COMPUTER PROGRAM AND DATA LISTING FOR TWO-DIMENSIONAL GROUND-WATER MODEL FOR LARAMIE COUNTY, WYOMING

By Marvin A. Crist

U.S. GEOLOGICAL SURVEY

Water-Resources Investigations Report 83-4137

Cheyenne, Wyoming

1983

UNITED STATES DEPARTMENT OF THE INTERIOR

JAMES G. WATT, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For additional information
write to:

District Chief
U.S. Geological Survey
2120 Capitol Avenue
P.O. Box 1125
Cheyenne, Wyoming 82003

Copies of this report can
be purchased from:

Open-File Services Section
Western Distribution Branch
U.S. Geological Survey
Box 25425, Federal Center
Denver, Colorado 80225
(Telephone: (303) 234-5888)

CONTENTS

TABLES

CONVERSION FACTORS

For use of readers who prefer to use metric units, conversion factors for the inch-pound units used in this report are listed below:

Multiply	By	To obtain
foot	0.3048	meter
cubic foot	0.02832	cubic meter
foot per second	0.3048	meter per second
cubic foot per second	0.02832	cubic meter per second

COMPUTER PROGRAM AND DATA LISTING FOR TWO-DIMENSIONAL GROUND-WATER MODEL FOR LARAMIE COUNTY, WYOMING

By Marvin A. Crist

ABSTRACT

This report is a supplement to the report, "Effect of pumpage on ground-water levels as modeled in Laramie County, Wyoming," published as U.S. Geological Survey Water-Resources Investigations Open-File Report 80-1104 which describes ground-water conditions in post-Cretaceous rocks in Laramie County. The computer program and the data used to model ground-water conditions in post-Cretaceous rocks in Laramie County are listed in this report.

INTRODUCTION

This report is a supplement to the report, "Effect of pumpage on ground-water levels as modeled in Laramie County, Wyoming," (Crist, 1980) which was prepared in cooperation with the Wyoming State Engineer and the Wyoming Department of Economic Planning and Development and describes the ground-water conditions in post-Cretaceous rocks in Laramie County. The purpose of this report is to provide the computer program and model data to hydrologists and water administrators familiar with ground-water-modeling techniques to enable them to make additional model simulations. The general computer program was written by Trescott and others (1976) with a streamflow-accounting procedure added by Hoxie (1977, p. 21) to approximate the interaction between the streams and the aquifer.

A listing of the data for the model is also given in this report. The listing is in the same order and format prescribed by the computer program. Knowledge of Fortran IV program language is necessary to be able to follow the routing and computations made by the computer program.

DATA ENTRY

The computer program used in this model (table 1) is dated January 1975. The order of entering data is slightly different than in the September 1975 version (Trescott and others, 1976) although documentation for the general program is the same.

A node-identification array (p. 53-56 and p. 91-94) is used to identify the stream nodes and the node where water enters Crow Creek from the Cheyenne municipal treatment plant (Crist, 1980, p. 16). Explanation of the identifying number for each stream follows the node-identification array listing (p. 56 and p. 94) in tables 2 and 3. The explanation must be followed by a blank card or a card with a zero (as card number 197, table 2).

STEADY-STATE SIMULATION

Several assumptions (Crist, 1980, p. 17 and 19) were made in order to simulate steady-state conditions. One assumption was that the hydraulic-head distribution estimated from the potentiometric surface mapped for March 1977 (Crist, 1980, pl. 3) approximates the potentiometric surface during steady-state conditions. All data except aquifer hydraulic conductivity were assumed correct for steady-state conditions; the hydraulic-conductivity distribution was then generated by trial and error. This procedure resulted in a calculated hydraulic-head distribution for steady-state conditions that agrees favorably with the measured hydraulic-head distribution (Crist, 1980, p. 19). The calculated steady-state hydraulic head was used as the initial hydraulic head for the transient simulation.

No attempt was made to verify the hydraulic conductivities generated through trial and error by comparing them with either field measurements of hydraulic conductivity or local geologic conditions. These values, therefore, should not be used to predict local effects of pumping or should be used with caution, as local variations in water levels due to other causes may have resulted in local hydraulic conductivities in the model somewhat different than actually exist. Additional geologic and aquifer-test data are needed to better define the aquifer properties of the units simulated by the Laramie County model.

TRANSIENT SIMULATIONS

Data for two periods, 1920-70 and 1971-77, are listed in tables 2 and 3. During these periods, pumpage was simulated by the model so that calculated water-level changes could be examined at nodes where water levels were measured 1971-77 (Crist, 1980, p. 21).

An additional transient simulation for 1978-87 was made with the model. As this was a predictive simulation in which the pumpage was assumed to continue at the same rate as estimated for 1977 (Crist, 1980, p. 23), the data used for this simulation are not included in this report. Any other pumpage rate could have been assumed and be used to simulate conditions beyond 1977.

REFERENCES CITED

Crist, M. A., 1980, Effect of pumpage on ground-water levels as modeled in Laramie County, Wyoming: U.S. Geological Survey Water-Resources Investigations Open-File Report 80-1104, 26 p.

Hoxie, D. T., 1977, Digital model of the Arikaree aquifer near Wheatland, southeastern Wyoming: U.S. Geological Survey Open-File Report 77-676, 54 p.

Trescott, P. C., Pinder, G. F., and Larson, S. P., 1976, Finite-difference model for aquifer simulation in two dimensions with results of numerical experiments: U.S. Geological Survey Techniques of Water-Resources Investigations, Book 7, Chapter C1, 116 p.

