	-	-	-
X	-	-	-	4
XI	-	1	-	4

\*Now Los Alamos National Laboratory.

Tape Format Categories LASL-III, -IV, -V, -VI, -VII, -VIII, -X, and -XI contain multielement sediment data and have four card types (data records) associated with each sample. The cards are located on consecutive page sets, each page set containing 51 data records. The first page of each page set carries 51 Card Type 1 records, the second page the 51 corresponding Card Type 2 records, the third page the 51 corresponding Card Type 3 records, and the fourth page the 51 corresponding Card Type 4 records. Page sets are repeated until all samples are listed; the last page set on a tape will usually contain fewer than 51 data records. Separator records carrying a '1' in the first column divide all page sets. A title is included on the first separator record of each tape. Characteristics of multielement sediment data records for these formats are detailed in Appendix C, Tables LASL-III-1S through LASL-VIII-4S and LASL-X-1S through LASL-XI-4S.

The LASL-III format also contains multielement water data. This format is similar to the multielement sediment tape formats previously discussed, except that there are only two data records (Card Types 1 and 2) per sample rather than four. Characteristics of the two data records of the LASL-III format are detailed in Appendix C, Tables LASL-III-1W and LASL-III-2W.

## OAK RIDGE GASEOUS DIFFUSION PLANT

Oak Ridge Gaseous Diffusion Plant (ORGDP) released its data in two general format categories. These categories contain a total of fourteen distinct tape formats.

The first general format category represents data for samples both collected and analyzed by ORGDP during the HSSR program. Formats ORNL01, ORNL02, and ORNL03 are the most complete, complex, and comprehensive of all the HSSR formats. They differ significantly in some respects, but large segments of the formats are identical or nearly so (see Appendix D).

The second general format category represents data for samples collected by LASL or SRL but analyzed by ORGDP. This category (referred to as ORNL04) contains eleven formats. Characteristics of these formats are detailed in Appendix D, Tables ORNL04-424, -429, -442, -449, -454, -455, -459, -468, -471, -480, and -514. Tapes in these formats consist of three record types: a title record, header records, and sample (or observation) records.

The title record is the first record type on the tape and contains approximately 70 bytes of information which describe the data that follow.

The header records, which describe the sample (or observation) records that follow, include a record specifying the numbers of variables and samples, a record for each variable giving the variable name and a variable label or title, a record giving the length of the data-format specifications and the lengths of the data or sample records that follow, and a record containing the data-format specifications.

The sample (or observation) records are preceded by the data-format specification record and are all of equal length; the number of sample records is indicated on the first header record. Only the data-format specification record and the data sample records vary from tape to tape, their lengths depending upon the numbers and types of variables per sample. Table 8 describes the ORNL04 title and header records layout. An example of an ORNL04 tape file is presented in Table 9.

Table 8. ORNL04 Title and Header Records Layout

Record Number	Description	Format
1	Title	A70
2	Number of Variables (NVAR)	I4
2	Number of Samples (NSAMP)	I6
3 through NVAR+2	Variable Name	A8
3 through NVAR+2	Variable Title	A40
NVAR+3	Length of Format Specification	I4
NVAR+3	Length of Data Record (LEN)	I4
NVAR+4	Format Specification	

Table 9. Typical ORNL04 Tape File

---

PHOENIX HYDROGEOCHEMICAL DATA  
 68 155  
 S\_N SRL SAMPLE IDENTIFIER  
 LAT LATITUDE  
 LONG LONGITUDE  
 NTYP SRL SAMPLE TYPE  
 DATE DATE  
 TEAM TEAM NUMBER  
 WIDE STREAM WIDTH  
 S\_DP STREAM DEPTH  
 ODOR ODOR OF SAMPLE MATERIAL  
 FLOW STREAM FLOW  
 WTEM WATER TEMPERATURE (C)  
 WUSE WELL CLASSIFICATION  
 PRT LOCATION SAMPLE TAKEN  
 CWDP CONFIDENCE IN DEPTH  
 W\_DP WELL DEPTH  
 PH TOTAL PH  
 COND CONDUCTIVITY  
 ALK TOTAL ALKALINITY  
 CON1 CONTAMINATION 1  
 CON2 CONTAMINATION 2  
 CON3 CONTAMINATION 3  
 CON4 CONTAMINATION 4  
 FORM FORMATION  
 RTYP ROCK TYPE  
 SLVL STREAM LEVEL  
 MAP MAP CODE  
 LTYP WATER OR SEDIMENT TYPE  
 TYPE SRL ANALYSIS TYPE  
 BTUF URANIUM FLUOROMETRY BATCH  
 U\_FL URANIUM FLUOROMETRY  
 BTUN URANIUM NEUTRON ACTIVATION BATCH  
 U\_NT URANIUM BY NEUTRON ACTIVATION  
 AG SILVER  
 AL ALUMINUM  
 B BORON  
 BA BARIUM  
 BE BERYLLIUM  
 CA CALCIUM  
 CO COBALT  
 CR CHROMIUM  
 CU COPPER  
 FE IRON  
 LI LITHIUM  
 MG MAGNESIUM  
 MN MANGANESE  
 MO MOLYBDENUM  
 NA SODIUM  
 NB NIOBIUM

---

Table 9 (continued)

---

NI	NICKEL
P	PHOSPHORUS
PB	LEAD
PT	PLATINUM
SC	SCANDIUM
TH	THORIUM
TI	TITANIUM
U	URANIUM
V	VANADIUM
Y	YTTRIUM
ZN	ZINC
ZR	ZIRCONIUM
K	POTASSIUM
SR	STRONTIUM
SI	SILICON
SN	TIN
CE	CERIUM
HF	HAFNIUM
LA	LANTHANUM
OS_N	OAK RIDGE SAMPLE NUMBER
289 459	
(A7, F11.4, F10.3, A2, A8, A3, A1, A1, A1, A1, F7, A1, A1, A1, F7, F9.2, F7, F9.2, A1, A1, A1, A1, A4, A1, A1, A6, A1, A1, F7, F9.2, F7, F9.2, F7)	
PXAA501	33.7855 113.9085212/ 2/7951 2 17522 7
00	8.00 810 1.30 2QTRN NI1207WW -99999-99999.0
0	-99999-99999.00 -2.00 72.00 483.00 27.00 1.
00	28.80 5.00 28.00 -2.00 214.00 -2.00
	2.00 9.00 21.00 100.90-99999.00 5.00 -40.00-
	99999.00-99999.00 -1.00-99999.00 35.00-99999.00 20.
00	-1.00 11.00 -2.00 2.40 245.00 8.50-999
99.00	-30.00-99999.00-99999.00 225090
PXAA502	33.8258 113.9225212/ 2/7951 2 13225 -999
99	7.70 1300 0.90 2QTRN NI1207WW -99999-99999.0
0	-99999-99999.00 -2.00 38.00 1035.00 27.00 1.
00	50.10 120.00 20.00 3.00 59.00 163.00
	1.40 -2.00 53.00 166.60-99999.00 14.00 -40.00-
	99999.00-99999.00 -1.00-99999.00 10.00-99999.00 17.
00	-1.00 137.00 -2.00 2.50 226.00 6.90-999
99.00	-30.00-99999.00-99999.00 225091
PXAA503	33.8389 113.8885212/ 3/7951 2 20622 9
99	7.50 6000 1.80 2QTRN NI1207WW -99999-99999.0
0	-99999-99999.00 -2.00 266.00 6213.00 24.00 1.
00	46.00 -2.00 19.00 2.00 30.00 165.00
	73.20 4.00 34.00 561.10-99999.00 14.00 -40.00-
	99999.00-99999.00 -1.00-99999.00 -2.00-99999.00 15.
00	-1.00 48.00 -2.00 15.40 139.00 11.80-999
99.00	-30.00-99999.00-99999.00 225092

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The distinguishing characteristic of the eleven ORNL04 tape formats is the data-record length. In reading these tapes, it is only necessary to read the number of variables from Record Number 2, skip that number of records, read the data length from the next record, skip the format-specification record, and use the data-record format appropriate to the length-of-data value. Table 10 lists the more important ORNL04 tape-format attributes.

Table 10. ORNL04 Tape-Format Attributes

Data-Record Length	Number of Variables	Format Length	Lab Source
424	64	273	SRL
429	64	273	SRL
442	60	265	SRL
449	70	291	SRL
454	75	311	LASL
455	75	311	LASL
459	68	289	SRL
468	71	298	SRL
471	77	319	LASL
480	81	331	LASL
514	81	331	LASL



## DATA SET NAMES

The HSSR files that exist on magnetic tape are identified in Appendix E, Table DSN. This table lists data-set names in order of GJBX Open-File Report number, and includes all HSSR tapes in the tape catalog that were processed for Quality Assessment (Brock and Averett, 1983), as well as their respective format specifications.

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**Appendix A**

**LAWRENCE LIVERMORE LABORATORY TAPE FORMATS**

Table LLL-1-1

TAPE-FORMAT 1/CARD-TYPE 1

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SITE NUMBER	3-7	INTEGER	2X, I5*
2. CARD TYPE=10	9-10	INTEGER	1X, I2
3. UTM NORTH-SOUTH MEASUREMENT	24-31	INT/ALP	13X, I7, A1
4. UTM EAST-WEST MEASUREMENT	37-43	INT/ALP	5X, I6, A1

\*RIGHT JUSTIFIED.

Table LLL-1-2  
TAPE-FORMAT 1/CARD-TYPE 2

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SITE NUMBER	3-7	INTEGER	2X, I5*
2. CARD TYPE=20	9-10	INTEGER	1X, I2
3. SAMPLE TYPE	12-13	ALPHA	1X, A2
RO-ROCK SAMPLE SW-WET SEDIMENT SAMPLE SD-DRY SEDIMENT SAMPLE WR-RIVER, CREEK WATER SAMPLE WL-LAKE WATER SAMPLE WW-WELL WATER SAMPLE WS-SPRING WATER SAMPLE			
4. SAMPLE TREATMENT	14-15	ALPHA	A2
NO-NONE LA-ACIDIFIED DS-DRIED, SIEVED			
5. DUPLICATE NUMBER=0 OR 1	16	INTEGER	I1
6. ELEMENT SYMBOL:	19-20	ALPHA	2X, A2**
U URANIUM                    MO MOLYBDENUM SB ANTIMONY                ND NEODYMIUM AS ARSENIC                 K POTASSIUM BA BARIUM                  RB RUBIDIUM BR BROMINE                 RU RUTHENIUM CA CALCIUM                SM SAMARIUM CE CERIUM                 SC SCANDIUM CS CESIUM                 NA SODIUM CR CHROMIUM               SR STRONTIUM CO COBALT                 TA TANTALUM EU EUROPIUM               TB TERBIUM AU GOLD                    TH THORIUM HF HAFNIUM                W TUNGSTEN HO HOLMIUM                YB YTTERBIUM FE IRON                    ZN ZINC LU LUTETIUM                ZR ZIRCONIUM			
7. ELEMENT CONCENTRATION (PPB)	22-33	REAL	1X, E12.3
8. ABSOLUTE ERROR	34-45	REAL	E12.3

\*RIGHT JUSTIFIED.  
\*\*LEFT JUSTIFIED.

Table LLL-2-1

## TAPE-FORMAT 2/CARD-TYPE 1: SEDIMENT SAMPLE

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. CARD TYPE (=1)	1-2	INTEGER	I2
2. SITE NUMBER	4-10	INTEGER	1X,I7
3. STATE NUMBER (POST OFFICE DESIGNATION)	12-13	INTEGER	1X,I2
4. LATITUDE	15-21	REAL	1X,F7.4
5. LONGITUDE	23-30	REAL	1X,F8.4
6. LABORATORY NUMBER (LLL=1)	32	INTEGER	1X,I1
7. SAMPLE TYPE (DOE CODE)	34-35	INTEGER	1X,I2
8. SAMPLE REPLICATE NUMBER	37-39	INTEGER	1X,I3
9. DATE SAMPLE COLLECTED (MM/DD/YY)	41-48	ALPHA	1X,A8
10. SAMPLE SOURCE	49-55	ALPHA	A7
11. SAMPLE CONDITION	59-61	ALPHA	3X,A3
12. UPPER SIEVE SIZE	65-68	ALPHA	3X,A4
13. LOWER SIEVE SIZE	72-75	ALPHA	3X,A4
14. POLLUTION AT SITE (DOE NUMBER)	80	INTEGER	4X,I1
15. CROSS REFERENCE SITE NUMBER	84-89	INTEGER	3X,I6
16. URANIUM DNC (PPM)	92-98	REAL	2X,F7.2
17. URANIUM DNC % ERROR	100-106	REAL	1X,F7.2

Table LLL-2-2

## TAPE-FORMAT 2/CARD-TYPE 2: SEDIMENT SAMPLE

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. CARD TYPE (=2)	1-2	INTEGER	I2
2. SITE NUMBER	3-9	INTEGER	I7
3. SAMPLE REPLICATE NUMBER	11-13	INTEGER	1X,I3
4. ELEMENT SYMBOL	14-15	ALPHA	A2
5. ELEMENT CONCENTRATION (PPB) BY NEUTRON ACTIVATION ANALYSIS	16-27	REAL	E12.3
6. ABSOLUTE ERROR	28-39	REAL	E12.3
7. ELEMENT SYMBOL	40-41	ALPHA	A2
8. ELEMENT CONCENTRATION (PPB) BY NEUTRON ACTIVATION ANALYSIS	42-53	REAL	E12.3
9. ABSOLUTE ERROR	54-65	REAL	E12.3
10. ELEMENT SYMBOL	66-67	ALPHA	A2
11. ELEMENT CONCENTRATION (PPB) BY NEUTRON ACTIVATION ANALYSIS	68-79	REAL	E12.3
12. ABSOLUTE ERROR	80-91	REAL	E12.3
13. ELEMENT SYMBOL	92-93	ALPHA	A2
14. ELEMENT CONCENTRATION (PPB) BY NEUTRON ACTIVATION ANALYSIS	94-105	REAL	E12.3
15. ABSOLUTE ERROR	106-117	REAL	E12.3

Table LLL-2-3

## TAPE-FORMAT 2/CARD-TYPE 3: WATER SAMPLE

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. CARD TYPE (=3)	1-2	INTEGER	I2
2. SITE NUMBER	4-10	INTEGER	1X, I7
3. STATE NUMBER (POST OFFICE DESIGNATION)	12-13	INTEGER	1X, I2
4. LATITUDE	15-21	REAL	1X, F7.4
5. LONGITUDE	23-30	REAL	1X, F8.4
6. LABORATORY NUMBER (LLL=1)	32	INTEGER	1X, I1
7. SAMPLE TYPE (DOE CODE)	34-35	INTEGER	1X, I2
8. SAMPLE REPLICATE NUMBER	37-39	INTEGER	1X, I3
9. DATE SAMPLE COLLECTED (MM/DD/YY)	41-48	ALPHA	1X, A8
10. SAMPLE SOURCE	50-55	ALPHA	1X, A6
11. WATER TEMP. AT SITE (CENTIGRADE)	57-61	REAL	1X, F5.1
12. PH	63-66	REAL	1X, F4.1
13. SPECIFIC CONDUCTIVITY NORMALIZED TO 25 DEG. CENTIGRADE	70-76	REAL	3X, F7.0
14. TOTAL ALKALINITY	81-85	REAL	4X, F5.0
15. PHENAL ALKALINITY	91-94	REAL	5X, F4.0
16. POLLUTION AT SITE (DOE NUMBER)	96	INTEGER	1X, I1
17. URANIUM DNC (PPB)	98-104	REAL	1X, F7.2
18. URANIUM DNC % ERROR	106-112	REAL	1X, F7.4
19. CROSS REFERENCE SITE NUMBER	114-119	INTEGER	1X, I6

Table LLL-2-4

## TAPE-FORMAT 2/CARD-TYPE 4: WATER SAMPLE

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. CARD TYPE (=4)	1-2	INTEGER	I2
2. SITE NUMBER	3-9	INTEGER	I7
3. SAMPLE REPLICATE NUMBER	11-13	INTEGER	1X, I3
4. CHLORIDE (PPM)	14-20	REAL	F7.2
5. SULFATE (PPM)	21-27	REAL	F7.2
6. ELEMENT SYMBOL (STANDARD CHEMISTRY NOTATION)	28-29	ALPHA	A2
7. BLANK OR <	30	ALPHA	A1
8. ELEMENT CONCENTRATION FROM OPTICAL EMISSION SPECTROMETER (PPB)	31-42	REAL	E12.3
9. ELEMENT SYMBOL (STANDARD CHEMISTRY NOTATION)	43-44	ALPHA	A2
10. BLANK OR <	45	ALPHA	A1
11. ELEMENT CONCENTRATION FROM OPTICAL EMISSION SPECTROMETER (PPB)	46-57	REAL	E12.3
12. ELEMENT SYMBOL (STANDARD CHEMISTRY NOTATION)	58-59	ALPHA	A2
13. BLANK OR <	60	ALPHA	A1
14. ELEMENT CONCENTRATION FROM OPTICAL EMISSION SPECTROMETER (PPB)	61-72	REAL	E12.3
15. ELEMENT SYMBOL (STANDARD CHEMISTRY NOTATION)	73-74	ALPHA	A2
16. BLANK OR <	75	ALPHA	A1
17. ELEMENT CONCENTRATION FROM OPTICAL EMISSION SPECTROMETER (PPB)	76-87	REAL	E12.3
18. ELEMENT SYMBOL (STANDARD CHEMISTRY NOTATION)	88-89	ALPHA	A2
19. BLANK OR <	90	ALPHA	A1
20. ELEMENT CONCENTRATION FROM OPTICAL EMISSION SPECTROMETER (PPB)	91-102	REAL	E12.3
21. ELEMENT SYMBOL (STANDARD CHEMISTRY NOTATION)	103-104	ALPHA	A2
22. BLANK OR <	105	ALPHA	A1
23. ELEMENT CONCENTRATION FROM OPTICAL EMISSION SPECTROMETER (PPB)	106-117	REAL	E12.3



Table LLL-2-5

## TAPE-FORMAT 2/CARD-TYPE 5: WATER SAMPLE

	DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1.	CARD TYPE (=5)	1-2	INTEGER	I2
2.	SITE NUMBER	3-9	INTEGER	I7
3.	SAMPLE REPLICATE NUMBER	11-13	INTEGER	IX, I3
4.	ELEMENT SYMBOL (STANDARD CHEMISTRY NOTATION)	14-15	ALPHA	A2
5.	BLANK OR <	16	ALPHA	A1
6.	ELEMENT CONCENTRATION FROM OPTICAL EMISSION SPECTROMETER (PPB)	17-28	REAL	E12.3
7.	ELEMENT SYMBOL (STANDARD CHEMISTRY NOTATION)	29-30	ALPHA	A2
8.	BLANK OR <	31	ALPHA	A1
9.	ELEMENT CONCENTRATION FROM OPTICAL EMISSION SPECTROMETER (PPB)	32-43	REAL	E12.3
10.	ELEMENT SYMBOL (STANDARD CHEMISTRY NOTATION)	44-45	ALPHA	A2
11.	BLANK OR <	46	ALPHA	A1
12.	ELEMENT CONCENTRATION FROM OPTICAL EMISSION SPECTROMETER (PPB)	47-58	REAL	E12.3
13.	ELEMENT SYMBOL (STANDARD CHEMISTRY NOTATION)	59-60	ALPHA	A2
14.	BLANK OR <	61	ALPHA	A1
15.	ELEMENT CONCENTRATION FROM OPTICAL EMISSION SPECTROMETER (PPB)	62-73	REAL	E12.3
16.	ELEMENT SYMBOL (STANDARD CHEMISTRY NOTATION)	74-75	ALPHA	A2
17.	BLANK OR <	76	ALPHA	A1
18.	ELEMENT CONCENTRATION FROM OPTICAL EMISSION SPECTROMETER (PPB)	77-88	REAL	E12.3
19.	ELEMENT SYMBOL (STANDARD CHEMISTRY NOTATION)	89-90	ALPHA	A2
20.	BLANK OR <	91	ALPHA	A1
21.	ELEMENT CONCENTRATION FROM OPTICAL EMISSION SPECTROMETER (PPB)	92-103	REAL	E12.3
22.	ELEMENT SYMBOL (STANDARD CHEMISTRY NOTATION)	104-105	ALPHA	A2
23.	BLANK OR <	106	ALPHA	A1
24.	ELEMENT CONCENTRATION FROM OPTICAL EMISSION SPECTROMETER (PPB)	107-118	REAL	E12.3

**Appendix B**  
**SAVANNAH RIVER LABORATORY TAPE FORMATS**

Table SRL-1-1

TAPE-FORMAT 1/CARD-TYPE 1

	DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1.	SRL ID NUMBER	1-9	ALPHA	A9
2.	DOE ID NUMBER			
	STATE CODE	11-12	INTEGER	1X,I2
	LATITUDE	14-20	REAL	1X,F7.4
	LONGITUDE	22-29	REAL	1X,F8.4
	DOE LAB CODE	31	INTEGER	1X,I1
	SAMPLE TYPE	33-34	INTEGER	1X,I2
	REPLICATE CODE	36-38	INTEGER	1X,I3
3.	PH	40-43	REAL	1X,F4.0
4.	CONDUCTIVITY	45-49	REAL	1X,F5.0
5.	ALKALINITY	51-55	REAL	1X,F5.0
6.	URANIUM (PPB)	57-64	REAL	1X,F8.0
7.	SCINTILLOMETER READING (COUNTS/SECOND)	67-71	REAL	2X,F5.0
8.	BROMINE (PPB)	73-78	REAL	1X,F6.0

Table SRL-1-2

TAPE-FORMAT 1/CARD-TYPE 2

	DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1.	SRL ID NUMBER	1-9	ALPHA	A9
2.	CHLORINE (PPB)	11-17	REAL	1X,F7.0
3.	FLUORINE (PPB)	19-23	REAL	1X,F5.0
4.	HELIUM (CC/1000 LITERS OF AIR)	25-31	REAL	1X,F7.0
5.	MANGANESE (PPB)	33-38	REAL	1X,F6.0
6.	SODIUM (PPB)	40-45	REAL	1X,F6.0
7.	VANADIUM (PPB)	48-53	REAL	2X,F6.0
8.	U/CONDUCTIVITY *1000	57-64	REAL	3X,F8.0

Table SRL-1-3

## TAPE-FORMAT 1/CARD-TYPE 3

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL ID NUMBER	1-9	ALPHA	A9
2. ALUMINUM (PPB)	11-15	REAL	1X,F5.0
3. DYSPROSIUM (PPB)	17-23	REAL	1X,F7.0
4. MAGNESIUM (PPB)	25-30	REAL	1X,F6.0
5. DATE SAMPLED (MM/DD/YY)	32-39	ALPHA	1X,A8
6. SAMPLING TEAM	41-43	INTEGER	1X,I3
7. WELL DEPTH (FEET)	45-48	REAL	1X,F4.0*
8. CONFIDENCE IN DEPTH	50	ALPHA	1X,A1
9. LOCATION IN WATER SYSTEM WHERE SAMPLE TAKEN	52	ALPHA	1X,A1
10. WELL CLASSIFICATION	54	ALPHA	1X,A1
11. WATER TEMPERATURE (C)	56-57	INTEGER	1X,I2
12. ROCK TYPE	59	ALPHA	1X,A1
13. GEOLOGIC FORMATION	61-64	ALPHA	1X,A4
14. ODOR	66	ALPHA	1X,A1
15. STATE CODE	68-69	INTEGER	1X,I2
16. CONTAMINANT 1	71	ALPHA	1X,A1
17. CONTAMINANT 2	73	ALPHA	1X,A1
18. CONTAMINANT 3	75	ALPHA	1X,A1
19. CONTAMINANT 4	77	ALPHA	1X,A1
20. SUPPLEMENTAL SAMPLE (X IF SAMPLE IS A SUPPLEMENTAL)	79	ALPHA	1X,A1

\*COULD CONTAIN ALPHA 'U' IF DEPTH UNKNOWN.

Table SRL-2-1

TAPE-FORMAT 2/CARD-TYPE 1

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL ID NUMBER	1-9	ALPHA	A9
2. DOE ID NUMBER			
STATE CODE	11-12	INTEGER	1X, I2
LATITUDE	14-20	REAL	1X, F7.4
LONGITUDE	22-29	REAL	1X, F8.4
DOE LAB CODE	31	INTEGER	1X, I1
SAMPLE TYPE	33-34	INTEGER	1X, I2
REPLICATE CODE	36-38	INTEGER	1X, I3
3. PH	40-43	REAL	1X, F4.0
4. CONDUCTIVITY	45-50	REAL	1X, F6.0
5. ALKALINITY (MEQ. H2SO4/LITER)	52-56	REAL	1X, F5.0
6. URANIUM (PPM)	58-63	REAL	1X, F6.0
7. THORIUM (PPM)	64-69	REAL	F6.0
8. HAFNIUM (PPM)	71-76	REAL	1X, F6.0

Table SRL-2-2

TAPE-FORMAT 2/CARD-TYPE 2

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL ID NUMBER	1-9	ALPHA	A9
2. ALUMINUM (PPM)	18-24	REAL	8X, F7.0
3. CERIUM (PPM)	25-30	REAL	F6.0
4. IRON (PPM)	32-37	REAL	1X, F6.0
5. MANGANESE (PPM)	39-44	REAL	1X, F6.0
6. SODIUM (PPM)	46-51	REAL	1X, F6.0
7. SCANDIUM (PPM)	53-57	REAL	1X, F5.0
8. TITANIUM (PPM)	59-65	REAL	1X, F7.0
9. VANADIUM (PPM)	67-71	REAL	1X, F5.0

Table SRL-2-3

TAPE-FORMAT 2/CARD-TYPE 3

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL ID NUMBER	1-9	ALPHA	A9
2. DYSPROSIUM (PPM)	11-15	REAL	1X,F5.0
3. EUROPIUM (PPM)	17-21	REAL	1X,F5.0
4. LANTHANUM (PPM)	23-27	REAL	1X,F5.0
5. SAMARIUM (PPM)	29-33	REAL	1X,F5.0
6. YTTERBIUM (PPM)	35-39	REAL	1X,F5.0
7. LUTETIUM (PPM)	41-45	REAL	1X,F5.0
8. SAMPLING DATE (MM/DD/YY)	48-55	ALPHA	2X,A8
9. SAMPLING TEAM NUMBER	58-60	INTEGER	2X,I3
10. SAMPLE TYPE	63	ALPHA	2X,A1
11. ROCK TYPE	67-68	ALPHA	3X,A2
12. SEDIMENT SIZE	72	ALPHA	3X,A1
13. STREAM WIDTH	76	ALPHA	3X,A1

Table SRL-2-4

TAPE-FORMAT 2/CARD-TYPE 4

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL ID NUMBER	1-9	ALPHA	A9
2. STREAM DEPTH	11	ALPHA	1X,A1
3. STREAM LEVEL	13	ALPHA	1X,A1
4. VEGETATION TYPE	16	ALPHA	2X,A1
5. VEGETATION DENSITY	19	ALPHA	2X,A1
6. RELIEF	22	ALPHA	2X,A1
7. WATER TEMPERATURE (C)	25-26	INTEGER	2X,I2
8. NUMBER OF SEDIMENT COMPOSITES	29-30	INTEGER	2X,I2
9. CONTAMINANT 1	33	ALPHA	2X,A1
10. CONTAMINANT 2	36	ALPHA	2X,A1
11. CONTAMINANT 3	39	ALPHA	2X,A1
12. CONTAMINANT 4	42	ALPHA	2X,A1
13. GEOLOGIC FORMATION NAME	45-48	ALPHA	2X,A4
14. SCINTILLOMETER READING (COUNTS/SECOND)	51-54	REAL	2X,F4.0
15. STATE CODE	57-58	INTEGER	2X,I2
16. SUPPLEMENTAL SAMPLE (X IF SAMPLE IS A SUPPLEMENTAL)	61	ALPHA	2X,A1

Table SRL-3-1

TAPE-FORMAT 3/CARD-TYPE 1

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL ID NUMBER	1-9	ALPHA	A9
2. DOE ID NUMBER			
STATE CODE	11-12	INTEGER	1X,I2
LATITUDE	14-20	REAL	1X,F7.4
LONGITUDE	22-29	REAL	1X,F8.4
DOE LAB CODE	31	INTEGER	1X,I1
SAMPLE TYPE	33-34	INTEGER	1X,I2
REPLICATE CODE	36-38	INTEGER	1X,I3
3. PH	40-43	REAL	1X,F4.0
4. CONDUCTIVITY	45-49	REAL	1X,F5.0
5. ALKALINITY	51-55	REAL	1X,F5.0
6. URANIUM (PPB)	57-64	REAL	1X,F8.0
7. BROMINE (PPB)	66-71	REAL	1X,F6.0

Table SRL-3-2

TAPE-FORMAT 3/CARD-TYPE 2

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL ID NUMBER	1-9	ALPHA	A9
2. CHLORINE	11-17	REAL	1X,F7.0
3. FLUORINE	19-23	REAL	1X,F5.0
4. MANGANESE	25-30	REAL	1X,F6.0
5. SODIUM	32-37	REAL	1X,F6.0
6. VANADIUM	40-44	REAL	2X,F5.0
7. U/CONDUCTIVITY *1000	48-55	REAL	3X,F8.0

Table SRL-3-3

TAPE-FORMAT 3/CARD-TYPE 3

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL ID NUMBER	1-9	ALPHA	A9
2. ALUMINUM (PPB)	11-15	REAL	1X,F5.0
3. DYSPROSIUM (PPB)	17-23	REAL	1X,F7.0
4. MAGNESIUM (PPB)	25-30	REAL	1X,F6.0
5. DATE SAMPLED (MM/DD/YY)	32-39	ALPHA	1X,A8
6. SAMPLING TEAM	41-43	INTEGER	1X,I3
7. STREAM WIDTH (FEET)	45	ALPHA	1X,A1
8. STREAM DEPTH (FEET)	47	ALPHA	1X,A1
9. STREAM LEVEL (FEET)	49	ALPHA	1X,A1
10. STREAM FLOW	51	ALPHA	1X,A1
11. WATER TEMPERATURE (C)	53-55	INTEGER	1X,I3
12. ROCK TYPE	57-59	ALPHA	1X,A3
13. GEOLOGIC FORMATION	61-64	ALPHA	1X,A4
14. STATE CODE	66-68	INTEGER	1X,I3*
15. CONTAMINANT 1	70	ALPHA	1X,A1
16. CONTAMINANT 2	72	ALPHA	1X,A1
17. CONTAMINANT 3	74	ALPHA	1X,A1
18. CONTAMINANT 4	76	ALPHA	1X,A1

\*LEFT JUSTIFIED.

Table SRL-4-1

TAPE-FORMAT 4/CARD-TYPE 1

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SITE ID	1-9	ALPHA	A9
2. DOE ID			
STATE CODE	12-13	INTEGER	2X,I2
LATITUDE	15-21	REAL	1X,F7.4
LONGITUDE	23-30	REAL	1X,F8.4
DOE LAB CODE	32	INTEGER	1X,I1
SAMPLE TYPE	34-35	INTEGER	1X,I2
REPLICATE CODE	37-39	INTEGER	1X,I3
3. U EXTRACTABLE (PPM)	42-49	REAL	2X,F8.0
4. SILVER (PPM)	58-65	REAL	8X,F8.0
5. ARSENIC (PPM)	66-73	REAL	F8.0
6. BARIUM (PPM)	74-80	REAL	F7.0



Table SRL-4-2

TAPE-FORMAT 4/CARD-TYPE 2

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. BERYLLIUM (PPM)	1-8	REAL	F8.0
2. CALCIUM (PPM)	9-16	REAL	F8.0
3. COBALT (PPM)	17-24	REAL	F8.0
4. CHROMIUM (PPM)	25-32	REAL	F8.0
5. COPPER (PPM)	33-40	REAL	F8.0
6. POTASSIUM PPM)	41-48	REAL	F8.0
7. LITHIUM (PPM)	49-56	REAL	F8.0
8. MAGNESIUM (PPM)	57-64	REAL	F8.0
9. MOLYBDENUM (PPM)	65-72	REAL	F8.0
10. NIOBIUM (PPM)	73-80	REAL	F8.0

Table SRL-4-3

TAPE-FORMAT 4/CARD-TYPE 3

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. NICKEL (PPM)	1-8	REAL	F8.0
2. PHOSPHORUS (PPM)	9-16	REAL	F8.0
3. LEAD (PPM)	17-24	REAL	F8.0
4. SELENIUM (PPM)	25-32	REAL	F8.0
5. TIN (PPM)	33-40	REAL	F8.0
6. STRONTIUM PPM)	41-48	REAL	F8.0
7. TUNGSTEN (PPM)	49-56	REAL	F8.0
8. YTTRIUM (PPM)	57-64	REAL	F8.0
9. ZINC (PPM)	65-72	REAL	F8.0

Table SRL-5-1

## TAPE-FORMAT 5/CARD-TYPE 1

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SITE ID	1-9	ALPHA	A9
2. DOE ID			
STATE CODE	11-12	INTEGER	1X,I2
LATITUDE	14-20	REAL	1X,F7.4
LONGITUDE	22-29	REAL	1X,F8.4
DOE LAB CODE	31	INTEGER	1X,I1
SAMPLE TYPE	33-34	INTEGER	1X,I2
REPLICATE CODE	36-38	INTEGER	1X,I3
3. PH	40-43	REAL	1X,F4.0
4. CONDUCTIVITY (MICROMHOS/CM.)	45-49	REAL	1X,F5.0
5. ALKALINITY (MEQ./LITER)	51-55	REAL	1X,F5.0
6. URANIUM (PPB)	57-64	REAL	1X,F8.0
7. WELL DEPTH (FEET)	67-71	REAL	2X,F5.0*
8. BROMINE (PPB)	73-78	REAL	1X,F6.0

\*COULD CONTAIN ALPHA 'U' IF DEPTH UNKNOWN.