Table 1.--Listing of computer program for Laramie County model

```
C                          FINITE-DIFFERENCE MODEL                          MAN  10
C                                    FOR                                    MAN  20
C                          SIMULATION OF GROUND-WATER FLOW                  MAN  30
C                                IN TWO DIMENSIONS                          MAN  40
C                                                                           MAN  50
C                          BY P. C. TRESCOTT AND G. F. PINDER               MAN  60
C                                U. S. GEOLOGICAL SURVEY                    MAN  70
C                                     JANUARY, 1975                         MAN  80
C                                                                           MAN  90
C     SOURCE PROGRAM FOR LARAMIE COUNTY MODEL                               MAN 100
C                                                                           MAN 110
C     STEADY-STATE OPTION ADDED 8 DECEMBER 1976                             MAN 120
C                                                                           MAN 130
C     BOUNDARY WELL DISCHARGE/RECHARGE CALCULATED INTERNALLY FROM           MAN 140
C     INITIAL HEAD AND TRANSMISSIVITY DISTRIBUTIONS                         MAN 150
C                                                                           MAN 160
C                                                                           MAN 170
C     STREAMFLOW ACCOUNTING PROCEDURE ADDED 12 APRIL 1977                   MAN 180
C                                                                           MAN 190
C     NOTE:  SUBROUTINE PRNTAI HAS BEEN REMOVED; TO REACTIVATE              MAN 200
C     REPLACE SOURCE DECK AND REMOVE C'S FROM COL 1 OF THE FOLLOWING        MAN 210
C     CARDS:  MAN1840 & 1850,  MAN2040,  STP 960 & 970                      MAN 220
C     A DATA CARD FOR VARIABLE CONTR IS STILL NEEDED, HOWEVER               MAN 230
C                                                                           MAN 240
C     MODIFY STREAM NODE READ-IN PROCEDURE:  25 APRIL 1978                  MAN 250
C                                                                           MAN 260
C                                                                           MAN 270
C     ***************************************************************************MAN 280
C     MAIN PROGRAM TO DIMENSION DIGITAL MODEL AND CONTROL SEQUENCE          MAN 290
C     OF COMPUTATIONS                                                       MAN 300
C     ---------------------------------------------------------------------MAN 310
C     SPECIFICATIONS:                                                       MAN 320
      COMMON /SARRAY/ TEST3(102),VF4(11),CHK(15),ITST(102),JTST(102)        MAN 330
      COMMON /ARSIZE/ IZ,JZ,IP,JP,IR,JR,IC,JC,IL,JL,IS,JS,IH,IMAX           MAN 340
     $,IU,JU                                                                MAN 350
      COMMON /SPARAM/ WATER,CONVRT,EVAP,CHCK,PNCH,NUM,HEAD,CONTR,EROR,LEMAN 360
     1AK,RECH,SIP,U,SS,TT,TMIN,ETDIST,QET,ERR,TMAX,CDLT,HMAX,YDIM,WIDTH,MAN 370
     2NUMS,LSOR,ADI,DELT,SUM,SUMP,SUBS,STORE,TEST,ETQB,ETQD,FACTX,FACTY,MAN 380
     3IERR,KOUNT,IFINAL,NUMT,KT,KP,NPER,KTH,ITMAX,LENGTH,NWEL,NW,DIML,DIMAN 390
     4MW,JNO1,INO1,R,P,PU,I,J,NODE,STDY,KPH,IQPNC                           MAN 400
      COMMON /STREAM/ NRIV,NRPR,NODRV(20),NDR(20),NMRV(20),QRIV(3,20),      MAN 410
     $ IRUP(20),JRUP(20),IRDN(20),JRDN(20)                                  MAN 420
C                                                                           MAN 430
      DIMENSION Y(82000),L(37)                                              MAN 440
C                                                                           MAN 450
      REAL *4KEEP,M,HEADNG(32)                                              MAN 460
      REAL *8PHI,G,BE,TEMP,Z                                                MAN 470
      INTEGER R,P,PU,DIML,DIMW,CHK,WATER,CONVRT,EVAP,CHCK,PNCH,NUM,HEAD,MAN 480
     1CONTR,LEAK,RECH,SIP,ADI,NODE,STDY                                     MAN 490
C                                                                           MAN 500
      CALL ERRSET(208,256,-1,1)                                             MAN 510
C     .....................................................................MAN 520
C                                                                           MAN 530
C     ---READ TITLE,PROGRAM OPTIONS AND PROGRAM SIZE---                     MAN 540
   10 READ (R,340) HEADNG                                                   MAN 550
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
      WRITE (P,330) HEADNG                                                  MAN 560
      READ (R,350) WATER,LEAK,CONVRT,EVAP,RECH,NUMS,CHCK,PNCH,NUM,HEAD  MAN 570
     $,NODE,STDY                                                            MAN 580
      WRITE (P,360) WATER,LEAK,CONVRT,EVAP,RECH,NUMS,CHCK,PNCH,NUM,HEAD MAN 590
     $,NODE,STDY                                                            MAN 600
      IF (NUMS.EQ.CHK(11).OR.NUMS.EQ.CHK(12).OR.NUMS.EQ.CHK(13)) GO TO 2MAN 610
     10                                                                     MAN 620
      WRITE (P,320)                                                         MAN 630
      STOP                                                                  MAN 640
   20 READ (R,290) DIML,DIMW,NW                                             MAN 650
      WRITE (P,310) DIML,DIMW,NW                                            MAN 660
C                                                                           MAN 670
C     ---COMPUTE DIMENSIONS FOR ARRAYS---                                   MAN 680
      IZ=DIML                                                               MAN 690
      JZ=DIMW                                                               MAN 700
      IH=MAX0(1,NW)                                                         MAN 710
      IMAX=MAX0(DIML,DIMW)                                                  MAN 720
      ISIZ=DIML*DIMW                                                        MAN 730
      ISUM=2*ISIZ+1                                                         MAN 740
      L(1)=1                                                                MAN 750
      DO 30 I=2,4                                                           MAN 760
      L(I)=ISUM                                                             MAN 770
   30 ISUM=ISUM+2*IMAX                                                      MAN 780
      DO 40 I=5,16                                                          MAN 790
      L(I)=ISUM                                                             MAN 800
   40 ISUM=ISUM+ISIZ                                                        MAN 810
      IF (WATER.NE.CHK(2)) GO TO 60                                         MAN 820
      DO 50 I=17,19                                                         MAN 830
      L(I)=ISUM                                                             MAN 840
   50 ISUM=ISUM+ISIZ                                                        MAN 850
      IP=DIML                                                               MAN 860
      JP=DIMW                                                               MAN 870
      GO TO 80                                                              MAN 880
   60 DO 70 I=17,19                                                         MAN 890
      L(I)=ISUM                                                             MAN 900
   70 ISUM=ISUM+1                                                           MAN 910
      IP=1                                                                  MAN 920
      JP=1                                                                  MAN 930
   80 IF (LEAK.NE.CHK(9)) GO TO 100                                         MAN 940
      DO 90 I=20,22                                                         MAN 950
      L(I)=ISUM                                                             MAN 960
   90 ISUM=ISUM+ISIZ                                                        MAN 970
      IR=DIML                                                               MAN 980
      JR=DIMW                                                               MAN 990
      GO TO 120                                                             MAN1000
  100 DO 110 I=20,22                                                        MAN1010
      L(I)=ISUM                                                             MAN1020
  110 ISUM=ISUM+1                                                           MAN1030
      IR=1                                                                  MAN1040
      JR=1                                                                  MAN1050
  120 IF (CONVRT.NE.CHK(7)) GO TO 130                                       MAN1060
      L(23)=ISUM                                                            MAN1070
      ISUM=ISUM+ISIZ                                                        MAN1080
      IC=DIML                                                               MAN1090
      JC=DIMW                                                               MAN1100
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
      GO TO 140                                                          MAN1110
  130 L(23)=ISUM                                                         MAN1120
      ISUM=ISUM+1                                                        MAN1130
      IC=1                                                               MAN1140
      JC=1                                                               MAN1150
  140 IF (EVAP.NE.CHK(6)) GO TO 150                                      MAN1160
      L(24)=ISUM                                                         MAN1170
      ISUM=ISUM+ISIZ                                                     MAN1180
      IL=DIML                                                            MAN1190
      JL=DIMW                                                            MAN1200
      GO TO 160                                                          MAN1210
  150 L(24)=ISUM                                                         MAN1220
      ISUM=ISUM+1                                                        MAN1230
      IL=1                                                               MAN1240
      JL=1                                                               MAN1250
  160 IF (NUMS.NE.CHK(11)) GO TO 180                                     MAN1260
      DO 170 I=25,28                                                     MAN1270
      L(I)=ISUM                                                          MAN1280
  170 ISUM=ISUM+ISIZ                                                     MAN1290
      IS=DIML                                                            MAN1300
      JS=DIMW                                                            MAN1310
      GO TO 200                                                          MAN1320
  180 DO 190 I=25,28                                                     MAN1330
      L(I)=ISUM                                                          MAN1340
  190 ISUM=ISUM+1                                                        MAN1350
      IS=1                                                               MAN1360
      JS=1                                                               MAN1370
  200 DO 210 I=29,31                                                     MAN1380
      L(I)=ISUM                                                          MAN1390
  210 ISUM=ISUM+DIMW                                                     MAN1400
      DO 220 I=32,33                                                     MAN1410
      L(I)=ISUM                                                          MAN1420
  220 ISUM=ISUM+DIML                                                     MAN1430
      L(34)=ISUM                                                         MAN1440
      ISUM=ISUM+IH                                                       MAN1450
      L(35)=ISUM                                                         MAN1460
      ISUM=ISUM+2*IH                                                     MAN1470
      IF (NODE.NE.CHK(14)) GO TO 2200                                    MAN1480
      DO 2201 I=36,37                                                    MAN1490
      L(I)=ISUM                                                          MAN1500
 2201 ISUM=ISUM+ISIZ                                                     MAN1510
      IU=DIML                                                            MAN1520
      JU=DIMW                                                            MAN1530
      GO TO 2210                                                         MAN1540
 2200 DO 2205 I=36,37                                                    MAN1550
      L(I)=ISUM                                                          MAN1560
 2205 ISUM=ISUM+1                                                        MAN1570
      IU=1                                                               MAN1580
      JU=1                                                               MAN1590
      ISUM=ISUM+1                                                        MAN1600
 2210 CONTINUE                                                           MAN1610
      WRITE (P,300) ISUM                                                 MAN1620
C                                                                        MAN1630
C     ---PASS DIMENSIONS OF PROBLEM TO SUBROUTINES---                    MAN1640
      CALL DATAI(Y(L(1)),Y(L(7)),Y(L(8)),Y(L(9)),Y(L(10)),Y(L(11)),Y(L(1MAN1650
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
     12)),Y(L(13)),Y(L(14)),Y(L(15)),Y(L(16)),Y(L(17)),Y(L(18)),Y(L(19))MAN1660
     2,Y(L(20)),Y(L(21)),Y(L(22)),Y(L(23)),Y(L(24)),Y(L(29)),Y(L(32)),Y(MAN1670
     3L(34)),Y(L(35)),Y(L(36)),Y(L(37)))                                MAN1680
      CALL STEP(Y(L(1)),Y(L(5)),Y(L(7)),Y(L(8)),Y(L(9)),Y(L(14)),Y(L(17)MAN1690
     1),Y(L(18)),Y(L(23)),Y(L(29)),Y(L(30)),Y(L(32)),Y(L(34)),Y(L(35)), MAN1700
     $ Y(L(36)),Y(L(37)))                                               MAN1710
      IF (NUMS.EQ.CHK(11)) CALL SOLVE1(Y(L(1)),Y(L(2)),Y(L(3)),Y(L(4)),YMAN1720
     1(L(5)),Y(L(6)),Y(L(7)),Y(L(9)),Y(L(12)),Y(L(13)),Y(L(14)),Y(L(15))MAN1730
     2,Y(L(16)),Y(L(25)),Y(L(26)),Y(L(27)),Y(L(28)),Y(L(29)),Y(L(31)),Y(MAN1740
     3L(32)),Y(L(33)),Y(L(8)),Y(L(23)),Y(L(36)))                        MAN1750
      CALL COEF(Y(L(1)),Y(L(5)),Y(L(6)),Y(L(7)),Y(L(8)),Y(L(9)),Y(L(10))MAN1760
     1,Y(L(11)),Y(L(12)),Y(L(14)),Y(L(15)),Y(L(16)),Y(L(17)),Y(L(18)),Y(MAN1770
     2L(19)),Y(L(20)),Y(L(21)),Y(L(22)),Y(L(23)),Y(L(24)),Y(L(29)),Y(L(3MAN1780
     32)),Y(L(36)),Y(L(37)))                                            MAN1790
      CALL CHECKI(Y(L(1)),Y(L(5)),Y(L(6)),Y(L(7)),Y(L(9)),Y(L(10)),Y(L(1MAN1800
     11)),Y(L(12)),Y(L(13)),Y(L(14)),Y(L(15)),Y(L(17)),Y(L(18)),Y(L(19))MAN1810
     2,Y(L(20)),Y(L(21)),Y(L(22)),Y(L(23)),Y(L(24)),Y(L(29)),Y(L(32)),  MAN1820
     3,Y(L(36)))                                                        MAN1830
C     CALL PRNTAI(Y(L(1)),Y(L(8)),Y(L(9)),Y(L(12)),Y(L(14)),Y(L(29)),Y(LMAN1840
C    1(32)))                                                           MAN1850
C     .....MAN1860
C                                                                       MAN1870
C     ---START COMPUTATIONS---                                          MAN1880
C     ************************                                          MAN1890
C     ---READ AND WRITE DATA FOR GROUPS II AND III---                   MAN1900
      CALL DATAIN                                                       MAN1910
C                                                                       MAN1920
C     ---INITIALIZE TRANSMISSIVITY VALUES IN WATER TABLE PROBLEM---     MAN1930
      KT=0                                                              MAN1940
      IFINAL=0                                                          MAN1950
      IF (WATER.EQ.CHK(2)) CALL TRANS                                   MAN1960
C                                                                       MAN1970
      CALL CHECK                                                        MAN1980
C                                                                       MAN1990
C     ---COMPUTE ITERATION PARAMETERS---                                MAN2000
      IF (NUMS.EQ.CHK(11)) CALL ITER1                                   MAN2010
C                                                                       MAN2020
C     ---INITIALIZE PARAMETERS FOR ALPHAMERIC MAP---                    MAN2030
C     IF (CONTR.EQ.CHK(3)) CALL MAP                                     MAN2040
C                                                                       MAN2050
C     ---COMPUTE T COEFFICIENTS FOR ARTESIAN PROBLEM---                 MAN2060
      IF (WATER.NE.CHK(2)) CALL TCOF                                    MAN2070
C                                                                       MAN2080
C     ---COMPUTE MASS BALANCE USING INPUT DATA---                       MAN2090
      IF (STDY.NE.CHK(15)) GO TO 230                                    MAN2100
      IFINAL=1                                                          MAN2110
      CALL CHECK                                                        MAN2120
      IFINAL=0                                                          MAN2130
C                                                                       MAN2140
C     ---READ TIME PARAMETERS AND PUMPING DATA FOR A NEW PUMPING PERIOD-MAN2150
  230 CALL NEWPER                                                       MAN2160
C                                                                       MAN2170
      KT=0                                                              MAN2180
      IFINAL=0                                                          MAN2190
      IERR=0                                                            MAN2200
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
C                                                                       MAN2210
C     ---START NEW TIME STEP COMPUTATIONS---                            MAN2220
  240 CALL NEWSTP                                                       MAN2230
C                                                                       MAN2240
C     ---COMPUTE TRANSIENT PART OF LEAKAGE TERM---                      MAN2250
      IF (LEAK.EQ.CHK(9).AND.SS.NE.0.) CALL CLAY                        MAN2260
C                                                                       MAN2270
C     ---START NEW ITERATION IF MAXIMUM NO. ITERATIONS NOT EXCEEDED?--  MAN2280
      IF (NUMS.EQ.CHK(11)) CALL NEWITA                                  MAN2290
      GO TO 260                                                         MAN2300
  250 CONTINUE                                                          MAN2310
      IF (NUMS.EQ.CHK(11)) CALL NEWIT1                                  MAN2320
C                                                                       MAN2330
C     ---IF SOLUTION NOT OBTAINED START NEW ITERATION---                MAN2340
  260 IF (TEST.EQ.1.) GO TO 250                                         MAN2350
C                                                                       MAN2360
C     ---CHECK FOR STEADY STATE AND PRINT OUTPUT AT DESIGNATED          MAN2370
C     TIME STEPS---                                                     MAN2380
      CALL STEADY                                                       MAN2390
C                                                                       MAN2400
C     ---LAST TIME STEP IN PUMPING PERIOD ?---                          MAN2410
      IF (IFINAL.NE.1) GO TO 240                                        MAN2420
C                                                                       MAN2430
C     ---CHECK FOR NEW PUMPING PERIOD---                                MAN2440
      IF (KPH.EQ.0) GO TO 269                                           MAN2450
      IF (MOD(KP,KPH).EQ.0.AND.PNCH.EQ.CHK(1)) CALL PUNCH               MAN2460
  269 IF (KP.LT.NPER) GO TO 230                                         MAN2470
C                                                                       MAN2480
C     ---PUNCHED OUTPUT IF DESIRED---                                   MAN2490
      IF (PNCH.NE.CHK(1)) GO TO 270                                     MAN2500
      IF (KPH.EQ.0) GO TO 271                                           MAN2510
      IF (MOD(KP,KPH).EQ.0) GO TO 270                                   MAN2520
  271 CALL PUNCH                                                        MAN2530
C                                                                       MAN2540
C     ---CHECK FOR NEW PROBLEM---                                       MAN2550
  270 READ (R,290,END=280) NEXT                                         MAN2560
      IF (NEXT.EQ.0) GO TO 10                                           MAN2570
  280 STOP                                                              MAN2580
C     ..................................................................MAN2590
C                                                                       MAN2600
C     ---FORMATS---                                                     MAN2610
C     ------------------------------------------------------------------MAN2620
C                                                                       MAN2630
  290 FORMAT (3I10)                                                     MAN2640
  300 FORMAT ('0',54X,'WORDS OF Y VECTOR USED =',I7)                    MAN2650
  310 FORMAT ('0',62X,'NUMBER OF ROWS =',I5/60X,'NUMBER OF COLUMNS =',I5MAN2660
     1/9X,'NUMBER OF WELLS FOR WHICH DRAWDOWN IS COMPUTED AT A SPECIFIEDMAN2670
     2 RADIUS =',I5)                                                    MAN2680
  320 FORMAT ('-',36X,'NO EQUATION SOLVING SCHEME SPECIFIED, EXECUTION TMAN2690
     1ERMINATED'/37X,58('*'))                                           MAN2700
  330 FORMAT ('1',60X,'U. S. G. S.'//55X,'FINITE-DIFFERENCE MODEL'/65X,'MAN2710
     1FOR'/51X,'SIMULATION OF GROUND-WATER FLOW'//60X,'JANUARY, 1975'//1MAN2720
     233('*')/'0',32A4//133('*'))                                       MAN2730
  340 FORMAT (20A4)                                                     MAN2740
  350 FORMAT (A4)                                                       MAN2750
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
  360 FORMAT('-SIMULATION OPTIONS:  ',13(A4,4X))                          MAN2760
  380 FORMAT (G10.0)                                                      MAN2770
      END                                                                 MAN2780
      SUBROUTINE DATAI(PHI,STRT,SURI,T,TR,TC,S,QRE,WELL,TL,SL,PERM,BOTTODAT  10
     1M,SY,RATE,RIVER,M,TOP,GRND,DELX,DELY,WR,NWR,NODEID,QBND)            DAT  20
C     ------------------------------------------------------------------DAT  30
C     READ AND WRITE INPUT DATA                                           DAT  40
C     ------------------------------------------------------------------DAT  50
C                                                                         DAT  60
C     SPECIFICATIONS:                                                     DAT  70
      COMMON /SARRAY/ TEST3(102),VF4(11),CHK(15),ITST(102),JTST(102)      DAT  80
      COMMON /SPARAM/ WATER,CONVRT,EVAP,CHCK,PNCH,NUM,HEAD,CONTR,EROR,LEDAT  90
     1AK,RECH,SIP,U,SS,TT,TMIN,ETDIST,QET,ERR,TMAX,CDLT,HMAX,YDIM,WIDTH,DAT 100
     2NUMS,LSOR,ADI,DELT,SUM,SUMP,SUBS,STORE,TEST,ETQB,ETQD,FACTX,FACTY,DAT 110
     3IERR,KOUNT,IFINAL,NUMT,KT,KP,NPER,KTH,ITMAX,LENGTH,NWEL,NW,DIML,DIDAT 120
     4MW,JNO1,INO1,R,P,PU,I,J,NODE,STDY,KPH,IQPNC                         DAT 130
      COMMON /CK/ ETFLXT,STORT,QRET,CHST,CHDT,FLUXT,PUMPT,CFLUXT,FLXNT    DAT 140
      COMMON /PR/ XLABEL(3),YLABEL(6),TITLE(5),XN1,MESUR,PRNT(122),BLANKDAT 150
     1(60),DIGIT(122),VF1(6),VF2(6),VF3(7),XSCALE,DINCH,SYM(17),XN(100),DAT 160
     2YN(13),NA(4),N1,N2,N3,YSCALE,FACT1,FACT2                            DAT 170
      COMMON /ARSIZE/ IZ,JZ,IP,JP,IR,JR,IC,JC,IL,JL,IS,JS,IH,IMAX         DAT 180
     $,IU,JU                                                              DAT 190
      COMMON /NDID/ NOD(100),NMBR                                         DAT 200
      COMMON /STREAM/ NRIV,NRPR,NODRV(20),NDR(20),NMRV(20),QRIV(3,20),    DAT 210
     $ IRUP(20),JRUP(20),IRDN(20),JRDN(20)                                DAT 220
C                                                                         DAT 230
      DIMENSION PHI(IZ,JZ), STRT(IZ,JZ), SURI(IZ,JZ), T(IZ,JZ), TR(IZ,JZDAT 240
     1), TC(IZ,JZ), S(IZ,JZ), QRE(IZ,JZ), WELL(IZ,JZ), TL(IZ,JZ), SL(IZ,DAT 250
     2JZ), PERM(IP,JP), BOTTOM(IP,JP), SY(IP,JP), RATE(IR,JR), RIVER(IR,DAT 260
     3JR), M(IR,JR), TOP(IC,JC), GRND(IL,JL), DELX(JZ), DELY(IZ), WR(IH)DAT 270
     4,NWR(IH,2),NODEID(IU,JU),QBND(IU,JU)                                DAT 280
      DIMENSION NEXP(18)                                                  DAT 290
      DIMENSION NRST(5),NDST(5,20),IRUS(5,20),JRUS(5,20),IRDS(5,20),      DAT 300
     $ JRDS(5,20),QRSR(5,20)                                              DAT 310
      DIMENSION IWST(5,100),JWST(5,100),WLST(5,100),RADST(5,100)          DAT 320
C                                                                         DAT 330
      REAL *8PHI,DBLE,XLABEL,YLABEL,TITLE,XN1,MESUR                       DAT 340
      REAL *4M                                                            DAT 350
      INTEGER R,P,PU,DIML,DIMW,CHK,WATER,CONVRT,EVAP,CHCK,PNCH,NUM,HEAD,DAT 360
     1CONTR,LEAK,RECH,SIP,ADI,STDY                                        DAT 370
      RETURN                                                              DAT 380
C     ..................................................................DAT 390
C     ********************                                              DAT 400
      ENTRY DATAIN                                                        DAT 410
C     ********************                                              DAT 420
C                                                                         DAT 430
C     ---READ AND WRITE SCALAR PARAMETERS---                              DAT 440
      READ (R,810) CONTR,XSCALE,YSCALE,DINCH,FACT1,FACT2,MESUR            DAT 450
      IF (CONTR.EQ.CHK(3)) WRITE (P,1040) XSCALE,YSCALE,MESUR,MESUR,DINCDAT 460
     1H,FACT1,FACT2                                                       DAT 470
      READ (R,800) NPER,KTH,ERR,ITMAX,EROR,SS,QET,ETDIST,LENGTH,HMAX,FACDAT 480
     1TX,FACTY,KPH                                                        DAT 490
      WRITE (P,840) NPER,KTH,ERR,ITMAX,EROR,SS,QET,ETDIST,FACTX,FACTY     DAT 500
C                                                                         DAT 510
C     ............................. DELX,DELY .....................DAT 520
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
      READ(R,800) FACT,IVAR,IPRN                                          DAT 530
      IF (IVAR.EQ.1) READ (R,800) (DELX(J),J=1,DIMW)                      DAT 540
      DO 460 J=1,DIMW                                                     DAT 550
      IF (IVAR.NE.1) GO TO 450                                            DAT 560
      DELX(J)=DELX(J)*FACT                                                DAT 570
      GO TO 460                                                           DAT 580
  450 DELX(J)=FACT                                                        DAT 590
  460 CONTINUE                                                            DAT 600
      IF (IVAR.EQ.1.AND.IPRN.NE.1) WRITE (P,960) (DELX(J),J=1,DIMW)       DAT 610
      IF (IVAR.NE.1) WRITE (P,760) FACT                                   DAT 620
      READ (R,800) FACT,IVAR,IPRN                                         DAT 630
      IF (IVAR.EQ.1) READ (R,800) (DELY(I),I=1,DIML)                      DAT 640
      DO 480 I=1,DIML                                                     DAT 650
      IF (IVAR.NE.1) GO TO 470                                            DAT 660
      DELY(I)=DELY(I)*FACT                                                DAT 670
      GO TO 480                                                           DAT 680
  470 DELY(I)=FACT                                                        DAT 690
  480 CONTINUE                                                            DAT 700
      IF (IVAR.EQ.1.AND.IPRN.NE.1) WRITE (P,970) (DELY(I),I=1,DIML)       DAT 710
      IF (IVAR.NE.1) WRITE (P,770) FACT                                   DAT 720
C                                                                         DAT 730
C     ............................. NODEID .............................DAT 740
      IF (NODE.NE.CHK(14)) GO TO 1120                                     DAT 750
      READ(R,800) IFACT,IVAR,IPRN                                         DAT 760
      DO 1100 I=1,DIML                                                    DAT 770
      IF (IVAR.NE.1) GO TO 1090                                           DAT 780
      READ(R,1060) (NODEID(I,J),J=1,DIMW)                                 DAT 790
      GO TO 1100                                                          DAT 800
 1090 DO 1110 J=1,DIMW                                                    DAT 810
 1110 NODEID(I,J)=IFACT                                                   DAT 820
 1100 CONTINUE                                                            DAT 830
      IF (IVAR.EQ.1) GO TO 1105                                           DAT 840
      WRITE(P,1111) IFACT                                                 DAT 850
 1111 FORMAT(1H0,63X,'NODEID =',I4)                                       DAT 860
      GO TO 1120                                                          DAT 870
 1105 JCWT=30                                                             DAT 880
      JEND=JCWT                                                           DAT 890
      JB=1                                                                DAT 900
 1101 JDIFF=DIMW-JEND                                                     DAT 910
      IF (JDIFF.LE.0) JEND=DIMW                                           DAT 920
      WRITE(P,1104) (J,J=JB,JEND)                                         DAT 930
      WRITE(P,1190)                                                       DAT 940
      DO 1102 I=1,DIML                                                    DAT 950
 1102 WRITE(P,1106) I,(NODEID(I,J),J=JB,JEND)                             DAT 960
      IF (JEND.EQ.DIMW) GO TO 1103                                        DAT 970
      JB=JEND+1                                                           DAT 980
      JEND=JEND+JCWT                                                      DAT 990
      GO TO 1101                                                          DAT1000
 1103 CONTINUE                                                            DAT1010
 1104 FORMAT(1H1,60X,'NODEID ARRAY' / 61X,12('-') / 7X,'I',4X,30I4)       DAT1020
 1106 FORMAT(4X,I4,4X,30I4)                                               DAT1030
      WRITE(P,1130)                                                       DAT1040
 1130 FORMAT(4(/),6X,'NODEID',5X,'EXPLANATION' / 6X,6('-'),5X,            DAT1050
     $ 11('-'))                                                           DAT1060
      NMBR=1                                                              DAT1070
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
 1140 READ(R,1150) ND,(NEXP(K),K=1,18)                                  DAT1080
 1150 FORMAT(I4,4X,18A4)                                                DAT1090
      IF (ND.EQ.0) GO TO 1120                                           DAT1100
      WRITE(P,1160) ND,(NEXP(K),K=1,18)                                 DAT1110
 1160 FORMAT(8X,I4,5X,18A4)                                             DAT1120
      NOD(NMBR)=ND                                                      DAT1130
      NMBR=NMBR+1                                                       DAT1140
      GO TO 1140                                                        DAT1150
 1120 CONTINUE                                                          DAT1160
C                                                                       DAT1170
C     ---READ CUMULATIVE MASS BALANCE PARAMETERS---                     DAT1180
      READ (R,1030) SUM,SUMP,PUMPT,CFLUXT,QRET,CHST,CHDT,FLUXT,STORT,ETFDAT1190
     1LXT,FLXNT                                                         DAT1200
      IF (SUM.EQ.0.0) GO TO 20                                          DAT1210
      WRITE (P,790) SUM                                                 DAT1220
C     .....................................................................DAT1230
C                                                                       DAT1240
C     ---HEAD DATA TO CONTINUE PREVIOUS COMPUTATIONS READ HERE---       DAT1250
      DO 10 I=1,DIML                                                    DAT1260
      READ (R,900) (PHI(I,J),J=1,DIMW)                                  DAT1270
   10 WRITE (P,870) I,(PHI(I,J),J=1,DIMW)                               DAT1280
C     ............................... STRT (STARTING HEAD) .............DAT1290
   20 READ (R,800) FACT,IVAR,IPRN                                       DAT1300
      IF (IVAR.EQ.1.AND.IPRN.EQ.0) WRITE (P,780)                        DAT1310
      DO 60 I=1,DIML                                                    DAT1320
      IF (IVAR.EQ.1) READ (R,900) (STRT(I,J),J=1,DIMW)                  DAT1330
      DO 50 J=1,DIMW                                                    DAT1340
      IF (IVAR.NE.1) GO TO 30                                           DAT1350
      STRT(I,J)=STRT(I,J)*FACT                                          DAT1360
      GO TO 40                                                          DAT1370
   30 STRT(I,J)=FACT                                                    DAT1380
   40 SURI(I,J)=STRT(I,J)                                               DAT1390
      S(I,J)=0.                                                         DAT1400
      TL(I,J)=0.                                                        DAT1410
      SL(I,J)=0.                                                        DAT1420
      T(I,J)=0.                                                         DAT1430
      TR(I,J)=0.                                                        DAT1440
      TC(I,J)=0.                                                        DAT1450
      WELL(I,J)=0.0                                                     DAT1460
      QRE(I,J)=0.                                                       DAT1470
      IF (LEAK.EQ.CHK(9)) RIVER(I,J)=0.0                                DAT1480
      IF (LEAK.EQ.CHK(9)) M(I,J)=0.0                                    DAT1490
      IF (CONVRT.EQ.CHK(7)) TOP(I,J)=0.0                                DAT1500
   50 IF (SUM.EQ.0.0) PHI(I,J)=STRT(I,J)                                DAT1510
      IF (IVAR.EQ.1.AND.IPRN.EQ.0) WRITE(P,870) I,(STRT(I,J),J=1,DIMW)  DAT1520
   60 CONTINUE                                                          DAT1530
      IF (IVAR.NE.1) WRITE (P,640) FACT                                 DAT1540
      IF (IVAR.EQ.0.OR.IPRN.NE.2) GO TO 2130                            DAT1550
      JCWT=15                                                           DAT1560
      JEND=JCWT                                                         DAT1570
      JB=1                                                              DAT1580
 2100 JDIFF=DIMW-JEND                                                   DAT1590
      IF (JDIFF.LE.0) JEND=DIMW                                         DAT1600
      WRITE(P,2140) (J,J=JB,JEND)                                       DAT1610
      WRITE(P,1190)                                                     DAT1620
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
      DO 2120 I=1,DIML                                                    DAT1630
 2120 WRITE(P,2150) I,(STRT(I,J),J=JB,JEND)                               DAT1640
      IF (JEND.EQ.DIMW) GO TO 2130                                        DAT1650
      JB=JEND+1                                                           DAT1660
      JEND=JEND+JCWT                                                      DAT1670
      GO TO 2100                                                          DAT1680
 2130 CONTINUE                                                            DAT1690
 2140 FORMAT(1H1,57X,'STARTING HEAD ARRAY' / 58X,19('-') / 4X,'I/J',      DAT1700
     $ 3X,15I8)                                                           DAT1710
 2150 FORMAT(I5,5X,15F8.1)                                                DAT1720
C     ............................... S (STORAGE COEFFICIENT) .........DAT1730
      READ (R,800) FACT,IVAR,IPRN                                         DAT1740
      IF (IVAR.EQ.1.AND.IPRN.EQ.0) WRITE (P,890)                          DAT1750
      DO 90 I=1,DIML                                                      DAT1760
      IF (IVAR.EQ.1) READ (R,820) (S(I,J),J=1,DIMW)                       DAT1770
      DO 80 J=1,DIMW                                                      DAT1780
      IF (IVAR.NE.1) GO TO 70                                             DAT1790
      S(I,J)=S(I,J)*FACT                                                  DAT1800
      GO TO 80                                                            DAT1810
   70 S(I,J)=FACT                                                         DAT1820
   80 CONTINUE                                                            DAT1830
   90 IF (IVAR.EQ.1.AND.IPRN.EQ.0) WRITE (P,860) I,(S(I,J),J=1,DIMW)      DAT1840
      IF (IVAR.NE.1) WRITE (P,650) FACT                                   DAT1850
      IF (IVAR.EQ.0.OR.IPRN.NE.2) GO TO 2230                              DAT1860
      JCWT=10                                                             DAT1870
      JEND=JCWT                                                           DAT1880
      JB=1                                                                DAT1890
 2200 JDIFF=DIMW-JEND                                                     DAT1900
      IF (JDIFF.LE.0) JEND=DIMW                                           DAT1910
      WRITE(P,2240) (J,J=JB,JEND)                                         DAT1920
      WRITE(P,1190)                                                       DAT1930
      DO 2220 I=1,DIML                                                    DAT1940
 2220 WRITE(P,2250) I,(S(I,J),J=JB,JEND)                                  DAT1950
      IF (JEND.EQ.DIMW) GO TO 2230                                        DAT1960
      JB=JEND+1                                                           DAT1970
      JEND=JEND+JCWT                                                      DAT1980
      GO TO 2200                                                          DAT1990
 2230 CONTINUE                                                            DAT2000
 2240 FORMAT(1H1,54X,'STORAGE COEFFICIENT ARRAY' / 55X,25('-') /          DAT2010
     $ 4X,'I/J',3X,10I12)                                                 DAT2020
 2250 FORMAT(I5,5X,1P10E12.3)                                             DAT2030
C                                                                         DAT2040
C     ................................ T (TRANSMISSIVITY) ..............DAT2050
      IF (WATER.EQ.CHK(2)) GO TO 130                                      DAT2060
      READ (R,800) FACT,IVAR,IPRN                                         DAT2070
      IF (IVAR.EQ.1.AND.IPRN.EQ.0) WRITE (P,850)                          DAT2080
      DO 120 I=1,DIML                                                     DAT2090
      IF (IVAR.EQ.1) READ (R,821) (T(I,J),J=1,DIMW)                       DAT2100
      DO 110 J=1,DIMW                                                     DAT2110
      IF (IVAR.NE.1) GO TO 100                                            DAT2120
      T(I,J)=T(I,J)*FACT                                                  DAT2130
      GO TO 110                                                           DAT2140
  100 T(I,J)=FACT                                                         DAT2150
      IF (I.EQ.1.OR.I.EQ.DIML.OR.J.EQ.1.OR.J.EQ.DIMW.AND.T(I,J).GE.0.0) DAT2160
     $   T(I,J)=0.0                                                       DAT2170
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
  110 CONTINUE                                                          DAT2180
  120 IF (IVAR.EQ.1.AND.IPRN.EQ.0) WRITE (P,860) I,(T(I,J),J=1,DIMW)    DAT2190
      IF (IVAR.NE.1) WRITE (P,700) FACT                                 DAT2200
      IF (IVAR.EQ.0.OR.IPRN.NE.2) GO TO 2330                            DAT2210
      JCWT=10                                                           DAT2220
      JEND=JCWT                                                         DAT2230
      JB=1                                                              DAT2240
 2300 JDIFF=DIMW-JEND                                                   DAT2250
      IF (JDIFF.LE.0) JEND=DIMW                                         DAT2260
      WRITE(P,2340) (J,J=JB,JEND)                                       DAT2270
      WRITE(P,1190)                                                     DAT2280
      DO 2320 I=1,DIML                                                  DAT2290
 2320 WRITE(P,2250) I,(T(I,J),J=JB,JEND)                                DAT2300
      IF (JEND.EQ.DIMW) GO TO 2330                                      DAT2310
      JB=JEND+1                                                         DAT2320
      JEND=JEND+JCWT                                                    DAT2330
      GO TO 2300                                                        DAT2340
 2330 CONTINUE                                                          DAT2350
 2340 FORMAT(1H1,56X,'TRANSMISSIVITY ARRAY' / 57X,20('-') / 4X,'I/J',   DAT2360
     $ 3X,10I12)                                                        DAT2370
      GO TO 260                                                         DAT2380
C                                                                       DAT2390
C     ................................ PERM (HYDRAULIC CONDUCTIVITY) ...DAT2400
  130 READ (R,800) FACT,IVAR,IPRN,ICON,IPRT                             DAT2410
      IF (ICON.EQ.1.AND.IPRT.NE.1) GO TO 136                            DAT2420
      WRITE (P,1065) (J,J=1,DIMW)                                       DAT2430
      DO 134 I=1,DIML                                                   DAT2440
      IF (IVAR.EQ.1)  READ(R,822) (PERM(I,J),J=1,DIMW)                  DAT2450
      DO 132 J=1,DIMW                                                   DAT2460
      IF (IVAR.NE.1) GO TO 136                                          DAT2470
      IPERM(J)=(PERM(I,J)+0.5)*0.1                                      DAT2480
      IF (PERM(I,J).LE.9.0) IPERM(J)=(PERM(I,J)+0.5)                    DAT2490
  132 CONTINUE                                                          DAT2500
      IF (IVAR.EQ.1.AND.IPRT.NE.1) WRITE (P,1070) I,(IPERM(J),J=1,DIMW),DAT2510
     1I                                                                 DAT2520
  134 CONTINUE                                                          DAT2530
      WRITE (P,1080) (J,J=1,DIMW)                                       DAT2540
  136 CONTINUE                                                          DAT2550
      IF (IVAR.EQ.1.AND.IPRN.EQ.0) WRITE (P,910)                        DAT2560
      DO 160 I=1,DIML                                                   DAT2570
      DO 150 J=1,DIMW                                                   DAT2580
      IF (IVAR.NE.1) GO TO 140                                          DAT2590
      T(I,J)=PERM(I,J)                                                  DAT2600
      PERM(I,J)=PERM(I,J)*FACT                                          DAT2610
      GO TO 150                                                         DAT2620
  140 PERM(I,J)=FACT                                                    DAT2630
      IF (I.EQ.1.OR.I.EQ.DIML.OR.J.EQ.1.OR.J.EQ.DIMW.AND.PERM(I,J).GE.  DAT2640
     $   0.0) PERM(I,J)=0.0                                             DAT2650
  150 CONTINUE                                                          DAT2660
  160 IF (IVAR.EQ.1.AND.IPRN.EQ.0) WRITE (P,860) I,(PERM(I,J),J=1,DIMW) DAT2670
      IF (IVAR.NE.1) WRITE (P,710) FACT                                 DAT2680
      IF (IPRN.NE.2) GO TO 164                                          DAT2690
      JCWT=21                                                           DAT2700
      JEND=JCWT                                                         DAT2710
      JB=1                                                              DAT2720
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
  161 JDIFF=DIMW-JEND                                                    DAT2730
      IF (JDIFF.LE.0) JEND=DIMW                                          DAT2740
      WRITE(P,6160) (J,J=JB,JEND)                                        DAT2750
      DO 162 I=1,DIML                                                    DAT2760
  162 WRITE(P,6161) I,(T(I,J),J=JB,JEND)                                 DAT2770
      IF (JEND.EQ.DIMW) GO TO 163                                        DAT2780
      JB=JEND+1                                                          DAT2790
      JEND=JEND+JCWT                                                     DAT2800
      GO TO 161                                                          DAT2810
  163 WRITE(P,6162) FACT                                                 DAT2820
 6160 FORMAT(1H1,52X,'HYDRAULIC CONDUCTIVITY ARRAY' / 53X,28('-') /      DAT2830
     $ 6X,21I6)                                                          DAT2840
 6161 FORMAT(1H0,I4,1X,21F6.2)                                          DAT2850
 6162 FORMAT(1H0,5X,'HYDRAULIC CONDUCTIVITY MULTIPLICATION FACTOR =',    DAT2860
     $   1PE12.4)                                                        DAT2870
  164 CONTINUE                                                          DAT2880
C     ............................... BOTTOM (AQ. BOTTOM EL.) .........DAT2890
      READ (R,800) FACT,IVAR,IPRN                                        DAT2900
      IF (IVAR.EQ.1.AND.IPRN.EQ.0) WRITE (P,920)                         DAT2910
      DO 190 I=1,DIML                                                    DAT2920
      IF (IVAR.EQ.1) READ(R,822) (BOTTOM(I,J),J=1,DIMW)                  DAT2930
      DO 180 J=1,DIMW                                                    DAT2940
      IF (IVAR.NE.1) GO TO 170                                           DAT2950
      BOTTOM(I,J)=BOTTOM(I,J)*FACT                                       DAT2960
      GO TO 180                                                          DAT2970
  170 BOTTOM(I,J)=FACT                                                   DAT2980
  180 CONTINUE                                                          DAT2990
  190 IF (IVAR.EQ.1.AND.IPRN.EQ.0) WRITE (P,870) I,(BOTTOM(I,J),J=1,DIMWDAT3000
     1)                                                                  DAT3010
      IF (IVAR.NE.1) WRITE (P,720) FACT                                  DAT3020
      IF (IVAR.EQ.0.OR.IPRN.NE.2) GO TO 2430                             DAT3030
      JCWT=15                                                            DAT3040
      JEND=JCWT                                                          DAT3050
      JB=1                                                               DAT3060
 2400 JDIFF=DIMW-JEND                                                    DAT3070
      IF (JDIFF.LE.0) JEND=DIMW                                          DAT3080
      WRITE(P,2440) (J,J=JB,JEND)                                        DAT3090
      WRITE(P,1190)                                                      DAT3100
      DO 2420 I=1,DIML                                                   DAT3110
 2420 WRITE(P,2150) I,(BOTTOM(I,J),J=JB,JEND)                           DAT3120
      IF (JEND.EQ.DIMW) GO TO 2430                                       DAT3130
      JB=JEND+1                                                          DAT3140
      JEND=JEND+JCWT                                                     DAT3150
      GO TO 2400                                                         DAT3160
 2430 CONTINUE                                                          DAT3170
 2440 FORMAT (1H1,44X,'ELEVATION OF IMPERMEABLE BASE OF AQUIFER' /      DAT3180
     $ 45X,40('-') / 4X,'I/J',3X,15I8)                                   DAT3190
C                                                                       DAT3200
C     ---CALCULATE AND PRINT INITIAL SATURATED THICKNESS AND            DAT3210
C        TRANSMISSIVITY ARRAYS                                          DAT3220
      DO 1200 I=1,DIML                                                   DAT3230
      DO 1200 J=1,DIMW                                                   DAT3240
 1200 T(I,J)=STRT(I,J)-BOTTOM(I,J)                                       DAT3250
      JCWT=15                                                            DAT3260
      JEND=JCWT                                                          DAT3270
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
      JB=1                                                                DAT3280
 1210 JDIFF=DIMW-JEND                                                     DAT3290
      IF (JDIFF.LE.0) JEND=DIMW                                           DAT3300
      WRITE(P,1290) (J,J=JB,JEND)                                         DAT3310
      WRITE(P,1190)                                                       DAT3320
      DO 1220 I=1,DIML                                                    DAT3330
 1220 WRITE(P,2850) I,(T(I,J),J=JB,JEND)                                  DAT3340
      IF (JEND.EQ.DIMW) GO TO 1230                                        DAT3350
      JB=JEND+1                                                           DAT3360
      JEND=JEND+JCWT                                                      DAT3370
      GO TO 1210                                                          DAT3380
 1230 DO 1240 I=1,DIML                                                    DAT3390
      DO 1240 J=1,DIMW                                                    DAT3400
 1240 T(I,J)=T(I,J)*PERM(I,J)                                             DAT3410
      JCWT=10                                                             DAT3420
      JEND=JCWT                                                           DAT3430
      JB=1                                                                DAT3440
 1250 JDIFF=DIMW-JEND                                                     DAT3450
      IF (JDIFF.LE.0) JEND=DIMW                                           DAT3460
      WRITE(P,2340) (J,J=JB,JEND)                                         DAT3470
      WRITE(P,1190)                                                       DAT3480
      DO 1260 I=1,DIML                                                    DAT3490
 1260 WRITE(P,2250) I,(T(I,J),J=JB,JEND)                                  DAT3500
      IF (JEND.EQ.DIMW) GO TO 1270                                        DAT3510
      JB=JEND+1                                                           DAT3520
      JEND=JEND+JCWT                                                      DAT3530
      GO TO 1250                                                          DAT3540
 1270 CONTINUE                                                            DAT3550
 1290 FORMAT(1H1,53X,'INITIAL SATURATED THICKNESS' / 54X,27('-') /        DAT3560
     $ 4X,'I/J',3X,15I8)                                                  DAT3570
C                                                                         DAT3580
C     ............................... SY (SPECIFIC YIELD) .............DAT3590
      READ (R,800) FACT,IVAR,IPRN                                         DAT3600
      IF (IVAR.EQ.1.AND.IPRN.EQ.0) WRITE (P,1050)                         DAT3610
      DO 220 I=1,DIML                                                     DAT3620
      IF (IVAR.EQ.1) READ (R,820) (SY(I,J),J=1,DIMW)                      DAT3630
      DO 210 J=1,DIMW                                                     DAT3640
      IF (IVAR.NE.1) GO TO 200                                            DAT3650
      SY(I,J)=SY(I,J)*FACT                                                DAT3660
      GO TO 210                                                           DAT3670
  200 SY(I,J)=FACT                                                        DAT3680
  210 CONTINUE                                                            DAT3690
  220 IF (IVAR.EQ.1.AND.IPRN.EQ.0) WRITE(P,880) I,(SY(I,J),J=1,DIMW)      DAT3700
      IF (IVAR.NE.1) WRITE (P,660) FACT                                   DAT3710
      IF (IVAR.EQ.0.OR.IPRN.NE.2) GO TO 2530                              DAT3720
      JCWT=15                                                             DAT3730
      JEND=JCWT                                                           DAT3740
      JB=1                                                                DAT3750
 2500 JDIFF=DIMW-JEND                                                     DAT3760
      IF (JDIFF.LE.0) JEND=DIMW                                           DAT3770
      WRITE(P,2540) (J,J=JB,JEND)                                         DAT3780
      WRITE(P,1190)                                                       DAT3790
      DO 2520 I=1,DIML                                                    DAT3800
 2520 WRITE(P,2850) I,(SY(I,J),J=JB,JEND)                                 DAT3810
      IF (JEND.EQ.DIMW) GO TO 2530                                        DAT3820
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
      JB=JEND+1                                                          DAT3830
      JEND=JEND+JCWT                                                     DAT3840
      GO TO 2500                                                         DAT3850
 2530 CONTINUE                                                           DAT3860
 2540 FORMAT(1H1,56X,'SPECIFIC YIELD ARRAY' / 57X,20('-') / 4X,'I/J',    DAT3870
     $ 3X,15I8)                                                          DAT3880
C                                                                        DAT3890
C     ............................... M (CONF. BED THICKNESS) .........DAT3900
      IF (LEAK.NE.CHK(9)) GO TO 260                                      DAT3910
      READ (R,800) FACT,IVAR,IPRN,NRVR                                   DAT3920
      IF (NRVR.EQ.0) GO TO 322                                           DAT3930
      DO 321 NR=1,NRVR                                                   DAT3940
  321 READ(R,800) I,J,M(I,J)                                             DAT3950
  322 CONTINUE                                                           DAT3960
      IF (IVAR.EQ.1.AND.IPRN.EQ.0) WRITE(P,1020)                         DAT3970
      DO 350 I=1,DIML                                                    DAT3980
      IF (IVAR.EQ.1) READ(R,900) (M(I,J),J=1,DIMW)                       DAT3990
      DO 340 J=1,DIMW                                                    DAT4000
      IF (IVAR.NE.1) GO TO 330                                           DAT4010
      M(I,J)=M(I,J)*FACT                                                 DAT4020
      GO TO 340                                                          DAT4030
  330 IF (M(I,J).EQ.0.0) M(I,J)=FACT                                     DAT4040
  340 CONTINUE                                                           DAT4050
  350 IF (IVAR.EQ.1.AND.IPRN.EQ.0) WRITE(P,860) I,(M(I,J),J=1,DIMW)      DAT4060
      IF (IVAR.EQ.0.AND.IPRN.NE.2) WRITE(P,690) FACT                     DAT4070
      IF (IPRN.NE.2) GO TO 2830                                          DAT4080
      JCWT=15                                                            DAT4090
      JEND=JCWT                                                          DAT4100
      JB=1                                                               DAT4110
 2800 JDIFF=DIMW-JEND                                                    DAT4120
      IF (JDIFF.LE.0) JEND=DIMW                                          DAT4130
      WRITE(P,2840) (J,J=JB,JEND)                                        DAT4140
      WRITE(P,1190)                                                      DAT4150
      DO 2820 I=1,DIML                                                   DAT4160
 2820 WRITE(P,2850) I,(M(I,J),J=JB,JEND)                                 DAT4170
      IF (JEND.EQ.DIMW) GO TO 2830                                       DAT4180
      JB=JEND+1                                                          DAT4190
      JEND=JEND+JCWT                                                     DAT4200
      GO TO 2800                                                         DAT4210
 2830 CONTINUE                                                           DAT4220
 2840 FORMAT(1H1,55X,'CONFINING BED THICKNESS' / 56X,23('-') / 4X,       DAT4230
     $ 'I/J',3X,15I8)                                                    DAT4240
 2850 FORMAT(I5,5X,15F8.2)                                               DAT4250
C                                                                        DAT4260
C     ............................... RATE (CONF. BED CONDUCTIVITY) ...DAT4270
      READ(R,800) FACT,IVAR,IPRN,IRATE,HDIFF,TDIFF,CRATE                 DAT4280
      IF (IVAR.EQ.1.AND.IPRN.EQ.0) WRITE (P,830)                         DAT4290
      DO 290 I=1,DIML                                                    DAT4300
      IF (IVAR.EQ.1) READ(R,821) (RATE(I,J),J=1,DIMW)                    DAT4310
      DO 280 J=1,DIMW                                                    DAT4320
      IF (IVAR.NE.1) GO TO 270                                           DAT4330
      RATE(I,J)=RATE(I,J)*FACT                                           DAT4340
      GO TO 279                                                          DAT4350
  270 RATE(I,J)=FACT                                                     DAT4360
  279 IF (IRATE.EQ.0) GO TO 280                                          DAT4370
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
      IF (HDIFF.EQ.0.0) HDIFF=1.0                                          DAT4380
      IF (TDIFF.EQ.0.0) TDIFF=1.0                                          DAT4390
  280 CONTINUE                                                             DAT4400
  290 IF (IVAR.EQ.1.AND.IPRN.EQ.0) WRITE (P,860) I,(RATE(I,J),J=1,DIMW)    DAT4410
      IF (IVAR.NE.1) WRITE (P,670) FACT                                    DAT4420
      IF (IVAR.EQ.0.OR.IPRN.NE.2) GO TO 2630                               DAT4430
      JCWT=10                                                              DAT4440
      JEND=JCWT                                                            DAT4450
      JB=1                                                                 DAT4460
 2600 JDIFF=DIMW-JEND                                                      DAT4470
      IF (JDIFF.LE.0) JEND=DIMW                                            DAT4480
      WRITE(P,2640) (J,J=JB,JEND)                                          DAT4490
      WRITE(P,1190)                                                        DAT4500
      DO 2620 I=1,DIML                                                     DAT4510
 2620 WRITE(P,2250) I,(RATE(I,J),J=JB,JEND)                                DAT4520
      IF (JEND.EQ.DIMW) GO TO 2630                                         DAT4530
      JB=JEND+1                                                            DAT4540
      JEND=JEND+JCWT                                                       DAT4550
      GO TO 2600                                                           DAT4560
 2630 CONTINUE                                                             DAT4570
 2640 FORMAT(1H1,44X,'HYDRAULIC CONDUCTIVITY OF THE CONFINING BED' /       DAT4580
     $ 45X,43('-') / 4X,'I/J',3X,10I12)                                    DAT4590
C                                                                          DAT4600
C     ................................ RIVER (HEAD IN RIVER) ...........DAT4610
      READ (R,800) FACT,IVAR,IPRN,NRVR                                     DAT4620
      IF (NRVR.EQ.0) GO TO 292                                             DAT4630
      DO 291 NR=1,NRVR                                                     DAT4640
  291 READ(R,800) I,J,RIVER(I,J)                                           DAT4650
  292 IF (IVAR.EQ.1.AND.IPRN.EQ.0) WRITE(P,980)                            DAT4660
      DO 320 I=1,DIML                                                      DAT4670
      IF (IVAR.EQ.1) READ(R,900) (RIVER(I,J),J=1,DIMW)                     DAT4680
      DO 310 J=1,DIMW                                                      DAT4690
      IF (IVAR.NE.1) GO TO 300                                             DAT4700
      RIVER(I,J)=RIVER(I,J)*FACT                                           DAT4710
      GO TO 309                                                            DAT4720
  300 IF (RIVER(I,J).EQ.0.0) RIVER(I,J)=FACT                               DAT4730
  309 IF (IRATE.EQ.0) GO TO 310                                            DAT4740
      IF (M(I,J).NE.0.0.AND.RIVER(I,J).EQ.0.0) RIVER(I,J)=STRT(I,J)-       DAT4750
     $ M(I,J)*RATE(I,J)/(CRATE*DELX(J)*DELY(I))                            DAT4760
      RATE(I,J)=CRATE                                                      DAT4770
  310 CONTINUE                                                             DAT4780
  320 IF (IVAR.EQ.1.AND.IPRN.EQ.0) WRITE(P,870) I,(RIVER(I,J),J=1,DIMW)    DAT4790
      IF (IVAR.EQ.0.AND.IPRN.NE.2) WRITE(P,680) FACT                       DAT4800
      IF (IPRN.NE.2) GO TO 2730                                            DAT4810
      JCWT=15                                                              DAT4820
      JEND=JCWT                                                            DAT4830
      JB=1                                                                 DAT4840
 2700 JDIFF=DIMW-JEND                                                      DAT4850
      IF (JDIFF.LE.0) JEND=DIMW                                            DAT4860
      WRITE(P,2740) (J,J=JB,JEND)                                          DAT4870
      WRITE(P,1190)                                                        DAT4880
      DO 2720 I=1,DIML                                                     DAT4890
 2720 WRITE(P,2150) I,(RIVER(I,J),J=JB,JEND)                               DAT4900
      IF (JEND.EQ.DIMW) GO TO 2730                                         DAT4910
      JB=JEND+1                                                            DAT4920
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
      JEND=JEND+JCWT                                                    DAT4930
      GO TO 2700                                                        DAT4940
 2730 CONTINUE                                                          DAT4950
 2740 FORMAT(1H1,58X,'RIVER HEAD ARRAY' / 59X,16('-') / 4X,'I/J',       DAT4960
     $ 3X,15I8)                                                         DAT4970
C                                                                       DAT4980
C     ............................... TOP (AQ. TOP ELEVATION) .........DAT4990
  260 IF (CONVRT.NE.CHK(7)) GO TO 358                                   DAT5000
      READ(R,800) FACT,IVAR,IPRN,NRVR                                   DAT5010
      IF (NRVR.EQ.0) GO TO 262                                          DAT5020
      DO 261 NR=1,NRVR                                                  DAT5030
  261 READ(R,800) I,J,TOP(I,J)                                          DAT5040
  262 CONTINUE                                                          DAT5050
      IF (IVAR.EQ.1.AND.IPRN.EQ.0) WRITE(P,930)                         DAT5060
      DO 250 I=1,DIML                                                   DAT5070
      IF (IVAR.EQ.1) READ(R,900) (TOP(I,J),J=1,DIMW)                    DAT5080
      DO 240 J=1,DIMW                                                   DAT5090
      IF (IVAR.NE.1) GO TO 230                                          DAT5100
      TOP(I,J)=TOP(I,J)*FACT                                            DAT5110
      GO TO 240                                                         DAT5120
  230 IF (TOP(I,J).EQ.0.0) TOP(I,J)=FACT                                DAT5130
  240 IF (M(I,J).NE.0.0.AND.TOP(I,J).EQ.0.0) TOP(I,J)=RIVER(I,J)-       DAT5140
     $ TDIFF                                                            DAT5150
  250 IF (IVAR.EQ.1.AND.IPRN.EQ.0) WRITE(P,870) I,(TOP(I,J),J=1,DIMW)   DAT5160
      IF (IVAR.EQ.0.AND.IPRN.NE.2) WRITE(P,730) FACT                    DAT5170
      IF (IPRN.NE.2) GO TO 2930                                         DAT5180
      JCWT=15                                                           DAT5190
      JEND=JCWT                                                         DAT5200
      JB=1                                                              DAT5210
 2900 JDIFF=DIMW-JEND                                                   DAT5220
      IF (JDIFF.LE.0) JEND=DIMW                                         DAT5230
      WRITE(P,2940) (J,J=JB,JEND)                                       DAT5240
      WRITE(P,1190)                                                     DAT5250
      DO 2920 I=1,DIML                                                  DAT5260
 2920 WRITE(P,2150) I,(TOP(I,J),J=JB,JEND)                              DAT5270
      IF (JEND.EQ.DIMW) GO TO 2930                                      DAT5280
      JB=JEND+1                                                         DAT5290
      JEND=JEND+JCWT                                                    DAT5300
      GO TO 2900                                                        DAT5310
 2930 CONTINUE                                                          DAT5320
 2940 FORMAT(1H1,58X,'AQUIFER TOP ARRAY' / 59X,17('-') / 4X,'I/J',      DAT5330
     $ 3X,15I8)                                                         DAT5340
  358 IF (LEAK.NE.CHK(9)) GO TO 360                                     DAT5350
      DO 359 I=1,DIML                                                   DAT5360
      DO 359 J=1,DIMW                                                   DAT5370
  359 RATE(I,J)=ABS(RATE(I,J))                                          DAT5380
C                                                                       DAT5390
C     ............................... GRND (LAND ELEVATION) ...........DAT5400
  360 IF (EVAP.NE.CHK(6)) GO TO 400                                     DAT5410
      READ (R,800) FACT,IVAR,IPRN                                       DAT5420
      IF (IVAR.EQ.1.AND.IPRN.EQ.0) WRITE (P,940)                        DAT5430
      DO 390 I=1,DIML                                                   DAT5440
      IF (IVAR.EQ.1) READ(R,900) (GRND(I,J),J=1,DIMW)                   DAT5450
      DO 380 J=1,DIMW                                                   DAT5460
      IF (IVAR.NE.1) GO TO 370                                          DAT5470
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
      GRND(I,J)=GRND(I,J)*FACT                                                  DAT5480
      GO TO 380                                                                 DAT5490
  370 GRND(I,J)=FACT                                                            DAT5500
  380 CONTINUE                                                                  DAT5510
  390 IF (IVAR.EQ.1.AND.IPRN.EQ.0) WRITE (P,870) I,(GRND(I,J),J=1,DIMW)         DAT5520
      IF (IVAR.NE.1) WRITE (P,740) FACT                                         DAT5530
      IF (IVAR.EQ.0.OR.IPRN.NE.2) GO TO 3030                                    DAT5540
      JCWT=15                                                                   DAT5550
      JEND=JCWT                                                                 DAT5560
      JB=1                                                                      DAT5570
 3000 JDIFF=DIMW-JEND                                                           DAT5580
      IF (JDIFF.LE.0) JEND=DIMW                                                 DAT5590
      WRITE(P,3040) (J,J=JB,JEND)                                               DAT5600
      WRITE(P,1190)                                                             DAT5610
      DO 3020 I=1,DIML                                                          DAT5620
 3020 WRITE(P,2150) I,(GRND(I,J),J=JB,JEND)                                     DAT5630
      IF (JEND.EQ.DIMW) GO TO 3030                                              DAT5640
      JB=JEND+1                                                                 DAT5650
      JEND=JEND+JCWT                                                            DAT5660
      GO TO 3000                                                                DAT5670
 3030 CONTINUE                                                                  DAT5680
 3040 FORMAT(1H1,55X,'LAND SURFACE ELEVATION' / 56X,22('-') / 4X,               DAT5690
     $ 'I/J',3X,15I8)                                                           DAT5700
C                                                                               DAT5710
C     ................................ QRE (RECHARGE RATE) .....................DAT5720
  400 IF (RECH.NE.CHK(10)) GO TO 440                                            DAT5730
      READ (R,800) FACT,IVAR,IPRN                                               DAT5740
      IF (IVAR.EQ.1.AND.IPRN.EQ.0) WRITE (P,950)                                DAT5750
      DO 430 I=1,DIML                                                           DAT5760
      IF (IVAR.EQ.1) READ (R,820) (QRE(I,J),J=1,DIMW)                           DAT5770
      DO 420 J=1,DIMW                                                           DAT5780
      IF (IVAR.NE.1) GO TO 410                                                  DAT5790
      QRE(I,J)=QRE(I,J)*FACT                                                    DAT5800
      GO TO 420                                                                 DAT5810
  410 QRE(I,J)=FACT                                                             DAT5820
  420 CONTINUE                                                                  DAT5830
  430 IF (IVAR.EQ.1.AND.IPRN.EQ.0) WRITE (P,860) I,(QRE(I,J),J=1,DIMW)          DAT5840
      IF (IVAR.NE.1) WRITE (P,750) FACT                                         DAT5850
      IF (IVAR.EQ.0.OR.IPRN.NE.2) GO TO 3130                                    DAT5860
      JCWT=10                                                                   DAT5870
      JEND=JCWT                                                                 DAT5880
      JB=1                                                                      DAT5890
 3100 JDIFF=DIMW-JEND                                                           DAT5900
      IF (JDIFF.LE.0) JEND=DIMW                                                 DAT5910
      WRITE(P,3140) (J,J=JB,JEND)                                               DAT5920
      WRITE(P,1190)                                                             DAT5930
      DO 3120 I=1,DIML                                                          DAT5940
 3120  WRITE(P,2250) I,(QRE(I,J),J=JB,JEND)                                     DAT5950
      IF (JEND.EQ.DIMW) GO TO 3130                                              DAT5960
      JB=JEND+1                                                                 DAT5970
      JEND=JEND+JCWT                                                            DAT5980
      GO TO 3100                                                                DAT5990
 3130 CONTINUE                                                                  DAT6000
 3140 FORMAT(1H1,60X,'RECHARGE RATE' / 61X,13('-') / 4X,'I/J',3X,               DAT6010
     $ 10I12)                                                                   DAT6020
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
  440 CONTINUE                                                          DAT6030
C                                                                       DAT6040
C     ---READ IN VALUES OF NODEID(I,J) TO BE ASSOCIATED WITH LEAKY      DAT6050
C        STREAM NODES---                                                DAT6060
      NRIV=0                                                            DAT6070
      NRPR=0                                                            DAT6080
C     IF (LEAK.NE.CHK(9)) GO TO 489                                     DAT6090
      IF (NODE.NE.CHK(14)) GO TO 489                                    DAT6100
      IF (CONVRT.NE.CHK(7)) GO TO 489                                   DAT6110
      READ(R,800) NRIV                                                  DAT6120
      IF (NRIV.NE.0) READ(R,1060) (NODRV(I),I=1,NRIV)                   DAT6130
  489 CONTINUE                                                          DAT6140
C                                                                       DAT6150
C     ---INITIALIZE VARIABLES---                                        DAT6160
      DO 503 II=1,5                                                     DAT6170
      NRST(II)=0                                                        DAT6180
      DO 501 IS=1,20                                                    DAT6190
      NDST(II,IS)=0                                                     DAT6200
      IRUS(II,IS)=0                                                     DAT6210
      JRUS(II,IS)=0                                                     DAT6220
      IRDS(II,IS)=0                                                     DAT6230
      JRDS(II,IS)=0                                                     DAT6240
  501 QRSR(II,IS)=0.0                                                   DAT6250
      DO 502 IW=1,100                                                   DAT6260
      IWST(II,IW)=0                                                     DAT6270
      JWST(II,IW)=0                                                     DAT6280
      WLST(II,IW)=0.0                                                   DAT6290
  502 RADST(II,IW)=0.0                                                  DAT6300
  503 CONTINUE                                                          DAT6310
      JNO1=DIMW-1                                                       DAT6320
      INO1=DIML-1                                                       DAT6330
      IF (LEAK.NE.CHK(9).OR.SS.NE.0.) GO TO 500                         DAT6340
      DO 490 I=2,INO1                                                   DAT6350
      DO 490 J=2,JNO1                                                   DAT6360
      IF (M(I,J).EQ.0.) GO TO 490                                       DAT6370
      TL(I,J)=RATE(I,J)/M(I,J)                                          DAT6380
  490 CONTINUE                                                          DAT6390
  500 ETQB=0.0                                                          DAT6400
      ETQD=0.0                                                          DAT6410
      SUBS=0.0                                                          DAT6420
      U=1.0                                                             DAT6430
      TT=0.0                                                            DAT6440
      IM=MIN0(6*DIMW+4,124)                                             DAT6450
      IM=(132-IM)/2                                                     DAT6460
      WIDTH=0.                                                          DAT6470
      DO 510 J=2,JNO1                                                   DAT6480
  510 WIDTH=WIDTH+DELX(J)                                               DAT6490
      YDIM=0.                                                           DAT6500
      DO 520 I=2,INO1                                                   DAT6510
  520 YDIM=YDIM+DELY(I)                                                 DAT6520
C                                                                       DAT6530
C     ---READ IN OR CALCULATE RECHARGE/DISCHARGE RATES AT CONSTANT FLUX DAT6540
C        BOUNDARY NODES:  THESE NODES ARE FLAGGED BY NEGATIVE VALUES    DAT6550
C        OF NODEID(I,J)---                                              DAT6560
      IF (NODE.NE.CHK(14)) GO TO 525                                    DAT6570
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
      READ(R,800) FACT,IVAR,IPRN,IQPNC                                  DAT6580
      DO 522 I=1,DIML                                                   DAT6590
      IF (IVAR.EQ.1) READ(R,821) (QBND(I,J),J=1,DIMW)                   DAT6600
      DO 522 J=1,DIMW                                                   DAT6610
      IF (IVAR.NE.1) GO TO 521                                          DAT6620
      QBND(I,J)=QBND(I,J)*FACT                                          DAT6630
      GO TO 522                                                         DAT6640
  521 QBND(I,J)=FACT                                                    DAT6650
  522 CONTINUE                                                          DAT6660
      CALL TCOF                                                         DAT6670
      DO 523 I=2,INO1                                                   DAT6680
      DO 523 J=2,JNO1                                                   DAT6690
      IF (NODEID(I,J).GE.0) GO TO 523                                   DAT6700
      IF (QBND(I,J).NE.0.0) GO TO 523                                   DAT6710
      QB1=TC(I-1,J)*(SURI(I,J)-SURI(I-1,J))*DELX(J)                     DAT6720
      QB2=TC(I,J)*(SURI(I,J)-SURI(I+1,J))*DELX(J)                       DAT6730
      QB3=TR(I,J-1)*(SURI(I,J)-SURI(I,J-1))*DELY(I)                     DAT6740
      QB4=TR(I,J)*(SURI(I,J)-SURI(I,J+1))*DELY(I)                       DAT6750
      QBT=QB1+QB2+QB3+QB4                                               DAT6760
      QLK=0.0                                                           DAT6770
      QRCH=0.0                                                          DAT6780
      IF (LEAK.NE.CHK(9)) GO TO 526                                     DAT6790
      IF (M(I,J).EQ.0.0) GO TO 526                                      DAT6800
      HED1=STRT(I,J)                                                    DAT6810
      IF (CONVRT.EQ.CHK(7)) HED1=AMAX1(STRT(I,J),TOP(I,J))              DAT6820
      QLK=RATE(I,J)*(RIVER(I,J)-HED1)/M(I,J)                            DAT6830
  526 IF (RECH.EQ.CHK(10)) QRCH=QRE(I,J)                                DAT6840
      QBND(I,J)=QBT-(QLK+QRCH)*DELX(J)*DELY(I)                          DAT6850
  523 CONTINUE                                                          DAT6860
      IF (IPRN.NE.2) GO TO 3230                                         DAT6870
      JCWT=10                                                           DAT6880
      JEND=JCWT                                                         DAT6890
      JB=1                                                              DAT6900
 3200 JDIFF=DIMW-JEND                                                   DAT6910
      IF (JDIFF.LE.0) JEND=DIMW                                         DAT6920
      WRITE(P,3240) (J,J=JB,JEND)                                       DAT6930
      WRITE(P,1190)                                                     DAT6940
      DO 3220 I=1,DIML                                                  DAT6950
 3220 WRITE(P,2250) I,(QBND(I,J),J=JB,JEND)                             DAT6960
      IF (JEND.EQ.DIMW) GO TO 3230                                      DAT6970
      JB=JEND+1                                                         DAT6980
      JEND=JEND+JCWT                                                    DAT6990
      GO TO 3200                                                        DAT7000
 3230 CONTINUE                                                          DAT7010
 3240 FORMAT(1H1,34X,'INITIAL RECHARGE/DISCHARGE RATES AT CONSTANT FLUX DAT7020
     $BOUNDARY NODES' / 35X,64('-') / 4X,'I/J',3X,10I12)                DAT7030
      DO 524 I=1,DIML                                                   DAT7040
      DO 524 J=1,DIMW                                                   DAT7050
  524 IF (T(I,J).NE.0) QBND(I,J)=QBND(I,J)/(T(I,J)*DELY(I)*DELX(J))     DAT7060
  525 CONTINUE                                                          DAT7070
C                                                                       DAT7080
      RETURN                                                            DAT7090
C     .....................................................DAT7100
C                                                                       DAT7110
C     ---READ TIME PARAMETERS AND PUMPING DATA FOR A NEW PUMPING PERIOD-DAT7120
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
C     ************************                                          DAT7130
      ENTRY NEWPER                                                      DAT7140
C     ************************                                          DAT7150
      READ(R,800) KP,KPM1,NWEL,TMAX,NUMT,CDLT,DELT,ISTOR                DAT7160
      IF (STDY.NE.CHK(15)) GO TO 530                                    DAT7170
      TMAX=1.0                                                          DAT7180
      NUMT=1                                                            DAT7190
      CDLT=1.0                                                          DAT7200
      DELT=24.0                                                         DAT7210
      KP=1                                                              DAT7220
      KPM1=0                                                            DAT7230
  530 CONTINUE                                                          DAT7240
C                                                                       DAT7250
C     ---COMPUTE ACTUAL DELT AND NUMT---                                DAT7260
      DT=DELT/24.                                                       DAT7270
      TM=0.0                                                            DAT7280
      DO 531 I=1,NUMT                                                   DAT7290
      DT=CDLT*DT                                                        DAT7300
      TM=TM+DT                                                          DAT7310
      IF (TM.GE.TMAX) GO TO 540                                         DAT7320
  531 CONTINUE                                                          DAT7330
      GO TO 550                                                         DAT7340
  540 DELT=TMAX/TM*DELT                                                 DAT7350
      NUMT=I                                                            DAT7360
  550 WRITE (P,990) KP,TMAX,NUMT,DELT,CDLT                              DAT7370
      DELT=DELT*3600.                                                   DAT7380
      TMAX=TMAX*86400.                                                  DAT7390
C                                                                       DAT7400
C     ---READ IN STREAMFLOW ACCOUNTING PARAMETERS---                    DAT7410
      IF (LEAK.NE.CHK(9).OR.CONVRT.NE.CHK(7).OR.NODE.NE.CHK(14))        DAT7420
     $ GO TO 554                                                        DAT7430
      IF (ISTOR.LE.0) GO TO 555                                         DAT7440
      NRPR=NRST(ISTOR)                                                  DAT7450
      WRITE(P,551) NRPR                                                 DAT7460
      DO 556 I=1,NRPR                                                   DAT7470
      NDR(I)=NDST(ISTOR,I)                                              DAT7480
      IRUP(I)=IRUS(ISTOR,I)                                             DAT7490
      JRUP(I)=JRUS(ISTOR,I)                                             DAT7500
      QRIV(1,I)=QRSR(ISTOR,I)                                           DAT7510
      IRDN(I)=IRDS(ISTOR,I)                                             DAT7520
      JRDN(I)=JRDS(ISTOR,I)                                             DAT7530
      QRIV(2,I)=0.0                                                     DAT7540
      QRIV(3,I)=0.0                                                     DAT7550
  556 WRITE(P,553) I,NDR(I),IRUP(I),JRUP(I),QRIV(1,I)                   DAT7560
      GO TO 554                                                         DAT7570
  555 READ(R,800) NRPR                                                  DAT7580
      IF (NRPR.EQ.0) GO TO 554                                          DAT7590
      WRITE(P,551) NRPR                                                 DAT7600
  551 FORMAT(4(/),32X,'PARAMETERS FOR STREAMFLOW ACCOUNTING PROCEDURE:  DAT7610
     $NUMBER OF STREAMS =',I3 / 32X,71('-') // 40X,'N',7X,'NODEID',9X,  DAT7620
     $ 'I',9X,'J',3X,'STREAM INFLOW (CFS)' /)                           DAT7630
      IF (ISTOR.EQ.0) GO TO 557                                         DAT7640
      IS=IABS(ISTOR)                                                    DAT7650
      NRST(IS)=NRPR                                                     DAT7660
  557 DO 552 I=1,NRPR                                                   DAT7670
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
      READ(R,800) NDR(I),IRUP(I),JRUP(I),QRIV(1,I),IRDN(I),JRDN(I)      DAT7680
      QRIV(2,I)=0.0                                                     DAT7690
      QRIV(3,I)=0.0                                                     DAT7700
      IF (ISTOR.EQ.0) GO TO 552                                         DAT7710
      IS=IABS(ISTOR)                                                    DAT7720
      NDST(IS,I)=NDR(I)                                                 DAT7730
      IRUS(IS,I)=IRUP(I)                                                DAT7740
      JRUS(IS,I)=JRUP(I)                                                DAT7750
      QRSR(IS,I)=QRIV(1,I)                                              DAT7760
      IRDS(IS,I)=IRDN(I)                                                DAT7770
      JRDS(IS,I)=JRDN(I)                                                DAT7780
  552 WRITE(P,553) I,NDR(I),IRUP(I),JRUP(I),QRIV(1,I)                   DAT7790
  553 FORMAT(36X,I5,5X,I8,2(5X,I5),1PE22.3)                             DAT7800
  554 CONTINUE                                                          DAT7810
C                                                                       DAT7820
C     ---INITIALIZE SUMP, STRT, SL, WELL AND WR---                      DAT7830
      WRITE (P,1000) NWEL                                               DAT7840
      IF (KP.GT.KPM1) SUMP=0.                                           DAT7850
      DO 571 I=1,DIML                                                   DAT7860
      DO 571 J=1,DIMW                                                   DAT7870
      IF (KP.EQ.KPM1) GO TO 560                                         DAT7880
      STRT(I,J)=PHI(I,J)                                                DAT7890
  560 IF (LEAK.NE.CHK(9)) GO TO 570                                     DAT7900
      IF (M(I,J).EQ.0.) GO TO 570                                       DAT7910
      SL(I,J)=RATE(I,J)/M(I,J)*(RIVER(I,J)-STRT(I,J))                   DAT7920
      IF (NODE.NE.CHK(14)) GO TO 570                                    DAT7930
      IF (CONVRT.NE.CHK(7)) GO TO 570                                   DAT7940
      ND=IABS(NODEID(I,J))                                              DAT7950
      IF (ND.EQ.0) GO TO 570                                            DAT7960
      TL(I,J)=RATE(I,J)/M(I,J)                                          DAT7970
      IF (NRPR.NE.0) GO TO 562                                          DAT7980
      DO 561 NR=1,NRIV                                                  DAT7990
      IF (ND.NE.NODRV(NR)) GO TO 561                                    DAT8000
      TL(I,J)=0.0                                                       DAT8010
      SL(I,J)=0.0                                                       DAT8020
  561 CONTINUE                                                          DAT8030
      GO TO 570                                                         DAT8040
  562 DO 563 NR=1,NRPR                                                  DAT8050
      IF (ND.EQ.NDR(NR)) GO TO 570                                      DAT8060
  563 CONTINUE                                                          DAT8070
      DO 564 NR=1,NRIV                                                  DAT8080
      IF (ND.NE.NODRV(NR)) GO TO 564                                    DAT8090
      TL(I,J)=0.0                                                       DAT8100
      SL(I,J)=0.0                                                       DAT8110
  564 CONTINUE                                                          DAT8120
  570 IF (NODE.EQ.CHK(14).AND.NODEID(I,J).GE.0) WELL(I,J)=0.0           DAT8130
  571 CONTINUE                                                          DAT8140
      IF (NW.EQ.0) GO TO 590                                            DAT8150
      DO 580 I=1,NW                                                     DAT8160
  580 WR(I)=0.                                                          DAT8170
  590 IF (NWEL.EQ.0) GO TO 630                                          DAT8180
C                                                                       DAT8190
C     ---READ AND WRITE WELL PUMPING RATES AND WELL RADII---            DAT8200
      KW=0                                                              DAT8210
      DO 620 II=1,NWEL                                                  DAT8220
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
      IF (ISTOR.GT.0) GO TO 621                                          DAT8230
      READ (R,800) I,J,WELL(I,J),RADIUS                                  DAT8240
      IF (ISTOR.EQ.0) GO TO 622                                          DAT8250
      IW=IABS(ISTOR)                                                     DAT8260
      IWST(IW,II)=I                                                      DAT8270
      JWST(IW,II)=J                                                      DAT8280
      WLST(IW,II)=WELL(I,J)                                              DAT8290
      RADST(IW,II)=RADIUS                                                DAT8300
      GO TO 622                                                          DAT8310
  621 I=IWST(ISTOR,II)                                                   DAT8320
      J=JWST(ISTOR,II)                                                   DAT8330
      WELL(I,J)=WLST(ISTOR,II)                                           DAT8340
      RADIUS=RADST(ISTOR,II)                                             DAT8350
  622 CONTINUE                                                           DAT8360
      IF (RADIUS.EQ.0.) GO TO 600                                        DAT8370
      KW=KW+1                                                            DAT8380
      IF (KW.GT.NW) GO TO 600                                            DAT8390
      NWR(KW,1)=I                                                        DAT8400
      NWR(KW,2)=J                                                        DAT8410
      WR(KW)=RADIUS                                                      DAT8420
      WRITE (P,1010) I,J,WELL(I,J),WR(KW)                                DAT8430
      GO TO 610                                                          DAT8440
  600 WRITE (P,1010) I,J,WELL(I,J)                                       DAT8450
  610 WELL(I,J)=WELL(I,J)/(DELX(J)*DELY(I))                              DAT8460
  620 CONTINUE                                                           DAT8470
C                                                                        DAT8480
C     ..............................  QRE (RECHARGE RATE)  .............DAT8490
  630 IF (RECH.NE.CHK(10)) GO TO 634                                     DAT8500
      READ (R,800) FACT,IVAR,IPRN                                        DAT8510
      IF (FACT.EQ.0.0) GO TO 634                                         DAT8520
      IF (IVAR.EQ.1.AND.IPRN.EQ.0) WRITE (P,950)                         DAT8530
      DO 633 I=1,DIML                                                    DAT8540
      IF (IVAR.EQ.1) READ (R,820) (QRE(I,J),J=1,DIMW)                    DAT8550
      DO 632 J=1,DIMW                                                    DAT8560
      IF (IVAR.NE.1) GO TO 631                                           DAT8570
      QRE(I,J)=QRE(I,J)*FACT                                             DAT8580
      GO TO 632                                                          DAT8590
  631 QRE(I,J)=FACT                                                      DAT8600
  632 CONTINUE                                                           DAT8610
  633 IF (IVAR.EQ.1.AND.IPRN.EQ.0) WRITE (P,860) I,(QRE(I,J),J=1,DIMW)   DAT8620
      IF (IVAR.NE.1) WRITE (P,750) FACT                                  DAT8630
      IF (IVAR.EQ.0.OR.IPRN.NE.2) GO TO 3330                             DAT8640
      JCWT=10                                                            DAT8650
      JEND=JCWT                                                          DAT8660
      JB=1                                                               DAT8670
 3300 JDIFF=DIMW-JEND                                                    DAT8680
      IF (JDIFF.LE.0) JEND=DIMW                                          DAT8690
      WRITE(P,3340) (J,J=JB,JEND)                                        DAT8700
      WRITE(P,1190)                                                      DAT8710
      DO 3320 I=1,DIML                                                   DAT8720
 3320  WRITE(P,2250) I,(QRE(I,J),J=JB,JEND)                             DAT8730
      IF (JEND.EQ.DIMW) GO TO 3330                                       DAT8740
      JB=JEND+1                                                          DAT8750
      JEND=JEND+JCWT                                                     DAT8760
      GO TO 3300                                                         DAT8770
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
 3330 CONTINUE                                                          DAT8780
 3340 FORMAT(1H1,60X,'RECHARGE RATE' / 61X,13('-') / 4X,'I/J',3X,       DAT8790
     $ 10I12)                                                           DAT8800
  634 RETURN                                                            DAT8810
C     .................................................................DAT8820
C                                                                       DAT8830
C     FORMATS:                                                          DAT8840
C                                                                       DAT8850
C     -----------------------------------------------------------------DAT8860
C                                                                       DAT8870
  640 FORMAT ('0',63X,'STARTING HEAD =',G15.7)                          DAT8880
  650 FORMAT ('0',57X,'STORAGE COEFFICIENT =',G15.7)                    DAT8890
  660 FORMAT ('0',62X,'SPECIFIC YIELD =',G15.7)                         DAT8900
  670 FORMAT ('0',37X,'HYDRAULIC CONDUCTIVITY OF CONFINING BED =',G15.7)DAT8910
  680 FORMAT ('0',66X,'RIVER HEAD =',G15.7)                             DAT8920
  690 FORMAT ('0',53X,'CONFINING BED THICKNESS =',G15.7)                DAT8930
  700 FORMAT ('0',62X,'TRANSMISSIVITY =',G15.7)                         DAT8940
  710 FORMAT ('0',46X,'AQUIFER HYDRAULIC CONDUCTIVITY =',G15.7)         DAT8950
  720 FORMAT ('0',60X,'BOTTOM ELEVATION =',G15.7)                       DAT8960
  730 FORMAT ('0',63X,'TOP ELEVATION =',G15.7)                          DAT8970
  740 FORMAT ('0',62X,'LAND ELEVATION =',G15.7)                         DAT8980
  750 FORMAT ('0',63X,'RECHARGE RATE =',G15.7)                          DAT8990
  760 FORMAT ('0',72X,'DELX =',G15.7)                                   DAT9000
  770 FORMAT ('0',72X,'DELY =',G15.7)                                   DAT9010
  780 FORMAT ('1',60X,'STARTING HEAD MATRIX'/61X,20('-'))               DAT9020
  790 FORMAT ('1',40X,' CONTINUATION - HEAD AFTER ',G20.7,' SEC PUMPING DAT9030
     1'/42X,58('-'))                                                    DAT9040
  800 FORMAT (8G10.0)                                                   DAT9050
  810 FORMAT (A4,6X,5G10.0,A8)                                          DAT9060
  820 FORMAT (20F4.0)                                                   DAT9070
  821 FORMAT (1P8E10.3)                                                 DAT9080
  822 FORMAT(16F5.0)                                                    DAT9090
  830 FORMAT (1H1,61X,11HRATE MATRIX/62X,11('-'))                       DAT9100
  840 FORMAT ('0',51X,'NUMBER OF PUMPING PERIODS =',I5/49X,'TIME STEPS BDAT9110
     1ETWEEN PRINTOUTS =',I5//51X,'ERROR CRITERIA FOR CLOSURE =',G15.7/3DAT9120
     29X,'MAXIMUM PERMITTED NUMBER OF ITERATIONS =',I5/41X,'         STEDAT9130
     3ADY STATE ERROR CRITERIA =',G15.7//44X,'SPECIFIC STORAGE OF CONFINDAT9140
     4ING BED =',G15.7/54X,'EVAPOTRANSPIRATION RATE =',G15.7/56X,'EFFECTDAT9150
     5IVE DEPTH OF ET =',G15.7//22X,'MULTIPLICATION FACTOR FOR TRANSMISSDAT9160
     6IVITY IN X DIRECTION =',G15.7/63X,'IN Y DIRECTION =',G15.7)       DAT9170
  850 FORMAT (1H1,64X,23HTRANSMISSIVITY MATRIX  /65X,21('-'))           DAT9180
  860 FORMAT (1H0,I5,1P10E12.3/(1H ,5X,1P10E12.3))                      DAT9190
  870 FORMAT('0',I2,2X,16F8.1 / (5X,16F8.1))                            DAT9200
  880 FORMAT (1H0,I5,14F9.5/(1H ,5X,14F9.5))                            DAT9210
  890 FORMAT (1H1,54X,26HSTORAGE COEFFICIENT MATRIX/55X,26('-'))        DAT9220
  900 FORMAT (8F10.4)                                                   DAT9230
  910 FORMAT (1H1,52X,29HHYDRAULIC CONDUCTIVITY MATRIX/53X,29('-'))     DAT9240
  920 FORMAT (1H1,46X,40HELEVATION OF IMPERMEABLE BASE OF AQUIFER/47X,40DAT9250
     1('-'))                                                            DAT9260
  930 FORMAT ('1',53X,' ELEVATION OF TOP OF AQUIFER'/55X,27('-'))       DAT9270
  940 FORMAT ('1',54X,'ELEVATION OF LAND SURFACE'/55X,25('-'))          DAT9280
  950 FORMAT ('1',57X,'AREAL RECHARGE RATE'/58X,19('-'))                DAT9290
  960 FORMAT (1H1,46X,40HGRID SPACING IN PROTOTYPE IN X DIRECTION/47X,40DAT9300
     1('-')//('0',12F10.0))                                             DAT9310
  970 FORMAT (1H-,46X,40HGRID SPACING IN PROTOTYPE IN Y DIRECTION/47X,40DAT9320
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
     1('-')//('0',12F10.0))                                                DAT9330
  980 FORMAT (1H1,60X,17HRIVER HEAD MATRIX/61X,17('-'))                    DAT9340
  990 FORMAT ('1',50X,'PUMPING PERIOD NO.',I4,':',F10.2,' DAYS'/51X,38('DAT9350
     1-')//53X,'NUMBER OF TIME STEPS=',I6//59X,'DELT IN HOURS =',F10.3//DAT9360
     253X,'MULTIPLIER FOR DELT =',F10.3)                                   DAT9370
 1000 FORMAT ('-',63X,I4,' WELLS'/65X,9('-')//50X,'I',9X,'J    PUMPING RDAT9380
     1ATE  WELL RADIUS'/)                                                  DAT9390
 1010 FORMAT (41X,2I10,2F13.4)                                            DAT9400
 1020 FORMAT ('1',55X,'CONFINING BED THICKNESS'/56X,23('-'))              DAT9410
 1030 FORMAT (4G20.10)                                                    DAT9420
 1040 FORMAT ('0',30X,'ON ALPHAMERIC MAP:'/40X,'MULTIPLICATION FACTOR FODAT9430
     1R X DIMENSION =',G15.7/40X,'MULTIPLICATION FACTOR FOR Y DIMENSION DAT9440
     2=',G15.7/55X,'MAP SCALE IN UNITS OF  ',A11/50X,'NUMBER OF ',A8,' PDAT9450
     3ER INCH =',G15.7/43X,'MULTIPLICATION FACTOR FOR DRAWDOWN =',G15.7/DAT9460
     447X,'MULTIPLICATION FACTOR FOR HEAD =',G15.7)                        DAT9470
 1050 FORMAT (1H1,56X,21HSPECIFIC YIELD MATRIX/57X,21('-'))                DAT9480
 1060 FORMAT(20I4)                                                        DAT9490
 1065 FORMAT ('1',52X,'HYDRAULIC CONDUCTIVITY MATRIX'///8X,55I2/)         DAT9500
 1070 FORMAT (' ',2X,I2,3X,55I2,I4)                                       DAT9510
 1080 FORMAT ('0',7X,55I2)                                                DAT9520
 1190 FORMAT(1H0)                                                         DAT9530
      END                                                                 DAT9540
      SUBROUTINE STEP(PHI,KEEP,STRT,SURI,T,WELL,PERM,BOTTOM,TOP,DELX,DDNSTP  10
     1,DELY,WR,NWR,NODEID,QBND)                                           STP  20
C     ------------------------------------------------------------------STP  30
C     INITIALIZE DATA FOR TIME STEP, CHECK FOR STEADY STATE,             STP  40
C     PRINT AND  PUNCH RESULTS                                           STP  50
C     ------------------------------------------------------------------STP  60
C                                                                        STP  70
C     SPECIFICATIONS:                                                    STP  80
      COMMON /SARRAY/ TEST3(102),VF4(11),CHK(15),ITST(102),JTST(102)     STP  90
      COMMON /SPARAM/ WATER,CONVRT,EVAP,CHCK,PNCH,NUM,HEAD,CONTR,EROR,LESTP 100
     1AK,RECH,SIP,U,SS,TT,TMIN,ETDIST,QET,ERR,TMAX,CDLT,HMAX,YDIM,WIDTH,STP 110
     2NUMS,LSOR,ADI,DELT,SUM,SUMP,SUBS,STORE,TEST,ETQB,ETQD,FACTX,FACTY,STP 120
     3IERR,KOUNT,IFINAL,NUMT,KT,KP,NPER,KTH,ITMAX,LENGTH,NWEL,NW,DIML,DISTP 130
     4MW,JNO1,INO1,R,P,PU,I,J,NODE,STDY,KPH,IQPNC                        STP 140
      COMMON /CK/ ETFLXT,STORT,QRET,CHST,CHDT,FLUXT,PUMPT,CFLUXT,FLXNT   STP 150
      COMMON /ARSIZE/ IZ,JZ,IP,JP,IR,JR,IC,JC,IL,JL,IS,JS,IH,IMAX        STP 160
     $,IU,JU                                                             STP 170
      COMMON /PR/ XLABEL(3),YLABEL(6),TITLE(5),XN1,MESUR,PRNT(122),BLANKSTP 180
     1(60),DIGIT(122),VF1(6),VF2(6),VF3(7),XSCALE,DINCH,SYM(17),XN(100),STP 190
     2YN(13),NA(4),N1,N2,N3,YSCALE,FACT1,FACT2                           STP 200
      COMMON /STREAM/ NRIV,NRPR,NODRV(20),NDR(20),NMRV(20),QRIV(3,20),   STP 210
     $ IRUP(20),JRUP(20),IRDN(20),JRDN(20)                               STP 220
C                                                                        STP 230
      DIMENSION PHI(IZ,JZ), KEEP(IZ,JZ), STRT(IZ,JZ), SURI(IZ,JZ), T(IZ,STP 240
     1JZ), BOTTOM(IP,JP), WELL(IZ,JZ), PERM(IP,JP), TOP(IC,JC), DELX(JZ)STP 250
     2, DDN(JZ), DELY(IZ), WR(IH), NWR(IH,2), NODEID(IU,JU),             STP 260
     $  QBND(IU,JU)                                                      STP 270
C                                                                        STP 280
      REAL *8PHI,DBLE,DABS,TEST2,DMAX1,XLABEL,YLABEL,XN1,MESUR,TITLE     STP 290
      REAL *4MINS,M,KEEP                                                 STP 300
      INTEGER R,P,PU,DIML,DIMW,CHK,WATER,CONVRT,EVAP,CHCK,PNCH,NUM,HEAD,STP 310
     1CONTR,LEAK,RECH,SIP,ADI,STDY                                       STP 320
      DATA PIE/3.141593/                                                 STP 330
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
      RETURN                                                              STP 340
C     ..................................................................STP 350
C                                                                         STP 360
C     ---START A NEW TIME STEP---                                         STP 370
C     **********************                                              STP 380
      ENTRY NEWSTP                                                        STP 390
C     **********************                                              STP 400
      KT=KT+1                                                             STP 410
      KOUNT=0                                                             STP 420
      DO 10 I=1,DIML                                                      STP 430
      DO 10 J=1,DIMW                                                      STP 440
      IF (NODE.NE.CHK(14)) GO TO 10                                       STP 450
      IF (NODEID(I,J).LT.0) WELL(I,J)=T(I,J)*QBND(I,J)                    STP 460
   10 KEEP(I,J)=PHI(I,J)                                                  STP 470
      DELT=CDLT*DELT                                                      STP 480
      SUM=SUM+DELT                                                        STP 490
      SUMP=SUMP+DELT                                                      STP 500
      DAYSP=SUMP/86400.                                                   STP 510
      YRSP=DAYSP/365.                                                     STP 520
      HRS=SUM/3600.                                                       STP 530
      MINS=HRS*60.                                                        STP 540
      DAYS=HRS/24.                                                        STP 550
      YRS=DAYS/365.                                                       STP 560
      RETURN                                                              STP 570
C     ..................................................................STP 580
C                                                                         STP 590
C     ---CHECK FOR STEADY STATE---                                        STP 600
C     **********************                                              STP 610
      ENTRY STEADY                                                        STP 620
C     **********************                                              STP 630
      TEST2=0.                                                            STP 640
      DO 20 I=2,INO1                                                      STP 650
      DO 20 J=2,JNO1                                                      STP 660
   20 TEST2=DMAX1(TEST2,DABS(DBLE(KEEP(I,J))-PHI(I,J)))                   STP 670
      IF (TEST2.GE.EROR) GO TO 30                                         STP 680
      WRITE (P,280) KT                                                    STP 690
      IFINAL=1                                                            STP 700
      GO TO 40                                                            STP 710
   30 IF (KT.EQ.NUMT) IFINAL=1                                            STP 720
C                                                                         STP 730
C     ---ENTRY FOR TERMINATING COMPUTATIONS IF MAXIMUM ITERATIONS          STP 740
C     EXCEEDED---                                                         STP 750
C     **********************                                              STP 760
      ENTRY TERM1                                                         STP 770
C     **********************                                              STP 780
   40 IF (CHCK.EQ.CHK(5)) CALL CHECK                                      STP 790
      IF (KOUNT.LE.ITMAX) GO TO 50                                        STP 800
      IERR=2                                                              STP 810
      KOUNT=KOUNT-1                                                       STP 820
      GO TO 60                                                            STP 830
C                                                                         STP 840
C     ---PRINT OUTPUT AT DESIGNATED TIME STEPS---                         STP 850
   50 IF (MOD(KT,KTH).NE.0.AND.IFINAL.NE.1) RETURN                        STP 860
   60 WRITE (P,290) KT,DELT,SUM,MINS,HRS,DAYS,YRS,DAYSP,YRSP,KOUNT        STP 870
      IF (CHCK.EQ.CHK(5)) CALL CWRITE                                     STP 880
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
      IF (TT.NE.0.) WRITE (P,270) TMIN,TT                                STP 890
      KOUNT=KOUNT+1                                                      STP 900
      WRITE(P,250)                                                       STP 910
      DO 65 J=1,KOUNT                                                    STP 920
   65 WRITE(P,255) ITST(J),JTST(J),TEST3(J)                              STP 930
      WRITE (P,240) TEST2                                                STP 940
      IF (CONTR.NE.CHK(3)) GO TO 70                                      STP 950
C     IF (FACT1.NE.0.) CALL PRNTA(1)                                     STP 960
C     IF (FACT2.NE.0.) CALL PRNTA(2)                                     STP 970
   70 IF (KPH.EQ.0) GO TO 71                                             STP 980
      IF (MOD(KP,KPH).NE.0) GO TO 95                                     STP 990
   71 IF (HEAD.NE.CHK(8)) GO TO 90                                       STP1000
C                                                                        STP1010
C     ---PRINT HEAD MATRIX---                                            STP1020
      JCWT=15                                                            STP1030
      JEND=JCWT                                                          STP1040
      JB=1                                                               STP1050
 2100 JDIFF=DIMW-JEND                                                    STP1060
      IF (JDIFF.LE.0) JEND=DIMW                                          STP1070
      WRITE(P,2140) (J,J=JB,JEND)                                        STP1080
      WRITE(P,1190)                                                      STP1090
      DO 2120 I=1,DIML                                                   STP1100
 2120 WRITE(P,2150) I,(PHI(I,J),J=JB,JEND)                               STP1110
      IF (JEND.EQ.DIMW) GO TO 2130                                       STP1120
      JB=JEND+1                                                          STP1130
      JEND=JEND+JCWT                                                     STP1140
      GO TO 2100                                                         STP1150
 2130 CONTINUE                                                           STP1160
 2140 FORMAT(1H1,58X,'HEAD DISTRIBUTION' / 59X,17('-') / 4X,'I/J',       STP1170
     $ 3X,15I8)                                                          STP1180
 2150 FORMAT(I5,5X,15F8.1)                                               STP1190
   90 IF (NUM.NE.CHK(4)) GO TO 120                                       STP1200
C     ---PRINT FINAL SATURATED THICKNESS---                              STP1210
      IF (WATER.NE.CHK(2)) GO TO 440                                     STP1220
      JCWT=15                                                            STP1230
      JEND=JCWT                                                          STP1240
      JB=1                                                               STP1250
  410 JDIFF=DIMW-JEND                                                    STP1260
      IF (JDIFF.LE.0) JEND=DIMW                                          STP1270
      WRITE(P,430)  (J,J=JB,JEND)                                        STP1280
      WRITE(P,1190)                                                      STP1290
      DO 420  I=1,DIML                                                   STP1300
      DO 421 J=JB,JEND                                                   STP1310
  421 DDN(J)=PHI(I,J)-BOTTOM(I,J)                                        STP1320
  420 WRITE(P,2350) I,(DDN(J),J=JB,JEND)                                 STP1330
      IF (JEND.EQ.DIMW) GO TO 440                                        STP1340
      JB=JEND+1                                                          STP1350
      JEND=JEND+JCWT                                                     STP1360
      GO TO 410                                                          STP1370
  440 CONTINUE                                                           STP1380
  430 FORMAT(1H1,54X,'FINAL SATURATED THICKNESS' / 55X,25('-') /         STP1390
     $ 4X,'I/J',3X,15I8)                                                 STP1400
C                                                                        STP1410
C     ---PRINT BOUNDARY FLUX AND STREAMFLOW ARRAY, QBND(I,J)---          STP1420
      IF (NRPR.EQ.0) GO TO 95                                            STP1430
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
      JCWT=10                                                          STP1440
      JEND=JCWT                                                        STP1450
      JB=1                                                             STP1460
 3200 JDIFF=DIMW-JEND                                                  STP1470
      IF (JDIFF.LE.0) JEND=DIMW                                        STP1480
      WRITE(P,3240) (J,J=JB,JEND)                                      STP1490
      WRITE(P,1190)                                                    STP1500
      DO 3220 I=1,DIML                                                 STP1510
      DO 3219 J=JB,JEND                                                STP1520
      DDN(J)=QBND(I,J)                                                 STP1530
      IF (NODEID(I,J).LT.0) DDN(J)=0.0                                 STP1540
 3219 CONTINUE                                                         STP1550
 3220 WRITE(P,3250) I,(DDN(J),J=JB,JEND)                               STP1560
      IF (JEND.EQ.DIMW) GO TO 3230                                     STP1570
      JB=JEND+1                                                        STP1580
      JEND=JEND+JCWT                                                   STP1590
      GO TO 3200                                                       STP1600
 3230 CONTINUE                                                         STP1610
 3240 FORMAT(1H1,49X,'BOUNDARY FLUX AND STREAMFLOW ARRAY' / 50X,34('-') STP1620
     $ / 4X,'I/J',3X,10I12)                                            STP1630
 3250 FORMAT(I5,5X,1P10E12.3)                                          STP1640
      WRITE(P,695)                                                     STP1650
  695 FORMAT(4(/),51X,'STREAM INFLOW AND OUTFLOW RATES' / 51X,31('-') //STP1660
     $ 33X,'NODEID',4X,'I',4X,'J',3X,'INFLOW RATE (CFS)',9X,'I',4X,'J', STP1670
     $ 2X,'OUTFLOW RATE (CFS)' //)                                     STP1680
      DO 96 NR=1,NRPR                                                  STP1690
   96 WRITE(P,696) NDR(NR),IRUP(NR),JRUP(NR),QRIV(3,NR),IRDN(NR),      STP1700
     $ JRDN(NR),QRIV(2,NR)                                             STP1710
  696 FORMAT(29X,I10,2I5,1PE20.3,5X,2I5,1PE20.3)                       STP1720
   95 IF (NUM.NE.CHK(4)) GO TO 120                                     STP1730
C                                                                      STP1740
C     ---PRINT DRAWDOWN---                                             STP1750
C     ********************                                             STP1760
      ENTRY DRDN                                                       STP1770
C     ********************                                             STP1780
      JCWT=15                                                          STP1790
      JEND=JCWT                                                        STP1800
      JB=1                                                             STP1810
 2300 JDIFF=DIMW-JEND                                                  STP1820
      IF (JDIFF.LE.0) JEND=DIMW                                        STP1830
      WRITE(P,2340) (J,J=JB,JEND)                                      STP1840
      WRITE(P,1190)                                                    STP1850
      DO 2320 I=1,DIML                                                 STP1860
      DO 100 J=JB,JEND                                                 STP1870
      DDN(J)=0.0                                                       STP1880
      IF (PHI(I,J).NE.0.0) DDN(J)=SURI(I,J)-PHI(I,J)                   STP1890
  100 CONTINUE                                                         STP1900
 2320 WRITE(P,2350) I,(DDN(J),J=JB,JEND)                               STP1910
      IF (JEND.EQ.DIMW) GO TO 2330                                     STP1920
      JB=JEND+1                                                        STP1930
      JEND=JEND+JCWT                                                   STP1940
      GO TO 2300                                                       STP1950
 2330 CONTINUE                                                         STP1960
 2340 FORMAT(1H1,62X,'DRAWDOWN' / 63X,8('-') / 4X,'I/J',3X,15I8)       STP1970
 2350 FORMAT(I5,5X,15F8.2)                                             STP1980
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
  120 IF (NW.EQ.0.OR.IERR.EQ.1) GO TO 180                                STP1990
C     ..................................................................STP2000
C                                                                        STP2010
C     ---COMPUTE APPROXIMATE HEAD FOR PUMPING WELLS---                   STP2020
      WRITE (P,210)                                                      STP2030
      DO 170 KW=1,NW                                                     STP2040
      IF (WR(KW).EQ.0.) GO TO 170                                        STP2050
      I=NWR(KW,1)                                                        STP2060
      J=NWR(KW,2)                                                        STP2070
C                                                                        STP2080
C     COMPUTE EFFECTIVE RADIUS OF WELL IN MODEL---                       STP2090
      RE=(DELX(J)+DELY(I))/9.62                                          STP2100
      IF (WATER.NE.CHK(2)) GO TO 130                                     STP2110
      IF (CONVRT.NE.CHK(7)) GO TO 140                                    STP2120
      IF (PHI(I,J).LT.TOP(I,J)) GO TO 140                                STP2130
C                                                                        STP2140
C     ---COMPUTATION FOR WELL IN ARTESIAN AQUIFER---                     STP2150
  130 HW=PHI(I,J)+WELL(I,J)*ALOG(RE/WR(KW))/(2.*PIE*T(I,J))*DELX(J)*DELYSTP2160
     1(I)                                                                STP2170
      GO TO 160                                                          STP2180
C                                                                        STP2190
C     ---COMPUTATION FOR WELL IN WATER TABLE AQUIFER                     STP2200
  140 HED=PHI(I,J)-BOTTOM(I,J)                                           STP2210
      ARG=HED*HED+WELL(I,J)*ALOG(RE/WR(KW))/(PIE*PERM(I,J))*DELX(J)*DELYSTP2220
     1(I)                                                                STP2230
      IF (ARG.GT.0.) GO TO 150                                           STP2240
      WRITE (P,220) I,J                                                  STP2250
      GO TO 170                                                          STP2260
  150 HW=SQRT(ARG)+BOTTOM(I,J)                                           STP2270
C                                                                        STP2280
C     ---COMPUTE DRAWDOWN AT THE WELL AND PRINT RESULTS---               STP2290
  160 DRAW=SURI(I,J)-HW                                                  STP2300
      WRITE (P,200) I,J,WR(KW),HW,DRAW                                   STP2310
  170 CONTINUE                                                           STP2320
  180 IF (IERR.NE.2) RETURN                                              STP2330
      IF (PNCH.NE.CHK(1)) STOP                                           STP2340
C     ..................................................................STP2350
C                                                                        STP2360
C     ---PUNCHED OUTPUT---                                               STP2370
C     **********                                                         STP2380
      ENTRY PUNCH                                                        STP2390
C     **********                                                         STP2400
      WRITE (PU,310) SUM,SUMP,PUMPT,CFLUXT,QRET,CHST,CHDT,FLUXT,STORT,ETSTP2410
     1FLXT,FLXNT                                                         STP2420
      DO 190 I=1,DIML                                                    STP2430
  190 WRITE (PU,300) (PHI(I,J),J=1,DIMW)                                 STP2440
      IF (NODE.NE.CHK(14)) GO TO 194                                     STP2450
      IF (IQPNC.EQ.0) GO TO 194                                          STP2460
      DO 191 I=1,DIML                                                    STP2470
      DO 191 J=1,DIMW                                                    STP2480
      IF (QBND(I,J).NE.0.0) GO TO 192                                    STP2490
  191 CONTINUE                                                           STP2500
      GO TO 194                                                          STP2510
  192 DO 193 I=1,DIML                                                    STP2520
      DO 196 J=1,DIMW                                                    STP2530
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
      DDN(J)=0.0                                                        STP2540
      IF (NODEID(I,J).GE.0) GO TO 196                                   STP2550
      DDN(J)=QBND(I,J)*T(I,J)*DELX(J)*DELY(I)                           STP2560
  196 CONTINUE                                                          STP2570
  193 WRITE(PU,195) (DDN(J),J=1,DIMW)                                   STP2580
  195 FORMAT(1P8E10.3)                                                  STP2590
  194 CONTINUE                                                          STP2600
      IF (KOUNT.GT.ITMAX) STOP                                          STP2610
      RETURN                                                            STP2620
C                                                                       STP2630
C     .................................................................STP2640
C                                                                       STP2650
C     FORMATS:                                                          STP2660
C                                                                       STP2670
C                                                                       STP2680
C     -----------------------------------------------------------------STP2690
C                                                                       STP2700
  200 FORMAT (' ',43X,2I5,3F11.2)                                       STP2710
  210 FORMAT ('-',50X,'HEAD AND DRAWDOWN IN PUMPING WELLS'/51X,34('-')//STP2720
     148X,'I    J   WELL RADIUS    HEAD    DRAWDOWN'//)                STP2730
  220 FORMAT (' ',43X,2I5,'  WELL IS DRY')                              STP2740
  240 FORMAT ('0MAXIMUM CHANGE IN HEAD FOR THIS TIME STEP =',F10.3/' ',5STP2750
     13('-'))                                                           STP2760
  250 FORMAT(1H1,47X,'MAXIMUM HEAD CHANGE FOR EACH ITERATION' / 48X,    STP2770
     $  38('-') //)                                                     STP2780
  255 FORMAT(50X,I4,6X,I4,6X,F12.4)                                     STP2790
  260 FORMAT ('1',60X,'HEAD MATRIX'/61X,11('-'))                        STP2800
  270 FORMAT ('0DIMENSIONLESS TIME FOR THIS STEP RANGES FROM',G15.7,'  TSTP2810
     10',G15.7)                                                         STP2820
  280 FORMAT ('-*****STEADY STATE AT TIME STEP',I4,'*****')             STP2830
  290 FORMAT (1H1,44X,57('-')/45X,'?',14X,'TIME STEP NUMBER =',I9,14X,'?STP2840
     1'/45X,57('-')//50X,29HSIZE OF TIME STEP IN SECONDS=,F14.2//55X,'TOSTP2850
     2TAL SIMULATION TIME IN SECONDS=',F14.2/80X,8HMINUTES=,F14.2/82X,6HSTP2860
     3HOURS=,F14.2/83X,5HDAYS=,F14.2/82X,'YEARS=',F14.2///45X,'DURATION STP2870
     4OF CURRENT PUMPING PERIOD IN DAYS=',F14.2/82X,'YEARS=',F14.2///56XSTP2880
     5,'ITERATION NUMBER=',I10/56X,27('-')//)                           STP2890
  300 FORMAT (8F10.4)                                                   STP2900
  310 FORMAT (4G20.10)                                                  STP2910
 1190 FORMAT (1H0)                                                      STP2920
      END                                                               STP2930

      SUBROUTINE SOLVE1(PHI,BE,G,TEMP,KEEP,PHE,STRT,T,S,QRE,WELL,TL,SL,DSIP  10
     1EL,ETA,V,XI,DELX,BET,DELY,ALF,SURI,TOP,NODEID)                    SIP  20
C     -----------------------------------------------------------------SIP  30
C      SOLUTION BY THE STRONGLY IMPLICIT PROCEDURE                      SIP  40
C     -----------------------------------------------------------------SIP  50
C                                                                       SIP  60
C     SPECIFICATIONS:                                                   SIP  70
      COMMON /DPARAM/ RHO,B,D,F,H                                       SIP  80
      COMMON /SARRAY/ TEST3(102),VF4(11),CHK(15),ITST(102),JTST(102)    SIP  90
      COMMON /SPARAM/ WATER,CONVRT,EVAP,CHCK,PNCH,NUM,HEAD,CONTR,EROR,LESIP 100
     1AK,RECH,SIP,U,SS,TT,TMIN,ETDIST,QET,ERR,TMAX,CDLT,HMAX,YDIM,WIDTH,SIP 110
     2NUMS,LSOR,ADI,DELT,SUM,SUMP,SUBS,STORE,TEST,ETQB,ETQD,FACTX,FACTY,SIP 120
     3IERR,KOUNT,IFINAL,NUMT,KT,KP,NPER,KTH,ITMAX,LENGTH,NWEL,NW,DIML,DISIP 130
     4MW,JNO1,INO1,R,P,PU,I,J,NODE,STDY,KPH,IQPNC                       SIP 140
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
      COMMON /ARSIZE/ IZ,JZ,IP,JP,IR,JR,IC,JC,IL,JL,IS,JS,IH,IMAX       SIP 150
     $,IU,JU                                                            SIP 160
      COMMON /STREAM/ NRIV,NRPR,NODRV(20),NDR(20),NMRV(20),QRIV(3,20),  SIP 170
     $ IRUP(20),JRUP(20),IRDN(20),JRDN(20)                              SIP 180
C                                                                       SIP 190
      DIMENSION PHI(IZ,JZ), BE(IMAX), G(IMAX), TEMP(IMAX), KEEP(IZ,JZ), SIP 200
     1PHE(IZ,JZ), STRT(IZ,JZ), T(IZ,JZ), S(IZ,JZ), QRE(IZ,JZ), WELL(IZ,JSIP 210
     2Z), TL(IZ,JZ), SL(IZ,JZ), DEL(IS,JS), ETA(IS,JS), V(IS,JS), XI(IS,SIP 220
     3JS), DELX(JZ), BET(JZ), DELY(IZ), ALF(IZ), SURI(IZ,JZ),           SIP 230
     $ TOP(IC,JC),NODEID(IU,JU)                                         SIP 240
C                                                                       SIP 250
      REAL *8PHI,DBLE,RHOP(20),G,BE,TEMP,DABS,W,TEST2,DMAX1,RHO,B,D,F,H,SIP 260
     1B1,E,CH,GH,BH,DH,EH,FH,HH,ALFA,BETA,GAMA,RES                      SIP 270
      REAL *4KEEP                                                       SIP 280
      INTEGER R,P,PU,DIML,DIMW,CHK,WATER,CONVRT,EVAP,CHCK,PNCH,NUM,HEAD,SIP 290
     1CONTR,LEAK,RECH,SIP,IORDER(21),ADI,STDY                           SIP 300
      DATA KNTO/-1/                                                     SIP 310
      RETURN                                                            SIP 320
C     .................................................................SIP 330
C                                                                       SIP 340
C     ---COMPUTE AND PRINT ITERATION PARAMETERS---                      SIP 350
C     **********                                                        SIP 360
      ENTRY ITER1                                                       SIP 370
C     **********                                                        SIP 380
C     ---INITIALIZE ORDER OF ITERATION PARAMETERS (OR REPLACE WITH A     SIP 390
C     READ STATEMENT)---                                                SIP 400
      DATA IORDER/1,2,3,4,5,1,2,3,4,5,11*1/                             SIP 410
      I2=INO1-1                                                         SIP 420
      J2=JNO1-1                                                         SIP 430
      L2=LENGTH/2                                                       SIP 440
      PL2=L2-1.                                                         SIP 450
      W=0.                                                              SIP 460
      PI=0.                                                             SIP 470
C                                                                       SIP 480
C     ---COMPUTE AVERAGE MAXIMUM PARAMETER FOR PROBLEM---               SIP 490
      DO 10 I=2,INO1                                                    SIP 500
      DO 10 J=2,JNO1                                                    SIP 510
      IF (T(I,J).EQ.0.) GO TO 10                                        SIP 520
      PI=PI+1.                                                          SIP 530
      DX=DELX(J)/WIDTH                                                  SIP 540
      DY=DELY(I)/YDIM                                                   SIP 550
      W=W+1.-AMIN1(2.*DX*DX/(1.+FACTY*DX*DX/(FACTX*DY*DY)),2.*DY*DY/(1.+SIP 560
     1FACTX*DY*DY/(FACTY*DX*DX)))                                       SIP 570
   10 CONTINUE                                                          SIP 580
      W=W/PI                                                            SIP 590
C                                                                       SIP 600
C     ---COMPUTE PARAMETERS IN GEOMETRIC SEQUENCE---                    SIP 610
      PJ=-1.                                                            SIP 620
      DO 20 I=1,L2                                                      SIP 630
      PJ=PJ+1.                                                          SIP 640
   20 TEMP(I)=1.-(1.-W)**(PJ/PL2)                                       SIP 650
C                                                                       SIP 660
C     ---ORDER SEQUENCE OF PARAMETERS---                                SIP 670
      DO 30 J=1,LENGTH                                                  SIP 680
   30 RHOP(J)=TEMP(IORDER(J))                                           SIP 690
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
      WRITE (P,230)                                                    SIP 700
      WRITE (P,240) LENGTH,(RHOP(J),J=1,LENGTH)                        SIP 710
      RETURN                                                           SIP 720
C     .................................................................SIP 730
C                                                                      SIP 740
C     ---INITIALIZE DATA FOR A NEW ITERATION---                        SIP 750
C     ************************                                         SIP 760
      ENTRY NEWIT1                                                     SIP 770
C     ************************                                         SIP 780
      KOUNT=KOUNT+1                                                    SIP 790
      IF (KOUNT.LE.ITMAX) GO TO 40                                     SIP 800
      WRITE (P,220)                                                    SIP 810
      CALL TERM1                                                       SIP 820
   40 IF (MOD(KOUNT,LENGTH)) 50,50,60                                  SIP 830
C     ************************                                         SIP 840
      ENTRY NEWITA                                                     SIP 850
C     ************************                                         SIP 860
   50 NTH=0                                                            SIP 870
   60 NTH=NTH+1                                                        SIP 880
      W=RHOP(NTH)                                                      SIP 890
      TEST3(KOUNT+1)=0.                                                SIP 900
      TEST=0.                                                          SIP 910
      DO 70 I=2,INO1                                                   SIP 920
      DO 70 J=2,JNO1                                                   SIP 930
   70 PHE(I,J)=PHI(I,J)                                                SIP 940
C                                                                      SIP 950
      DO 80 I=1,DIML                                                   SIP 960
      DO 80 J=1,DIMW                                                   SIP 970
      DEL(I,J)=0.                                                      SIP 980
      ETA(I,J)=0.                                                      SIP 990
      V(I,J)=0.                                                        SIP1000
   80 XI(I,J)=0.                                                       SIP1010
      BIGI=0.0                                                         SIP1020
C                                                                      SIP1030
C     ---COMPUTE TRANSMISSIVITY AND T COEFFICIENTS IN WATER TABLE      SIP1040
C     OR WATER TABLE-ARTESIAN SIMUATION---                             SIP1050
      IF (WATER.NE.CHK(2)) GO TO 90                                    SIP1060
      CALL TRANS                                                       SIP1070
   90 CONTINUE                                                         SIP1080
      IF (LEAK.EQ.CHK(9).AND.NODE.EQ.CHK(14).AND.CONVRT.EQ.CHK(7))     SIP1090
     $ CALL ACCT                                                       SIP1100
C                                                                      SIP1110
C     ---CHOOSE SIP NORMAL OR REVERSE ALGORITHM---                     SIP1120
      IF (MOD(KOUNT,2)) 100,160,100                                    SIP1130
C     .................................................................SIP1140
C     ---ORDER EQUATIONS WITH ROW 1 FIRST - 3X3 EXAMPLE:               SIP1150
C              1 2 3                                                   SIP1160
C              4 5 6                                                   SIP1170
C              7 8 9                                                   SIP1180
C     .................................................................SIP1190
  100 DO 140 I=2,INO1                                                  SIP1200
      DO 140 J=2,JNO1                                                  SIP1210
C                                                                      SIP1220
C     ---SKIP COMPUTATIONS IF NODE IS OUTSIDE AQUIFER BOUNDARY---      SIP1230
      IF (T(I,J)) 110,140,110                                          SIP1240
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
  110 IF (S(I,J).LT.0.) GO TO 120                                          SIP1250
C                                                                          SIP1260
C     ---COMPUTE COEFFICIENTS---                                           SIP1270
      IF (LEAK.NE.CHK(9).AND.CONVRT.NE.CHK(7)) GO TO 129                   SIP1280
      U=1.0                                                                SIP1290
      IF (PHE(I,J).LT.TOP(I,J)) U=0.0                                      SIP1300
  129 CONTINUE                                                             SIP1310
      CALL COEF1                                                           SIP1320
      GO TO 130                                                            SIP1330
  120 RHO=1.D40                                                            SIP1340
C                                                                          SIP1350
C     ---SIP 'NORMAL' ALGORITHM---                                         SIP1360
C     ---FORWARD SUBSTITUTE, COMPUTING INTERMEDIATE VECTOR V---            SIP1370
  130 E=-B-D-F-H-RHO-TL(I,J)*U-ETQB                                        SIP1380
      CH=DEL(I-1,J)*B/(1.+W*DEL(I-1,J))                                    SIP1390
      GH=ETA(I,J-1)*D/(1.+W*ETA(I,J-1))                                    SIP1400
      BH=B-W*CH                                                            SIP1410
      DH=D-W*GH                                                            SIP1420
      EH=E+W*CH+W*GH                                                       SIP1430
      FH=F-W*CH                                                            SIP1440
      HH=H-W*GH                                                            SIP1450
      ALFA=BH                                                              SIP1460
      BETA=DH                                                              SIP1470
      GAMA=EH-ALFA*ETA(I-1,J)-BETA*DEL(I,J-1)                              SIP1480
      DEL(I,J)=FH/GAMA                                                     SIP1490
      ETA(I,J)=HH/GAMA                                                     SIP1500
      RES=-D*PHI(I,J-1)-F*PHI(I,J+1)-H*PHI(I+1,J)-B*PHI(I-1,J)-E*PHI(I,JSIP1510
     1)-RHO*KEEP(I,J)-SL(I,J)-QRE(I,J)-WELL(I,J)+ETQD-SUBS-TL(I,J)*STRT(SIP1520
     2I,J)                                                                 SIP1530
      V(I,J)=(RES-ALFA*V(I-1,J)-BETA*V(I,J-1))/GAMA                        SIP1540
      IF (NODE.NE.CHK(14)) GO TO 138                                       SIP1550
      IF (IABS(NODEID(I,J)).NE.99) GO TO 138                               SIP1560
      IF (KOUNT.NE.KNTO) WRITE(P,6900) KOUNT                               SIP1570
      KNTO=KOUNT                                                           SIP1580
      WRITE(P,6910) I,J,U,PHE(I,J),PHI(I,J),SL(I,J),TL(I,J),WELL(I,J),     SIP1590
     $ QRE(I,J),RHO,ETQD,E,B,D,F,H                                         SIP1600
  138 CONTINUE                                                             SIP1610
 6900 FORMAT(1H0,' ITERATION NO.',I4 / 2X,17('-'))                         SIP1620
 6910 FORMAT(2I4,F5.0,1P7E17.5 / (13X,1P7E17.5))                           SIP1630
  140 CONTINUE                                                             SIP1640
C                                                                          SIP1650
C     ---BACK SUBSTITUTE FOR VECTOR XI---                                  SIP1660
      DO 150 I=1,I2                                                        SIP1670
      I3=DIML-I                                                            SIP1680
      DO 150 J=1,J2                                                        SIP1690
      J3=DIMW-J                                                            SIP1700
      IF (T(I3,J3).EQ.0.) GO TO 150                                        SIP1710
      XI(I3,J3)=V(I3,J3)-DEL(I3,J3)*XI(I3,J3+1)-ETA(I3,J3)*XI(I3+1,J3)     SIP1720
C                                                                          SIP1730
C     ---COMPARE MAGNITUDE OF CHANGE WITH CLOSURE CRITERIA---               SIP1740
      TCHK=ABS(XI(I3,J3))                                                  SIP1750
      IF (TCHK.LT.BIGI) GO TO 145                                          SIP1760
      BIGI=TCHK                                                            SIP1770
      ITST3=I3                                                             SIP1780
      JTST3=J3                                                             SIP1790
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
  145 PHI(I3,J3)=PHI(I3,J3)+XI(I3,J3)                                    SIP1800
  150 CONTINUE                                                           SIP1810
      IF (BIGI.GT.ERR) TEST=1.                                           SIP1820
      TEST3(KOUNT+1)=BIGI                                                SIP1830
      ITST(KOUNT+1)=ITST3                                                SIP1840
      JTST(KOUNT+1)=JTST3                                                SIP1850
      RETURN                                                             SIP1860
C                                                                        SIP1870
C     ..................................................................SIP1880
C     ---ORDER EQUATIONS WITH THE LAST ROW FIRST - 3X3  EXAMPLE:         SIP1890
C             7 8 9                                                      SIP1900
C             4 5 6                                                      SIP1910
C             1 2 3                                                      SIP1920
C     ..................................................................SIP1930
  160 DO 200 II=1,I2                                                     SIP1940
      I=DIML-II                                                          SIP1950
      DO 200 J=2,JNO1                                                    SIP1960
C                                                                        SIP1970
C     ---SKIP COMPUTATIONS IF NODE IS OUTSIDE AQUIFER BOUNDARY---        SIP1980
      IF (T(I,J)) 170,200,170                                            SIP1990
  170 IF (S(I,J).LT.0.) GO TO 180                                        SIP2000
C                                                                        SIP2010
C     ---COMPUTE COEFFICIENTS---                                         SIP2020
      IF (LEAK.NE.CHK(9).AND.CONVRT.NE.CHK(7)) GO TO 179                 SIP2030
      U=1.0                                                              SIP2040
      IF (PHE(I,J).LT.TOP(I,J)) U=0.0                                    SIP2050
  179 CONTINUE                                                           SIP2060
      CALL COEF1                                                         SIP2070
      GO TO 190                                                          SIP2080
  180 RHO=1.D40                                                          SIP2090
C                                                                        SIP2100
C     ---SIP 'REVERSE' ALGORITHM---                                      SIP2110
C     ---FORWARD SUBSTITUTE, COMPUTING INTERMEDIATE VECTOR V---          SIP2120
  190 E=-B-D-F-H-RHO-TL(I,J)*U-ETQB                                      SIP2130
      CH=DEL(I+1,J)*H/(1.+W*DEL(I+1,J))                                  SIP2140
      GH=ETA(I,J-1)*D/(1.+W*ETA(I,J-1))                                  SIP2150
      BH=H-W*CH                                                          SIP2160
      DH=D-W*GH                                                          SIP2170
      EH=E+W*CH+W*GH                                                     SIP2180
      FH=F-W*CH                                                          SIP2190
      HH=B-W*GH                                                          SIP2200
      ALFA=BH                                                            SIP2210
      BETA=DH                                                            SIP2220
      GAMA=EH-ALFA*ETA(I+1,J)-BETA*DEL(I,J-1)                            SIP2230
      DEL(I,J)=FH/GAMA                                                   SIP2240
      ETA(I,J)=HH/GAMA                                                   SIP2250
      RES=-D*PHI(I,J-1)-F*PHI(I,J+1)-H*PHI(I+1,J)-B*PHI(I-1,J)-E*PHI(I,JSIP2260
     1)-RHO*KEEP(I,J)-SL(I,J)-QRE(I,J)-WELL(I,J)+ETQD-SUBS-TL(I,J)*STRT(SIP2270
     2I,J)                                                               SIP2280
      V(I,J)=(RES-ALFA*V(I+1,J)-BETA*V(I,J-1))/GAMA                      SIP2290
      IF (NODE.NE.CHK(14)) GO TO 198                                     SIP2300
      IF (IABS(NODEID(I,J)).NE.99) GO TO 198                             SIP2310
      IF (KOUNT.NE.KNTO) WRITE(P,6900) KOUNT                             SIP2320
      KNTO=KOUNT                                                         SIP2330
      WRITE(P,6910) I,J,U,PHE(I,J),PHI(I,J),SL(I,J),TL(I,J),WELL(I,J),   SIP2340
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
     $ QRE(I,J),RHO,ETQD,E,B,D,F,H                                          SIP2350
  198 CONTINUE                                                              SIP2360
  200 CONTINUE                                                              SIP2370
C                                                                           SIP2380
C     ---BACK SUBSTITUTE FOR VECTOR XI---                                   SIP2390
      DO 210 I3=2,INO1                                                      SIP2400
      DO 210 J=1,J2                                                         SIP2410
      J3=DIMW-J                                                             SIP2420
      IF (T(I3,J3).EQ.0.) GO TO 210                                         SIP2430
      XI(I3,J3)=V(I3,J3)-DEL(I3,J3)*XI(I3,J3+1)-ETA(I3,J3)*XI(I3-1,J3)      SIP2440
C                                                                           SIP2450
C     ---COMPARE MAGNITUDE OF CHANGE WITH CLOSURE CRITERIA---               SIP2460
      TCHK=ABS(XI(I3,J3))                                                   SIP2470
      IF (TCHK.LT.BIGI) GO TO 205                                           SIP2480
      BIGI=TCHK                                                             SIP2490
      ITST3=I3                                                              SIP2500
      JTST3=J3                                                              SIP2510
  205 PHI(I3,J3)=PHI(I3,J3)+XI(I3,J3)                                       SIP2520
  210 CONTINUE                                                              SIP2530
      IF (BIGI.GT.ERR) TEST=1.                                              SIP2540
      TEST3(KOUNT+1)=BIGI                                                   SIP2550
      ITST(KOUNT+1)=ITST3                                                   SIP2560
      JTST(KOUNT+1)=JTST3                                                   SIP2570
      RETURN                                                                SIP2580
C                                                                           SIP2590
C     .....................................................................SIP2600
C                                                                           SIP2610
C     ---FORMATS---                                                         SIP2620
C                                                                           SIP2630
C     ---------------------------------------------------------------------SIP2640
C                                                                           SIP2650
  220 FORMAT ('0EXCEEDED PERMITTED NUMBER OF ITERATIONS'/' ',39('*'))       SIP2660
  230 FORMAT ('-',44X,'SOLUTION BY THE STRONGLY IMPLICIT PROCEDURE'/45X,    SIP2670
     143(' '))                                                              SIP2680
  240 FORMAT (///1H0,I5,22H ITERATION PARAMETERS:,6D15.7/(/28X,6D15.7/))    SIP2690
      END                                                                   SIP2700

      SUBROUTINE COEF(PHI,KEEP,PHE,STRT,SURI,T,TR,TC,S,WELL,TL,SL,PERM,BCOF  10
     10TTOM,SY,RATE,RIVER,M,TOP,GRND,DELX,DELY,NODEID,QBND)                 COF  20
C     ---------------------------------------------------------------------COF  30
C     COMPUTE COEFFICIENTS                                                  COF  40
C     ---------------------------------------------------------------------COF  50
C                                                                           COF  60
C     SPECIFICATIONS:                                                       COF  70
      COMMON /DPARAM/ RHO,B,D,F,H                                           COF  80
      COMMON /SARRAY/ TEST3(102),VF4(11),CHK(15),ITST(102),JTST(102)        COF  90
      COMMON /SPARAM/ WATER,CONVRT,EVAP,CHCK,PNCH,NUM,HEAD,CONTR,EROR,LECOF 100
     1AK,RECH,SIP,U,SS,TT,TMIN,ETDIST,QET,ERR,TMAX,CDLT,HMAX,YDIM,WIDTH,COF 110
     2NUMS,LSOR,ADI,DELT,SUM,SUMP,SUBS,STORE,TEST,ETQB,ETQD,FACTX,FACTY,COF 120
     3IERR,KOUNT,IFINAL,NUMT,KT,KP,NPER,KTH,ITMAX,LENGTH,NWEL,NW,DIML,DICOF 130
     4MW,JNO1,INO1,R,P,PU,I,J,NODE,STDY,KPH,IQPNC                           COF 140
      COMMON /ARSIZE/ IZ,JZ,IP,JP,IR,JR,IC,JC,IL,JL,IS,JS,IH,IMAX           COF 150
     $,IU,JU                                                                COF 160
C                                                                           COF 170
      DIMENSION PHI(IZ,JZ), KEEP(IZ,JZ), PHE(IZ,JZ), STRT(IZ,JZ), SURI(ICOF 180
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
     1Z,JZ), T(IZ,JZ), TR(IZ,JZ), TC(IZ,JZ), S(IZ,JZ), WELL(IZ,JZ), TL(ICOF 190
     2Z,JZ), SL(IZ,JZ), PERM(IP,JP), BOTTOM(IP,JP), SY(IP,JP), RATE(IR,JCOF 200
     3R), RIVER(IR,JR), M(IR,JR), TOP(IC,JC), GRND(IL,JL), DELX(JZ), DELCOF 210
     4Y(IZ),NODEID(IU,JU),QBND(IU,JU)                                  COF 220
      COMMON /STREAM/ NRIV,NRPR,NODRV(20),NDR(20),NMRV(20),QRIV(3,20),  COF 230
     $ IRUP(20),JRUP(20),IRDN(20),JRDN(20)                              COF 240
C                                                                       COF 250
      REAL *8PHI,DBLE,RHO,B,D,F,H                                       COF 260
      REAL *4KEEP,M                                                     COF 270
      INTEGER R,P,PU,DIML,DIMW,CHK,WATER,CONVRT,EVAP,CHCK,PNCH,NUM,HEAD,COF 280
     1CONTR,LEAK,RECH,SIP,ADI,STDY                                      COF 290
      DATA PIE/3.141593/                                                COF 300
      RETURN                                                            COF 310
C     .................................................................COF 320
C                                                                       COF 330
C     ---COMPUTE COEFFICIENTS FOR TRANSIENT PART OF LEAKAGE TERM---     COF 340
C     **********************                                            COF 350
      ENTRY CLAY                                                        COF 360
C     **********************                                            COF 370
      TMIN=1.E40                                                        COF 380
      TT=0.0                                                            COF 390
      PRATE=0.                                                          COF 400
      DO 50 I=1,DIML                                                    COF 410
      DO 50 J=1,DIMW                                                    COF 420
C                                                                       COF 430
C     ---ASSUME NO STORAGE WITHIN STREAMBED CONFINING LAYER---          COF 440
      IF (NODE.NE.CHK(14)) GO TO 2                                      COF 450
      IF (NRPR.EQ.0) GO TO 2                                            COF 460
      ND=IABS(NODEID(I,J))                                              COF 470
      DO 1 NR=1,NRPR                                                    COF 480
      IF (ND.EQ.NDR(NR)) GO TO 50                                       COF 490
    1 CONTINUE                                                          COF 500
    2 CONTINUE                                                          COF 510
C                                                                       COF 520
C                                                                       COF 530
C     ---SKIP COMPUTATIONS IF T, RATE OR M = 0, OR IF CONSTANT          COF 540
C        HEAD BOUNDARY---                                               COF 550
      IF (RATE(I,J).LE.0..OR.T(I,J).EQ.0..OR.M(I,J).EQ.0..OR.S(I,J).LT.0COF 560
     1.) GO TO 50                                                       COF 570
C                                                                       COF 580
C     ---IF VALUE FOR TL(I,J) WILL EQUAL VALUE FOR PREVIOUS NODE,       COF 590
C     SKIP PART OF COMPUTATIONS---                                      COF 600
      IF (RATE(I,J)*M(I,J).EQ.PRATE) GO TO 40                           COF 610
      DIMT=RATE(I,J)*SUMP/(M(I,J)*M(I,J)*SS*3)                          COF 620
      IF (DIMT.GT.TT) TT=DIMT                                           COF 630
      IF (DIMT.LT.TMIN) TMIN=DIMT                                       COF 640
      PPT=PIE*PIE*DIMT                                                  COF 650
C                                                                       COF 660
C     ---RECOMPUTE PPT IF DIMT WITHIN RANGE FOR SHORT TIME COMPUTATION--COF 670
      IF (DIMT.LT.1.0E-03) PPT=1.0/DIMT                                 COF 680
      CC=(2.3-PPT)/(2.*PPT)                                             COF 690
C                                                                       COF 700
C     ---COMPUTE SUM OF EXPONENTIALS---                                 COF 710
      SUMN=0.0                                                          COF 720
      DO 20 K=1,200                                                     COF 730
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
      POWER=K*K*PPT                                                    COF 740
      IF (POWER.LE.150.) GO TO 10                                      COF 750
      POWER=150                                                        COF 760
   10 PEX=EXP(-POWER)                                                  COF 770
      SUMN=SUMN+PEX                                                    COF 780
      IF (PEX.GT.0.00009) GO TO 20                                     COF 790
      IF (K.GT.CC) GO TO 30                                            COF 800
   20 CONTINUE                                                         COF 810
C                                                                      COF 820
C     ---COMPUTE DENOMINATER DEPENDING ON VALUE OF DIMT---             COF 830
   30 DENOM=1.0                                                        COF 840
      IF (DIMT.LT.1.0E-03) DENOM=SQRT(PIE*DIMT)                        COF 850
C                                                                      COF 860
C     ---HEAD VALUES ARE NOT INCLUDED IN COMPUTATION OF Q FACTOR SINCE  COF 870
C        LEAKAGE IS CONSIDERED IMPLICITLY---                           COF 880
   40 Q1=RATE(I,J)/(M(I,J)*DENOM)                                      COF 890
      TL(I,J)=Q1+2.*Q1*SUMN                                            COF 900
      PRATE=RATE(I,J)*M(I,J)                                           COF 910
   50 CONTINUE                                                         COF 920
      TMIN=TMIN*3.0                                                    COF 930
      TT=TT*3.0                                                        COF 940
      RETURN                                                           COF 950
C     .................................................................COF 960
C                                                                      COF 970
C     ---COMPUTE TRANSMISSIVITY IN WT OR WT-ARTESIAN CONVERSION PROBLEM-COF 980
C     **********                                                       COF 990
      ENTRY TRANS                                                      COF1000
C     **********                                                       COF1010
      DO 60 I=1,DIML                                                   COF1020
      DO 60 J=1,DIMW                                                   COF1030
      IF (PERM(I,J).EQ.0.) GO TO 60                                    COF1040
      HED=PHI(I,J)                                                     COF1050
      IF (CONVRT.EQ.CHK(7).AND.TOP(I,J).GT.0.0) HED=AMIN1(SNGL(PHI(I,J))COF1060
     $ ,TOP(I,J))                                                      COF1070
      T(I,J)=PERM(I,J)*(HED-BOTTOM(I,J))                               COF1080
      IF (T(I,J).GE.0.) GO TO 60                                       COF1090
C     IF (WELL(I,J).LT.0.) GO TO 70                                    COF1100
      IF (WELL(I,J).GE.0.0) GO TO 61                                   COF1110
      IF (NODE.EQ.CHK(14).AND.NODEID(I,J).LT.0) GO TO 61               COF1120
      GO TO 70                                                         COF1130
   61 CONTINUE                                                         COF1140
C                                                                      COF1150
C     ---THE FOLLOWING STATEMENTS APPLY WHEN NODES (EXCEPT WELL NODES)  COF1160
C     GO DRY---                                                        COF1170
      PERM(I,J)=0.                                                     COF1180
      T(I,J)=0.0                                                       COF1190
      TR(I,J-1)=0.                                                     COF1200
      TR(I,J)=0.                                                       COF1210
      TC(I-1,J)=0.                                                     COF1220
      TC(I,J)=0.                                                       COF1230
      PHI(I,J)=SURI(I,J)                                               COF1240
      WRITE (P,240) I,J                                                COF1250
   60 CONTINUE                                                         COF1260
      IF (KT.EQ.0) RETURN                                              COF1270
      GO TO 90                                                         COF1280
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
C                                                                       COF1290
C     ---START PROGRAM TERMINATION WHEN A WELL GOES DRY---              COF1300
   70 WRITE (P,210) I,J,KOUNT                                           COF1310
      WRITE (P,220)                                                     COF1320
      IERR=1                                                            COF1330
      CALL DRDN                                                         COF1340
      DO 80 I=2,INO1                                                    COF1350
      DO 80 J=2,JNO1                                                    COF1360
   80 PHI(I,J)=KEEP(I,J)                                                COF1370
      SUM=SUM-DELT                                                      COF1380
      SUMP=SUMP-DELT                                                    COF1390
      KT=KT-1                                                           COF1400
      IF (KT.EQ.0) STOP                                                 COF1410
      CALL PUNCH                                                        COF1420
      IF (MOD(KT,KTH).EQ.0) STOP                                        COF1430
      WRITE (P,230) KT,SUM                                              COF1440
      CALL DRDN                                                         COF1450
      IF (CHCK.EQ.CHK(5)) CALL CWRITE                                   COF1460
      STOP                                                              COF1470
C                                                                       COF1480
C     ---COMPUTE T COEFFICIENTS---                                      COF1490
C     **********************                                            COF1500
      ENTRY TCOF                                                        COF1510
C     **********************                                            COF1520
   90 DO 110 I=1,INO1                                                   COF1530
      DO 110 J=1,JNO1                                                   COF1540
      IF (T(I,J).LE.0.0) GO TO 110                                      COF1550
      IF (T(I,J+1).LE.0.0) GO TO 100                                    COF1560
      TR(I,J)=(2.*T(I,J+1)*T(I,J))/(T(I,J)*DELX(J+1)+T(I,J+1)*DELX(J))*FCOF1570
     1ACTX                                                              COF1580
  100 IF (T(I+1,J).LE.0.0) GO TO 110                                    COF1590
      TC(I,J)=(2.*T(I+1,J)*T(I,J))/(T(I,J)*DELY(I+1)+T(I+1,J)*DELY(I))*FCOF1600
     1ACTY                                                              COF1610
  110 CONTINUE                                                          COF1620
      RETURN                                                            COF1630
C     ......................................................................COF1640
C                                                                       COF1650
C     ---COMPUTE COEFFICIENTS---                                        COF1660
C     **********************                                            COF1670
      ENTRY COEF1                                                       COF1680
C     **********************                                            COF1690
      D=TR(I,J-1)/DELX(J)                                               COF1700
      F=TR(I,J)/DELX(J)                                                 COF1710
      B=TC(I-1,J)/DELY(I)                                               COF1720
      H=TC(I,J)/DELY(I)                                                 COF1730
      IF (EVAP.NE.CHK(6)) GO TO 120                                     COF1740
C                                                                       COF1750
C     ---COMPUTE EXPLICIT AND IMPLICIT PARTS OF ET RATE---              COF1760
      ETQB=0.                                                           COF1770
      ETQD=0.0                                                          COF1780
      IF (PHE(I,J).LE.GRND(I,J)-ETDIST) GO TO 120                       COF1790
      ETQB=QET/ETDIST                                                   COF1800
      ETQD=ETQB*(ETDIST-GRND(I,J))                                      COF1810
C                                                                       COF1820
C     ---COMPUTE STORAGE TERM---                                        COF1830
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
  120 IF (CONVRT.EQ.CHK(7)) GO TO 130                                    COF1840
      RHO=S(I,J)/DELT                                                    COF1850
      IF (WATER.EQ.CHK(2)) RHO=SY(I,J)/DELT                              COF1860
      RETURN                                                             COF1870
C                                                                        COF1880
C     ---COMPUTE STORAGE COEFFICIENT FOR CONVERSION PROBLEM---            COF1890
  130 SUBS=0.0                                                           COF1900
      IF (KEEP(I,J).GE.TOP(I,J).AND.PHE(I,J).GE.TOP(I,J)) GO TO 170      COF1910
      IF (KEEP(I,J).LT.TOP(I,J).AND.PHE(I,J).LT.TOP(I,J)) GO TO 160      COF1920
      IF (KEEP(I,J)-PHE(I,J)) 140,150,150                                COF1930
  140 SUBS=(SY(I,J)-S(I,J))/DELT*(KEEP(I,J)-TOP(I,J))                    COF1940
      GO TO 170                                                          COF1950
  150 SUBS=(S(I,J)-SY(I,J))/DELT*(KEEP(I,J)-TOP(I,J))                    COF1960
  160 RHO=SY(I,J)/DELT                                                   COF1970
      GO TO 180                                                          COF1980
  170 RHO=S(I,J)/DELT                                                    COF1990
  180 IF (LEAK.NE.CHK(9)) RETURN                                         COF2000
C                                                                        COF2010
C     ---COMPUTE NET LEAKAGE TERM FOR CONVERSION SIMULATION---           COF2020
      IF (RATE(I,J).EQ.0..OR.M(I,J).EQ.0.) GO TO 200                     COF2030
      IF (NODE.NE.CHK(14).OR.NRPR.EQ.0) GO TO 182                        COF2040
      DO 181 NR=1,NRPR                                                   COF2050
      IF (IABS(NODEID(I,J)).EQ.NDR(NR)) GO TO 200                        COF2060
  181 CONTINUE                                                           COF2070
  182 CONTINUE                                                           COF2080
      HED1=AMAX1(STRT(I,J),TOP(I,J))                                     COF2090
      U=1.                                                               COF2100
      HED2=0.                                                            COF2110
      IF (PHE(I,J).GE.TOP(I,J)) GO TO 190                                COF2120
      HED2=TOP(I,J)                                                      COF2130
      U=0.                                                               COF2140
  190 SL(I,J)=RATE(I,J)/M(I,J)*(RIVER(I,J)-HED1)+TL(I,J)*(HED1-HED2-STRTCOF2150
     1(I,J))                                                             COF2160
  200 RETURN                                                             COF2170
C                                                                        COF2180
C     ---STREAMFLOW ACCOUNTING PROCEDURE---                              COF2190
C     **********                                                         COF2200
      ENTRY ACCT                                                         COF2210
C     **********                                                         COF2220
      IF (NRPR.EQ.0) RETURN                                              COF2230
      DO 500 NV=1,NRPR                                                   COF2240
      NR=NRPR-NV+1                                                       COF2250
      I=IRUP(NR)                                                         COF2260
      J=JRUP(NR)                                                         COF2270
      IF (IRDN(NR).NE.I.AND.JRDN(NR).NE.J) GO TO 301                     COF2280
      QRIV(2,NR)=QRIV(1,NR)                                              COF2290
      GO TO 500                                                          COF2300
  301 CONTINUE                                                           COF2310
      QRX=QRIV(1,NR)                                                     COF2320
      ND=NDR(NR)                                                         COF2330
  300 IF (RATE(I,J).EQ.0.0.OR.M(I,J).EQ.0.0) GO TO 3900                  COF2340
C     ---CALCULATE LEAKAGE TO/FROM STREAM AND RESULTANT STREAM DISCHARGECOF2350
C        IN CFS---                                                       COF2360
      FACT=RATE(I,J)/M(I,J)                                              COF2370
      TL(I,J)=FACT                                                       COF2380
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
      HED1=AMAX1(STRT(I,J),TOP(I,J))                                    COF2390
      HED2=0.0                                                          COF2400
      QR=FACT*(PHE(I,J)-RIVER(I,J))                                     COF2410
      IF (PHE(I,J).GE.TOP(I,J)) GO TO 310                               COF2420
      QR=FACT*(TOP(I,J)-RIVER(I,J))                                     COF2430
      HED2=TOP(I,J)                                                     COF2440
  310 SL(I,J)=FACT*(RIVER(I,J)-HED1)+TL(I,J)*(HED1-HED2-STRT(I,J))      COF2450
      QR=QR*DELY(I)*DELX(J)                                             COF2460
      DQRX=QRX                                                          COF2470
      QRX=QRX+QR                                                        COF2480
      IF (QRX.GE.0.0) GO TO 320                                         COF2490
      FACT=DQRX/ABS(QR)                                                 COF2500
      QRX=0.0                                                           COF2510
      SL(I,J)=FACT*SL(I,J)                                              COF2520
      TL(I,J)=FACT*TL(I,J)                                              COF2530
C     ---LOCATE NEXT DOWNSTREAM NODE AND CALCULATE NET STREAM DISCHARGE  COF2540
C        = MAIN STEM INFLOW + LEAKAGE FROM AQUIFER + TRIBUTARY INFLOW   COF2550
C        - DIVERSIONS                                                   COF2560
  320 INEXT=0                                                           COF2570
      JNEXT=0                                                           COF2580
      RPM1=0.0                                                          COF2590
      RR=RIVER(I,J)                                                     COF2600
      DO 400 INC=1,3                                                    COF2610
      II=I+INC-2                                                        COF2620
      DO 390 JNC=1,3                                                    COF2630
      JJ=J+JNC-2                                                        COF2640
      IF (II.EQ.I.AND.JJ.EQ.J) GO TO 390                                COF2650
      RPM=RIVER(II,JJ)                                                  COF2660
      NPM=IABS(NODEID(II,JJ))                                           COF2670
      IF (RPM.EQ.0.0) GO TO 390                                         COF2680
      IF (NPM.NE.ND.OR.RPM.GT.RR) GO TO 330                             COF2690
      IF (RPM1.NE.0.0.AND.RPM.LT.RPM1) GO TO 330                        COF2700
      INEXT=II                                                          COF2710
      JNEXT=JJ                                                          COF2720
      RPM1=RPM                                                          COF2730
  330 IF (II.NE.I.AND.JJ.NE.J) GO TO 390                                COF2740
      IF (NPM.EQ.ND) GO TO 390                                          COF2750
      DO 380 NM=1,NRPR                                                  COF2760
      NN=NRPR-NM+1                                                      COF2770
      IF (ND.EQ.NDR(NN)) GO TO 380                                      COF2780
      IF (NPM.NE.NDR(NN)) GO TO 380                                     COF2790
      IF (NPM.GT.ND) GO TO 360                                          COF2800
      IF (II.NE.IRUP(NN).OR.JJ.NE.JRUP(NN)) GO TO 380                   COF2810
      IF (QRX.LE.QRIV(1,NN)) GO TO 350                                  COF2820
      QRX=QRX-QRIV(1,NN)                                                COF2830
      GO TO 380                                                         COF2840
  350 QRIV(1,NN)=QRX                                                    COF2850
      QRX=0.0                                                           COF2860
      GO TO 380                                                         COF2870
  360 IF (II.NE.IRDN(NN).OR.JJ.NE.JRDN(NN)) GO TO 380                   COF2880
      QRX=QRX+QRIV(2,NN)                                                COF2890
  380 CONTINUE                                                          COF2900
  390 CONTINUE                                                          COF2910
  400 CONTINUE                                                          COF2920
      IF (I.NE.IRUP(NR).OR.J.NE.JRUP(NR)) GO TO 410                     COF2930
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
      QRIV(3,NR)=QRX                                                    COF2940
      GO TO 430                                                         COF2950
  410 IF (I.NE.IRDN(NR).OR.J.NE.JRDN(NR)) GO TO 420                     COF2960
      QRIV(2,NR)=QRX                                                    COF2970
      IF (NODEID(I,J).GT.0) QBND(I,J)=QRX                               COF2980
      GO TO 500                                                         COF2990
  420 IF (NODEID(I,J).GT.0.0) QBND(I,J)=QRX                             COF3000
  430 IF(INEXT.EQ.0.OR.JNEXT.EQ.0) GO TO 440                            COF3010
      I=INEXT                                                           COF3020
      J=JNEXT                                                           COF3030
      GO TO 300                                                         COF3040
  440 WRITE(P,3920) NR,ND,I,J                                           COF3050
      QRIV(2,NR)=QRX                                                    COF3060
      IRDN(NR)=I                                                        COF3070
      JRDN(NR)=J                                                        COF3080
  500 CONTINUE                                                          COF3090
      RETURN                                                            COF3100
 3900 WRITE(P,3910) NR,ND,I,J                                           COF3110
 3910 FORMAT(1H1,5X,'K'' OR M IS ZERO AT DESIGNATED STREAM NODE, STREAM COF3120
     $NO. =',I4,5X,'NODEID =',I4,5X,'I =',I4,5X,'J =',I4)               COF3130
 3920 FORMAT(1H0,5X,'INSUFFICIENT NUMBER OF STREAM NODES ENCOUNTERED FORCOF3140
     $ STREAM NO.',I3,3X,'NODEID =',I3,3X,'I =',I3,3X,'J =',I3 //)      COF3150
      STOP                                                              COF3160
C                                                                       COF3170
C     ---FORMATS---                                                     COF3180
C                                                                       COF3190
C     ------------------------------------------------------------------COF3200
C                                                                       COF3210
  210 FORMAT ('-**************WELL',I3,',',I3,' GOES DRY************** ',COF3220
     12X,'AT ITERATION NO.',I3)                                         COF3230
  220 FORMAT ('1',50X,'DRAWDOWN WHEN WELL WENT DRY')                    COF3240
  230 FORMAT ('1',32X,'DRAWDOWN FOR TIME STEP',I3,'; SIMULATION TIME =',COF3250
     11PE15.7,' SECONDS')                                               COF3260
  240 FORMAT ('-',20('*'),' NODE ',I4,',',I4,' GOES DRY ',20('*'))      COF3270
      END                                                               COF3280

      SUBROUTINE CHECKI(PHI,KEEP,PHE,STRT,T,TR,TC,S,QRE,WELL,TL,PERM,BOTCHK  10
     1TOM,SY,RATE,RIVER,M,TOP,GRND,DELX,DELY,NODEID)                    CHK  20
C     ------------------------------------------------------------------CHK  30
C     COMPUTE A MASS BALANCE                                            CHK  40
C     ------------------------------------------------------------------CHK  50
C                                                                       CHK  60
C     SPECIFICATIONS:                                                   CHK  70
      COMMON /SARRAY/ TEST3(102),VF4(11),CHK(15),ITST(102),JTST(102)    CHK  80
      COMMON /SPARAM/ WATER,CONVRT,EVAP,CHCK,PNCH,NUM,HEAD,CONTR,EROR,LECHK  90
     1AK,RECH,SIP,U,SS,TT,TMIN,ETDIST,QET,ERR,TMAX,CDLT,HMAX,YDIM,WIDTH,CHK 100
     2NUMS,LSOR,ADI,DELT,SUM,SUMP,SUBS,STORE,TEST,ETQB,ETQD,FACTX,FACTY,CHK 110
     3IERR,KOUNT,IFINAL,NUMT,KT,KP,NPER,KTH,ITMAX,LENGTH,NWEL,NW,DIML,DICHK 120
     4MW,JNO1,INO1,R,P,PU,I,J,NODE,STDY,KPH,IQPNC                       CHK 130
      COMMON /CK/ ETFLXT,STORT,QRET,CHST,CHDT,FLUXT,PUMPT,CFLUXT,FLXNT  CHK 140
      COMMON /ARSIZE/ IZ,JZ,IP,JP,IR,JR,IC,JC,IL,JL,IS,JS,IH,IMAX       CHK 150
     $,IU,JU                                                            CHK 160
      COMMON /NDID/ NOD(100),NMBR                                       CHK 170
C                                                                       CHK 180
      DIMENSION PHI(IZ,JZ), KEEP(IZ,JZ), PHE(IZ,JZ), STRT(IZ,JZ), T(IZ,JCHK 190
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
     1Z), TR(IZ,JZ), TC(IZ,JZ), S(IZ,JZ), QRE(IZ,JZ), WELL(IZ,JZ), TL(IZCHK 200
     2,JZ), PERM(IZ,JZ), BOTTOM(IP,JP), SY(IP,JP), RATE(IR,JR), RIVER(IRCHK 210
     3,JR), M(IR,JR), TOP(IC,JC), GRND(IL,JL), DELX(JZ), DELY(IZ)       CHK 220
     4,NODEID(IU,JU)                                                   CHK 230
      DIMENSION XPT(6),QFLX(6,100)                                     CHK 240
C                                                                      CHK 250
      REAL *8PHI,DBLE                                                  CHK 260
      REAL *4KEEP,M                                                    CHK 270
      INTEGER R,P,PU,DIML,DIMW,CHK,WATER,CONVRT,EVAP,CHCK,PNCH,NUM,HEAD,CHK 280
     1CONTR,LEAK,RECH,SIP,ADI,STDY                                     CHK 290
      RETURN                                                           CHK 300
C     .................................................................CHK 310
C     ********************                                             CHK 320
      ENTRY CHECK                                                      CHK 330
C     ********************                                             CHK 340
C     ---INITIALIZE VARIABLES---                                       CHK 350
      PUMP=0.                                                          CHK 360
      STOR=0.                                                          CHK 370
      FLUXS=0.0                                                        CHK 380
      CHD1=0.0                                                         CHK 390
      CHD2=0.0                                                         CHK 400
      QREFLX=0.                                                        CHK 410
      CFLUX=0.                                                         CHK 420
      FLUX=0.                                                          CHK 430
      ETFLUX=0.                                                        CHK 440
      FLXN=0.0                                                         CHK 450
      IF (STDY.NE.CHK(15)) GO TO 400                                   CHK 460
      IF (KT.NE.0) GO TO 400                                           CHK 470
      DO 410 I=1,DIML                                                  CHK 480
      DO 410 J=1,DIMW                                                  CHK 490
  410 KEEP(I,J)=STRT(I,J)                                              CHK 500
  400 CONTINUE                                                         CHK 510
C     .................................................................CHK 520
C                                                                      CHK 530
C     ---COMPUTE RATES,STORAGE AND PUMPAGE FOR THIS STEP---            CHK 540
      IF (NODE.NE.CHK(14)) GO TO 320                                   CHK 550
      DO 300 I=1,DIML                                                  CHK 560
      DO 300 J=1,DIMW                                                  CHK 570
      IF (NODEID(I,J).NE.0) GO TO 310                                  CHK 580
  300 CONTINUE                                                         CHK 590
      GO TO 320                                                        CHK 600
  310 IF (KPH.EQ.0) GO TO 311                                          CHK 610
      IF (MOD(KP,KPH).NE.0) GO TO 320                                  CHK 620
  311 IF (MOD(KT,KTH).EQ.0.OR.IFINAL.NE.0) WRITE(P,3600) KT            CHK 630
 3600 FORMAT(1H1,39X,'FLOW RATES (L**3/T) AT SELECTED NODES AT TIME STEPCHK 640
     $',I4 / 40X,55('-') // 36X, 'CONSTANT HEAD NODES',57X,'LEAKAGE' /  CHK 650
     $ 1X,'NODEID',5X,'I',5X,'J',14X,'INFLOW',11X,'OUTFLOW',4X,'WELL DISCHK 660
     $CHARGE',10X,'RECHARGE',6X,'STEADY-STATE',9X,'TRANSIENT')         CHK 670
  320 CONTINUE                                                         CHK 680
      ND=0                                                             CHK 690
      DO 230 I=2,DIML                                                  CHK 700
      DO 230 J=2,DIMW                                                  CHK 710
      IF (T(I,J).EQ.0.) GO TO 230                                      CHK 720
      DO 330 K=1,6                                                     CHK 730
  330 XPT(K)=0.0                                                       CHK 740
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
      IF (NODE.EQ.CHK(14)) ND=IABS(NODEID(I,J))                          CHK 750
      AREA=DELX(J)*DELY(I)                                               CHK 760
      IF (S(I,J).GE.0.) GO TO 120                                        CHK 770
C                                                                        CHK 780
C     ---COMPUTE FLOW RATES TO AND FROM CONSTANT HEAD BOUNDARIES---      CHK 790
      IF (S(I,J-1).LT.0..OR.T(I,J-1).EQ.0.) GO TO 30                     CHK 800
      X=(STRT(I,J)-PHI(I,J-1))*TR(I,J-1)*DELY(I)                         CHK 810
      IF (X) 10,30,20                                                    CHK 820
   10 CHD1=CHD1+X                                                        CHK 830
      IF (ND.NE.0) XPT(2)=XPT(2)+X                                       CHK 840
      GO TO 30                                                           CHK 850
   20 CHD2=CHD2+X                                                        CHK 860
      IF (ND.NE.0) XPT(1)=XPT(1)+X                                       CHK 870
   30 IF (S(I,J+1).LT.0..OR.T(I,J+1).EQ.0.) GO TO 60                     CHK 880
      X=(STRT(I,J)-PHI(I,J+1))*TR(I,J)*DELY(I)                           CHK 890
      IF (X) 40,60,50                                                    CHK 900
   40 CHD1=CHD1+X                                                        CHK 910
      IF (ND.NE.0) XPT(2)=XPT(2)+X                                       CHK 920
      GO TO 60                                                           CHK 930
   50 CHD2=CHD2+X                                                        CHK 940
      IF (ND.NE.0) XPT(1)=XPT(1)+X                                       CHK 950
   60 IF (S(I-1,J).LT.0..OR.T(I-1,J).EQ.0.) GO TO 90                     CHK 960
      X=(STRT(I,J)-PHI(I-1,J))*TC(I-1,J)*DELX(J)                         CHK 970
      IF (X) 70,90,80                                                    CHK 980
   70 CHD1=CHD1+X                                                        CHK 990
      IF (ND.NE.0) XPT(2)=XPT(2)+X                                       CHK1000
      GO TO 90                                                           CHK1010
   80 CHD2=CHD2+X                                                        CHK1020
      IF (ND.NE.0) XPT(1)=XPT(1)+X                                       CHK1030
   90 IF (S(I+1,J).LT.0..OR.T(I+1,J).EQ.0.) GO TO 340                    CHK1040
      X=(STRT(I,J)-PHI(I+1,J))*TC(I,J)*DELX(J)                           CHK1050
      IF (X) 100,340,110                                                 CHK1060
  100 CHD1=CHD1+X                                                        CHK1070
      IF (ND.NE.0) XPT(2)=XPT(2)+X                                       CHK1080
      GO TO 340                                                          CHK1090
  110 CHD2=CHD2+X                                                        CHK1100
      IF (ND.NE.0) XPT(1)=XPT(1)+X                                       CHK1110
      GO TO 340                                                          CHK1120
C                                                                        CHK1130
C     ---RECHARGE AND WELLS---                                           CHK1140
  120 QREFLX=QREFLX+QRE(I,J)*AREA                                        CHK1150
      IF (ND.NE.0) XPT(3)=WELL(I,J)*AREA                                 CHK1160
      IF (ND.NE.0) XPT(4)=QRE(I,J)*AREA                                  CHK1170
      IF (WELL(I,J)) 130,150,140                                         CHK1180
  130 PUMP=PUMP+WELL(I,J)*AREA                                           CHK1190
      GO TO 150                                                          CHK1200
  140 CFLUX=CFLUX+WELL(I,J)*AREA                                         CHK1210
  150 IF (EVAP.NE.CHK(6)) GO TO 180                                      CHK1220
C                                                                        CHK1230
C     ---COMPUTE ET RATE---                                              CHK1240
      IF (PHI(I,J).GE.GRND(I,J)-ETDIST) GO TO 160                        CHK1250
      ETQ=0.0                                                            CHK1260
      GO TO 170                                                          CHK1270
  160 ETQ=QET/ETDIST*(PHI(I,J)+ETDIST-GRND(I,J))                         CHK1280
  170 ETFLUX=ETFLUX-ETQ*AREA                                             CHK1290
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
C                                                                       CHK1300
C     ---COMPUTE VOLUME FROM STORAGE---                                 CHK1310
  180 STORE=S(I,J)                                                      CHK1320
      IF (WATER.EQ.CHK(2)) STORE=SY(I,J)                                CHK1330
      IF (CONVRT.NE.CHK(7)) GO TO 220                                   CHK1340
      X=KEEP(I,J)-PHI(I,J)                                              CHK1350
      IF (X) 190,200,200                                                CHK1360
  190 HED1=PHI(I,J)                                                     CHK1370
      HED2=KEEP(I,J)                                                    CHK1380
      X=ABS(X)                                                          CHK1390
      GO TO 210                                                         CHK1400
  200 HED1=KEEP(I,J)                                                    CHK1410
      HED2=PHI(I,J)                                                     CHK1420
  210 STORE=S(I,J)                                                      CHK1430
      IF (HED1-TOP(I,J).LE.0.) STORE=SY(I,J)                            CHK1440
      IF ((HED1-TOP(I,J))*(HED2-TOP(I,J)).LT.0.0) STORE=(HED1-TOP(I,J))/CHK1450
     1X*S(I,J)+(TOP(I,J)-HED2)/X*SY(I,J)                                CHK1460
  220 STOR=STOR+STORE*(KEEP(I,J)-PHI(I,J))*AREA                         CHK1470
C                                                                       CHK1480
C     ---COMPUTE LEAKAGE RATE---                                        CHK1490
      IF (LEAK.NE.CHK(9)) GO TO 340                                     CHK1500
      IF (M(I,J).EQ.0.) GO TO 340                                       CHK1510
      HED1=STRT(I,J)                                                    CHK1520
      IF (CONVRT.EQ.CHK(7)) HED1=AMAX1(STRT(I,J),TOP(I,J))              CHK1530
      HED2=PHI(I,J)                                                     CHK1540
      IF (CONVRT.EQ.CHK(7)) HED2=AMAX1(SNGL(PHI(I,J)),TOP(I,J))         CHK1550
      XX=RATE(I,J)*(RIVER(I,J)-HED1)*AREA/M(I,J)                        CHK1560
      IF (TL(I,J).EQ.0.0) XX=0.0                                        CHK1570
      YY=TL(I,J)*(HED1-HED2)*AREA                                       CHK1580
      FLUX=FLUX+XX                                                      CHK1590
      XNET=XX+YY                                                        CHK1600
      IF (ND.NE.0) XPT(5)=XX                                            CHK1610
      IF (ND.NE.0) XPT(6)=YY                                            CHK1620
      FLUXS=FLUXS+XNET                                                  CHK1630
      IF (XNET.LT.0.) FLXN=FLXN-XNET                                    CHK1640
  340 KTST=0                                                            CHK1650
      IF (KPH.EQ.0) GO TO 341                                           CHK1660
      IF (MOD(KP,KPH).NE.0) GO TO 230                                   CHK1670
  341 DO 350 K=1,6                                                      CHK1680
  350 IF (ND.NE.0.AND.XPT(K).NE.0.0) KTST=KTST+1                        CHK1690
      IF (KTST.EQ.0) GO TO 230                                          CHK1700
      IF ((MOD(KT,KTH).EQ.0.OR.IFINAL.NE.0).AND.IO.NE.I) WRITE(P,3610)  CHK1710
 3610 FORMAT(1H0)                                                       CHK1720
      IO=I                                                              CHK1730
      IF (MOD(KT,KTH).EQ.0.OR.IFINAL.NE.0) WRITE(P,3620) ND,I,J,        CHK1740
     $ (XPT(K),K=1,6)                                                   CHK1750
 3620 FORMAT(3X,3(I4,2X),1P6E18.3)                                      CHK1760
      DO 420 JN=1,NMBR                                                  CHK1770
      IF (ND.NE.NOD(JN)) GO TO 420                                      CHK1780
      DO 470 IN=1,6                                                     CHK1790
  470 QFLX(IN,JN)=QFLX(IN,JN)+XPT(IN)                                   CHK1800
  420 CONTINUE                                                          CHK1810
  230 CONTINUE                                                          CHK1820
      IF (NODE.NE.CHK(14)) GO TO 441                                    CHK1830
      IF (KPH.EQ.0) GO TO 429                                           CHK1840
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
      IF (MOD(KP,KPH).NE.0) GO TO 441                                   CHK1850
  429 IF (MOD(KT,KTH).NE.0.AND.IFINAL.EQ.0) GO TO 441                   CHK1860
      WRITE(P,430)                                                      CHK1870
  430 FORMAT(4(/),13X,'NODEID',4X,'SUM OF FLOW RATES' //)               CHK1880
      DO 440 JN=1,NMBR                                                  CHK1890
  440 WRITE(P,450) NOD(JN),(QFLX(IN,JN),IN=1,6)                         CHK1900
  450 FORMAT(15X,I4,2X,1P6E18.3)                                        CHK1910
  441 IF (STDY.EQ.CHK(15).AND.KT.EQ.0) RETURN                           CHK1920
C                                                                       CHK1930
C     ---COMPUTE CUMULATIVE VOLUMES, TOTALS, AND DIFFERENCES---         CHK1940
      STORT=STORT+STOR                                                  CHK1950
      STOR=STOR/DELT                                                    CHK1960
      ETFLXT=ETFLXT-ETFLUX*DELT                                         CHK1970
      FLUXT=FLUXT+FLUXS*DELT                                            CHK1980
      FLXNT=FLXNT+FLXN*DELT                                             CHK1990
      FLXPT=FLUXT+FLXNT                                                 CHK2000
      QRET=QRET+QREFLX*DELT                                             CHK2010
      CHDT=CHDT-CHD1*DELT                                               CHK2020
      CHST=CHST+CHD2*DELT                                               CHK2030
      PUMPT=PUMPT-PUMP*DELT                                             CHK2040
      CFLUXT=CFLUXT+CFLUX*DELT                                          CHK2050
      TOTL1=STORT+QRET+CFLUXT+CHST+FLXPT                                CHK2060
      TOTL2=CHDT+PUMPT+ETFLXT+FLXNT                                     CHK2070
      SUMR=QREFLX+CFLUX+CHD2+CHD1+PUMP+ETFLUX+FLUXS+STOR                CHK2080
      DIFF=TOTL2-TOTL1                                                  CHK2090
      PERCNT=0.0                                                        CHK2100
      IF (TOTL2.EQ.0.) GO TO 240                                        CHK2110
      PERCNT=DIFF/TOTL2*100.                                            CHK2120
  240 RETURN                                                            CHK2130
C     .....................................................................CHK2140
C                                                                       CHK2150
C     ---PRINT RESULTS---                                               CHK2160
C     ************************                                          CHK2170
      ENTRY CWRITE                                                      CHK2180
C     ************************                                          CHK2190
C                                                                       CHK2200
      WRITE (P,250) STOR,QREFLX,STORT,CFLUX,QRET,PUMP,CFLUXT,ETFLUX,CHSTCHK2210
     1,FLXPT,CHD2,TOTL1,CHD1,FLUX,FLUXS,ETFLXT,CHDT,SUMR,PUMPT,FLXNT,TOTCHK2220
     2L2,DIFF,PERCNT                                                    CHK2230
      RETURN                                                            CHK2240
C                                                                       CHK2250
C     ---FORMATS---                                                     CHK2260
C                                                                       CHK2270
C     ---------------------------------------------------------------------CHK2280
C                                                                       CHK2290
  250 FORMAT ('0',10X,'CUMULATIVE MASS BALANCE:',16X,'L**3',23X,'RATES FCHK2300
     1OR THIS TIME STEP:',16X,'L**3/T'/11X,24('-'),43X,25('-')//20X,'SOUCHK2310
     2RCES:',69X,'STORAGE =',F20.4/20X,8('-'),68X,'RECHARGE =',F20.4/27XCHK2320
     3,'STORAGE =',F20.2,35X,'CONSTANT FLUX =',F20.4/26X,'RECHARGE =',F2CHK2330
     40.2,41X,'PUMPING =',F20.4/21X,'CONSTANT FLUX =',F20.2,30X,'EVAPOTRCHK2340
     5ANSPIRATION =',F20.4/21X,'CONSTANT HEAD =',F20.2,34X,'CONSTANT HEACHK2350
     6D:'/27X,'LEAKAGE =',F20.2,46X,'IN =',F20.4/21X,'TOTAL SOURCES =',FCHK2360
     720.2,45X,'OUT =',F20.4/96X,'LEAKAGE:'/20X,'DISCHARGES:',45X,'FROM CHK2370
     8PREVIOUS PUMPING PERIOD =',F20.4/20X,11('-'),68X,'TOTAL =',F20.4/1CHK2380
     96X,'EVAPOTRANSPIRATION =',F20.2/21X,'CONSTANT HEAD =',F20.2,36X,'SCHK2390
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
     $UM OF RATES =',F20.4/19X'QUANTITY PUMPED =',F20.2/27X,'LEAKAGE =',CHK2400
     $F20.2/19X,'TOTAL DISCHARGE =',F20.2//17X,'DISCHARGE-SOURCES =',F20CHK2410
     $.2/15X,'PER CENT DIFFERENCE =',F20.2//)                          CHK2420
      END                                                              CHK2430

      SUBROUTINE PRNTAI(PHI,STRT,T,S,WELL,DELX,DELY)                   PRT  10
C     ------------------------------------------------------------------PRT  20
C     PRINT MAPS OF DRAWDOWN AND HYDRAULIC HEAD                        PRT  30
C     ------------------------------------------------------------------PRT  40
C                                                                      PRT  50
C     SPECIFICATIONS:                                                  PRT  60
      REAL *8PHI,Z,XLABEL,YLABEL,TITLE,XN1,MESUR                       PRT  70
      REAL *4K                                                         PRT  80
C                                                                      PRT  90
      DIMENSION PHI(I0,J0,K0), STRT(I0,J0,K0), S(I0,J0,K0), WELL(I0,J0,KPRT 100
     10), DELX(J0), DELY(I0), T(I0,J0,K0)                             PRT 110
C                                                                      PRT 120
      COMMON /INTEGR/ I0,J0,K0,I1,J1,K1,I,J,K,NPER,KTH,ITMAX,LENGTH,KP,NPRT 130
     1WEL,NUMT,IFINAL,IT,KT,IHEAD,IDRAW,IFLO,IERR,I2,J2,K2,IMAX,ITMX1,NCPRT 140
     2H,IDK1,IDK2,IWATER,IQRE,IP,JP,IQ,JQ,IK,JK,K5,IPU1,IPU2,ITK,IEQN  PRT 150
      COMMON /PR/ XLABEL(3),YLABEL(6),TITLE(6),XN1,MESUR,PRNT(122),BLANKPRT 160
     1(60),DIGIT(122),VF1(6),VF2(6),VF3(7),XSCALE,DINCH,SYM(17),XN(100),PRT 170
     2YN(13),NA(4),N1,N2,N3,YSCALE,FACT1,FACT2                        PRT 180
      RETURN                                                           PRT 190
C     ..................................................................PRT 200
C                                                                      PRT 210
C     ---INITIALIZE VARIABLES FOR PLOT---                              PRT 220
C     **********                                                       PRT 230
      ENTRY MAP                                                        PRT 240
C     **********                                                       PRT 250
      YDIM=0.                                                          PRT 260
      WIDTH=0.                                                         PRT 270
      DO 10 J=2,J1                                                     PRT 280
   10 WIDTH=WIDTH+DELX(J)                                              PRT 290
      DO 20 I=2,I1                                                     PRT 300
   20 YDIM=YDIM+DELY(I)                                                PRT 310
   30 XSF=DINCH*XSCALE                                                 PRT 320
      YSF=DINCH*YSCALE                                                 PRT 330
      NYD=YDIM/YSF                                                     PRT 340
      IF (NYD*YSF.LE.YDIM-DELY(I1)/2.) NYD=NYD+1                       PRT 350
      IF (NYD.LE.12) GO TO 40                                          PRT 360
      DINCH=YDIM/(12.*YSCALE)                                          PRT 370
      WRITE (6,330) DINCH                                              PRT 380
      IF (YSCALE.LT.1.0) WRITE (6,340)                                 PRT 390
      GO TO 30                                                         PRT 400
   40 NXD=WIDTH/XSF                                                    PRT 410
      IF (NXD*XSF.LE.WIDTH-DELX(J1)/2.) NXD=NXD+1                      PRT 420
      N4=NXD*N1+1                                                      PRT 430
      N5=NXD+1                                                         PRT 440
      N6=NYD+1                                                         PRT 450
      N8=N2*NYD+1                                                      PRT 460
      NA(1)=N4/2-1                                                     PRT 470
      NA(2)=N4/2                                                       PRT 480
      NA(3)=N4/2+3                                                     PRT 490
      NC=(N3-N8-10)/2                                                  PRT 500
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
      ND=NC+N8                                                          PRT 510
      NE=MAX0(N5,N6)                                                    PRT 520
      VF1(3)=DIGIT(ND)                                                  PRT 530
      VF2(3)=DIGIT(ND)                                                  PRT 540
      VF3(3)=DIGIT(NC)                                                  PRT 550
      XLABEL(3)=MESUR                                                   PRT 560
      YLABEL(6)=MESUR                                                   PRT 570
      DO 60 I=1,NE                                                      PRT 580
      NNX=N5-I                                                          PRT 590
      NNY=I-1                                                           PRT 600
      IF (NNY.GE.N6) GO TO 50                                           PRT 610
      YN(I)=YSF*NNY/YSCALE                                              PRT 620
   50 IF (NNX.LT.0) GO TO 60                                            PRT 630
      XN(I)=XSF*NNX/YSCALE                                              PRT 640
   60 CONTINUE                                                          PRT 650
      RETURN                                                            PRT 660
C     .................................................................PRT 670
C                                                                       PRT 680
C     ********************                                              PRT 690
      ENTRY PRNTA(NG,LA)                                                PRT 700
C     ********************                                              PRT 710
C     ---VARIABLES INITIALIZED EACH TIME A PLOT IS REQUESTED---         PRT 720
      DIST=WIDTH-DELX(J1)/2.                                            PRT 730
      JJ=J1                                                             PRT 740
      LL=1                                                              PRT 750
      Z=NXD*XSF                                                         PRT 760
      IF (NG.EQ.1) WRITE (6,300) (TITLE(I),I=1,3),LA                    PRT 770
      IF (NG.EQ.2) WRITE (6,300) (TITLE(I),I=4,6),LA                    PRT 780
      DO 290 I=1,N4                                                     PRT 790
C                                                                       PRT 800
C     ---LOCATE X AXES---                                               PRT 810
      IF (I.EQ.1.OR.I.EQ.N4) GO TO 70                                   PRT 820
      PRNT(1)=SYM(12)                                                   PRT 830
      PRNT(N8)=SYM(12)                                                  PRT 840
      IF ((I-1)/N1*N1.NE.I-1) GO TO 90                                  PRT 850
      PRNT(1)=SYM(14)                                                   PRT 860
      PRNT(N8)=SYM(14)                                                  PRT 870
      GO TO 90                                                          PRT 880
C                                                                       PRT 890
C     ---LOCATE Y AXES---                                               PRT 900
   70 DO 80 J=1,N8                                                      PRT 910
      IF ((J-1)/N2*N2.EQ.J-1) PRNT(J)=SYM(14)                           PRT 920
   80 IF ((J-1)/N2*N2.NE.J-1) PRNT(J)=SYM(13)                           PRT 930
C                                                                       PRT 940
C     ---COMPUTE LOCATION OF NODES AND DETERMINE APPROPRIATE SYMBOL---  PRT 950
   90 IF (DIST.LT.0..OR.DIST.LT.Z-XN1*XSF) GO TO 240                    PRT 960
      YLEN=DELY(2)/2.                                                   PRT 970
      DO 220 L=2,I1                                                     PRT 980
      J=YLEN*N2/YSF+1.5                                                 PRT 990
      IF (T(L,JJ,LA).EQ.0.) GO TO 160                                   PRT1000
      IF (S(L,JJ,LA).LT.0.) GO TO 210                                   PRT1010
      INDX3=0                                                           PRT1020
      GO TO (100,110), NG                                               PRT1030
  100 K=(STRT(L,JJ,LA)-PHI(L,JJ,LA))*FACT1                             PRT1040
C     -TO CYCLE SYMBOLS FOR DRAWDOWN, REMOVE C FROM COL. 1 OF NEXT CARD-PRT1050
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
C     K=AMOD(K,10.)                                                          PRT1060
      GO TO 120                                                              PRT1070
  110 K=PHI(L,JJ,LA)*FACT2                                                   PRT1080
  120 IF (K) 130,160,140                                                     PRT1090
  130 IF (J-2.GT.0) PRNT(J-2)=SYM(13)                                        PRT1100
      N=-K+.5                                                                PRT1110
      IF (N.LT.100) GO TO 150                                                PRT1120
      GO TO 190                                                              PRT1130
  140 N=K+.5                                                                 PRT1140
      IF (N.LT.100) GO TO 150                                                PRT1150
      IF (N.GT.999) GO TO 190                                                PRT1160
      INDX3=N/100                                                            PRT1170
      IF (J-2.GT.0) PRNT(J-2)=SYM(INDX3)                                     PRT1180
      N=N-INDX3*100                                                          PRT1190
  150 INDX1=MOD(N,10)                                                        PRT1200
      IF (INDX1.EQ.0) INDX1=10                                               PRT1210
C     -TO CYCLE SYMBOLS FOR DRAWDOWN, REMOVE C FROM COL. 1 OF NEXT CARD-     PRT1220
C     IF (NG.EQ.1) GO TO 170                                                 PRT1230
      INDX2=N/10                                                             PRT1240
      IF (INDX2.GT.0) GO TO 180                                              PRT1250
      INDX2=10                                                               PRT1260
      IF (INDX3.EQ.0) INDX2=15                                               PRT1270
      GO TO 180                                                              PRT1280
  160 INDX1=15                                                               PRT1290
  170 INDX2=15                                                               PRT1300
  180 IF (J-1.GT.0) PRNT(J-1)=SYM(INDX2)                                     PRT1310
      PRNT(J)=SYM(INDX1)                                                     PRT1320
      GO TO 220                                                              PRT1330
  190 DO 200 II=1,3                                                          PRT1340
      JI=J-3+II                                                              PRT1350
  200 IF (JI.GT.0) PRNT(JI)=SYM(11)                                          PRT1360
  210 IF (S(L,JJ,LA).LT.0.) PRNT(J)=SYM(16)                                  PRT1370
  220 YLEN=YLEN+(DELY(L)+DELY(L+1))/2.                                       PRT1380
  230 DIST=DIST-(DELX(JJ)+DELX(JJ-1))/2.                                     PRT1390
      JJ=JJ-1                                                                PRT1400
      IF (JJ.EQ.0) GO TO 240                                                 PRT1410
      IF (DIST.GT.Z-XN1*XSF) GO TO 230                                       PRT1420
  240 CONTINUE                                                               PRT1430
C                                                                            PRT1440
C     ---PRINT AXES,LABELS, AND SYMBOLS---                                   PRT1450
      IF (I-NA(LL).EQ.0) GO TO 260                                           PRT1460
      IF ((I-1)/N1*N1-(I-1)) 270,250,270                                     PRT1470
  250 WRITE (6,VF1) (BLANK(J),J=1,NC),(PRNT(J),J=1,N8),XN(1+(I-1)/6)         PRT1480
      GO TO 280                                                              PRT1490
  260 WRITE (6,VF2) (BLANK(J),J=1,NC),(PRNT(J),J=1,N8),XLABEL(LL)            PRT1500
      LL=LL+1                                                                PRT1510
      GO TO 280                                                              PRT1520
  270 WRITE (6,VF2) (BLANK(J),J=1,NC),(PRNT(J),J=1,N8)                       PRT1530
C                                                                            PRT1540
C     ---COMPUTE NEW VALUE FOR Z AND INITIALIZE PRNT---                      PRT1550
  280 Z=Z-2.*XN1*XSF                                                         PRT1560
      DO 290 J=1,N8                                                          PRT1570
  290 PRNT(J)=SYM(15)                                                        PRT1580
C                                                                            PRT1590
C     ---NUMBER AND LABEL Y AXIS AND PRINT LEGEND---                         PRT1600
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
      WRITE (6,VF3) (BLANK(J),J=1,NC),(YN(I),I=1,N6)                    PRT1610
      WRITE (6,320) (YLABEL(I),I=1,6)                                   PRT1620
      IF (NG.EQ.1) WRITE (6,310) FACT1                                  PRT1630
      IF (NG.EQ.2) WRITE (6,310) FACT2                                  PRT1640
      RETURN                                                            PRT1650
C                                                                       PRT1660
C     ---FORMATS---                                                     PRT1670
C                                                                       PRT1680
C     ------------------------------------------------------------------PRT1690
C                                                                       PRT1700
C                                                                       PRT1710
  300 FORMAT ('1',49X,3A8,'LAYER',I4//)                                 PRT1720
  310 FORMAT ('0EXPLANATION'/' ',11('-')//' R = CONSTANT HEAD BOUNDARY'/PRT1730
     1' *** = VALUE EXCEEDED 3 FIGURES'/' MULTIPLICATION FACTOR =',F8.3)PRT1740
  320 FORMAT ('0',39X,6A8)                                              PRT1750
  330 FORMAT ('0',25X,10('*'),' TO FIT MAP WITHIN 12 INCHES, DINCH REVISPRT1760
     1ED TO',G15.7,1X,10('*'))                                          PRT1770
  340 FORMAT ('0',45X,'NOTE: GENERALLY SCALE SHOULD BE ¶ OR = 1.0')     PRT1780
      END                                                               PRT1790

      BLOCK DATA                                                        BLK  10
C     ----------                                                        BLK  20
      COMMON /DPARAM/ RHO,B,D,F,H                                       BLK  30
      COMMON /SARRAY/ TEST3(102),VF4(11),CHK(15),ITST(102),JTST(102)    BLK  40
      COMMON /SPARAM/ WATER,CONVRT,EVAP,CHCK,PNCH,NUM,HEAD,CONTR,EROR,LEBLK  50
     1AK,RECH,SIP,U,SS,TT,TMIN,ETDIST,QET,ERR,TMAX,CDLT,HMAX,YDIM,WIDTH,BLK  60
     2NUMS,LSOR,ADI,DELT,SUM,SUMP,SUBS,STORE,TEST,ETQB,ETQD,FACTX,FACTY,BLK  70
     3IERR,KOUNT,IFINAL,NUMT,KT,KP,NPER,KTH,ITMAX,LENGTH,NWEL,NW,DIML,DIBLK  80
     4MW,JNO1,INO1,R,P,PU,I,J,NODE,STDY,KPH,IQPNC                       BLK  90
      COMMON /PR/ XLABEL(3),YLABEL(6),TITLE(5),XN1,MESUR,PRNT(122),BLANKBLK 100
     1(60),DIGIT(122),VF1(6),VF2(6),VF3(7),XSCALE,DINCH,SYM(17),XN(100),BLK 110
     2YN(13),NA(4),N1,N2,N3,YSCALE,FACT1,FACT2                          BLK 120
      COMMON /ARSIZE/ IZ,JZ,IP,JP,IR,JR,IC,JC,IL,JL,IS,JS,IH,IMAX,IU,JU BLK 130
      COMMON /NDID/ NOD(100),NMBR                                       BLK 140
C                                                                       BLK 150
      REAL *8XLABEL,YLABEL,TITLE,XN1,MESUR,RHO,B,D,F,H                  BLK 160
      INTEGER R,P,PU,DIML,DIMW,CHK,WATER,CONVRT,EVAP,CHCK,PNCH,NUM,HEAD,BLK 170
     1CONTR,LEAK,RECH,SIP,ADI,STDY                                      BLK 180
C     ******************************************************************BLK 190
C                                                                       BLK 200
      DATA IZ,JZ,IP,JP,IR,JR,IC,JC,IL,JL,IS,JS,IU,JU,IMAX/15*20/,IH/1/  BLK 210
      DATA CHK/'PUNC','WATE','CONT','NUME','CHEC','EVAP','CONV','HEAD','BLK 220
     1LEAK','RECH','SIP ','LSOR','ADI','NODE','STDY'/,                  BLK 230
     2R,P,PU/5,6,7/,B,D,F,H/4*0.D0/                                     BLK 240
      DATA SYM/'1','2','3','4','5','6','7','8','9','0','*',' ','-','+','BLK 250
     1 ','R','W'/                                                       BLK 260
      DATA PRNT/122*' '/,N1,N2,N3,XN1/6,10,133,.833333333D-1/,BLANK/60*'BLK 270
     1 '/,NA(4)/1000/                                                   BLK 280
      DATA XLABEL/' X DIS- ','TANCE IN',' MILES '/,YLABEL/'DISTANCE',' BLK 290
     1FROM OR','IGIN IN ','Y DIRECT','ION, IN ','MILES   '/,TITLE/'PLOT BLK 300
     2OF ','DRAWDOWN','PLOT OF ','HYDRAULI','C HEAD'/                   BLK 310
      DATA DIGIT/'1','2','3','4','5','6','7','8','9','10','11','12','13'BLK 320
     1,'14','15','16','17','18','19','20','21','22','23','24','25','26',BLK 330
     2'27','28','29','30','31','32','33','34','35','36','37','38','39','BLK 340
     340','41','42','43','44','45','46','47','48','49','50','51','52','5BLK 350
```