Table SRL-5-2

## TAPE-FORMAT 5/CARD-TYPE 2

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SITE ID	1-9	ALPHA	A9
2. CHLORINE (PPB)	20-26	REAL	10X,F7.0
3. FLUORINE (PPB)	28-32	REAL	1X,F5.0
4. MAGNESIUM (PPB)	34-39	REAL	1X,F6.0
5. MANGANESE (PPB)	41-46	REAL	1X,F6.0
6. SODIUM (PPB)	48-53	REAL	1X,F6.0
7. VANADIUM (PPB)	55-60	REAL	1X,F6.0
8. URANIUM/CONDUCTIVITY	64-72	REAL	3X,F9.0

Table SRL-5-3

TAPE-FORMAT 5/CARD-TYPE 3

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SITE ID	1-9	ALPHA	A9
2. ALUMINUM (PPB)	13-17	REAL	3X, F5.0
3. DYSPROSIUM (PPB)	21-27	REAL	3X, F7.0
4. SAMPLING DATE (MM/DD/YY)	31-38	ALPHA	3X, A8
5. TEAM NUMBER	43-45	INTEGER	4X, I3
6. TEMPERATURE (C)	50-51	INTEGER	4X, I2
7. WELSPR	54	ALPHA	2X, A1
8. WELDCON	57	ALPHA	2X, A1
9. WELAGE	60-62	ALPHA	2X, A3
10. WELACON	65	ALPHA	2X, A1
11. WELLTYPE	68	ALPHA	2X, A1
12. WELUSE	71	ALPHA	2X, A1
13. WELFREQ	74	ALPHA	2X, A1
14. WELODOR	77	ALPHA	2X, A1
15. WELPIPE	78	ALPHA	A1
16. WELLOC	79	ALPHA	A1
17. WELCLASS	80	ALPHA	A1

Table SRL-6-1

TAPE-FORMAT 6/CARD-TYPE 1

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SITE ID	1-9	ALPHA	A9
2. DOE ID			
STATE CODE	11-12	INTEGER	1X, I2
LATITUDE	14-20	REAL	1X, F7.4
LONGITUDE	22-29	REAL	1X, F8.4
DOE LAB CODE	31	INTEGER	1X, I1
SAMPLE TYPE	33-34	INTEGER	1X, I2
REPLICATE CODE	36-38	INTEGER	1X, I3
3. PH	40-43	REAL	1X, F4.0
4. CONDUCTIVITY (MICROMHOS/CM.)	45-50	REAL	1X, F6.0
5. ALKALINITY (MEQ./LITER)	52-56	REAL	1X, F5.0
6. URANIUM (PPM)	57-63	REAL	F7.0
7. THORIUM (PPM)	64-69	REAL	F6.0
8. HAFNIUM (PPM)	70-76	REAL	F7.0

Table SRL-6-2

TAPE-FORMAT 6/CARD-TYPE 2

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SITE ID	1-9	ALPHA	A9
2. ALUMINUM (PPM)	18-24	REAL	8X,F7.0
3. CERIUM (PPM)	25-30	REAL	F6.0
4. IRON (PPM)	32-37	REAL	1X,F6.0
5. MANGANESE (PPM)	39-44	REAL	1X,F6.0
6. SODIUM (PPM)	46-51	REAL	1X,F6.0
7. SCANDIUM (PPM)	53-57	REAL	1X,F5.0
8. TITANIUM (PPM)	59-65	REAL	1X,F7.0
9. VANADIUM (PPM)	67-71	REAL	1X,F5.0

Table SRL-6-3

TAPE-FORMAT 6/CARD-TYPE 3

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SITE ID	1-9	ALPHA	A9
2. DYSPROSIUM (PPM)	11-15	REAL	1X,F5.0
3. EUROPIUM (PPM)	17-21	REAL	1X,F5.0
4. LANTHANUM (PPM)	23-27	REAL	1X,F5.0
5. SAMARIUM (PPM)	29-33	REAL	1X,F5.0
6. YTTERBIUM (PPM)	35-39	REAL	1X,F5.0
7. LUTETIUM (PPM)	41-45	REAL	1X,F5.0
8. SAMPLING DATE (MM/DD/YY)	48-55	ALPHA	2X,A8
9. TEAM NUMBER	58-60	INTEGER	2X,I3
10. SEDIMENT TYPE	63	ALPHA	2X,A1
11. SEDIMENT COLOR	67	ALPHA	3X,A1
12. STREAM WIDTH	71	ALPHA	3X,A1
13. STREAM DEPTH	75	ALPHA	3X,A1
14. STREAM FLOW	79	ALPHA	3X,A1

Table SRL-6-4

TAPE-FORMAT 6/CARD-TYPE 4

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SITE ID	1-9	ALPHA	A9
2. STREAM LEVEL	13	ALPHA	3X, A1
3. STREAM WATER COLOR	17	ALPHA	3X, A1
4. STREAM CHANNEL	21	ALPHA	3X, A1
5. VEGETATION TYPE	25	ALPHA	3X, A1
6. VEGETATION DENSITY	29	ALPHA	3X, A1
7. RELIEF	33	ALPHA	3X, A1
8. WEATHER	37	ALPHA	3X, A1
9. NUMBER OF SEDIMENT COMPOSITES	40-41	INTEGER	2X, I2
10. ACTIVITIES/CONTAMINANTS 1	44-45	ALPHA	2X, A2
11. ACTIVITIES/CONTAMINANTS 2	48-49	ALPHA	2X, A2
12. ACTIVITIES/CONTAMINANTS 3	52-53	ALPHA	2X, A2
13. ACTIVITIES/CONTAMINANTS 4	56-57	ALPHA	2X, A2
14. WATER TEMPERATURE (C)	60-61	INTEGER	2X, I2

Table SRL-7-1

TAPE-FORMAT 7/CARD-TYPE 1

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SITE ID	1-9	ALPHA	A9
2. DOE ID			
STATE CODE	11-12	INTEGER	1X, I2
LATITUDE	14-20	REAL	1X, F7.4
LONGITUDE	22-29	REAL	1X, F8.4
DOE LAB CODE	31	INTEGER	1X, I1
SAMPLE TYPE	33-34	INTEGER	1X, I2
REPLICATE CODE	36-38	INTEGER	1X, I3
3. PH	40-43	REAL	1X, F4.0
4. CONDUCTIVITY (MICROMHOS/CM.)	45-49	REAL	1X, F5.0
5. ALKALINITY (MEQ./LITER)	51-55	REAL	1X, F5.0
6. URANIUM (PPB)	57-63	REAL	1X, F7.0
7. ALUMINUM (PPB)	64-68	REAL	F5.0
8. BROMINE (PPB)	70-76	REAL	1X, F7.0

Table SRL-7-2

TAPE-FORMAT 7/CARD-TYPE 2

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SITE ID	1-9	ALPHA	A9
2. CHLORINE (PPB)	16-22	REAL	6X,F7.0
3. DYSPROSIUM (PPB)	24-30	REAL	1X,F7.0
4. FLUORINE (PPB)	32-37	REAL	1X,F6.0
5. MAGNESIUM (PPB)	39-44	REAL	1X,F6.0
6. MANGANESE (PPB)	46-51	REAL	1X,F6.0
7. SODIUM (PPB)	52-58	REAL	F7.0
8. VANADIUM (PPB)	60-64	REAL	1X,F5.0
9. URANIUM/CONDUCTIVITY	66-72	REAL	1X,F7.0

Table SRL-8-1

TAPE-FORMAT 8/CARD-TYPE 1

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SITE ID	1-9	ALPHA	A9
2. DOE ID			
STATE CODE	12-13	INTEGER	2X,I2
LATITUDE	15-21	REAL	1X,F7.4
LONGITUDE	23-30	REAL	1X,F8.4
DOE LAB CODE	32	INTEGER	1X,I1
SAMPLE TYPE	34-35	INTEGER	1X,I2
REPLICATE CODE	37-39	INTEGER	1X,I3
3. PH	41-44	REAL	1X,F4.0
4. CONDUCTIVITY (MICROMHOS/CM.)	46-51	REAL	1X,F6.0
5. ALKALINITY (MEQ./LITER)	53-57	REAL	1X,F5.0

Table SRL-8-2

TAPE-FORMAT 8/CARD-TYPE 2

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL ID	1-7	ALPHA	A7
2. THORIUM (PPB)	9-13	REAL	1X,F5.0
3. SILVER (PPB)	15-19	REAL	1X,F5.0
4. ALUMINUM (PPB)	20-24	REAL	F5.0
5. ARSENIC (PPB)	26-33	REAL	1X,F8.0
6. BORON (PPB)	34-40	REAL	F7.0
7. BARIUM (PPB)	43-47	REAL	2X,F5.0
8. BERYLLIUM (PPB)	50-54	REAL	2X,F5.0
9. CALCIUM (PPM)	57-61	REAL	2X,F5.0
10. CERIUM (PPB)	64-67	REAL	2X,F4.0
11. COBALT (PPB)	70-73	REAL	2X,F4.0

Table SRL-8-3

TAPE-FORMAT 8/CARD-TYPE 3

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL ID	1-7	ALPHA	A7
2. CHROMIUM (PPB)	9-13	REAL	1X,F5.0
3. COPPER (PPB)	15-19	REAL	1X,F5.0
4. IRON (PPB)	21-27	REAL	1X,F7.0
5. POTASSIUM (PPM)	30-35	REAL	2X,F6.0
6. LITHIUM (PPB)	38-43	REAL	2X,F6.0
7. MAGNESIUM (PPM)	46-51	REAL	2X,F6.0
8. MANGANESE (PPB)	54-60	REAL	2X,F7.0
9. MOLYBDENUM (PPB)	63-66	REAL	2X,F4.0
10. SODIUM (PPM)	69-75	REAL	2X,F7.0

Table SRL-8-4

TAPE-FORMAT 8/CARD-TYPE 4

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL ID	1-7	ALPHA	A7
2. NIOBIUM (PPB)	9-12	REAL	1X,F4.0
3. NICKEL (PPB)	14-16	REAL	1X,F3.0
4. PHOSPHORUS (PPB)	19-23	REAL	2X,F5.0
5. SCANDIUM (PPB)	26-28	REAL	2X,F3.0
6. SELENIUM (PPB)	31-35	REAL	2X,F5.0
7. SILICON (PPM)	38-42	REAL	2X,F5.0
8. STRONTIUM (PPB)	45-49	REAL	2X,F5.0
9. TITANIUM (PPB)	52-54	REAL	2X,F3.0
10. VANADIUM (PPB)	57-60	REAL	2X,F4.0
11. YTTRIUM (PPB)	62-64	REAL	1X,F3.0
12. ZINC (PPB)	66-69	REAL	1X,F4.0
13. ZIRCONIUM (PPB)	72-74	REAL	2X,F3.0

Table SRL-9-1

TAPE-FORMAT 9/CARD-TYPE 1

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SITE ID	1-9	ALPHA	A9
2. DOE ID			
STATE CODE	11-12	INTEGER	1X,I2
LATITUDE	14-20	REAL	1X,F7.4
LONGITUDE	22-29	REAL	1X,F8.4
DOE LAB CODE	31	INTEGER	1X,I1
SAMPLE TYPE	33-34	INTEGER	1X,I2
REPLICATE CODE	36-38	INTEGER	1X,I3
3. SILVER (PPM)	39-43	REAL	F5.0
4. BARIUM (PPM)	44-48	REAL	F5.0
5. BERYLLIUM (PPM)	50-54	REAL	1X,F5.0
6. COBALT (PPM)	55-58	REAL	F4.0
7. CHROMIUM (PPM)	59-63	REAL	F5.0
8. COPPER (PPM)	64-68	REAL	F5.0
9. POTASSIUM (PPM)	69-74	REAL	F6.0
10. LITHIUM (PPM)	75-79	REAL	F5.0



Table SRL-9-2

TAPE-FORMAT 9/CARD-TYPE 2

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SITE ID	1-9	ALPHA	A9
2. MAGNESIUM (PPM)	21-26	REAL	11X, F6.0
3. MOLYBDENUM (PPM)	27-30	REAL	F4.0
4. NIOBIUM (PPM)	31-35	REAL	F5.0
5. NICKEL (PPM)	36-39	REAL	F4.0
6. PHOSPHORUS (PPM)	41-45	REAL	1X, F5.0
7. LEAD (PPM)	46-50	REAL	F5.0
8. TIN (PPM)	51-54	REAL	F4.0
9. STRONTIUM (PPM)	55-59	REAL	F5.0
10. TUNGSTEN (PPM)	60-62	REAL	F3.0
11. YTTRIUM (PPM)	63-67	REAL	F5.0
12. ZINC (PPM)	68-72	REAL	F5.0

Table SRL-10-1

TAPE-FORMAT 10/CARD-TYPE 1

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SITE ID	1-9	ALPHA	A9
2. DOE ID			
STATE CODE	11-12	INTEGER	1X, I2
LATITUDE	14-20	REAL	1X, F7.4
LONGITUDE	22-29	REAL	1X, F8.4
DOE LAB CODE	31	INTEGER	1X, I1
SAMPLE TYPE	33-34	INTEGER	1X, I2
REPLICATE CODE	36-38	INTEGER	1X, I3
3. PH	40-43	REAL	1X, F4.0
4. CONDUCTIVITY (MICROMHOS/CM.)	45-49	REAL	1X, F5.0
5. ALKALINITY (MEQ./LITER)	51-55	REAL	1X, F5.0
6. URANIUM (PPM)	57-64	REAL	1X, F8.0
7. SODIUM (PPM)	66-71	REAL	1X, F6.0
8. CHLORINE (PPM)	73-79	REAL	1X, F7.0

Table SRL-10-2

TAPE-FORMAT 10/CARD-TYPE 2

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SITE ID	1-9	ALPHA	A9
2. MAGNESIUM (PPM)	11-16	REAL	1X,F6.0
3. ALUMINUM (PPM)	18-23	REAL	1X,F6.0
4. MANGANESE (PPM)	25-30	REAL	1X,F6.0
5. BROMINE (PPM)	32-37	REAL	1X,F6.0
6. VANADIUM (PPM)	39-43	REAL	1X,F5.0
7. FLUORINE (PPM)	45-49	REAL	1X,F5.0
8. URANIUM/CONDUCTIVITY	53-62	REAL	3X,F10.0

Table SRL-10-3

TAPE-FORMAT 10/CARD-TYPE 3

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SITE ID	1-9	ALPHA	A9
2. DYSPROSIUM (PPM)	11-17	REAL	1X,F7.0
3. SAMPLING DATE (MM/DD/YY)	20-27	ALPHA	2X,A8
4. TEAM NUMBER	33-35	INTEGER	5X,I3
5. TEMPERATURE	40-41	INTEGER	4X,I2
6. WELSPR	44	ALPHA	2X,A1
7. WELDEPTH	47-51	REAL	2X,F5.0*
8. WELDCON	54	ALPHA	2X,A1
9. WELAGE	57-59	ALPHA	2X,A3
10. WELACON	62	ALPHA	2X,A1
11. WELLTYPE	64	ALPHA	1X,A1
12. WELUSE	66	ALPHA	1X,A1
13. WELFREQ	68	ALPHA	1X,A1
14. WELODOR	70	ALPHA	1X,A1
15. WELPIPE	72	ALPHA	1X,A1
16. WELLOC	74	ALPHA	1X,A1
17. WELCLASS	76	ALPHA	1X,A1

\*COULD CONTAIN ALPHA 'U' IF DEPTH UNKNOWN.

Table SRL-11-1

TAPE-FORMAT 11/CARD-TYPE 1

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SITE ID	1-9	ALPHA	A9
2. DOE ID			
STATE CODE	11-12	INTEGER	1X, I2
LATITUDE	14-20	REAL	1X, F7.4
LONGITUDE	22-29	REAL	1X, F8.4
DOE LAB CODE	31	INTEGER	1X, I1
SAMPLE TYPE	33-34	INTEGER	1X, I2
REPLICATE CODE	36-38	INTEGER	1X, I3
3. PH	40-43	REAL	1X, F4.0
4. CONDUCTIVITY (MICROMHOS/CM.)	45-50	REAL	1X, F6.0
5. ALKALINITY (MEQ./LITER)	52-56	REAL	1X, F5.0
6. URANIUM (PPM)	57-63	REAL	F7.0
7. THORIUM (PPM)	64-69	REAL	F6.0
8. HAFNIUM (PPM)	70-76	REAL	F7.0

Table SRL-11-2

TAPE-FORMAT 11/CARD-TYPE 2

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SITE ID	1-9	ALPHA	A9
2. ALUMINUM (PPM)	18-24	REAL	8X, F7.0
3. CERIUM (PPM)	25-30	REAL	F6.0
4. IRON (PPM)	32-37	REAL	1X, F6.0
5. MANGANESE (PPM)	39-44	REAL	1X, F6.0
6. SODIUM (PPM)	46-51	REAL	1X, F6.0
7. SCANDIUM (PPM)	53-57	REAL	1X, F5.0
8. TITANIUM (PPM)	59-65	REAL	1X, F7.0
9. VANADIUM (PPM)	67-71	REAL	1X, F5.0

Table SRL-11-3

TAPE-FORMAT 11/CARD-TYPE 3

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SITE ID	1-9	ALPHA	A9
2. DYSPROSIUM (PPM)	11-15	REAL	1X, F5.0
3. EUROPIUM (PPM)	17-21	REAL	1X, F5.0
4. LANTHANUM (PPM)	23-27	REAL	1X, F5.0
5. SAMARIUM (PPM)	29-33	REAL	1X, F5.0
6. YTTERBIUM (PPM)	35-39	REAL	1X, F5.0
7. LUTETIUM (PPM)	41-45	REAL	1X, F5.0
8. LLL ID	48-55	ALPHA	2X, A8

Table SRL-12-1

TAPE-FORMAT 12/CARD-TYPE 1

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SITE ID	1-9	ALPHA	A9
2. DOE ID			
STATE CODE	10-11	INTEGER	I2
LATITUDE	13-19	REAL	1X, F7.4
LONGITUDE	21-28	REAL	1X, F8.4
DOE LAB CODE	30	INTEGER	1X, I1
SAMPLE TYPE	32-33	INTEGER	1X, I2
REPLICATE CODE	35-37	INTEGER	1X, I3
3. PH	39-42	REAL	1X, F4.0
4. CONDUCTIVITY (MICROMHOS/CM.)	43-48	REAL	F6.0
5. ALKALINITY (MEQ./LITER)	50-54	REAL	1X, F5.0

Table SRL-12-2

TAPE-FORMAT 12/CARD-TYPE 2

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SITE ID	1-7	ALPHA	A7
2. THORIUM (PPB)	9-13	REAL	1X,F5.0
3. SILVER (PPB)	15-19	REAL	1X,F5.0
4. ALUMINUM (PPB)	20-24	REAL	F5.0
5. ARSENIC (PPB)	26-33	REAL	1X,F8.0
6. BORON (PPB)	34-40	REAL	F7.0
7. BARIUM (PPB)	43-47	REAL	2X,F5.0
8. BERYLLIUM (PPB)	50-54	REAL	2X,F5.0
9. CALCIUM (PPM)	57-61	REAL	2X,F5.0
10. CERIUM (PPB)	64-67	REAL	2X,F4.0
11. COBALT (PPB)	70-73	REAL	2X,F4.0

Table SRL-12-3

TAPE-FORMAT 12/CARD-TYPE 3

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SITE ID	1-7	ALPHA	A7
2. CHROMIUM (PPB)	9-13	REAL	1X,F5.0
3. COPPER (PPB)	15-19	REAL	1X,F5.0
4. IRON (PPB)	21-27	REAL	1X,F7.0
5. POTASSIUM (PPM)	30-35	REAL	2X,F6.0
6. LITHIUM (PPB)	38-43	REAL	2X,F6.0
7. MAGNESIUM (PPM)	46-51	REAL	2X,F6.0
8. MANGANESE (PPB)	54-60	REAL	2X,F7.0
9. MOLYBDENUM (PPB)	63-66	REAL	2X,F4.0
10. SODIUM (PPM)	69-75	REAL	2X,F7.0

Table SRL-12-4

TAPE-FORMAT 12/CARD-TYPE 4

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SITE ID	1-7	ALPHA	A7
2. NIOBIUM (PPB)	9-12	REAL	1X,F4.0
3. NICKEL (PPB)	14-16	REAL	1X,F3.0
4. PHOSPHORUS (PPB)	19-23	REAL	2X,F5.0
5. SCANDIUM (PPB)	26-28	REAL	2X,F3.0
6. SELENIUM (PPB)	31-35	REAL	2X,F5.0
7. SILICON (PPM)	38-42	REAL	2X,F5.0
8. STRONTIUM (PPB)	45-49	REAL	2X,F5.0
9. TITANIUM (PPB)	52-54	REAL	2X,F3.0
10. VANADIUM (PPB)	57-60	REAL	2X,F4.0
11. YTTRIUM (PPB)	62-64	REAL	1X,F3.0
12. ZINC (PPB)	66-69	REAL	1X,F4.0
13. ZIRCONIUM (PPB)	72-74	REAL	2X,F3.0

Table SRL-13-1

TAPE-FORMAT 13/CARD-TYPE 1

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SITE ID	1-9	ALPHA	A9
2. DOE ID			
STATE CODE	11-12	INTEGER	1X,I2
LATITUDE	14-20	REAL	1X,F7.4
LONGITUDE	22-29	REAL	1X,F8.4
DOE LAB CODE	31	INTEGER	1X,I1
SAMPLE TYPE	33-34	INTEGER	1X,I2
REPLICATE CODE	36-38	INTEGER	1X,I3
3. U EXTRACTABLE (PPM)	42-49	REAL	3X,F8.0
4. SILVER (PPM)	58-65	REAL	8X,F8.0
5. ARSENIC (PPM)	66-73	REAL	F8.0
6. BARIUM (PPM)	74-80	REAL	F7.0

Table SRL-13-2

TAPE-FORMAT 13/CARD-TYPE 2

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. BERYLLIUM (PPM)	1-8	REAL	F8.0
2. CALCIUM (PPM)	9-16	REAL	F8.0
3. COBALT (PPM)	17-24	REAL	F8.0
4. CHROMIUM (PPM)	25-32	REAL	F8.0
5. COPPER (PPM)	33-40	REAL	F8.0
6. POTASSIUM PPM)	41-48	REAL	F8.0
7. LITHIUM (PPM)	49-56	REAL	F8.0
8. MAGNESIUM (PPM)	57-64	REAL	F8.0
9. MOLYBDENUM (PPM)	65-72	REAL	F8.0
10. NIOBIUM (PPM)	73-80	REAL	F8.0

Table SRL-13-3

TAPE-FORMAT 13/CARD-TYPE 3

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. NICKEL (PPM)	1-8	REAL	F8.0
2. PHOSPHORUS (PPM)	9-16	REAL	F8.0
3. LEAD (PPM)	17-24	REAL	F8.0
4. SELENIUM (PPM)	25-32	REAL	F8.0
5. TIN (PPM)	33-40	REAL	F8.0
6. STRONTIUM PPM)	41-48	REAL	F8.0
7. TUNGSTEN (PPM)	49-56	REAL	F8.0
8. YTTRIUM (PPM)	57-64	REAL	F8.0
9. ZINC (PPM)	65-72	REAL	F8.0

Table SRL-14-1

TAPE-FORMAT 14/CARD-TYPE 1

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SITE ID	1-9	ALPHA	A9
2. ERDA ID			
STATE CODE	11-12	INTEGER	1X, I2
LATITUDE	14-20	REAL	1X, F7.4
LONGITUDE	22-29	REAL	1X, F8.4
DOE LAB CODE	31	INTEGER	1X, I1
SAMPLE TYPE	33-34	INTEGER	1X, I2
REPLICATE CODE	36-38	INTEGER	1X, I3
3. PH	40-43	REAL	1X, F4.0
4. CONDUCTIVITY (MICROMHOS/CM.)	45-50	REAL	1X, F6.0
5. ALKALINITY (MEQ./LITER)	52-56	REAL	1X, F5.0
6. URANIUM (PPM)	58-62	REAL	1X, F5.0
7. THORIUM (PPM)	64-69	REAL	1X, F6.0
8. HAFNIUM (PPM)	71-76	REAL	1X, F6.0

Table SRL-14-2

TAPE-FORMAT 14/CARD-TYPE 2

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SITE ID	1-9	ALPHA	A9
2. CERIUM (PPM)	11-16	REAL	1X, F6.0
3. DYSPROSIUM (PPM)	18-22	REAL	1X, F5.0
4. TITANIUM (PPM)	24-30	REAL	1X, F7.0
5. VANADIUM (PPM)	32-36	REAL	1X, F5.0
6. MANGANESE (PPM)	38-43	REAL	1X, F6.0
7. IRON (PPM)	46-51	REAL	2X, F6.0
8. ALUMINUM (PPM)	53-59	REAL	1X, F7.0
9. SCANDIUM (PPM)	61-65	REAL	1X, F5.0



Table SRL-14-3

TAPE-FORMAT 14/CARD-TYPE 3

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SITE ID	1-9	ALPHA	A9
2. FLUORINE (PPM)	11-15	REAL	1X,F5.0
3. EUROPIUM (PPM)	17-21	REAL	1X,F5.0
4. TERBIUM (PPM)	25-30	REAL	3X,F6.0
5. TANTALUM (PPM)	32-37	REAL	1X,F6.0
6. CESIUM (PPM)	39-44	REAL	1X,F6.0
7. SAMPLING DATE (MM/DD/YY)	47-54	ALPHA	2X,A8
8. TEAM NUMBER	57-59	INTEGER	2X,I3
9. SEDIMENT TYPE	63	ALPHA	3X,A1
10. SEDIMENT COLOR	67	ALPHA	3X,A1
11. STREAM WIDTH	71	ALPHA	3X,A1
12. STREAM DEPTH	75	ALPHA	3X,A1
13. STREAM FLOW	79	ALPHA	3X,A1

Table SRL-14-4

TAPE-FORMAT 14/CARD-TYPE 4

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SITE ID	1-9	ALPHA	A9
2. STREAM LEVEL	13	ALPHA	3X,A1
3. STREAM WATER COLOR	17	ALPHA	3X,A1
4. STREAM CHANNEL	21	ALPHA	3X,A1
5. VEGETATION TYPE	25	ALPHA	3X,A1
6. VEGETATION DENSITY	29	ALPHA	3X,A1
7. RELIEF	33	ALPHA	3X,A1
8. WEATHER	37	ALPHA	3X,A1
9. NUMBER OF SEDIMENT COMPOSITES	40-41	INTEGER	2X,I2
10. ACTIVITIES/CONTAMINANTS 1	44-45	ALPHA	2X,A2
11. ACTIVITIES/CONTAMINANTS 2	48-49	ALPHA	2X,A2
12. ACTIVITIES/CONTAMINANTS 3	52-53	ALPHA	2X,A2
13. ACTIVITIES/CONTAMINANTS 4	56-57	ALPHA	2X,A2
14. WATER TEMPERATURE (C)	60-61	INTEGER	2X,I2

Table SRL-15-1

TAPE-FORMAT 15/CARD-TYPE 1

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SITE ID	1-9	ALPHA	A9
2. DOE ID NUMBER			
STATE CODE	11-12	INTEGER	1X, I2
LATITUDE	14-20	REAL	1X, F7.4
LONGITUDE	22-29	REAL	1X, F8.4
DOE LAB CODE	31	INTEGER	1X, I1
SAMPLE TYPE	33-34	INTEGER	1X, I2
REPLICATE CODE	36-38	INTEGER	1X, I3
3. PH	41-44	REAL	2X, F4.0
4. CONDUCTIVITY (MICROMHOS/CM.)	46-51	REAL	1X, F6.0
5. ALKALINITY (MEQ./LITER)	53-57	REAL	1X, F5.0

Table SRL-15-2

TAPE-FORMAT 15/CARD-TYPE 2

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL ID	1-7	ALPHA	A7
2. THORIUM (PPB)	9-13	REAL	1X, F5.0
3. SILVER (PPB)	15-19	REAL	1X, F5.0
4. ALUMINUM (PPB)	20-24	REAL	F5.0
5. ARSENIC (PPB)	26-33	REAL	1X, F8.0
6. BORON (PPB)	34-40	REAL	F7.0
7. BARIUM (PPB)	43-47	REAL	2X, F5.0
8. BERYLLIUM (PPB)	50-54	REAL	2X, F5.0
9. CALCIUM (PPM)	57-61	REAL	2X, F5.0
10. CERIUM (PPB)	64-67	REAL	2X, F4.0
11. COBALT (PPB)	70-73	REAL	2X, F4.0

Table SRL-15-3

TAPE-FORMAT 15/CARD-TYPE 3

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL ID	1-7	ALPHA	A7
2. CHROMIUM (PPB)	9-13	REAL	1X, F5.0
3. COPPER (PPB)	15-19	REAL	1X, F5.0
4. IRON (PPB)	21-27	REAL	1X, F7.0
5. POTASSIUM (PPM)	30-35	REAL	2X, F6.0
6. LITHIUM (PPB)	38-43	REAL	2X, F6.0
7. MAGNESIUM (PPM)	46-51	REAL	2X, F6.0
8. MANGANESE (PPB)	54-60	REAL	2X, F7.0
9. MOLYBDENUM (PPB)	63-66	REAL	2X, F4.0
10. SODIUM (PPM)	69-75	REAL	2X, F7.0

Table SRL-15-4

TAPE-FORMAT 15/CARD-TYPE 4

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL ID	1-7	ALPHA	A7
2. NIOBIUM (PPB)	9-12	REAL	1X, F4.0
3. NICKEL (PPB)	14-16	REAL	1X, F3.0
4. PHOSPHORUS (PPB)	19-23	REAL	2X, F5.0
5. SCANDIUM (PPB)	26-28	REAL	2X, F3.0
6. SELENIUM (PPB)	31-35	REAL	2X, F5.0
7. SILICON (PPM)	38-42	REAL	2X, F5.0
8. STRONTIUM (PPB)	45-49	REAL	2X, F5.0
9. TITANIUM (PPB)	52-54	REAL	2X, F3.0
10. VANADIUM (PPB)	57-60	REAL	2X, F4.0
11. YTTRIUM (PPB)	62-64	REAL	1X, F3.0
12. ZINC (PPB)	66-69	REAL	1X, F4.0
13. ZIRCONIUM (PPB)	72-74	REAL	2X, F3.0

**Appendix C**

**LOS ALAMOS SCIENTIFIC LABORATORY TAPE FORMATS**

Table LASL-I

## TAPE FORMAT I: SINGLE-ELEMENT COMBINED WATER AND SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	1-2	INTEGER	I2
2. LATITUDE	4-10	REAL	1X, F7.4
3. LONGITUDE	12-19	REAL	1X, F8.4
4. DOE LAB	21	INTEGER	1X, I1
5. SAMPLE TYPE	23-24	INTEGER	1X, I2
6. REPLICATE	26-28	INTEGER	1X, I3
7. LASL SAMPLE NUMBER	30-35	INTEGER	1X, I6
8. DATE (MM/DD/YY)	37-44	ALPHA	1X, A8
9. HOUR	46-47	INTEGER	1X, I2
10. AIR TEMPERATURE	49-51	INTEGER	1X, I3
11. WATER TEMPERATURE	53-56	REAL	1X, F4.1
12. COMMENTS	58	ALPHA	1X, A1
13. SPECIAL MEASUREMENTS	60	ALPHA	1X, A1
14. PH	62-65	REAL	1X, F4.1
15. SPECIFIC CONDUCTANCE (MICROMHOS/CM.)	67-71	INTEGER	1X, I5
16. SCINTILLOMETER (EU PPM)	73-77	INTEGER	1X, I5
17. ROCK TYPE	79	INTEGER	1X, I1
18. ROCK COLOR	81	INTEGER	1X, I1
19. SEDIMENT TYPE	83	INTEGER	1X, I1
20. SEDIMENT COLOR	85	INTEGER	1X, I1
21. WATER FLOW	87	INTEGER	1X, I1
22. WATER LEVEL	89	INTEGER	1X, I1
23. WATER COLOR	91	INTEGER	1X, I1
24. STREAM CHANNEL	93	INTEGER	1X, I1
25. VEGETATION TYPE	95	INTEGER	1X, I1
26. VEGETATION DENSITY	97	INTEGER	1X, I1
27. RELIEF	99	INTEGER	1X, I1
28. WEATHER	101	INTEGER	1X, I1
29. OWNERSHIP	103	INTEGER	1X, I1
30. CONTAMINANTS	105	INTEGER	1X, I1
31. WELL TYPE	107	INTEGER	1X, I1
32. WELL DIAMETER (INCHES)	109-110	INTEGER	1X, I2
33. WELL DEPTH (FEET)	112-114	INTEGER	1X, I3
34. WATER DEPTH (FEET)	116-118	INTEGER	1X, I3
35. U-CONCENTRATION (PPB)	120-127	REAL	1X, F8.2

Table LASL-II

## TAPE FORMAT II: SINGLE-ELEMENT COMBINED WATER AND SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	1-2	INTEGER	I2
2. LATITUDE	4-10	REAL	1X, F7.4
3. LONGITUDE	12-19	REAL	1X, F8.4
4. DOE LAB	21	INTEGER	1X, I1
5. SAMPLE TYPE	23-24	INTEGER	1X, I2
6. REPLICATE	26-28	INTEGER	1X, I3
7. LASL SAMPLE NUMBER	30-35	ALP/INT	1X, A1, I5
8. DATE (MM/DD/YY)	37-44	ALPHA	1X, A8
9. HOUR	46-47	INTEGER	1X, I2
10. AIR TEMPERATURE	49-51	INTEGER	1X, I3
11. WATER TEMPERATURE	53-56	REAL	1X, F4.1
12. COMMENTS	58	ALPHA	1X, A1
13. SPECIAL MEASUREMENTS	60	ALPHA	1X, A1
14. PH	62-65	REAL	1X, F4.1
15. SPECIFIC CONDUCTANCE (MICROMHOS/CM.)	67-71	INTEGER	1X, I5
16. SCINTILLOMETER (EU PPM)	73-77	INTEGER	1X, I5
17. ROCK TYPE	79	INTEGER	1X, I1
18. ROCK COLOR	81	INTEGER	1X, I1
19. SEDIMENT TYPE	83	INTEGER	1X, I1
20. SEDIMENT COLOR	85	INTEGER	1X, I1
21. WATER FLOW	87	INTEGER	1X, I1
22. WATER LEVEL	89	INTEGER	1X, I1
23. WATER COLOR	91	INTEGER	1X, I1
24. STREAM CHANNEL	93	INTEGER	1X, I1
25. VEGETATION TYPE	95	INTEGER	1X, I1
26. VEGETATION DENSITY	97	INTEGER	1X, I1
27. RELIEF	99	INTEGER	1X, I1
28. WEATHER	101	INTEGER	1X, I1
29. OWNERSHIP	103	INTEGER	1X, I1
30. CONTAMINANTS	105	INTEGER	1X, I1
31. WELL TYPE	107	INTEGER	1X, I1
32. WELL DIAMETER (INCHES)	109-110	INTEGER	1X, I2
33. WELL DEPTH (FEET)	112-114	INTEGER	1X, I3
34. WATER DEPTH (FEET)	116-118	INTEGER	1X, I3
35. U-CONCENTRATION (PPB)	120-127	REAL	1X, F8.2

Table LASL-III-1W

## TAPE-FORMAT III/CARD-TYPE 1: MULTIELEMENT WATER DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	ALP/INT	1X, A1, I5
8. DATE (MM/DD/YY)	38-45	ALPHA	1X, A8
9. HOUR	47-48	INTEGER	1X, I2
10. AIR TEMPERATURE	50-52	INTEGER	1X, I3
11. WATER TEMPERATURE	54-57	REAL	1X, F4.1
12. COMMENTS	59	ALPHA	1X, A1
13. SPECIAL MEASUREMENTS	61	ALPHA	1X, A1
14. PH	63-66	REAL	1X, F4.1
15. SPECIFIC CONDUCTANCE (MICROMHOS/CM.)	68-72	INTEGER	1X, I5
16. SCINTILLOMETER (EU PPM)	74-78	INTEGER	1X, I5
17. ROCK TYPE	80	INTEGER	1X, I1
18. ROCK COLOR	82	INTEGER	1X, I1
19. SEDIMENT TYPE	84	INTEGER	1X, I1
20. SEDIMENT COLOR	86	INTEGER	1X, I1
21. WATER FLOW	88	INTEGER	1X, I1
22. WATER LEVEL	90	INTEGER	1X, I1
23. WATER COLOR	92	INTEGER	1X, I1
24. STREAM CHANNEL	94	INTEGER	1X, I1
25. VEGETATION TYPE	96	INTEGER	1X, I1
26. VEGETATION DENSITY	98	INTEGER	1X, I1
27. RELIEF	100	INTEGER	1X, I1
28. WEATHER	102	INTEGER	1X, I1
29. OWNERSHIP	104	INTEGER	1X, I1
30. CONTAMINANTS	106	INTEGER	1X, I1
31. WELL TYPE	108	INTEGER	1X, I1
32. WELL DIAMETER (INCHES)	110-111	INTEGER	1X, I2
33. WELL DEPTH (FEET)	113-115	INTEGER	1X, I3
34. WATER DEPTH (FEET)	117-119	INTEGER	1X, I3
35. U-CONCENTRATION (PPB)	121-128	REAL	1X, F8.2

Table LASL-III-2W

## TAPE-FORMAT III/CARD-TYPE 2: MULTIELEMENT WATER DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	ALP/INT	1X, A1, I5
8. CA (PPB)	38-45	INTEGER	1X, I8
9. CO (PPB)	46-53	INTEGER	I8
10. CR (PPB)	54-61	INTEGER	I8
11. CU (PPB)	62-69	INTEGER	I8
12. FE (PPB)	70-78	INTEGER	I8
13. MG (PPB)	79-87	INTEGER	I8
14. MN (PPB)	88-95	INTEGER	I8
15. MO (PPB)	96-103	INTEGER	I8
16. NI (PPB)	104-111	INTEGER	I8
17. PB (PPB)	112-119	INTEGER	I8
18. TI (PPB)	120-127	INTEGER	I8
19. ZN (PPB)	128-135	INTEGER	I8



Table LASL-III-1S

## TAPE-FORMAT III/CARD-TYPE 1: MULTIELEMENT SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	ALP/INT	1X, A1, I5
8. DATE (MM/DD/YY)	38-45	ALPHA	1X, A8
9. HOUR	47-48	INTEGER	1X, I2
10. AIR TEMPERATURE	50-52	INTEGER	1X, I3
11. WATER TEMPERATURE	54-57	REAL	1X, F4.1
12. COMMENTS	59	ALPHA	1X, A3
13. SPECIAL MEASUREMENTS	61	ALPHA	1X, A1
14. PH	63-66	REAL	1X, F4.1
15. SPECIFIC CONDUCTANCE (MICROMHOS/CM.)	68-72	INTEGER	1X, I5
16. SCINTILLOMETER (EU PPM)	74-78	INTEGER	1X, I5
17. ROCK TYPE	80	INTEGER	1X, I1
18. ROCK COLOR	82	INTEGER	1X, I1
19. SEDIMENT TYPE	84	INTEGER	1X, I1
20. SEDIMENT COLOR	86	INTEGER	1X, I1
21. WATER FLOW	88	INTEGER	1X, I1
22. WATER LEVEL	90	INTEGER	1X, I1
23. WATER COLOR	92	INTEGER	1X, I1
24. STREAM CHANNEL	94	INTEGER	1X, I1
25. VEGETATION TYPE	96	INTEGER	1X, I1
26. VEGETATION DENSITY	98	INTEGER	1X, I1
27. RELIEF	100	INTEGER	1X, I1
28. WEATHER	102	INTEGER	1X, I1
29. OWNERSHIP	104	INTEGER	1X, I1
30. CONTAMINANTS	106	INTEGER	1X, I1
31. WELL TYPE	108	INTEGER	1X, I1
32. WELL DIAMETER (INCHES)	110-111	INTEGER	1X, I2
33. WELL DEPTH (FEET)	113-115	INTEGER	1X, I3
34. WATER DEPTH (FEET)	117-119	INTEGER	1X, I3
35. U-CONCENTRATION (PPM)	121-128	REAL	1X, F8.2

Table LASL-III-2S

## TAPE-FORMAT III/CARD-TYPE 2: MULTIELEMENT SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	ALP/INT	1X, A1, I5
8. AG (PPM)	37-43	INTEGER	I7
9. BI (PPM)	44-50	INTEGER	I7
10. CD (PPM)	51-57	INTEGER	I7
11. CU (PPM)	58-64	INTEGER	I7
12. NB (PPM)	65-71	INTEGER	I7
13. NI (PPM)	72-78	INTEGER	I7
14. PB (PPM)	79-85	INTEGER	I7
15. SN (PPM)	86-92	INTEGER	I7
16. W (PPM)	93-99	INTEGER	I7
17. BE (PPM)	112-117	INTEGER	12X, I6
18. LI (PPM)	124-129	INTEGER	6X, I6

Table LASL-III-3S

## TAPE-FORMAT III/CARD-TYPE 3: MULTIELEMENT SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	ALP/INT	1X, A1, I5
8. AL (PPM)	37-43	INTEGER	I7
9. AU (PPM)	44-49	REAL	F6.2
10. BA (PPM)	50-56	INTEGER	I7
11. CA (PPM)	57-63	INTEGER	I7
12. CE (PPM)	64-69	INTEGER	I6
13. CL (PPM)	70-76	INTEGER	I7
14. CO (PPM)	77-83	REAL	F7.1
15. CR (PPM)	84-89	INTEGER	I6
16. CS (PPM)	90-95	REAL	F6.1
17. DY (PPM)	96-101	INTEGER	I6
18. EU (PPM)	102-106	REAL	F5.1
19. FE (PPM)	107-113	INTEGER	I7
20. HF (PPM)	114-119	REAL	F6.1
21. K (PPM)	120-126	INTEGER	I7
22. LA (PPM)	127-131	INTEGER	I5
23. LU (PPM)	132-136	REAL	F5.1