Table 1.--Listing of computer program for Laramie County model--Continued

```
     43','54','55','56','57','58','59','60','61','62','63','64','65','66BLK 360
     5','67','68','69','70','71','72','73','74','75','76','77','78',' 79BLK 370
     6','80','81','82','83','84','85','86','87','88','89','90','91','92'BLK 380
     7,'93','94','95','96','97','98','99','100','101','102','103',' 104'BLK 390
     8,'105','106','107','108','109','110','111','112','113','114','115'BLK 400
     9,'116','117','118','119','120','121','122'/                        BLK 410
      DATA VF1/'(1H ',',',','    ','A1,F','10.2',')'/                    BLK 420
      DATA VF2/'(1H ',',',','    ','A1,1','X,A8',')'/                    BLK 430
      DATA VF3/'(1HO',',',','    ','A1,F','3.1,','12F1','0.2)'/          BLK 440
      DATA VF4/'(1HO',',I2,','2X, ','16F8','.1 /','(5X,','16F8','.1))', BLK 450
     $ 3*'    '/                                                         BLK 460
      DATA NOD/100*0/                                                    BLK 470
      DATA PRINT/122*'  '/                                               BLK 480
C     ***************************************************************************BLK 490
      END                                                                BLK 500
```

Table 2.--Listing of data for 1920-70

Card number	Group I: Title, Simulation options, and problem dimensions							
1.								LARAMIE COUNTY POST-CRETACEOUS GROUND-WA
2.	TER SYSTEM 1920-1970							
3.	WATE							
4.	LEAK							
5.	CONV							
6.	BLNK							
7.	RECH							
8.	SIP							
9.	CHEC							
10.	PUNC							
11.	NUME							
12.	HEAD							
13.	NODE							
14.	BLNK							
15.	52	55						
	Group II: Scalar parameters							
16.	BLNK							
17.	1	10	1.0	100	0.0			
18.	10		1	1				
	Group III: Array data Grid spacing in X direction, in feet (First card is parameter card)							
19.	1	1	0					
20.	10560	10560	10560	10560	5280	5280	5280	5280
21.	5280	5280	5280	5280	5280	5280	5280	5280
22.	5280	5280	5280	5280	5280	5280	5280	5280
23.	5280	5280	5280	5280	5280	5280	5280	5280
24.	5280	5280	5280	5280	5280	5280	5280	5280
25.	5280	5280	5280	5280	5280	5280	5280	5280
26.	5280	5280	7920	7920	16880	16880	16880	
	Group III: Array data--Continued Grid spacing in Y direction, in feet (First card is parameter card)							
27.	1	1	0					
28.	7920	7920	7920	5280	5280	5280	5280	5280
29.	5280	5280	5280	5280	5280	5280	5280	5280
30.	5280	5280	5280	5280	5280	5280	5280	5280
31.	5280	5280	5280	5280	5280	5280	5280	5280
32.	5280	5280	5280	5280	5280	5280	5280	5280
33.	5280	5280	5280	5280	5280	5280	5280	5280
34.	5280	7920	7920	7920				

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Node identification (First card is parameter card)
35.	1 1
36.	0
37.	0
38.	0
39.	0
40.	0
41.	0
42.	0
43.	0
44.	0
45.	0
46.	0
47.	10
48.	0
49.	10 10 10 10 10
50.	10
51.	0
52.	10 10 10 10
53.	10 10
54.	0
55.	10 10 15 15 15 10 10 10 10
56.	0
57.	0
58.	10 15
59.	0
60.	10
61.	10 10 10 10 15 15
62.	0
63.	10 10 10
64.	15
65.	0
66.	10 10 10 10 10 10 10 10
67.	15
68.	0
69.	10
70.	0
71.	0
72.	10 10 10
73.	0
74.	0
75.	10 10
76.	0
77.	0
78.	0
79.	0
80.	0
81.	0
82.	0
83.	0

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Node identification--Continued
84.	0
85.	0
86.	0
87.	0
88.	0
89.	0
90.	0
91.	0
92.	0
93.	0
94.	0
95.	0
96.	0
97.	0
98.	0
99.	0
100.	0
101.	0
102.	0
103.	0
104.	0
105.	0
106.	0
107.	0
108.	0
109.	0
110.	0
111.	0
112.	0
113.	0
114.	0
115.	0
116.	0
117.	0
118.	0
119.	20
120.	0
121.	0
122.	20 20
123.	0
124.	0
125.	20 20 20
126.	30 30 30 30
127.	0
128.	0
129.	30 30
130.	0
131.	0
132.	30
133.	0

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Node identification--Continued																			
134.	0																			
135.										30				35						
136.	0																			
137.	0																			
138.											30	30	30	30	30	30	30	30	30	30
139.	30	30																		
140.	0																			
141.	0																			
142.			30	30	30	30	30	30												
143.	0																			
144.	0																			
145.									30	30										
146.	0																			
147.	0																			
148.											30									
149.	0																			
150.	0																			
151.												30								
152.	0																			
153.	0																			
154.												30								
155.	0																			
156.	0																			
157.												30								
158.	0																			
159.	0																			
160.												30								
161.	0																			
162.	0																			
163.													30							
164.	0																			
165.	0																			
166.														30						
167.	0																			
168.	0																			
169.															30					
170.	0																			
171.	0																			
172.																30				
173.	0																			
174.	0																			
175.																	30			
176.	0																			
177.	0																			
178.																		30		
179.	0																			
180.	0																			
181.																		30		
182.	0																			
183.	0																			

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Node identification--Continued
184.	30
185.	0
186.	0
187.	30
188.	0
189.	0
190.	0
191.	0

Explanation of node identification

192.	10	HORSE CREEK
193.	15	LITTLE HORSE CREEK
194.	20	LODGEPOLE CREEK
195.	30	CROW CREEK
196.	35	CHEYENNE MUNICIPAL DISCHARGE
197.	0	

Elapsed time, in seconds and cumulative volumes, in cubic feet for mass balance

198.	0	0	0	0
199.	0	0	0	0
200.	0	0	0	0

Group III: Array data--Continued
Starting head matrix, in feet
(First card is parameter card)

201.	1	1	2					
202.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
203.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
204.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
206.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
207.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
208.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
209.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
211.	5288.6540	5250.0000	5225.0000	5200.0000	5170.0000	5140.0000	5130.0000	5115.0000
212.	5070.0000	5040.0000	5035.0000	5030.0000	5020.0000	5000.0000	5000.0000	5010.0000
213.	5010.0000	5000.0000	5025.6319	4975.0000	0.0	0.0	0.0	0.0
214.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
215.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
216.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
217.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Starting head matrix, in feet--Continued							
218.	5349.5147	5316.9350	5273.8687	5249.3768	5231.0355	5215.7944	5199.7841	5179.0356
219.	5152.8533	5133.9709	5115.8707	5098.6322	5074.3740	5048.6514	5032.2539	5026.6040
220.	5022.9016	5010.9927	4993.0609	4968.9274	0.0	0.0	0.0	0.0
221.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
222.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
223.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
224.	5820.0000	5680.0000	5620.0000	5540.0000	5450.0000	5450.0000	5450.0000	5450.0000
225.	5424.5075	5399.0829	5356.6987	5312.2055	5279.9076	5267.8652	5254.8059	5231.8783
226.	5205.6905	5178.4214	5150.1937	5118.7269	5090.6221	5073.3176	5058.3346	5035.0641
227.	5016.5245	4997.9448	4961.5284	4914.6065	4890.0000	4860.0000	4836.8024	4809.0417
228.	4788.2560	4764.9373	4713.6958	4670.0000	4680.0000	4740.0000	4850.0000	4900.0000
229.	4910.0000	4900.0000	4850.0000	4780.0000	4750.0000	4730.0000	0.0	
230.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
231.	5821.5984	5696.3263	5626.6082	5582.5143	5540.8561	5526.8938	5519.2775	5495.9366
232.	5464.2452	5437.6359	5412.9993	5374.0155	5330.3540	5302.8316	5280.3564	5252.4845
233.	5223.0668	5192.8854	5159.5064	5124.0444	5093.3381	5069.9876	5035.0059	4995.0037
234.	4970.0022	4954.8945	4918.5499	4893.7494	4868.5819	4842.0868	4814.0918	4785.8827
235.	4761.3495	4729.9960	4694.6817	4685.9557	4714.2662	4787.3556	4872.9556	4914.3035
236.	4923.3998	4920.0902	4898.5691	4849.1208	4788.8874	4755.0000	0.0	
237.	0.0	6690.0000	6615.1210	6518.0209	6343.6387	6231.8817	6092.5583	5953.2590
238.	5828.5980	5729.2945	5664.5673	5617.0906	5582.6966	5562.4968	5546.3504	5519.9837
239.	5483.6797	5456.2673	5431.6742	5398.6343	5359.7698	5326.2854	5294.2179	5258.7324
240.	5224.0537	5192.9768	5163.6612	5130.0071	5100.0164	5079.8077	5031.3659	4991.6495
241.	4967.7351	4941.3048	4914.8496	4887.9383	4860.6410	4831.8735	4796.1053	4764.5864
242.	4740.6214	4719.9910	4695.9498	4693.7985	4746.2799	4824.6118	4905.5175	4936.3338
243.	4943.9196	4942.9287	4932.7018	4902.8220	4840.9798	4780.0000	0.0	
244.	0.0	6690.0000	6611.1488	6521.2438	6366.9794	6231.3481	6106.5515	5966.5980
245.	5834.4002	5749.5627	5690.7973	5640.1703	5607.3052	5582.8501	5561.6675	5538.2788
246.	5503.7667	5468.9840	5438.1342	5404.3116	5368.6733	5333.0314	5296.7040	5260.3266
247.	5224.4389	5190.0337	5175.0202	5173.7795	5140.5046	5091.0435	5037.7861	4996.2884
248.	4965.1388	4940.0685	4914.8221	4884.9237	4855.0697	4825.0776	4795.1935	4772.0877
249.	4756.1156	4747.6103	4746.3112	4752.1412	4806.1281	4896.7898	4950.5218	4960.9115
250.	4963.8031	4960.6965	4953.1912	4932.3212	4881.6366	4825.0000	0.0	
251.	0.0	6690.0000	6605.7713	6515.7118	6384.1373	6240.8671	6107.5702	5987.8633
252.	5864.1630	5777.0308	5720.4007	5665.5755	5629.7570	5603.6027	5576.2570	5542.2542
253.	5503.9772	5471.5661	5436.8478	5400.0815	5365.4751	5328.2566	5297.2219	5269.3754
254.	5225.1510	5228.5713	5219.8072	5219.5172	5173.0338	5111.7050	5061.0119	5024.9203
255.	5000.7347	4978.5443	4957.1027	4940.1520	4913.9752	4856.4312	4810.1727	4791.5034
256.	4787.6616	4805.1019	4824.4318	4850.2525	4895.1603	4949.7239	4998.2890	5015.8560
257.	5015.8067	5003.4856	4985.1330	4960.5870	4909.7601	4870.0000	0.0	
258.	0.0	6700.0000	6591.9645	6496.2538	6376.3443	6249.1810	6119.9570	5989.3074
259.	5880.2155	5815.7035	5753.9695	5690.1276	5646.8447	5620.5765	5582.7200	5541.0904
260.	5505.1261	5469.5669	5432.4010	5389.9961	5359.9887	5320.0597	5300.0568	5294.9619
261.	5281.8605	5276.7358	5267.0222	5237.1682	5177.8747	5125.0205	5085.1122	5069.8947
262.	5049.1783	5031.0505	5016.5365	5017.9334	5006.7491	4956.5994	4925.2795	4903.5126
263.	4898.7812	4906.5511	4918.0913	4943.7777	4969.6963	5016.2796	5049.4147	5051.3437
264.	5045.7457	5037.4329	5012.3477	4983.0590	4932.6262	4900.0000	0.0	
265.	0.0	6640.0000	6568.9941	6453.1959	6341.6577	6224.3902	6105.0069	5995.7799
266.	5908.4562	5852.3791	5787.7022	5720.9018	5663.0476	5622.8635	5583.1095	5541.8344
267.	5499.9935	5470.0013	5439.9764	5424.6164	5401.7046	5377.4888	5357.2948	5346.1069