Table LASL-III-4S

TAPE-FORMAT III/CARD-TYPE 4: MULTIELEMENT SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	ALP/INT	1X, A1, I5
8. MG (PPM)	37-43	INTEGER	I7
9. MN (PPM)	44-50	INTEGER	I7
10. NA (PPM)	51-57	INTEGER	I7
11. RB (PPM)	58-62	INTEGER	I5
12. SB (PPM)	63-67	INTEGER	I5
13. SC (PPM)	68-74	REAL	F7.1
14. SM (PPM)	75-80	REAL	F6.1
15. SR (PPM)	81-85	INTEGER	I5
16. TA (PPM)	86-90	INTEGER	I5
17. TB (PPM)	91-94	INTEGER	I4
18. TH (PPM)	95-101	REAL	F7.1
19. TI (PPM)	102-108	INTEGER	I7
20. V (PPM)	109-114	INTEGER	I6
21. YB (PPM)	115-120	REAL	F6.1
22. ZN (PPM)	121-126	INTEGER	I6
23. U/TH RATIO	127-135	REAL	F9.3

Table LASL-IV-W

## TAPE FORMAT IV: SINGLE-ELEMENT WATER DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	ALP/INT	1X, A1, I5
8. DATE (MM/DD/YY)	38-45	ALPHA	1X, A8
9. HOUR	47-48	INTEGER	1X, I2
10. AIR TEMPERATURE	50-52	INTEGER	1X, I3
11. WATER TEMPERATURE	54-57	REAL	1X, F4.1
12. COMMENTS	59	ALPHA	1X, A1
13. SPECIAL MEASUREMENTS	61	ALPHA	1X, A1
14. PH	63-66	REAL	1X, F4.1
15. SPECIFIC CONDUCTANCE (MICROMHOS/CM.)	68-72	INTEGER	1X, I5
16. SCINTILLOMETER (EU PPM)	74-78	INTEGER	1X, I5
17. ROCK TYPE	80	INTEGER	1X, I1
18. ROCK COLOR	82	INTEGER	1X, I1
19. SEDIMENT TYPE	84	INTEGER	1X, I1
20. SEDIMENT COLOR	86	INTEGER	1X, I1
21. WATER FLOW	88	INTEGER	1X, I1
22. WATER LEVEL	90	INTEGER	1X, I1
23. WATER COLOR	92	INTEGER	1X, I1
24. STREAM CHANNEL	94	INTEGER	1X, I1
25. VEGETATION TYPE	96	INTEGER	1X, I1
26. VEGETATION DENSITY	98	INTEGER	1X, I1
27. RELIEF	100	INTEGER	1X, I1
28. WEATHER	102	INTEGER	1X, I1
29. OWNERSHIP	104	INTEGER	1X, I1
30. CONTAMINANTS	106	INTEGER	1X, I1
31. WELL TYPE	108	INTEGER	1X, I1
32. WELL DIAMETER (INCHES)	110-111	INTEGER	1X, I2
33. WELL DEPTH (FEET)	113-115	INTEGER	1X, I3
34. WATER DEPTH (FEET)	117-119	INTEGER	1X, I3
35. U-CONCENTRATION (PPB)	121-128	REAL	1X, F8.2

Table LASL-IV-1S

## TAPE-FORMAT IV/CARD-TYPE 1: MULTIELEMENT SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	ALP/INT	1X, A1, I5
8. DATE (MM/DD/YY)	38-45	ALPHA	1X, A8
9. HOUR	47-48	INTEGER	1X, I2
10. AIR TEMPERATURE	50-52	INTEGER	1X, I3
11. WATER TEMPERATURE	54-57	REAL	1X, F4.1
12. COMMENTS	59	ALPHA	1X, A1
13. SPECIAL MEASUREMENTS	61	ALPHA	1X, A1
14. PH	63-66	REAL	1X, F4.1
15. SPECIFIC CONDUCTANCE (MICROMHOS/CM.)	68-72	INTEGER	1X, I5
16. SCINTILLOMETER (EU PPM)	74-78	INTEGER	1X, I5
17. ROCK TYPE	80	INTEGER	1X, I1
18. ROCK COLOR	82	INTEGER	1X, I1
19. SEDIMENT TYPE	84	INTEGER	1X, I1
20. SEDIMENT COLOR	86	INTEGER	1X, I1
21. WATER FLOW	88	INTEGER	1X, I1
22. WATER LEVEL	90	INTEGER	1X, I1
23. WATER COLOR	92	INTEGER	1X, I1
24. STREAM CHANNEL	94	INTEGER	1X, I1
25. VEGETATION TYPE	96	INTEGER	1X, I1
26. VEGETATION DENSITY	98	INTEGER	1X, I1
27. RELIEF	100	INTEGER	1X, I1
28. WEATHER	102	INTEGER	1X, I1
29. OWNERSHIP	104	INTEGER	1X, I1
30. CONTAMINANTS	106	INTEGER	1X, I1
31. WELL TYPE	108	INTEGER	1X, I1
32. WELL DIAMETER (INCHES)	110-111	INTEGER	1X, I2
33. WELL DEPTH (FEET)	113-115	INTEGER	1X, I3
34. WATER DEPTH (FEET)	117-119	INTEGER	1X, I3
35. U-CONCENTRATION (PPM)	121-128	REAL	1X, F8.2

Table LASL-IV-2S

## TAPE-FORMAT IV/CARD-TYPE 2: MULTIELEMENT SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	ALP/INT	1X, A1, I5
8. AG (PPM)	37-43	INTEGER	I7
9. BI (PPM)	44-50	INTEGER	I7
10. CD (PPM)	51-57	INTEGER	I7
11. CU (PPM)	58-64	INTEGER	I7
12. NB (PPM)	65-71	INTEGER	I7
13. NI (PPM)	72-78	INTEGER	I7
14. PB (PPM)	79-85	INTEGER	I7
15. SN (PPM)	86-92	INTEGER	I7
16. W (PPM)	93-99	INTEGER	I7
17. BE (PPM)	112-117	INTEGER	12X, I6
18. LI (PPM)	124-129	INTEGER	6X, I6

Table LASL-IV-3S

## TAPE-FORMAT IV/CARD-TYPE 3: MULTIELEMENT SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	ALP/INT	1X, A1, I5
8. AL (PPM)	37-43	INTEGER	I7
9. AU (PPM)	44-49	REAL	F6.2
10. BA (PPM)	50-56	INTEGER	I7
11. CA (PPM)	57-63	INTEGER	I7
12. CE (PPM)	64-69	INTEGER	I6
13. CL (PPM)	70-76	INTEGER	I7
14. CO (PPM)	77-83	REAL	F7.1
15. CR (PPM)	84-89	INTEGER	I6
16. CS (PPM)	90-95	REAL	F6.1
17. DY (PPM)	96-101	INTEGER	I6
18. EU (PPM)	102-106	REAL	F5.1
19. FE (PPM)	107-113	INTEGER	I7
20. HF (PPM)	114-119	REAL	F6.1
21. K (PPM)	120-126	INTEGER	I7
22. LA (PPM)	127-131	INTEGER	I5
23. LU (PPM)	132-136	REAL	F5.1



Table LASL-IV-4S

## TAPE-FORMAT IV/CARD-TYPE 4: MULTIELEMENT SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	ALP/INT	1X, A1, I5
8. MG (PPM)	37-43	INTEGER	I7
9. MN (PPM)	44-50	INTEGER	I7
10. NA (PPM)	51-57	INTEGER	I7
11. RB (PPM)	58-62	INTEGER	I5
12. SB (PPM)	63-67	INTEGER	I5
13. SC (PPM)	68-74	REAL	F7.1
14. SM (PPM)	75-80	REAL	F6.1
15. SR (PPM)	81-85	INTEGER	I5
16. TA (PPM)	86-90	INTEGER	I5
17. TB (PPM)	91-94	INTEGER	I4
18. TH (PPM)	95-101	REAL	F7.1
19. TI (PPM)	102-108	INTEGER	I7
20. V (PPM)	109-114	INTEGER	I6
21. YB (PPM)	115-120	REAL	F6.1
22. ZN (PPM)	121-126	INTEGER	I6
23. U/TH RATIO	127-135	REAL	F9.3

Table LASL-V-W

## TAPE FORMAT V: SINGLE-ELEMENT WATER DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	ALP/INT	1X, A1, I5
8. DATE (MM/DD/YY)	38-45	ALPHA	1X, A8
9. HOUR	47-48	INTEGER	1X, I2
10. AIR TEMPERATURE	50-52	INTEGER	1X, I3
11. WATER TEMPERATURE	54-57	REAL	1X, F4.1
12. COMMENTS	59	ALPHA	1X, A1
13. SPECIAL MEASUREMENTS	61	ALPHA	1X, A1
14. PH	63-66	REAL	1X, F4.1
15. SPECIFIC CONDUCTANCE (MICROMHOS/CM.)	68-72	INTEGER	1X, I5
16. SCINTILLOMETER (EU PPM)	74-78	INTEGER	1X, I5
17. ROCK TYPE	80	INTEGER	1X, I1
18. ROCK COLOR	82	INTEGER	1X, I1
19. SEDIMENT TYPE	84	INTEGER	1X, I1
20. SEDIMENT COLOR	86	INTEGER	1X, I1
21. WATER FLOW	88	INTEGER	1X, I1
22. WATER LEVEL	90	INTEGER	1X, I1
23. WATER COLOR	92	INTEGER	1X, I1
24. STREAM CHANNEL	94	INTEGER	1X, I1
25. VEGETATION TYPE	96	INTEGER	1X, I1
26. VEGETATION DENSITY	98	INTEGER	1X, I1
27. RELIEF	100	INTEGER	1X, I1
28. WEATHER	102	INTEGER	1X, I1
29. OWNERSHIP	104	INTEGER	1X, I1
30. CONTAMINANTS	106	INTEGER	1X, I1
31. WELL TYPE	108	INTEGER	1X, I1
32. WELL DIAMETER (INCHES)	110-111	INTEGER	1X, I2
33. WELL DEPTH (FEET)	113-115	INTEGER	1X, I3
34. WATER DEPTH (FEET)	117-119	INTEGER	1X, I3
35. U-CONCENTRATION (PPB)	121-128	REAL	1X, F8.2

Table LASL-V-1S

## TAPE-FORMAT V/CARD-TYPE 1: MULTIELEMENT SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	ALP/INT	1X, A1, I5
8. DATE (MM/DD/YY)	38-45	ALPHA	1X, A8
9. HOUR	47-48	INTEGER	1X, I2
10. AIR TEMPERATURE	50-52	INTEGER	1X, I3
11. WATER TEMPERATURE	54-57	REAL	1X, F4.1
12. COMMENTS	59	ALPHA	1X, A1
13. SPECIAL MEASUREMENTS	61	ALPHA	1X, A1
14. PH	63-66	REAL	1X, F4.1
15. SPECIFIC CONDUCTANCE (MICROMHOS/CM.)	68-72	INTEGER	1X, I5
16. SCINTILLOMETER (EU PPM)	74-78	INTEGER	1X, I5
17. ROCK TYPE	80	INTEGER	1X, I1
18. ROCK COLOR	82	INTEGER	1X, I1
19. SEDIMENT TYPE	84	INTEGER	1X, I1
20. SEDIMENT COLOR	86	INTEGER	1X, I1
21. WATER FLOW	88	INTEGER	1X, I1
22. WATER LEVEL	90	INTEGER	1X, I1
23. WATER COLOR	92	INTEGER	1X, I1
24. STREAM CHANNEL	94	INTEGER	1X, I1
25. VEGETATION TYPE	96	INTEGER	1X, I1
26. VEGETATION DENSITY	98	INTEGER	1X, I1
27. RELIEF	100	INTEGER	1X, I1
28. WEATHER	102	INTEGER	1X, I1
29. OWNERSHIP	104	INTEGER	1X, I1
30. CONTAMINANTS	106	INTEGER	1X, I1
31. WELL TYPE	108	INTEGER	1X, I1
32. WELL DIAMETER (INCHES)	110-111	INTEGER	1X, I2
33. WELL DEPTH (FEET)	113-115	INTEGER	1X, I3
34. WATER DEPTH (FEET)	117-119	INTEGER	1X, I3
35. U-CONCENTRATION (PPM)	121-128	REAL	1X, F8.2

Table LASL-V-2S

## TAPE-FORMAT V/CARD-TYPE 2: MULTIELEMENT SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	ALP/INT	1X, A1, I5
8. AG (PPM)	37-43	INTEGER	I7
9. BI (PPM)	44-50	INTEGER	I7
10. CD (PPM)	51-57	INTEGER	I7
11. CU (PPM)	58-64	INTEGER	I7
12. NB (PPM)	65-71	INTEGER	I7
13. NI (PPM)	72-78	INTEGER	I7
14. PB (PPM)	79-85	INTEGER	I7
15. SN (PPM)	86-92	INTEGER	I7
16. W (PPM)	93-99	INTEGER	I7
17. AS (PPM)	100-106	INTEGER	I7
18. SE (PPM)	107-113	INTEGER	I7
19. ZR (PPM)	114-120	INTEGER	I7
20. BE (PPM)	121-127	INTEGER	I7
21. LI (PPM)	128-134	INTEGER	I7

Table LASL-V-3S

## TAPE-FORMAT V/CARD-TYPE 3: MULTIELEMENT SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	ALP/INT	1X, A1, I5
8. AL (PPM)	37-43	INTEGER	I7
9. AU (PPM)	44-49	REAL	F6.2
10. BA (PPM)	50-56	INTEGER	I7
11. CA (PPM)	57-63	INTEGER	I7
12. CE (PPM)	64-69	INTEGER	I6
13. CL (PPM)	70-76	INTEGER	I7
14. CO (PPM)	77-83	REAL	F7.1
15. CR (PPM)	84-89	INTEGER	I6
16. CS (PPM)	90-95	REAL	F6.1
17. DY (PPM)	96-101	INTEGER	I6
18. EU (PPM)	102-106	REAL	F5.1
19. FE (PPM)	107-113	INTEGER	I7
20. HF (PPM)	114-119	REAL	F6.1
21. K (PPM)	120-126	INTEGER	I7
22. LA (PPM)	127-131	INTEGER	I5
23. LU (PPM)	132-136	REAL	F5.1

Table LASL-V-4S

## TAPE-FORMAT V/CARD-TYPE 4: MULTIELEMENT SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	ALP/INT	1X, A1, I5
8. MG (PPM)	37-43	INTEGER	I7
9. MN (PPM)	44-50	INTEGER	I7
10. NA (PPM)	51-57	INTEGER	I7
11. RB (PPM)	58-62	INTEGER	I5
12. SB (PPM)	63-67	INTEGER	I5
13. SC (PPM)	68-74	REAL	F7.1
14. SM (PPM)	75-80	REAL	F6.1
15. SR (PPM)	81-85	INTEGER	I5
16. TA (PPM)	86-90	INTEGER	I5
17. TB (PPM)	91-94	INTEGER	I4
18. TH (PPM)	95-101	REAL	F7.1
19. TI (PPM)	102-108	INTEGER	I7
20. V (PPM)	109-114	INTEGER	I6
21. YB (PPM)	115-120	REAL	F6 1
22. ZN (PPM)	121-126	INTEGER	I6
23. U/TH RATIO	127-135	REAL	F9.3

Table LASL-VI-W

## TAPE FORMAT VI: SINGLE-ELEMENT WATER DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	ALP/INT	1X, A1, I5
8. DATE (MM/DD/YY)	38-45	ALPHA	1X, A8
9. HOUR	47-48	INTEGER	1X, I2
10. AIR TEMPERATURE	50-52	INTEGER	1X, I3
11. WATER TEMPERATURE	54-57	REAL	1X, F4.1
12. COMMENTS	59	ALPHA	1X, A1
13. SPECIAL MEASUREMENTS	61	ALPHA	1X, A1
14. PH	63-66	REAL	1X, F4.1
15. SPECIFIC CONDUCTANCE (MICROMHOS/CM.)	68-72	INTEGER	1X, I5
16. SCINTILLOMETER (EU PPM)	74-78	INTEGER	1X, I5
17. ROCK TYPE	80	INTEGER	1X, I1
18. ROCK COLOR	82	INTEGER	1X, I1
19. SEDIMENT TYPE	84	INTEGER	1X, I1
20. SEDIMENT COLOR	86	INTEGER	1X, I1
21. WATER FLOW	88	INTEGER	1X, I1
22. WATER LEVEL	90	INTEGER	1X, I1
23. WATER COLOR	92	INTEGER	1X, I1
24. STREAM CHANNEL	94	INTEGER	1X, I1
25. VEGETATION TYPE	96	INTEGER	1X, I1
26. VEGETATION DENSITY	98	INTEGER	1X, I1
27. RELIEF	100	INTEGER	1X, I1
28. WEATHER	102	INTEGER	1X, I1
29. OWNERSHIP	104	INTEGER	1X, I1
30. CONTAMINANTS	106	INTEGER	1X, I1
31. WELL TYPE	108	INTEGER	1X, I1
32. WELL DIAMETER (INCHES)	110-111	INTEGER	1X, I2
33. WELL DEPTH (FEET)	113-115	INTEGER	1X, I3
34. WATER DEPTH (FEET)	117-119	INTEGER	1X, I3
35. U-CONCENTRATION (PPB)	121-128	REAL	1X, F8.2

Table LASL-VI-1S

## TAPE-FORMAT VI/CARD-TYPE 1: MULTIELEMENT SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	ALP/INT	1X, A1, I5
8. DATE (MM/DD/YY)	38-45	ALPHA	1X, A8
9. HOUR	47-48	INTEGER	1X, I2
10. AIR TEMPERATURE	50-52	INTEGER	1X, I3
11. WATER TEMPERATURE	54-57	REAL	1X, F4.1
12. COMMENTS	59	ALPHA	1X, A1
13. SPECIAL MEASUREMENTS	61	ALPHA	1X, A1
14. PH	63-66	REAL	1X, F4.1
15. SPECIFIC CONDUCTANCE (MICROMHOS/CM.)	68-72	INTEGER	1X, I5
16. SCINTILLOMETER (EU PPM)	74-78	INTEGER	1X, I5
17. ROCK TYPE	80	INTEGER	1X, I1
18. ROCK COLOR	82	INTEGER	1X, I1
19. SEDIMENT TYPE	84	INTEGER	1X, I1
20. SEDIMENT COLOR	86	INTEGER	1X, I1
21. WATER FLOW	88	INTEGER	1X, I1
22. WATER LEVEL	90	INTEGER	1X, I1
23. WATER COLOR	92	INTEGER	1X, I1
24. STREAM CHANNEL	94	INTEGER	1X, I1
25. VEGETATION TYPE	96	INTEGER	1X, I1
26. VEGETATION DENSITY	98	INTEGER	1X, I1
27. RELIEF	100	INTEGER	1X, I1
28. WEATHER	102	INTEGER	1X, I1
29. OWNERSHIP	104	INTEGER	1X, I1
30. CONTAMINANTS	106	INTEGER	1X, I1
31. WELL TYPE	108	INTEGER	1X, I1
32. WELL DIAMETER (INCHES)	110-111	INTEGER	1X, I2
33. WELL DEPTH (FEET)	113-115	INTEGER	1X, I3
34. WATER DEPTH (FEET)	117-119	INTEGER	1X, I3
35. U-CONCENTRATION (PPM)	121-128	REAL	1X, F8.2



Table LASL-VI-2S

## TAPE-FORMAT VI/CARD-TYPE 2: MULTIELEMENT SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	ALP/INT	1X, A1, I5
8. AG (PPM)	37-42	INTEGER	I6
9. BI (PPM)	43-48	INTEGER	I6
10. CD (PPM)	49-54	INTEGER	I6
11. CU (PPM)	55-60	INTEGER	I6
12. NB (PPM)	61-66	INTEGER	I6
13. NI (PPM)	67-72	INTEGER	I6
14. PB (PPM)	73-78	INTEGER	I6
15. SN (PPM)	79-84	INTEGER	I6
16. W (PPM)	85-90	INTEGER	I6
17. AS (PPM)	91-96	INTEGER	I6
18. SE (PPM)	97-102	INTEGER	I6
19. ZR (PPM)	103-108	INTEGER	I6
20. MO (PPM)	109-114	INTEGER	I6
21. BE (PPM)	115-121	INTEGER	I7
22. LI (PPM)	122-128	INTEGER	I7

Table LASL-VI-3S

## TAPE-FORMAT VI/CARD-TYPE 3: MULTIELEMENT SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	ALP/INT	1X, A1, I5
8. AL (PPM)	37-43	INTEGER	I7
9. AU (PPM)	44-49	REAL	F6.2
10. BA (PPM)	50-56	INTEGER	I7
11. CA (PPM)	57-63	INTEGER	I7
12. CE (PPM)	64-69	INTEGER	I6
13. CL (PPM)	70-76	INTEGER	I7
14. CO (PPM)	77-83	REAL	F7.1
15. CR (PPM)	84-89	INTEGER	I6
16. CS (PPM)	90-95	REAL	F6.1
17. DY (PPM)	96-101	INTEGER	I6
18. EU (PPM)	102-106	REAL	F5.1
19. FE (PPM)	107-113	INTEGER	I7
20. HF (PPM)	114-119	REAL	F6.1
21. K (PPM)	120-126	INTEGER	I7
22. LA (PPM)	127-131	INTEGER	I5
23. LU (PPM)	132-136	REAL	F5.1

Table LASL-VI-4S

## TAPE-FORMAT VI/CARD-TYPE 4: MULTIELEMENT SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	ALP/INT	1X, A1, I5
8. MG (PPM)	37-43	INTEGER	I7
9. MN (PPM)	44-50	INTEGER	I7
10. NA (PPM)	51-57	INTEGER	I7
11. RB (PPM)	58-62	INTEGER	I5
12. SB (PPM)	63-67	INTEGER	I5
13. SC (PPM)	68-74	REAL	F7.1
14. SM (PPM)	75-80	REAL	F6.1
15. SR (PPM)	81-85	INTEGER	I5
16. TA (PPM)	86-90	INTEGER	I5
17. TB (PPM)	91-94	INTEGER	I4
18. TH (PPM)	95-101	REAL	F7.1
19. TI (PPM)	102-108	INTEGER	I7
20. V (PPM)	109-114	INTEGER	I6
21. YB (PPM)	115-120	REAL	F6.1
22. ZN (PPM)	121-126	INTEGER	I6
23. U/TH RATIO	127-135	REAL	F9.3

Table LASL-VII-W

## TAPE FORMAT VII: SINGLE-ELEMENT WATER DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	INTEGER	1X, I6
8. DATE (MM/DD/YY)	38-45	ALPHA	1X, A8
9. HOUR	47-48	INTEGER	1X, I2
10. AIR TEMPERATURE	50-52	INTEGER	1X, I3
11. WATER TEMPERATURE	54-57	REAL	1X, F4.1
12. COMMENTS	59	ALPHA	1X, A1
13. SPECIAL MEASUREMENTS	61	ALPHA	1X, A1
14. PH	63-66	REAL	1X, F4.1
15. SPECIFIC CONDUCTANCE (MICROMHOS/CM.)	68-72	INTEGER	1X, I5
16. SCINTILLOMETER (EU PPM)	74-78	INTEGER	1X, I5
17. ROCK TYPE	80	INTEGER	1X, I1
18. ROCK COLOR	82	INTEGER	1X, I1
19. SEDIMENT TYPE	84	INTEGER	1X, I1
20. SEDIMENT COLOR	86	INTEGER	1X, I1
21. WATER FLOW	88	INTEGER	1X, I1
22. WATER LEVEL	90	INTEGER	1X, I1
23. WATER COLOR	92	INTEGER	1X, I1
24. STREAM CHANNEL	94	INTEGER	1X, I1
25. VEGETATION TYPE	96	INTEGER	1X, I1
26. VEGETATION DENSITY	98	INTEGER	1X, I1
27. RELIEF	100	INTEGER	1X, I1
28. WEATHER	102	INTEGER	1X, I1
29. OWNERSHIP	104	INTEGER	1X, I1
30. CONTAMINANTS	106	INTEGER	1X, I1
31. WELL TYPE	108	INTEGER	1X, I1
32. WELL DIAMETER (INCHES)	110-111	INTEGER	1X, I2
33. WELL DEPTH (FEET)	113-115	INTEGER	1X, I3
34. WATER DEPTH (FEET)	117-119	INTEGER	1X, I3
35. U-CONCENTRATION (PPB)	121-128	REAL	1X, F8.2

Table LASL-VII-1S

## TAPE-FORMAT VII/CARD-TYPE 1: MULTIELEMENT SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	INTEGER	1X, I6
8. DATE (MM/DD/YY)	38-45	ALPHA	1X, A8
9. HOUR	47-48	INTEGER	1X, I2
10. AIR TEMPERATURE	50-52	INTEGER	1X, I3
11. WATER TEMPERATURE	54-57	REAL	1X, F4.1
12. COMMENTS	59	ALPHA	1X, A1
13. SPECIAL MEASUREMENTS	61	ALPHA	1X, A1
14. PH	63-66	REAL	1X, F4.1
15. SPECIFIC CONDUCTANCE (MICROMHOS/CM.)	68-72	INTEGER	1X, I5
16. SCINTILLOMETER (EU PPM)	74-78	INTEGER	1X, I5
17. ROCK TYPE	80	INTEGER	1X, I1
18. ROCK COLOR	82	INTEGER	1X, I1
19. SEDIMENT TYPE	84	INTEGER	1X, I1
20. SEDIMENT COLOR	86	INTEGER	1X, I1
21. WATER FLOW	88	INTEGER	1X, I1
22. WATER LEVEL	90	INTEGER	1X, I1
23. WATER COLOR	92	INTEGER	1X, I1
24. STREAM CHANNEL	94	INTEGER	1X, I1
25. VEGETATION TYPE	96	INTEGER	1X, I1
26. VEGETATION DENSITY	98	INTEGER	1X, I1
27. RELIEF	100	INTEGER	1X, I1
28. WEATHER	102	INTEGER	1X, I1
29. OWNERSHIP	104	INTEGER	1X, I1
30. CONTAMINANTS	106	INTEGER	1X, I1
31. WELL TYPE	108	INTEGER	1X, I1
32. WELL DIAMETER (INCHES)	110-111	INTEGER	1X, I2
33. WELL DEPTH (FEET)	113-115	INTEGER	1X, I3
34. WATER DEPTH (FEET)	117-119	INTEGER	1X, I3
35. U-CONCENTRATION (PPM)	121-128	REAL	1X, F8.2

Table LASL-VII-2S

## TAPE-FORMAT VII/CARD-TYPE 2: MULTIELEMENT SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	INTEGER	1X, I6
8. AG (PPM)	37-42	INTEGER	I6
9. BI (PPM)	43-48	INTEGER	I6
10. CD (PPM)	49-54	INTEGER	I6
11. CU (PPM)	55-60	INTEGER	I6
12. NB (PPM)	61-66	INTEGER	I6
13. NI (PPM)	67-72	INTEGER	I6
14. PB (PPM)	73-78	INTEGER	I6
15. SN (PPM)	79-84	INTEGER	I6
16. W (PPM)	85-90	INTEGER	I6
17. AS (PPM)	91-96	INTEGER	I6
18. SE (PPM)	97-102	INTEGER	I6
19. ZR (PPM)	103-108	INTEGER	I6
20. MO (PPM)	109-114	INTEGER	I6
21. BE (PPM)	115-121	INTEGER	I7
22. LI (PPM)	122-128	INTEGER	I7

Table LASL-VII-3S

## TAPE-FORMAT VII/CARD-TYPE 3: MULTIELEMENT SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	INTEGER	1X, I6
8. AL (PPM)	37-43	INTEGER	I7
9. AU (PPM)	44-49	REAL	F6.2
10. BA (PPM)	50-56	INTEGER	I7
11. CA (PPM)	57-63	INTEGER	I7
12. CE (PPM)	64-69	INTEGER	I6
13. CL (PPM)	70-76	INTEGER	I7
14. CO (PPM)	77-83	REAL	F7.1
15. CR (PPM)	84-89	INTEGER	I6
16. CS (PPM)	90-95	REAL	F6.1
17. DY (PPM)	96-101	INTEGER	I6
18. EU (PPM)	102-106	REAL	F5.1
19. FE (PPM)	107-113	INTEGER	I7
20. HF (PPM)	114-119	REAL	F6.1
21. K (PPM)	120-126	INTEGER	I7
22. LA (PPM)	127-131	INTEGER	I5
23. LU (PPM)	132-136	REAL	F5.1

Table LASL-VII-4S

## TAPE-FORMAT VII/CARD-TYPE 4: MULTIELEMENT SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	INTEGER	1X, I6
8. MG (PPM)	37-43	INTEGER	I7
9. MN (PPM)	44-50	INTEGER	I7
10. NA (PPM)	51-57	INTEGER	I7
11. RB (PPM)	58-62	INTEGER	I5
12. SB (PPM)	63-67	INTEGER	I5
13. SC (PPM)	68-74	REAL	F7.1
14. SM (PPM)	75-80	REAL	F6.1
15. SR (PPM)	81-85	INTEGER	I5
16. TA (PPM)	86-90	INTEGER	I5
17. TB (PPM)	91-94	INTEGER	I4
18. TH (PPM)	95-101	REAL	F7.1
19. TI (PPM)	102-108	INTEGER	I7
20. V (PPM)	109-114	INTEGER	I6
21. YB (PPM)	115-120	REAL	F6.1
22. ZN (PPM)	121-126	INTEGER	I6
23. U/TH RATIO	127-135	REAL	F9.3



Table LASL-VIII-W

## TAPE FORMAT VIII: SINGLE-ELEMENT WATER DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	INTEGER	1X, I6
8. DATE (MM/DD/YY)	38-45	ALPHA	1X, A8
9. HOUR	47-48	INTEGER	1X, I2
10. AIR TEMPERATURE	50-52	INTEGER	1X, I3
11. WATER TEMPERATURE	54-57	REAL	1X, F4.1
12. COMMENTS	59	ALPHA	1X, A1
13. SPECIAL MEASUREMENTS	61	ALPHA	1X, A1
14. PH	63-66	REAL	1X, F4.1
15. SPECIFIC CONDUCTANCE (MICROMHOS/CM.)	68-72	INTEGER	1X, I5
16. SCINTILLOMETER (EU PPM)	74-78	INTEGER	1X, I5
17. ROCK TYPE	80	INTEGER	1X, I1
18. ROCK COLOR	82	INTEGER	1X, I1
19. SEDIMENT TYPE	84	INTEGER	1X, I1
20. SEDIMENT COLOR	86	INTEGER	1X, I1
21. WATER FLOW	88	INTEGER	1X, I1
22. WATER LEVEL	90	INTEGER	1X, I1
23. WATER COLOR	92	INTEGER	1X, I1
24. STREAM CHANNEL	94	INTEGER	1X, I1
25. VEGETATION TYPE	96	INTEGER	1X, I1
26. VEGETATION DENSITY	98	INTEGER	1X, I1
27. RELIEF	100	INTEGER	1X, I1
28. WEATHER	102	INTEGER	1X, I1
29. OWNERSHIP	104	INTEGER	1X, I1
30. CONTAMINANTS	106	INTEGER	1X, I1
31. DISSOLVED OXYGEN (PPM)	116-119	REAL	9X, F4.1
32. U-CONCENTRATION (PPB)	121-128	REAL	1X, F8.2

Table LASL-VIII-1S

## TAPE-FORMAT VIII/CARD-TYPE 1: MULTIELEMENT SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	INTEGER	1X, I6
8. DATE (MM/DD/YY)	38-45	ALPHA	1X, A8
9. HOUR	47-48	INTEGER	1X, I2
10. AIR TEMPERATURE	50-52	INTEGER	1X, I3
11. WATER TEMPERATURE	54-57	REAL	1X, F4.1
12. COMMENTS	59	ALPHA	1X, A1
13. SPECIAL MEASUREMENTS	61	ALPHA	1X, A1
14. PH	63-66	REAL	1X, F4.1
15. SPECIFIC CONDUCTANCE (MICROMHOS/CM.)	68-72	INTEGER	1X, I5
16. SCINTILLOMETER (EU PPM)	74-78	INTEGER	1X, I5
17. ROCK TYPE	80	INTEGER	1X, I1
18. ROCK COLOR	82	INTEGER	1X, I1
19. SEDIMENT TYPE	84	INTEGER	1X, I1
20. SEDIMENT COLOR	86	INTEGER	1X, I1
21. WATER FLOW	88	INTEGER	1X, I1
22. WATER LEVEL	90	INTEGER	1X, I1
23. WATER COLOR	92	INTEGER	1X, I1
24. STREAM CHANNEL	94	INTEGER	1X, I1
25. VEGETATION TYPE	96	INTEGER	1X, I1
26. VEGETATION DENSITY	98	INTEGER	1X, I1
27. RELIEF	100	INTEGER	1X, I1
28. WEATHER	102	INTEGER	1X, I1
29. OWNERSHIP	104	INTEGER	1X, I1
30. CONTAMINANTS	106	INTEGER	1X, I1
31. DISSOLVED OXYGEN (PPM)	116-119	REAL	9X, F4.1
32. U-CONCENTRATION (PPM)	121-128	REAL	1X, F8.2

Table LASL-VIII-2S

## TAPE-FORMAT VIII/CARD-TYPE 2: MULTIELEMENT SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	INTEGER	1X, I6
8. AG (PPM)	37-42	INTEGER	I6
9. BI (PPM)	43-48	INTEGER	I6
10. CD (PPM)	49-54	INTEGER	I6
11. CU (PPM)	55-60	INTEGER	I6
12. NB (PPM)	61-66	INTEGER	I6
13. NI (PPM)	67-72	INTEGER	I6
14. PB (PPM)	73-78	INTEGER	I6
15. SN (PPM)	79-84	INTEGER	I6
16. W (PPM)	85-90	INTEGER	I6
17. AS (PPM)	91-96	INTEGER	I6
18. SE (PPM)	97-102	INTEGER	I6
19. ZR (PPM)	103-108	INTEGER	I6
20. MO (PPM)	109-114	INTEGER	I6
21. BE (PPM)	115-121	INTEGER	I7
22. LI (PPM)	122-128	INTEGER	I7

Table LASL-VIII-3S

## TAPE-FORMAT VIII/CARD-TYPE 3: MULTIELEMENT SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	INTEGER	1X, I6
8. AL (PPM)	37-43	INTEGER	I7
9. AU (PPM)	44-49	REAL	F6.2
10. BA (PPM)	50-56	INTEGER	I7
11. CA (PPM)	57-63	INTEGER	I7
12. CE (PPM)	64-69	INTEGER	I6
13. CL (PPM)	70-76	INTEGER	I7
14. CO (PPM)	77-83	REAL	F7.1
15. CR (PPM)	84-89	INTEGER	I6
16. CS (PPM)	90-95	REAL	F6.1
17. DY (PPM)	96-101	INTEGER	I6
18. EU (PPM)	102-106	REAL	F5.1
19. FE (PPM)	107-113	INTEGER	I7
20. HF (PPM)	114-119	REAL	F6.1
21. K (PPM)	120-126	INTEGER	I7
22. LA (PPM)	127-131	INTEGER	I5
23. LU (PPM)	132-136	REAL	F5.1

Table LASL-VIII-4S

## TAPE-FORMAT VIII/CARD-TYPE 4: MULTIELEMENT SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	INTEGER	1X, I6
8. MG (PPM)	37-43	INTEGER	I7
9. MN (PPM)	44-50	INTEGER	I7
10. NA (PPM)	51-57	INTEGER	I7
11. RB (PPM)	58-62	INTEGER	I5
12. SB (PPM)	63-67	INTEGER	I5
13. SC (PPM)	68-74	REAL	F7.1
14. SM (PPM)	75-80	REAL	F6.1
15. SR (PPM)	81-85	INTEGER	I5
16. TA (PPM)	86-90	INTEGER	I5
17. TB (PPM)	91-94	INTEGER	I4
18. TH (PPM)	95-101	REAL	F7.1
19. TI (PPM)	102-108	INTEGER	I7
20. V (PPM)	109-114	INTEGER	I6
21. YB (PPM)	115-120	REAL	F6.1
22. ZN (PPM)	121-126	INTEGER	I6
23. U/TH RATIO	127-135	REAL	F9.3

Table LASL-IX

## TAPE FORMAT IX: WATER GEOLOGIC DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	INTEGER	1X, I6
8. GEOLOGIC INFORMATION*			
CONTACT	48	INTEGER	11X, I1
FAULT <=500 METERS	50	INTEGER	1X, I1
FAULT 501-1500 METERS	52	INTEGER	1X, I1
GEOLOGIC UNIT AT SITE	55	ALPHA	2X, A1
GEOLOGIC UNIT <=500 METERS	57	ALPHA	1X, A1
GEOLOGIC UNIT 501-1500 METERS	59	ALPHA	1X, A1

## \*GEOLOGIC INFORMATION CODES:

CONTACT = 1 - CONTACT WITH ANOTHER UNIT >200 METERS UPSLOPE  
= 2 - CONTACT WITH ANOTHER UNIT <=200 METERS UPSLOPE

FAULT <=500 METERS = 1 - NO FAULT PRESENT <=500 METERS UPSLOPE  
= 2 - FAULT PRESENT <= 500 METERS UPSLOPE

FAULT 501-1500 METERS = 1 - NO FAULT PRESENT 501-1500 METERS  
UPSLOPE  
= 2 - FAULT PRESENT 501-1500 METERS  
UPSLOPE

## GEOLOGIC UNIT CODES:

A = SAN JUAN VOLCANICS AND INTRUSIVES  
C = LOWER PALEOZOIC SEDIMENTARY ROCKS  
E = EOLUS GRANITE  
I = IRVING FORMATION  
J = JURASSIC AND CRETACEOUS SEDIMENTARY ROCKS  
M = TENMILE GRANITE  
O = NO OTHER GEOLOGIC UNIT UPSLOPE WITHIN 501-1500 METERS AND  
STREAM CLOSELY FOLLOWS CONTACT BETWEEN TWO UNITS  
P = PINE RIVER QUARTZ DIORITE  
Q = UNCOMPAGRE QUARTZITE  
S = UNCOMPAGRE SLATE  
T = TRIMBLE GRANITE  
V = VALLECITO CONGLOMERATE  
W = TWILIGHT GNEISS

Table LASL-X-1S

TAPE-FORMAT X/CARD-TYPE 1: MULTIELEMENT SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. USBM SAMPLE NUMBER	5-15	ALPHA	1X, A11
3. SAMPLE TYPE IDENTIFIER	17	ALPHA	1X, A1
4. DOE LAB	22	INTEGER	4X, I1
5. SAMPLE TYPE IDENTIFIER	24-25	INTEGER	1X, I2
6. LASL SAMPLE NUMBER	31-36	INTEGER	5X, I6
7. U-CONCENTRATION (PPM)	121-128	REAL	84X, F8.2

Table LASL-X-2S

TAPE-FORMAT X/CARD-TYPE 2: MULTIELEMENT SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. USBM SAMPLE NUMBER	5-15	ALPHA	1X, A11
3. SAMPLE TYPE IDENTIFIER	17	ALPHA	1X, A1
4. DOE LAB	22	INTEGER	4X, I1
5. SAMPLE TYPE IDENTIFIER	24-25	INTEGER	1X, I2
6. LASL SAMPLE NUMBER	31-36	INTEGER	5X, I6
7. AG (PPM)	37-43	INTEGER	I7
8. BI (PPM)	44-50	INTEGER	I7
9. CD (PPM)	51-57	INTEGER	I7
10. CU (PPM)	58-64	INTEGER	I7
11. NB (PPM)	65-71	INTEGER	I7
12. NI (PPM)	72-78	INTEGER	I7
13. PB (PPM)	79-85	INTEGER	I7
14. SN (PPM)	86-92	INTEGER	I7
15. W (PPM)	93-99	INTEGER	I7
16. BE (PPM)	112-117	INTEGER	12X, I6
17. LI (PPM)	124-129	INTEGER	6X, I6

Table LASL-X-3S

## TAPE-FORMAT X/CARD-TYPE 3: MULTIELEMENT SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. USBM SAMPLE NUMBER	5-15	ALPHA	1X, A11
3. SAMPLE TYPE IDENTIFIER	17	ALPHA	1X, A1
4. DOE LAB	22	INTEGER	4X, I1
5. SAMPLE TYPE IDENTIFIER	24-25	INTEGER	1X, I2
6. LASL SAMPLE NUMBER	31-36	INTEGER	5X, I6
7. AL (PPM)	37-43	INTEGER	I7
8. AU (PPM)	44-49	REAL	F6.2
9. BA (PPM)	50-56	INTEGER	I7
10. CA (PPM)	57-63	INTEGER	I7
11. CE (PPM)	64-69	INTEGER	I6
12. CL (PPM)	70-76	INTEGER	I7
13. CO (PPM)	77-83	REAL	F7.1
14. CR (PPM)	84-89	INTEGER	I6
15. CS (PPM)	90-95	REAL	F6.1
16. DY (PPM)	96-101	INTEGER	I6
17. EU (PPM)	102-106	REAL	F5.1
18. FE (PPM)	107-113	INTEGER	I7
19. HF (PPM)	114-119	REAL	F6.1
20. K (PPM)	120-126	INTEGER	I7
21. LA (PPM)	127-131	INTEGER	I5
22. LU (PPM)	132-136	REAL	F5.1



Table LASL-X-4S

## TAPE-FORMAT X/CARD-TYPE 4: MULTIELEMENT SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. USBM SAMPLE NUMBER	5-15	ALPHA	1X, A11
3. SAMPLE TYPE IDENTIFIER	17	ALPHA	1X, A1
4. DOE LAB	22	INTEGER	4X, I1
5. SAMPLE TYPE IDENTIFIER	24-25	INTEGER	1X, I2
6. LASL SAMPLE NUMBER	31-36	INTEGER	5X, I6
7. MG (PPM)	37-43	INTEGER	I7
8. MN (PPM)	44-50	INTEGER	I7
9. NA (PPM)	51-57	INTEGER	I7
10. RB (PPM)	58-62	INTEGER	I5
11. SB (PPM)	63-67	INTEGER	I5
12. SC (PPM)	68-74	REAL	F7.1
13. SM (PPM)	75-80	REAL	F6.1
14. SR (PPM)	81-85	INTEGER	I5
15. TA (PPM)	86-90	INTEGER	I5
16. TB (PPM)	91-94	INTEGER	I4
17. TH (PPM)	95-101	REAL	F7.1
18. TI (PPM)	102-108	INTEGER	I7
19. V (PPM)	109-114	INTEGER	I6
20. YB (PPM)	115-120	REAL	F6.1
21. ZN (PPM)	121-126	INTEGER	I6
22. U/TH RATIO	127-135	REAL	F9.3

Table LASL-XI-W

## TAPE FORMAT XI: SINGLE-ELEMENT WATER DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	ALP. INT	1X, A1, I5
8. DATE (MM/DD/YY)	38-45	ALPHA	1X, A8
9. HOUR	47-48	INTEGER	1X, I2
10. AIR TEMPERATURE	50-52	INTEGER	1X, I3
11. WATER TEMPERATURE	54-57	REAL	1X, F4.1
12. COMMENTS	59	ALPHA	1X, A1
13. SPECIAL MEASUREMENTS	61	ALPHA	1X, A1
14. PH	63-66	REAL	1X, F4.1
15. SPECIFIC CONDUCTANCE (MICROMHOS/CM.)	68-72	INTEGER	1X, I5
16. SCINTILLOMETER (EU PPM)	74-78	INTEGER	1X, I5
17. ROCK TYPE	80	INTEGER	1X, I1
18. ROCK COLOR	82	INTEGER	1X, I1
19. SEDIMENT TYPE	84	INTEGER	1X, I1
20. SEDIMENT COLOR	86	INTEGER	1X, I1
21. WATER FLOW	88	INTEGER	1X, I1
22. WATER LEVEL	90	INTEGER	1X, I1
23. WATER COLOR	92	INTEGER	1X, I1
24. STREAM CHANNEL	94	INTEGER	1X, I1
25. VEGETATION TYPE	96	INTEGER	1X, I1
26. VEGETATION DENSITY	98	INTEGER	1X, I1
27. RELIEF	100	INTEGER	1X, I1
28. WEATHER	102	INTEGER	1X, I1
29. OWNERSHIP	104	INTEGER	1X, I1
30. CONTAMINANTS	106	INTEGER	1X, I1
31. DISSOLVED OXYGEN (PPM)	116-119	REAL	9X, F4.1
32. U-CONCENTRATION (PPB)	121-128	REAL	1X, F8.2

Table LASL-XI-1S

TAPE-FORMAT XI/CARD-TYPE 1: MULTIELEMENT SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	ALP. INT	1X, A1, I5
8. DATE (MM/DD/YY)	38-45	ALPHA	1X, A8
9. HOUR	47-48	INTEGER	1X, I2
10. AIR TEMPERATURE	50-52	INTEGER	1X, I3
11. WATER TEMPERATURE	54-57	REAL	1X, F4.1
12. COMMENTS	59	ALPHA	1X, A1
13. SPECIAL MEASUREMENTS	61	ALPHA	1X, A1
14. PH	63-66	REAL	1X, F4.1
15. SPECIFIC CONDUCTANCE (MICROMHOS/CM.)	68-72	INTEGER	1X, I5
16. SCINTILLOMETER (EU PPM)	74-78	INTEGER	1X, I5
17. ROCK TYPE	80	INTEGER	1X, I1
18. ROCK COLOR	82	INTEGER	1X, I1
19. SEDIMENT TYPE	84	INTEGER	1X, I1
20. SEDIMENT COLOR	86	INTEGER	1X, I1
21. WATER FLOW	88	INTEGER	1X, I1
22. WATER LEVEL	90	INTEGER	1X, I1
23. WATER COLOR	92	INTEGER	1X, I1
24. STREAM CHANNEL	94	INTEGER	1X, I1
25. VEGETATION TYPE	96	INTEGER	1X, I1
26. VEGETATION DENSITY	98	INTEGER	1X, I1
27. RELIEF	100	INTEGER	1X, I1
28. WEATHER	102	INTEGER	1X, I1
29. OWNERSHIP	104	INTEGER	1X, I1
30. CONTAMINANTS	106	INTEGER	1X, I1
31. DISSOLVED OXYGEN (PPM)	116-119	REAL	9X, F4.1
32. U-CONCENTRATION (PPM)	121-128	REAL	1X, F8.2

Table LASL-XI-2S

TAPE-FORMAT XI/CARD-TYPE 2: MULTIELEMENT SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	ALP/INT	1X, A1, I5
8. AG (PPM)	37-43	INTEGER	I7
9. BI (PPM)	44-50	INTEGER	I7
10. CD (PPM)	51-57	INTEGER	I7
11. CU (PPM)	58-64	INTEGER	I7
12. NB (PPM)	65-71	INTEGER	I7
13. NI (PPM)	72-78	INTEGER	I7
14. PB (PPM)	79-85	INTEGER	I7
15. SN (PPM)	86-92	INTEGER	I7
16. W (PPM)	93-99	INTEGER	I7
17. BE (PPM)	112-117	INTEGER	12X, I6
18. LI (PPM)	124-129	INTEGER	6X, I6

Table LASL-XI-3S

## TAPE-FORMAT XI/CARD-TYPE 3: MULTIELEMENT SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	ALP/INT	1X, A1, I5
8. AL (PPM)	37-43	INTEGER	I7
9. AU (PPM)	44-49	REAL	F6.2
10. BA (PPM)	50-56	INTEGER	I7
11. CA (PPM)	57-63	INTEGER	I7
12. CE (PPM)	64-69	INTEGER	I6
13. CL (PPM)	70-76	INTEGER	I7
14. CO (PPM)	77-83	REAL	F7.1
15. CR (PPM)	84-89	INTEGER	I6
16. CS (PPM)	90-95	REAL	F6.1
17. DY (PPM)	96-101	INTEGER	I6
18. EU (PPM)	102-106	REAL	F5.1
19. FE (PPM)	107-113	INTEGER	I7
20. HF (PPM)	114-119	REAL	F6.1
21. K (PPM)	120-126	INTEGER	I7
22. LA (PPM)	127-131	INTEGER	I5
23. LU (PPM)	132-136	REAL	F5.1

Table LASL-XI-4S

## TAPE-FORMAT XI/CARD-TYPE 4: MULTIELEMENT SEDIMENT DATA

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. STATE	2-3	INTEGER	1X, I2
2. LATITUDE	5-11	REAL	1X, F7.4
3. LONGITUDE	13-20	REAL	1X, F8.4
4. DOE LAB	22	INTEGER	1X, I1
5. SAMPLE TYPE	24-25	INTEGER	1X, I2
6. REPLICATE	27-29	INTEGER	1X, I3
7. LASL SAMPLE LOCATION NUMBER	31-36	ALP/INT	1X, A1, I5
8. MG (PPM)	37-43	INTEGER	I7
9. MN (PPM)	44-50	INTEGER	I7
10. NA (PPM)	51-57	INTEGER	I7
11. RB (PPM)	58-62	INTEGER	I5
12. SB (PPM)	63-67	INTEGER	I5
13. SC (PPM)	68-74	REAL	F7.1
14. SM (PPM)	75-80	REAL	F6.1
15. SR (PPM)	81-85	INTEGER	I5
16. TA (PPM)	86-90	INTEGER	I5
17. TB (PPM)	91-94	INTEGER	I4
18. TH (PPM)	95-101	REAL	F7.1
19. TI (PPM)	102-108	INTEGER	I7
20. V (PPM)	109-114	INTEGER	I6
21. YB (PPM)	115-120	REAL	F6.1
22. ZN (PPM)	121-126	INTEGER	I6
23. U/TH RATIO	127-135	REAL	F9.3

**Appendix D**

**OAK RIDGE GASEOUS DIFFUSION PLANT TAPE FORMATS**

Table ORNL01

TAPE FORMAT ORNL01: FIXED HEADER SEGMENT - LENGTH 582 BYTES

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SAMPLE NUMBER	1-6	ALPHA	A6
2. RECORD LENGTH COUNTER	7-10	ALPHA	A4
3. MAP NUMBER: 1:250000	11-16	ALPHA	A6
4. SITE: UNIQUE WITHIN MAP NUMBER	17-20	ALPHA	A4
5. FILL AREA	21-23	ALPHA	A3
6. REPLICATE NUMBER	24	ALPHA	A1
7. INITIALS OF SAMPLER	25-27	ALPHA	A3
8. SAMPLE PHASE: PILOT, PHASE 1, PHASE 2	28	ALPHA	A1
9. TYPE OF QUALITY CONTROL SAMPLE	29	ALPHA	A1
10. TYPE SAMPLE	30	ALPHA	A1
11. GEOLOGIC UNIT CODE AT SITE	31-34	ALPHA	A4
12. CONTAMINANTS AT SITE	35	ALPHA	A1
13. DOMINANT BED MATERIAL AT SITE	36	ALPHA	A1
14. SAMPLE COLOR	37-41	ALPHA	A5
15. TYPE VEGETATION AT SITE	42	ALPHA	A1
16. DENSITY OF VEGETATION AT SITE	43	ALPHA	A1
17. LOCAL RELIEF AT SITE	44	ALPHA	A1
18. WEATHER CONDITIONS	45-46	ALPHA	A2
19. WATER LEVEL AT SITE	47	ALPHA	A1
20. FLAG TO INDICATE IF ANALYTICAL RESULTS ARE REQUESTED BY LANDOWNER	48	ALPHA	A1
21. SAMPLE ODOR	49	ALPHA	A1
22. FILLER AREA	50	ALPHA	A1
23. HOUR SAMPLE TAKEN	51-52	ALPHA	A2
24. DATE SAMPLE TAKEN (YYMMDD)	53-58	ALPHA	A6
25. AIR TEMPERATURE AT SITE (CENTIGRADE)	59-68	REAL	F10.3
26. LATITUDE AT SITE	69-78	REAL	F10.3
27. LONGITUDE AT SITE	79-88	REAL	F10.3
28. STREAM FLOW AT SITE (-1=STAGNANT)	89-98	REAL	F10.3
29. STREAM WIDTH AT SITE	99-108	REAL	F10.3
30. STREAM DEPTH AT SITE	109-118	REAL	F10.3
31. DATE MULTIELEMENT SPECTROGRAPHIC WORK RECEIVED FROM LAB (YYMMDD)	119-124	ALPHA	A6
32. LAB PROCEDURE USED TO OBTAIN MULTIELEMENT ANALYSIS PROCEDURE 3 IS EMISSION SPECTROGRAPH PROCEDURE 8 IS PLASMA ARC SPECTROGRAPH (LACK OF PROCEDURE NUMBER INDICATES NO MULTIELEMENT ANALYSIS HAS BEEN DONE)	125-126	ALPHA	A2
33. LAB BATCH NUMBER FOR MULTIELEMENT MEASUREMENTS	127-128	ALPHA	A2
34. MULTIELEMENT CONCENTRATIONS:			
AG	129-138	REAL	F10.3
AL	139-148	REAL	F10.3
B	149-158	REAL	F10.3
BA	159-168	REAL	F10.3



Table ORNL01 (continued)

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
BE	169-178	REAL	F10.3
CA	179-188	REAL	F10.3
CO	189-198	REAL	F10.3
CR	199-208	REAL	F10.3
CU	209-218	REAL	F10.3
FE	219-228	REAL	F10.3
LI	229-238	REAL	F10.3
MG	239-248	REAL	F10.3
MN	249-258	REAL	F10.3
MO	259-268	REAL	F10.3
NA	269-278	REAL	F10.3
NB	279-288	REAL	F10.3
NI	289-298	REAL	F10.3
P	299-308	REAL	F10.3
PB	309-318	REAL	F10.3
PT	319-328	REAL	F10.3
SC	329-338	REAL	F10.3
TH	339-348	REAL	F10.3
TI	349-358	REAL	F10.3
U	359-368	REAL	F10.3
V	369-378	REAL	F10.3
Y	379-388	REAL	F10.3
ZN	389-398	REAL	F10.3
ZR	399-408	REAL	F10.3
35. LAB PROCEDURE USED TO MEASURE U CONCENTRATION	409-410	ALPHA	A2
CURRENT LAB PROCEDURES:			
01 URANIUM BY MASS SPECTROMETRY			
02 URANIUM BY FLUORESCENCE			
05 URANIUM BY NEUTRON ACTIVATION			
36. LAB BATCH NUMBER	411-412	ALPHA	A2
37. U CONCENTRATION	413-422	REAL	F10.3
38. LAB PROCEDURE USED TO MEASURE U CONCENTRATION	423-424	ALPHA	A2
39. LAB BATCH NUMBER	425-426	ALPHA	A2
40. U CONCENTRATION	427-436	REAL	F10.3
41. LAB PROCEDURE USED TO MEASURE U CONCENTRATION	437-438	ALPHA	A2
42. LAB BATCH NUMBER	439-440	ALPHA	A2
43. U CONCENTRATION	441-450	REAL	F10.3
44. LAB PROCEDURE USED TO MEASURE U CONCENTRATION	451-452	ALPHA	A2
45. LAB BATCH NUMBER	453-454	ALPHA	A2
46. U CONCENTRATION	455-464	REAL	F10.3
47. SULFATE CONCENTRATION	465-474	REAL	F10.3
48. CONDUCTIVITY UMHOS/CM	475-484	REAL	F10.3
49. ARSENIC CONCENTRATION	485-494	REAL	F10.3
50. SELENIUM CONCENTRATION	495-504	REAL	F10.3

Table ORNL01 (continued)

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
51. LAKE AREA	505-514	REAL	F10.3
52. TYPE OF LAKE	515	ALPHA	A1
53. SEDIMENT CONDITION	516	ALPHA	A1
54. SEDIMENT TREATMENT	517	ALPHA	A1
55. FILL AREA	518	ALPHA	A1
56. NUMBER OF GRABS TO COLLECT SEDIMENT SAMPLE	519-520	ALPHA	A2
57. TAPE RELEASE DATE TO GJO	521-526	ALPHA	A6
58. % ORGANIC MATERIAL	527-528	ALPHA	A2
59. FILL AREA	529-530	ALPHA	A2
60. BASIN CENTROID LATITUDE	531-540	REAL	F10.3
61. BASIN CENTROID LONGITUDE	541-550	REAL	F10.3

THE FOLLOWING 5 COUNT FIELDS INDICATE THE PRESENCE (>0) OR ABSENCE (=0) OF DATA FOR THE SEGMENT. IF THE COUNT IS 0, THE SEGMENT WHICH NORMALLY CONTAINS THE DATA WILL NOT BE PRESENT.

62. GENERAL WATER COUNT	551-554	ALPHA	A4
63. WELL WATER COUNT	555-558	ALPHA	A4
64. BOTANICAL COUNT	559-562	ALPHA	A4
65. EXTRA MULTIELEMENT ANALYSIS COUNT	563-566	ALPHA	A4
66. COMMENT COUNT	567-570	ALPHA	A4
67. FILLER AREA	571-582	ALPHA	A12

Table ORNL01 (continued)

TAPE FORMAT ORNL01: GENERAL WATER SEGMENT - LENGTH 112 BYTES

DESCRIPTION OF ITEM	COLUMN*	TYPE	FORMAT
68. TREATMENT OF WATER SAMPLES	1	ALPHA	A1
69. APPEARANCE OF WATER	2	ALPHA	A1
70. FILLER	3-4	ALPHA	A2
71. DEPTH OF VISIBILITY (-1=CLEAR)	5-14	REAL	F10.3
72. WATER TEMPERATURE	15-24	REAL	F10.3
73. PH MEASURED BY A METER	25-34	REAL	F10.3
74. PH MEASURED BY LO-ION PAPER	35-44	REAL	F10.3
75. CONDUCTIVITY UMHOS/CM	45-54	REAL	F10.3
76. DISCHARGE RATE OF WATER	55-64	REAL	F10.3
77. TOTAL ALKALINITY	65-74	REAL	F10.3
78. P ALKALINITY	75-84	REAL	F10.3
79. M ALKALINITY	85-94	REAL	F10.3
80. GEOLOGIC UNIT CODE OF PRODUCING HORIZON	95-98	ALPHA	A4
81. CONFIDENCE OF UNIT CODE	99	ALPHA	A1
82. SOURCE OF UNIT CODE	100	ALPHA	A1
83. FILL AREA	101-102	ALPHA	A2
84. 5 DISSOLVED OXYGEN (-1=NO READING)	103-112	REAL	F10.3

\*RELATIVE TO BEGINNING OF SEGMENT.

Table ORNL01 (continued)

TAPE FORMAT ORNL01: WELL WATER SEGMENT - LENGTH 42 BYTES

DESCRIPTION OF ITEM	COLUMN*	TYPE	FORMAT
85. TYPE OF WELL	1	ALPHA	A1
86. WELL POWER CLASSIFICATION	2	ALPHA	A1
87. WELL CASING	3	ALPHA	A1
88. WELL PIPE COMPOSITION	4	ALPHA	A1
89. WELL SAMPLE LOCATION WITH RESPECT TO PRESSURE TANK	5	ALPHA	A1
90. USE OF WELL	6	ALPHA	A1
91. FREQUENCY OF USE	7	ALPHA	A1
92. FILL AREA	8	ALPHA	A1
93. METERS FROM WELL HEAD WHERE SAMPLE TAKEN	9-18	REAL	F10.3
94. DEPTH OF WELL PRODUCING HORIZON	19-28	REAL	F10.3
95. CONFIDENCE OF DEPTH	29	ALPHA	A1
96. SOURCE OF DEPTH	30	ALPHA	A1
97. CONFIDENCE WELL DEPTH	31	ALPHA	A1
98. SOURCE WELL DEPTH	32	ALPHA	A1
99. WELL DEPTH	33-42	REAL	F10.3

\*RELATIVE TO BEGINNING OF SEGMENT.

Table ORNL01 (continued)

TAPE FORMAT ORNL01: BOTANICAL SEGMENT - LENGTH 36 BYTES

DESCRIPTION OF ITEM	COLUMN*	TYPE	FORMAT
100. NUMBER OF PLANTS SAMPLED	1-2	ALPHA	A2
101. TYPE DECIDUOUS TREE	3	ALPHA	A1
102. TYPE CONIFER	4	ALPHA	A1
103. TYPE BUSH	5	ALPHA	A1
104. TYPE MOSS	6	ALPHA	A1
105. TYPE ALGAE	7	ALPHA	A1
106. FILL AREA	8-16	ALPHA	A9
107. TRUNK DIAMETER	17-26	REAL	F10.3
108. PLANT HEIGHT	27-36	REAL	F10.3

\*RELATIVE TO BEGINNING OF SEGMENT.

Table ORNL01 (continued)

TAPE FORMAT ORNL01: EXTRA MULTIELEMENT SEGMENT - LENGTH 294 BYTES

DESCRIPTION OF ITEM	COLUMN*	TYPE	FORMAT
109. DATE OF ANALYSIS (YYMMDD)	1-6	ALPHA	A6
110. PROCEDURE USED	7-8	ALPHA	A2
111. BATCH NUMBER LAB USED	9-10	ALPHA	A2
112. MULTIELEMENT CONCENTRATIONS:			
AG	11-20	REAL	F10.3
AL	21-30	REAL	F10.3
B	31-40	REAL	F10.3
BA	41-50	REAL	F10.3
BE	51-60	REAL	F10.3
CA	61-70	REAL	F10.3
CO	71-80	REAL	F10.3
CR	81-90	REAL	F10.3
CU	91-100	REAL	F10.3
FE	101-110	REAL	F10.3
LI	111-120	REAL	F10.3
MG	121-130	REAL	F10.3
MN	131-140	REAL	F10.3
MO	141-150	REAL	F10.3
NA	151-160	REAL	F10.3
NB	161-170	REAL	F10.3
NI	171-180	REAL	F10.3
P	181-190	REAL	F10.3
PB	191-200	REAL	F10.3
PT	201-210	REAL	F10.3
SC	211-220	REAL	F10.3
TH	221-230	REAL	F10.3
TI	231-240	REAL	F10.3
U	241-250	REAL	F10.3
V	251-260	REAL	F10.3
Y	261-270	REAL	F10.3
ZN	271-280	REAL	F10.3
ZR	281-290	REAL	F10.3
113. FILL AREA	291-294	ALPHA	A4

\*RELATIVE TO BEGINNING OF SEGMENT.

Table ORNL02

TAPE FORMAT ORNL02: FIXED HEADER SEGMENT - LENGTH 526 BYTES

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SAMPLE NUMBER	1-6	ALPHA	A6
2. RECORD LENGTH COUNTER	7-10	ALPHA	A4
3. MAP CODE: 1:250000	11-16	ALPHA	A6
4. SITE: UNIQUE WITHIN MAP CODE	17-20	ALPHA	A4
5. FILL AREA	21-23	ALPHA	A3
6. REPLICATE NUMBER	24	ALPHA	A1
7. INITIALS OF SAMPLER	25-27	ALPHA	A3
8. SAMPLE PHASE	28	ALPHA	A1
9. TYPE OF QUALITY CONTROL SAMPLE	29	ALPHA	A1
10. SAMPLE TYPE	30	ALPHA	A1
11. GEOLOGIC UNIT CODE AT SITE	31-34	ALPHA	A4
12. CONTAMINANTS AT SITE	35	ALPHA	A1
13. DOMINANT BED MATERIAL AT SITE	36	ALPHA	A1
14. SAMPLE COLOR	37-41	ALPHA	A5
15. TYPE VEGETATION AT SITE	42	ALPHA	A1
16. DENSITY OF VEGETATION AT SITE	43	ALPHA	A1
17. LOCAL RELIEF AT SITE	44	ALPHA	A1
18. WEATHER CONDITIONS	45-46	ALPHA	A2
19. WATER LEVEL AT SITE	47	ALPHA	A1
20. FLAG TO INDICATE IF ANALYTICAL RESULTS ARE REQUESTED BY LANDOWNER	48	ALPHA	A1
21. SAMPLE ODOR	49	ALPHA	A1
22. FILLER AREA	50	ALPHA	A1
23. HOUR SAMPLE TAKEN	51-52	ALPHA	A2
24. DATE SAMPLE TAKEN (YYMMDD)	53-58	ALPHA	A6
25. AIR TEMPERATURE AT SITE (CENTIGRADE)	59-68	REAL	F10.3
26. LATITUDE AT SITE	69-78	REAL	F10.3
27. LONGITUDE AT SITE	79-88	REAL	F10.3
28. STREAM FLOW AT SITE (-1=STAGNANT)	89-98	REAL	F10.3
29. STREAM WIDTH AT SITE	99-108	REAL	F10.3
30. STREAM DEPTH AT SITE	109-118	REAL	F10.3
31. ARSENIC AND SELENIUM LAB BATCH NUMBER	119-123	ALPHA	A5
32. SULFATE AND CHLORIDE LAB BATCH NUMBER	124-128	ALPHA	A5
33. LAB PROCEDURE FOR SELECTED MEASUREMENTS	129-130	ALPHA	A2
CURRENT LAB PROCEDURES:			
01 URANIUM BY MASS SPECTROMETRY			
02 URANIUM BY FLUORESCENCE			
05 URANIUM BY NEUTRON ACTIVATION			
10 ORTHOPHOSPHATE			
11 NITRATE			
12 TIN			
13 MERCURY			
14 HELIUM/NEON RATIO			
15 RADON			

Table ORNL02 (continued)

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
34. LAB BATCH NUMBER FOR SELECTED MEASURE- MENTS	131-135	ALPHA	A5
35. SELECTED ELEMENT CONCENTRATION	136-145	REAL	F10.3
36. LAB PROCEDURE FOR SELECTED MEASURE- MENTS	146-147	ALPHA	A2
37. LAB BATCH NUMBER FOR SELECTED MEASURE- MENTS	148-152	ALPHA	A5
38. SELECTED ELEMENT CONCENTRATION	153-162	REAL	F10.3
39. LAB PROCEDURE FOR SELECTED MEASURE- MENTS	163-164	ALPHA	A2
40. LAB BATCH NUMBER FOR SELECTED MEASURE- MENTS	165-169	ALPHA	A5
41. SELECTED ELEMENT CONCENTRATION	170-179	REAL	F10.3
42. LAB PROCEDURE FOR SELECTED MEASURE- MENTS	180-181	ALPHA	A2
43. LAB BATCH NUMBER FOR SELECTED MEASURE- MENTS	182-186	ALPHA	A5
44. SELECTED ELEMENT CONCENTRATION	187-196	REAL	F10.3
45. LAB PROCEDURE FOR SELECTED MEASURE- MENTS	197-198	ALPHA	A2
46. LAB BATCH NUMBER FOR SELECTED MEASURE- MENTS	199-203	ALPHA	A5
47. SELECTED ELEMENT CONCENTRATION	204-213	REAL	F10.3
48. LAB PROCEDURE FOR SELECTED MEASURE- MENTS	214-215	ALPHA	A2
49. LAB BATCH NUMBER FOR SELECTED MEASURE- MENTS	216-220	ALPHA	A5
50. SELECTED ELEMENT CONCENTRATION	221-230	REAL	F10.3
51. LAB PROCEDURE FOR SELECTED MEASURE- MENTS	231-232	ALPHA	A2
52. LAB BATCH NUMBER FOR SELECTED MEASURE- MENTS	233-237	ALPHA	A5
53. SELECTED ELEMENT CONCENTRATION	238-247	REAL	F10.3
54. LAB PROCEDURE FOR SELECTED MEASURE- MENTS	248-249	ALPHA	A2
55. LAB BATCH NUMBER FOR SELECTED MEASURE- MENTS	250-254	ALPHA	A5
56. SELECTED ELEMENT CONCENTRATION	255-264	REAL	F10.3
57. LAB PROCEDURE FOR SELECTED MEASURE- MENTS	265-266	ALPHA	A2
58. LAB BATCH NUMBER FOR SELECTED MEASURE- MENTS	267-271	ALPHA	A5
59. SELECTED ELEMENT CONCENTRATION	272-281	REAL	F10.3
60. LAB PROCEDURE FOR SELECTED MEASURE- MENTS	282-283	ALPHA	A2
61. LAB BATCH NUMBER FOR SELECTED MEASURE- MENTS	284-288	ALPHA	A5
62. SELECTED ELEMENT CONCENTRATION	289-298	REAL	F10.3



Table ORNL02 (continued)

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
63. LAB PROCEDURE FOR SELECTED MEASUREMENTS	299-300	ALPHA	A2
64. LAB BATCH NUMBER FOR SELECTED MEASUREMENTS	301-305	ALPHA	A5
65. SELECTED ELEMENT CONCENTRATION	306-315	REAL	F10.3
66. LAB PROCEDURE FOR SELECTED MEASUREMENTS	316-317	ALPHA	A2
67. LAB BATCH NUMBER FOR SELECTED MEASUREMENTS	318-322	ALPHA	A5
68. SELECTED ELEMENT CONCENTRATION	323-332	REAL	F10.3
69. LAB PROCEDURE FOR SELECTED MEASUREMENTS	333-334	ALPHA	A2
70. LAB BATCH NUMBER FOR SELECTED MEASUREMENTS	335-339	ALPHA	A5
71. SELECTED ELEMENT CONCENTRATION	340-349	REAL	F10.3
72. LAB PROCEDURE FOR SELECTED MEASUREMENTS	350-351	ALPHA	A2
73. LAB BATCH NUMBER FOR SELECTED MEASUREMENTS	352-356	ALPHA	A5
74. SELECTED ELEMENT CONCENTRATION	357-366	REAL	F10.3
75. FILL AREA	367-376	ALPHA	A10
76. ALTERNATE SAMPLE ID	377-388	ALPHA	A12
77. STREAM ORDER NUMBER	389-394	ALPHA	A6
78. BASIN IDENTIFICATION	395-398	ALPHA	A4
79. CHLORIDE CONCENTRATION	399-408	REAL	F10.3
80. SULFATE CONCENTRATION	409-418	REAL	F10.3
81. LABORATORY CONDUCTIVITY	419-428	REAL	F10.3
82. ARSENIC CONCENTRATION	429-438	REAL	F10.3
83. SELENIUM CONCENTRATION	439-448	REAL	F10.3
84. LAKE AREA	449-458	REAL	F10.3
85. TYPE OF LAKE	459	ALPHA	A1
86. SEDIMENT CONDITION	460	ALPHA	A1
87. SEDIMENT TREATMENT	461	ALPHA	A1
88. FILL AREA	462	ALPHA	A1
89. NUMBER OF GRABS TO COLLECT SEDIMENT SAMPLE	463-464	ALPHA	A2
90. FILLER OR TAPE RELEASE DATA	465-470	ALPHA	A6
91. % ORGANIC MATERIAL	471-472	ALPHA	A2
92. FILL AREA	473-474	ALPHA	A2
93. BASIN CENTROID LATITUDE	475-484	REAL	F10.3
94. BASIN CENTROID LONGITUDE	485-494	REAL	F10.3
THE FOLLOWING 7 COUNT FIELDS INDICATE THE PRESENCE (>0) OR ABSENCE (=0) OF DATA FOR THE SEGMENT. IF THE COUNT IS 0, THE SEGMENT WHICH NORMALLY CONTAINS THE DATA WILL CONTAIN BLANKS.			
95. GENERAL WATER COUNT	495-498	ALPHA	A4
96. WELL WATER COUNT	499-502	ALPHA	A4
97. BOTANICAL COUNT	503-506	ALPHA	A4

Table ORNL02 (continued)

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
98. EXTRA MULTIELEMENT ANALYSIS COUNT	507-510	ALPHA	A4
99. MULTIELEMENT COUNT	511-514	ALPHA	A4
100. FIELD ANALYSIS COUNT	515-518	ALPHA	A4
101. FILLER AREA	519-522	ALPHA	A4
102. COMMENT COUNT	523-526	ALPHA	A4

TAPE FORMAT ORNL02: GENERAL WATER SEGMENT - LENGTH 112 BYTES

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
103. TREATMENT OF WATER SAMPLES	527	ALPHA	A1
104. APPEARANCE OF WATER	528	ALPHA	A1
105. FILLER	529-530	ALPHA	A2
106. DEPTH OF VISIBILITY (-1=CLEAR)	531-540	REAL	F10.3
107. WATER TEMPERATURE	541-550	REAL	F10.3
108. PH MEASURED BY A METER	551-560	REAL	F10.3
109. PH MEASURED BY LO-ION PAPER	561-570	REAL	F10.3
110. FIELD CONDUCTIVITY	571-580	REAL	F10.3
111. DISCHARGE RATE OF WATER	581-590	REAL	F10.3
112. TOTAL ALKALINITY	591-600	REAL	F10.3
113. P ALKALINITY	601-610	REAL	F10.3
114. M ALKALINITY	611-620	REAL	F10.3
115. GEOLOGIC UNIT CODE OF PRODUCING HORIZON	621-624	ALPHA	A4
116. CONFIDENCE OF UNIT CODE	625	ALPHA	A1
117. SOURCE OF UNIT CODE	626	ALPHA	A1
118. FILL AREA	627-628	ALPHA	A2
119. DISSOLVED OXYGEN (-1=NO READING)	629-638	REAL	F10.3

Table ORNL02 (continued)

TAPE FORMAT ORNL02: WELL WATER SEGMENT - LENGTH 42 BYTES

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
120. TYPE OF WELL	639	ALPHA	A1
121. WELL POWER CLASSIFICATION	640	ALPHA	A1
122. WELL CASING	641	ALPHA	A1
123. WELL PIPE COMPOSITION	642	ALPHA	A1
124. WELL SAMPLE LOCATION WITH RESPECT TO PRESSURE TANK	643	ALPHA	A1
125. USE OF WELL	644	ALPHA	A1
126. FREQUENCY OF USE	645	ALPHA	A1
127. FILL AREA	646	ALPHA	A1
128. METERS FROM WELL HEAD WHERE SAMPLE TAKEN	647-656	REAL	F10.3
129. DEPTH OF WELL PRODUCING HORIZON	657-666	REAL	F10.3
130. CONFIDENCE OF DEPTH	667	ALPHA	A1
131. SOURCE OF DEPTH	668	ALPHA	A1
132. CONFIDENCE WELL DEPTH	669	ALPHA	A1
133. SOURCE WELL DEPTH	670	ALPHA	A1
134. WELL DEPTH	671-680	REAL	F10.3

Table ORNL02 (continued)

TAPE FORMAT ORNL02: BOTANICAL SEGMENT - LENGTH 36 BYTES

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
135. NUMBER OF PLANTS SAMPLED	681-682	ALPHA	A2
136. TYPE DECIDUOUS TREE	683	ALPHA	A1
137. TYPE CONIFER	684	ALPHA	A1
138. TYPE BUSH	685	ALPHA	A1
139. TYPE MOSS	686	ALPHA	A1
140. TYPE ALGAE	687	ALPHA	A1
141. FILL AREA	688-696	ALPHA	A9
142. TRUNK DIAMETER	697-706	REAL	F10.3
143. PLANT HEIGHT	707-716	REAL	F10.3

Table ORNL02 (continued)