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Starting head matrix, in feet--Continued							
268.	5338.9599	5326.4579	5304.1741	5267.8731	5200.1107	5192.9514	5163.5336	5136.1888
269.	5108.9718	5095.5537	5078.8513	5086.9591	5069.2282	5087.2158	5089.6079	5070.4997
270.	5032.4683	5010.5603	5008.4720	5018.1985	5038.9050	5063.3094	5066.4162	5059.2305
271.	5050.7817	5040.8630	5017.7930	4986.3916	4937.6404	4900.0000	0.0	
272.	0.0	6590.0000	6528.1897	6403.8293	6317.3203	6209.0215	6106.0738	6005.6302
273.	5924.9488	5864.9899	5799.9379	5734.8890	5660.0057	5614.9908	5584.9646	5549.9725
274.	5540.6927	5523.5491	5503.6397	5476.7224	5451.0059	5431.6500	5414.2031	5400.5537
275.	5391.6628	5377.7912	5351.0896	5309.8759	5286.5746	5268.5475	5244.5320	5218.5888
276.	5205.3694	5200.6165	5193.8619	5198.7833	5199.6727	5219.2915	5208.7156	5180.6254
277.	5141.2533	5114.0053	5099.5645	5093.0963	5092.4583	5090.4378	5081.3311	5069.2548
278.	5057.5252	5044.5018	5017.0623	4980.6409	4932.2246	4890.0000	0.0	
279.	0.0	6530.0000	6488.7494	6374.2463	6279.3614	6197.0046	6117.7119	6030.0149
280.	5974.8833	5920.8186	5851.2907	5782.1367	5727.4580	5683.7032	5650.2723	5617.2694
281.	5586.1230	5568.2222	5550.9110	5522.2048	5494.2848	5475.3822	5458.6150	5442.5664
282.	5428.8864	5413.6799	5394.5649	5366.0307	5339.7939	5318.0628	5299.7918	5283.3669
283.	5281.6041	5277.0092	5274.9477	5270.1614	5265.8239	5254.6566	5237.5957	5214.1092
284.	5189.8517	5169.6152	5149.9430	5133.2791	5118.7390	5106.5307	5093.9617	5080.8676
285.	5066.0446	5052.6628	5015.3442	4966.5702	4924.0327	4870.0000	0.0	
286.	0.0	6470.0000	6442.1193	6353.1072	6259.9926	6190.0011	6125.0902	6097.2939
287.	6043.2898	5980.0925	5898.9316	5837.8660	5787.5350	5745.7776	5709.2329	5678.8600
288.	5642.4442	5615.1263	5591.8065	5563.4506	5531.8882	5510.3494	5490.0705	5471.5110
289.	5452.0935	5434.4086	5414.4581	5391.9379	5370.0932	5350.7616	5334.8415	5319.7903
290.	5307.9183	5298.5540	5290.8582	5282.3722	5272.6341	5259.4503	5242.5119	5221.3051
291.	5198.4996	5176.9376	5156.1825	5137.7252	5122.1783	5109.9473	5098.0142	5087.4963
292.	5073.1342	5050.9957	5008.1243	4957.0844	4918.3972	4860.0000	0.0	
293.	0.0	0.0	6400.0104	6345.0170	6299.0688	6245.6307	6189.1797	6162.7769
294.	6114.5208	6054.4718	5971.0429	5885.1096	5842.0806	5804.4644	5766.9134	5727.5848
295.	5688.4544	5657.1599	5626.1761	5595.7559	5564.4393	5537.2839	5513.6595	5492.1882
296.	5471.6395	5451.8618	5431.6308	5410.7355	5390.3226	5371.4747	5354.5246	5339.3150
297.	5326.0371	5314.6833	5303.5145	5292.2235	5279.6186	5265.0248	5248.2729	5228.6901
298.	5206.9028	5183.6697	5160.7478	5139.9352	5121.7589	5110.8513	5097.3414	5085.1952
299.	5071.8585	5046.5612	5002.0652	4951.3304	4912.8150	4855.0000	0.0	
300.	0.0	0.0	6430.0000	6410.2005	6341.0771	6302.6229	6251.2205	6216.1559
301.	6172.5658	6116.7068	6037.1729	5942.3528	5876.3771	5844.7154	5808.9030	5769.6503
302.	5726.7702	5687.7228	5651.3012	5618.6468	5588.1750	5558.1261	5533.1669	5510.9092
303.	5489.5833	5468.7927	5448.1781	5427.7750	5407.8891	5388.9449	5371.0287	5354.0313
304.	5338.5796	5324.9594	5312.1218	5298.7780	5284.8136	5269.5747	5253.2209	5234.0805
305.	5213.0989	5191.4776	5168.5621	5146.1713	5123.7610	5104.7566	5089.1211	5079.3336
306.	5060.4798	5033.3206	4996.0962	4951.2120	4912.2194	4850.0000	0.0	
307.	0.0	6530.0000	6498.1077	6479.5884	6403.8388	6364.1933	6317.7641	6267.9056
308.	6217.1713	6156.9136	6067.5778	5975.0210	5909.0921	5864.7224	5828.9372	5791.0125
309.	5749.8833	5709.3161	5673.0726	5637.9151	5605.2821	5576.2222	5550.1599	5527.4948
310.	5505.6441	5484.3845	5463.5364	5443.1772	5423.3871	5404.2903	5385.4119	5366.0225
311.	5348.9352	5333.9801	5317.8615	5302.1411	5287.9431	5272.3612	5256.7364	5237.6342
312.	5215.8696	5195.8760	5176.1294	5153.3358	5127.7197	5103.4061	5085.1864	5068.2771
313.	5045.7550	5024.7890	4996.6926	4961.4562	4915.7931	4870.0000	0.0	
314.	0.0	6570.0000	6553.2384	6525.3716	6454.5784	6412.3859	6362.9228	6298.6635
315.	6246.1021	6180.6565	6093.9756	5994.3759	5921.0925	5880.6729	5840.7403	5801.5996
316.	5766.9215	5730.3337	5692.8661	5655.8402	5621.6011	5592.8912	5566.6251	5542.4799
317.	5520.2139	5498.3821	5477.1835	5456.8131	5437.0170	5418.2583	5399.0198	5378.6952

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Starting head matrix, in feet--Continued							
318.	5358.2475	5341.2672	5325.4928	5308.1541	5291.3303	5273.9928	5255.8354	5235.8444
319.	5215.0200	5197.6196	5182.2689	5160.2450	5133.9047	5108.2300	5083.6611	5062.3378
320.	5043.6123	5023.7358	4996.7883	4963.1793	4918.0396	4875.0000	0.0	
321.	0.0	6595.0000	6630.7148	6545.8555	6478.3200	6430.1308	6356.7737	6285.1111
322.	6245.7993	6182.3976	6088.0101	5995.7814	5934.7162	5884.8874	5849.8104	5815.5204
323.	5780.3379	5744.1521	5708.0880	5671.9278	5638.1128	5610.2411	5584.4953	5559.8874
324.	5536.5012	5513.5164	5491.5025	5469.8778	5449.4009	5429.8792	5409.8090	5389.3464
325.	5370.1435	5350.3865	5331.9790	5313.5000	5294.9802	5276.0961	5256.4234	5235.0614
326.	5215.9512	5201.6040	5183.7290	5160.3683	5135.3418	5109.2958	5082.1055	5059.9264
327.	5042.6243	5023.8437	4997.7225	4964.1129	4918.7179	4870.0000	0.0	
328.	0.0	6625.0000	6649.1311	6561.6094	6484.0101	6411.1042	6334.6435	6275.8307
329.	6220.5850	6158.6976	6092.2365	6015.4394	5943.0027	5890.5366	5857.2809	5823.5196
330.	5790.7748	5756.2790	5721.8574	5689.6939	5656.9295	5627.5445	5603.2594	5579.7579
331.	5556.2923	5531.2867	5506.7369	5483.5370	5460.9317	5441.3156	5422.5873	5399.7599
332.	5378.4333	5357.9596	5338.3094	5318.7811	5298.8394	5278.6006	5258.2280	5237.9353
333.	5219.0434	5203.3330	5184.1369	5160.2773	5135.1309	5106.4720	5078.7757	5059.6029
334.	5043.5029	5025.4787	5000.1176	4965.4520	4918.5374	4865.0000	0.0	
335.	0.0	6675.4599	6660.0425	6565.0636	6481.2974	6407.7091	6329.5484	6261.2496
336.	6206.4811	6150.1235	6093.8520	6018.8750	5944.9466	5898.1481	5861.9670	5827.1415
337.	5792.2898	5757.7495	5727.7530	5700.8902	5672.2331	5641.3906	5614.5491	5592.2052
338.	5569.7226	5545.9769	5519.1056	5495.1437	5474.3084	5453.4706	5435.3704	5413.1884
339.	5389.3268	5367.7016	5347.2243	5326.8800	5305.5420	5282.4946	5260.1159	5239.2876
340.	5219.4706	5200.7074	5180.3846	5158.3739	5134.7252	5107.1308	5080.0960	5061.1059
341.	5045.0953	5027.9725	5003.0037	4968.1029	4918.1361	4860.0000	0.0	
342.	0.0	6707.3424	6670.0068	6575.1966	6475.7336	6407.2815	6332.0228	6256.3386
343.	6194.7486	6141.1147	6083.3667	6009.2398	5946.1343	5900.0907	5861.7140	5827.1522
344.	5790.0434	5757.7366	5731.8820	5705.3878	5678.4883	5651.0802	5623.1884	5597.3712
345.	5574.7336	5552.7747	5528.5906	5504.4570	5482.6639	5462.4118	5444.6491	5424.4801
346.	5400.8762	5378.9041	5358.1486	5336.5019	5313.1899	5288.5257	5262.5045	5238.5637
347.	5217.2644	5196.6255	5175.8849	5155.2130	5134.9162	5112.8134	5089.6199	5069.8808
348.	5050.7214	5030.2190	5004.2081	4968.6876	4918.6810	4860.0000	0.0	
349.	0.0	6723.8094	6677.5451	6579.1258	6477.7367	6410.4980	6327.6280	6250.3642
350.	6192.4042	6132.9348	6059.6959	5989.2325	5950.5823	5906.6640	5864.5230	5827.2298
351.	5790.0583	5758.8486	5734.0512	5708.7983	5683.2447	5656.6547	5628.4259	5603.6246
352.	5584.4738	5562.5145	5537.5771	5514.2546	5492.4537	5471.6614	5451.8206	5431.5830
353.	5409.6712	5387.9317	5366.5996	5344.6351	5320.7468	5295.0547	5264.9413	5235.7099
354.	5212.0611	5190.1388	5168.4543	5150.7183	5134.3625	5116.7384	5099.0273	5082.1656
355.	5065.0861	5043.0573	5011.9523	4967.5477	4917.5022	4865.0000	0.0	
356.	0.0	6735.5169	6681.6042	6577.9631	6485.9067	6425.4881	6341.2631	6249.2243
357.	6188.1040	6134.9546	6069.6017	5998.3387	5941.6556	5896.7766	5859.7176	5824.4249
358.	5790.1916	5761.0626	5736.2403	5712.3685	5687.7215	5662.4706	5637.1698	5613.0292
359.	5591.6760	5570.2517	5547.3347	5524.7387	5503.1137	5482.1025	5460.8980	5439.2973
360.	5417.1953	5395.4568	5373.7960	5350.6855	5325.6547	5297.7881	5265.5041	5231.7440
361.	5202.9754	5180.7353	5161.0733	5143.9120	5127.4210	5112.5738	5099.1614	5086.1685
362.	5072.9212	5053.9132	5018.1537	4967.5099	4916.4193	4865.0000	0.0	
363.	0.0	6735.0098	6666.6147	6575.7169	6501.9244	6431.9927	6348.7075	6258.1888
364.	6193.1529	6145.7481	6084.6424	6004.9611	5937.0732	5888.8365	5851.6769	5820.7825
365.	5787.5477	5761.9492	5738.8235	5715.4383	5691.4612	5666.9801	5643.4373	5621.5463
366.	5600.1771	5578.2839	5555.8634	5533.6969	5512.3114	5491.5818	5469.2115	5446.3267
367.	5423.4230	5400.7933	5378.8870	5354.8047	5328.3744	5297.2974	5260.4415	5222.8851

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Starting head matrix, in feet--Continued							
368.	5191.5506	5168.9027	5149.0399	5131.5006	5116.6819	5104.9217	5094.3113	5082.9789
369.	5070.8361	5051.8152	5015.7513	4964.9281	4914.0444	4860.0000	0.0	
370.	0.0	6700.0000	6659.0754	6576.6003	6509.9191	6447.8623	6354.4354	6254.0028
371.	6199.2719	6146.3037	6090.0587	6010.9223	5936.1271	5888.7266	5849.3035	5812.3304
372.	5780.9953	5761.6938	5740.3504	5718.0105	5694.6109	5669.2137	5645.9451	5626.6426
373.	5606.0506	5583.7841	5561.1332	5538.9714	5518.0713	5499.3649	5477.0446	5451.4145
374.	5427.2885	5404.2257	5381.6052	5356.4702	5328.2693	5294.1964	5252.8910	5211.1574
375.	5176.7927	5153.3156	5132.6408	5115.4145	5101.9205	5091.7642	5083.6745	5076.1862
376.	5061.6583	5039.2681	5005.6858	4959.2467	4910.4791	4860.0000	0.0	
377.	0.0	6660.0000	6651.0550	6581.3888	6511.3245	6459.2680	6378.0473	6269.8471
378.	6201.8745	6146.8449	6080.6468	5996.0949	5923.7656	5875.8000	5839.5399	5808.8060
379.	5782.4999	5762.2229	5741.5690	5720.2951	5698.3590	5675.6675	5653.1970	5632.8755
380.	5613.5434	5591.1433	5566.2699	5542.9409	5521.2310	5501.3986	5478.8364	5453.3251
381.	5430.1737	5408.1693	5383.7172	5355.2522	5323.5365	5285.9946	5240.6958	5192.7658
382.	5156.3502	5134.3031	5111.8767	5094.6990	5082.1770	5073.1811	5065.2362	5058.7369
383.	5042.4201	5022.1367	4991.5241	4949.3902	4904.6254	4850.0000	0.0	
384.	0.0	6630.0000	6628.9907	6582.6568	6534.1143	6486.4020	6384.8203	6258.1163
385.	6206.3807	6149.8605	6069.9527	5976.3858	5910.9437	5867.3637	5836.9622	5809.3720
386.	5783.2740	5761.8385	5742.1093	5721.9273	5701.5241	5680.4956	5659.3508	5638.9122
387.	5619.6684	5597.0025	5570.5086	5545.6435	5522.5263	5500.8622	5476.8104	5450.8099
388.	5426.9231	5404.9848	5380.1286	5349.7791	5315.3609	5274.9438	5227.6044	5177.9434
389.	5142.2253	5119.5647	5095.2401	5079.7208	5068.1712	5055.6317	5043.0122	5034.5365
390.	5021.6190	5002.5566	4972.7776	4934.5111	4898.7058	4840.0000	0.0	
391.	0.0	0.0	6615.0000	6569.3801	6517.6260	6487.0882	6393.7734	6284.0569
392.	6211.0107	6133.7290	6048.0282	5964.7292	5903.5732	5863.7737	5835.5766	5807.6846
393.	5783.0321	5762.2254	5741.8056	5722.4858	5704.2460	5684.3793	5663.4727	5642.4739
394.	5622.2182	5598.6428	5570.9141	5544.8878	5520.6765	5496.3321	5470.7713	5445.3743
395.	5421.1322	5397.1105	5372.3770	5344.5624	5309.3014	5266.8484	5221.8481	5179.3740
396.	5146.1935	5119.1621	5093.1146	5076.1050	5058.6173	5041.6238	5023.8216	5011.5368
397.	4998.7055	4979.3418	4953.3518	4922.6780	4897.1571	4860.0000	0.0	
398.	0.0	0.0	6630.0000	6539.1421	6479.5632	6432.6319	6355.9717	6272.6431
399.	6207.9717	6129.3753	6030.1578	5963.4064	5904.2098	5865.1451	5833.3568	5805.1126
400.	5782.2881	5761.8392	5740.1252	5721.1216	5706.5667	5688.2325	5666.7919	5644.0889
401.	5620.6546	5596.6788	5571.0790	5544.5072	5518.0576	5492.2981	5466.6616	5441.2045
402.	5416.2164	5391.8187	5367.9086	5341.2101	5306.9896	5267.1833	5224.9501	5184.8366
403.	5154.4446	5129.6677	5101.4281	5073.7847	5049.2501	5027.8311	5006.5043	4995.9925
404.	4983.6140	4969.3450	4949.7528	4926.3516	4900.1539	4870.0000	0.0	
405.	0.0	0.0	0.0	6485.0000	6414.3213	6346.8027	6299.0193	6253.0788
406.	6195.0399	6125.4794	6040.0520	5959.6370	5903.9896	5866.6453	5833.5116	5804.5874
407.	5782.9806	5762.4077	5740.6624	5721.5059	5705.4098	5687.1441	5668.2983	5643.7989
408.	5617.9446	5595.5321	5570.4985	5544.0507	5516.0153	5488.3897	5462.6594	5436.9956
409.	5411.4013	5386.6190	5362.9880	5338.2326	5304.5743	5265.9783	5228.9799	5194.0596
410.	5165.8039	5140.9591	5112.2651	5080.4350	5051.5166	5026.4361	5007.4306	4997.7575
411.	4985.2536	4970.3324	4950.2780	4932.8682	4955.8649	4930.0000	0.0	
412.	0.0	0.0	0.0	6475.0000	6400.0087	6325.0210	6265.0331	6225.0545
413.	6180.0400	6118.9504	6047.1518	5960.6842	5903.3991	5866.0440	5833.9570	5807.5965
414.	5786.1226	5763.5644	5742.8620	5724.8088	5706.2372	5686.5714	5666.1978	5644.1432
415.	5621.0113	5596.6615	5570.6163	5544.6010	5512.6546	5483.2489	5459.4102	5433.9063
416.	5406.9461	5382.2136	5360.6232	5333.1079	5296.5075	5262.3382	5235.1259	5206.1181
417.	5176.0285	5147.5312	5118.0819	5087.2622	5055.8305	5031.7986	5014.7902	5003.6218

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Starting head matrix, in feet--Continued							
418.	4994.3642	4991.0568	4988.9975	4979.7344	5007.0513	4950.0000	0.0	
419.	0.0	0.0	0.0	6480.0000	6417.3434	6362.0945	6291.4383	6224.9024
420.	6155.0041	6100.4873	6047.1728	5964.0180	5901.5773	5866.8062	5837.9336	5814.1325
421.	5789.8937	5766.9778	5747.6761	5728.0423	5707.7226	5686.6629	5665.4848	5644.9026
422.	5624.9602	5599.8817	5569.2626	5536.5718	5505.5139	5481.7959	5457.4599	5431.8284
423.	5404.4915	5379.8639	5358.4429	5329.9365	5293.5266	5262.6936	5237.5733	5210.2593
424.	5181.8834	5152.8027	5122.2767	5091.3838	5061.2669	5042.3063	5028.5764	5051.1937
425.	5056.0797	5051.7619	5048.9575	5033.1303	5019.7496	4975.0000	0.0	
426.	0.0	0.0	0.0	6515.0000	6457.3896	6393.1763	6328.7858	6240.6588
427.	6144.9952	6087.8704	6035.7384	5960.8808	5901.7912	5870.9954	5845.1309	5821.6029
428.	5798.4483	5775.3547	5754.0363	5732.8588	5710.6896	5686.5616	5663.8787	5644.7743
429.	5625.3439	5599.8300	5567.7869	5533.1383	5503.0513	5480.1055	5455.8834	5430.4039
430.	5403.2086	5378.6042	5356.8760	5327.2628	5293.4451	5266.7837	5241.7996	5213.7378
431.	5185.7688	5156.6565	5124.4085	5088.2934	5064.2720	5057.0283	5051.6548	5095.5589
432.	5122.4047	5097.5108	5084.2871	5063.0479	5034.7583	5000.0000	0.0	
433.	0.0	0.0	6655.0000	6589.8128	6490.9521	6431.0510	6360.6566	6269.6055
434.	6153.3766	6069.9490	6016.6529	5963.7989	5913.4309	5875.0835	5852.4264	5828.0232
435.	5805.2708	5783.1762	5760.8769	5739.0323	5715.2471	5691.3005	5667.5474	5645.0381
436.	5622.4108	5596.4315	5566.6876	5533.2628	5502.7026	5478.8294	5454.6551	5429.6789
437.	5403.2729	5378.8073	5356.4950	5327.7485	5295.2299	5268.7247	5245.3046	5220.2773
438.	5194.2845	5163.8509	5127.8663	5091.7661	5069.8997	5065.1021	5073.1080	5108.2865
439.	5131.6876	5121.3996	5104.1847	5082.9117	5052.7079	5025.0000	0.0	
440.	0.0	0.0	6740.0000	6637.7440	6525.5415	6459.2209	6384.4961	6289.5449
441.	6164.2805	6057.8891	6010.0285	5969.9852	5920.0617	5890.1174	5865.0566	5835.1543
442.	5810.1753	5790.1220	5765.0671	5744.9641	5719.9770	5694.9883	5670.1671	5645.8012
443.	5620.8794	5595.8146	5567.8488	5538.9646	5505.7434	5477.2085	5453.6124	5429.4274
444.	5405.1062	5381.1128	5355.1530	5324.4303	5295.2637	5272.1239	5249.1057	5226.3917
445.	5202.1849	5176.9018	5142.8261	5101.8160	5078.9225	5071.4613	5094.7498	5129.9341
446.	5149.1528	5143.5496	5127.3038	5103.1228	5070.6441	5040.0000	0.0	
447.	0.0	0.0	6850.0000	6671.3816	6548.0310	6477.4853	6399.0501	6301.1095
448.	6190.0079	6085.9659	6020.9365	5979.9044	5930.0578	5884.9392	5852.4723	5832.6644
449.	5810.4698	5788.3311	5764.6927	5741.4674	5716.6087	5692.3707	5669.9823	5645.0011
450.	5620.0274	5599.8923	5569.9191	5544.5192	5510.4474	5479.0098	5452.5110	5428.1535
451.	5405.4724	5384.3521	5356.9569	5322.4680	5293.7877	5274.5187	5251.9772	5228.2589
452.	5206.5187	5185.2430	5155.3621	5115.5620	5093.7035	5091.4510	5124.8581	5153.1861
453.	5160.4431	5155.0812	5142.2461	5119.9481	5087.4009	5060.0000	0.0	
454.	0.0	0.0	6890.0000	6704.0515	6553.4731	6486.4488	6402.8094	6319.1265
455.	6215.8964	6109.9699	6034.2885	5985.9942	5930.7217	5878.9559	5848.0016	5830.1174
456.	5808.9324	5784.7175	5760.6347	5737.5988	5713.5735	5689.6178	5665.9550	5641.5165
457.	5616.3311	5591.0591	5562.6741	5533.5658	5509.6229	5474.7140	5443.3898	5420.3325
458.	5403.3757	5382.7073	5354.2721	5325.2400	5298.0384	5274.5972	5249.6344	5227.1465
459.	5209.1537	5190.7083	5163.5607	5127.5924	5106.8219	5111.8198	5145.3586	5165.7530
460.	5166.0363	5161.3012	5149.8477	5130.2078	5101.0782	5065.0000	0.0	
461.	0.0	7140.0000	6884.8206	6708.3498	6571.8303	6496.9481	6415.0365	6325.6318
462.	6223.4856	6117.8257	6042.6312	5989.9090	5928.2174	5874.3432	5845.2431	5826.8022
463.	5805.4851	5780.9468	5756.8284	5733.6504	5709.6387	5685.3737	5661.8308	5637.1506
464.	5609.8493	5582.0032	5548.5773	5512.2300	5480.5041	5447.0429	5423.9892	5406.3627
465.	5393.9613	5375.4121	5349.1069	5323.1776	5297.9147	5273.5086	5248.7813	5227.8034
466.	5211.2239	5194.0485	5167.3566	5136.9995	5121.0503	5127.5258	5158.2466	5173.5683
467.	5170.8249	5166.3973	5156.7291	5139.8110	5112.9165	5070.0000	0.0	

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Starting head matrix, in feet--Continued							
468.	0.0	7110.0000	6897.9437	6710.5023	6582.4056	6505.0148	6417.3321	6315.2998
469.	6206.6285	6109.1536	6048.4013	5994.8862	5922.6716	5867.5445	5840.9797	5823.2755
470.	5801.6682	5777.1652	5752.9577	5729.0543	5704.3873	5679.0258	5653.7262	5627.3498
471.	5599.2408	5565.8564	5521.7680	5476.5686	5438.2948	5411.9517	5400.6385	5388.1177
472.	5380.2103	5363.9350	5340.5930	5317.5575	5294.0993	5269.8627	5248.5419	5229.8951
473.	5212.6350	5195.8821	5171.1236	5146.7415	5134.6802	5142.6627	5165.1677	5178.8904
474.	5175.9244	5171.6648	5162.7814	5148.1458	5123.6027	5080.0000	0.0	
475.	0.0	7080.0000	6889.7666	6697.2159	6581.1487	6511.0981	6401.8585	6267.5749
476.	6176.4986	6104.0541	6045.7001	5986.3366	5911.1803	5865.2748	5839.3701	5820.4632
477.	5798.4330	5773.6642	5748.5153	5723.6597	5697.8002	5671.1225	5644.1588	5614.6974
478.	5583.5707	5545.9509	5494.7929	5443.2937	5405.7568	5386.9885	5379.2498	5372.5742
479.	5363.9658	5348.2359	5328.5933	5309.3847	5288.0747	5268.2298	5251.3422	5232.6917
480.	5215.7466	5199.7952	5175.7451	5155.9300	5148.3064	5155.0325	5172.5828	5185.4172
481.	5182.7814	5177.6655	5169.3387	5155.5406	5133.3116	5090.0000	0.0	
482.	0.0	7100.0000	6854.1519	6680.9184	6566.2253	6492.6317	6353.9108	6219.4804
483.	6145.2509	6087.6691	6039.1816	5979.3820	5902.2762	5863.3201	5838.6418	5819.0407
484.	5795.9287	5769.8003	5743.5020	5717.1918	5689.8911	5661.3450	5631.7238	5597.8468
485.	5563.8983	5525.9226	5475.2081	5426.1927	5392.2277	5376.4846	5366.9927	5358.4279
486.	5347.5907	5332.6795	5318.1521	5302.5579	5285.2660	5269.5842	5254.8863	5237.3762
487.	5218.4939	5200.2706	5179.1181	5165.2381	5161.2828	5164.3642	5178.5326	5216.2236
488.	5191.0972	5185.4271	5176.6499	5162.8989	5142.3912	5100.0000	0.0	
489.	0.0	7050.0000	6807.2992	6643.8568	6535.2881	6427.3694	6265.4101	6165.7838
490.	6095.2219	6055.5826	6028.7419	5969.7660	5903.7390	5865.2246	5841.7843	5819.5297
491.	5792.9543	5763.7215	5736.4538	5709.3386	5680.9963	5650.8272	5615.8440	5576.0537
492.	5539.7625	5501.7811	5458.7263	5414.0152	5381.6657	5368.7143	5357.7440	5346.7660
493.	5335.0012	5321.8013	5309.5194	5294.8279	5280.2194	5268.6630	5254.1473	5236.9186
494.	5219.3719	5201.3909	5183.0439	5172.1650	5170.0124	5171.5262	5185.3055	5233.5771
495.	5205.0091	5194.6552	5183.9023	5170.1990	5150.6241	5120.0000	0.0	
496.	0.0	7000.0000	6750.1009	6594.3986	6470.7503	6348.9914	6205.0590	6106.1397
497.	6030.8011	6007.5098	5994.8390	5948.8856	5901.9556	5868.3664	5847.6244	5821.0393
498.	5789.8938	5758.5381	5729.9569	5701.4190	5670.3277	5632.2286	5583.5030	5542.3381
499.	5507.4483	5473.6154	5443.3121	5408.4859	5378.2000	5359.7166	5346.9139	5335.1480
500.	5321.5430	5308.1400	5295.8073	5282.2126	5272.1148	5262.5266	5248.5732	5234.4715
501.	5218.6700	5200.8556	5185.1999	5177.7587	5176.2680	5176.8327	5190.9879	5241.3965
502.	5214.3990	5203.7470	5190.3355	5177.0482	5157.4629	5125.0000	0.0	
503.	0.0	6900.0000	6707.9730	6536.5317	6377.4678	6266.9525	6147.2096	6038.8893
504.	5972.0217	5956.9697	5956.3445	5931.0993	5894.1088	5871.8962	5851.9928	5827.5363
505.	5789.5082	5749.0895	5719.6684	5685.2822	5643.5018	5593.6321	5544.9671	5512.5528
506.	5477.8076	5448.0074	5425.8062	5397.1689	5371.3296	5349.6198	5334.6490	5320.5868
507.	5305.2262	5290.1355	5279.6505	5268.8232	5261.2339	5251.5228	5241.1181	5230.6463
508.	5217.0212	5200.8404	5187.0125	5181.6663	5180.7906	5181.4208	5196.0893	5246.5644
509.	5220.8430	5210.3647	5194.2817	5183.5503	5165.4956	5140.0000	0.0	
510.	0.0	6870.0000	6670.1010	6475.9019	6323.3127	6232.4865	6110.9736	5984.9915
511.	5921.9252	5912.7045	5913.9489	5910.5195	5892.1422	5873.6369	5850.6820	5820.6423
512.	5781.0057	5738.0095	5698.2448	5657.1612	5611.3263	5564.9729	5521.1797	5485.3889
513.	5446.5588	5423.6764	5401.7561	5377.4440	5355.0446	5333.0364	5315.7849	5298.5754
514.	5286.9407	5275.2446	5266.8271	5254.4541	5243.9112	5233.0339	5228.6371	5222.4514
515.	5214.7618	5203.0954	5190.4549	5184.1253	5183.8438	5185.9066	5201.4856	5251.8408
516.	5226.0472	5214.5041	5196.2949	5187.0708	5171.5221	5150.0000	0.0	
517.	0.0	6800.0000	6617.5166	6416.8610	6276.0210	6176.1351	6050.8759	5928.9516

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Starting head matrix, in feet--Continued							
518.	5850.1975	5854.5782	5870.8755	5882.6282	5879.7869	5864.5523	5839.3544	5802.7776
519.	5755.3476	5709.6705	5668.7255	5623.9681	5578.8106	5533.9653	5490.5295	5454.2014
520.	5418.6747	5400.0240	5376.0004	5354.6793	5334.1382	5310.1609	5288.9571	5272.6929
521.	5262.6643	5255.6445	5247.3273	5234.9764	5221.7690	5212.6412	5213.0125	5212.3590
522.	5213.7652	5210.3312	5200.5743	5192.0638	5191.1612	5193.6365	5209.3468	5258.8544
523.	5230.5953	5217.4722	5197.6649	5188.7290	5174.3417	5160.0000	0.0	
524.	0.0	6700.0000	6543.0524	6363.7265	6213.6823	6102.5855	5984.0861	5866.0045
525.	5794.2516	5794.7723	5820.4006	5853.0193	5860.2275	5847.2522	5818.9429	5772.0504
526.	5697.9205	5644.3191	5594.1382	5557.0543	5532.2543	5496.0316	5462.8040	5429.1329
527.	5398.1375	5377.7622	5350.5114	5329.1918	5305.9874	5278.3142	5254.5225	5241.7376
528.	5233.6521	5231.2312	5223.6974	5213.6297	5200.1133	5194.9646	5199.3392	5203.1840
529.	5211.0373	5215.4414	5214.4965	5208.2058	5207.1446	5209.5390	5253.0952	5272.4995
530.	5235.2048	5220.6686	5199.1115	5189.6039	5175.0526	5150.0000	0.0	
531.	0.0	6630.0000	6458.4093	6296.9711	6139.4947	6027.0745	5912.4797	5805.0214
532.	5760.8544	5750.9081	5760.5325	5802.6781	5821.6303	5809.8028	5778.6391	5708.6796
533.	5611.1399	5561.9038	5509.9307	5485.4446	5470.7477	5445.6131	5421.8384	5392.1137
534.	5369.3162	5345.4057	5319.1617	5302.6080	5276.0378	5246.4002	5223.3996	5213.7343
535.	5208.1343	5201.9558	5194.3767	5188.2420	5177.4577	5170.0540	5175.1129	5188.7491
536.	5202.0180	5214.4088	5219.9303	5219.5424	5221.6445	5226.5568	5251.6660	5258.4568
537.	5244.8562	5225.2003	5200.7298	5189.7813	5175.1148	5150.0000	0.0	
538.	0.0	6550.0000	6380.9578	6224.5227	6074.1922	5972.1047	5862.8394	5765.8495
539.	5731.3363	5723.7205	5711.4652	5726.9911	5732.3626	5715.4672	5681.5552	5615.6552
540.	5538.5490	5496.0509	5456.3728	5432.5393	5405.5674	5384.9642	5371.3483	5349.7924
541.	5329.0223	5305.9888	5291.4052	5275.2336	5246.6568	5220.3184	5200.6411	5190.2483
542.	5183.4325	5174.0287	5166.0437	5157.8601	5150.6385	5140.2322	5133.4637	5144.8508
543.	5171.9914	5196.8892	5211.2974	5218.7388	5226.5559	5234.4457	5255.1784	5260.4656
544.	5252.1428	5237.7962	5209.8306	5188.6127	5174.5321	5150.0000	0.0	
545.	0.0	6470.0000	6296.0120	6139.3125	5994.8699	5904.6824	5803.3893	5722.3647
546.	5692.9923	5682.8328	5665.4815	5653.8672	5634.4014	5605.9477	5563.7138	5512.0535
547.	5470.0503	5436.1403	5406.8739	5384.3687	5360.6420	5341.3487	5326.4121	5306.5525
548.	5285.4588	5267.6776	5254.8165	5234.9714	5210.5921	5192.0228	5175.6190	5164.1017
549.	5153.5538	5143.4335	5134.3905	5124.9072	5118.1677	5110.0174	5101.0461	5097.4648
550.	5120.6647	5150.9321	5175.8330	5199.2580	5222.1659	5243.6468	5259.7666	5262.0931
551.	5252.8685	5244.7022	5216.5609	5188.4114	5173.2109	5150.0000	0.0	
552.	0.0	6350.0000	6200.0000	6030.0000	5900.0000	5820.0000	5750.0000	5690.0000
553.	5650.0000	5630.0000	5610.0000	5590.0000	5570.0000	5550.0000	5510.0000	5460.0000
554.	5430.0000	5400.0000	5375.0000	5350.0000	5325.0000	5305.0000	5290.0000	5275.0000
555.	5260.0000	5235.0000	5220.0000	5205.0000	5185.0000	5170.0000	5145.0000	5130.0000
556.	5115.0000	5105.0000	5095.0000	5085.0000	5080.0000	5075.0000	5070.0000	5070.0000
557.	5070.0000	5065.0000	5090.0000	5140.0000	5190.0000	5245.0000	5250.0000	5250.0000
558.	5250.0000	5250.0000	5210.0000	5190.0000	5170.0000	5160.0000	0.0	
559.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
560.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
561.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
562.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
563.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
564.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
565.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Storage coefficient, dimensionless (First card is parameter card)																			
566.		.15			1			2												
567.	0																			
568.	0																			
569.	0																			
570.																	1	-1	-1	-1
571.	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	1	-1				
572.	0																			
573.																	1	1	1	1
574.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
575.	0																			
576.									-1	-1	-1	-1	-1	-1	-1	-1	1	1	1	1
577.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-1	-1	1	1
578.	1	1	1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1						
579.									1	1	1	1	1	1	1	1	1	1	1	1
580.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
581.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
582.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
583.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
584.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
585.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
586.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
587.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
588.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
589.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
590.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
591.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
592.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
593.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
594.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
595.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
596.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
597.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
598.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
599.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
600.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
601.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
602.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
603.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
604.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
605.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
606.			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
607.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
608.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
609.			-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
610.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
611.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
612.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
613.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
614.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
615.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Storage coefficient, dimensionless--Continued																			
616.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
617.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
618.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
619.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
620.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
621.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
622.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
623.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
624.		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
625.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
626.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
627.		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
628.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
629.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
630.		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
631.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
632.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
633.		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
634.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
635.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
636.		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
637.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
638.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
639.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
640.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
641.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
642.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
643.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
644.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
645.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
646.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
647.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
648.			-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
649.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
650.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
651.			-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
652.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
653.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
654.				-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
655.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
656.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
657.				-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
658.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
659.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
660.				-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
661.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
662.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
663.				-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
664.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
665.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Storage coefficient, dimensionless--Continued																			
666.			-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
667.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
668.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
669.			-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
670.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
671.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
672.			-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
673.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
674.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
675.			-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
676.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
677.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
678.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
679.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
680.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
681.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
682.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
683.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
684.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
685.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
686.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
687.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
688.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
689.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
690.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
691.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
692.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
693.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
694.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
695.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
696.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
697.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
698.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
699.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
700.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
701.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
702.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
703.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
704.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
705.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
706.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
707.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
708.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
709.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
710.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
711.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
712.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
713.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
714.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
715.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Storage coefficient, dimensionless--Continued
716.	1 1 1 1 1 1 1 1 1 1 1 1 1 -1
717.	-1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1
718.	-1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1
719.	-1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1
720.	0
721.	0
722.	0

Group III: Array data--Continued
Hydraulic conductivity, in feet per second
(First card is parameter card)

723.	1.E-06		1		2		0		0							
724.	0															
725.	0															
726.	0															
727.	0															
728.	0															
729.	20	30	100	100	100	100	100	80	80	20	20	10	10	30	80	100
730.	200	200	1	60												
731.	0															
732.	0															
733.	20	20	50	50	50	20	10	10	10	10	10	10	10	30	30	30
734.	10	10	10	20												
735.	0															
736.									10	40	70	70	70	40	10	10
737.	20	20	10	10	20	20	10	10	10	10	10	10	30	30	2	2
738.	2	2	2	20	20	20	5	5	5	2	2	900	20	10	10	10
739.	20	20	10	10	30	20										
740.	0								1	5	70	70	60	50	30	30
741.	30	30	30	10	10	10	10	10	10	10	10	20	30	60	30	30
742.	60	60	100	100	100	80	60	20	10	5	800	800	10	5	5	10
743.	10	10	10	10	20	20										
744.		10	40	5	10	10	10	20	20	60	70	60	80	80	70	30
745.	30	40	20	10	10	10	10	10	20	20	30	50	10	5	10	60
746.	60	60	400	400	400	300	200	800	800	800	800	600	10	5	5	10
747.	10	20	20	10	10	20										
748.		10	30	10	5	10	10	10	20	50	40	60	70	70	50	30
749.	10	10	10	10	10	10	10	20	30	30	60	2	2	5	10	60
750.	200	200	400	600	600	600	600	600	600	50	20	20	10	1	5	10
751.	10	20	20	20	20	20										
752.		10	30	10	5	5	10	10	10	30	30	30	50	30	20	10
753.	20	20	20	20	20	20	30	40	50	30	10	2	2	5	10	100
754.	100	50	50	10	5	10	30	30	30	20	20	10	10	5	2	2
755.	2	5	10	10	10	10										
756.		1	10	10	5	5	5	5	20	30	20	20	50	20	10	20
757.	20	20	30	30	30	30	40	40	20	20	10	10	20	40	40	50
758.	50	40	40	10	10	5	2	2	5	10	10	10	10	2	5	20
759.	60	60	20	20	10	10										

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Hydraulic conductivity, in feet per second--Continued															
760.		1	5	5	5	5	10	10	30	20	10	10	10	10	10	20
761.	20	20	10	10	20	20	20	20	20	20	20	20	20	20	20	40
762.	40	20	20	10	10	1	1	1	5	10	10	10	10	10	20	50
763.	80	80	40	40	20	20										
764.		1	5	20	5	5	10	10	40	20	10	20	20	20	20	20
765.	20	20	10	10	20	20	20	20	20	20	10	20	30	40	30	30
766.	10	10	5	5	1	1	1	2	5	5	5	5	10	10	20	40
767.	70	50	50	60	30	30										
768.		1	5	20	20	10	30	10	10	5	5	10	10	10	10	5
769.	20	20	10	10	20	20	20	20	40	40	40	40	40	40	30	30
770.	40	40	40	40	30	30	30	30	50	50	50	70	70	80	80	80
771.	60	50	10	60	80	80										
772.		1	10	20	30	30	30	5	5	5	10	10	10	10	10	10
773.	10	10	10	10	20	20	30	40	60	60	60	60	60	60	60	50
774.	50	50	50	40	40	40	40	40	50	50	60	70	80	80	80	60
775.	10	10	10	50	90	90										
776.			20	20	10	5	10	5	5	5	2	5	5	5	5	5
777.	10	10	10	20	20	30	40	60	60	60	60	60	60	60	60	60
778.	60	50	50	50	50	50	50	50	50	50	80	100	200	400	60	60
779.	20	10	10	40	100	500										
780.			20	5	10	10	10	5	5	2	2	2	10	10	10	10
781.	10	10	20	30	30	40	60	60	60	60	60	60	60	60	60	60
782.	60	100	100	100	100	100	100	90	90	80	80	100	100	200	400	400
783.	20	20	20	100	500	500										
784.			20	5	5	5	2	2	2	2	2	5	5	10	10	10
785.	10	20	30	30	40	50	60	60	60	60	60	60	60	60	60	60
786.	100	100	100	200	200	200	200	100	90	90	90	100	100	200	400	400
787.	500	500	500	500	500	500										
788.		40	10	5	5	5	2	2	2	2	2	2	10	10	10	20
789.	30	30	30	30	40	50	50	60	60	60	60	60	60	60	60	60
790.	100	200	200	200	200	200	200	200	200	400	400	200	200	200	200	400
791.	500	500	500	500	500	500										
792.		40	2	10	10	5	2	10	5	2	2	10	10	20	30	30
793.	30	30	30	30	40	40	40	40	40	40	40	50	50	80	100	200
794.	200	200	200	200	200	200	200	200	400	400	200	200	200	200	200	400
795.	500	500	500	500	500	500										
796.		40	10	10	5	5	10	10	10	10	10	10	10	30	30	30
797.	30	20	20	20	20	30	30	30	30	30	50	50	100	200	200	200
798.	200	200	200	200	200	200	200	200	200	200	100	100	100	100	200	400
799.	400	400	400	300	400	400										
800.		20	10	20	10	10	10	20	20	20	20	10	20	30	30	30
801.	30	30	50	50	50	50	100	100	100	100	100	200	200	200	200	100
802.	100	100	100	100	80	80	100	100	100	100	100	100	100	100	200	400
803.	400	400	300	200	200	400										
804.		30	30	10	10	10	10	10	20	20	20	10	20	30	50	50
805.	50	90	90	90	100	100	100	100	200	200	200	200	200	200	200	100
806.	100	100	100	80	80	80	80	100	100	100	100	100	100	100	100	100
807.	100	90	100	100	100	100										
808.		40	20	10	10	10	10	20	20	20	20	80	80	50	50	50

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Hydraulic conductivity, in feet per second--Continued															
809.	50	90	90	100	100	100	100	200	200	100	100	100	100	100	100	100
810.	100	100	100	90	80	70	50	80	90	90	90	200	100	100	50	40
811.	20	20	20	20	80	80										
812.		30	10	10	10	10	5	10	20	20	20	20	30	60	60	60
813.	70	80	100	100	100	100	100	100	100	100	100	100	100	100	100	100
814.	100	100	90	80	70	60	50	50	70	90	90	100	100	100	100	80
815.	60	30	20	20	60	60										
816.		10	20	30	10	10	10	10	20	20	10	10	20	30	80	70
817.	80	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
818.	90	90	90	70	70	50	50	50	70	80	80	80	100	100	60	60
819.	50	30	20	20	60	60										
820.		10	20	30	10	10	5	20	20	20	20	10	20	20	20	20
821.	100	100	100	100	100	100	200	200	200	200	200	200	200	200	100	90
822.	90	90	90	70	70	50	50	60	80	90	90	90	90	100	60	60
823.	20	20	20	20	50	50										
824.		20	10	10	10	10	5	5	10	10	10	10	20	30	50	60
825.	100	100	100	100	100	100	100	100	100	60	60	60	60	60	40	40
826.	40	30	20	20	20	20	20	30	80	80	90	90	90	90	40	20
827.	20	20	20	20	50	50										
828.		400	50	30	5	2	1	10	10	10	5	10	20	40	60	60
829.	70	100	100	100	100	100	100	100	100	60	60	60	60	60	40	40
830.	40	40	20	20	20	20	20	30	200	200	400	800	600	200	90	20
831.	20	20	20	20	80	80										
832.			10	10	10	1	1	2	2	5	5	10	20	50	60	60
833.	90	90	100	100	100	100	100	100	100	60	60	80	80	80	80	90
834.	90	90	90	70	60	60	80	100	200	200	600	800	800	800	300	50
835.	20	20	40	90	2500	3500										
836.			10	10	10	1	1	2	5	2	10	10	20	30	40	60
837.	90	100	100	200	200	100	90	90	80	80	80	80	90	90	90	90
838.	90	90	90	70	60	60	60	90	200	200	200	200	800	800	4000	4000
839.	4000	4000	3800	4000	4000	20										
840.				10	10	20	20	5	5	5	5	10	20	30	30	60
841.	90	100	100	200	200	200	200	100	200	200	200	200	200	200	200	200
842.	200	200	200	200	100	100	100	200	300	300	200	200	300	300	4000	4000
843.	5000	4000	3000	3000	5	20										
844.				10	5	5	30	30	10	10	5	10	20	30	40	90
845.	100	100	200	200	200	200	200	200	200	200	200	200	100	200	200	200
846.	200	300	300	200	200	300	400	300	300	300	300	300	300	700	5000	5000
847.	2300	20	10	10	50	200										
848.				5	5	5	5	10	10	30	10	10	30	40	80	100
849.	100	200	200	200	200	200	200	200	200	100	100	100	200	200	200	200
850.	200	300	300	200	200	400	400	400	400	400	400	400	300	5000	5000	2
851.	2	5	10	10	100	200										
852.				5	2	5	5	5	10	30	10	10	50	70	90	100
853.	100	100	100	100	100	100	200	200	200	100	100	100	200	200	200	200
854.	200	300	300	200	300	400	300	300	400	400	400	400	5000	5000	30	2
855.	1	10	20	20	80	80										
856.			2	2	5	5	5	5	5	30	30	40	50	70	80	100
857.	100	100	100	90	90	100	90	100	100	100	100	100	200	200	200	200
858.	200	300	300	200	200	300	300	300	300	200	300	300	2800	5000	30	10

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Hydraulic conductivity, in feet per second--Continued															
859.	5	10	20	20	70	70										
860.			2	5	5	5	5	5	5	30	50	40	50	70	70	70
861.	80	80	80	80	90	90	90	80	80	90	100	100	100	200	200	200
862.	200	200	200	200	300	300	300	300	200	200	100	100	2900	3000	0 10	10
863.	5	10	10	20	70	70										
864.			5	5	5	5	5	5	10	10	30	20	20	20	100	90
865.	90	90	80	80	80	100	100	100	100	100	100	300	300	300	300	200
866.	200	200	100	100	300	300	200	200	200	200	100	100	3000	40	5	10
867.	30	30	30	50	70	70										
868.			5	2	10	5	10	10	10	10	20	20	20	30	100	100
869.	80	80	100	100	100	100	100	100	100	100	100	100	300	300	300	300
870.	300	100	100	100	100	100	100	200	200	200	100	100	3000	40	5	10
871.	50	30	40	60	70	70										
872.		5	10	10	10	10	10	10	10	10	20	20	20	40	90	90
873.	80	80	100	100	100	100	100	70	60	60	40	40	40	60	300	300
874.	300	100	100	100	100	100	100	200	200	200	100	200	2000	40	5	10
875.	50	50	60	60	70	70										
876.		10	5	5	5	5	5	5	5	10	20	10	10	30	90	90
877.	80	90	100	100	100	100	100	90	80	50	50	60	60	80	100	400
878.	300	100	100	100	100	100	200	200	300	300	200	400	2000	40	10	10
879.	50	50	60	60	70	70										
880.		5	2	5	5	5	2	5	10	10	20	10	20	40	90	90
881.	90	90	100	100	100	100	100	80	80	50	50	90	200	700	200	400
882.	300	100	100	100	100	200	200	200	300	200	100	400	1000	70	10	10
883.	30	50	50	60	70	70										
884.		5	5	5	5	5	2	5	10	5	20	5	20	40	90	90
885.	90	90	100	100	100	100	100	80	90	60	50	100	200	800	800	400
886.	500	300	300	200	200	200	200	100	100	100	100	600	900	200	10	1
887.	30	30	40	50	70	70										
888.		5	5	5	5	2	5	10	20	20	10	5	10	30	40	50
889.	40	60	70	90	90	100	80	80	90	60	60	70	400	700	800	700
890.	500	500	300	200	200	200	100	100	100	100	100	800	900	200	10	1
891.	10	20	40	50	80	80										
892.		5	10	10	5	2	5	5	20	20	5	10	10	40	30	30
893.	40	50	60	60	60	40	40	60	100	100	80	80	100	400	700	700
894.	600	500	300	200	300	100	100	100	100	100	200	800	800	400	10	1
895.	30	20	40	50	80	80										
896.		5	10	10	20	10	20	20	100	100	5	5	20	30	30	20
897.	10	30	40	30	30	30	90	90	100	200	80	80	80	90	500	500
898.	600	700	500	500	300	100	100	60	60	70	200	800	800	200	10	1
899.	30	10	50	50	50	50										
900.		10	10	10	20	20	10	30	100	100	10	5	10	10	10	10
901.	10	10	20	30	50	50	90	90	100	300	100	80	70	80	100	300
902.	500	700	700	500	300	100	100	60	60	70	100	800	800	200	10	1
903.	30	10	70	80	80	80										
904.		10	10	20	20	20	20	30	200	200	20	10	10	10	10	10
905.	10	10	10	10	30	30	80	90	300	300	300	200	100	100	100	300
906.	300	600	700	700	500	500	100	100	60	20	20	60	100	100	10	1
907.	30	10	80	100	100	90										
908.		10	10	20	20	20	30	30	500	200	20	10	10	10	10	10

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Hydraulic conductivity, in feet per second--Continued															
909.	10	10	10	10	20	30	80	60	200	300	300	300	100	100	100	300
910.	500	400	400	700	700	500	200	200	20	20	10	20	30	30	1	1
911.	30	10	80	100	100	100										
912.		10	20	20	20	20	30	80	700	700	40	10	5	5	5	5
913.	30	30	70	70	20	20	50	50	100	100	500	500	300	300	500	500
914.	800	400	400	400	700	700	50	50	10	10	10	20	30	30	5	10
915.	10	10	80	100	100	100										
916.		10	20	30	30	30	30	80	700	700	50	10	7	7	5	5
917.	30	30	70	70	60	50	60	100	100	100	300	300	300	300	500	700
918.	800	800	800	400	700	700	100	20	10	10	10	30	30	30	5	10
919.	10	10	10	80	100	100										
920.		20	30	30	30	30	30	100	700	700	400	60	50	50	50	50
921.	100	100	200	200	200	200	100	100	200	300	300	300	600	600	800	800
922.	800	800	800	800	800	800	800	400	20	10	10	20	10	10	5	5
923.	20	20	10	80	100	100										
924.		10	50	50	40	40	70	200	700	700	600	60	50	50	50	50
925.	90	100	300	300	400	400	300	300	300	300	300	300	800	800	800	800
926.	800	900	800	800	900	800	800	500	20	20	30	20	10	5	10	10
927.	20	20	90	90	100	100										
928.	0															
929.	0															
930.	0															
931.	0															