TAPE FORMAT ORNL02: EXTRA MULTIELEMENT SEGMENT - LENGTH 297 BYTES

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
144. DATE OF ANALYSIS (YYMMDD)	717-722	ALPHA	A6
145. PROCEDURE USED (PROCEDURE 03 ONLY)	723-724	ALPHA	A2
146. BATCH NUMBER LAB USED	725-729	ALPHA	A5
147. MULTIELEMENT CONCENTRATIONS:			
AG	730-739	REAL	F10.3
AL	740-749	REAL	F10.3
B	750-759	REAL	F10.3
BA	760-769	REAL	F10.3
BE	770-779	REAL	F10.3
CA	780-789	REAL	F10.3
CO	790-799	REAL	F10.3
CR	800-809	REAL	F10.3
CU	810-819	REAL	F10.3
FE	820-829	REAL	F10.3
LI	830-839	REAL	F10.3
MG	840-849	REAL	F10.3
MN	850-859	REAL	F10.3
MO	860-869	REAL	F10.3
NA	870-879	REAL	F10.3
NB	880-889	REAL	F10.3
NI	890-899	REAL	F10.3
P	900-909	REAL	F10.3
PB	910-919	REAL	F10.3
PT	920-929	REAL	F10.3
SC	930-939	REAL	F10.3
TH	940-949	REAL	F10.3
TI	950-959	REAL	F10.3
U	960-969	REAL	F10.3
V	970-979	REAL	F10.3
Y	980-989	REAL	F10.3
ZN	990-999	REAL	F10.3
ZR	1000-1009	REAL	F10.3
148. FILL AREA	1010-1013	ALPHA	A4

Table ORNL02 (continued)

TAPE FORMAT ORNL02: MULTIELEMENT SEGMENT - LENGTH 517 BYTES

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
149. NUMBER OF ELEMENTS MEASURED	1014-1015	ALPHA	A2
150. FILL AREA	1016-1017	ALPHA	A2
151. DATE MULTIELEMENT SPECTROGRAPHIC WORK RECEIVED FROM LAB (YYMMDD)	1018-1023	ALPHA	A6
152. LAB PROCEDURE USED TO OBTAIN MULTIELEMENT ANALYSIS (PROCEDURE 08)	1024-1025	ALPHA	A2
153. LAB BATCH NUMBER FOR MULTIELEMENT MEASUREMENTS	1026-1030	ALPHA	A5
154. MULTIELEMENT CONCENTRATIONS:			
AG	1031-1040	REAL	F10.3
AL	1041-1050	REAL	F10.3
B	1051-1060	REAL	F10.3
BA	1061-1070	REAL	F10.3
BE	1071-1080	REAL	F10.3
CA	1081-1090	REAL	F10.3
CO	1091-1100	REAL	F10.3
CR	1101-1110	REAL	F10.3
CU	1111-1120	REAL	F10.3
FE	1121-1130	REAL	F10.3
LI	1131-1140	REAL	F10.3
MG	1141-1150	REAL	F10.3
MN	1151-1160	REAL	F10.3
MO	1161-1170	REAL	F10.3
NA	1171-1180	REAL	F10.3
NB	1181-1190	REAL	F10.3
NI	1191-1200	REAL	F10.3
P	1201-1210	REAL	F10.3
PB	1211-1220	REAL	F10.3
PT	1221-1230	REAL	F10.3
SC	1231-1240	REAL	F10.3
TH	1241-1250	REAL	F10.3
TI	1251-1260	REAL	F10.3
U	1261-1270	REAL	F10.3
V	1271-1280	REAL	F10.3
Y	1281-1290	REAL	F10.3
ZN	1291-1300	REAL	F10.3
ZR	1301-1310	REAL	F10.3
K	1311-1320	REAL	F10.3
SR	1321-1330	REAL	F10.3
SI	1331-1340	REAL	F10.3
SN	1341-1350	REAL	F10.3
CE	1351-1360	REAL	F10.3
HF	1361-1370	REAL	F10.3
LA	1371-1380	REAL	F10.3
FILL AREA	1381-1530		

Table ORNL02 (continued)

TAPE FORMAT ORNL02: FIELD ANALYSIS SEGMENT - LENGTH 508 BYTES

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
155. NUMBER OF FIELDS FOR THIS SEGMENT	1531-1534	ALPHA	A4
156. MEASUREMENT PROCEDURE NUMBER PRESENTLY THE FIELD ANALYSIS LAB PROCEDURES ARE:	1535-1536	ALPHA	A2
31 TOTAL GAMMA-SCINTILLOMETER			
32 GAMMA SPECTROMETER			
TOTAL COUNTS			
E POTASSIUM			
POTASSIUM			
E URANIUM			
URANIUM			
E THORIUM			
THORIUM			
34 URANIUM			
35 FLUORIDE			
36 NITRATE			
37 SULFATE			
38 PHOSPHATE			
39 FERROUS IRON			
40 TOTAL IRON			
41 TURBIDITY			
157. COUNT OF ELEMENTS ANALYZED BY THIS PROCEDURE	1537-1538	ALPHA	A2
158. FIELD ELEMENTS	1539-1618	REAL	8F10.3
THE PRECEDING THREE DATA ELEMENTS MAY BE REPEATED UP TO FIVE MORE TIMES DEPENDING ON THE COUNT OF THE TOTAL NUMBER OF FIELDS PRESENT.			
159. MEASUREMENT PROCEDURE NUMBER	1619-1620	ALPHA	A2
160. COUNT OF ELEMENTS ANALYZED BY THIS PROCEDURE	1621-1622	ALPHA	A2
161. FIELD ELEMENTS	1623-1702	REAL	8F10.3
162. MEASUREMENT PROCEDURE NUMBER	1703-1704	ALPHA	A2
163. COUNT OF ELEMENTS ANALYZED BY THIS PROCEDURE	1705-1706	ALPHA	A2
164. FIELD ELEMENTS	1707-1786	REAL	8F10.3
165. MEASUREMENT PROCEDURE NUMBER	1787-1788	ALPHA	A2
166. COUNT OF ELEMENTS ANALYZED BY THIS PROCEDURE	1789-1790	ALPHA	A2
167. FIELD ELEMENTS	1791-1870	REAL	8F10.3
168. MEASUREMENT PROCEDURE NUMBER	1871-1872	ALPHA	A2
169. COUNT OF ELEMENTS ANALYZED BY THIS PROCEDURE	1873-1874	ALPHA	A2
170. FIELD ELEMENTS	1875-1954	REAL	8F10.3
171. MEASUREMENT PROCEDURE NUMBER	1955-1956	ALPHA	A2
172. COUNT OF ELEMENTS ANALYZED BY THIS PROCEDURE	1957-1958	ALPHA	A2
173. FIELD ELEMENTS	1959-2038	REAL	8F10.3

Table ORNL02 (continued)

TAPE FORMAT ORNL02: COMMENTS SEGMENT - LENGTH 630 BYTES

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
174. COMMENT (COMMENTS ARE LEFT JUSTIFIED AND PADDED ON THE RIGHT WITH BLANKS)	2039-2668	ALPHA	630A1/ 63A10/ 126A5



Table ORNL03

TAPE FORMAT ORNL03: FIXED HEADER SEGMENT - LENGTH 526 BYTES

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SAMPLE NUMBER	1-6	ALPHA	A6
2. RECORD LENGTH COUNTER	7-10	ALPHA	A4
3. USGS MAP CODE	11-16	ALPHA	A6
4. SITE CODE	17-20	ALPHA	A4
5. STATE (FIPS CODE)	21-22	ALPHA	A2
6. LABORATORY SAMPLE TYPE (W=WATER, M=SEDIMENT, O=OTHER)	23	ALPHA	A1
7. REPLICATE LETTER	24	ALPHA	A1
8. COLLECTOR'S INITIALS	25-27	ALPHA	A3
9. SAMPLE PHASE	28	ALPHA	A1
10. CONTROL SAMPLE (FOR QUALITY CONTROL SAMPLES ONLY)	29	ALPHA	A1
11. SAMPLE TYPE	30	ALPHA	A1
12. SURFACE GEOLOGIC UNIT CODE	31-34	ALPHA	A4
13. CLASSES OF CONTAMINANTS	35	ALPHA	A1
14. DOMINANT BED MATERIAL	36	ALPHA	A1
15. SAMPLE COLOR	37-41	ALPHA	A5
16. TYPE VEGETATION	42	ALPHA	A1
17. DENSITY OF VEGETATION	43	ALPHA	A1
18. LOCAL RELIEF	44	ALPHA	A1
19. WEATHER	45-46	ALPHA	A2
20. WATER LEVEL	47	ALPHA	A1
21. RESULTS REQUESTED (R=REQUESTED)	48	ALPHA	A1
22. ODOR OF SAMPLED MATERIAL	49	ALPHA	A1
23. FILL AREA	50	ALPHA	A1
24. HOUR SAMPLE TAKEN (0=MISSING)	51-52	ALPHA	A2
25. DATE SAMPLE TAKEN (YYMMDD)	53-58	ALPHA	A6
26. AIR TEMPERATURE (-99.9=MISSING)	59-68	REAL	F10.3
27. LATITUDE	69-78	REAL	F10.3
28. LONGITUDE	79-88	REAL	F10.3
29. AVERAGE STREAM VELOCITY (0=NO MOVEMENT, -9=STAGNANT)	89-98	REAL	F10.3
30. WATER WIDTH	99-108	REAL	F10.3
31. AVERAGE DEPTH	109-118	REAL	F10.3
32. ARSENIC AND SELENIUM LAB BATCH NUMBER (0=MISSING)	119-123	ALPHA	A5
33. SULFATE AND CHLORIDE LAB BATCH NUMBER (0=MISSING)	124-128	ALPHA	A5
34. LAB PROCEDURE NUMBER (0=MISSING)	129-130	ALPHA	A2
CURRENT LAB PROCEDURES:			
01 URANIUM BY MASS SPECTROMETRY			
02 URANIUM BY FLUORESCENCE			
05 URANIUM BY NEUTRON ACTIVATION			
10 ORTHOPHOSPHATE			
11 NITRATE			
12 TIN			

Table ORNL03 (continued)

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
13 MERCURY			
14 HELIUM/NEON RATIO			
15 RADON			
16 GOLD BY NEUTRON ACTIVATION			
35. LAB BATCH NUMBER (0=MISSING)	131-135	ALPHA	A5
36. CONCENTRATION	136-145	REAL	F10.3
37. LAB PROCEDURE NUMBER (0=MISSING)	146-147	ALPHA	A2
38. LAB BATCH NUMBER (0=MISSING)	148-152	ALPHA	A5
39. CONCENTRATION	153-162	REAL	F10.3
40. LAB PROCEDURE NUMBER (0=MISSING)	163-164	ALPHA	A2
41. LAB BATCH NUMBER (0=MISSING)	165-169	ALPHA	A5
42. CONCENTRATION	170-179	REAL	F10.3
43. LAB PROCEDURE NUMBER (0=MISSING)	180-181	ALPHA	A2
44. LAB BATCH NUMBER (0=MISSING)	182-186	ALPHA	A5
45. CONCENTRATION	187-196	REAL	F10.3
46. LAB PROCEDURE NUMBER (0=MISSING)	197-198	ALPHA	A2
47. LAB BATCH NUMBER (0=MISSING)	199-203	ALPHA	A5
48. CONCENTRATION	204-213	REAL	F10.3
49. LAB PROCEDURE NUMBER (0=MISSING)	214-215	ALPHA	A2
50. LAB BATCH NUMBER (0=MISSING)	216-220	ALPHA	A5
51. CONCENTRATION	221-230	REAL	F10.3
52. LAB PROCEDURE NUMBER (0=MISSING)	231-232	ALPHA	A2
53. LAB BATCH NUMBER (0=MISSING)	233-237	ALPHA	A5
54. CONCENTRATION	238-247	REAL	F10.3
55. LAB PROCEDURE NUMBER (0=MISSING)	248-250	ALPHA	A2
56. LAB BATCH NUMBER (0=MISSING)	250-254	ALPHA	A5
57. CONCENTRATION	255-264	REAL	F10.3
58. LAB PROCEDURE NUMBER (0=MISSING)	265-266	ALPHA	A2
59. LAB BATCH NUMBER (0=MISSING)	267-271	ALPHA	A5
60. CONCENTRATION	272-281	REAL	F10.3
61. LAB PROCEDURE NUMBER (0=MISSING)	282-283	ALPHA	A2
62. LAB BATCH NUMBER (0=MISSING)	284-288	ALPHA	A5
63. CONCENTRATION	289-298	REAL	F10.3
64. LAB PROCEDURE NUMBER (0=MISSING)	299-300	ALPHA	A2
65. LAB BATCH NUMBER (0=MISSING)	301-305	ALPHA	A5
66. CONCENTRATION	306-315	REAL	F10.3
67. LAB PROCEDURE NUMBER (0=MISSING)	316-317	ALPHA	A2
68. LAB BATCH NUMBER (0=MISSING)	318-322	ALPHA	A5
69. CONCENTRATION	323-332	REAL	F10.3
70. LAB PROCEDURE NUMBER (0=MISSING)	333-334	ALPHA	A2
71. LAB BATCH NUMBER (0=MISSING)	335-339	ALPHA	A5
72. CONCENTRATION	340-349	REAL	F10.3
73. LAB PROCEDURE NUMBER (0=MISSING)	350-351	ALPHA	A2
74. LAB BATCH NUMBER (0=MISSING)	352-356	ALPHA	A5
75. CONCENTRATION	357-366	REAL	F10.3
76. PROJECT CODE	367-370	ALPHA	A4
77. SORT KEY	371-374	ALPHA	A4
78. FILL AREA	375-376	ALPHA	A2

Table ORNL03 (continued)

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
79. ALTERNATE SAMPLE ID	377-388	ALPHA	A12
80. STREAM ORDER NUMBER	389-394	ALPHA	A6
81. BASIN IDENTIFICATION	395-398	ALPHA	A4
82. CHLORIDE CONCENTRATION	399-408	REAL	F10.3
83. SULFATE CONCENTRATION	409-418	REAL	F10.3
84. LABORATORY CONDUCTIVITY (WATER) TOTAL CARBON (SEDIMENTS)	419-428	REAL	F10.3
85. ARSENIC CONCENTRATION	429-438	REAL	F10.3
86. SELENIUM CONCENTRATION	439-448	REAL	F10.3
87. LAKE AREA	449-458	REAL	F10.3
88. TYPE OF LAKE	459	ALPHA	A1
89. SAMPLE CONDITION	460	ALPHA	A1
90. SAMPLE TREATMENT	461	ALPHA	A1
91. CONFIDENCE OF GEOLOGIC UNIT CODE	462	ALPHA	A1
92. NUMBER OF GRABS TO COLLECT SEDIMENT SAMPLE	463-464	ALPHA	A2
93. DATE DATA RELEASE TAPE CREATED (YYMMDD)	465-470	ALPHA	A6
94. % ORGANIC MATERIAL	471-472	ALPHA	A2
95. FILL AREA	473-474	ALPHA	A2
96. STREAM BASIN CENTROID LATITUDE	475-484	REAL	F10.3
97. STREAM BASIN CENTROID LONGITUDE	485-494	REAL	F10.3
THE FOLLOWING 8 COUNT FIELDS INDICATE THE PRESENCE (>0) OR ABSENCE (=0) OF DATA FOR THE SEGMENT. IF THE COUNT IS 0, THE SEGMENT WHICH NORMALLY CONTAINS THE DATA WILL CONTAIN BLANKS.			
98. GENERAL WATER SEGMENT COUNT	495-498	ALPHA	A4
99. WELL WATER SEGMENT COUNT	499-502	ALPHA	A4
100. BOTANICAL SEGMENT COUNT	503-506	ALPHA	A4
101. EXTRA MULTIELEMENT SEGMENT COUNT	507-510	ALPHA	A4
102. MULTIELEMENT SEGMENT COUNT	511-514	ALPHA	A4
103. FIELD MEASUREMENT SEGMENT COUNT	515-518	ALPHA	A4
104. EXTRA FIELD DATA SEGMENT COUNT	519-522	ALPHA	A4
105. COMMENT COUNT	523-526	ALPHA	A4

Table ORNL03 (continued)

TAPE FORMAT ORNL03: GENERAL WATER SEGMENT - LENGTH 112 BYTES

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
106. WATER SAMPLE TREATMENT	527	ALPHA	A1
107. APPEARANCE OF WATER	528	ALPHA	A1
108. FILL AREA	529-530	ALPHA	A2
106. DEPTH OF VISIBILITY (-9=CLEAR)	531-540	REAL	F10.3
110. WATER TEMPERATURE (-9.9=MISSING)	541-550	REAL	F10.3
111. PH MEASURED BY A METER	551-560	REAL	F10.3
112. PH MEASURED BY LO-ION PAPER	561-570	REAL	F10.3
113. FIELD CONDUCTIVITY	571-580	REAL	F10.3
114. DISCHARGE	581-590	REAL	F10.3
115. TOTAL ALKALINITY	591-600	REAL	F10.3
116. P ALKALINITY	601-610	REAL	F10.3
117. M ALKALINITY	611-620	REAL	F10.3
118. IDENTIFICATION OF PRODUCING HORIZON	621-624	ALPHA	A4
119. CONFIDENCE OF PRODUCING HORIZON	625	ALPHA	A1
120. SOURCE OF PRODUCING HORIZON	626	ALPHA	A1
121. FILL AREA	627-628	ALPHA	A2
122. DISSOLVED OXYGEN	629-638	REAL	F10.3

Table ORNL03 (continued)

TAPE FORMAT ORNL03: WELL WATER SEGMENT - LENGTH 42 BYTES

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
123. TYPE OF WELL	639	ALPHA	A1
124. POWER CLASSIFICATION	640	ALPHA	A1
125. CASING	641	ALPHA	A1
126. PIPE COMPOSITION	642	ALPHA	A1
127. WHERE SAMPLE TAKEN	643	ALPHA	A1
128. USE OF WELL	644	ALPHA	A1
129. FREQUENCY OF PUMPING	645	ALPHA	A1
130. FILL AREA	646	ALPHA	A1
131. SAMPLE LOCATION (-9=HOLDING TANK)	647-656	REAL	F10.3
132. DEPTH TO TOP OF PRODUCING HORIZON	657-666	REAL	F10.3
133. CONFIDENCE OF PRODUCING DEPTH	667	ALPHA	A1
134. SOURCE OF PRODUCING DEPTH	668	ALPHA	A1
135. CONFIDENCE OF TOTAL DEPTH	669	ALPHA	A1
136. SOURCE OF TOTAL DEPTH INFORMATION	670	ALPHA	A1
137. TOTAL WELL DEPTH	671-680	REAL	F10.3

Table ORNL03 (continued)

TAPE FORMAT ORNL03: BOTANICAL SEGMENT - LENGTH 36 BYTES

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
138. NUMBER OF PLANTS SAMPLED	681-682	ALPHA	A2
139. NAME OF TREE, DECIDUOUS	683	ALPHA	A1
140. NAME OF TREE, CONIFER	684	ALPHA	A1
141. NAME OF BUSH	685	ALPHA	A1
142. NAME OF MOSS	686	ALPHA	A1
143. TYPE ALGAE	687	ALPHA	A1
144. FILL AREA	688-696	ALPHA	A9
145. TRUNK DIAMETER	697-706	REAL	F10.3
146. PLANT HEIGHT	707-716	REAL	F10.3

Table ORNL03 (continued)

TAPE FORMAT ORNL03: EXTRA MULTIELEMENT SEGMENT - LENGTH 297 BYTES

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
147. DATE OF ANALYSIS (YYMMDD)	717-722	ALPHA	A6
148. PROCEDURE USED (PROCEDURE 03 ONLY)	723-724	ALPHA	A2
149. LABORATORY BATCH NUMBER	725-729	ALPHA	A5
150. MULTIELEMENT CONCENTRATIONS:			
AG	730-739	REAL	F10.3
AL	740-749	REAL	F10.3
B	750-759	REAL	F10.3
BA	760-769	REAL	F10.3
BE	770-779	REAL	F10.3
CA	780-789	REAL	F10.3
CO	790-799	REAL	F10.3
CR	800-809	REAL	F10.3
CU	810-819	REAL	F10.3
FE	820-829	REAL	F10.3
LI	830-839	REAL	F10.3
MG	840-849	REAL	F10.3
MN	850-859	REAL	F10.3
MO	860-869	REAL	F10.3
NA	870-879	REAL	F10.3
NB	880-889	REAL	F10.3
NI	890-899	REAL	F10.3
P	900-909	REAL	F10.3
PB	910-919	REAL	F10.3
PT	920-929	REAL	F10.3
SC	930-939	REAL	F10.3
TH	940-949	REAL	F10.3
TI	950-959	REAL	F10.3
U	960-969	REAL	F10.3
V	970-979	REAL	F10.3
Y	980-989	REAL	F10.3
ZN	990-999	REAL	F10.3
ZR	1000-1009	REAL	F10.3
151. FILL AREA	1010-1013	ALPHA	A4

Table ORNL03 (continued)

TAPE FORMAT ORNL03: MULTIELEMENT SEGMENT - LENGTH 517 BYTES

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
152. NUMBER OF ELEMENTS MEASURED	1014-1015	ALPHA	A2
153. FILL AREA	1016-1017	ALPHA	A2
154. DATE MULTIELEMENT SPECTROGRAPHIC WORK RECEIVED FROM LAB (YYMMDD)	1018-1023	ALPHA	A6
155. LABORATORY PROCEDURE (PROCEDURE 18 OR 19 - ONLY PROCEDURE 19 INCLUDES PB, HF, AND LA)	1024-1025	ALPHA	A2
156. LABORATORY BATCH NUMBER	1026-1030	ALPHA	A5
157. MULTIELEMENT CONCENTRATIONS:			
AG	1031-1040	REAL	F10.3
AL	1041-1050	REAL	F10.3
B	1051-1060	REAL	F10.3
BA	1061-1070	REAL	F10.3
BE	1071-1080	REAL	F10.3
CA	1081-1090	REAL	F10.3
CO	1091-1100	REAL	F10.3
CR	1101-1110	REAL	F10.3
CU	1111-1120	REAL	F10.3
FE	1121-1130	REAL	F10.3
LI	1131-1140	REAL	F10.3
MG	1141-1150	REAL	F10.3
MN	1151-1160	REAL	F10.3
MO	1161-1170	REAL	F10.3
NA	1171-1180	REAL	F10.3
NB	1181-1190	REAL	F10.3
NI	1191-1200	REAL	F10.3
P	1201-1210	REAL	F10.3
PB	1211-1220	REAL	F10.3
PT	1221-1230	REAL	F10.3
SC	1231-1240	REAL	F10.3
TH	1241-1250	REAL	F10.3
TI	1251-1260	REAL	F10.3
U	1261-1270	REAL	F10.3
V	1271-1280	REAL	F10.3
Y	1281-1290	REAL	F10.3
ZN	1291-1300	REAL	F10.3
ZR	1301-1310	REAL	F10.3
K	1311-1320	REAL	F10.3
SR	1321-1330	REAL	F10.3
SI	1331-1340	REAL	F10.3
SN	1341-1350	REAL	F10.3
CE	1351-1360	REAL	F10.3
HF	1361-1370	REAL	F10.3
LA	1371-1380	REAL	F10.3
FILL AREA	1381-1530		



Table ORNL03 (continued)

TAPE FORMAT ORNL03: FIELD ANALYSIS SEGMENT - LENGTH 508 BYTES

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
158. NUMBER OF FIELDS FOR THIS SEGMENT	1531-1534	ALPHA	A4
159. PROCEDURE NUMBER	1535-1536	ALPHA	A2
31 TOTAL GAMMA-SCINTILLOMETER			
32 GAMMA SPECTROMETER			
TOTAL COUNTS			
E POTASSIUM			
POTASSIUM			
E URANIUM			
URANIUM			
E THORIUM			
THORIUM			
34 URANIUM			
35 FLUORIDE			
36 NITRATE			
37 SULFATE			
38 PHOSPHATE			
39 FERROUS IRON			
40 TOTAL IRON			
41 TURBIDITY			
160. NUMBER OF FIELD MEASUREMENTS (UP TO EIGHT PER PROCEDURE)	1537-1538	ALPHA	A2
161. FIELD ELEMENTS	1539-1618	REAL	8F10.3
THE PRECEDING THREE DATA ELEMENTS MAY BE REPEATED UP TO FIVE MORE TIMES DEPENDING ON THE COUNT OF THE TOTAL NUMBER OF FIELDS PRESENT.			
162. PROCEDURE NUMBER	1619-1620	ALPHA	A2
163. NUMBER OF FIELD MEASUREMENTS	1621-1622	ALPHA	A2
164. FIELD ELEMENTS	1623-1702	REAL	8F10.3
165. PROCEDURE NUMBER	1703-1704	ALPHA	A2
166. NUMBER OF FIELD MEASUREMENTS	1705-1706	ALPHA	A2
167. FIELD ELEMENTS	1707-1786	REAL	8F10.3
168. PROCEDURE NUMBER	1787-1788	ALPHA	A2
169. NUMBER OF FIELD MEASUREMENTS	1789-1790	ALPHA	A2
170. FIELD ELEMENTS	1791-1870	REAL	8F10.3
171. PROCEDURE NUMBER	1871-1872	ALPHA	A2
172. NUMBER OF FIELD MEASUREMENTS	1873-1874	ALPHA	A2
173. FIELD ELEMENTS	1875-1954	REAL	8F10.3
174. PROCEDURE NUMBER	1955-1956	ALPHA	A2
175. NUMBER OF FIELD MEASUREMENTS	1957-1958	ALPHA	A2
176. FIELD ELEMENTS	1959-2038	REAL	8F10.3

Table ORNL03 (continued)

TAPE FORMAT ORNL03: EXTRA FIELD DATA SEGMENT - LENGTH 132 BYTES

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
177. LITHOLOGIC CODE	2039-2042	ALPHA	A4
178. TOP OF SAMPLE INTERVAL	2043-2052	REAL	F10.3
179. BOTTOM OF SAMPLE INTERVAL	2053-2062	REAL	F10.3
180. SURFACE ELEVATION	2063-2072	REAL	F10.3
181. FILL AREA	2073-2170		

Table ORNL03 (continued)

TAPE FORMAT ORNL03: COMMENTS SEGMENT - LENGTH 630 BYTES

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
182. FIELD COMMENTS (LEFT JUSTIFIED AND PADDED ON THE RIGHT WITH BLANKS)	2171-2800	ALPHA	630A1/ 63A10/ 126A5

Table ORNL04-424

TAPE FORMAT ORNL04: RECORD LENGTH 424

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SAMPLE IDENTIFIER	1-7	ALPHA	A7
2. LATITUDE	8-18	REAL	F11.4
3. LONGITUDE	19-28	REAL	F10.3
4. SRL SAMPLE TYPE	29-30	ALPHA	A2
5. DATE (MM/DD/YY)	31-38	ALPHA	A8
6. SEDIMENT COLOR	39-40	ALPHA	A2
7. STREAM FLOW	41	ALPHA	A1
8. WATER CHANNEL	42	ALPHA	A1
9. WEATHER	43	ALPHA	A1
10. TEAM NUMBER	44-46	ALPHA	A3
11. SEDIMENT SIZE	47	ALPHA	A1
12. STREAM WIDTH	48	ALPHA	A1
13. STREAM DEPTH	49	ALPHA	A1
14. CONTAMINATION 1	50-51	ALPHA	A2
15. CONTAMINATION 2	52-53	ALPHA	A2
16. CONTAMINATION 3	54-55	ALPHA	A2
17. CONTAMINATION 4	56-57	ALPHA	A2
18. COMPOSITE	58-59	ALPHA	A2
19. STREAM LEVEL	60	ALPHA	A1
20. MAP CODE	61-66	ALPHA	A6
21. RELIEF	67	ALPHA	A1
22. VEGETATION TYPE	68	ALPHA	A1
23. VEGETATION DENSITY	69	ALPHA	A1
24. WATER OR SEDIMENT TYPE	70	ALPHA	A1
25. URANIUM FLUOROMETRY BATCH	71-77	REAL	F7.0
26. URANIUM FLUOROMETRY	78-86	REAL	F9.2
27. URANIUM NEUTRON ACTIVATION BATCH	87-93	REAL	F7.0
28. URANIUM BY NEUTRON ACTIVATION	94-102	REAL	F9.2
29. AG	103-111	REAL	F9.2
30. AL	112-120	REAL	F9.2
31. B	121-129	REAL	F9.2
32. BA	130-138	REAL	F9.2
33. BE	139-147	REAL	F9.2
34. CA	148-156	REAL	F9.2
35. CO	157-165	REAL	F9.2
36. CR	166-174	REAL	F9.2
37. CU	175-183	REAL	F9.2
38. FE	184-192	REAL	F9.2
39. LI	193-201	REAL	F9.2
40. MG	202-210	REAL	F9.2
41. MN	211-219	REAL	F9.2
42. MO	220-228	REAL	F9.2
43. NA	229-237	REAL	F9.2
44. NB	238-246	REAL	F9.2
45. NI	247-255	REAL	F9.2
46. P	256-264	REAL	F9.2

Table ORNL04-424 (continued)

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
47. PB	265-273	REAL	F9.2
48. PT	274-282	REAL	F9.2
49. SC	283-291	REAL	F9.2
50. TH	292-300	REAL	F9.2
51. TI	301-309	REAL	F9.2
52. U	310-318	REAL	F9.2
53. V	319-327	REAL	F9.2
54. Y	328-336	REAL	F9.2
55. ZN	337-345	REAL	F9.2
56. ZR	346-354	REAL	F9.2
57. K	355-363	REAL	F9.2
58. SR	364-372	REAL	F9.2
59. SI	373-381	REAL	F9.2
60. SN	382-390	REAL	F9.2
61. CE	391-399	REAL	F9.2
62. HF	400-408	REAL	F9.2
63. LA	409-417	REAL	F9.2
64. OAK RIDGE SAMPLE NUMBER	418-424	REAL	F7.0

Table ORNL04-429

TAPE FORMAT ORNL04: RECORD LENGTH 429

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SAMPLE IDENTIFIER	1-7	ALPHA	A7
2. LATITUDE	8-18	REAL	F11.4
3. LONGITUDE	19-28	REAL	F10.3
4. SRL SAMPLE TYPE	29-30	ALPHA	A2
5. DATE (MM/DD/YY)	31-38	ALPHA	A8
6. TEAM NUMBER	39-40	ALPHA	A2
7. SEDIMENT SIZE	41-42	ALPHA	A2
8. STREAM WIDTH	43	ALPHA	A1
9. STREAM DEPTH	44	ALPHA	A1
10. CONTAMINATION 1	45	ALPHA	A1
11. CONTAMINATION 2	46	ALPHA	A1
12. CONTAMINATION 3	47	ALPHA	A1
13. CONTAMINATION 4	48	ALPHA	A1
14. FORMATION	49-52	ALPHA	A4
15. COMPOSITE	53-54	ALPHA	A2
16. SCINTILLOMETER	55-61	REAL	F7.0
17. ROCK TYPE	62-63	ALPHA	A2
18. STREAM LEVEL	64	ALPHA	A1
19. MAP CODE	65-70	ALPHA	A6
20. RELIEF	71	ALPHA	A1
21. VEGETATION TYPE	72	ALPHA	A1
22. VEGETATION DENSITY	73	ALPHA	A1
23. WATER OR SEDIMENT TYPE	74	ALPHA	A1
24. ORGDP SAMPLE TYPE	75	ALPHA	A1
25. URANIUM FLUOROMETRY BATCH	76-82	REAL	F7.0
26. URANIUM FLUOROMETRY	83-91	REAL	F9.2
27. URANIUM NEUTRON ACTIVATION BATCH	92-98	REAL	F7.0
28. URANIUM BY NEUTRON ACTIVATION	99-107	REAL	F9.2
29. AG	108-116	REAL	F9.2
30. AL	117-125	REAL	F9.2
31. B	126-134	REAL	F9.2
32. BA	135-143	REAL	F9.2
33. BE	144-152	REAL	F9.2
34. CA	153-161	REAL	F9.2
35. CO	162-170	REAL	F9.2
36. CR	171-179	REAL	F9.2
37. CU	180-188	REAL	F9.2
38. FE	189-197	REAL	F9.2
39. LI	198-206	REAL	F9.2
40. MG	207-215	REAL	F9.2
41. MN	216-224	REAL	F9.2
42. MO	225-233	REAL	F9.2
43. NA	234-242	REAL	F9.2
44. NB	243-251	REAL	F9.2
45. NI	252-260	REAL	F9.2
46. P	261-269	REAL	F9.2

Table ORNL04-429 (continued)

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
47. PB	270-278	REAL	F9.2
48. PT	279-287	REAL	F9.2
49. SC	288-296	REAL	F9.2
50. TH	297-305	REAL	F9.2
51. TI	306-314	REAL	F9.2
52. U	315-323	REAL	F9.2
53. V	324-332	REAL	F9.2
54. Y	333-341	REAL	F9.2
55. ZN	342-350	REAL	F9.2
56. ZR	351-359	REAL	F9.2
57. K	360-368	REAL	F9.2
58. SR	369-377	REAL	F9.2
59. SI	378-386	REAL	F9.2
60. SN	387-395	REAL	F9.2
61. CE	396-404	REAL	F9.2
62. HF	405-413	REAL	F9.2
63. LA	414-422	REAL	F9.2
64. OAK RIDGE SAMPLE NUMBER	423-429	REAL	F7.0

Table ORNL04-442

## TAPE FORMAT ORNL04: RECORD LENGTH 442

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SAMPLE IDENTIFIER	1-7	ALPHA	A7
2. LATITUDE	8-18	REAL	F11.4
3. LONGITUDE	19-28	REAL	F10.3
4. SRL SAMPLE TYPE	29-30	ALPHA	A2
5. DATE (MM/DD/YY)	31-38	ALPHA	A8
6. TOTAL PH	39-47	REAL	F9.2
7. CONDUCTIVITY	48-54	REAL	F7.0
8. TOTAL ALKALINITY	55-63	REAL	F9.2
9. TEAM NUMBER	64-66	ALPHA	A3
10. WATER TEMPERATURE (C)	67-73	REAL	F7.0
11. CONFIDENCE OF WELL DEPTH	74	ALPHA	A1
12. TYPE OF WELL	75	ALPHA	A1
13. FREQUENCY OF PUMPING	76	ALPHA	A1
14. ODOR OF SAMPLE MATERIAL	77	ALPHA	A1
15. PIPE COMPOSITION	78	ALPHA	A1
16. LOCATION SAMPLE TAKEN	79	ALPHA	A1
17. WELL CLASSIFICATION	80	ALPHA	A1
18. MAP CODE	81-86	ALPHA	A6
19. WATER OR SEDIMENT TYPE	87	ALPHA	A1
20. ORGDP SAMPLE TYPE	88	ALPHA	A1
21. URANIUM FLUOROMETRY BATCH	89-95	REAL	F7.0
22. URANIUM FLUOROMETRY	96-104	REAL	F9.2
23. URANIUM NEUTRON ACTIVATION BATCH	105-111	REAL	F7.0
24. URANIUM BY NEUTRON ACTIVATION	112-120	REAL	F9.2
25. AG	121-129	REAL	F9.2
26. AL	130-138	REAL	F9.2
27. B	139-147	REAL	F9.2
28. BA	148-156	REAL	F9.2
29. BE	157-165	REAL	F9.2
30. CA	166-174	REAL	F9.2
31. CO	175-183	REAL	F9.2
32. CR	184-192	REAL	F9.2
33. CU	193-201	REAL	F9.2
34. FE	202-210	REAL	F9.2
35. LI	211-219	REAL	F9.2
36. MG	220-228	REAL	F9.2
37. MN	229-237	REAL	F9.2
38. MO	238-246	REAL	F9.2
39. NA	247-255	REAL	F9.2
40. NB	256-264	REAL	F9.2
41. NI	265-273	REAL	F9.2
42. P	274-282	REAL	F9.2
43. PB	283-291	REAL	F9.2
44. PT	292-300	REAL	F9.2
45. SC	301-309	REAL	F9.2
46. TH	310-318	REAL	F9.2



Table ORNL04-442 (continued)

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
47. TI	319-327	REAL	F9.2
48. U	328-336	REAL	F9.2
49. V	337-345	REAL	F9.2
50. Y	346-354	REAL	F9.2
51. ZN	355-363	REAL	F9.2
52. ZR	364-372	REAL	F9.2
53. K	373-381	REAL	F9.2
54. SR	382-390	REAL	F9.2
55. SI	391-399	REAL	F9.2
56. SN	400-408	REAL	F9.2
57. CE	409-417	REAL	F9.2
58. HF	418-426	REAL	F9.2
59. LA	427-435	REAL	F9.2
60. OAK RIDGE SAMPLE NUMBER	436-442	REAL	F7.0

Table ORNL04-449

TAPE FORMAT ORNL04: RECORD LENGTH 449

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SAMPLE IDENTIFIER	1-7	ALPHA	A7
2. LATITUDE	8-15	REAL	F8.4
3. LONGITUDE	16-23	REAL	F8.4
4. SRL SAMPLE TYPE	24-25	ALPHA	A2
5. DATE (MMDDYY)	26-32	ALPHA	A7
6. WATER TEMPERATURE	33-39	REAL	F7.0
7. STYP	40-41	ALPHA	A2
8. NAA	42	ALPHA	A1
9. SPECIFIC CONDUCTANCE	43-49	REAL	F7.0
10. ALKALINITY	50-58	REAL	F9.2
11. TEAM NUMBER	59-61	ALPHA	A3
12. SEDIMENT SIZE	62	ALPHA	A1
13. STREAM WIDTH	63	ALPHA	A1
14. STREAM DEPTH	64	ALPHA	A1
15. ODOR	65	ALPHA	A1
16. CONTAMINATION 1	66	ALPHA	A1
17. CONTAMINATION 2	67	ALPHA	A1
18. CONTAMINATION 3	68	ALPHA	A1
19. CONTAMINATION 4	69	ALPHA	A1
20. FORMATION	70-73	ALPHA	A4
21. COMPOSITE	74-80	REAL	F7.0
22. PH	81-89	REAL	F9.2
23. SCINTILLOMETER	90-96	REAL	F7.0
24. ROCK TYPE	97-98	ALPHA	A2
25. STREAM FLOW	99	ALPHA	A1
26. STREAM LEVEL	100	ALPHA	A1
27. RELIEF	101	ALPHA	A1
28. VEGETATION TYPE	102	ALPHA	A1
29. VEGETATION DENSITY	103	ALPHA	A1
30. WATER OR SEDIMENT TYPE	104	ALPHA	A1
31. ORGDP SAMPLE TYPE	105	ALPHA	A1
32. MAP CODE	106-111	ALPHA	A6
33. URANIUM FLUOROMETRY BATCH	112-118	REAL	F7.0
34. URANIUM FLUOROMETRY	119-127	REAL	F9.2
35. AG	128-136	REAL	F9.2
36. AL	137-145	REAL	F9.2
37. B	146-154	REAL	F9.2
38. BA	155-163	REAL	F9.2
39. BE	164-172	REAL	F9.2
40. CA	173-181	REAL	F9.2
41. CO	182-190	REAL	F9.2
42. CR	191-199	REAL	F9.2
43. CU	200-208	REAL	F9.2
44. FE	209-217	REAL	F9.2
45. LI	218-226	REAL	F9.2
46. MG	227-235	REAL	F9.2

Table ORNL04-449 (continued)

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
47. MN	236-244	REAL	F9.2
48. MO	245-253	REAL	F9.2
49. NA	254-262	REAL	F9.2
50. NB	263-271	REAL	F9.2
51. NI	272-280	REAL	F9.2
52. P	281-289	REAL	F9.2
53. PB	290-298	REAL	F9.2
54. PT	299-307	REAL	F9.2
55. SC	308-316	REAL	F9.2
56. TH	317-325	REAL	F9.2
57. TI	326-334	REAL	F9.2
58. U	335-343	REAL	F9.2
59. V	344-352	REAL	F9.2
60. Y	353-361	REAL	F9.2
61. ZN	362-370	REAL	F9.2
62. ZR	371-379	REAL	F9.2
63. K	380-388	REAL	F9.2
64. SR	389-397	REAL	F9.2
65. SI	398-406	REAL	F9.2
66. SN	407-415	REAL	F9.2
67. CE	416-424	REAL	F9.2
68. HF	425-433	REAL	F9.2
69. LA	434-442	REAL	F9.2
70. OAK RIDGE SAMPLE NUMBER	443-449	REAL	F7.0

Table ORNL04-454

TAPE FORMAT ORNL04: RECORD LENGTH 454

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. LASL SAMPLE NUMBER	1-6	ALPHA	A6
2. STATE	7-8	ALPHA	A2
3. LATITUDE	9-15	REAL	F7.4
4. LONGITUDE	16-23	REAL	F8.4
5. DOE LAB	24	ALPHA	A1
6. LASL SAMPLE TYPE	25-26	ALPHA	A2
7. REPLICATE	27	ALPHA	A1
8. DATE (MM/DD/YY)	28-35	ALPHA	A8
9. HOUR	36-42	REAL	F7.0
10. AIR TEMPERATURE	43-49	REAL	F7.0
11. WATER TEMPERATURE	50-57	REAL	F8.1
12. COMMENTS	58	ALPHA	A1
13. SPECIAL MEASUREMENTS	59	ALPHA	A1
14. PH	60-67	REAL	F8.1
15. CONDUCTIVITY	68-74	REAL	F7.0
16. SCINTILLOMETER	75-79	REAL	F5.0
17. ROCK TYPE	80	ALPHA	A1
18. ROCK COLOR	81	ALPHA	A1
19. SEDIMENT COLOR	82	ALPHA	A1
20. SEDIMENT TYPE	83	ALPHA	A1
21. FLOW	84	ALPHA	A1
22. WATER LEVEL	85	ALPHA	A1
23. WATER COLOR	86	ALPHA	A1
24. RELIEF	87	ALPHA	A1
25. STREAM CHANNEL	88	ALPHA	A1
26. VEGETATION TYPE	89	ALPHA	A1
27. VEGETATION DENSITY	90	ALPHA	A1
28. WEATHER	91	ALPHA	A1
29. OWNERSHIP	92	ALPHA	A1
30. CONTAMINANTS	93	ALPHA	A1
31. DISSOLVED OXYGEN	94-101	REAL	F8.1
32. WATER OR SEDIMENT TYPE	102	ALPHA	A1
33. ORGDP SAMPLE TYPE	103	ALPHA	A1
34. MAP CODE	104-109	ALPHA	A6
35. URANIUM BATCH NUMBER	110-116	REAL	F7.0
36. URANIUM MASS SPECTROMETRY	117-125	REAL	F9.2
37. URANIUM FLUOROMETRY BATCH	126-132	REAL	F7.0
38. URANIUM FLUOROMETRY	133-141	REAL	F9.2
39. AG	142-149	REAL	F8.1
40. AL	150-157	REAL	F8.1
41. B	158-165	REAL	F8.1
42. BA	166-173	REAL	F8.1
43. BE	174-181	REAL	F8.1
44. CA	182-189	REAL	F8.1
45. CO	190-197	REAL	F8.1
46. CR	198-205	REAL	F8.1

Table ORNL04-454 (continued)

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
47. CU	206-213	REAL	F8.1
48. FE	214-221	REAL	F8.1
49. LI	222-229	REAL	F8.1
50. MG	230-237	REAL	F8.1
51. MN	238-245	REAL	F8.1
52. MO	246-253	REAL	F8.1
53. NA	254-261	REAL	F8.1
54. NB	262-269	REAL	F8.1
55. NI	270-277	REAL	F8.1
56. P	278-285	REAL	F8.1
57. PB	286-293	REAL	F8.1
58. PT	294-301	REAL	F8.1
59. SC	302-309	REAL	F8.1
60. TH	310-317	REAL	F8.1
61. TI	318-325	REAL	F8.1
62. U	326-334	REAL	F9.2
63. V	335-342	REAL	F8.1
64. Y	343-350	REAL	F8.1
65. ZN	351-358	REAL	F8.1
66. ZR	359-366	REAL	F8.1
67. K	367-374	REAL	F8.1
68. SR	375-382	REAL	F8.1
69. SI	383-390	REAL	F8.1
70. SN	391-398	REAL	F8.1
71. CE	399-406	REAL	F8.1
72. HF	407-414	REAL	F8.1
73. LA	415-422	REAL	F8.1
74. OAK RIDGE SAMPLE NUMBER	423-428	REAL	F6.0
75. DOE SAMPLE NUMBER			
STATE	429-430	INTEGER	I2
LATITUDE	432-438	REAL	1X, F7.4
LONGITUDE	440-447	REAL	1X, F8.4
DOE LAB	449	INTEGER	1X, I1
LASL SAMPLE TYPE	451-452	INTEGER	1X, I2
REPLICATE	454	INTEGER	1X, I1

Table ORNL04-455

TAPE FORMAT ORNL04: RECORD LENGTH 455

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. LASL SAMPLE NUMBER	1-6	ALPHA	A6
2. STATE	7-8	ALPHA	A2
3. LATITUDE	9-15	REAL	F7.4
4. LONGITUDE	16-23	REAL	F8.4
5. DOE LAB	24	ALPHA	A1
6. LASL SAMPLE TYPE	25-26	ALPHA	A2
7. REPLICATE	27	ALPHA	A1
8. DATE (MM/DD/YY)	28-35	ALPHA	A8
9. HOUR	36-42	REAL	F7.0
10. AIR TEMPERATURE	43-49	REAL	F7.0
11. WATER TEMPERATURE	50-57	REAL	F8.1
12. COMMENTS	58	ALPHA	A1
13. SPECIAL MEASUREMENTS	59	ALPHA	A1
14. PH	60-67	REAL	F8.1
15. CONDUCTIVITY	68-74	REAL	F7.0
16. SCINTILLOMETER	75-79	REAL	F5.0
17. ROCK TYPE	80	ALPHA	A1
18. ROCK COLOR	81	ALPHA	A1
19. SEDIMENT COLOR	82	ALPHA	A1
20. SEDIMENT TYPE	83	ALPHA	A1
21. FLOW	84	ALPHA	A1
22. WATER LEVEL	85	ALPHA	A1
23. WATER COLOR	86	ALPHA	A1
24. RELIEF	87	ALPHA	A1
25. STREAM CHANNEL	88	ALPHA	A1
26. VEGETATION TYPE	89	ALPHA	A1
27. VEGETATION DENSITY	90	ALPHA	A1
28. WEATHER	91	ALPHA	A1
29. OWNERSHIP	92	ALPHA	A1
30. CONTAMINANTS	93	ALPHA	A1
31. DISSOLVED OXYGEN	94-101	REAL	F8.1
32. WATER OR SEDIMENT TYPE	102	ALPHA	A1
33. ORGDP SAMPLE TYPE	103	ALPHA	A1
34. MAP CODE	104-109	ALPHA	A6
35. URANIUM BATCH NUMBER	110-116	REAL	F7.0
36. URANIUM MASS SPECTROMETRY	117-125	REAL	F9.2
37. URANIUM FLUOROMETRY BATCH	126-132	REAL	F7.0
38. URANIUM FLUOROMETRY	133-141	REAL	F9.2
39. AG	142-149	REAL	F8.1
40. AL	150-157	REAL	F8.1
41. B	158-165	REAL	F8.1
42. BA	166-173	REAL	F8.1
43. BE	174-181	REAL	F8.1
44. CA	182-189	REAL	F8.1
45. CO	190-197	REAL	F8.1
46. CR	198-205	REAL	F8.1

Table ORNL04-455 (continued)

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
47. CU	206-213	REAL	F8.1
48. FE	214-221	REAL	F8.1
49. LI	222-229	REAL	F8.1
50. MG	230-237	REAL	F8.1
51. MN	238-245	REAL	F8.1
52. MO	246-253	REAL	F8.1
53. NA	254-261	REAL	F8.1
54. NB	262-269	REAL	F8.1
55. NI	270-277	REAL	F8.1
56. P	278-285	REAL	F8.1
57. PB	286-293	REAL	F8.1
58. PT	294-301	REAL	F8.1
59. SC	302-309	REAL	F8.1
60. TH	310-317	REAL	F8.1
61. TI	318-325	REAL	F8.1
62. U	326-334	REAL	F9.2
63. V	335-342	REAL	F8.1
64. Y	343-350	REAL	F8.1
65. ZN	351-358	REAL	F8.1
66. ZR	359-366	REAL	F8.1
67. K	367-374	REAL	F8.1
68. SR	375-382	REAL	F8.1
69. SI	383-390	REAL	F8.1
70. SN	391-398	REAL	F8.1
71. CE	399-406	REAL	F8.1
72. HF	407-414	REAL	F8.1
73. LA	415-422	REAL	F8.1
74. OAK RIDGE SAMPLE NUMBER	423-429	REAL	F7.0
75. DOE SAMPLE NUMBER			
STATE	430-431	INTEGER	I2
LATITUDE	433-439	REAL	1X, F7.4
LONGITUDE	441-448	REAL	1X, F8.4
DOE LAB	450	INTEGER	1X, I1
LASL SAMPLE TYPE	452-453	INTEGER	1X, I2
REPLICATE	455	INTEGER	1X, I1

Table ORNL04-459

TAPE FORMAT ORNL04: RECORD LENGTH 459

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SAMPLE IDENTIFIER	1-7	ALPHA	A7
2. LATITUDE	8-18	REAL	F11.4
3. LONGITUDE	19-28	REAL	F10.3
4. SRL SAMPLE TYPE	29-30	ALPHA	A2
5. DATE (MM/DD/YY)	31-38	ALPHA	A8
6. TEAM NUMBER	39-41	ALPHA	A3
7. STREAM WIDTH	42	ALPHA	A1
8. STREAM DEPTH	43	ALPHA	A1
9. ODOR OF SAMPLE MATERIAL	44	ALPHA	A1
10. STREAM FLOW	45	ALPHA	A1
11. WATER TEMPERATURE (C)	46-52	REAL	F7.0
12. WELL CLASSIFICATION	53	ALPHA	A1
13. LOCATION SAMPLE TAKEN	54	ALPHA	A1
14. CONFIDENCE IN DEPTH	55	ALPHA	A1
15. WELL DEPTH	56-62	REAL	F7.0
16. TOTAL PH	63-71	REAL	F9.2
17. CONDUCTIVITY	72-78	REAL	F7.0
18. TOTAL ALKALINITY	79-87	REAL	F9.2
19. CONTAMINATION 1	88	ALPHA	A1
20. CONTAMINATION 2	89	ALPHA	A1
21. CONTAMINATION 3	90	ALPHA	A1
22. CONTAMINATION 4	91	ALPHA	A1
23. FORMATION	92-95	ALPHA	A4
24. ROCK TYPE	96	ALPHA	A1
25. STREAM LEVEL	97	ALPHA	A1
26. MAP CODE	98-103	ALPHA	A6
27. WATER OR SEDIMENT TYPE	104	ALPHA	A1
28. ORGDP SAMPLE TYPE	105	ALPHA	A1
29. URANIUM FLUOROMETRY BATCH	106-112	REAL	F7.0
30. URANIUM FLUOROMETRY	113-121	REAL	F9.2
31. URANIUM NEUTRON ACTIVATION BATCH	122-128	REAL	F7.0
32. URANIUM BY NEUTRON ACTIVATION	129-137	REAL	F9.2
33. AG	138-146	REAL	F9.2
34. AL	147-155	REAL	F9.2
35. B	156-164	REAL	F9.2
36. BA	165-173	REAL	F9.2
37. BE	174-182	REAL	F9.2
38. CA	183-191	REAL	F9.2
39. CO	192-200	REAL	F9.2
40. CR	201-209	REAL	F9.2
41. CU	210-218	REAL	F9.2
42. FE	219-227	REAL	F9.2
43. LI	228-236	REAL	F9.2
44. MG	237-245	REAL	F9.2
45. MN	246-254	REAL	F9.2
46. MO	255-263	REAL	F9.2



Table ORNL04-459 (continued)

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
47. NA	264-272	REAL	F9.2
48. NB	273-281	REAL	F9.2
49. NI	282-290	REAL	F9.2
50. P	291-299	REAL	F9.2
51. PB	300-308	REAL	F9.2
52. PT	309-317	REAL	F9.2
53. SC	318-326	REAL	F9.2
54. TH	327-335	REAL	F9.2
55. TI	336-344	REAL	F9.2
56. U	345-353	REAL	F9.2
57. V	354-362	REAL	F9.2
58. Y	363-371	REAL	F9.2
59. ZN	372-380	REAL	F9.2
60. ZR	381-389	REAL	F9.2
61. K	390-398	REAL	F9.2
62. SR	399-407	REAL	F9.2
63. SI	408-416	REAL	F9.2
64. SN	417-425	REAL	F9.2
65. CE	426-434	REAL	F9.2
66. HF	435-443	REAL	F9.2
67. LA	444-452	REAL	F9.2
68. OAK RIDGE SAMPLE NUMBER	453-459	REAL	F7.0

Table ORNL04-468

TAPE FORMAT ORNL04: RECORD LENGTH 468

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. SRL SAMPLE IDENTIFIER	1-7	ALPHA	A7
2. LATITUDE	8-17	REAL	F10.3
3. LONGITUDE	18-27	REAL	F10.3
4. SRL SAMPLE TYPE	28-29	ALPHA	A2
5. DATE (MM/DD/YY)	30-36	ALPHA	A7
6. WATER TEMPERATURE	37-43	REAL	F7.0
7. STYP	44-45	ALPHA	A2
8. NAA	46	ALPHA	A1
9. SPECIFIC CONDUCTANCE	47-53	REAL	F7.0
10. ALKALINITY	54-62	REAL	F9.2
11. TEAM NUMBER	63-65	ALPHA	A3
12. SEDIMENT SIZE	66	ALPHA	A1
13. STREAM WIDTH	67	ALPHA	A1
14. STREAM DEPTH	68	ALPHA	A1
15. ODOR	69	ALPHA	A1
16. CONTAMINATION 1	70	ALPHA	A1
17. CONTAMINATION 2	71	ALPHA	A1
18. CONTAMINATION 3	72	ALPHA	A1
19. FORMATION	73-76	ALPHA	A4
20. COMPOSITE	77-83	REAL	F7.0
21. PH	84-92	REAL	F9.2
22. SCINTILLOMETER	93-99	REAL	F7.0
23. ROCK TYPE	100-101	ALPHA	A2
24. STREAM FLOW	102	ALPHA	A1
25. STREAM LEVEL	103	ALPHA	A1
26. RELIEF	104	ALPHA	A1
27. VEGETATION TYPE	105	ALPHA	A1
28. VEGETATION DENSITY	106	ALPHA	A1
29. WATER OR SEDIMENT TYPE	107	ALPHA	A1
30. ORGDP SAMPLE TYPE	108	ALPHA	A1
31. MAP CODE	109-114	ALPHA	A6
32. URANIUM FLUOROMETRY BATCH	115-121	REAL	F7.0
33. URANIUM FLUOROMETRY	122-130	REAL	F9.2
34. URANIUM NEUTRON ACTIVATION BATCH	131-137	REAL	F7.0
35. URANIUM BY NEUTRON ACTIVATION	138-146	REAL	F9.2
36. AG	147-155	REAL	F9.2
37. AL	156-164	REAL	F9.2
38. B	165-173	REAL	F9.2
39. BA	174-182	REAL	F9.2
40. BE	183-191	REAL	F9.2
41. CA	192-200	REAL	F9.2
42. CO	201-209	REAL	F9.2
43. CR	210-218	REAL	F9.2
44. CU	219-227	REAL	F9.2
45. FE	228-236	REAL	F9.2
46. LI	237-245	REAL	F9.2

Table ORNL04-468 (continued)

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
47. MG	246-254	REAL	F9.2
48. MN	255-263	REAL	F9.2
49. MO	264-272	REAL	F9.2
50. NA	273-281	REAL	F9.2
51. NB	282-290	REAL	F9.2
52. NI	291-299	REAL	F9.2
53. P	300-308	REAL	F9.2
54. PB	309-317	REAL	F9.2
55. PT	318-326	REAL	F9.2
56. SC	327-335	REAL	F9.2
57. TH	336-344	REAL	F9.2
58. TI	345-353	REAL	F9.2
59. U	354-362	REAL	F9.2
60. V	363-371	REAL	F9.2
61. Y	372-380	REAL	F9.2
62. ZN	381-389	REAL	F9.2
63. ZR	390-398	REAL	F9.2
64. K	399-407	REAL	F9.2
65. SR	408-416	REAL	F9.2
66. SI	417-425	REAL	F9.2
67. SN	426-434	REAL	F9.2
68. CE	435-443	REAL	F9.2
69. HF	444-452	REAL	F9.2
70. LA	453-461	REAL	F9.2
71. OAK RIDGE SAMPLE NUMBER	462-468	REAL	F7.0

Table ORNL04-471

TAPE FORMAT ORNL04: RECORD LENGTH 471

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. LASL SAMPLE NUMBER	1-6	ALPHA	A6
2. STATE	7-8	ALPHA	A2
3. LATITUDE	9-15	REAL	F7.4
4. LONGITUDE	16-23	REAL	F8.4
5. DOE LAB	24	ALPHA	A1
6. LASL SAMPLE TYPE	25-26	ALPHA	A2
7. REPLICATE	27	ALPHA	A1
8. DATE (MM/DD/YY)	28-35	ALPHA	A8
9. HOUR	36-42	REAL	F7.0
10. AIR TEMPERATURE	43-49	REAL	F7.0
11. WATER TEMPERATURE	50-57	REAL	F8.1
12. COMMENTS	58	ALPHA	A1
13. SPECIAL MEASUREMENTS	59	ALPHA	A1
14. PH	60-67	REAL	F8.1
15. CONDUCTIVITY	68-74	REAL	F7.0
16. SCINTILLOMETER	75-79	REAL	F5.0
17. ROCK TYPE	80	ALPHA	A1
18. ROCK COLOR	81	ALPHA	A1
19. SEDIMENT COLOR	82	ALPHA	A1
20. SEDIMENT TYPE	83	ALPHA	A1
21. FLOW	84	ALPHA	A1
22. WATER LEVEL	85	ALPHA	A1
23. WATER COLOR	86	ALPHA	A1
24. RELIEF	87	ALPHA	A1
25. STREAM CHANNEL	88	ALPHA	A1
26. VEGETATION TYPE	89	ALPHA	A1
27. VEGETATION DENSITY	90	ALPHA	A1
28. WEATHER	91	ALPHA	A1
29. OWNERSHIP	92	ALPHA	A1
30. CONTAMINANTS	93	ALPHA	A1
31. DISSOLVED OXYGEN	94-101	REAL	F8.1
32. WATER OR SEDIMENT TYPE	102	ALPHA	A1
33. ORGDP SAMPLE TYPE	103	ALPHA	A1
34. MAP CODE	104-109	ALPHA	A6
35. URANIUM BATCH NUMBER	110-116	REAL	F7.0
36. URANIUM MASS SPECTROMETRY	117-125	REAL	F9.2
37. URANIUM FLUOROMETRY BATCH	126-132	REAL	F7.0
38. URANIUM FLUOROMETRY	133-141	REAL	F9.2
39. URANIUM NEUTRON ACTIVATION	142-150	REAL	F9.2
40. URANIUM NEUTRON ACTIVATION BATCH	151-157	REAL	F7.0
41. AG	158-165	REAL	F8.1
42. AL	166-173	REAL	F8.1
43. B	174-181	REAL	F8.1
44. BA	182-189	REAL	F8.1
45. BE	190-197	REAL	F8.1
46. CA	198-205	REAL	F8.1

Table ORNL04-471 (continued)

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
47. CO	206-213	REAL	F8.1
48. CR	214-221	REAL	F8.1
49. CU	222-229	REAL	F8.1
50. FE	230-237	REAL	F8.1
51. LI	238-245	REAL	F8.1
52. MG	246-253	REAL	F8.1
53. MN	254-261	REAL	F8.1
54. MO	262-269	REAL	F8.1
55. NA	270-277	REAL	F8.1
56. NB	278-285	REAL	F8.1
57. NI	286-293	REAL	F8.1
58. P	294-301	REAL	F8.1
59. PB	302-309	REAL	F8.1
60. PT	310-317	REAL	F8.1
61. SC	318-325	REAL	F8.1
62. TH	326-333	REAL	F8.1
63. TI	334-341	REAL	F8.1
64. U	342-350	REAL	F9.2
65. V	351-358	REAL	F8.1
66. Y	359-366	REAL	F8.1
67. ZN	367-374	REAL	F8.1
68. ZR	375-382	REAL	F8.1
69. K	383-390	REAL	F8.1
70. SR	391-398	REAL	F8.1
71. SI	399-406	REAL	F8.1
72. SN	407-414	REAL	F8.1
73. CE	415-422	REAL	F8.1
74. HF	423-430	REAL	F8.1
75. LA	431-438	REAL	F8.1
76. OAK RIDGE SAMPLE NUMBER	439-445	REAL	F7.0
77. DOE SAMPLE NUMBER			
STATE	446-447	INTEGER	I2
LATITUDE	449-455	REAL	1X, F7.4
LONGITUDE	457-464	REAL	1X, F8.4
DOE LAB	466	INTEGER	1X, I1
LASL SAMPLE TYPE	468-469	INTEGER	1X, I2
REPLICATE	471	INTEGER	1X, I1

Table ORNL04-480

## TAPE FORMAT ORNL04: RECORD LENGTH 480

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. LASL SAMPLE NUMBER	1-6	ALPHA	A6
2. STATE	7-8	ALPHA	A2
3. LATITUDE	9-15	REAL	F7.4
4. LONGITUDE	16-23	REAL	F8.4
5. DOE LAB	24	ALPHA	A1
6. LASL SAMPLE TYPE	25-26	ALPHA	A2
7. REPLICATE	27	ALPHA	A1
8. DATE (MM/DD/YY)	28-35	ALPHA	A8
9. HOUR	36-42	REAL	F7.0
10. AIR TEMPERATURE	43-49	REAL	F7.0
11. WATER TEMPERATURE	50-57	REAL	F8.1
12. COMMENTS	58	ALPHA	A1
13. SPECIAL MEASUREMENTS	59	ALPHA	A1
14. PH	60-67	REAL	F8.1
15. CONDUCTIVITY	68-74	REAL	F7.0
16. SCINTILLOMETER	75-79	REAL	F5.0
17. ROCK TYPE	80	ALPHA	A1
18. ROCK COLOR	81	ALPHA	A1
19. SEDIMENT COLOR	82	ALPHA	A1
20. SEDIMENT TYPE	83	ALPHA	A1
21. FLOW	84	ALPHA	A1
22. WATER LEVEL	85	ALPHA	A1
23. WATER COLOR	86	ALPHA	A1
24. RELIEF	87	ALPHA	A1
25. STREAM CHANNEL	88	ALPHA	A1
26. VEGETATION TYPE	89	ALPHA	A1
27. VEGETATION DENSITY	90	ALPHA	A1
28. WEATHER	91	ALPHA	A1
29. OWNERSHIP	92	ALPHA	A1
30. CONTAMINANTS	93	ALPHA	A1
31. DISSOLVED OXYGEN	94-101	REAL	F8.1
32. WATER OR SEDIMENT TYPE	102	ALPHA	A1
33. ORGDP SAMPLE TYPE	103	ALPHA	A1
34. MAP CODE	104-109	ALPHA	A6
35. URANIUM BATCH NUMBER	110-116	REAL	F7.0
36. URANIUM MASS SPECTROMETRY	117-125	REAL	F9.2
37. URANIUM FLUOROMETRY BATCH	126-132	REAL	F7.0
38. URANIUM FLUOROMETRY	133-141	REAL	F9.2
39. URANIUM NEUTRON ACTIVATION	142-150	REAL	F9.2
40. URANIUM NEUTRON ACTIVATION BATCH	151-157	REAL	F7.0
41. AG	158-165	REAL	F8.1
42. AL	166-173	REAL	F8.1
43. B	174-181	REAL	F8.1
44. BA	182-189	REAL	F8.1
45. BE	190-197	REAL	F8.1
46. CA	198-205	REAL	F8.1

Table ORNL04-480 (continued)

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
47. CO	206-213	REAL	F8.1
48. CR	214-221	REAL	F8.1
49. CU	222-229	REAL	F8.1
50. FE	230-237	REAL	F8.1
51. LI	238-245	REAL	F8.1
52. MG	246-253	REAL	F8.1
53. MN	254-261	REAL	F8.1
54. MO	262-269	REAL	F8.1
55. NA	270-277	REAL	F8.1
56. NB	278-285	REAL	F8.1
57. NI	286-293	REAL	F8.1
58. P	294-301	REAL	F8.1
59. PB	302-309	REAL	F8.1
60. PT	310-317	REAL	F8.1
61. SC	318-325	REAL	F8.1
62. TH	326-333	REAL	F8.1
63. TI	334-341	REAL	F8.1
64. U	342-350	REAL	F9.2
65. V	351-358	REAL	F8.1
66. Y	359-366	REAL	F8.1
67. ZN	367-374	REAL	F8.1
68. ZR	375-382	REAL	F8.1
69. K	383-390	REAL	F8.1
70. SR	391-398	REAL	F8.1
71. SI	399-406	REAL	F8.1
72. SN	407-414	REAL	F8.1
73. CE	415-422	REAL	F8.1
74. HF	423-430	REAL	F8.1
75. LA	431-438	REAL	F8.1
76. OAK RIDGE SAMPLE NUMBER	439-445	REAL	F7.0
77. DOE SAMPLE NUMBER			
STATE	446-447	INTEGER	I2
LATITUDE	449-455	REAL	1X, F7.4
LONGITUDE	457-464	REAL	1X, F8.4
DOE LAB	466	INTEGER	1X, I1
LASL SAMPLE TYPE	468-469	INTEGER	1X, I2
REPLICATE	471	INTEGER	1X, I1
78. WELL TYPE	472	ALPHA	A1
79. WELL DIAMETER (INCHES)	473-474	REAL	F2.0
80. WELL DEPTH (FEET)	475-477	REAL	F3.0
81. WATER DEPTH (FEET)	478-480	REAL	F3.0

Table ORNL04-514

## TAPE FORMAT ORNL04: RECORD LENGTH 514

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
1. LASL SAMPLE NUMBER	1-6	ALPHA	A6
2. STATE	7-8	ALPHA	A2
3. LATITUDE	9-15	REAL	F7.4
4. LONGITUDE	16-23	REAL	F8.4
5. DOE LAB	24	ALPHA	A1
6. LASL SAMPLE TYPE	25-26	ALPHA	A2
7. REPLICATE	27	ALPHA	A1
8. DATE (MM/DD/YY)	28-35	ALPHA	A8
9. HOUR	36-42	REAL	F7.0
10. AIR TEMPERATURE	43-49	REAL	F7.0
11. WATER TEMPERATURE	50-57	REAL	F8.1
12. COMMENTS	58	ALPHA	A1
13. SPECIAL MEASUREMENTS	59	ALPHA	A1
14. PH	60-67	REAL	F8.1
15. CONDUCTIVITY	68-74	REAL	F7.0
16. SCINTILLOMETER	75-79	REAL	F5.0
17. ROCK TYPE	80	ALPHA	A1
18. ROCK COLOR	81	ALPHA	A1
19. SEDIMENT COLOR	82	ALPHA	A1
20. SEDIMENT TYPE	83	ALPHA	A1
21. FLOW	84	ALPHA	A1
22. WATER LEVEL	85	ALPHA	A1
23. WATER COLOR	86	ALPHA	A1
24. RELIEF	87	ALPHA	A1
25. STREAM CHANNEL	88	ALPHA	A1
26. VEGETATION TYPE	89	ALPHA	A1
27. VEGETATION DENSITY	90	ALPHA	A1
28. WEATHER	91	ALPHA	A1
29. OWNERSHIP	92	ALPHA	A1
30. CONTAMINANTS	93	ALPHA	A1
31. DISSOLVED OXYGEN	94-101	REAL	F8.1
32. WATER OR SEDIMENT TYPE	102	ALPHA	A1
33. ORGDP SAMPLE TYPE	103	ALPHA	A1
34. MAP CODE	104-109	ALPHA	A6
35. URANIUM BATCH NUMBER	110-116	REAL	F7.0
36. URANIUM MASS SPECTROMETRY	117-125	REAL	F9.2
37. URANIUM FLUOROMETRY BATCH	126-132	REAL	F7.0
38. URANIUM FLUOROMETRY	133-141	REAL	F9.2
39. URANIUM NEUTRON ACTIVATION	142-150	REAL	F9.2
40. URANIUM NEUTRON ACTIVATION BATCH	151-157	REAL	F7.0
41. AG	158-166	REAL	F9.2
42. AL	167-175	REAL	F9.2
43. B	176-184	REAL	F9.2
44. BA	185-193	REAL	F9.2
45. BE	194-202	REAL	F9.2
46. CA	203-211	REAL	F9.2



Table ORNL04-514 (continued)

DESCRIPTION OF ITEM	COLUMN	TYPE	FORMAT
47. CO	212-220	REAL	F9.2
48. CR	221-229	REAL	F9.2
49. CU	230-238	REAL	F9.2
50. FE	239-247	REAL	F9.2
51. LI	248-256	REAL	F9.2
52. MG	257-265	REAL	F9.2
53. MN	266-274	REAL	F9.2
54. MO	275-283	REAL	F9.2
55. NA	284-292	REAL	F9.2
56. NB	293-301	REAL	F9.2
57. NI	302-310	REAL	F9.2
58. P	311-319	REAL	F9.2
59. PB	320-328	REAL	F9.2
60. PT	329-337	REAL	F9.2
61. SC	338-346	REAL	F9.2
62. TH	347-355	REAL	F9.2
63. TI	356-364	REAL	F9.2
64. U	365-373	REAL	F9.2
65. V	374-382	REAL	F9.2
66. Y	383-391	REAL	F9.2
67. ZN	392-400	REAL	F9.2
68. ZR	401-409	REAL	F9.2
69. K	410-418	REAL	F9.2
70. SR	419-427	REAL	F9.2
71. SI	428-436	REAL	F9.2
72. SN	437-445	REAL	F9.2
73. CE	446-454	REAL	F9.2
74. HF	455-463	REAL	F9.2
75. LA	464-472	REAL	F9.2
76. OAK RIDGE SAMPLE NUMBER	473-479	REAL	F7.0
77. DOE SAMPLE NUMBER			
STATE	480-481	INTEGER	I2
LATITUDE	483-489	REAL	1X, F7.4
LONGITUDE	491-498	REAL	1X, F8.4
DOE LAB	500	INTEGER	1X, I1
LASL SAMPLE TYPE	502-503	INTEGER	1X, I2
REPLICATE	505	INTEGER	1X, I1
78. WELL TYPE	506	ALPHA	A1
79. WELL DIAMETER (INCHES)	507-508	REAL	F2.0
80. WELL DEPTH (FEET)	509-511	REAL	F3.0
81. WATER DEPTH (FEET)	512-514	REAL	F3.0

**Appendix E**

**DATA-SET-NAME (DSN) FORMAT SPECIFICATIONS**

Table DSN

## HSSR FILES ON MAGNETIC TAPE

GJBX NUMBER	DATA SET NAME	FORMAT
35(76)	LASL.HYDRO.PUEBLO	LASL 1
36(76)	OAK.HYDRO.LLANO.PHP	ORNL02
40(76)	LLL.HYDRO.WALKER	LLL001
60(76)	OAK.HYDRO.NWTEXAS.LUBBOCK.BROWN.FIELD.PHP	ORNL02
19(77)	OAK.HYDRO.CRYSTAL.CITY.BEEVILLE.PH12	ORNL02
21(77)	LASL.HYDRO.FTSUM	LASL 1
22(77)	LASL.HYDRO.MONTROS	LASL 1
31(77)	LASL.HYDRO.TALKEET	LASL 1
48(77)	LASL.HYDRO.KALISP.GROUND.WATER	LASL 1
48(77)	LASL.HYDRO.KALISP.STREAM.SEDIMENT	LASL 7-W
66(77)	SRL.HYDRO.STREAM.WINSTON	SRL 14
94(77)	LASL.HYDRO.SHERIDAN	LASL 1
9(78)	SRL.HYDRO.STREAM.SPARTAN	SRL 6
9(78)	SRL.HYDRO.GROUND.SPARTAN	SRL 10
28(78)	LASL.HYDRO.ELKCITY	LASL 1
40(78)	SRL.HYDRO.STREAM.CHARLOT	SRL 6
40(78)	SRL.HYDRO.GROUND.CHARLOT	SRL 10
47(78)	SRL.HYDRO.STREAM.GRENVIL	SRL 6
47(78)	SRL.HYDRO.GROUND.GRENVIL	SRL 10
55(78)	LASL.HYDRO.EKALAKA	LASL 2
56(78)	LASL.HYDRO.DILLON	LASL 1
57(78)	LASL.HYDRO.HAMILTON	LASL 2
58(78)	SRL.HYDRO.GROUND.WINSTON	SRL 10
60(78)	LASL.HYDRO.DENVER	LASL 2
60(78)	LASL.HYDRO.GREELEY	LASL 2
69(78)	LASL.HYDRO.CLIFTON	LASL 2
69(78)	LASL.HYDRO.DOUGLAS.GROUND.WATER	LASL 4
69(78)	LASL.HYDRO.DOUGLAS.STREAM.SEDIMENT	LASL 4-W
69(78)	LASL.HYDRO.SILVER	LASL 2
69(78)	LASL.HYDRO.STJOHNS	LASL 2
70(78)	LASL.HYDRO.DRIGGS	LASL 2
70(78)	LASL.HYDRO.OGDEN	LASL 2
70(78)	LASL.HYDRO.PRESTON	LASL 2
73(78)	NURE.PLV	ORNL01
73(78)	OAK.HYDRO.BSPRINGS.LUBBOCK.PLAINVIEW.PH1P	ORNL02
74(78)	SRL.HYDRO.STREAM.GRENBOR	SRL 6
74(78)	SRL.HYDRO.GREENS.BORO.GROUND	SRL 10
79(78)	LASL.HYDRO.ALASK01	LASL 1
81(78)	LASL.HYDRO.RAWLINS	LASL 2
85(78)	LASL.HYDRO.ALASK05	LASL 1
86(78)	LASL.HYDRO.ALASK06	LASL 1
87(78)	LASL.HYDRO.ALASK07	LASL 1
89(78)	LLL.HYDRO.WINNEM	LLL002
90(78)	LASL.STERLING.COLORADO.ORN084	LASL 2
92(78)	OAK.HYDRO.PLAIN.VIEW.PH2G	ORNL02

Table DSN (continued)