	Group III: Array data--Continued Bottom of aquifer, in feet (First card is parameter card)															
932.		1		1		2										
933.	0															
934.	0															
935.	0															
936.	0															
937.	0															
938.	5090	5050	5010	5000	4980	4950	4930	4910	4900	4860	4840	4820	4810	4800	4770	4740
939.	4720	4700	4680	4660												
940.	0															
941.	0															
942.	5080	5040	5000	4990	4950	4920	4910	4900	4890	4840	4820	4800	4790	4780	4740	4720
943.	4700	4680	4660	4640												
944.	0															
945.									5500	5450	5380	5290	5210	5190	5130	5100
946.	5060	5020	4990	4970	4940	4900	4890	4870	4850	4820	4800	4780	4740	4720	4700	4680
947.	4640	4620	4600	4570	4540	4510	4480	4420	4400	4310	4290	4280	4270	4260	4260	4260
948.	4270	4270	4280	4280	4290	4300										
949.									5500	5440	5350	5280	5210	5180	5120	5090
950.	5040	5010	4990	4940	4910	4890	4880	4840	4810	4800	4780	4740	4710	4700	4690	4640
951.	4610	4600	4550	4520	4500	4480	4420	4390	4320	4290	4280	4280	4270	4270	4270	4280
952.	4280	4280	4290	4300	4310	4310										

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Bottom of aquifer, in feet--Continued															
953.		6200	6000	5910	5820	5760	5680	5590	5500	5430	5350	5280	5210	5180	5120	5090
954.	5040	5000	4980	4940	4900	4880	4850	4820	4800	4780	4750	4720	4700	4770	4740	4710
955.	4700	4670	4730	4700	4680	4640	4600	4370	4320	4290	4290	4280	4280	4280	4280	4290
956.	4290	4300	4300	4310	4330	4340										
957.		6210	6010	5920	5830	5770	5680	5590	5500	5430	5350	5280	5200	5170	5120	5090
958.	5040	5000	4970	4940	4900	4870	4840	4810	4790	4750	4730	4710	4690	4660	4630	4600
959.	4570	4540	4510	4490	4460	4430	4400	4360	4330	4300	4290	4280	4280	4290	4290	4300
960.	4310	4310	4330	4350	4350	4350										
961.		6280	6080	5960	5880	5780	5690	5590	5500	5430	5350	5280	5200	5170	5120	5090
962.	5040	5000	4960	4930	4900	4870	4830	4800	4790	4750	4730	4700	4670	4640	4610	4590
963.	4560	4540	4510	4500	4460	4430	4410	4390	4360	4330	4300	4290	4290	4300	4310	4320
964.	4350	4370	4390	4390	4370	4350										
965.		6300	6100	5980	5890	5790	5690	5590	5500	5430	5350	5270	5200	5170	5120	5090
966.	5040	5000	4970	4940	4900	4860	4830	4800	4770	4740	4710	4690	4670	4640	4600	4580
967.	4550	4540	4520	4500	4470	4440	4420	4400	4390	4360	4330	4310	4310	4320	4340	4360
968.	4390	4400	4410	4410	4390	4360										
969.		6380	6180	6000	5900	5790	5690	5590	5500	5430	5350	5270	5210	5170	5120	5090
970.	5040	5010	4980	4940	4900	4870	4840	4800	4790	4760	4730	4700	4670	4640	4610	4590
971.	4580	4540	4520	4500	4480	4460	4440	4420	4400	4390	4370	4350	4340	4350	4380	4390
972.	4410	4420	4430	4420	4400	4360										
973.		6400	620	6010	5910	5790	5700	5590	5510	5420	5350	5280	5200	5170	5120	5090
974.	5050	5010	4990	4950	4900	4880	4850	4810	4790	4770	4730	4700	4690	4670	4630	4600
975.	4590	4570	4540	4510	4490	4480	4460	4440	4420	4410	4390	4390	4380	4390	4400	4410
976.	4420	4440	4460	4440	4410	4360										
977.		6420	6250	6070	5910	5800	5700	5600	5510	5430	5350	5280	5210	5190	5140	5100
978.	5170	5130	5000	4970	4920	4900	4860	4830	4800	4770	4740	4720	4700	4690	4660	4630
979.	4600	4590	4570	4540	4510	4490	4480	4450	4440	4430	4410	4410	4400	4400	4410	4430
980.	4460	4490	4490	4460	4410	4370										
981.		6440	6300	6100	5920	5810	5700	5600	5520	5440	5360	5290	5210	5200	5150	5100
982.	5080	5040	5010	4980	4950	4910	4890	4850	4810	4790	4770	4750	4720	4700	4690	4660
983.	4640	4620	4600	4570	4540	4510	4490	4480	4460	4440	4430	4420	4420	4440	4460	4490
984.	4500	4510	4510	4490	4420	4480										
985.			6290	6120	5980	5820	5700	5600	5520	5430	5370	5290	5230	5200	5170	5120
986.	5100	5070	5040	5000	4970	4940	4910	4880	4850	4820	4800	4780	4750	4730	4720	4700
987.	4680	4650	4620	4600	4580	4550	4510	4500	4490	4480	4480	4480	4480	4490	4500	4510
988.	4530	4550	4530	4500	4430	4480										
989.			6330	6150	5970	5810	5710	5600	5520	5450	5380	5290	5240	5200	5190	5150
990.	5110	5090	5060	5030	5000	4970	4930	4900	4880	4860	4830	4800	4780	4760	4740	4720
991.	4700	4680	4660	4640	4610	4590	4550	4530	4520	4500	4500	4500	4500	4510	4520	4540
992.	4560	4580	4580	4530	4450	4390										
993.		6430	6350	6150	5980	5840	5720	5600	5520	5460	5380	5300	5260	5230	5200	5170
994.	5140	5110	5080	5050	5020	5000	4970	4940	4910	4880	4860	4840	4820	4800	4780	4760
995.	4740	4720	4690	4660	4630	4610	4590	4570	4550	4530	4520	4520	4540	4560	4580	4600
996.	4610	4610	4610	4570	4480	4390										
997.		6430	6400	620	6000	5830	5720	5610	5530	5470	5380	5310	5270	5230	5200	5180
998.	5160	5130	5100	5080	5050	5020	5000	4980	4950	4920	4900	4870	4850	4830	4800	4780
999.	4760	4740	4720	4700	4680	4660	4640	4610	4590	4580	4580	4580	4590	4600	4630	4660
1000.	4680	4680	4640	4590	4490	4400										
1001.		6510	6420	620	6000	5830	5720	5610	5530	5480	5400	5330	5290	5250	5210	5190
1002.	5170	5140	5120	5100	5080	5050	5020	5000	4970	4940	4910	4900	4880	4860	4840	4810

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Bottom of aquifer, in feet--Continued															
1003.	4790	4770	4750	4730	4700	4680	4660	4640	4620	4610	4610	4610	4620	4640	4680	4700
1004.	4710	4710	4680	4630	4500	4400										
1005.		6535	6450	6220	6000	5850	5730	5620	5550	5470	5400	5340	5300	5270	5240	5210
1006.	5180	5160	5140	5120	5100	5070	5040	5020	5000	4980	4960	4940	4920	4900	4870	4840
1007.	4820	4800	4780	4760	4740	4720	4700	4680	4670	4660	4670	4680	4690	4700	4700	4710
1008.	4710	4710	4700	4630	4520	4410										
1009.		6570	6450	6220	6000	5850	5730	5620	5560	5480	5410	5360	5310	5290	5260	5230
1010.	5200	5180	5160	5140	5120	5100	5080	5060	5030	5010	4980	4950	4930	4920	4900	4880
1011.	4860	4830	4810	4790	4770	4750	4730	4720	4710	4710	4710	4710	4720	4720	4720	4720
1012.	4720	4710	4700	4640	4520	4410										
1013.		6600	6500	6230	6010	5850	5750	5650	5570	5490	5420	5350	5320	5300	5280	5250
1014.	5220	5200	5180	5160	5140	5120	5100	5080	5060	5040	5010	4990	4970	4950	4930	4900
1015.	4880	4860	4840	4820	4800	4780	4750	4730	4730	4720	4720	4720	4720	4720	4720	4720
1016.	4820	4710	4700	4640	4530	4420										
1017.		6630	6520	6250	6010	5870	5750	5650	5580	5500	5420	5380	5330	5310	5290	5260
1018.	5240	5210	5200	5180	5160	5140	5120	5100	5080	5060	5030	5000	4990	4970	4940	4920
1019.	4900	4880	4860	4840	4820	4800	4780	4770	4750	4740	4730	4730	4730	4730	4730	4720
1020.	4720	4710	4700	4640	4540	4430										
1021.		6650	6540	6280	6010	5870	5750	5660	5580	5500	5430	5380	5340	5320	5300	5280
1022.	5260	5240	5220	5200	5180	5160	5140	5120	5100	5080	5060	5030	5000	4980	4960	4940
1023.	4920	4900	4880	4860	4830	4800	4790	4780	4760	4740	4730	4730	4730	4730	4730	4720
1024.	4720	4710	4700	4620	4530	4420										
1025.		6630	6530	6280	6000	5870	5740	5670	5580	5510	5440	5390	5360	5330	5310	5300
1026.	5280	5260	5240	5220	5190	5170	5150	5130	5110	5090	5070	5050	5030	5000	4970	4950
1027.	4920	4900	4880	4860	4840	4820	4790	4760	4730	4730	4730	4720	4720	4720	4720	4710
1028.	4710	4710	4680	4610	4530	4410										
1029.		6600	6530	6290	6000	5860	5740	5670	5580	5510	5440	5400	5370	5340	5320	5310
1030.	5290	5270	5250	5230	5210	5190	5170	5150	5130	5110	5090	5070	5040	5010	4990	4970
1031.	4940	4910	4880	4860	4840	4810	4780	4750	4720	4710	4700	4700	4700	4700	4700	4700
1032.	4700	4680	4640	4590	4520	4410										
1033.		6560	6520	6300	6000	5850	5740	5670	5590	5520	5450	5410	5380	5360	5340	5320
1034.	5300	5280	5260	5240	5220	5200	5180	5160	5140	5120	5100	5070	5040	5010	4990	4960
1035.	4930	4910	4880	4860	4840	4800	4770	4730	4690	4680	4680	4670	4660	4650	4630	4610
1036.	4600	4600	4580	4540	4500	4430										
1037.		6530	6510	6290	5990	5840	5740	5680	5600	5520	5470	5420	5390	5370	5340	5320
1038.	5310	5290	5270	5250	5230	5200	5180	5160	5140	5120	5100	5070	5040	5020	5000	4970
1039.	4940	4910	4880	4860	4830	4800	4770	4730	4700	4690	4680	4660	4640	4620	4600	4590
1040.	4580	4580	4570	4560	4480	4450										
1041.			6490	6290	5980	5820	5740	5680	5600	5520	5470	5430	5390	5380	5360	5340
1042.	5320	5300	5280	5260	5240	5220	5190	5170	5150	5130	5100	5080	5050	5020	5000	4970
1043.	4940	4910	4880	4850	4830	4810	4790	4760	4730	4710	4700	4680	4660	4630	4600	4600
1044.	4590	4560	4530	4500	4470	4450										
1045.			6490	6290	5970	5810	5750	5690	5600	5520	5470	5430	5400	5380	5360	5340
1046.	5330	5310	5290	5270	5250	5220	5200	5180	5150	5120	5100	5080	5050	5020	5000	4970
1047.	4940	4910	4890	4870	4850	4830	4810	4790	4770	4740	4720	4700	4690	4670	4640	4620
1048.	4600	4590	4560	4500	4480	4450										
1049.				6280	5920	5800	5740	5700	5610	5520	5480	5440	5410	5390	5370	5350
1050.	5330	5320	5300	5280	5250	5220	5200	5170	5140	5120	5100	5080	5050	5020	5000	4970
1051.	4940	4920	4900	4880	4860	4840	4820	4800	4790	4770	4750	4730	4710	4690	4680	4660
1052.	4640	4620	4600	4550	4490	4470										

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Bottom of aquifer, in feet--Continued														
1053.				6250	5880	5790	5720	5700	5620	5520	5480	5440	5410	5390	5370	5360
1054.	5340	5320	5310	5290	5270	5240	5200	5180	5150	5120	5100	5080	5060	5030	5000	4970
1055.	4940	4920	4900	4880	4860	4840	4830	4820	4810	4800	4780	4760	4740	4720	4700	4690
1056.	4680	4660	4630	4590	4510	4480										
1057.				6180	5880	5770	5700	5700	5620	5520	5480	5440	5420	5400	5380	5370
1058.	5350	5330	5310	5300	5270	5240	5210	5180	5150	5120	5100	5070	5040	5020	5000	4980
1059.	4960	4940	4920	4900	4880	4860	4840	4830	4820	4810	4800	4780	4760	4740	4720	4710
1060.	4700	4680	4650	4610	4560	4490										
1061.				6150	5850	5740	5700	5700	5620	5530	5480	5440	5430	5410	5390	5380
1062.	5360	5340	5320	5300	5280	5260	5220	5190	5150	5110	5090	5070	5040	5020	5000	4980
1063.	4960	4940	4920	4900	4890	4880	4860	4840	4830	4820	4810	4800	4790	4770	4750	4730
1064.	4710	4690	4670	4640	4590	4510										
1065.			6500	6100	5830	5730	5700	5700	5630	5520	5480	5450	5430	5410	5390	5370
1066.	5350	5340	5320	5300	5280	5250	5220	5190	5160	5120	5090	5060	5040	5020	4990	4970
1067.	4950	4940	4930	4920	4900	4880	4870	4860	4850	4840	4830	4820	4800	4780	4760	4740
1068.	4720	4700	4680	4650	4600	4540										
1069.			6480	6100	5820	5700	5690	5700	5660	5550	5480	5450	5430	5420	5400	5380
1070.	5360	5340	5330	5310	5290	5270	5240	5200	5160	5120	5090	5070	5040	5020	4990	4980
1071.	4960	4950	4940	4930	4920	4900	4890	4880	4870	4850	4840	4830	4810	4800	4790	4770
1072.	4750	4730	4700	4670	4630	4580										
1073.			6450	6080	5810	5700	5680	5700	5680	5580	5490	5460	5440	5420	5400	5390
1074.	5370	5350	5330	5320	5300	5270	5240	5200	5170	5140	5100	5070	5040	5010	4990	4980
1075.	4970	4960	4950	4940	4930	4920	4910	4900	4880	4870	4850	4840	4830	4820	4800	4790
1076.	4770	4750	4720	4680	4640	4600										
1077.			6450	6080	5810	5700	5680	5700	5690	5590	5490	5470	5450	5430	5410	5390
1078.	5380	5370	5350	5330	5300	5270	5240	5200	5170	5140	5100	5080	5060	5030	5000	4990
1079.	4980	4970	4960	4950	4940	4930	4920	4910	4890	4880	4870	4860	4840	4830	4820	4800
1080.	4790	4770	4740	4700	4660	4610										
1081.		6900	6400	6080	5820	5700	5680	5690	5700	5600	5500	5470	5450	5440	5420	5400
1082.	5380	5370	5350	5330	5300	5280	5240	5200	5180	5140	5100	5090	5070	5040	5020	5000
1083.	4990	4980	4970	4960	4950	4940	4930	4920	4900	4890	4880	4870	4850	4830	4820	4810
1084.	4800	4780	4740	4710	4680	4620										
1085.		6900	6420	6090	5880	5750	5690	5690	5700	5630	5510	5480	5450	5440	5420	5400
1086.	5390	5380	5360	5330	5310	5290	5250	5210	5180	5150	5120	5100	5080	5050	5030	5010
1087.	4990	4980	4970	4960	4950	4940	4930	4920	4910	4900	4890	4880	4860	4840	4830	4820
1088.	4800	4780	4750	4720	4680	4630										
1089.		6900	6420	6090	5880	5720	5690	5690	5700	5630	5520	5480	5460	5440	5430	5410
1090.	5390	5380	5350	5330	5310	5290	5270	5240	5190	5170	5140	5100	5090	5070	5050	5030
1091.	5010	5000	4990	4980	4970	4960	4940	4930	4920	4910	4890	4880	4870	4850	4840	4820
1092.	4800	4780	4760	4720	4680	4630										
1093.		6850	6420	6110	5900	5780	5700	5690	5700	5660	5560	5490	5470	5450	5430	5410
1094.	5390	5380	5360	5340	5310	5280	5250	5220	5190	5160	5130	5110	5100	5080	5060	5040
1095.	5030	5020	5000	4990	4980	4970	4960	4940	4930	4920	4900	4880	4870	4860	4840	4820
1096.	4800	4780	4750	4720	4680	4640										
1097.		6850	6400	6120	6040	5820	5720	5690	5700	5690	5590	5500	5470	5460	5440	5420
1098.	5400	5380	5360	5340	5320	5290	5260	5230	5200	5180	5160	5130	5110	5090	5070	5050
1099.	5040	5030	5020	5000	4990	4980	4970	4960	4940	4920	4900	4890	4870	4850	4830	4820
1100.	4800	4780	4760	4730	4680	4640										
1101.		6850	6400	6150	5980	5880	5780	5700	5700	5700	5610	5520	5480	5460	5440	5420
1102.	5400	5390	5370	5350	5320	5290	5260	5230	5200	5180	5160	5140	5120	5100	5090	5070

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Bottom of aquifer, in feet--Continued
1103.	5050 5040 5020 5010 5000 4980 4960 4940 4930 4920 4910 4890 4880 4860 4840 4820
1104.	4800 4780 4760 4720 4680 4640
1105.	6800 6420 6170 6010 5910 5810 5750 5730 5720 5640 5550 5500 5490 5460 5430
1106.	5410 5390 5370 5350 5320 5300 5270 5240 5210 5190 5170 5150 5130 5110 5090 5080
1107.	5060 5050 5030 5020 5000 4990 4970 4950 4940 4930 4910 4890 4880 4860 4830 4810
1108.	4790 4770 4740 4710 4680 4640
1109.	6770 6440 6180 6050 5930 5860 5790 5770 5730 5630 5550 5500 5490 5460 5440
1110.	5410 5390 5370 5350 5330 5300 5280 5260 5230 5200 5180 5160 5140 5120 5100 5080
1111.	5070 5060 5040 5030 5010 4990 4970 4960 4940 4930 4910 4890 4870 4850 4830 4810
1112.	4790 4780 4740 4710 4680 4640
1113.	6680 6450 6200 6050 5930 5860 5780 5720 5750 5700 5600 5540 5500 5490 5470
1114.	5440 5400 5380 5360 5340 5310 5280 5250 5230 5200 5180 5170 5150 5130 5110 5090
1115.	5070 5060 5040 5030 5010 4990 4980 4970 4950 4930 4910 4890 4880 4860 4840 4810
1116.	4790 4770 4730 4700 4680 4640
1117.	6600 6420 6220 6050 5930 5830 5750 5650 5700 5710 5610 5570 5530 5500 5480
1118.	5450 5410 5390 5370 5340 5310 5290 5270 5240 5210 5190 5170 5150 5130 5120 5100
1119.	5080 5060 5040 5030 5010 4990 4980 4960 4940 4930 4910 4890 4870 4850 4830 4800
1120.	4780 4760 4730 4700 4670 4630
1121.	6530 6350 6180 6000 5850 5750 5700 5630 5640 5660 5680 5590 5550 5510 5490
1122.	5440 5410 5390 5370 5340 5300 5290 5250 5230 5200 5190 5140 5150 5130 5120 5100
1123.	5080 5060 5040 5030 5010 4990 4980 4970 4950 4930 4910 4890 4870 4850 4830 4800
1124.	4780 4760 4730 4700 4670 4630
1125.	6450 6280 6120 5970 5840 5740 5650 5610 5590 5590 5620 5610 5580 5530 5500
1126.	5430 5390 5340 5320 5300 5280 5270 5250 5220 5190 5180 5140 5140 5120 5100 5080
1127.	5080 5070 5050 5030 5010 4990 4980 4970 4950 4930 4910 4890 4870 4840 4810 4790
1128.	4770 4740 4720 4690 4660 4630
1129.	6370 6180 6050 5880 5780 5680 5620 5575 5560 5550 5550 5550 5530 5480 5430
1130.	5380 5330 5310 5280 5270 5240 5220 5200 5190 5160 5150 5130 5110 5090 5070 5060
1131.	5040 5040 5020 5010 5010 4990 4980 4960 4940 4920 4900 4890 4860 4830 4800 4780
1132.	4760 4740 4720 4680 4650 4620
1133.	6250 6100 5930 5800 5720 5650 5590 5550 5530 5510 5490 5470 5450 5410 5360
1134.	5330 5300 5270 5250 5220 5200 5190 5170 5160 5130 5120 5100 5080 5070 5040 5030
1135.	5010 5000 4990 4980 4980 4970 4970 4960 4940 4920 4900 4870 4840 4810 4790 4770
1136.	4750 4730 4700 4670 4640 4610
1137.	0
1138.	0
1139.	0
1140.	0

Card number	Group III: Array data--Continued Specific yield, dimensionless (Parameter card)
1141.	.15

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Confining bed thickness at stream nodes, in feet (First card is parameter card)			
1142.			2	100
1143.	4	44	1.0	
1144.	5	30	1.0	
1145.	5	31	1.0	
1146.	5	32	1.0	
1147.	5	33	1.0	
1148.	5	34	1.0	
1149.	5	43	1.0	
1150.	6	28	1.0	
1151.	6	29	1.0	
1152.	6	35	1.0	
1153.	6	40	1.0	
1154.	6	41	1.0	
1155.	6	42	1.0	
1156.	6	43	1.0	
1157.	7	26	1.0	
1158.	7	27	1.0	
1159.	7	33	1.0	
1160.	7	34	1.0	
1161.	7	35	1.0	
1162.	7	36	1.0	
1163.	7	37	1.0	
1164.	7	38	1.0	
1165.	7	39	1.0	
1166.	8	25	1.0	
1167.	8	32	1.0	
1168.	9	20	1.0	
1169.	9	21	1.0	
1170.	9	22	1.0	
1171.	9	23	1.0	
1172.	9	24	1.0	
1173.	9	30	1.0	
1174.	9	31	1.0	
1175.	10	17	1.0	
1176.	10	18	1.0	
1177.	10	19	1.0	
1178.	10	29	1.0	
1179.	11	9	1.0	
1180.	11	10	1.0	
1181.	11	11	1.0	
1182.	11	12	1.0	
1183.	11	13	1.0	
1184.	11	14	1.0	
1185.	11	15	1.0	
1186.	11	16	1.0	
1187.	11	28	1.0	
1188.	12	8	1.0	
1189.	13	5	1.0	
1190.	13	6	1.0	
1191.	13	7	1.0	

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Confining bed thickness at stream nodes, in feet--Continued		
1192.	14	3	1.0
1193.	14	4	1.0
1194.	28	54	1.0
1195.	29	52	1.0
1196.	29	53	1.0
1197.	30	49	1.0
1198.	30	50	1.0
1199.	30	51	1.0
1200.	31	5	1.0
1201.	31	6	1.0
1202.	31	7	1.0
1203.	31	8	1.0
1204.	32	4	1.0
1205.	32	9	1.0
1206.	33	9	1.0
1207.	34	10	1.0
1208.	34	14	1.0
1209.	35	11	1.0
1210.	35	12	1.0
1211.	35	13	1.0
1212.	35	14	1.0
1213.	35	15	1.0
1214.	35	16	1.0
1215.	35	17	1.0
1216.	35	18	1.0
1217.	35	19	1.0
1218.	35	20	1.0
1219.	35	21	1.0
1220.	35	22	1.0
1221.	36	23	1.0
1222.	36	24	1.0
1223.	36	25	1.0
1224.	36	26	1.0
1225.	36	27	1.0
1226.	36	28	1.0
1227.	37	29	1.0
1228.	37	30	1.0
1229.	38	31	1.0
1230.	39	32	1.0
1231.	40	32	1.0
1232.	41	32	1.0
1233.	42	32	1.0
1234.	43	33	1.0
1235.	44	34	1.0
1236.	45	35	1.0
1237.	46	36	1.0
1238.	47	37	1.0
1239.	48	38	1.0
1241.	50	38	1.0
1242.	51	38	1.0

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Initial rate of gain in stream cells, in cubic feet per second (First card is parameter card)							
1243.	1	1	2	1	1	0.5	3.0-07	
1244.	0							
1245.	0							
1246.	0							
1247.	0							
1248.	0							
1249.	0							
1250.	0							
1251.	0							
1252.	0							
1253.	0							
1254.	0							
1255.	0							
1256.	0							
1257.	0							
1258.	0							
1259.	0							
1260.	0							
1261.	0							
1262.	0							
1263.	0							
1264.	0							
1265.	0							
1266.	0							
1267.	0							
1268.	0							
1269.	0							
1270.				4.5E-01				
1271.	0							
1272.	0							
1273.	0							
1274.	0							
1275.						1.0E-01	1.0E-01	1.0E-01
1276.	9.0E-02	9.0E-02						
1277.			4.5E-01					
1278.	0							
1279.	0							
1280.	0							
1281.	0							
1282.				3.0E-01	1.0E-01			
1283.			1.8E-01					3.0E-01
1284.	3.0E-01	3.0E-01						
1285.	0							
1286.	0							
1287.	0							
1288.	0							
1289.		5.0E-01	3.0E-01					
1290.	1.1E-01	1.2E-01	1.5E-01	1.7E-01	3.0E-01	3.0E-01	3.0E-01	
1291.	0							
1292.	0							

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Initial rate of gain in stream cells, in cubic feet per second--Continued							
1293.	0							
1294.	0							
1295.	0							
1296.	5.0E-01							4.9E-01
1297.	0							
1298.	0							
1299.	0							
1300.	0							
1301.	0							
1302.				6.0E-01	5.5E-01	5.5E-01	5.0E-01	5.0E-01
1303.						6.9E-01	4.8E-01	
1304.	0							
1305.	0							
1306.	0							
1307.	0							
1308.	0							
1309.	6.5E-01	6.5E-01	6.0E-01					
1310.					7.0E-01			
1311.	0							
1312.	0							
1313.	0							
1314.	0							
1315.	4.5E-01	5.5E-01	6.7E-01	9.0E-01	7.5E-01	7.5E-01	7.0E-01	7.0E-01
1316.	0							
1317.				1.53E 00				
1318.	0							
1319.	0							
1320.	0							
1321.								3.5E-01
1322.	0							
1323.	0							
1324.	0							
1325.	0							
1326.	0							
1327.	0							
1328.					1.0E-01	2.5E-01	3.0E-01	
1329.	0							
1330.	0							
1331.	0							
1332.	0							
1333.	0							
1334.	0							
1335.			9.0E-02	9.0E-02				
1336.	0							
1337.	0							
1338.	0							
1339.	0							
1340.	0							
1341.	0							
1342.	0							

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Initial rate of gain in stream cells, in cubic feet per second--Continued
1343.	0
1344.	0
1345.	0
1346.	0
1347.	0
1348.	0
1349.	0
1350.	0
1351.	0
1352.	0
1353.	0
1354.	0
1355.	0
1356.	0
1357.	0
1358.	0
1359.	0
1360.	0
1361.	0
1362.	0
1363.	0
1364.	0
1365.	0
1366.	0
1367.	0
1368.	0
1369.	0
1370.	0
1371.	0
1372.	0
1373.	0
1374.	0
1375.	0
1376.	0
1377.	0
1378.	0
1379.	0
1380.	0
1381.	0
1382.	0
1383.	0
1384.	0
1385.	0
1386.	0
1387.	0
1388.	0
1389.	0
1390.	0
1391.	0
1392.	0

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Initial rate of gain in stream cells, in cubic feet per second--Continued
1393.	0
1394.	0
1395.	0
1396.	0
1397.	0
1398.	0
1399.	0
1400.	0
1401.	0
1402.	0
1403.	0
1404.	0
1405.	0
1406.	0
1407.	0
1408.	0
1409.	0
1410.	0
1411.	0
1412.	0
1413.	0
1414.	0
1415.	0
1416.	0
1417.	0
1418.	0
1419.	0
1420.	0
1421.	0
1422.	0
1423.	0
1424.	0
1425.	0
1426.	0
1427.	0
1428.	0
1429.	0
1430.	0
1431.	0
1432.	0
1433.	0
1434.	0
1435.	0
1436.	0
1437.	0
1438.	0
1439.	3.0E 00
1440.	0
1441.	0
1442.	0

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Initial rate of gain in stream cells, in cubic feet per second--Continued							
1443.	0							
1444.	0							
1445.	0							
1446.				2.0E 00	3.0E 00			
1447.	0							
1448.	0							
1449.	0							
1450.	0							
1451.	0							
1452.	0							
1453.	4.5E-01	4.5E-01	2.0E 00					
1454.	0							
1455.	0							
1456.	0							
1457.	0							
1458.	0							
1459.	0							
1460.	0							
1461.				3.9E-01				
1462.	2.0E-02							
1463.	0							
1464.	0							
1465.	0							
1466.	0							
1467.	0							
1468.	0							
1469.	6.0E-02							
1470.	0							
1471.	0							
1472.	0							
1473.	0							
1474.	0							
1475.	0							
1476.		1.0E-01						
1477.	0							
1478.	0							
1479.	0							
1480.	0							
1481.	0							
1482.	0							
1483.			1.5E-01		-2.0E-01	-1.5E 00	-1.5E 00	-1.5E 00
1484.	-1.5E 00	-1.5E 00	-5.0E-01	-2.0E-01	-1.0E-01	-1.0E-01		
1485.	0							
1486.	0							
1487.	0							
1488.	0							
1489.	0							
1490.	0							
1491.							-1.0E-01	-1.0E-01
1492.	-1.0E-01	-1.0E-01	-1.0E-01	-1.0E-01				

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Initial rate of gain in stream cells, in cubic feet per second--Continued									
1493.	0									
1494.	0									
1495.	0									
1496.	0									
1497.	0									
1498.	0									
1499.						-5.0E-01	-5.0E-01			
1500.	0									
1501.	0									
1502.	0									
1503.	0									
1504.	0									
1505.	0									
1506.									5.0E-01	
1507.	0									
1508.	0									
1509.	0									
1510.	0									
1511.	0									
1512.	0									
1513.										-5.0E-01
1514.	0									
1515.	0									
1516.	0									
1517.	0									
1518.	0									
1519.	0									
1520.	0									
1521.	0									
1522.	0									
1523.	0									
1524.	0									
1525.	0									
1526.	0									
1527.	0									
1528.	0									
1529.	0									
1530.	0									
1531.	0									
1532.	0									
1533.	0									
1534.	0									
1535.	0									
1536.	0									
1537.	0									
1538.	0									
1539.	0									
1540.	0									
1541.	0									
1542.	5.0E-02									

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Initial rate of gain in stream cells, in cubic feet per second--Continued
1543.	0
1544.	0
1545.	0
1546.	0
1547.	0
1548.	0
1549.	1.0E-01
1550.	0
1551.	0
1552.	0
1553.	0
1554.	0
1555.	0
1556.	-1.0E-01
1557.	0
1558.	0
1559.	0
1560.	0
1561.	0
1562.	0
1563.	-5.0E-02
1564.	0
1565.	0
1566.	0
1567.	0
1568.	0
1569.	0
1570.	0
1571.	0
1572.	0
1573.	0
1574.	0
1575.	0
1576.	0
1577.	0
1578.	0
1579.	0
1580.	0
1581.	0
1582.	0
1583.	0
1584.	0
1585.	0
1586.	0
1587.	0
1588.	0
1589.	0
1590.	0
1591.	0
1592.	0

Table 2.--Listing of data for 1920-70--Continued

Card number	Group III: Array data--Continued Initial rate of gain in stream cells, in cubic feet per second--Continued
1593.	0
1594.	0
1595.	0
1596.	0
1597.	0
1598.	0
1599.	0
1600.	0
1601.	0
1602.	0
1603.	0
1604.	0
1605.	0
1606.	0
1607.	0

Group III: Array data--Continued
Head at stream nodes, in feet
(Parameter card)

1608.	0	0	2

Group III: Array data--Continued
Top of aquifer, altitude of stream, in feet
(Parameter card)

1609.	0	2

Group III: Array data--Continued
Recharge rate, in feet per second
(Parameter card)

1610.	2.19E-09

Number of streams and node identification

1611.	5
1612.	10 15 20 30 35

Test card to calculate initial recharge/discharge
at constant-flux boundary nodes

1613.	0	0

Table 2.--Listing of data for 1920-70--Continued

Card number	Group IV: Data that change with pumping period							
1614.	1	0	145	18615	1000	1.5	24	0

Parameters for streamflow accounting procedure

Number of streams

1615.	5

	Stream identification	Upstream node I	Upstream node J	Inflow rate, in cubic feet per second	Last downstream node I	Last downstream node J
1616.	10	14	3	.09	4	44
1617.	15	11	28		7	35
1618.	20	30	49		28	54
1619.	30	32	4	.39	46	36
1620.	35	34	14	11.0	34	14

Group IV: Data that change with pumping period--Continued
I, J, and pumping rate, in cubic feet per second

1621.	8	37-0.1210325
1622.	9	31-0.0654752
1623.	15	37-0.0042901
1624.	15	38-0.0034841
1625.	15	45-0.0157596
1626.	15	46-0.0407
1627.	16	46-0.0044071
1628.	16	47-0.0186424
1629.	17	42-0.0125017
1630.	17	43-0.0056616
1631.	17	45-0.0043941
1632.	19	42-0.0044851
1633.	20	10-0.0231405
1634.	20	37-0.0351007
1635.	20	42-0.0009685
1636.	22	2-0.0260306
1637.	22	10-0.0248630
1638.	22	16-0.0118562
1639.	23	2-0.0242744
1640.	23	9-0.0637013
1641.	23	12-0.0234005
1642.	23	41-0.0478410
1643.	24	2-0.0088516
1644.	24	12-0.0052001
1645.	25	2-0.0252462

Table 2.--Listing of data for 1920-70--Continued

Card number	Group IV: Data that change with pumping period--Continued I, J, and pumping rate, in cubic feet per second--Continued
1646.	25 27-0.0273006
1647.	25 44-0.1285467
1648.	25 45-0.3720286
1649.	26 2-0.0015507
1650.	26 44-0.0052651
1651.	26 45-0.0993805
1652.	27 2-0.0522078
1653.	27 3-0.0384077
1654.	27 28-0.0107252
1655.	27 32-0.0765374
1656.	27 45-0.1273733
1657.	27 46-0.3938854
1658.	28 27-0.0797403
1659.	28 30-0.0052001
1660.	28 33-0.0057440
1661.	28 40-0.1031571
1662.	28 45-0.1344032
1663.	28 46-0.5633699
1664.	29 45-0.5061004
1665.	29 46-0.2783358
1666.	29 47-0.1412868
1667.	30 7-0.0919198
1668.	30 33-0.0639
1669.	30 36-0.1387876
1670.	30 37-0.1854098
1671.	30 45-0.1495681
1672.	30 46-0.1187574
1673.	30 47-0.0308724
1674.	30 48-0.4108735
1675.	31 6-0.1977085
1676.	31 7-0.2929763
1677.	31 33-0.0665743
1678.	31 37-0.0265953
1679.	31 42-0.1142204
1680.	31 44-0.1468543
1681.	31 45-0.2072113
1682.	31 46-0.3550341
1683.	31 47-0.4568814
1684.	31 48-0.2446613
1685.	32 7-0.0909294
1686.	32 33-0.0773516
1687.	32 37-0.1522787
1688.	32 38-0.0738415
1689.	32 39-0.0326567
1690.	32 40-0.2398289
1691.	32 42-0.1300027
1692.	32 43-0.1924040
1693.	32 44-0.1248026
1694.	32 45-0.3132870
1695.	32 46-0.5862243

Table 2.--Listing of data for 1920-70--Continued

Card number	Group IV: Data that change with pumping period--Continued I, J, and pumping rate, in cubic feet per second--Continued	
1696.	33	6-0.1981947
1697.	33	7-0.0585242
1698.	33	14-0.0110502
1699.	33	23-0.0142190
1700.	33	40-0.0815604
1701.	33	41-0.2191942
1702.	33	42-0.1248026
1703.	33	43-0.0648388
1704.	33	44-0.1018896
1705.	33	45-0.0951684
1706.	33	46-0.5811574
1707.	33	47-0.0293806
1708.	34	5-0.0458727
1709.	34	6-0.2041129
1710.	34	7-0.1030269
1711.	34	34-0.1082857
1712.	34	41-0.0675201
1713.	34	42-0.3142230
1714.	34	43-0.2897337
1715.	34	45-0.0163998
1716.	34	46-0.2551432
1717.	35	5-0.1144502
1718.	35	6-0.0160080
1719.	35	39-0.0380607
1720.	35	40-0.0395858
1721.	35	41-0.0299624
1722.	35	45-0.0162243
1723.	35	46-0.0383971
1724.	36	6-0.0753651
1725.	36	42-0.1773951
1726.	36	43-0.0968975
1727.	36	44-0.0091217
1728.	36	45-0.1969801
1729.	37	5-0.0566076
1730.	37	6-0.0656408
1731.	37	30-0.0732565
1732.	37	42-0.1218775
1733.	37	44-0.0249930
1734.	37	45-0.4127000
1735.	38	7-0.0778543
1736.	38	45-0.1664977
1737.	39	6-0.0559226
1738.	39	7-0.0279613
1739.	39	27-0.0030746
1740.	39	31-0.0190454
1741.	39	37-0.1600333
1742.	39	43-0.0068414
1743.	39	44-0.1292226
1744.	40	29-0.0641563
1745.	40	36-0.0800297

Table 2.--Listing of data for 1920-70--Continued

Card number	Group IV: Data that change with pumping period--Continued I, J, and pumping rate, in cubic feet per second--Continued
1746.	40 45-0.4554574
1747.	41 35-0.1206587
1748.	41 36-0.5227896
1749.	41 42-0.0338007
1750.	41 45-0.5074817
1751.	42 30-0.0021255
1752.	42 31-0.0021255
1753.	42 32-0.0082879
1754.	42 34-0.1717823
1755.	42 35-0.0598012
1756.	42 36-0.2966361
1757.	42 37-0.0626166
1758.	42 45-0.0043161
1759.	43 31-0.0226634
1760.	43 35-0.0959809
1761.	43 33-0.0173944
1762.	43 38-0.2036492
1763.	43 39-0.1040509
1764.	43 45-0.0041113
1765.	43 46-0.0041276

Table 3.--Listing of data for 1971-77

Card number	Group I: Title, Simulation options, and problem dimensions
1.	LARAMIE COUNTY POST-CRETACEOUS GROUND-WA
2.	TER SYSTEM 1971-1977
3.	WATE
4.	LEAK
5.	CONV
6.	BLNK
7.	RECH
8.	SIP
9.	CHEC
10.	PUNC
11.	NUME
12.	HEAD
13.	NODE
14.	BLNK
15.	52 55

Group II: Scalar parameters

16.	BLNK				
17.	1	10	1.0	100	0.0
18.	10		1	1	

Group III: Array data
Grid spacing in X direction, in feet
(First card is parameter card)

19.	1	1	0					
20.	10560	10560	10560	10560	5280	5280	5280	5280
21.	5280	5280	5280	5280	5280	5280	5280	5280
22.	5280	5280	5280	5280	5280	5280	5280	5280
23.	5280	5280	5280	5280	5280	5280	5280	5280
24.	5280	5280	5280	5280	5280	5280	5280	5280
25.	5280	5280	5280	5280	5280	5280	5280	5280
26.	5280	5280	7920	7920	16880	16880	16880	

Group III: Array data--Continued
Grid spacing in Y direction, in feet
(First card is parameter card)

27.	1	1	0					
28.	7920	7920	7920	5280	5280	5280	5280	5280
29.	5280	5280	5280	5280	5280	5280	5280	5280
30.	5280	5280	5280	5280	5280	5280	5280	5280
31.	5280	5280	5280	5280	5280	5280	5280	5280
32.	5280	5280	5280	5280	5280	5280	5280	5280
33.	5280	5280	5280	5280	5280	5280	5280	5280
34.	5280	7920	7920	7920				

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Node identification (First card is parameter card)
35.	1 1
36.	0
37.	0
38.	0
39.	0
40.	0
41.	0
42.	0
43.	0
44.	0
45.	0
46.	0
47.	10
48.	0
49.	10 10 10 10 10
50.	10
51.	0
52.	10 10 10 10
53.	10 10
54.	0
55.	10 10 15 15 15 10 10 10 10
56.	0
57.	0
58.	10 15
59.	0
60.	10
61.	10 10 10 10 15 15
62.	0
63.	10 10 10
64.	15
65.	0
66.	10 10 10 10 10 10 10 10
67.	15
68.	0
69.	10
70.	0
71.	0
72.	10 10 10
73.	0
74.	0
75.	10 10
76.	0
77.	0
78.	0
79.	0
80.	0
81.	0
82.	0

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Node identification--Continued
83.	0
84.	0
85.	0
86.	0
87.	0
88.	0
89.	0
90.	0
91.	0
92.	0
93.	0
94.	0
95.	0
96.	0
97.	0
98.	0
99.	0
100.	0
101.	0
102.	0
103.	0
104.	0
105.	0
106.	0
107.	0
108.	0
109.	0
110.	0
111.	0
112.	0
113.	0
114.	0
115.	0
116.	0
117.	0
118.	0
119.	20
120.	0
121.	0
122.	20 20
123.	0
124.	0
125.	20 20 20
126.	30 30 30 30
127.	0
128.	0
129.	30 30
130.	0
131.	0

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Node identification--Continued
132.	30
133.	0
134.	0
135.	30 35
136.	0
137.	0
138.	30 30 30 30 30 30 30 30 30 30
139.	30 30
140.	0
141.	0
142.	30 30 30 30 30 30
143.	0
144.	0
145.	30 30
146.	0
147.	0
148.	30
149.	0
150.	0
151.	30
152.	0
153.	0
154.	30
155.	0
156.	0
157.	30
158.	0
159.	0
160.	30
161.	0
162.	0
163.	30
164.	0
165.	0
166.	30
167.	0
168.	0
169.	30
170.	0
171.	0
172.	30
173.	0
174.	0
175.	30
176.	0
177.	0
178.	30
179.	0
180.	0

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Node identification--Continued
181.	30
182.	0
183.	0
184.	30
185.	0
186.	0
187.	30
188.	0
189.	0
190.	0
191.	0

Explanation of node identification

192.	10	HORSE CREEK
193.	15	LITTLE HORSE CREEK
194.	20	LODGEPOLE CREEK
195.	30	CROW CREEK
196.	35	CHEYENNE MUNICIPAL DISCHARGE
197.	0	

Elapsed time, in seconds and cumulative volumes, in cubic feet for mass balance

198.	1608331780.	1608331780.	.274758042 E+11	.0
199.	.259529507 E+12	8023408640.	.171246486 E+12	-.832234455 E+11
200.	.141176545 E+11	.0	.118485221 E+12	

Group III: Array data--Continued
Head values for continuation of previous run, in feet

201.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
202.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
203.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
204.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
205.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
206.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
207.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
208.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
209.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
210.	5288.6491	5250.0000	5225.0000	5200.0000	5170.0000	5140.0000	5130.0000	5115.0000
211.	5070.0000	5040.0000	5035.0000	5030.0000	5020.0000	5000.0000	5000.0000	5010.0000
212.	5010.0000	5000.0000	5025.6258	4975.0000	0.0	0.0	0.0	0.0
213.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Head values for continuation of previous run, in feet--Continued							
214.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
215.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
216.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
217.	5349.5018	5316.9233	5273.8590	5249.3675	5231.0266	5215.7848	5199.7751	5179.0264
218.	5152.8453	5133.9626	5115.8616	5098.6229	5074.3652	5048.6437	5032.2484	5026.5993
219.	5022.8952	5010.9809	4993.0432	4968.9103	0.0	0.0	0.0	0.0
220.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
221.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
222.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
223.	5820.0000	5680.0000	5620.0000	5540.0000	5450.0000	5450.0000	5450.0000	5450.0000
224.	5424.4914	5399.0635	5356.6800	5312.1895	5279.8934	5267.8512	5254.7929	5231.8681
225.	5205.6826	5178.4145	5150.1853	5118.7188	5090.6135	5073.3075	5058.3295	5035.0594
226.	5016.5125	4997.8916	4961.4698	4914.5676	4890.0000	4860.0000	4836.7627	4808.9714
227.	4788.2915	4764.9003	4713.5946	4670.0000	4680.0000	4740.0000	4850.0000	4900.0000
228.	4910.0000	4900.0000	4850.0000	4780.0000	4750.0000	4730.0000	0.0	
229.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230.	5821.5826	5696.3109	5626.5955	5582.5018	5540.8425	5526.8786	5519.2600	5495.9178
231.	5464.2238	5437.6133	5412.9767	5373.9948	5330.3363	5302.8175	5280.3469	5252.4833
232.	5223.0736	5192.8899	5159.5082	5124.0438	5093.3335	5069.9760	5035.0136	4995.0076
233.	4970.0059	4954.7894	4918.4369	4893.6792	4868.5579	4842.0720	4814.0347	4785.7315
234.	4761.5413	4729.9605	4694.4212	4685.9991	4714.3405	4787.3933	4872.9691	4914.3125
235.	4923.4063	4920.0973	4898.5755	4849.1216	4788.8841	4755.0000	0.0	
236.	0.0	6690.0000	6615.1070	6517.9976	6343.6110	6231.8526	6092.5285	5953.2288
237.	5828.5690	5729.2683	5664.5451	5617.0696	5582.6757	5562.4755	5546.3282	5519.9610
238.	5483.6562	5456.2434	5431.6512	5398.6135	5359.7545	5326.2786	5294.2207	5258.7518
239.	5224.0886	5193.0001	5163.6754	5130.0148	5100.0319	5079.8085	5031.3789	4991.6772
240.	4967.7816	4941.2679	4914.6986	4887.8603	4860.6418	4831.8904	4796.0432	4764.2238
241.	4741.1765	4720.0367	4696.8090	4694.2453	4746.5368	4824.6994	4905.5353	4936.3422
242.	4943.9284	4942.9393	4932.7124	4902.8286	4840.9750	4780.0000	0.0	
243.	0.0	6690.0000	6611.1343	6521.2209	6366.9516	6231.3184	6106.5207	5966.5659
244.	5834.3691	5749.5334	5690.7695	5640.1440	5607.2800	5582.8255	5561.6431	5538.2542
245.	5503.7423	5468.9608	5438.1132	5404.2948	5368.6652	5333.0393	5296.7295	5260.3719
246.	5224.5128	5190.0687	5175.0404	5173.7861	5140.5084	5091.0481	5037.8024	4996.3220
247.	4965.2770	4940.1360	4914.6475	4884.8460	4855.1295	4825.1560	4795.3787	4772.1124
248.	4756.4085	4747.8204	4746.7828	4752.4983	4806.3319	4896.8180	4950.5193	4960.9143
249.	4963.8105	4960.7073	4953.2028	4932.3310	4881.6332	4825.0000	0.0	
250.	0.0	6690.0000	6605.7559	6515.6892	6384.1107	6240.8375	6107.5381	5987.8297
251.	5864.1283	5776.9977	5720.3677	5665.5440	5629.7284	5603.5752	5576.2306	5542.2298
252.	5503.9560	5471.5472	5436.8317	5400.0715	5365.4736	5328.2859	5297.2656	5269.4254
253.	5225.3024	5228.6396	5219.8390	5219.5308	5173.0466	5111.7151	5061.0219	5024.8432
254.	5000.7534	4978.5112	4956.8682	4938.8289	4904.4217	4854.9242	4810.0391	4791.5284
255.	4787.8473	4805.2834	4824.6500	4850.4073	4895.2188	4949.7178	4998.2774	5015.8513
256.	5015.8048	5003.4823	4985.1365	4960.5936	4909.7564	4870.0000	0.0	
257.	0.0	6700.0000	6591.9469	6496.2314	6376.3184	6249.1535	6119.9276	5989.2727
258.	5880.1782	5815.6677	5753.9316	5690.0896	5646.8142	5620.5487	5582.6937	5541.0685
259.	5505.1093	5469.5539	5432.3874	5389.9922	5359.9772	5320.1177	5300.1146	5294.9236
260.	5281.8905	5276.7599	5267.0346	5237.1857	5177.9211	5125.0401	5085.2170	5069.8938
261.	5049.1657	5030.9738	5016.3079	5017.1564	5004.7538	4955.5669	4925.0648	4903.4892
262.	4898.8273	4906.5970	4918.1345	4943.7783	4969.6644	5016.2354	5049.3644	5051.2879