GJBX NUMBER	DATA SET NAME	FORMAT
93(78)	OAK.HYDRO.GREEN.BAY.PHP2G	ORNL02
94(78)	OAK.HYDRO.EAU.CLAIRE.PH2G	ORNL02
95(78)	OAK.HYDRO.RICELAKE.PH2G	ORNL02
96(78)	OAK.HYDRO.SAN.ANTONIO.PH12G	ORNL02
97(78)	OAK.HYDRO.IRONMNT.PH2G	ORNL02
103(78)	LASL.HYDRO.BROWN.FIELD	LASL 2
103(78)	LASL.HOBBS.NMEXICO.ORN65	LASL 2
104(78)	LASL.HYDRO.TULAROSA	LASL 2
106(78)	LASL.CHEYENNE.WYOMING.ORN071	LASL 2
109(78)	OAK.HYDRO.OKLAHOMA.CITY.PH12G	ORNL02
116(78)	OAK.HYDRO.SEGUIN.PH12G	ORNL02
122(78)	LLL.HYDRO.KINGMAN	LLL002
123(78)	LLL.HYDRO.LASVEGAS	LLL002
129(78)	LASL.AZTEC.NMEXICO	LASL 2
134(78)	OAK.HYDRO.SHERMAN.PH12G	ORNL02
135(78)	LASL.HYDRO.PUEBLO.UONLY	LASL 2
138(78)	LASL.HYDRO.RATON.GROUND.WATER	LASL 4
138(78)	LASL.HYDRO.RATON.STREAM.SEDIMENT	LASL 4-W
139(78)	LASL.HYDRO.TRINIDAD	LASL 2
141(78)	OAK.HYDRO.HOUSTON.PH12G	ORNL02
142(78)	OAK.HYDRO.ARDMORE.PH12G	ORNL02
2(79)	SRL.HYDRO.SCRANTON.GROUND.WATER	SRL 5
2(79)	SRL.HYDRO.SCRANTON.STREAM.SEDIMENT	SRL 6
2(79)	SRL.HYDRO.SCRANTON.STREAM.WATER	SRL 7
6(79)	OAK.HYDRO.EMORY.PEAK.PH12G	ORNL02
7(79)	OAK.HYDRO.ENID.PH12G	ORNL02
8(79)	LASL.HYDRO.BOZEMAN	LASL 2
10(79)	LASL.HYDRO.DURANGO	LASL 2
12(79)	OAK.HYDRO.PRESIDIO.PH12G	ORNL02
14(79)	LASL.HYDRO.PUBELO.GROUND.WATER	LASL 3
14(79)	LASL.HYDRO.PUEBLO.STREAM.SEDIMENT	LASL 3
18(79)	OAK.HYDRO.AUSTIN.PH12G	ORNL02
20(79)	SRL.HYDRO.ATHENS.GROUND	SRL 5
20(79)	SRL.HYDRO.ATHENS.STREAM	SRL 6
26(79)	LASL.HYDRO.CHUKCHI.IMURUK.GROUND.WATER	LASL 3
26(79)	LASL.HYDRO.CHUKCHI.IMURUK.STREAM.SEDIMENT	LASL 3
26(79)	LASL.HYDRO.CAPEKRUS.ENSTERN.GROUND.WATER	LASL 3
26(79)	LASL.HYDRO.SELAWIK.GROUND.WATER	LASL 3
26(79)	LASL.HYDRO.SELAWIK.STREAM.SEDIMENT	LASL 3
27(79)	OAK.HYDRO.LAWTON.PH2G	ORNL02
28(79)	SRL.HYDRO.PORTLAND.GROUND.WATER	SRL 5
28(79)	SRL.HYDRO.PORTLAND.STREAM.SEDIMENT	SRL 6
28(79)	SRL.HYDRO.PORTLAND.STREAM.WATER	SRL 7
29(79)	LASL.HYDRO.LIMEHILL.WATER	LASL 3
29(79)	LASL.HYDRO.LIMEHILL.SEDIMENT	LASL 3
29(79)	LASL.HYDRO.TYONEK.WATER	LASL 3
29(79)	LASL.HYDRO.TYONEK.SEDIMENT	LASL 3

Table DSN (continued)

GJBX NUMBER	DATA SET NAME	FORMAT
30(79)	LASL.HYDRO.MEDFRA.WATER	LASL 3
30(79)	LASL.HYDRO.MEDFRA.SEDIMENT	LASL 3
30(79)	LASL.HYDRO.MT.MCKINLEY.WATER	LASL 3
30(79)	LASL.HYDRO.MT.MCKINLEY.SEDIMENT	LASL 3
31(79)	SRL.HYDRO.HARRIS.BURG.GROUND.WATER	SRL 5
31(79)	SRL.HYDRO.HARRIS.BURG.SEDIMENT	SRL 6
31(79)	SRL.HYDRO.HARRIS.BURG.SURFACE.WATER	SRL 7
38(79)	LASL.HYDRO.DILLON.GROUND	LASL 3
38(79)	LASL.HYDRO.DILLON.STREAM	LASL 3
39(79)	LLL.MILLETT.HYDRO	LLL002
41(79)	LASL.HYDRO.LAJUNTA.GROUND	LASL 3
41(79)	LASL.HYDRO.LAJUNTA.STREAM	LASL 3
44(79)	SRL.HYDRO.GLEN.FALLS.GROUND	SRL 5
44(79)	SRL.HYDRO.GLEN.FALLS.STREAM.SEDIMENT	SRL 6
44(79)	SRL.HYDRO.GLEN.FALLS.STREAM.WATER	SRL 7
45(79)	SRL.HYDRO.AUGUSTA.GROUND.WATER	SRL 5
45(79)	SRL.HYDRO.AUGUSTA.STREAM.SEDIMENT	SRL 6
46(79)	OAK.HYDRO.OKLAHOMA.PILOT.SURVEY.PHP	ORNL02
54(79)	OAK.HYDRO.WICHITA.PH2G	ORNL02
55(79)	OAK.HYDRO.SAINT.CLOUD.PH2G	ORNL02
58(79)	SRL.HYDRO.DYERS.BURG.GROUND.WATER	SRL 5
58(79)	SRL.HYDRO.DYERS.BURG.STREAM.SEDIMENT	SRL 6
58(79)	SRL.HYDRO.DYERS.BURG.STREAM.WATER	SRL 7
61(79)	OAK.HYDRO.ASHLAND.PH2G	ORNL02
62(79)	OAK.HYDRO.CLINTON.PH2G	ORNL02
63(79)	SRL.HYDRO.POPLAR.BLUFF.GROUND.WATER	SRL 5
63(79)	SRL.HYDRO.POPLAR.BLUFF.STREAM.SEDIMENT	SRL 6
63(79)	SRL.HYDRO.POPLAR.BLUFF.STREAM.WATER	SRL 7
64(79)	LASL.HYDRO.LAMAR.GROUND	LASL 3
64(79)	LASL.HYDRO.LAMAR.STREAM	LASL 3
70(79)	LLL.HYDRO.SAND.POINT.WATER	LLL002
70(79)	LLL.HYDRO.SAND.POINT.SEDIMENT	LLL002
71(79)	LLL.HYDRO.WILLIAMS	LLL002
73(79)	SRL.HYDRO.ATHENS.SEDIMENT.SUPPLMNT	SRL 9
73(79)	SRL.HYDRO.CHAR.LOTTE.SEDIMENT.SUPPLMNT	SRL 9
73(79)	SRL.HYDRO.GREEN.VILLE.SEDIMENT.SUPPLMNT	SRL 9
73(79)	SRL.HYDRO.SPARTAN.BURG.SEDIMENT.SUPPLMNT	SRL 9
74(79)	LASL.HYDRO.FAIRBANK.GROUND.WATER	LASL 3
74(79)	LASL.HYDRO.FAIRBANK.STREAM.SEDIMENT	LASL 3
75(79)	SRL.HYDRO.KNOX.VILLE.GROUND	SRL 5
75(79)	SRL.HYDRO.KNOX.VILLE.SEDIMENT	SRL 6
76(79)	LASL.HYDRO.CRAIG.GROUND	LASL 3
76(79)	LASL.HYDRO.CRAIG.STREAM	LASL 3
77(79)	LASL.HYDRO.CORTEZ.GROUND	LASL 3
77(79)	LASL.HYDRO.CORTEZ.STREAM	LASL 3
83(79)	OAK.NJ1408.PH2G.PRATT	ORNL02
84(79)	OAK.NJ1507.PH2G.JOPLIN	ORNL02

Table DSN (continued)

GJBX NUMBER	DATA SET NAME	FORMAT
89(79)	LLL.HYDRO.TONOPAH	LLL002
90(79)	LLL.HYDRO.LOVELOCK	LLL002
92(79)	OAK.NH1501.PH2G.PALESTIN	ORNL02
93(79)	OAK.NI1408.PH2G.WICHITA.FALLS	ORNL02
94(79)	SRL.HYDRO.HARTFORD.GROUND	SRL 5
94(79)	SRL.HYDRO.HARTFORD.SEDIMENT	SRL 6
94(79)	SRL.HYDRO.HARTFORD.STREAM.WATER	SRL 7
111(79)	OAK.NI1401.PH2G.AMARILLO	ORNL02
120(79)	OAK.HYDRO.NEW.ULM	ORNL02
122(79)	LLL.HYDRO.PRESCOTT	LLL002
123(79)	LASL.HYDRO.MCGRATH.WATER	LASL 3
123(79)	LASL.HYDRO.MCGRATH.SEDIMENT	LASL 3
123(79)	LASL.HYDRO.TALKEETN.WATER	LASL 3
123(79)	LASL.HYDRO.TALKEETN.SEDIMENT	LASL 3
125(79)	LASL.HYDRO.MONTROSE.GROUND.WATER	LASL 3
125(79)	LASL.HYDRO.MONTROSE.STREAM.SEDIMENT	LASL 3
129(79)	SRL.HYDRO.ATLANTA.GROUND	SRL 5
129(79)	SRL.HYDRO.ATLANTA.STREAM.SEDIMENT	SRL 6
133(79)	OAK.HYDRO.HUTCHIN.SON.PH2G	ORNL02
134(79)	OAK.HYDRO.MANHATAN.PH2G	ORNL02
140(79)	SRL.HYDRO.ALBANY.GROUND	SRL 5
140(79)	SRL.HYDRO.ALBANY.STREAM.SEDIMENT	SRL 6
140(79)	SRL.HYDRO.ALBANY.STREAM.WATER	SRL 7
145(79)	LASL.HYDRO.ALBU.QUERQUE.GROUND.WATER	LASL 3
145(79)	LASL.HYDRO.ALBU.QUERQUE.STREAM.SEDIMENT	LASL 3
146(79)	LASL.HYDRO.MOAB.GROUND.WATER	LASL 3
146(79)	LASL.HYDRO.MOAB.STREAM.SEDIMENT	LASL 3
147(79)	LASL.HYDRO.LANDER.STREAM.SEDIMENT	LASL 3
147(79)	LASL.HYDRO.LANDER.GROUND.WATER	LASL 3
150(79)	LASL.HYDRO.BILLINGS.GROUND.WATER	LASL 3
150(79)	LASL.HYDRO.BILLINGS.STREAM.SEDIMENT	LASL 3
151(79)	OAK.HYDRO.LUBBOCK	ORNL02
152(79)	SRL.HYDRO.WILLIAMS.PORT.GROUND.WATER	SRL 5
152(79)	SRL.HYDRO.WILLIAMS.PORT.STREAM.SEDIMENT	SRL 6
152(79)	SRL.HYDRO.WILLIAMS.PORT.STREAM.WATER	SRL 7
161(79)	SRL.HYDRO.DELTA.STREAM.SEDIMENT	SRL 11
161(79)	SRL.HYDRO.RICH.FIELD.STREAM.SEDIMENT	SRL 11
2(80)	OAK.HYDRO.BEEVILLE.PH12G	ORNL02
3(80)	LASL.HYDRO.ARMINTO.STREAM.SEDIMENT	LASL 3
3(80)	LASL.HYDRO.ARMINTO.GROUND.WATER	LASL 3
14(80)	OAK.HYDRO.LAREDO.PH2G	ORNL02
27(80)	OAK.HYDRO.HOT.SPRINGS.PH2G	ORNL02
29(80)	OAK.TRANS.PECOS	ORNL02
29(80)	OAK.HYDRO.TRANS.PECOS.ADDITION.PHER	ORNL02
33(80)	LANL.HYDRO.USBM.ALASKA.SAMPLES	LASL 10
34(80)	OAK.HYDRO.TEXAS.GULF.COAST.PH.E	ORNL02
49(80)	OAK.HYDRO.LEMMON	ORNL02

Table DSN (continued)

GJBX NUMBER	DATA SET NAME	FORMAT
60(80)	OAK.HYDRO.DULUTH.STILL.WATER	ORNLO2
66(80)	OAK.HYDRO.WICHITA.UPLIFT.PHER	ORNLO2
67(80)	OAK.HYDRO.BEAUMONT	ORNLO2
81(80)	SRL.HYDRO.MESA.GROUND.SUPPLMNT	SRL 12
81(80)	SRL.HYDRO.MESA.STREAM.SUPPLMNT	SRL 4
91(80)	SRL.HYDRO.CHALLIS.GROUND.WATER	SRL 1
91(80)	SRL.HYDRO.CHALLIS.STREAM.SEDIMENT	SRL 2
99(80)	OAK.HYDRO.DICK.INSON.PH2G	ORNLO2
100(80)	OAK.HYDRO.LARAMIE.PHER	ORNLO2
106(80)	OAK.HYDRO.MARQ.UETTE.PH2G	ORNLO2
107(80)	SRL.HYDRO.WALKER.LAKE.GROUND.WATER	SRL 1
107(80)	SRL.HYDRO.WALKER.LAKE.STREAM.SEDIMENT	SRL 2
108(80)	SRL.HYDRO.RENO.GROUND.WATER	SRL 1
108(80)	SRL.HYDRO.RENO.STREAM.SEDIMENT	SRL 2
113(80)	SRL.HYDRO.SALTON.SEA.WATER.SUPPLMNT	SRL 12
113(80)	SRL.HYDRO.SALTON.SEA.SEDIMENT.SUPPLMNT	SRL 4
115(80)	OAK.HYDRO.IRON.RIVER.PH2G	ORNLO2
117(80)	SRL.HYDRO.MCDERMIT.STREAM.SEDIMENT	SRL 11
117(80)	SRL.HYDRO.WELLS.STREAM.SEDIMENT	SRL 11
128(80)	SRL.HYDRO.NEWARK.GROUND.WATER	SRL 5
128(80)	SRL.HYDRO.NEWARK.STREAM.SEDIMENT	SRL 6
128(80)	SRL.HYDRO.NEWARK.STREAM.WATER	SRL 7
129(80)	LASL.HYDRO.BUTTE.GROUND.WATER	LASL 3
129(80)	LASL.HYDRO.BUTTE.STREAM.SEDIMENT	LASL 3
133(80)	OAK.HYDRO.EDGEMONT.PHE	ORNLO2
134(80)	OAK.HYDRO.CORPUS.CHRISTI.PH2G	ORNLO2
135(80)	SRL.HYDRO.DEATH.VALLEY.GROUND.WATER	SRL 1
135(80)	SRL.HYDRO.DEATH.VALLEY.STREAM.SEDIMENT	SRL 2
138(80)	LASL.HYDRO.TRINIDAD.GROUND.WATER	LASL 4
138(80)	LASL.HYDRO.TRINIDAD.STREAM.SEDIMENT	LASL 4
139(80)	LASL.HYDRO.DURANGO.GROUND.WATER	LASL 4
139(80)	LASL.HYDRO.DURANGO.STREAM.SEDIMENT	LASL 4
141(80)	OAK.HYDRO.LAKEVIEW.PHER	ORNLO2
142(80)	SRL.HYDRO.GRAND.CANYON.GROUND.WATER	SRL 1
142(80)	SRL.HYDRO.GRAND.CANYON.STREAM.SEDIMENT	SRL 2
143(80)	LASL.HYDRO.SHIPROCK.GROUND.WATER	LASL 4
143(80)	LASL.HYDRO.SHIPROCK.STREAM.SEDIMENT	LASL 4
144(80)	LASL.HYDRO.CASPER.GROUND.WATER	LASL 4
144(80)	LASL.HYDRO.CASPER.STREAM.SEDIMENT	LASL 4
159(80)	OAK.HYDRO.RAPID.CITY.PH2G	ORNLO2
161(80)	SRL.HYDRO.POCA.TELLO.GROUND.WATER	SRL 1
161(80)	SRL.HYDRO.POCA.TELLO.STREAM.SEDIMENT	SRL 2
162(80)	SRL.HYDRO.RITZ.VILLE.GROUND.WATER	SRL 1
162(80)	SRL.HYDRO.RITZ.VILLE.STREAM.SEDIMENT	SRL 2
163(80)	SRL.HYDRO.ELKO.GROUND.WATER	SRL 1
163(80)	SRL.HYDRO.ELKO.STREAM.SEDIMENT	SRL 2
164(80)	OAK.HYDRO.DATE.CREEK.PH.ER	ORNLO2

Table DSN (continued)

GJBX NUMBER	DATA SET NAME	FORMAT
171(80)	SRL.HYDRO.KLAMATH.FALLS.GROUND.WATER	SRL 1
171(80)	SRL.HYDRO.KLAMATH.FALLS.STREAM.SEDIMENT	SRL 2
172(80)	SRL.HYDRO.PRICE.GROUND.WATER	SRL 1
172(80)	SRL.HYDRO.PRICE.STREAM.SEDIMENT	SRL 2
173(80)	SRL.HYDRO.MCDERMIT.GROUND.WATER	SRL 1
173(80)	SRL.HYDRO.MCDERMIT.STREAM.SEDIMENT	SRL 2
173(80)	SRL.HYDRO.MCDERMIT.STREAM.WATER	SRL 3
174(80)	SRL.HYDRO.WELLS.GROUND.WATER	SRL 1
174(80)	SRL.HYDRO.WELLS.STREAM.SEDIMENT	SRL 2
174(80)	SRL.HYDRO.WELLS.STREAM.WATER	SRL 3
175(80)	OAK.HYDRO.MARYS.VALE.PHER	ORNL02
176(80)	LASL.HYDRO.ELKCITY.GROUND.WATER	LASL 5
176(80)	LASL.HYDRO.ELKCITY.STREAM.SEDIMENT	LASL 5
184(80)	OAK.HYDRO.SONORA.PASS.PHER	ORNL02
185(80)	OAK.HYDRO.GRAND.ISLAND.PH2G	ORNL02
186(80)	LASL.HYDRO.GALLUP.GROUND.WATER	LASL 4
186(80)	LASL.HYDRO.GALLUP.STREAM.SEDIMENT	LASL 4
187(80)	LASL.HYDRO.NEW.CASTLE.GROUND.WATER	LASL 4
187(80)	LASL.HYDRO.NEW.CASTLE.STREAM.SEDIMENT	LASL 4
188(80)	LASL.HYDRO.THERMO.POLIS.GROUND.WATER	LASL 5
188(80)	LASL.HYDRO.THERMO.POLIS.STREAM.SEDIMENT	LASL 5
189(80)	LASL.HYDRO.ASHTON.GROUND.WATER	LASL 6
189(80)	LASL.HYDRO.ASHTON.STREAM.SEDIMENT	LASL 6
190(80)	LASL.HYDRO.TORRING.TON.GROUND.WATER	LASL 4
190(80)	LASL.HYDRO.TORRING.TON.STREAM.SEDIMENT	LASL 4
191(80)	LASL.HYDRO.STJOHNS.GROUND.WATER	LASL 4
191(80)	LASL.HYDRO.STJHONS.STREAM.SEDIMENT	LASL 4
195(80)	SRL.HYDRO.SPOKANE.GROUND.WATER	SRL 8
195(80)	SRL.HYDRO.SPOKANE.STREAM.SEDIMENT	SRL 4
195(80)	SRL.HYDRO.SPOKANE.STREAM.WATER	SRL 8
197(80)	LASL.HYDRO.SANTEFE.GROUND.WATER	LASL 4
197(80)	LASL.HYDRO.SANTEFE.STREAM.SEDIMENT	LASL 4
198(80)	SRL.HYDRO.DELTA.GROUND.WATER	SRL 1
198(80)	SRL.HYDRO.DELTA.STREAM.SEDIMENT	SRL 2
206(80)	LASL.HYDRO.LEWIS.TOWN.GROUND.WATER	LASL 4
206(80)	LASL.HYDRO.LEWIS.TOWN.STREAM.SEDIMENT	LASL 4
207(80)	LASL.HYDRO.DALHART.GROUND.WATER	LASL 4
207(80)	LASL.HYDRO.DALHART.STREAM.SEDIMENT	LASL 4
208(80)	LASL.HYDRO.DUBOIS.GROUND.WATER	LASL 5
208(80)	LASL.HYDRO.DUBOIS.STREAM.SEDIMENT	LASL 5
209(80)	SRL.HYDRO.ESCAL.ANTE.GROUND.WATER	SRL 1
209(80)	SRL.HYDRO.ESCAL.ANTE.STREAM.SEDIMENT	SRL 2
210(80)	SRL.HYDRO.OKANOGAN.GROUND.WATER	SRL 1
210(80)	SRL.HYDRO.OKANOGAN.STREAM.SEDIMENT	SRL 2
210(80)	SRL.HYDRO.OKANOGAN.STREAM.WATER	SRL 3
211(80)	SRL.HYDRO.SPOKANE.GROUND.WATER	SRL 1
211(80)	SRL.HYDRO.SPOKANE.STREAM.SEDIMENT	SRL 2



Table DSN (continued)

GJBX NUMBER	DATA SET NAME	FORMAT
211(80)	SRL.HYDRO.SPOKANE.STREAM.WATER	SRL 3
216(80)	SRL.HYDRO.MESA.GROUND.WATER	SRL 1
216(80)	SRL.HYDRO.MESA.STREAM.SEDIMENT	SRL 2
217(80)	SRL.HYDRO.SALTON.SEA.GROUND.WATER	SRL 1
217(80)	SRL.HYDRO.SALTON.SEA.STREAM.SEDIMENT	SRL 2
218(80)	SRL.HYDRO.SALINA.GROUND.WATER	SRL 1
218(80)	SRL.HYDRO.SALINA.STREAM.SEDIMENT	SRL 2
218(80)	SRL.HYDRO.SALINA.STREAM.WATER	SRL 3
219(80)	OAK.HYDRO.ALLIANCE.PH2G	ORNLO2
232(80)	LASL.HYDRO.VERNAL.GROUND.WATER	LASL 4
232(80)	LASL.HYDRO.VERNAL.STREAM.SEDIMENT	LASL 4
233(80)	LASL.HYDRO.CODY.GROUND.WATER	LASL 4
233(80)	LASL.HYDRO.CODY.STREAM.SEDIMENT	LASL 4
234(80)	LASL.HYDRO.GILLETTE.GROUND.WATER	LASL 4
234(80)	LASL.HYDRO.GILLETTE.STREAM.SEDIMENT	LASL 4
235(80)	LASL.HYDRO.BOZEMAN.GROUND.WATER	LASL 4
235(80)	LASL.HYDRO.BOZEMAN.STREAM.SEDIMENT	LASL 4
236(80)	LASL.HYDRO.HAMILTON.GROUND.WATER	LASL 5
236(80)	LASL.HYDRO.HAMILTON.STREAM.SEDIMENT	LASL 5
237(80)	LASL.HYDRO.BOZEMAN.SPECIAL.GROUND.WATER	LASL 7
237(80)	LASL.HYDRO.BOZEMAN.SPECIAL.STR	LASL 7
238(80)	OAK.HYDRO.THOMAS.RANGE.WASATCH.PHER	ORNLO2
238(80)	OAK.HYDRO.TRWAS.PHER	ORNLO2
241(80)	OAK.HYDRO.BUFFALO.LIGNITE.PHE	ORNLO2
242(80)	SRL.HYDRO.RICH.FIELD.GROUND.WATER	SRL 1
242(80)	SRL.HYDRO.RICH.FIELD.STREAM.SEDIMENT	SRL 2
243(80)	SRL.HYDRO.TRONA.GROUND.WATER	SRL 1
243(80)	SRL.HYDRO.TRONA.STREAM.SEDIMENT	SRL 2
249(80)	OAK.HYDRO.BROWNS.VILLE.PH2G	ORNLO2
249(80)	OAK.HYDRO.MCALLEN.PH2G	ORNLO2
250(80)	OAK.HYDRO.MARFA.PHZ	ORNLO2
255(80)	SRL.HYDRO.BOSTON.GROUND.WATER	SRL 5
255(80)	SRL.HYDRO.BOSTON.STREAM.SEDIMENT	SRL 6
255(80)	SRL.HYDRO.BOSTON.STREAM.WATER	SRL 7
257(80)	LASL.HYDRO.DIXON.ENTRANCE.GROUND.WATER	LASL 11
257(80)	LASL.HYDRO.DIXON.ENTRANCE.STREAM.SEDIMENT	LASL 11
12(81)	LASL.HYDRO.SOCORRO.GROUND.WATER	LASL 4
12(81)	LASL.HYDRO.SOCORRO.STREAM.SEDIMENT	LASL 4
13(81)	LASL.HYDRO.LEAD.VILLE.GROUND.WATER	LASL 4
13(81)	LASL.HYDRO.LEAD.VILLE.STREAM.SEDIMENT	LASL 4
14(81)	SRL.HYDRO.LEWISTON.GROUND.WATER	SRL 5
14(81)	SRL.HYDRO.LEWISTON.STREAM.SEDIMENT	SRL 6
14(81)	SRL.HYDRO.LEWISTON.STREAM.WATER	SRL 7
15(81)	SRL.HYDRO.PROVI.DENCE.GROUND.WATER	SRL 5
15(81)	SRL.HYDRO.PROVI.DENCE.STREAM.SEDIMENT	SRL 6
15(81)	SRL.HYDRO.PROVI.DENCE.STREAM.WATER	SRL 7
16(81)	SRL.HYDRO.ROCKYMNT.MANTEO.GROUND.WATER	SRL 5

Table DSN (continued)

GJBX NUMBER	DATA SET NAME	FORMAT
16(81)	SRL.HYDRO.ROCKYMNT.MANTEO.STREAM.SED	SRL 6
16(81)	SRL.HYDRO.ROCKYMNT.MANETO.STREAM.WATER	SRL 7
17(81)	SRL.HYDRO.BEAUFORT.GROUND.WATER	SRL 5
17(81)	SRL.HYDRO.BEAUFORT.STREAM.SEDIMENT	SRL 6
17(81)	SRL.HYDRO.BEAUFORT.STREAM.WATER	SRL 7
23(81)	LASL.HYDRO.PIE.TOWN.STUDY.WATER.URANIUM	LASL 7
24(81)	SRL.HYDRO.SCRANTON.SEDIMENT.SUPPLMNT	SRL 4
26(81)	SRL.HYDRO.JOHNSON.CITY.GROUND.WATER	SRL 5
26(81)	SRL.HYDRO.JOHNSON.CITY.STREAM.SEDIMENT	SRL 6
26(81)	SRL.HYDRO.JOHNSON.CITY.STREAM.WATER	SRL 7
27(81)	SRL.HYDRO.BRUNS.WICK.GROUND.WATER	SRL 5
27(81)	SRL.HYDRO.BRUNS.WICK.STREAM.SEDIMENT	SRL 6
39(81)	OAK.HYDRO.LLANO.PHE	ORNL02
40(81)	SRL.HYDRO.MACON.GROUND.WATER	SRL 5
40(81)	SRL.HYDRO.MACON.STREAM.SEDIMENT	SRL 6
70(81)	SRL.HYDRO.GLENS.FALLS.SEDIMENT.SUPPLMNT	SRL 4
71(81)	SRL.HYDRO.NEWARK.SEDIMENT.SUPPLMNT	SRL 4
72(81)	SRL.HYDRO.BOSTON.SEDIMENT.SUPPLMNT	SRL 4
73(81)	SRL.HYDRO.ROANOKE.GROUND.WATER	SRL 5
73(81)	SRL.HYDRO.ROANOKE.STREAM.SEDIMENT	SRL 6
73(81)	SRL.HYDRO.ROANOKE.STREAM.WATER	SRL 7
77(81)	OAK.HYDRO.DODGE.CITY.PH2G	ORNL02
88(81)	LASL.HYDRO.HEALY.GROUND.WATER	LASL 8
88(81)	LASL.HYDRO.HEALY.STREAM.SEDIMENT	LASL 8
89(81)	LASL.HYDRO.ILLIAMNA.GROUND.WATER	LASL 8
89(81)	LASL.HYDRO.ILLIAMNA.STREAM.SEDIMENT	LASL 8
90(81)	LASL.HYDRO.VALDEZ.GROUND.WATER	LASL 8
90(81)	LASL.HYDRO.VALDEZ.STREAM.SEDIMENT	LASL 8
91(81)	LASL.HYDRO.MTHAYES.GROUND.WATER	LASL 8
91(81)	LASL.HYDRO.MTHAYES.STREAM.SEDIMENT	LASL 8
92(81)	LASL.HYDRO.SELDOVIA.GROUND.WATER	LASL 8
92(81)	LASL.HYDRO.SELDOVIA.STREAM.SEDIMENT	LASL 8
105(81)	LASL.HYDRO.MONTROSE.GROUND.WATER	LASL 7
105(81)	LASL.HYDRO.MONTROSE.STREAM.SEDIMENT	LASL 7
106(81)	SRL.HYDRO.PORTLAND.SEDIMENT.SUPPLMNT	SRL 4
107(81)	SRL.HYDRO.ALBANY.SEDIMENT.SUPPLMNT	SRL 4
108(81)	SRL.HYDRO.LAKE.CHAMP.LAIN.GROUND.WATER	SRL 5
108(81)	SRL.HYDRO.LAKE.CHAMP.LAIN.STREAM.SEDIMENT	SRL 6
108(81)	SRL.HYDRO.LAKE.CHAMP.LAIN.STREAM.WATER	SRL 7
126(81)	LASL.HYDRO.ROCK.SPRINGS.GROUND.WATER	LASL 4
126(81)	LASL.HYDRO.ROCK.SPRINGS.STREAM.SEDIMENT	LASL 4
131(81)	OAK.HYDRO.TEXAS.PH1	ORNL02
137(81)	SRL.HYDRO.FLAG.STAFF.STREAM.SEDIMENT	SRL 2
138(81)	SRL.HYDRO.MARBLE.CANYON.STREAM.SEDIMENT	SRL 2
145(81)	OAK.HYDRO.SCOTTS.BLUFF.PH2G	ORNL02
150(81)	OAK.HYDRO.SURVEY.PASS.PHL	ORNL04-454
151(81)	OAK.HYDRO.ARCTIC.PHL	ORNL04-454

Table DSN (continued)

GJBX NUMBER	DATA SET NAME	FORMAT
152(81)	OAK.HYDRO.BARTER.PHL	ORNL04-454
153(81)	OAK.HYDRO.BEAVER.PHL	ORNL04-454
154(81)	OAK.HYDRO.BRAD.FIELD.CANAL.PHL	ORNL04-454
155(81)	OAK.HYDRO.CHANDLER.LAKE.PHL	ORNL04-454
156(81)	OAK.HYDRO.DEMARCA.TION.POINT.PHL	ORNL04-454
157(81)	OAK.HYDRO.FLAXMAN.PHL	ORNL04-454
158(81)	OAK.HYDRO.HUGHES.PHL	ORNL04-455
159(81)	OAK.HYDRO.JUNEAU.PHL	ORNL04-454
160(81)	OAK.HYDRO.KALLIK.RIVER.PHL	ORNL04-454
161(81)	OAK.HYDRO.LOOKOUT.RIDGE.PHL	ORNL04-454
162(81)	OAK.HYDRO.MTFAIR.WEATHER.PHL	ORNL04-454
163(81)	OAK.HYDRO.PHILIP.SMITH.PHL	ORNL04-455
164(81)	OAK.HYDRO.SKAGWAY.PHL	ORNL04-455
165(81)	OAK.HYDRO.TAKU.RIVER.PHL	ORNL04-455
166(81)	OAK.HYDRO.ATLIN.PHL	ORNL04-455
167(81)	OAK.HYDRO.FARGO.PH2G	ORNL03
168(81)	OAK.HYDRO.THIEF.RIVER.PH2G	ORNL02
169(81)	OAK.HYDRO.GRAND.FORKS.PH2G	ORNL02
170(81)	OAK.HYDRO.BAYCITY.PH2G	ORNL02
171(81)	OAK.HYDRO.WISEMAN.PHL	ORNL04-455
172(81)	OAK.HYDRO.CHAND.ALAR.PHL	ORNL04-455
173(81)	LASL.HYDRO.RED.CREEK.STUDY.SEDIMENT.MULTI	LASL 7
174(81)	LASL.HYDRO.SO.POWDER.RIV.STUDY.WATER.URANIUM	LASL 7
183(81)	LASL.HYDRO.TUCUM.CARI.GROUND.WATER	LASL 7
183(81)	LASL.HYDRO.TUCUM.CARI.STREAM.SEDIMENT	LASL 7
184(81)	LASL.HYDRO.HAVRE.GROUND.WATER	LASL 7
184(81)	LASL.HYDRO.HAVRE.STREAM.SEDIMENT	LASL 7
185(81)	LASL.HYDRO.CORDOVA.GROUND.WATER	LASL 8
185(81)	LASL.HYDRO.CORDOVA.STREAM.SEDIMENT	LASL 8
186(81)	LASL.HYDRO.ICYBAY.GROUND.WATER	LASL 8
186(81)	LASL.HYDRO.ICYBAY.STREAM.SEDIMENT	LASL 8
187(81)	LASL.HYDRO.NOME.GROUND.WATER	LASL 8
187(81)	LASL.HYDRO.NOME.STREAM.SEDIMENT	LASL 8
188(81)	LASL.HYDRO.SOLOMON.GROUND.WATER	LASL 8
188(81)	LASL.HYDRO.SOLOMON.STREAM.SEDIMENT	LASL 8
189(81)	LASL.HYDRO.BERING.GLACIER.GROUND.WATER	LASL 8
189(81)	LASL.HYDRO.BERING.GLACIER.STREAM.SEDIMENT	LASL 8
193(81)	OAK.HYDRO.HOWARD.PASS.PHL	ORNL04-455
194(81)	OAK.HYDRO.PRINCE.RUPERT.PHL	ORNL04-455
195(81)	OAK.HYDRO.BIG.DELTA.PHL	ORNL04-455
196(81)	OAK.HYDRO.MT.MICHEL.SON.PHL	ORNL04-455
197(81)	OAK.HYDRO.TANA.CROSS.PHL	ORNL04-455
198(81)	OAK.HYDRO.BETTLES.PHL	ORNL04-455
199(81)	OAK.HYDRO.YAKUTAT.PHL	ORNL04-455
201(81)	LASL.HYDRO.FTYUKON.GROUND.WATER	LASL 8
201(81)	LASL.HYDRO.FTYUKON.STREAM.SEDIMENT	LASL 8
202(81)	LASL.HYDRO.GULKANA.GROUND.WATER	LASL 8

Table DSN (continued)

GJBX NUMBER	DATA SET NAME	FORMAT
202(81)	LASL.HYDRO.GULKANA.STREAM.SEDIMENT	LASL 8
203(81)	LASL.HYDRO.LAKE.CLARK.GROUND.WATER	LASL 8
203(81)	LASL.HYDRO.LAKE.CLARK.STREAM.SEDIMENT	LASL 8
204(81)	LASL.HYDRO.ANCHOR.AGE.GROUND.WATER	LASL 8
204(81)	LASL.HYDRO.ANCHOR.AGE.STREAM.SEDIMENT	LASL 8
205(81)	LASL.HYDRO.CHRISTIAN.GROUND.WATER	LASL 8
205(81)	LASL.HYDRO.CHRISTIAN.STREAM.SEDIMENT	LASL 8
206(81)	LASL.HYDRO.KENAI.GROUND.WATER	LASL 8
206(81)	LASL.HYDRO.KENAI.STREAM.SEDIMENT	LASL 8
207(81)	LASL.HYDRO.NORTON.BAY.GROUND.WATER	LASL 8
207(81)	LASL.HYDRO.NORTON.BAY.STREAM.SEDIMENT	LASL 8
208(81)	LASL.HYDRO.AMBLER.RIVER.GROUND.WATER	LASL 8
208(81)	LASL.HYDRO.AMBLER.RIVER.STREAM.SEDIMENT	LASL 8
215(81)	LANL.HYDRO.TULAROSA.SEDIMENT	LASL 7
216(81)	LASL.HYDRO.SPRING.CREEK.STUDY.SEDIMENT.MULTI	LASL 7
217(81)	LASL.HYDRO.VALLE.CITO.GROUND.WATER	LASL 4
217(81)	LASL.HYDRO.VALLE.CITO.STREAM.SEDIMENT	LASL 7
217(81)	LASL.HYDRO.VALLE.CITO.GEOLOGIC	LASL 9
218(81)	OAK.HYDRO.ESCANABA.PH2G	ORNL02
219(81)	OAK.HYDRO.WATER.TOWN.PH2G	ORNL02
220(81)	OAK.HYDRO.CIRCLE.PHL	ORNL04-455
221(81)	OAK.HYDRO.NABESNA.PHL	ORNL04-455
222(81)	OAK.HYDRO.KETCH.IKAN.PHL	ORNL04-480
223(81)	OAK.HYDRO.TABLE.MNTS.PHL	ORNL04-480
226(81)	OAK.HYDRO.MCCARTY.PHL	ORNL04-455
227(81)	OAK.HYDRO.EAGLE.PHL	ORNL04-455
228(81)	OAK.HYDRO.POINT.LAY.PHL	ORNL04-455
229(81)	OAK.HYDRO.LINCOLN.PH2G	ORNL02
230(81)	OAK.HYDRO.EDGEMONT.PHE	ORNL02
231(81)	SRL.HYDRO.BAKER.GROUND.WATER	SRL 1
231(81)	SRL.HYDRO.BAKER.STREAM.SEDIMENT	SRL 2
231(81)	SRL.HYDRO.BAKER.STREAM.WATER	SRL 3
232(81)	SRL.HYDRO.NEEDLES.GROUND.WATER	SRL 1
232(81)	SRL.HYDRO.NEEDLES.STREAM.SEDIMENT	SRL 2
235(81)	OAK.HYDRO.CHARLEY.RIVER.PHL	ORNL04-455
236(81)	OAK.HYDRO.WAIN.WRIGHT.PHL	ORNL04-455
243(81)	OAK.HYDRO.DATE.CREEK.PH.ER	ORNL02
244(81)	OAK.HYDRO.DOUGLAS.GROUND.WATER	ORNL04-480
244(81)	OAK.HYDRO.DOUGLAS.STREAM.SEDIMENT	ORNL04-514
245(81)	OAK.HYDRO.POINT.HOPE.PHL	ORNL04-471
246(81)	OAK.HYDRO.BEECHEY.POINT.PHL	ORNL04-480
247(81)	OAK.HYDRO.MEADE.RIVER.PHL	ORNL04-480
248(81)	OAK.HYDRO.TESH.EKPUK.PHL	ORNL04-455
249(81)	OAK.HYDRO.UMIAT.PHL	ORNL04-480
250(81)	OAK.HYDRO.UTUKOK.RIVER.PHL	ORNL04-480
251(81)	OAK.DELONG.MNT.PHL	ORNL04-471
252(81)	OAK.HYDRO.HARRISON.BAY.PHL	ORNL04-480

Table DSN (continued)

GJBX NUMBER	DATA SET NAME	FORMAT
253(81)	LASL.HYDRO.ARCTIC.STREAM.SEDIMENT	LASL 8
254(81)	LASL.HYDRO.CHAND.ALAR.STREAM.SEDIMENT	LASL 8
255(81)	LASL.HYDRO.SURVEY.PASS.STREAM.SEDIMENT	LASL 8
256(81)	LASL.HYDRO.TABLE.MT.STREAM.SEDIMENT	LASL 8
257(81)	LASL.HYDRO.WISEMAN.STREAM.SEDIMENT	LASL 8
258(81)	LASL.HYDRO.HUGHES.STREAM.SEDIMENT	LASL 8
259(81)	LASL.HYDRO.PHILIP.SMITH.MTS.STREAM.SEDIMENT	LASL 8
260(81)	LASL.HYDRO.SKAGWAY.STREAM.SEDIMENT	LASL 8
261(81)	LASL.HYDRO.YAKUTAT.STREAM.SEDIMENT	LASL 8
262(81)	LASL.HYDRO.BAIRD.MTS.GROUND.WATER	LASL 8
262(81)	LASL.HYDRO.BAIRD.MTS.STREAM.SEDIMENT	LASL 8
263(81)	LASL.HYDRO.DENVER.GROUND.WATER	LASL 7
263(81)	LASL.HYDRO.DENVER.STREAM.SEDIMENT	LASL 7
264(81)	LASL.HYDRO.GRD.JCT.GROUND.WATER	LASL 7
264(81)	LASL.HYDRO.GRD.JCT.STREAM.SEDIMENT	LASL 7
265(81)	LASL.HYDRO.GREELEY.GROUND.WATER	LASL 7
265(81)	LASL.HYDRO.GREELEY.STREAM.SEDIMENT	LASL 7
266(81)	LASL.HYDRO.WHITE.SULPHUR.GROUND.WATER	LASL 7
266(81)	LASL.HYDRO.WHITE.SULPHUR.STREAM.SEDIMENT	LASL 7
271(81)	OAK.HYDRO.MILBANK.PH2G	ORNL02
272(81)	OAK.HYDRO.BARROW.PHL	ORNL04-480
274(81)	OAK.HYDRO.BROKEN.BOW.PH2G	ORNL03
275(81)	OAK.HYDRO.IKPIKPUK.RIVER.PHL	ORNL04-480
276(81)	OAK.HYDRO.MISHEGUK.MNTS.PHL	ORNL04-471
277(81)	OAK.HYDRO.UNAL.AKLEET.PHL	ORNL04-480
278(81)	OAK.PETERS.BURG.PHL	ORNL04-480
279(81)	OAK.HYDRO.SAGAVA.WIRKTOK.PHL	ORNL04-480
282(81)	SRL.HYDRO.LAKE.CHAMPLAIN.SEDIMENT.SUPPLMNT	SRL 4
286(81)	SRL.HYDRO.BALT.IMORE.GROUND.WATER	SRL 5
286(81)	SRL.HYDRO.BALT.IMORE.STREAM.SEDIMENT	SRL 6
286(81)	SRL.HYDRO.BALT.IMORE.STREAM.WATER	SRL 7
287(81)	SRL.HYDRO.CUMBER.LAND.GROUND.WATER	SRL 5
287(81)	SRL.HYDRO.CUMBER.LAND.STREAM.SEDIMENT	SRL 6
287(81)	SRL.HYDRO.CUMBER.LAND.STREAM.WATER	SRL 7
287(81)	SRL.HYDRO.PITTS.BURG.GROUND.WATER	SRL 5
287(81)	SRL.HYDRO.PITTS.BURG.STREAM.SEDIMENT	SRL 6
287(81)	SRL.HYDRO.PITTS.BURG.STREAM.WATER	SRL 7
288(81)	OAK.HYDRO.HOBBS.PHL	ORNL04-514
289(81)	OAK.HYDRO.OGDEN.PHL	ORNL04-514
290(81)	OAK.HYDRO.RUBY.PHL	ORNL04-480
307(81)	OAK.HYDRO.ONEILL.PH2G	ORNL03
308(81)	OAK.HYDRO.RAWLINS.PHL	ORNL04-514
309(81)	OAK.HYDRO.EKALAKA.PHL	ORNL04-514
310(81)	OAK.HYDRO.IDITAROD.PHL	ORNL04-514
313(81)	SRL.HYDRO.WILLIAMS.PORT.SEDIMENT.SUPPLMNT	SRL 4
318(81)	OAK.HYDRO.DALLAS.PH2G	ORNL03
319(81)	OAK.HYDRO.BROWN.FIELD.PHL	ORNL04-514

Table DSN (continued)

GJBX NUMBER	DATA SET NAME	FORMAT
320(81)	OAK.HYDRO.SILVER.CITY.PHL	ORNL04-514
321(81)	OAK.HYDRO.AZTEC.PHL	ORNL04-514
322(81)	OAK.HYDRO.ST.MICHAEL.PHL	ORNL04-514
323(81)	OAK.HYDRO.OPHIR.PHL	ORNL04-514
324(81)	OAK.HYDRO.CHEYENNE.PHL	ORNL04-514
325(81)	OAK.HYDRO.PRESTON.PHL	ORNL04-514
326(81)	OAK.HYDRO.TULAROSA.PHL	ORNL04-514
337(81)	OAK.HYDRO.KANT.ISHNA.PHL	ORNL04-514
338(81)	OAK.HYDRO.TANANA.PHL	ORNL04-514
339(81)	OAK.HYDRO.BLACK.RIVER.PHL	ORNL04-514
340(81)	OAK.HYDRO.MELO.ZITNA.PHL	ORNL04-514
341(81)	OAK.HYDRO.NULATO.PHL	ORNL04-514
342(81)	OAK.HYDRO.PORT.ALEX.ANDER.PHL	ORNL04-514
343(81)	OAK.HYDRO.CRAIG.PHL	ORNL04-514
344(81)	OAK.HYDRO.SITKA.PHL	ORNL04-514
345(81)	OAK.HYDRO.COLEEN.PHL	ORNL04-514
346(81)	OAK.HYDRO.SUMDUM.PHL	ORNL04-514
347(81)	SRL.HYDRO.HARRISBURG.SEDIMENT.SUPPLMNT	SRL 4
348(81)	SRL.HYDRO.LEWISTON.SEDIMENT.SUPPLMNT	SRL 4
351(81)	LASL.HYDRO.ALBUQUERQUE.WATER.URANIUM	LASL 7
351(81)	LASL.HYDRO.ALBUQUERQUE.SEDIMENT.MULTI	LASL 7
358(81)	OAK.HYDRO.RATON.PHL	ORNL04-514
359(81)	OAK.HYDRO.CLIFTON.PHL	ORNL04-514
360(81)	OAK.HYDRO.KATEEL.RIVER.PHL	ORNL04-514
361(81)	OAK.HYDRO.ROUNDUP.PHL	ORNL04-514
362(81)	OAK.HYDRO.SHERIDAN.SEDIMENT.WATER	ORNL04-514
366(81)	OAK.HYDRO.WACO.PH2G	ORNL03
367(81)	OAK.HYDRO.LIMON.PHL	ORNL04-514
368(81)	OAK.HYDRO.DRIGGS.PHL	ORNL04-514
369(81)	OAK.HYDRO.SHUNGNAK.PHL	ORNL04-514
370(81)	OAK.HYDRO.CHOTEAU.PHL	ORNL04-514
371(81)	OAK.HYDRO.MILES.CITY.PHL	ORNL04-514
372(81)	OAK.HYDRO.HARDIN.PHL	ORNL04-514
373(81)	OAK.HYDRO.WALLACE.PHL	ORNL04-514
374(81)	OAK.HYDRO.SHELBY.PHL	ORNL04-514
375(81)	OAK.HYDRO.CUT.BANK.PHL	ORNL04-514
376(81)	LASL.HYDRO.BRAD.FIELD.CANAL.STREAM.SEDIMENT	LASL 8
377(81)	LASL.HYDRO.NABESNA.STREAM.SEDIMENT	LASL 8
378(81)	LASL.HYDRO.LIMON.STREAM.SEDIMENT	LASL 7
379(81)	LASL.HYDRO.BEAVER.STREAM.SEDIMENT	LASL 8
380(81)	LASL.HYDRO.STERLING.GROUND.WATER	LASL 7
380(81)	LASL.HYDRO.STERLING.STREAM.SEDIMENT	LASL 7
381(81)	LASL.HYDRO.KETCH.IKAN.STREAM.SEDIMENT	LASL 8
382(81)	LASL.HYDRO.MCCARTHY.STREAM.SEDIMENT	LASL 8
392(81)	OAK.HYDRO.FREMONT.PH2G	ORNL03
393(81)	OAK.HYDRO.SIOUX.CITY.PH	ORNL03
394(81)	OAK.HYDRO.KALIS.PELL.PHL	ORNL04-514

Table DSN (continued)

GJBX NUMBER	DATA SET NAME	FORMAT
395 (81)	OAK.HYDRO.FORT.SUMNER.PH1	ORNL04-514
396 (81)	OAK.HYDRO.GREAT.FALLS.PHL	ORNL04-514
397 (81)	OAK.HYDRO.ROSWELL.RHL	ORNL04-514
398 (81)	LAK.HYDRO.FORSYTH.PHL	ORNL04-514
399 (81)	OAK.HYDRO.GLENDIVE.PHL	ORNL04-514
400 (81)	OAK.HYDRO.JORDAN.PHL	ORNL04-514
401 (81)	OAK.HYDRO.SANLUIS.OBISPO.PHL	ORNL04-449
403 (81)	SRL.HYDRO.ALABAMA.STREAM.SEDIMENT	SRL 6
403 (81)	SRL.HYDRO.ALABAMA.GROUND.WATER	SRL 5
403 (81)	SRL.HYDRO.ALABAMA.STREAM.WATER	SRL 7
403 (81)	SRL.HYDRO.ALABAMA.SEDIMENT.SUPPLMNT	SRL 13
403 (81)	SRL.HYDRO.GEORGIA.STREAM.SEDIMENT	SRL 6
403 (81)	SRL.HYDRO.GEORGIA.GROUND.WATER	SRL 5
403 (81)	SRL.HYDRO.GEORGIA.STREAM.WATER	SRL 7
403 (81)	SRL.HYDRO.GEORGIA.SEDIMENT.SUPPLMNT	SRL 13
415 (81)	OAK.HYDRO.CARLSBAD.PHL	ORNL04-514
416 (81)	OAK.HYDRO.LAS.CRUCES.PHL	ORNL04-514
418 (81)	OAK.LASL.HYDRO.GOLDFIELD.STREAM.SEDIMENT	ORNL04-468
419 (81)	OAK.LASL.HYDRO.BAKERSFIELD.STREAM.SEDIMENT	ORNL04-468
2 (82)	LASL.HYDRO.LIVENGOOD.STREAM.SEDIMENT	LASL 8
2 (82)	LASL.HYDRO.LIVENGOOD.STREAM.SEDIMENT.ADD	LASL 8
3 (82)	LASL.HYDRO.PRINCE.RUPERT.STREAM.SEDIMENT	LASL 8
4 (82)	LASL.HYDRO.TANACROSS.STREAM.SEDIMENT	LASL 8
5 (82)	LASL.HYDRO.BARROW.SEDIMENT.MULTI	LASL 8
6 (82)	LASL.HYDRO.BARTER.ISLAND.STREAM.SEDIMENT	LASL 8
7 (82)	LASL.HYDRO.BEECHEY.POINT.SEDIMENT.MULTI	LASL 8
8 (82)	LASL.HYDRO.HOWARD.PASS.STREAM.SEDIMENT	LASL 8
12 (82)	LASL.HYDRO.COLEEN.STREAM.SEDIMENT	LASL 8
13 (82)	LASL.HYDRO.BIG.DELTA.STREAM.SEDIMENT	LASL 8
14 (82)	LASL.HYDRO.BETTLES.STREAM.SEDIMENT	LASL 8
15 (82)	LASL.HYDRO.WALLACE.GROUND.WATER	LASL 7
15 (82)	LASL.HYDRO.WALLACE.STREAM.SEDIMENT	LASL 7
16 (82)	LASL.HYDRO.WOLF.POINT.GROUND.WATER	LASL 7
16 (82)	LASL.HYDRO.WOLF.POINT.STREAM.SEDIMENT	LASL 7
17 (82)	LASL.HYDRO.ATLIN.STREAM.SEDIMENT	LASL 8
18 (82)	LASL.HYDRO.MIDDLETON.ISLAND.GROUND.WATER	LASL 8
18 (82)	LASL.HYDRO.MIDDLETON.ISLAND.STREAM.SEDIMENT	LASL 8
19 (82)	LASL.HYDRO.MISHEGUK.STREAM.SEDIMENT	LASL 8
20 (82)	LASL.HYDRO.ST.MICHAEL.STREAM.SEDIMENT	LASL 8
21 (82)	OAK.LASL.HYDRO.LUND.STREAM.SEDIMENT	ORNL04-468
22 (82)	OAK.LASL.HYDRO.SACRAMENTO.STREAM.SEDIMENT	ORNL04-468
23 (82)	OAK.LASL.HYDRO.ELY.STREAM.SEDIMENT	ORNL04-468
24 (82)	OAK.LASL.HYDRO.FRESNO.STREAM.SEDIMENT	ORNL04-468
36 (82)	LASL.HYDRO.NULATO.SEDIMENT.MULTI	LASL 8
37 (82)	LASL.HYDRO.KILLIK.RIVER.STREAM.SEDIMENT	LASL 8
40 (82)	LASL.HYDRO.GLASGOW.GROUND.WATER	LASL 7
40 (82)	LASL.HYDRO.GLASGOW.STREAM.SEDIMENT	LASL 7

Table DSN (continued)

GJBX NUMBER	DATA SET NAME	FORMAT
41 (82)	LASL.HYDRO.HARRISON.BAY.SEDIMENT.MULTI	LASL 8
44 (82)	LASL.HYDRO.LOOKOUT.RIDGE.STREAM.SEDIMENT	LASL 8
45 (82)	LASL.HYDRO.MTFAIR.WEATHER.STREAM.SEDIMENT	LASL 8
46 (82)	LASL.HYDRO.MT.MICHEL.SON.STREAM.SEDIMENT	LASL 8
47 (82)	LASL.HYDRO.SUMDUM.SEDIMENT.MULTI	LASL 8
48 (82)	LASL.HYDRO.WAINWRIGHT.SEDIMENT.MULTI	LASL 8
49 (82)	LASL.HYDRO.CHAND.LERLAKE.STREAM.SEDIMENT	LASL 8
52 (82)	OAK.HYDRO.CALIENTE.STREAM.SEDIMENT	ORNLO4-429
53 (82)	OAK.HYDRO.CEDAR.CITY.STREAM.SEDIMENT	ORNLO4-429
54 (82)	OAK.HYDRO.MARIPOSA.STREAM.SEDIMENT	ORNLO4-429
55 (82)	OAK.SRL.HYDRO.CHALLIS.HAILEY.SEDIMENT	ORNLO4-429
56 (82)	OAK.HYDRO.VYA.STREAM.SEDIMENT	ORNLO4-429
57 (82)	OAK.HYDRO.ADEL.STREAM.SEDIMENT	ORNLO4-429
58 (82)	OAK.HYDRO.JORDAN.VALLEY.STREAM.SEDIMENT	ORNLO4-429
59 (82)	OAK.HYDRO.TWIN.FALLS.STREAM.SEDIMENT	ORNLO4-429
60 (82)	OAK.HYDRO.BOISE.STREAM.SEDIMENT	ORNLO4-429
61 (82)	OAK.SRL.HYDRO.TOOELE.BRIGHAM.CITY.SEDIMENT	ORNLO4-429
62 (82)	OAK.HYDRO.IDAHO.FALLS.STREAM.SEDIMENT	ORNLO4-429
63 (82)	OAK.HYDRO.HOLBROOK.STREAM.SEDIMENT	ORNLO4-429
64 (82)	OAK.HYDRO.TUCSON.STREAM.SEDIMENT	ORNLO4-429
65 (82)	OAK.HYDRO.NOGALES.STREAM.SEDIMENT	ORNLO4-429
66 (82)	OAK.HYDRO.BEAUMONT.LCHARLES.BATON.ROUGE.SED	ORNLO4-424
67 (82)	OAK.HYDRO.PALESTINE.ALEX.NATCHEZ.SED	ORNLO4-424
68 (82)	OAK.HYDRO.TYLER.SHREVEPORT.JACKSON.SEDIMENT	ORNLO4-424
69 (82)	OAK.HYDRO.EL.DORADO.GREEN.SHERMAN.TEX.SED	ORNLO4-424
70 (82)	OAK.HYDRO.ARDMORE.HELENA.LTL.ROCK.MCAL.SED	ORNLO4-424
71 (82)	OAK.HYDRO.OKLA.CITY.FT.SMITH.RUSSELL.SED	ORNLO4-424
72 (82)	OAK.HYDRO.ENID.HARRISON.TULSA.SEDIMENT	ORNLO4-424
73 (82)	OAK.HYDRO.JOPLIN.ROLLA.SPRINGFIELD.SEDIMENT	ORNLO4-424
74 (82)	OAK.HYDRO.CHAT.COLU.GAD.ROME.SEDIMENT	ORNLO4-424
75 (82)	OAK.HYDRO.CORBIN.JOHNSON.CITY.NASH.SED	ORNLO4-424
76 (82)	OAK.HYDRO.PADUCAH.EVANSVILLE.SEDIMENT	ORNLO4-424
77 (82)	OAK.HYDRO.WINCHESTER.SEDIMENT	ORNLO4-424
78 (82)	OAK.HYDRO.JENKINS.SEDIMENT	ORNLO4-424
79 (82)	OAK.HYDRO.CLARKSBURG.COLUMBUS.SEDIMENT	ORNLO4-424
80 (82)	OAK.HYDRO.CANTON.CLEVELAND.MARION.PITTS.SED	ORNLO4-424
81 (82)	OAK.HYDRO.SALISBURY.WILMINGTON.SEDIMENT	ORNLO4-424
82 (82)	OAK.HYDRO.SCRANTON.SEDIMENT	ORNLO4-424
83 (82)	OAK.HYDRO.ELMIRA.BINGHAMPTON.ALBANY.SEDIMENT	ORNLO4-424
84 (82)	OAK.HYDRO.KINGSTON.ROCHESTER.SEDIMENT	ORNLO4-424
85 (82)	OAK.HYDRO.UTICA.SEDIMENT	ORNLO4-424
86 (82)	OAK.HYDRO.GLENS.FALLS.SEDIMENT	ORNLO4-424
87 (82)	OAK.HYDRO.LAKE.CHAMPLAIN.OGDENSBURG.SEDIMENT	ORNLO4-424
88 (82)	OAK.HYDRO.BANGOR.SEDIMENT	ORNLO4-424
89 (82)	LASL.HYDRO.DEMARC.ATION.STREAM.SEDIMENT	LASL 8
90 (82)	LASL.HYDRO.JUNEAU.STREAM.SEDIMENT	LASL 8
91 (82)	LASL.HYDRO.POINT.HOPE.STREAM.SEDIMENT	LASL 8



Table DSN (continued)

GJBX NUMBER	DATA SET NAME	FORMAT
92 (82)	LASL.HYDRO.UTUKOK.SEDIMENT.MULTI	LASL 8
93 (82)	LASL.HYDRO.TESHEKPUK.SEDIMENT.MULTI	LASL 8
94 (82)	LASL.HYDRO.UMIAT.SEDIMENT.MULTI	LASL 8
95 (82)	LASL.HYDRO.UNALAK.LEET.STREAM.SEDIMENT	LASL 8
102 (82)	SRL.HYDRO.SOUTH.CAROLINA.STREAM.SEDIMENT	SRL 6
102 (82)	SRL.HYDRO.SOUTH.CAROLINA.GROUND.WATER	SRL 5
102 (82)	SRL.HYDRO.SOUTH.CAROLINA.SEDIMENT.SUPPLEMENT	SRL 13
102 (82)	SRL.HYDRO.NORTH.CAROLINA.STREAM.SEDIMENT	SRL 6
102 (82)	SRL.HYDRO.NORTH.CAROLINA.GROUND.WATER	SRL 5
102 (82)	SRL.HYDRO.NORTH.CAROLINA.STREAM.WATER	SRL 7
102 (82)	SRL.HYDRO.NORTH.CAROLINA.SEDIMENT.SUPPLMNT.	SRL 13
103 (82)	SRL.HYDRO.WEST.VIRGINIA.STREAM.SEDIMENT	SRL 6
103 (82)	SRL.HYDRO.WEST.VIRGINIA.GROUND.WATER	SRL 5
103 (82)	SRL.HYDRO.WEST.VIRGINIA.STREAM.WATER	SRL 7
103 (82)	SRL.HYDRO.VIRGINIA.STREAM.SEDIMENT	SRL 6
103 (82)	SRL.HYDRO.VIRGINIA.GROUND.WATER	SRL 5
103 (82)	SRL.HYDRO.VIRGINIA.STREAM.WATER	SRL 7
103 (82)	SRL.HYDRO.VIRGINIA.SEDIMENT.SUPPLMNT	SRL 13
103 (82)	SRL.HYDRO.MARYLAND.STREAM.SEDIMENT	SRL 6
103 (82)	SRL.HYDRO.MARYLAND.GROUND.WATER	SRL 5
103 (82)	SRL.HYDRO.MARYLAND.STREAM.WATER	SRL 7
103 (82)	SRL.HYDRO.DELAWARE.STREAM.SEDIMENT	SRL 6
103 (82)	SRL.HYDRO.DELAWARE.GROUND.WATER	SRL 5
104 (82)	SRL.HYDRO.LOUISIANA.STREAM.SEDIMENT	SRL 6
104 (82)	SRL.HYDRO.TEXAS.STREAM.SEDIMENT	SRL 6
104 (82)	SRL.HYDRO.OKLAHOMA.STREAM.SEDIMENT	SRL 6
104 (82)	SRL.HYDRO.OKLAHOMA.GROUND.WATER	SRL 5
104 (82)	SRL.HYDRO.OKLAHOMA.STREAM.WATER	SRL 7
104 (82)	SRL.HYDRO.MISSOURI.STREAM.SEDIMENT	SRL 6
104 (82)	SRL.HYDRO.MISSOURI.GROUND.WATER	SRL 5
104 (82)	SRL.HYDRO.MISSOURI.STREAM.WATER	SRL 7
104 (82)	SRL.HYDRO.ARKANSAS.STREAM.SEDIMENT	SRL 6
104 (82)	SRL.HYDRO.ARKANSAS.GROUND.WATER	SRL 5
104 (82)	SRL.HYDRO.ARKANSAS.STREAM.WATER	SRL 7
104 (82)	SRL.HYDRO.MISSISSIPPI.GROUND.WATER	SRL 5
105 (82)	SRL.HYDRO.ILLINOIS.STREAM.SEDIMENT	SRL 6
105 (82)	SRL.HYDRO.ILLINOIS.GROUND.WATER	SRL 5
105 (82)	SRL.HYDRO.ILLINOIS.STREAM.WATER	SRL 7
105 (82)	SRL.HYDRO.TENN.STREAM.SEDIMENT	SRL 6
105 (82)	SRL.HYDRO.TENN.GROUND.WATER	SRL 5
105 (82)	SRL.HYDRO.TENN.STREAM.WATER	SRL 7
105 (82)	SRL.HYDRO.TENN.SEDIMENT.SUPPLMNT	SRL 13
105 (82)	SRL.HYDRO.OHIO.STREAM.SEDIMENT	SRL 6
105 (82)	SRL.HYDRO.OHIO.GROUND.WATER	SRL 5
105 (82)	SRL.HYDRO.OHIO.STREAM.WATER	SRL 7
105 (82)	SRL.HYDRO.KENTUCKY.STREAM.SEDIMENT	SRL 6
105 (82)	SRL.HYDRO.KENTUCKY.GROUND.WATER	SRL 5

Table DSN (continued)

GJBX NUMBER	DATA SET NAME	FORMAT
105(82)	SRL.HYDRO.KENTUCKY.STREAM.WATER	SRL 7
105(82)	SRL.HYDRO.INDIANA.STREAM.SEDIMENT	SRL 6
105(82)	SRL.HYDRO.INDIANA.GROUND.WATER	SRL 5
105(82)	SRL.HYDRO.INDIANA.STREAM.WATER	SRL 7
106(82)	SRL.HYDRO.NEW.YORK.STREAM.SEDIMENT	SRL 6
106(82)	SRL.HYDRO.NEW.YORK.GROUND.WATER	SRL 5
106(82)	SRL.HYDRO.NEW.YORK.STREAM.WATER	SRL 7
106(82)	SRL.HYDRO.NEW.YORK.SEDIMENT.SUPPLMNT	SRL 13
106(82)	SRL.HYDRO.PENNSYLVANIA.STREAM.SEDIMENT	SRL 6
106(82)	SRL.HYDRO.PENNSYLVANIA.GROUND.WATER	SRL 5
106(82)	SRL.HYDRO.PENNSYLVANIA.STREAM.WATER	SRL 7
106(82)	SRL.HYDRO.PENNSYLVANIA.SEDIMENT.SUPPLMNT	SRL 13
106(82)	SRL.HYDRO.NEW.JERSEY.STREAM.SEDIMENT	SRL 6
106(82)	SRL.HYDRO.NEW.JERSEY.GROUND.WATER	SRL 5
106(82)	SRL.HYDRO.NEW.JERSEY.STREAM.WATER	SRL 7
106(82)	SRL.HYDRO.NEW.JERSEY.SEDIMENT.SUPPLEMENT	SRL 13
107(82)	SRL.HYDRO.NEW.HAMPSHIRE.SEDIMENT	SRL 6
107(82)	SRL.HYDRO.NEW.HAMPSHIRE.GROUND.WATER	SRL 5
107(82)	SRL.HYDRO.NEW.HAMPSHIRE.STREAM.WATER	SRL 7
107(82)	SRL.HYDRO.NEW.HAMPSHIRE.SEDIMENT.SUPPLMNT	SRL 13
107(82)	SRL.HYDRO.MASSACHUSETTS.STREAM.SEDIMENT	SRL 6
107(82)	SRL.HYDRO.MASSACHUSETTS.GROUND.WATER	SRL 5
107(82)	SRL.HYDRO.MASSACHUSETTS.STREAM.WATER	SRL 7
107(82)	SRL.HYDRO.MASSACHUSETTS.SEDIMENT.SUPPLMNT	SRL 13
107(82)	SRL.HYDRO.VERMONT.SEDIMENT	SRL 6
107(82)	SRL.HYDRO.VERMONT.GROUND.WATER	SRL 5
107(82)	SRL.HYDRO.VERMONT.STREAM.WATER	SRL 7
107(82)	SRL.HYDRO.VERMONT.SUPPLMNT.SEDIMENT	SRL 13
107(82)	SRL.HYDRO.CONNECTICUT.STREAM.SEDIMENT	SRL 6
107(82)	SRL.HYDRO.CONNECTICUT.GROUND.WATER	SRL 5
107(82)	SRL.HYDRO.CONNECTICUT.STREAM.WATER	SRL 7
107(82)	SRL.HYDRO.CONNECTICUT.SUPPLMNT.SEDIMENT	SRL 13
107(82)	SRL.HYDRO.BANGBATH.EASTPRT.SEDIMENT	SRL 2
107(82)	SRL.HYDRO.BANGBATH.EASTPRT.GROUND.WATER	SRL 1
107(82)	SRL.HYDRO.BANGBATH.EASTPRT.STREAM.WATER	SRL 3
107(82)	SRL.HYDRO.BANGBATH.EASTPRT.SUPPLMNT.GROUND	SRL 15
107(82)	SRL.HYDRO.BANGBATH.EASTPRT.SUPPLMNT.STREAM	SRL 15
107(82)	SRL.HYDRO.MAINE.SEDIMENT	SRL 6
107(82)	SRL.HYDRO.MAINE.GROUND.WATER	SRL 5
107(82)	SRL.HYDRO.MAINE.STREAM.WATER	SRL 7
107(82)	SRL.HYDRO.MAINE.SUPP.SEDIMENT	SRL 13
107(82)	SRL.HYDRO.RHODE.ISLAND.SEDIMENT	SRL 6
107(82)	SRL.HYDRO.RHODE.ISLAND.GROUND.WATER	SRL 5
107(82)	SRL.HYDRO.RHODE.ISLAND.STREAM.WATER	SRL 7
107(82)	SRL.HYDRO.RHODE.ISLAND.SUPPLMNT.SEDIMENT	SRL 13
108(82)	LANL.HYDRO.TANANA.SEDIMENT.MULTI	LASL 8
122(82)	OAK.HYDRO.BLACK.RIVER.STREAM.SEDIMENT	LASL 8

Table DSN (continued)

GJBX NUMBER	DATA SET NAME	FORMAT
124(82)	LASL.HYDRO.TELLER.WATER	LASL 8
124(82)	LASL.HYDRO.TELLER.SEDIMENT.MULTI	LASL 8
125(82)	LASL.HYDRO.ELPASO.WATER	LASL 7
125(82)	LASL.HYDRO.ELPASO.SEDIMENT.MULTI	LASL 7
126(82)	LASL.HYDRO.TAKU.RIVER.STREAM.SEDIMENT	LASL 8
127(82)	LASL.HYDRO.CHOTEAU.SEDIMENT.MULTI	LASL 8
128(82)	LASL.HYDRO.SITKA.SEDIMENT.MULTI	LASL 8
132(82)	SRL.HYDRO.NORTH.WEST.SEDIMENT	SRL 2
132(82)	SRL.HYDRO.NORTH.WEST.GROUND.WATER	SRL 1
132(82)	SRL.HYDRO.NORTH.WEST.STREAM.WATER	SRL 3
132(82)	SRL.HYDRO.NORTH.WEST.SEDIMENT.SUPPLEMENT	SRL 13
132(82)	SRL.HYDRO.NORTH.WEST.GROUND.WATER.SUPP	SRL 15
132(82)	SRL.HYDRO.NORTH.WEST.STREAM.WATER.SUPP	SRL 15
132(82)	SRL.HYDRO.SOUTH.WEST.SEDIMENT	SRL 2
132(82)	SRL.HYDRO.SOUTH.WEST.GROUND.WATER	SRL 1
132(82)	SRL.HYDRO.SOUTH.WEST.STREAM.WATER	SRL 3
132(82)	SRL.HYDRO.SOUTH.WEST.SEDIMENT.SUPP	SRL 13
132(82)	SRL.HYDRO.SOUTH.WEST.GROUND.WATER.SUPP	SRL 15
132(82)	SRL.HYDRO.SOUTH.WEST.STREAM.WATER.SUPP	SRL 15
133(82)	SRL.HYDRO.JEAN.LAKE.SOIL	SRL 2
133(82)	SRL.HYDRO.JEAN.LAKE.AUGER	SRL 2
133(82)	SRL.HYDRO.JEAN.LAKE.ROCK	SRL 2
134(82)	SRL.HYDRO.KETTLE.FALLS.STREAM.SEDIMENT	SRL 2
134(82)	SRL.HYDRO.KETTLE.FALLS.GROUND.WATER	SRL 1
134(82)	SRL.HYDRO.KETTLE.FALLS.STREAM.WATER	SRL 3
137(82)	LASL.HYDRO.TALKEETNA.MTS.GROUND.WATER	LASL 8
137(82)	LASL.HYDRO.TALKEETNA.MTS.SEDIMENT.MULTI	LASL 8
139(82)	LASL.HYDRO.SELAWIK.WATER	LASL 7
139(82)	LASL.HYDRO.SELAWIK.SEDIMENT.MULTI	LASL 7
140(82)	LASL.HYDRO.SEWARD.GROUND.WATER	LASL 7
140(82)	LASL.HYDRO.SEWARD.STREAM.SEDIMENT	LASL 7
141(82)	LASL.HYDRO.SHISHMAREF.WATER	LASL 8
141(82)	LASL.HYDRO.SHISHMAREF.SEDIMENT.MULTI	LASL 8
142(82)	LASL.HYDRO.SHUNGNAC.SEDIMENT.MULTI	LASL 8
143(82)	LASL.HYDRO.BENDELEBEN.WATER	LASL 7
143(82)	LASL.HYDRO.BENDELEBEN.SEDIMENT.MULTI	LASL 7
148(82)	SRL.HYDRO.MOUNT.SPOKANE.STREAM.SEDIMENT	SRL 2
148(82)	SRL.HYDRO.MOUNT.SPOKANE.GROUND.WATER	SRL 1
148(82)	SRL.HYDRO.MOUNT.SPOKANE.STREAM.WATER	SRL 3
150(82)	SRL.HYDRO.MIDNITE.MINE.STREAM.SEDIMENT	SRL 2
150(82)	SRL.HYDRO.MIDNITE.MINE.GROUND.WATER	SRL 1
150(82)	SRL.HYDRO.MIDNITE.MINE.STREAM.WATER	SRL 3
151(82)	LASL.HYDRO.CANDLE.WATER	LASL 7
151(82)	LASL.HYDRO.CANDLE.SEDIMENT	LASL 7
152(82)	LASL.HYDRO.POINT.LAY.SEDIMENT.MULTI	LASL 8
153(82)	LASL.HYDRO.PORT.ALEXANDER.SEDIMENT.MULTI	LASL 8
154(82)	LASL.HYDRO.RUBY.SEDIMENT.MULTI	LASL 8

Table DSN (continued)

GJBX NUMBER	DATA SET NAME	FORMAT
155(82)	LASL.HYDRO.SAGAVANIRKTOK.SEDIMENT.MULTI	LASL 8
158(82)	LASL.HYDRO.BLYING.SOUND.GROUND.WATER	LASL 7
158(82)	LASL.HYDRO.BLYING.SOUND.STREAM.SEDIMENT	LASL 7
159(82)	LASL.HYDRO.DE.LONG.MNT.STREAM.SEDIMENT	LASL 8
160(82)	LASL.HYDRO.FLAXMAN.ISLAND.STREAM.SEDIMENT	LASL 8
161(82)	LASL.HYDRO.IKPIKPUK.RIVER.SEDIMENT.MULTI	LASL 8
162(82)	LASL.HYDRO.MEADE.RIVER.SEDIMENT.MULTI	LASL 8
163(82)	LASL.HYDRO.PETERSBURG.SEDIMENT.MULTI	LASL 8
165(82)	OAK.HYDRO.PHOENIX.WATER.SUPPL	ORNLO4-459
166(82)	OAK.HYDRO.SLOBISPO.SCRUZ.WATER.SUPPL	ORNLO4-459
167(82)	OAK.HYDRO.DVALLEY.FRESNO.WATER.SUPPL	ORNLO4-459
168(82)	OAK.HYDRO.MARIP.SACR.WATER.SUPPL	ORNLO4-459
169(82)	OAK.HYDRO.CALIENTE.ELKO.ELY.LUND.WATER.SUP	ORNLO4-459
170(82)	OAK.HYDRO.ADEL.JVALLEY.TFALLS.WATER.SUPPL	ORNLO4-459
171(82)	OAK.HYDRO.BOISE.WATER.SUPPL	ORNLO4-459
172(82)	OAK.HYDRO.HAILEY.CHALLIS.WATER.SUPPL	ORNLO4-459
173(82)	OAK.HYDRO.IDAHO.FALLS.WATER.SUPPL	ORNLO4-459
174(82)	OAK.SRL.HYDRO.BATH.BANGOR.SUPPL.SEDIMENT	ORNLO4-459
175(82)	OAK.SRL.HYDRO.AUGUSTA.SUPPL.SEDIMENT	ORNLO4-442
176(82)	OAK.SRL.HYDRO.BANGOR.SUPPL.SEDIMENT	ORNLO4-442
177(82)	OAK.SRL.HYDRO.KETTLE.MIDNITE.SUPPL.SEDIMENT	ORNLO4-459
178(82)	LASL.HYDRO.CHARLEY.RIVER.STREAM.SEDIMENT	LASL 8
179(82)	LASL.HYDRO.KOTZEBUE.WATER	LASL 8
179(82)	LASL.HYDRO.KOTZEBUE.SEDIMENT.MULTI	LASL 8
180(82)	LASL.HYDRO.NOATAK.GROUND.WATER	LASL 7
180(82)	LASL.HYDRO.NOATAK.STREAM.SEDIMENT	LASL 7
181(82)	LASL.HYDRO.OPHIR.SEDIMENT.MULTI	LASL 8
182(82)	LASL.HYDRO.KATEEL.RIVER.SEDIMENT.MULTI	LASL 8
183(82)	LASL.HYDRO.MELOZITNA.SEDIMENT.MULTI	LASL 8
184(82)	LASL.HYDRO.CLOVIS.GROUND.WATER	LASL 7
184(82)	LASL.HYDRO.CLOVIS.STREAM.SEDIMENT	LASL 7
185(82)	LASL.HYDRO.IDITAROD.SEDIMENT.MULTI	LASL 8
186(82)	LASL.HYDRO.CIRCLE.STREAM.SEDIMENT	LASL 8
187(82)	LASL.HYDRO.CRAIG.SEDIMENT.MULTI	LASL 8
188(82)	LASL.HYDRO.KANTISHNA.RIVER.SEDIMENT.MULTI	LASL 8
189(82)	LASL.HYDRO.EAGLE.STREAM.SEDIMENT	LASL 8
207(82)	GEOCHEM.SURVEY.MONTICELLO.GLENWILD.DETAILED	SRL 2