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Head values for continuation of previous run, in feet--Continued							
263.	5045.6954	5037.3925	5012.3333	4983.0590	4932.6232	4900.0000	0.0	
264.	0.0	6640.0000	6568.9745	6453.1740	6341.6343	6224.3665	6104.9851	5995.7492
265.	5908.4161	5852.3461	5787.6551	5720.8426	5663.0213	5622.8415	5583.0830	5541.8136
266.	5499.9856	5470.0012	5439.9531	5424.5924	5401.6783	5377.4796	5357.2867	5346.0763
267.	5338.9450	5326.4453	5304.1563	5267.8623	5200.2196	5192.9833	5163.5636	5136.1838
268.	5108.9482	5095.4758	5078.6598	5086.5373	5068.4057	5086.9236	5089.5241	5070.4368
269.	5032.3953	5010.4909	5008.3988	5018.1115	5038.7930	5063.1875	5066.3041	5059.1396
270.	5050.7122	5040.8124	5017.7698	4986.3857	4937.6384	4900.0000	0.0	
271.	0.0	6590.0000	6528.1728	6403.8117	6317.3033	6209.0096	6106.0743	6005.6094
272.	5924.8985	5864.9781	5799.8751	5734.7798	5660.0094	5614.9830	5584.9298	5549.9453
273.	5540.6727	5523.5289	5503.6086	5476.6858	5450.9656	5431.6115	5414.1632	5400.5098
274.	5391.6197	5377.7394	5351.0127	5309.7514	5286.5451	5268.5261	5244.5089	5218.5522
275.	5205.3114	5200.5225	5193.7257	5198.5903	5199.4778	5219.1821	5208.6133	5180.4793
276.	5141.0740	5113.8245	5099.3759	5092.8930	5092.2243	5090.2113	5081.1361	5069.1082
277.	5057.4239	5044.4346	5017.0347	4980.6310	4932.2221	4890.0000	0.0	
278.	0.0	6530.0000	6488.7388	6374.2338	6279.3522	6197.0107	6117.7513	6030.0304
279.	5974.8585	5920.7909	5851.2435	5782.0791	5727.4343	5683.6843	5650.2472	5617.2454
280.	5586.1034	5568.2003	5550.8823	5522.1679	5494.2426	5475.3363	5458.5649	5442.5103
281.	5428.8258	5413.6104	5394.4851	5365.9463	5339.7311	5318.0056	5299.7284	5283.2868
282.	5281.4953	5276.8765	5274.7895	5269.9807	5265.6227	5254.4338	5237.3509	5213.8426
283.	5189.5636	5169.3083	5149.6128	5132.9272	5118.3795	5106.1854	5093.6662	5080.6393
284.	5065.8982	5052.5670	5015.3133	4966.5562	4924.0266	4870.0000	0.0	
285.	0.0	6470.0000	6442.1179	6353.1044	6259.9849	6190.0012	6125.1799	6097.3217
286.	6043.2750	5980.0653	5898.8963	5837.8293	5787.5089	5745.7564	5709.2135	5678.8437
287.	5642.4304	5615.1108	5591.7869	5563.4247	5531.8542	5510.3097	5490.0254	5471.4597
288.	5452.0332	5434.3381	5414.3788	5391.8557	5370.0136	5350.6779	5334.7458	5319.6771
289.	5307.7836	5298.3961	5290.6759	5282.1633	5272.3959	5259.1863	5242.2268	5221.0008
290.	5198.1776	5176.5950	5155.8129	5137.3298	5121.7606	5109.5334	5097.6542	5087.1913
291.	5072.9345	5050.8849	5008.0772	4957.0610	4918.3858	4860.0000	0.0	
292.	0.0	0.0	6400.0221	6345.0325	6299.0610	6245.6280	6189.2075	6162.7817
293.	6114.5068	6054.4498	5971.0135	5885.0792	5842.0562	5804.4461	5766.9003	5727.5772
294.	5688.4508	5657.1573	5626.1721	5595.7496	5564.4243	5537.2622	5513.6305	5492.1495
295.	5471.5883	5451.7976	5431.5558	5410.6538	5390.2348	5371.3760	5354.4086	5339.1753
296.	5325.8696	5314.4838	5303.2826	5291.9544	5279.3116	5264.6913	5247.9236	5228.3283
297.	5206.5276	5183.2759	5160.3299	5139.4868	5121.2765	5110.3565	5096.9027	5084.8201
298.	5071.5815	5046.3967	5001.9912	4951.2871	4912.7941	4855.0000	0.0	
299.	0.0	0.0	6430.0000	6410.1959	6341.0604	6302.6083	6251.2158	6216.1447
300.	6172.5470	6116.6801	6037.1399	5942.3202	5876.3530	5844.6980	5808.8948	5769.6511
301.	5726.7775	5687.7348	5651.3154	5618.6585	5588.1827	5558.1263	5533.1578	5510.8876
302.	5489.5469	5468.7408	5448.1126	5427.6978	5407.7987	5388.8364	5370.8948	5353.8640
303.	5338.3700	5324.7084	5311.8331	5298.4419	5284.4252	5269.1616	5252.8035	5233.6557
304.	5212.6613	5191.0245	5168.0951	5145.6753	5123.1863	5104.1695	5088.6408	5078.9064
305.	5060.1613	5033.1019	4995.9714	4951.1366	4912.1888	4850.0000	0.0	
306.	0.0	6530.0000	6498.0978	6479.5711	6403.8171	6364.1714	6317.7420	6267.8726
307.	6217.1289	6156.8661	6067.5284	5974.9785	5909.0585	5864.6998	5828.9276	5791.0150
308.	5749.8966	5709.3382	5673.0994	5637.9435	5605.3099	5576.2446	5550.1713	5527.4935
309.	5505.6266	5484.3495	5463.4849	5443.1089	5423.2983	5404.1745	5385.2601	5365.8242
310.	5348.6865	5333.6886	5317.5261	5301.7615	5287.5280	5271.9185	5256.2748	5237.1540
311.	5215.3673	5195.3520	5175.6042	5152.8132	5127.1858	5102.8763	5084.6983	5067.8720

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Head values for continuation of previous run, in feet--Continued							
312.	5045.4267	5024.5262	4996.5104	4961.3496	4915.7571	4870.0000	0.0	
313.	0.0	6570.0000	6553.2310	6525.3546	6454.5492	6412.3486	6362.8707	6298.5737
314.	6245.9963	6180.5593	6093.8921	5994.3031	5921.0304	5880.6260	5840.7119	5801.5886
315.	5766.9265	5730.3546	5692.9004	5655.8837	5621.6483	5592.9357	5566.6602	5542.5005
316.	5520.2171	5498.3659	5477.1473	5456.7548	5436.9302	5418.1342	5398.8494	5378.4691
317.	5357.9664	5340.9388	5325.1229	5307.7438	5290.8822	5273.5146	5255.3310	5235.3099
318.	5214.4535	5197.0244	5181.6851	5159.6853	5133.3582	5107.7238	5083.2092	5061.9520
319.	5043.2872	5023.4756	4996.6074	4963.0720	4918.0022	4875.0000	0.0	
320.	0.0	6595.0000	6630.7101	6545.8329	6478.2758	6430.0634	6356.6516	6284.8806
321.	6245.5161	6182.1065	6087.7817	5995.5923	5934.5918	5884.7920	5849.7403	5815.4792
322.	5780.3257	5744.1676	5708.1262	5671.9829	5638.1771	5610.3079	5584.5566	5559.9343
323.	5536.5292	5513.5218	5491.4836	5469.8289	5449.3126	5429.7435	5409.6211	5389.1039
324.	5369.8510	5350.0413	5331.5811	5313.0503	5294.4844	5275.5719	5255.8743	5234.4851
325.	5215.3518	5200.9919	5183.1239	5159.7775	5134.7731	5108.7716	5081.6435	5059.5328
326.	5042.2955	5023.5830	4997.5424	4964.0073	4918.6814	4870.0000	0.0	
327.	0.0	6625.0000	6649.1006	6561.5712	6483.9382	6410.9744	6334.3980	6275.4404
328.	6219.9874	6157.8764	6091.5971	6015.0676	5942.7737	5890.3749	5857.1609	5823.4388
329.	5790.7340	5756.2805	5721.8936	5689.7548	5657.0064	5627.6290	5603.3433	5579.8311
330.	5556.3466	5531.3133	5506.7309	5483.4921	5460.8379	5441.1765	5422.4024	5399.5194
331.	5378.1328	5357.5966	5337.8815	5318.2839	5298.2731	5278.0205	5257.6285	5237.3097
332.	5218.3917	5202.6485	5183.4332	5159.5599	5134.4332	5105.8446	5078.2464	5059.1679
333.	5043.1532	5025.2100	4999.9370	4965.3508	4918.5041	4865.0000	0.0	
334.	0.0	6675.1126	6659.9319	6564.9986	6481.1871	6407.5238	6329.2080	6260.6474
335.	6205.5351	6148.6496	6092.8797	6018.2989	5944.5827	5897.8931	5861.7726	5826.9991
336.	5792.2101	5757.7256	5727.7699	5700.9368	5672.3014	5641.4718	5614.6318	5592.2804
337.	5569.7791	5546.0062	5519.0972	5495.0935	5474.2184	5453.3350	5435.1890	5412.9477
338.	5389.0131	5367.3157	5346.7591	5326.3087	5304.7423	5281.8131	5259.4334	5238.5542
339.	5218.6680	5199.8215	5179.4060	5157.3279	5133.7030	5106.2383	5079.4205	5060.5976
340.	5044.7108	5027.6884	5002.8226	4968.0087	4918.1093	4860.0000	0.0	
341.	0.0	6706.1779	6669.7211	6575.1007	6475.5956	6407.0590	6331.6057	6255.5524
342.	6193.5532	6139.7294	6082.2909	6008.4895	5945.6171	5899.7275	5861.4374	5826.9284
343.	5789.9171	5757.6806	5731.8729	5705.4142	5678.5393	5651.1459	5623.2595	5597.4330
344.	5574.7749	5552.7927	5528.5746	5504.4013	5482.5652	5462.2659	5444.4539	5424.2185
345.	5400.5369	5378.4893	5357.6553	5335.9143	5312.4872	5287.7874	5261.6961	5237.6159
346.	5216.1426	5195.3410	5174.4348	5153.6019	5133.3546	5111.4220	5088.5872	5069.1469
347.	5050.2356	5029.9079	5004.0348	4968.6088	4918.6660	4860.0000	0.0	
348.	0.0	6720.9137	6677.0876	6578.9995	6477.5816	6410.2415	6327.0703	6249.2469
349.	6190.6468	6130.9346	6058.4436	5988.3013	5949.8923	5906.1871	5864.1717	5826.8800
350.	5789.8873	5758.7686	5734.0198	5708.8023	5683.2734	5656.6974	5628.4713	5603.6605
351.	5584.4956	5562.5072	5537.5270	5514.1610	5492.3151	5471.4732	5451.5768	5431.2715
352.	5409.2899	5387.4786	5366.0717	5344.0211	5320.0322	5294.2350	5263.9386	5234.4155
353.	5210.3971	5188.2338	5166.3097	5148.3883	5131.9940	5114.5391	5097.2368	5080.8358
354.	5064.2193	5042.5786	5011.7709	4967.5006	4917.5027	4865.0000	0.0	
355.	0.0	6732.3270	6681.2263	6577.8377	6485.7564	6425.2568	6340.7151	6247.7976
356.	6185.1078	6133.1081	6068.2586	5996.9735	5940.9487	5896.3248	5859.3888	5824.1660
357.	5790.0258	5760.9640	5736.1849	5712.3434	5687.7170	5662.4761	5637.1734	5613.0216
358.	5591.6401	5570.1660	5547.1930	5524.5534	5502.8868	5481.8296	5460.5741	5438.9133
359.	5416.7500	5394.9475	5373.2157	5350.0166	5324.8634	5296.8181	5264.2014	5229.8940
360.	5200.2691	5177.9390	5157.9758	5140.5292	5123.7682	5109.2386	5096.4371	5084.0912

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Head values for continuation of previous run, in feet--Continued							
361.	5071.4556	5053.0693	5017.8938	4967.4713	4916.4351	4865.0000	0.0	
362.	0.0	6733.3435	6666.3711	6575.5806	6501.7829	6431.7866	6348.2896	6257.2975
363.	6191.6863	6144.5148	6083.6674	6003.9772	5936.5258	5888.4696	5851.3992	5820.5637
364.	5787.3930	5761.8374	5738.7422	5715.3790	5691.4150	5666.9356	5643.3759	5621.4566
365.	5600.0393	5578.0741	5555.5678	5533.3719	5511.9575	5491.1892	5468.7762	5445.8309
366.	5422.8726	5400.1902	5378.2206	5354.0397	5327.4514	5296.1037	5258.7522	5220.4598
367.	5188.3170	5165.1341	5144.5842	5126.1523	5110.7998	5099.8747	5090.5001	5080.2793
368.	5069.0894	5050.8335	5015.4596	4964.9036	4914.0791	4860.0000	0.0	
369.	0.0	6700.0000	6658.8628	6576.4464	6509.7841	6447.7079	6354.1481	6253.4163
370.	6198.4771	6145.5499	6089.4426	6010.4234	5935.7767	5888.4655	5849.0962	5812.1641
371.	5780.8571	5761.5724	5740.2436	5717.9131	5694.5157	5669.1086	5645.8140	5626.4720
372.	5605.8149	5583.4503	5560.6393	5538.5008	5517.5890	5498.8480	5476.4640	5450.7282
373.	5426.5574	5403.4732	5380.8150	5355.5654	5327.1650	5292.7196	5250.7597	5208.0657
374.	5172.6586	5148.3837	5126.5748	5107.2084	5091.8345	5084.6010	5078.4932	5072.6743
375.	5059.6276	5038.2908	5005.4152	4959.2645	4910.5428	4860.0000	0.0	
376.	0.0	6660.0000	6650.3645	6581.1230	6511.1766	6459.1429	6377.8906	6269.5624
377.	6201.4640	6146.4388	6080.2902	5995.8296	5923.5544	5875.6287	5839.3907	5808.6679
378.	5782.3653	5762.0902	5741.4361	5720.1574	5698.2106	5675.4989	5652.9988	5632.6238
379.	5613.2116	5590.6864	5565.6411	5542.2642	5520.5404	5500.6394	5477.8939	5452.0628
380.	5428.9658	5406.9842	5382.5452	5353.9382	5321.9620	5283.9587	5237.8407	5188.6255
381.	5150.9371	5128.1665	5104.7648	5086.4373	5072.7749	5064.8852	5058.8529	5054.7082
382.	5040.2321	5021.0955	4991.2933	4949.5122	4904.7330	4850.0000	0.0	
383.	0.0	6630.0000	6626.7590	6582.1380	6533.8936	6486.2991	6384.7350	6257.9578
384.	6206.1766	6149.6594	6069.7891	5976.2467	5910.8123	5867.2389	5836.8385	5809.2459
385.	5783.1405	5761.6945	5741.9506	5721.7485	5701.3206	5680.2576	5659.0607	5638.5426
386.	5619.1797	5596.2922	5569.4601	5544.5161	5521.4493	5499.6578	5475.1980	5448.0942
387.	5424.8179	5402.9268	5377.9810	5347.3897	5312.6185	5271.6503	5223.3257	5172.2442
388.	5135.6035	5112.3696	5087.3002	5071.2478	5059.1958	5046.1838	5035.8594	5029.9091
389.	5019.2299	5001.5170	4972.6899	4934.8970	4898.8579	4840.0000	0.0	
390.	0.0	0.0	6615.0000	6569.1400	6517.4086	6486.9629	6393.6230	6283.9295
391.	6210.9030	6133.6294	6047.9482	5964.6470	5903.4827	5863.6752	5835.4711	5807.5692
392.	5782.9007	5762.0727	5741.6233	5722.2668	5703.9901	5684.0773	5663.1010	5641.9970
393.	5621.5788	5597.6462	5569.0701	5543.4602	5519.2631	5494.7127	5468.8198	5442.9599
394.	5418.4999	5394.2800	5369.1848	5340.9584	5305.2142	5262.1314	5216.1080	5172.1280
395.	5138.9124	5111.4674	5084.9541	5067.6152	5049.8348	5033.1537	5017.5320	5007.1289
396.	4996.3319	4978.5245	4953.5088	4923.4471	4897.3266	4860.0000	0.0	
397.	0.0	0.0	6630.0000	6539.0343	6479.2056	6432.0909	6354.9896	6272.2156
398.	6207.7842	6129.2952	6030.0990	5963.3479	5904.1427	5865.0675	5833.2679	5805.0088
399.	5782.1622	5761.6832	5739.9255	5720.8740	5706.2761	5687.8804	5666.3529	5643.5277
400.	5619.9068	5595.6660	5569.7282	5543.0412	5516.4187	5490.3917	5464.4076	5438.5256
401.	5413.1183	5388.3973	5364.0227	5336.6305	5301.7615	5261.5674	5218.6145	5177.5156
402.	5146.6391	5121.4899	5092.9882	5065.0960	5040.3905	5020.6606	5001.7594	4992.5476
403.	4981.6987	4968.7233	4949.9816	4927.5293	4900.3321	4870.0000	0.0	
404.	0.0	0.0	0.0	6485.0000	6413.5152	6344.7715	6294.9706	6251.7457
405.	6194.7011	6125.3697	6039.9961	5959.5891	5903.9361	5866.5840	5833.4407	5804.4992
406.	5782.8673	5762.2588	5740.4636	5721.2514	5705.0974	5686.7537	5667.8156	5643.1704
407.	5617.1170	5594.4901	5569.1944	5542.4916	5514.1673	5486.1824	5460.0611	5433.9080
408.	5407.6599	5382.6048	5358.4008	5332.4891	5297.6168	5259.2750	5221.7775	5186.1381
409.	5157.3862	5132.0811	5103.1225	5071.1549	5042.4665	5019.3028	5002.5491	4994.1166

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Head values for continuation of previous run, in feet--Continued							
410.	4983.6189	4970.3461	4950.5694	4933.8049	4955.9988	4930.0000	0.0	
411.	0.0	0.0	0.0	6475.0000	6400.0148	6325.0121	6265.0152	6225.1057
412.	6179.9977	6118.9069	6047.1133	5960.6446	5903.3533	5865.9904	5833.9018	5807.5284
413.	5786.0301	5763.4331	5742.6803	5724.5692	5705.9256	5686.1695	5665.6870	5643.4950
414.	5620.1871	5595.6062	5569.2715	5542.9404	5510.5558	5480.7391	5456.5336	5430.5493
415.	5402.9070	5377.9455	5355.9380	5327.6253	5289.9569	5255.2416	5227.4464	5197.7033
416.	5166.9525	5137.6114	5107.9422	5076.8757	5046.1033	5023.9268	5008.9917	4999.2065
417.	4991.3286	4989.9394	4989.0308	4980.2033	5007.0960	4950.0000	0.0	
418.	0.0	0.0	0.0	6480.0000	6413.3493	6351.4007	6279.1765	6221.8095
419.	6155.0058	6100.4616	6047.1442	5963.9842	5901.5337	5866.7473	5837.8930	5814.0909
420.	5789.8307	5766.8758	5747.5250	5727.8285	5707.4295	5686.2686	5664.9677	5644.2627
421.	5624.1666	5598.8285	5567.8065	5534.5927	5502.9716	5478.9257	5454.2529	5428.2034
422.	5400.2435	5375.4533	5353.7020	5324.4928	5286.7694	5255.3865	5229.5943	5201.0786
423.	5172.1052	5142.1280	5111.1908	5080.5394	5051.0438	5033.7363	5021.4776	5048.6045
424.	5055.1362	5051.3739	5048.9227	5033.2498	5019.7760	4975.0000	0.0	
425.	0.0	0.0	0.0	6515.0000	6446.4818	6359.5452	6307.8246	6234.5488
426.	6144.9878	6087.8400	6035.7158	5960.8580	5901.7548	5870.8988	5845.1092	5821.6013
427.	5798.4380	5775.3080	5753.9404	5732.6991	5710.4517	5686.2059	5663.3503	5644.1610
428.	5624.5769	5598.7594	5566.1800	5530.7837	5500.0488	5476.7385	5452.2418	5426.4926
429.	5398.9567	5374.0680	5352.0982	5321.9376	5287.2443	5259.8603	5234.0299	5204.6163
430.	5175.3784	5145.5011	5113.1207	5077.5958	5054.3588	5047.4378	5043.2662	5093.1279
431.	5122.0158	5097.3342	5084.2276	5063.0685	5034.7719	5000.0000	0.0	
432.	0.0	0.0	6655.0000	6587.9474	6469.6753	6396.2264	6337.0618	6262.0096
433.	6151.8549	6069.8975	6016.6434	5963.7975	5913.4590	5875.1642	5852.4696	5828.0849
434.	5805.3326	5783.2045	5760.8559	5738.9466	5715.1088	5691.0879	5667.1915	5644.5511
435.	5621.7324	5595.3977	5564.9930	5530.4542	5499.0496	5474.7261	5450.4034	5425.3535
436.	5398.7822	5373.9752	5351.6640	5322.5628	5289.3509	5262.0930	5237.8321	5211.6749
437.	5184.2420	5151.9780	5115.8042	5081.1102	5059.8726	5055.2306	5065.4962	5104.8895
438.	5130.7161	5121.1445	5104.1097	5082.9027	5052.7067	5025.0000	0.0	
439.	0.0	0.0	6740.0000	6634.6997	6505.2942	6440.9566	6373.2425	6284.8737
440.	6162.9712	6057.6899	6010.0546	5969.9700	5920.1236	5890.2339	5865.1115	5835.3092
441.	5810.3494	5790.2424	5765.1323	5744.9294	5719.9524	5694.9749	5670.0134	5645.5468
442.	5620.4715	5595.0622	5566.3715	5535.5027	5500.7406	5471.9281	5448.5213	5424.5914
443.	5400.3871	5376.3712	5350.3419	5319.2817	5289.5554	5265.7760	5241.8830	5218.2213
444.	5192.8692	5166.4571	5131.9835	5091.4504	5068.6836	5061.4728	5088.7846	5127.6564
445.	5148.4375	5143.3042	5127.2166	5103.0841	5070.6255	5040.0000	0.0	
446.	0.0	0.0	6850.0000	6669.2862	6537.4339	6462.4263	6391.2946	6297.7297
447.	6188.6688	6085.5405	6020.8262	5979.8559	5930.0722	5884.9907	5852.5194	5832.7371
448.	5810.5511	5788.3879	5764.7094	5741.4366	5716.5610	5692.3216	5669.9616	5644.9988
449.	5620.0491	5599.7752	5569.7808	5540.1060	5503.3316	5472.3241	5446.5383	5422.7590
450.	5400.4437	5379.5152	5352.1211	5317.3103	5288.1248	5268.4131	5245.2136	5220.6311
451.	5197.7875	5174.8028	5144.4139	5105.0123	5082.9837	5081.9428	5120.8692	5151.9354
452.	5159.9269	5154.7995	5142.1063	5119.8658	5087.3629	5060.0000	0.0	
453.	0.0	0.0	6890.0000	6702.6510	6543.2612	6474.5240	6395.5801	6315.2659
454.	6214.2033	6109.3619	6034.0820	5985.9031	5930.6953	5878.9600	5848.0186	5830.1419
455.	5808.9562	5784.7234	5760.6113	5737.5439	5713.4919	5689.5114	5665.8132	5641.2941
456.	5615.8941	5590.0532	5560.2759	5527.2138	5497.8622	5466.4168	5436.8932	5414.6269
457.	5398.0660	5377.6633	5349.2003	5319.8937	5292.3416	5268.6095	5243.1484	5219.9332
458.	5201.0745	5181.2621	5153.8737	5117.1434	5095.8358	5102.6019	5141.8848	5164.7919

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Head values for continuation of previous run, in feet--Continued							
459.	5165.5819	5161.0103	5149.6784	5130.0961	5101.0218	5065.0000	0.0	
460.	0.0	7140.0000	6884.6628	6706.9986	6566.1022	6489.3011	6406.0579	6321.3193
461.	6221.6743	6117.1940	6042.3993	5989.7988	5928.1680	5874.3191	5845.2289	5826.7903
462.	5805.4679	5780.9149	5756.7758	5733.5721	5709.5300	5685.2247	5661.6200	5636.8168
463.	5609.2368	5580.8106	5546.1294	5507.3657	5472.9162	5440.3232	5417.9990	5400.7895
464.	5388.5980	5370.1096	5343.5600	5317.1766	5291.4948	5267.2124	5242.3397	5220.9236
465.	5203.8061	5185.8992	5158.4079	5126.8268	5110.2136	5118.4864	5154.7184	5172.6106
466.	5170.3908	5166.0968	5156.5280	5139.6700	5112.8451	5070.0000	0.0	
467.	0.0	7110.0000	6897.8404	6709.6978	6578.7528	6496.9683	6409.9579	6312.2099
468.	6205.5459	6108.7682	6048.2166	5994.7850	5922.6127	5867.5005	5840.9414	5823.2371
469.	5801.6242	5777.1098	5752.8862	5728.9607	5704.2630	5678.8550	5653.4802	5626.9662
470.	5598.6026	5564.6672	5519.5102	5472.9385	5433.3794	5406.8219	5395.2873	5382.8433
471.	5374.8993	5358.3473	5334.2893	5310.2958	5285.7961	5262.8361	5241.8708	5223.1579
472.	5205.5591	5188.2381	5162.4060	5136.5590	5124.0889	5133.8495	5160.9923	5177.6682
473.	5175.4733	5171.3531	5162.5609	5147.9846	5123.5213	5080.0000	0.0	
474.	0.0	7080.0000	6889.7159	6696.8183	6579.5822	6508.3286	6399.6086	6266.4773
475.	6176.0288	6103.8286	6045.5686	5986.2507	5911.1135	5865.2161	5839.3160	5820.4085
476.	5798.3737	5773.5963	5748.4345	5723.5599	5697.6718	5670.9489	5643.9114	5614.3133
477.	5582.9530	5544.8532	5492.7274	5440.0012	5401.4128	5382.5910	5374.6171	5367.6046
478.	5358.7318	5342.2739	5321.1900	5300.2058	5279.7236	5260.8139	5244.4633	5226.0319
479.	5208.9362	5192.5589	5167.5164	5146.3329	5137.7382	5146.0655	5168.0286	5184.0972
480.	5182.3466	5177.3685	5169.1150	5155.3749	5133.2279	5090.0000	0.0	
481.	0.0	7100.0000	6854.1022	6680.7233	6565.6170	6491.6712	6353.3925	6219.1741
482.	6145.0629	6087.5636	6039.0903	5979.3098	5902.2089	5863.2556	5838.5802	5818.9782
483.	5795.8628	5769.7279	5743.4191	5717.0923	5689.7649	5661.1758	5631.4827	5597.4757
484.	5563.3158	5524.9483	5473.4099	5423.2680	5388.4253	5372.3166	5362.6600	5353.7516
485.	5342.4041	5326.4036	5309.7945	5291.2994	5276.1572	5261.7023	5247.7976	5230.8753
486.	5212.0976	5193.3096	5171.4783	5156.5224	5151.6569	5155.7978	5173.5055	5215.5244
487.	5190.8016	5185.1780	5176.4477	5162.7462	5142.3126	5100.0000	0.0	
488.	0.0	7050.0000	6807.2431	6643.7398	6535.0881	6427.1475	6265.3044	6165.6983
489.	6095.1417	6055.5160	6028.6715	5969.6968	5903.6693	5865.1580	5841.7199	5819.4650
490.	5792.8874	5763.6502	5736.3738	5709.2435	5680.8769	5650.6668	5615.6128	5575.7017
491.	5539.2378	5500.9556	5457.2666	5411.4831	5378.1181	5364.7828	5353.5973	5342.3688
492.	5330.1189	5315.8284	5301.9622	5284.9271	5271.3688	5260.4912	5246.9042	5230.6694
493.	5213.5199	5195.3136	5176.2800	5164.5491	5162.0700	5164.0536	5180.7366	5233.0110
494.	5204.8032	5194.4687	5183.7357	5170.0702	5150.5545	5120.0000	0.0	
495.	0.0	7000.0000	6750.0352	6594.3072	6470.6925	6348.9701	6205.0562	6106.1167
496.	6030.7511	6007.4562	5994.7769	5948.8145	5901.8844	5868.2995	5847.5598	5820.9755
497.	5789.8297	5758.4714	5729.8836	5701.3326	5670.2204	5632.0835	5583.2863	5542.0131
498.	5506.9819	5472.9496	5442.2013	5406.5847	5375.2321	5356.0410	5343.0024	5331.1113
499.	5317.3471	5303.6477	5289.5972	5275.0206	5264.6117	5253.6179	5240.8181	5228.4805
500.	5213.3194	5195.3714	5179.0905	5171.0676	5169.4328	5170.2037	5186.9515	5240.9074
501.	5214.2554	5203.6043	5190.2047	5176.9444	5157.4024	5125.0000	0.0	
502.	0.0	6900.0000	6707.9097	6536.4584	6377.4710	6266.9876	6147.2408	6038.8869
503.	5971.9809	5956.9181	5956.2805	5931.0296	5894.0410	5871.8307	5851.9295	5827.4760
504.	5789.4507	5749.0283	5719.6019	5685.2055	5643.4036	5593.4942	5544.7683	5512.2811
505.	5477.4228	5447.4928	5425.0124	5395.8193	5369.1785	5346.5906	5331.0700	5316.9540
506.	5301.7770	5287.8882	5274.4344	5262.9716	5255.2159	5245.4338	5235.5297	5225.8632
507.	5212.6219	5196.0878	5181.4420	5175.6566	5174.7283	5175.5523	5192.5675	5246.1323

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Head values for continuation of previous run, in feet--Continued							
508.	5220.7219	5210.2538	5194.1824	5183.4685	5165.4462	5140.0000	0.0	
509.	0.0	6870.0000	6670.0390	6475.8374	6323.3373	6232.5462	6111.0137	5984.9854
510.	5921.8688	5912.6419	5913.8743	5910.4453	5892.0770	5873.5766	5850.6245	5820.5886
511.	5780.9546	5737.9551	5698.1837	5657.0886	5611.2356	5564.8534	5521.0176	5485.1700
512.	5446.2486	5423.2668	5401.2120	5376.5757	5353.6081	5330.8564	5312.8400	5295.2259
513.	5283.2986	5270.9637	5259.3849	5248.8153	5239.2334	5229.0551	5224.8498	5219.1174
514.	5211.4528	5199.1899	5185.5396	5178.5525	5178.2823	5180.7065	5198.4355	5251.4717
515.	5225.9454	5214.4156	5196.2178	5187.0069	5171.4830	5150.0000	0.0	
516.	0.0	6800.0000	6617.4454	6416.8049	6276.0652	6176.2144	6050.9277	5928.9248
517.	5850.1135	5854.4968	5870.7927	5882.5536	5879.7249	5864.4986	5839.3043	5802.7299
518.	5755.3002	5709.6231	5668.6764	5623.9125	5578.7420	5533.8769	5490.4040	5454.0170
519.	5418.4110	5399.6858	5375.5843	5354.1103	5333.2083	5308.6550	5286.7210	5269.8449
520.	5259.3520	5251.5861	5242.3374	5230.5877	5219.0335	5210.4762	5210.7871	5210.2429
521.	5211.5210	5207.9340	5197.3027	5187.7275	5186.6730	5189.4594	5206.9215	5258.5696
522.	5230.5115	5217.3995	5197.6022	5188.6767	5174.3093	5160.0000	0.0	
523.	0.0	6700.0000	6542.9680	6363.6917	6213.7642	6102.6701	5984.1094	5865.9393
524.	5794.1510	5794.6768	5820.3174	5852.9491	5860.1685	5847.2030	5818.8990	5772.0104
525.	5697.8840	5644.2882	5594.1121	5557.0263	5532.2172	5495.9783	5462.7200	5428.9936
526.	5397.9077	5377.4674	5350.1554	5328.7527	5305.3611	5277.3142	5252.9629	5239.5260
527.	5231.0647	5228.1254	5220.3957	5211.2204	5200.1325	5194.1918	5198.1239	5201.7768
528.	5209.7172	5214.2326	5213.0262	5205.9051	5204.5269	5206.9999	5252.5475	5272.4235
529.	5235.1372	5220.6082	5199.0595	5189.5608	5175.0261	5150.0000	0.0	
530.	0.0	6630.0000	6458.3406	6296.9807	6139.5973	6027.1271	5912.4492	5804.9251
531.	5760.7558	5750.8144	5760.4524	5802.6170	5821.5822	5809.7646	5778.6057	5708.6534
532.	5611.1254	5561.8952	5509.9264	5485.4385	5470.7355	5445.5879	5421.7869	5392.0204
533.	5369.1460	5345.1599	5318.8377	5302.2282	5275.5527	5245.6587	5222.2972	5212.1689
534.	5206.2256	5199.8347	5192.2784	5186.7449	5177.1203	5170.0925	5174.6398	5187.9203
535.	5201.4430	5213.9187	5219.3349	5218.5541	5220.4217	5225.3702	5251.2934	5258.3545
536.	5244.7961	5225.1521	5200.6853	5189.7468	5175.0940	5150.0000	0.0	
537.	0.0	6550.0000	6380.9341	6224.5714	6074.2849	5972.1159	5862.7680	5765.7487
538.	5731.2519	5723.6411	5711.4023	5726.9492	5732.3356	5715.4464	5681.5398	5615.6486
539.	5538.5446	5496.0470	5456.3690	5432.5341	5405.5602	5384.9499	5371.3134	5349.7253
540.	5328.9071	5305.8119	5291.1421	5274.9200	5246.2764	5219.7608	5199.8117	5189.1320
541.	5182.0787	5172.6044	5164.6882	5156.9346	5150.3644	5140.4517	5133.4458	5144.6390
542.	5171.8182	5196.7111	5211.0318	5218.2523	5225.9327	5233.8311	5254.9667	5260.3924
543.	5252.0991	5237.7619	5209.7989	5188.5888	5174.5171	5150.0000	0.0	
544.	0.0	6470.0000	6296.0150	6139.3389	5994.9002	5904.6564	5803.3243	5722.3019
545.	5692.9401	5682.7858	5665.4460	5653.8435	5634.3874	5605.9392	5563.7082	5512.0490
546.	5470.0456	5436.1352	5406.8690	5384.3627	5360.6346	5341.3384	5326.3930	5306.5140
547.	5285.3917	5267.5769	5254.6715	5234.7847	5210.3621	5191.7065	5175.1650	5163.4967
548.	5152.8303	5142.6782	5133.6902	5124.4171	5117.9472	5110.0313	5101.0477	5097.4540
549.	5120.6353	5150.8873	5175.7552	5199.1098	5222.0017	5243.4843	5259.7058	5262.0645
550.	5252.8483	5244.6840	5216.5472	5188.3996	5173.2029	5150.0000	0.0	
551.	0.0	6350.0000	6200.0000	6030.0000	5900.0000	5820.0000	5750.0000	5690.0000
552.	5650.0000	5630.0000	5610.0000	5590.0000	5570.0000	5550.0000	5510.0000	5460.0000
553.	5430.0000	5400.0000	5375.0000	5350.0000	5325.0000	5305.0000	5290.0000	5275.0000
554.	5260.0000	5235.0000	5220.0000	5205.0000	5185.0000	5170.0000	5145.0000	5130.0000
555.	5115.0000	5105.0000	5095.0000	5085.0000	5080.0000	5075.0000	5070.0000	5070.0000
556.	5070.0000	5065.0000	5090.0000	5140.0000	5190.0000	5245.0000	5250.0000	5250.0000

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Head values for continuation of previous run, in feet--Continued							
557.	5250.0000	5250.0000	5210.0000	5190.0000	5170.0000	5160.0000	0.0	
558.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
559.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
560.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
561.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
562.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
563.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
564.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Group III: Array data--Continued
Starting head matrix, in feet
(First card is parameter card)

565.	1	1	2					
566.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
567.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
568.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
569.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
570.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
571.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
572.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
573.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
574.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
575.	5288.6540	5250.0000	5225.0000	5200.0000	5170.0000	5140.0000	5130.0000	5115.0000
576.	5070.0000	5040.0000	5035.0000	5030.0000	5020.0000	5000.0000	5000.0000	5010.0000
577.	5010.0000	5000.0000	5025.6319	4975.0000	0.0	0.0	0.0	0.0
578.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
579.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
580.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
581.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
582.	5349.5147	5316.9350	5273.8687	5249.3768	5231.0355	5215.7944	5199.7841	5179.0356
583.	5152.8533	5133.9709	5115.8707	5098.6322	5074.3740	5048.6514	5032.2539	5026.6040
584.	5022.9016	5010.9927	4993.0609	4968.9274	0.0	0.0	0.0	0.0
585.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
586.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
587.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
588.	5820.0000	5680.0000	5620.0000	5540.0000	5450.0000	5450.0000	5450.0000	5450.0000
589.	5424.5075	5399.0829	5356.6987	5312.2055	5279.9076	5267.8652	5254.8059	5231.8783
590.	5205.6905	5178.4214	5150.1937	5118.7269	5090.6221	5073.3176	5058.3346	5035.0641
591.	5016.5245	4997.9448	4961.5284	4914.6065	4890.0000	4860.0000	4836.8024	4809.0417
592.	4788.2560	4764.9373	4713.6958	4670.0000	4680.0000	4740.0000	4850.0000	4900.0000
593.	4910.0000	4900.0000	4850.0000	4780.0000	4750.0000	4730.0000	0.0	
594.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
595.	5821.5984	5696.3263	5626.6082	5582.5143	5540.8561	5526.8938	5519.2775	5495.9366
596.	5464.2452	5437.6359	5412.9993	5374.0155	5330.3540	5302.8316	5280.3564	5252.4845
597.	5223.0668	5192.8854	5159.5064	5124.0444	5093.3381	5069.9876	5035.0059	4995.0037
598.	4970.0022	4954.8945	4918.5499	4893.7494	4868.5819	4842.0868	4814.0918	4785.8827
599.	4761.3495	4729.9960	4694.6817	4685.9557	4714.2662	4787.3556	4872.9556	4914.3035

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Starting head matrix, in feet--Continued								
600.	4923.3998	4920.0902	4898.5691	4849.1208	4788.8874	4755.0000	0.0		
601.	0.0	6690.0000	6615.1210	6518.0209	6343.6387	6231.8817	6092.5583	5953.2590	
602.	5828.5980	5729.2945	5664.5673	5617.0906	5582.6966	5562.4968	5546.3504	5519.9837	
603.	5483.6797	5456.2673	5431.6742	5398.6343	5359.7698	5326.2854	5294.2179	5258.7324	
604.	5224.0537	5192.9768	5163.6612	5130.0071	5100.0164	5079.8077	5031.3659	4991.6495	
605.	4967.7351	4941.3048	4914.8496	4887.9383	4860.6410	4831.8735	4796.1053	4764.5864	
606.	4740.6214	4719.9910	4695.9498	4693.7985	4746.2799	4824.6118	4905.5175	4936.3338	
607.	4943.9196	4942.9287	4932.7018	4902.8220	4840.9798	4780.0000	0.0		
608.	0.0	6690.0000	6611.1488	6521.2438	6366.9794	6231.3481	6106.5515	5966.5980	
609.	5834.4002	5749.5627	5690.7973	5640.1703	5607.3052	5582.8501	5561.6675	5538.2788	
610.	5503.7667	5468.9840	5438.1342	5404.3116	5368.6733	5333.0314	5296.7040	5260.3266	
611.	5224.4389	5190.0337	5175.0202	5173.7795	5140.5046	5091.0435	5037.7861	4996.2884	
612.	4965.1388	4940.0685	4914.8221	4884.9237	4855.0697	4825.0776	4795.1935	4772.0877	
613.	4756.1156	4747.6103	4746.3112	4752.1412	4806.1281	4896.7898	4950.5218	4960.9115	
614.	4963.8031	4960.6965	4953.1912	4932.3212	4881.6366	4825.0000	0.0		
615.	0.0	6690.0000	6605.7713	6515.7118	6384.1373	6240.8671	6107.5702	5987.8633	
616.	5864.1630	5777.0308	5720.4007	5665.5755	5629.7570	5603.6027	5576.2570	5542.2542	
617.	5503.9772	5471.5661	5436.8478	5400.0815	5365.4751	5328.2566	5297.2219	5269.3754	
618.	5225.1510	5228.5713	5219.8072	5219.5172	5173.0338	5111.7050	5061.0119	5024.9203	
619.	5000.7347	4978.5443	4957.1027	4940.1520	4913.9752	4856.4312	4810.1727	4791.5034	
620.	4787.6616	4805.1019	4824.4318	4850.2525	4895.1603	4949.7239	4998.2890	5015.8560	
621.	5015.8067	5003.4856	4985.1330	4960.5870	4909.7601	4870.0000	0.0		
622.	0.0	6700.0000	6591.9645	6496.2538	6376.3443	6249.1810	6119.9570	5989.3074	
623.	5880.2155	5815.7035	5753.9695	5690.1276	5646.8447	5620.5765	5582.7200	5541.0904	
624.	5505.1261	5469.5669	5432.4010	5389.9961	5359.9887	5320.0597	5300.0568	5294.9619	
625.	5281.8605	5276.7358	5267.0222	5237.1682	5177.8747	5125.0205	5085.1122	5069.8947	
626.	5049.1783	5031.0505	5016.5365	5017.9334	5006.7491	4956.5994	4925.2795	4903.5126	
627.	4898.7812	4906.5511	4918.0913	4943.7777	4969.6963	5016.2796	5049.4147	5051.3437	
628.	5045.7457	5037.4329	5012.3477	4983.0590	4932.6262	4900.0000	0.0		
629.	0.0	6640.0000	6568.9941	6453.1959	6341.6577	6224.3902	6105.0069	5995.7799	
630.	5908.4562	5852.3791	5787.7022	5720.9018	5663.0476	5622.8635	5583.1095	5541.8344	
631.	5499.9935	5470.0013	5439.9764	5424.6164	5401.7046	5377.4888	5357.2948	5346.1069	
632.	5338.9599	5326.4579	5304.1741	5267.8731	5200.1107	5192.9514	5163.5336	5136.1888	
633.	5108.9718	5095.5537	5078.8513	5086.9591	5069.2282	5087.2158	5089.6079	5070.4997	
634.	5032.4683	5010.5603	5008.4720	5018.1985	5038.9050	5063.3094	5066.4162	5059.2305	
635.	5050.7817	5040.8630	5017.7930	4986.3916	4937.6404	4900.0000	0.0		
636.	0.0	6590.0000	6528.1897	6403.8293	6317.3203	6209.0215	6106.0738	6005.6302	
637.	5924.9488	5864.9899	5799.9379	5734.8890	5660.0057	5614.9908	5584.9646	5549.9725	
638.	5540.6927	5523.5491	5503.6397	5476.7224	5451.0059	5431.6500	5414.2031	5400.5537	
639.	5391.6628	5377.7912	5351.0896	5309.8759	5286.5746	5268.5475	5244.5320	5218.5888	
640.	5205.3694	5200.6165	5193.8619	5198.7833	5199.6727	5219.2915	5208.7156	5180.6254	
641.	5141.2533	5114.0053	5099.5645	5093.0963	5092.4583	5090.4378	5081.3311	5069.2548	
642.	5057.5252	5044.5018	5017.0623	4980.6409	4932.2246	4890.0000	0.0		
643.	0.0	6530.0000	6488.7494	6374.2463	6279.3614	6197.0046	6117.7119	6030.0149	
644.	5974.8833	5920.8186	5851.2907	5782.1367	5727.4580	5683.7032	5650.2723	5617.2694	
645.	5586.1230	5568.2222	5550.9110	5522.2048	5494.2848	5475.3822	5458.6150	5442.5664	
646.	5428.8864	5413.6799	5394.5649	5366.0307	5339.7939	5318.0628	5299.7918	5283.3669	
647.	5281.6041	5277.0092	5274.9477	5270.1614	5265.8239	5254.6566	5237.5957	5214.1092	
648.	5189.8517	5169.6152	5149.9430	5133.2791	5118.7390	5106.5307	5093.9617	5080.8676	

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Starting head matrix, in feet--Continued							
649.	5066.0446	5052.6628	5015.3442	4966.5702	4924.0327	4870.0000	0.0	
650.	0.0	6470.0000	6442.1193	6353.1072	6259.9926	6190.0011	6125.0902	6097.2939
651.	6043.2898	5980.0925	5898.9316	5837.8660	5787.5350	5745.7776	5709.2329	5678.8600
652.	5642.4442	5615.1263	5591.8065	5563.4506	5531.8882	5510.3494	5490.0705	5471.5110
653.	5452.0935	5434.4086	5414.4581	5391.9379	5370.0932	5350.7616	5334.8415	5319.7903
654.	5307.9183	5298.5540	5290.8582	5282.3722	5272.6341	5259.4503	5242.5119	5221.3051
655.	5198.4996	5176.9376	5156.1825	5137.7252	5122.1783	5109.9473	5098.0142	5087.4963
656.	5073.1342	5050.9957	5008.1243	4957.0844	4918.3972	4860.0000	0.0	
657.	0.0	0.0	6400.0104	6345.0170	6299.0688	6245.6307	6189.1797	6162.7769
658.	6114.5208	6054.4718	5971.0429	5885.1096	5842.0806	5804.4644	5766.9134	5727.5848
659.	5688.4544	5657.1599	5626.1761	5595.7559	5564.4393	5537.2839	5513.6595	5492.1882
660.	5471.6395	5451.8618	5431.6308	5410.7355	5390.3226	5371.4747	5354.5246	5339.3150
661.	5326.0371	5314.6833	5303.5145	5292.2235	5279.6186	5265.0248	5248.2729	5228.6901
662.	5206.9028	5183.6697	5160.7478	5139.9352	5121.7589	5110.8513	5097.3414	5085.1952
663.	5071.8585	5046.5612	5002.0652	4951.3304	4912.8150	4855.0000	0.0	
664.	0.0	0.0	6430.0000	6410.2005	6341.0771	6302.6229	6251.2205	6216.1559
665.	6172.5658	6116.7068	6037.1729	5942.3528	5876.3771	5844.7154	5808.9030	5769.6503
666.	5726.7702	5687.7228	5651.3012	5618.6468	5588.1750	5558.1261	5533.1669	5510.9092
667.	5489.5833	5468.7927	5448.1781	5427.7750	5407.8891	5388.9449	5371.0287	5354.0313
668.	5338.5796	5324.9594	5312.1218	5298.7780	5284.8136	5269.5747	5253.2209	5234.0805
669.	5213.0989	5191.4776	5168.5621	5146.1713	5123.7610	5104.7566	5089.1211	5079.3336
670.	5060.4798	5033.3206	4996.0962	4951.2120	4912.2194	4850.0000	0.0	
671.	0.0	6530.0000	6498.1077	6479.5884	6403.8388	6364.1933	6317.7641	6267.9056
672.	6217.1713	6156.9136	6067.5778	5975.0210	5909.0921	5864.7224	5828.9372	5791.0125
673.	5749.8833	5709.3161	5673.0726	5637.9151	5605.2821	5576.2222	5550.1599	5527.4948
674.	5505.6441	5484.3845	5463.5364	5443.1772	5423.3871	5404.2903	5385.4119	5366.0225
675.	5348.9352	5333.9801	5317.8615	5302.1411	5287.9431	5272.3612	5256.7364	5237.6342
676.	5215.8696	5195.8760	5176.1294	5153.3358	5127.7197	5103.4061	5085.1864	5068.2771
677.	5045.7550	5024.7890	4996.6926	4961.4562	4915.7931	4870.0000	0.0	
678.	0.0	6570.0000	6553.2384	6525.3716	6454.5784	6412.3859	6362.9228	6298.6635
679.	6246.1021	6180.6565	6093.9756	5994.3759	5921.0925	5880.6729	5840.7403	5801.5996
680.	5766.9215	5730.3337	5692.8661	5655.8402	5621.6011	5592.8912	5566.6251	5542.4799
681.	5520.2139	5498.3821	5477.1835	5456.8131	5437.0170	5418.2583	5399.0198	5378.6952
682.	5358.2475	5341.2672	5325.4928	5308.1541	5291.3303	5273.9928	5255.8354	5235.8444
683.	5215.0200	5197.6196	5182.2689	5160.2450	5133.9047	5108.2300	5083.6611	5062.3378
684.	5043.6123	5023.7358	4996.7883	4963.1793	4918.0396	4875.0000	0.0	
685.	0.0	6595.0000	6630.7148	6545.8555	6478.3200	6430.1308	6356.7737	6285.1111
686.	6245.7993	6182.3976	6088.0101	5995.7814	5934.7162	5884.8874	5849.8104	5815.5204
687.	5780.3379	5744.1521	5708.0880	5671.9278	5638.1128	5610.2411	5584.4953	5559.8874
688.	5536.5012	5513.5164	5491.5025	5469.8778	5449.4009	5429.8792	5409.8090	5389.3464
689.	5370.1435	5350.3865	5331.9790	5313.5000	5294.9802	5276.0961	5256.4234	5235.0614
690.	5215.9512	5201.6040	5183.7290	5160.3683	5135.3418	5109.2958	5082.1055	5059.9264
691.	5042.6243	5023.8437	4997.7225	4964.1129	4918.7179	4870.0000	0.0	
692.	0.0	6625.0000	6649.1311	6561.6094	6484.0101	6411.1042	6334.6435	6275.8307
693.	6220.5850	6158.6976	6092.2365	6015.4394	5943.0027	5890.5366	5857.2809	5823.5196
694.	5790.7748	5756.2790	5721.8574	5689.6939	5656.9295	5627.5445	5603.2594	5579.7579
695.	5556.2923	5531.2867	5506.7369	5483.5370	5460.9317	5441.3156	5422.5873	5399.7599
696.	5378.4333	5357.9596	5338.3094	5318.7811	5298.8394	5278.6006	5258.2280	5237.9353
697.	5219.0434	5203.3330	5184.1369	5160.2773	5135.1309	5106.4720	5078.7757	5059.6029

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Starting head matrix, in feet--Continued							
698.	5043.5029	5025.4787	5000.1176	4965.4520	4918.5374	4865.0000	0.0	
699.	0.0	6675.4599	6660.0425	6565.0636	6481.2974	6407.7091	6329.5484	6261.2496
700.	6206.4811	6150.1235	6093.8520	6018.8750	5944.9466	5898.1481	5861.9670	5827.1415
701.	5792.2898	5757.7495	5727.7530	5700.8902	5672.2331	5641.3906	5614.5491	5592.2052
702.	5569.7226	5545.9769	5519.1056	5495.1437	5474.3084	5453.4706	5435.3704	5413.1884
703.	5389.3268	5367.7016	5347.2243	5326.8800	5305.5420	5282.4946	5260.1159	5239.2876
704.	5219.4706	5200.7074	5180.3846	5158.3739	5134.7252	5107.1308	5080.0960	5061.1059
705.	5045.0953	5027.9725	5003.0037	4968.1029	4918.1361	4860.0000	0.0	
706.	0.0	6707.3424	6670.0068	6575.1966	6475.7336	6407.2815	6332.0228	6256.3386
707.	6194.7486	6141.1147	6083.3667	6009.2398	5946.1343	5900.0907	5861.7140	5827.1522
708.	5790.0434	5757.7366	5731.8820	5705.3878	5678.4883	5651.0802	5623.1884	5597.3712
709.	5574.7336	5552.7747	5528.5906	5504.4570	5482.6639	5462.4118	5444.6491	5424.4801
710.	5400.8762	5378.9041	5358.1486	5336.5019	5313.1899	5288.5257	5262.5045	5238.5637
711.	5217.2644	5196.6255	5175.8849	5155.2130	5134.9162	5112.8134	5089.6199	5069.8808
712.	5050.7214	5030.2190	5004.2081	4968.6876	4918.6810	4860.0000	0.0	
713.	0.0	6723.8094	6677.5451	6579.1258	6477.7367	6410.4980	6327.6280	6250.3642
714.	6192.4042	6132.9348	6059.6959	5989.2325	5950.5823	5906.6640	5864.5230	5827.2298
715.	5790.0583	5758.8486	5734.0512	5708.7983	5683.2447	5656.6547	5628.4259	5603.6246
716.	5584.4738	5562.5145	5537.5771	5514.2546	5492.4537	5471.6614	5451.8206	5431.5830
717.	5409.6712	5387.9317	5366.5996	5344.6351	5320.7468	5295.0547	5264.9413	5235.7099
718.	5212.0611	5190.1388	5168.4543	5150.7183	5134.3625	5116.7384	5099.0273	5082.1656
719.	5065.0861	5043.0573	5011.9523	4967.5477	4917.5022	4865.0000	0.0	
720.	0.0	6735.5169	6681.6042	6577.9631	6485.9067	6425.4881	6341.2631	6249.2243
721.	6188.1040	6134.9546	6069.6017	5998.3387	5941.6556	5896.7766	5859.7176	5824.4249
722.	5790.1916	5761.0626	5736.2403	5712.3685	5687.7215	5662.4706	5637.1698	5613.0292
723.	5591.6760	5570.2517	5547.3347	5524.7387	5503.1137	5482.1025	5460.8980	5439.2973
724.	5417.1953	5395.4568	5373.7960	5350.6855	5325.6547	5297.7881	5265.5041	5231.7440
725.	5202.9754	5180.7353	5161.0733	5143.9120	5127.4210	5112.5738	5099.1614	5086.1685
726.	5072.9212	5053.9132	5018.1537	4967.5099	4916.4193	4865.0000	0.0	
727.	0.0	6735.0098	6666.6147	6575.7169	6501.9244	6431.9927	6348.7075	6258.1888
728.	6193.1529	6145.7481	6084.6424	6004.9611	5937.0732	5888.8365	5851.6769	5820.7825
729.	5787.5477	5761.9492	5738.8235	5715.4383	5691.4612	5666.9801	5643.4373	5621.5463
730.	5600.1771	5578.2839	5555.8634	5533.6969	5512.3114	5491.5818	5469.2115	5446.3267
731.	5423.4230	5400.7933	5378.8870	5354.8047	5328.3744	5297.2974	5260.4415	5222.8851
732.	5191.5506	5168.9027	5149.0399	5131.5006	5116.6819	5104.9217	5094.3113	5082.9789
733.	5070.8361	5051.8152	5015.7513	4964.9281	4914.0444	4860.0000	0.0	
734.	0.0	6700.0000	6659.0754	6576.6003	6509.9191	6447.8623	6354.4354	6254.0028
735.	6199.2719	6146.3037	6090.0587	6010.9223	5936.1271	5888.7266	5849.3035	5812.3304
736.	5780.9953	5761.6938	5740.3504	5718.0105	5694.6109	5669.2137	5645.9451	5626.6426
737.	5606.0506	5583.7841	5561.1332	5538.9714	5518.0713	5499.3649	5477.0446	5451.4145
738.	5427.2885	5404.2257	5381.6052	5356.4702	5328.2693	5294.1964	5252.8910	5211.1574
739.	5176.7927	5153.3156	5132.6408	5115.4145	5101.9205	5091.7642	5083.6745	5076.1862
740.	5061.6583	5039.2681	5005.6858	4959.2467	4910.4791	4860.0000	0.0	
741.	0.0	6660.0000	6651.0550	6581.3888	6511.3245	6459.2680	6378.0473	6269.8471
742.	6201.8745	6146.8449	6080.6468	5996.0949	5923.7656	5875.8000	5839.5399	5808.8060
743.	5782.4999	5762.2229	5741.5690	5720.2951	5698.3590	5675.6675	5653.1970	5632.8755
744.	5613.5434	5591.1433	5566.2699	5542.9409	5521.2310	5501.3986	5478.8364	5453.3251
745.	5430.1737	5408.1693	5383.7172	5355.2522	5323.5365	5285.9946	5240.6958	5192.7658
746.	5156.3502	5134.3031	5111.8767	5094.6990	5082.1770	5073.1811	5065.2362	5058.7369

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Starting head matrix, in feet--Continued							
747.	5042.4201	5022.1367	4991.5241	4949.3902	4904.6254	4850.0000	0.0	
748.	0.0	6630.0000	6628.9907	6582.6568	6534.1143	6486.4020	6384.8203	6258.1163
749.	6206.3807	6149.8605	6069.9527	5976.3858	5910.9437	5867.3637	5836.9622	5809.3720
750.	5783.2740	5761.8385	5742.1093	5721.9273	5701.5241	5680.4956	5659.3508	5638.9122
751.	5619.6684	5597.0025	5570.5086	5545.6435	5522.5263	5500.8622	5476.8104	5450.8099
752.	5426.9231	5404.9848	5380.1286	5349.7791	5315.3609	5274.9438	5227.6044	5177.9434
753.	5142.2253	5119.5647	5095.2401	5079.7208	5068.1712	5055.6317	5043.0122	5034.5365
754.	5021.6190	5002.5566	4972.7776	4934.5111	4898.7058	4840.0000	0.0	
755.	0.0	0.0	6615.0000	6569.3801	6517.6260	6487.0882	6393.7734	6284.0569
756.	6211.0107	6133.7290	6048.0282	5964.7292	5903.5732	5863.7737	5835.5766	5807.6846
757.	5783.0321	5762.2254	5741.8056	5722.4858	5704.2460	5684.3793	5663.4727	5642.4739
758.	5622.2182	5598.6428	5570.9141	5544.8878	5520.6765	5496.3321	5470.7713	5445.3743
759.	5421.1322	5397.1105	5372.3770	5344.5624	5309.3014	5266.8484	5221.8481	5179.3740
760.	5146.1935	5119.1621	5093.1146	5076.1050	5058.6173	5041.6238	5023.8216	5011.5368
761.	4998.7055	4979.3418	4953.3518	4922.6780	4897.1571	4860.0000	0.0	
762.	0.0	0.0	6630.0000	6539.1421	6479.5632	6432.6319	6355.9717	6272.6431
763.	6207.9717	6129.3753	6030.1578	5963.4064	5904.2098	5865.1451	5833.3568	5805.1126
764.	5782.2881	5761.8392	5740.1252	5721.1216	5706.5667	5688.2325	5666.7919	5644.0889
765.	5620.6546	5596.6788	5571.0790	5544.5072	5518.0576	5492.2981	5466.6616	5441.2045
766.	5416.2164	5391.8187	5367.9086	5341.2101	5306.9896	5267.1833	5224.9501	5184.8366
767.	5154.4446	5129.6677	5101.4281	5073.7847	5049.2501	5027.8311	5006.5043	4995.9925
768.	4983.6140	4969.3450	4949.7528	4926.3516	4900.1539	4870.0000	0.0	
769.	0.0	0.0	0.0	6485.0000	6414.3213	6346.8027	6299.0193	6253.0788
770.	6195.0399	6125.4794	6040.0520	5959.6370	5903.9896	5866.6453	5833.5116	5804.5874
771.	5782.9806	5762.4077	5740.6624	5721.5059	5705.4098	5687.1441	5668.2983	5643.7989
772.	5617.9446	5595.5321	5570.4985	5544.0507	5516.0153	5488.3897	5462.6594	5436.9956
773.	5411.4013	5386.6190	5362.9880	5338.2326	5304.5743	5265.9783	5228.9799	5194.0596
774.	5165.8039	5140.9591	5112.2651	5080.4350	5051.5166	5026.4361	5007.4306	4997.7575
775.	4985.2536	4970.3324	4950.2780	4932.8682	4955.8649	4930.0000	0.0	
776.	0.0	0.0	0.0	6475.0000	6400.0087	6325.0210	6265.0331	6225.0545
777.	6180.0400	6118.9504	6047.1518	5960.6842	5903.3991	5866.0440	5833.9570	5807.5965
778.	5786.1226	5763.5644	5742.8620	5724.8088	5706.2372	5686.5714	5666.1978	5644.1432
779.	5621.0113	5596.6615	5570.6163	5544.6010	5512.6546	5483.2489	5459.4102	5433.9063
780.	5406.9461	5382.2136	5360.6232	5333.1079	5296.5075	5262.3382	5235.1259	5206.1181
781.	5176.0285	5147.5312	5118.0819	5087.2622	5055.8305	5031.7986	5014.7902	5003.6218
782.	4994.3642	4991.0568	4988.9975	4979.7344	5007.0513	4950.0000	0.0	
783.	0.0	0.0	0.0	6480.0000	6417.3434	6362.0945	6291.4383	6224.9024
784.	6155.0041	6100.4873	6047.1728	5964.0180	5901.5773	5866.8062	5837.9336	5814.1325
785.	5789.8937	5766.9778	5747.6761	5728.0423	5707.7226	5686.6629	5665.4848	5644.9026
786.	5624.9602	5599.8817	5569.2626	5536.5718	5505.5139	5481.7959	5457.4599	5431.8284
787.	5404.4915	5379.8639	5358.4429	5329.9365	5293.5266	5262.6936	5237.5733	5210.2593
788.	5181.8834	5152.8027	5122.2767	5091.3838	5061.2669	5042.3063	5028.5764	5051.1937
789.	5056.0797	5051.7619	5048.9575	5033.1303	5019.7496	4975.0000	0.0	
790.	0.0	0.0	0.0	6515.0000	6457.3896	6393.1763	6328.7858	6240.6588
791.	6144.9952	6087.8704	6035.7384	5960.8808	5901.7912	5870.9954	5845.1309	5821.6029
792.	5798.4483	5775.3547	5754.0363	5732.8588	5710.6896	5686.5616	5663.8787	5644.7743
793.	5625.3439	5599.8300	5567.7869	5533.1383	5503.0513	5480.1055	5455.8834	5430.4039
794.	5403.2086	5378.6042	5356.8760	5327.2628	5293.4451	5266.7837	5241.7996	5213.7378
795.	5185.7688	5156.6565	5124.4085	5088.2934	5064.2720	5057.0283	5051.6548	5095.5589

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Starting head matrix, in feet--Continued							
796.	5122.4047	5097.5108	5084.2871	5063.0479	5034.7583	5000.0000	0.0	
797.	0.0	0.0	6655.0000	6589.8128	6490.9521	6431.0510	6360.6566	6269.6055
798.	6153.3766	6069.9490	6016.6529	5963.7989	5913.4309	5875.0835	5852.4264	5828.0232
799.	5805.2708	5783.1762	5760.8769	5739.0323	5715.2471	5691.3005	5667.5474	5645.0381
800.	5622.4108	5596.4315	5566.6876	5533.2628	5502.7026	5478.8294	5454.6551	5429.6789
801.	5403.2729	5378.8073	5356.4950	5327.7485	5295.2299	5268.7247	5245.3046	5220.2773
802.	5194.2845	5163.8509	5127.8663	5091.7661	5069.8997	5065.1021	5073.1080	5108.2865
803.	5131.6876	5121.3996	5104.1847	5082.9117	5052.7079	5025.0000	0.0	
804.	0.0	0.0	6740.0000	6637.7440	6525.5415	6459.2209	6384.4961	6289.5449
805.	6164.2805	6057.8891	6010.0285	5969.9852	5920.0617	5890.1174	5865.0566	5835.1543
806.	5810.1753	5790.1220	5765.0671	5744.9641	5719.9770	5694.9883	5670.1671	5645.8012
807.	5620.8794	5595.8146	5567.8488	5538.9646	5505.7434	5477.2085	5453.6124	5429.4274
808.	5405.1062	5381.1128	5355.1530	5324.4303	5295.2637	5272.1239	5249.1057	5226.3917
809.	5202.1849	5176.9018	5142.8261	5101.8160	5078.9225	5071.4613	5094.7498	5129.9341
810.	5149.1528	5143.5496	5127.3038	5103.1228	5070.6441	5040.0000	0.0	
811.	0.0	0.0	6850.0000	6671.3816	6548.0310	6477.4853	6399.0501	6301.1095
812.	6190.0079	6085.9659	6020.9365	5979.9044	5930.0578	5884.9392	5852.4723	5832.6644
813.	5810.4698	5788.3311	5764.6927	5741.4674	5716.6087	5692.3707	5669.9823	5645.0011
814.	5620.0274	5599.8923	5569.9191	5544.5192	5510.4474	5479.0098	5452.5110	5428.1535
815.	5405.4724	5384.3521	5356.9569	5322.4680	5293.7877	5274.5187	5251.9772	5228.2589
816.	5206.5187	5185.2430	5155.3621	5115.5620	5093.7035	5091.4510	5124.8581	5153.1861
817.	5160.4431	5155.0812	5142.2461	5119.9481	5087.4009	5060.0000	0.0	
818.	0.0	0.0	6890.0000	6704.0515	6553.4731	6486.4488	6402.8094	6319.1265
819.	6215.8964	6109.9699	6034.2885	5985.9942	5930.7217	5878.9559	5848.0016	5830.1174
820.	5808.9324	5784.7175	5760.6347	5737.5988	5713.5735	5689.6178	5665.9550	5641.5165
821.	5616.3311	5591.0591	5562.6741	5533.5658	5509.6229	5474.7140	5443.3898	5420.3325
822.	5403.3757	5382.7073	5354.2721	5325.2400	5298.0384	5274.5972	5249.6344	5227.1465
823.	5209.1537	5190.7083	5163.5607	5127.5924	5106.8219	5111.8198	5145.3586	5165.7530
824.	5166.0363	5161.3012	5149.8477	5130.2078	5101.0782	5065.0000	0.0	
825.	0.0	7140.0000	6884.8206	6708.3498	6571.8303	6496.9481	6415.0365	6325.6318
826.	6223.4856	6117.8257	6042.6312	5989.9090	5928.2174	5874.3432	5845.2431	5826.8022
827.	5805.4851	5780.9468	5756.8284	5733.6504	5709.6387	5685.3737	5661.8308	5637.1506
828.	5609.8493	5582.0032	5548.5773	5512.2300	5480.5041	5447.0429	5423.9892	5406.3627
829.	5393.9613	5375.4121	5349.1069	5323.1776	5297.9147	5273.5086	5248.7813	5227.8034
830.	5211.2239	5194.0485	5167.3566	5136.9995	5121.0503	5127.5258	5158.2466	5173.5683
831.	5170.8249	5166.3973	5156.7291	5139.8110	5112.9165	5070.0000	0.0	
832.	0.0	7110.0000	6897.9437	6710.5023	6582.4056	6505.0148	6417.3321	6315.2998
833.	6206.6285	6109.1536	6048.4013	5994.8862	5922.6716	5867.5445	5840.9797	5823.2755
834.	5801.6682	5777.1652	5752.9577	5729.0543	5704.3873	5679.0258	5653.7262	5627.3498
835.	5599.2408	5565.8564	5521.7680	5476.5686	5438.2948	5411.9517	5400.6385	5388.1177
836.	5380.2103	5363.9350	5340.5930	5317.5575	5294.0993	5269.8627	5248.5419	5229.8951
837.	5212.6350	5195.8821	5171.1236	5146.7415	5134.6802	5142.6627	5165.1677	5178.8904
838.	5175.9244	5171.6648	5162.7814	5148.1458	5123.6027	5080.0000	0.0	
839.	0.0	7080.0000	6889.7666	6697.2159	6581.1487	6511.0981	6401.8585	6267.5749
840.	6176.4986	6104.0541	6045.7001	5986.3366	5911.1803	5865.2748	5839.3701	5820.4632
841.	5798.4330	5773.6642	5748.5153	5723.6597	5697.8002	5671.1225	5644.1588	5614.6974
842.	5583.5707	5545.9509	5494.7929	5443.2937	5405.7568	5386.9885	5379.2498	5372.5742
843.	5363.9658	5348.2359	5328.5933	5309.3847	5288.0747	5268.2298	5251.3422	5232.6917
844.	5215.7466	5199.7952	5175.7451	5155.9300	5148.3064	5155.0325	5172.5828	5185.4172

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Starting head matrix, in feet--Continued							
845.	5182.7814	5177.6655	5169.3387	5155.5406	5133.3116	5090.0000	0.0	
846.	0.0	7100.0000	6854.1519	6680.9184	6566.2253	6492.6317	6353.9108	6219.4804
847.	6145.2509	6087.6691	6039.1816	5979.3820	5902.2762	5863.3201	5838.6418	5819.0407
848.	5795.9287	5769.8003	5743.5020	5717.1918	5689.8911	5661.3450	5631.7238	5597.8468
849.	5563.8983	5525.9226	5475.2081	5426.1927	5392.2277	5376.4846	5366.9927	5358.4279
850.	5347.5907	5332.6795	5318.1521	5302.5579	5285.2660	5269.5842	5254.8863	5237.3762
851.	5218.4939	5200.2706	5179.1181	5165.2381	5161.2828	5164.3642	5178.5326	5216.2236
852.	5191.0972	5185.4271	5176.6499	5162.8989	5142.3912	5100.0000	0.0	
853.	0.0	7050.0000	6807.2992	6643.8568	6535.2881	6427.3694	6265.4101	6165.7838
854.	6095.2219	6055.5826	6028.7419	5969.7660	5903.7390	5865.2246	5841.7843	5819.5297
855.	5792.9543	5763.7215	5736.4538	5709.3386	5680.9963	5650.8272	5615.8440	5576.0537
856.	5539.7625	5501.7811	5458.7263	5414.0152	5381.6657	5368.7143	5357.7440	5346.7660
857.	5335.0012	5321.8013	5309.5194	5294.8279	5280.2194	5268.6630	5254.1473	5236.9186
858.	5219.3719	5201.3909	5183.0439	5172.1650	5170.0124	5171.5262	5185.3055	5233.5771
859.	5205.0091	5194.6552	5183.9023	5170.1990	5150.6241	5120.0000	0.0	
860.	0.0	7000.0000	6750.1009	6594.3986	6470.7503	6348.9914	6205.0590	6106.1397
861.	6030.8011	6007.5098	5994.8390	5948.8856	5901.9556	5868.3664	5847.6244	5821.0393
862.	5789.8938	5758.5381	5729.9569	5701.4190	5670.3277	5632.2286	5583.5030	5542.3381
863.	5507.4483	5473.6154	5443.3121	5408.4859	5378.2000	5359.7166	5346.9139	5335.1480
864.	5321.5430	5308.1400	5295.8073	5282.2126	5272.1148	5262.5266	5248.5732	5234.4715
865.	5218.6700	5200.8556	5185.1999	5177.7587	5176.2680	5176.8327	5190.9879	5241.3965
866.	5214.3990	5203.7470	5190.3355	5177.0482	5157.4629	5125.0000	0.0	
867.	0.0	6900.0000	6707.9730	6536.5317	6377.4678	6266.9525	6147.2096	6038.8893
868.	5972.0217	5956.9697	5956.3445	5931.0993	5894.1088	5871.8962	5851.9928	5827.5363
869.	5789.5082	5749.0895	5719.6684	5685.2822	5643.5018	5593.6321	5544.9671	5512.5528
870.	5477.8076	5448.0074	5425.8062	5397.1689	5371.3296	5349.6198	5334.6490	5320.5868
871.	5305.2262	5290.1355	5279.6505	5268.8232	5261.2339	5251.5228	5241.1181	5230.6463
872.	5217.0212	5200.8404	5187.0125	5181.6663	5180.7906	5181.4208	5196.0893	5246.5644
873.	5220.8430	5210.3647	5194.2817	5183.5503	5165.4956	5140.0000	0.0	
874.	0.0	6870.0000	6670.1010	6475.9019	6323.3127	6232.4865	6110.9736	5984.9915
875.	5921.9252	5912.7045	5913.9489	5910.5195	5892.1422	5873.6369	5850.6820	5820.6423
876.	5781.0057	5738.0095	5698.2448	5657.1612	5611.3263	5564.9729	5521.1797	5485.3889
877.	5446.5588	5423.6764	5401.7561	5377.4440	5355.0446	5333.0364	5315.7849	5298.5754
878.	5286.9407	5275.2446	5266.8271	5254.4541	5243.9112	5233.0339	5228.6371	5222.4514
879.	5214.7618	5203.0954	5190.4549	5184.1253	5183.8438	5185.9066	5201.4856	5251.8408
880.	5226.0472	5214.5041	5196.2949	5187.0708	5171.5221	5150.0000	0.0	
881.	0.0	6800.0000	6617.5166	6416.8610	6276.0210	6176.1351	6050.8759	5928.9516
882.	5850.1975	5854.5782	5870.8755	5882.6282	5879.7869	5864.5523	5839.3544	5802.7776
883.	5755.3476	5709.6705	5668.7255	5623.9681	5578.8106	5533.9653	5490.5295	5454.2014
884.	5418.6747	5400.0240	5376.0004	5354.6793	5334.1382	5310.1609	5288.9571	5272.6929
885.	5262.6643	5255.6445	5247.3273	5234.9764	5221.7690	5212.6412	5213.0125	5212.3590
886.	5213.7652	5210.3312	5200.5743	5192.0638	5191.1612	5193.6365	5209.3468	5258.8544
887.	5230.5953	5217.4722	5197.6649	5188.7290	5174.3417	5160.0000	0.0	
888.	0.0	6700.0000	6543.0524	6363.7265	6213.6823	6102.5855	5984.0861	5866.0045
889.	5794.2516	5794.7723	5820.4006	5853.0193	5860.2275	5847.2522	5818.9429	5772.0504
890.	5697.9205	5644.3191	5594.1382	5557.0543	5532.2543	5496.0316	5462.8040	5429.1329
891.	5398.1375	5377.7622	5350.5114	5329.1918	5305.9874	5278.3142	5254.5225	5241.7376
892.	5233.6521	5231.2312	5223.6974	5213.6297	5200.1133	5194.9646	5199.3392	5203.1840
893.	5211.0373	5215.4414	5214.4965	5208.2058	5207.1446	5209.5390	5253.0952	5272.4995

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Starting head matrix, in feet--Continued							
894.	5235.2048	5220.6686	5199.1115	5189.6039	5175.0526	5150.0000	0.0	
895.	0.0	6630.0000	6458.4093	6296.9711	6139.4947	6027.0745	5912.4797	5805.0214
896.	5760.8544	5750.9081	5760.5325	5802.6781	5821.6303	5809.8028	5778.6391	5708.6796
897.	5611.1399	5561.9038	5509.9307	5485.4446	5470.7477	5445.6131	5421.8384	5392.1137
898.	5369.3162	5345.4057	5319.1617	5302.6080	5276.0378	5246.4002	5223.3996	5213.7343
899.	5208.1343	5201.9558	5194.3767	5188.2420	5177.4577	5170.0540	5175.1129	5188.7491
900.	5202.0180	5214.4088	5219.9303	5219.5424	5221.6445	5226.5568	5251.6660	5258.4568
901.	5244.8562	5225.2003	5200.7298	5189.7813	5175.1148	5150.0000	0.0	
902.	0.0	6550.0000	6380.9578	6224.5227	6074.1922	5972.1047	5862.8394	5765.8495
903.	5731.3363	5723.7205	5711.4652	5726.9911	5732.3626	5715.4672	5681.5552	5615.6552
904.	5538.5490	5496.0509	5456.3728	5432.5393	5405.5674	5384.9642	5371.3483	5349.7924
905.	5329.0223	5305.9888	5291.4052	5275.2336	5246.6568	5220.3184	5200.6411	5190.2483
906.	5183.4325	5174.0287	5166.0437	5157.8601	5150.6385	5140.2322	5133.4637	5144.8508
907.	5171.9914	5196.8892	5211.2974	5218.7388	5226.5559	5234.4457	5255.1784	5260.4656
908.	5252.1428	5237.7962	5209.8306	5188.6127	5174.5321	5150.0000	0.0	
909.	0.0	6470.0000	6296.0120	6139.3125	5994.8699	5904.6824	5803.3893	5722.3647
910.	5692.9923	5682.8328	5665.4815	5653.8672	5634.4014	5605.9477	5563.7138	5512.0535
911.	5470.0503	5436.1403	5406.8739	5384.3687	5360.6420	5341.3487	5326.4121	5306.5525
912.	5285.4588	5267.6776	5254.8165	5234.9714	5210.5921	5192.0228	5175.6190	5164.1017
913.	5153.5538	5143.4335	5134.3905	5124.9072	5118.1677	5110.0174	5101.0461	5097.4648
914.	5120.6647	5150.9321	5175.8330	5199.2580	5222.1659	5243.6468	5259.7666	5262.0931
915.	5252.8685	5244.7022	5216.5609	5188.4114	5173.2109	5150.0000	0.0	
916.	0.0	6350.0000	6200.0000	6030.0000	5900.0000	5820.0000	5750.0000	5690.0000
917.	5650.0000	5630.0000	5610.0000	5590.0000	5570.0000	5550.0000	5510.0000	5460.0000
918.	5430.0000	5400.0000	5375.0000	5350.0000	5325.0000	5305.0000	5290.0000	5275.0000
919.	5260.0000	5235.0000	5220.0000	5205.0000	5185.0000	5170.0000	5145.0000	5130.0000
920.	5115.0000	5105.0000	5095.0000	5085.0000	5080.0000	5075.0000	5070.0000	5070.0000
921.	5070.0000	5065.0000	5090.0000	5140.0000	5190.0000	5245.0000	5250.0000	5250.0000
922.	5250.0000	5250.0000	5210.0000	5190.0000	5170.0000	5160.0000	0.0	
923.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
924.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
925.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
926.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
927.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
928.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
929.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Group III: Array data--Continued
Storage coefficient, dimensionless
(First card is parameter card)

930.		.15			1			2												
931.	0																			
932.	0																			
933.	0																			
934.																		1	-1	-1	-1
935.	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	1	-1				
936.	0																			

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Storage coefficient, dimensionless--Continued																			
937.																	1	1	1	1
938.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
939.	0																			
940.									-1	-1	-1	-1	-1	-1	-1	-1	1	1	1	1
941.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-1	-1	1	1
942.	1	1	1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1						
943.									1	1	1	1	1	1	1	1	1	1	1	1
944.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
945.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
946.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
947.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
948.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
949.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
950.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
951.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
952.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
953.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
954.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
955.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
956.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
957.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
958.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
959.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
960.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
961.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
962.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
963.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
964.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
965.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
966.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
967.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
968.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
969.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
970.			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
971.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
972.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
973.			-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
974.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
975.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
976.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
977.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
978.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
979.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
980.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
981.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
982.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
983.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
984.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1						
985.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Storage coefficient, dimensionless--Continued																				
986.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
987.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1							
988.		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
989.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
990.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1							
991.		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
992.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
993.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1							
994.		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
995.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
996.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1							
997.		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
998.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
999.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1							
1000.		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1001.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1002.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1							
1003.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1004.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1005.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1							
1006.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1007.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1008.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1							
1009.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1010.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1011.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1							
1012.			-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1013.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1014.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1							
1015.			-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1016.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1017.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1							
1018.				-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1019.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1020.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1							
1021.				-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1022.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1023.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1							
1024.				-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1025.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1026.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1							
1027.				-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1028.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1029.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1							
1030.			-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1031.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Storage coefficient, dimensionless--Continued																				
1032.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1							
1033.			-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1034.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1035.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1							
1036.			-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1037.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1038.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1							
1039.			-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1040.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1041.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1							
1042.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1043.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1044.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1							
1045.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1046.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1047.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1							
1048.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1049.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1050.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1							
1051.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1052.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1053.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1							
1054.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1055.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1056.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1							
1057.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1058.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1059.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1							
1060.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1061.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1062.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1							
1063.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1064.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1065.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1							
1066.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1067.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1068.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1							
1069.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1070.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1071.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1							
1072.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1073.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1074.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1							
1075.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1076.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1077.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1							
1078.		-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1079.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1080.	1	1	1	1	1	1	1	1	1	1	1	1	1	-1							

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Storage coefficient, dimensionless--Continued																		
1081.	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
1082.	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
1083.	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1					
1084.	0																		
1085.	0																		
1086.	0																		

	Group III: Array data--Continued Hydraulic conductivity, in feet per second (First card is parameter card)															
1087.	1.E-06		1		2		0		0							
1088.	0															
1089.	0															
1090.	0															
1091.	0															
1092.	0															
1093.	20	30	100	100	100	100	100	80	80	20	20	10	10	30	80	100
1094.	200	200	1	60												
1095.	0															
1096.	0															
1097.	20	20	50	50	50	20	10	10	10	10	10	10	10	30	30	30
1098.	10	10	10	20												
1099.	0															
1100.									10	40	70	70	70	40	10	10
1101.	20	20	10	10	20	20	10	10	10	10	10	10	30	30	2	2
1102.	2	2	2	20	20	20	5	5	5	2	2	900	20	10	10	10
1103.	20	20	10	10	30	20										
1104.									1	5	70	70	60	50	30	30
1105.	30	30	30	10	10	10	10	10	10	10	10	20	30	60	30	30
1106.	60	60	100	100	100	80	60	20	10	5	800	800	10	5	5	10
1107.	10	10	10	10	20	20										
1108.		10	40	5	10	10	10	20	20	60	70	60	80	80	70	30
1109.	30	40	20	10	10	10	10	10	20	20	30	50	10	5	10	60
1110.	60	60	400	400	400	300	200	800	800	800	800	600	10	5	5	10
1111.	10	20	20	10	10	20										
1112.		10	30	10	5	10	10	10	20	50	40	60	70	70	50	30
1113.	10	10	10	10	10	10	10	20	30	30	60	2	2	5	10	60
1114.	200	200	400	600	600	600	600	600	600	50	20	20	10	1	5	10
1115.	10	20	20	20	20	20										
1116.		10	30	10	5	5	10	10	10	30	30	30	50	30	20	10
1117.	20	20	20	20	20	20	30	40	50	30	10	2	2	5	10	100
1118.	100	50	50	10	5	10	30	30	30	20	20	10	10	5	2	2
1119.	2	5	10	10	10	10										
1120.		1	10	10	5	5	5	5	20	30	20	20	50	20	10	20
1121.	20	20	30	30	30	30	40	40	20	20	10	10	20	40	40	50
1122.	50	40	40	10	10	5	2	2	5	10	10	10	10	2	5	20
1123.	60	60	20	20	10	10										

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Hydraulic conductivity, in feet per second--Continued															
1124.		1	5	5	5	5	10	10	30	20	10	10	10	10	10	20
1125.	20	20	10	10	20	20	20	20	20	20	20	20	20	20	20	40
1126.	40	20	20	10	10	1	1	1	5	10	10	10	10	10	20	50
1127.	80	80	40	40	20	20										
1128.		1	5	20	5	5	10	10	40	20	10	20	20	20	20	20
1129.	20	20	10	10	20	20	20	20	20	20	10	20	30	40	30	30
1130.	10	10	5	5	1	1	1	2	5	5	5	5	10	10	20	40
1131.	70	50	50	60	30	30										
1132.		1	5	20	20	10	30	10	10	5	5	10	10	10	10	5
1133.	20	20	10	10	20	20	20	20	40	40	40	40	40	40	30	30
1134.	40	40	40	40	30	30	30	30	50	50	50	70	70	80	80	80
1135.	60	50	10	60	80	80										
1136.		1	10	20	30	30	30	5	5	5	10	10	10	10	10	10
1137.	10	10	10	10	20	20	30	40	60	60	60	60	60	60	60	50
1138.	50	50	50	40	40	40	40	40	50	50	60	70	80	80	80	60
1139.	10	10	10	50	90	90										
1140.			20	20	10	5	10	5	5	5	2	5	5	5	5	5
1141.	10	10	10	20	20	30	40	60	60	60	60	60	60	60	60	60
1142.	60	50	50	50	50	50	50	50	50	50	80	100	200	400	60	60
1143.	20	10	10	40	100	500										
1144.			20	5	10	10	10	5	5	2	2	2	10	10	10	10
1145.	10	10	20	30	30	40	60	60	60	60	60	60	60	60	60	60
1146.	60	100	100	100	100	100	100	90	90	80	80	100	100	200	400	400
1147.	20	20	20	100	500	500										
1148.			20	5	5	5	2	2	2	2	2	5	5	10	10	10
1149.	10	20	30	30	40	50	60	60	60	60	60	60	60	60	60	60
1150.	100	100	100	200	200	200	200	100	90	90	90	100	100	200	400	400
1151.	500	500	500	500	500	500										
1152.		40	10	5	5	5	2	2	2	2	2	2	10	10	10	20
1153.	30	30	30	30	40	50	50	60	60	60	60	60	60	60	60	60
1154.	100	200	200	200	200	200	200	200	200	400	400	200	200	200	200	400
1155.	500	500	500	500	500	500										
1156.		40	2	10	10	5	2	10	5	2	2	10	10	20	30	30
1157.	30	30	30	30	40	40	40	40	40	40	40	50	50	80	100	200
1158.	200	200	200	200	200	200	200	200	400	400	200	200	200	200	200	400
1159.	500	500	500	500	500	500										
1160.		40	10	10	5	5	10	10	10	10	10	10	10	30	30	30
1161.	30	20	20	20	20	30	30	30	30	30	50	50	100	200	200	200
1162.	200	200	200	200	200	200	200	200	200	200	100	100	100	100	200	400
1163.	400	400	400	300	400	400										
1164.		20	10	20	10	10	10	20	20	20	20	10	20	30	30	30
1165.	30	30	50	50	50	50	100	100	100	100	100	200	200	200	200	100
1166.	100	100	100	100	80	80	100	100	100	100	100	100	100	100	200	400
1167.	400	400	300	200	200	400										
1168.		30	30	10	10	10	10	10	20	20	20	10	20	30	50	50
1169.	50	90	90	90	100	100	100	100	200	200	200	200	200	200	200	100
1170.	100	100	100	80	80	80	80	100	100	100	100	100	100	100	100	100
1171.	100	90	100	100	100	100										
1172.		40	20	10	10	10	10	20	20	20	20	80	80	50	50	50

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Hydraulic conductivity, in feet per second--Continued															
1173.	50	90	90	100	100	100	100	200	200	100	100	100	100	100	100	100
1174.	100	100	100	90	80	70	50	80	90	90	90	200	100	100	50	40
1175.	20	20	20	20	80	80										
1176.		30	10	10	10	10	5	10	20	20	20	20	30	60	60	60
1177.	70	80	100	100	100	100	100	100	100	100	100	100	100	100	100	100
1178.	100	100	90	80	70	60	50	50	70	90	90	100	100	100	100	80
1179.	60	30	20	20	60	60										
1180.		10	20	30	10	10	10	10	20	20	10	10	20	30	80	70
1181.	80	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
1182.	90	90	90	70	70	50	50	50	70	80	80	80	100	100	60	60
1183.	50	30	20	20	60	60										
1184.		10	20	30	10	10	5	20	20	20	20	10	20	20	20	20
1185.	100	100	100	100	100	100	200	200	200	200	200	200	200	200	100	90
1186.	90	90	90	70	70	50	50	60	80	90	90	90	90	100	60	60
1187.	20	20	20	20	50	50										
1188.		20	10	10	10	10	5	5	10	10	10	10	20	30	50	60
1189.	100	100	100	100	100	100	100	100	100	60	60	60	60	60	40	40
1190.	40	30	20	20	20	20	20	30	80	80	90	90	90	90	40	20
1191.	20	20	20	20	50	50										
1192.		400	50	30	5	2	1	10	10	10	5	10	20	40	60	60
1193.	70	100	100	100	100	100	100	100	100	60	60	60	60	60	40	40
1194.	40	40	20	20	20	20	20	30	200	200	400	800	600	200	90	20
1195.	20	20	20	20	80	80										
1196.			10	10	10	1	1	2	2	5	5	10	20	50	60	60
1197.	90	90	100	100	100	100	100	100	100	60	60	80	80	80	80	90
1198.	90	90	90	70	60	60	80	100	200	200	600	800	800	800	300	50
1199.	20	20	40	90	2500	3500										
1200.			10	10	10	1	1	2	5	2	10	10	20	30	40	60
1201.	90	100	100	200	200	100	90	90	80	80	80	80	90	90	90	90
1202.	90	90	90	70	60	60	60	90	200	200	200	200	800	800	4000	4000
1203.	4000	4000	3800	4000	4000	20										
1204.				10	10	20	20	5	5	5	5	10	20	30	30	60
1205.	90	100	100	200	200	200	200	100	200	200	200	200	200	200	200	200
1206.	200	200	200	200	100	100	100	200	300	300	200	200	300	300	4000	4000
1207.	5000	4000	3000	3000	5	20										
1208.				10	5	5	30	30	10	10	5	10	20	30	40	90
1209.	100	100	200	200	200	200	200	200	200	200	200	200	100	200	200	200
1210.	200	300	300	200	200	300	400	300	300	300	300	300	300	700	5000	5000
1211.	2300	20	10	10	50	200										
1212.				5	5	5	5	10	10	30	10	10	30	40	80	100
1213.	100	200	200	200	200	200	200	200	200	100	100	100	200	200	200	200
1214.	200	300	300	200	200	400	400	400	400	400	400	400	300	5000	5000	2
1215.	2	5	10	10	100	200										
1216.				5	2	5	5	5	10	30	10	10	50	70	90	100
1217.	100	100	100	100	100	100	200	200	200	100	100	100	200	200	200	200
1218.	200	300	300	200	300	400	300	300	400	400	400	400	5000	5000	30	2
1219.	1	10	20	20	80	80										
1220.			2	2	5	5	5	5	5	30	30	40	50	70	80	100
1221.	100	100	100	90	90	100	90	100	100	100	100	100	200	200	200	200

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Hydraulic conductivity, in feet per second--Continued															
1222.	200	300	300	200	200	300	300	300	300	200	300	300	2800	5000	30	10
1223.	5	10	20	20	70	70										
1224.			2	5	5	5	5	5	5	30	50	40	50	70	70	70
1225.	80	80	80	80	90	90	90	80	80	90	100	100	100	200	200	200
1226.	200	200	200	200	300	300	300	300	200	200	100	100	2900	3000	0 10	10
1227.	5	10	10	20	70	70										
1228.			5	5	5	5	5	5	10	10	30	20	20	20	100	90
1229.	90	90	80	80	80	100	100	100	100	100	100	300	300	300	300	200
1230.	200	200	100	100	300	300	200	200	200	200	100	100	3000	40	5	10
1231.	30	30	30	50	70	70										
1232.			5	2	10	5	10	10	10	10	20	20	20	30	100	100
1233.	80	80	100	100	100	100	100	100	100	100	100	100	300	300	300	300
1234.	300	100	100	100	100	100	100	200	200	200	100	100	3000	40	5	10
1235.	50	30	40	60	70	70										
1236.		5	10	10	10	10	10	10	10	10	20	20	20	40	90	90
1237.	80	80	100	100	100	100	100	70	60	60	40	40	40	60	300	300
1238.	300	100	100	100	100	100	100	200	200	200	100	200	2000	40	5	10
1239.	50	50	60	60	70	70										
1240.		10	5	5	5	5	5	5	5	10	20	10	10	30	90	90
1241.	80	90	100	100	100	100	100	90	80	50	50	60	60	80	100	400
1242.	300	100	100	100	100	100	200	200	300	300	200	400	2000	40	10	10
1243.	50	50	60	60	70	70										
1244.		5	2	5	5	5	2	5	10	10	20	10	20	40	90	90
1245.	90	90	100	100	100	100	100	80	80	50	50	90	200	700	200	400
1246.	300	100	100	100	100	200	200	200	300	200	100	400	1000	70	10	10
1247.	30	50	50	60	70	70										
1248.		5	5	5	5	5	2	5	10	5	20	5	20	40	90	90
1249.	90	90	100	100	100	100	100	80	90	60	50	100	200	800	800	400
1250.	500	300	300	200	200	200	200	100	100	100	100	600	900	200	10	1
1251.	30	30	40	50	70	70										
1252.		5	5	5	5	2	5	10	20	20	10	5	10	30	40	50
1253.	40	60	70	90	90	100	80	80	90	60	60	70	400	700	800	700
1254.	500	500	300	200	200	200	100	100	100	100	100	800	900	200	10	1
1255.	10	20	40	50	80	80										
1256.		5	10	10	5	2	5	5	20	20	5	10	10	40	30	30
1257.	40	50	60	60	60	40	40	60	100	100	80	80	100	400	700	700
1258.	600	500	300	200	300	100	100	100	100	100	200	800	800	400	10	1
1259.	30	20	40	50	80	80										
1260.		5	10	10	20	10	20	20	100	100	5	5	20	30	30	20
1261.	10	30	40	30	30	30	90	90	100	200	80	80	80	90	500	500
1262.	600	700	500	500	300	100	100	60	60	70	200	800	800	200	10	1
1263.	30	10	50	50	50	50										
1264.		10	10	10	20	20	10	30	100	100	10	5	10	10	10	10
1265.	10	10	20	30	50	50	90	90	100	300	100	80	70	80	100	300
1266.	500	700	700	500	300	100	100	60	60	70	100	800	800	200	10	1
1267.	30	10	70	80	80	80										
1268.		10	10	20	20	20	20	30	200	200	20	10	10	10	10	10
1269.	10	10	10	10	30	30	80	90	300	300	300	200	100	100	100	300
1270.	300	600	700	700	500	500	100	100	60	20	20	60	100	100	10	1

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Hydraulic conductivity, in feet per second--Continued															
1271.	30	10	80	100	100	90										
1272.		10	10	20	20	20	30	30	500	200	20	10	10	10	10	10
1273.	10	10	10	10	20	30	80	60	200	300	300	300	100	100	100	300
1274.	500	400	400	700	700	500	200	200	20	20	10	20	30	30	1	1
1275.	30	10	80	100	100	100										
1276.		10	20	20	20	20	30	80	700	700	40	10	5	5	5	5
1277.	30	30	70	70	20	20	50	50	100	100	500	500	300	300	500	500
1278.	800	400	400	400	700	700	50	50	10	10	10	20	30	30	5	10
1279.	10	10	80	100	100	100										
1280.		10	20	30	30	30	30	80	700	700	50	10	7	7	5	5
1281.	30	30	70	70	60	50	60	100	100	100	300	300	300	300	500	700
1282.	800	800	800	400	700	700	100	20	10	10	10	30	30	30	5	10
1283.	10	10	10	80	100	100										
1284.		20	30	30	30	30	30	100	700	700	400	60	50	50	50	50
1285.	100	100	200	200	200	200	100	100	200	300	300	300	600	600	800	800
1286.	800	800	800	800	800	800	800	400	20	10	10	20	10	10	5	5
1287.	20	20	10	80	100	100										
1288.		10	50	50	40	40	70	200	700	700	600	60	50	50	50	50
1289.	90	100	300	300	400	400	300	300	300	300	300	300	800	800	800	800
1290.	800	900	800	800	900	800	800	500	20	20	30	20	10	5	10	10
1291.	20	20	90	90	100	100										
1292.	0															
1293.	0															
1294.	0															
1295.	0															

Group III: Array data--Continued
Bottom of aquifer, in feet
(First card is parameter card)

1296.		1		1		2										
1297.	0															
1298.	0															
1299.	0															
1300.	0															
1301.	0															
1302.	5090	5050	5010	5000	4980	4950	4930	4910	4900	4860	4840	4820	4810	4800	4770	4740
1303.	4720	4700	4680	4660												
1304.	0															
1305.	0															
1306.	5080	5040	5000	4990	4950	4920	4910	4900	4890	4840	4820	4800	4790	4780	4740	4720
1307.	4700	4680	4660	4640												
1308.	0															
1309.									5500	5450	5380	5290	5210	5190	5130	5100
1310.	5060	5020	4990	4970	4940	4900	4890	4870	4850	4820	4800	4780	4740	4720	4700	4680
1311.	4640	4620	4600	4570	4540	4510	4480	4420	4400	4310	4290	4280	4270	4260	4260	4260
1312.	4270	4270	4280	4280	4290	4300										
1313.									5500	5440	5350	5280	5210	5180	5120	5090

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Bottom of aquifer, in feet--Continued															
1314.	5040	5010	4990	4940	4910	4890	4880	4840	4810	4800	4780	4740	4710	4700	4690	4640
1315.	4610	4600	4550	4520	4500	4480	4420	4390	4320	4290	4280	4280	4270	4270	4270	4280
1316.	4280	4280	4290	4300	4310	4310										
1317.		6200	6000	5910	5820	5760	5680	5590	5500	5430	5350	5280	5210	5180	5120	5090
1318.	5040	5000	4980	4940	4900	4880	4850	4820	4800	4780	4750	4720	4700	4770	4740	4710
1319.	4700	4670	4730	4700	4680	4640	4600	4370	4320	4290	4290	4280	4280	4280	4280	4290
1320.	4290	4300	4300	4310	4330	4340										
1321.		6210	6010	5920	5830	5770	5680	5590	5500	5430	5350	5280	5200	5170	5120	5090
1322.	5040	5000	4970	4940	4900	4870	4840	4810	4790	4750	4730	4710	4690	4660	4630	4600
1323.	4570	4540	4510	4490	4460	4430	4400	4360	4330	4300	4290	4280	4280	4290	4290	4300
1324.	4310	4310	4330	4350	4350	4350										
1325.		6280	6080	5960	5880	5780	5690	5590	5500	5430	5350	5280	5200	5170	5120	5090
1326.	5040	5000	4960	4930	4900	4870	4830	4800	4790	4750	4730	4700	4670	4640	4610	4590
1327.	4560	4540	4510	4500	4460	4430	4410	4390	4360	4330	4300	4290	4290	4300	4310	4320
1328.	4350	4370	4390	4390	4370	4350										
1329.		6300	6100	5980	5890	5790	5690	5590	5500	5430	5350	5270	5200	5170	5120	5090
1330.	5040	5000	4970	4940	4900	4860	4830	4800	4770	4740	4710	4690	4670	4640	4600	4580
1331.	4550	4540	4520	4500	4470	4440	4420	4400	4390	4360	4330	4310	4310	4320	4340	4360
1332.	4390	4400	4410	4410	4390	4360										
1333.		6380	6180	6000	5900	5790	5690	5590	5500	5430	5350	5270	5210	5170	5120	5090
1334.	5040	5010	4980	4940	4900	4870	4840	4800	4790	4760	4730	4700	4670	4640	4610	4590
1335.	4580	4540	4520	4500	4480	4460	4440	4420	4400	4390	4370	4350	4340	4350	4380	4390
1336.	4410	4420	4430	4420	4400	4360										
1337.		6400	620	6010	5910	5790	5700	5590	5510	5420	5350	5280	5200	5170	5120	5090
1338.	5050	5010	4990	4950	4900	4880	4850	4810	4790	4770	4730	4700	4690	4670	4630	4600
1339.	4590	4570	4540	4510	4490	4480	4460	4440	4420	4410	4390	4390	4380	4390	4400	4410
1340.	4420	4440	4460	4440	4410	4360										
1341.		6420	6250	6070	5910	5800	5700	5600	5510	5430	5350	5280	5210	5190	5140	5100
1342.	5170	5130	5000	4970	4920	4900	4860	4830	4800	4770	4740	4720	4700	4690	4660	4630
1343.	4600	4590	4570	4540	4510	4490	4480	4450	4440	4430	4410	4410	4400	4400	4410	4430
1344.	4460	4490	4490	4460	4410	4370										
1345.		6440	6300	6100	5920	5810	5700	5600	5520	5440	5360	5290	5210	5200	5150	5100
1346.	5080	5040	5010	4980	4950	4910	4890	4850	4810	4790	4770	4750	4720	4700	4690	4660
1347.	4640	4620	4600	4570	4540	4510	4490	4480	4460	4440	4430	4420	4420	4440	4460	4490
1348.	4500	4510	4510	4490	4420	4480										
1349.			6290	6120	5980	5820	5700	5600	5520	5430	5370	5290	5230	5200	5170	5120
1350.	5100	5070	5040	5000	4970	4940	4910	4880	4850	4820	4800	4780	4750	4730	4720	4700
1351.	4680	4650	4620	4600	4580	4550	4510	4500	4490	4480	4480	4480	4480	4490	4500	4510
1352.	4530	4550	4530	4500	4430	4480										
1353.			6330	6150	5970	5810	5710	5600	5520	5450	5380	5290	5240	5200	5190	5150
1354.	5110	5090	5060	5030	5000	4970	4930	4900	4880	4860	4830	4800	4780	4760	4740	4720
1355.	4700	4680	4660	4640	4610	4590	4550	4530	4520	4500	4500	4500	4500	4510	4520	4540
1356.	4560	4580	4580	4530	4450	4390										
1357.		6430	6350	6150	5980	5840	5720	5600	5520	5460	5380	5300	5260	5230	5200	5170
1358.	5140	5110	5080	5050	5020	5000	4970	4940	4910	4880	4860	4840	4820	4800	4780	4760
1359.	4740	4720	4690	4660	4630	4610	4590	4570	4550	4530	4520	4520	4540	4560	4580	4600
1360.	4610	4610	4610	4570	4480	4390										
1361.		6430	6400	620	6000	5830	5720	5610	5530	5470	5380	5310	5270	5230	5200	5180
1362.	5160	5130	5100	5080	5050	5020	5000	4980	4950	4920	4900	4870	4850	4830	4800	4780

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Bottom of aquifer, in feet--Continued															
1363.	4760	4740	4720	4700	4680	4660	4640	4610	4590	4580	4580	4580	4590	4600	4630	4660
1364.	4680	4680	4640	4590	4490	4400										
1365.		6510	6420	620	6000	5830	5720	5610	5530	5480	5400	5330	5290	5250	5210	5190
1366.	5170	5140	5120	5100	5080	5050	5020	5000	4970	4940	4910	4900	4880	4860	4840	4810
1367.	4790	4770	4750	4730	4700	4680	4660	4640	4620	4610	4610	4610	4620	4640	4680	4700
1368.	4710	4710	4680	4630	4500	4400										
1369.		6535	6450	6220	6000	5850	5730	5620	5550	5470	5400	5340	5300	5270	5240	5210
1370.	5180	5160	5140	5120	5100	5070	5040	5020	5000	4980	4960	4940	4920	4900	4870	4840
1371.	4820	4800	4780	4760	4740	4720	4700	4680	4670	4660	4670	4680	4690	4700	4700	4710
1372.	4710	4710	4700	4630	4520	4410										
1373.		6570	6450	6220	6000	5850	5730	5620	5560	5480	5410	5360	5310	5290	5260	5230
1374.	5200	5180	5160	5140	5120	5100	5080	5060	5030	5010	4980	4950	4930	4920	4900	4880
1375.	4860	4830	4810	4790	4770	4750	4730	4720	4710	4710	4710	4710	4720	4720	4720	4720
1376.	4720	4710	4700	4640	4520	4410										
1377.		6600	6500	6230	6010	5850	5750	5650	5570	5490	5420	5350	5320	5300	5280	5250
1378.	5220	5200	5180	5160	5140	5120	5100	5080	5060	5040	5010	4990	4970	4950	4930	4900
1379.	4880	4860	4840	4820	4800	4780	4750	4730	4730	4720	4720	4720	4720	4720	4720	4720
1380.	4820	4710	4700	4640	4530	4420										
1381.		6630	6520	6250	6010	5870	5750	5650	5580	5500	5420	5380	5330	5310	5290	5260
1382.	5240	5210	5200	5180	5160	5140	5120	5100	5080	5060	5030	5000	4990	4970	4940	4920
1383.	4900	4880	4860	4840	4820	4800	4780	4770	4750	4740	4730	4730	4730	4730	4730	4720
1384.	4720	4710	4700	4640	4540	4430										
1385.		6650	6540	6280	6010	5870	5750	5660	5580	5500	5430	5380	5340	5320	5300	5280
1386.	5260	5240	5220	5200	5180	5160	5140	5120	5100	5080	5060	5030	5000	4980	4960	4940
1387.	4920	4900	4880	4860	4830	4800	4790	4780	4760	4740	4730	4730	4730	4730	4730	4720
1388.	4720	4710	4700	4620	4530	4420										
1389.		6630	6530	6280	6000	5870	5740	5670	5580	5510	5440	5390	5360	5330	5310	5300
1390.	5280	5260	5240	5220	5190	5170	5150	5130	5110	5090	5070	5050	5030	5000	4970	4950
1391.	4920	4900	4880	4860	4840	4820	4790	4760	4730	4730	4730	4720	4720	4720	4720	4710
1392.	4710	4710	4680	4610	4530	4410										
1393.		6600	6530	6290	6000	5860	5740	5670	5580	5510	5440	5400	5370	5340	5320	5310
1394.	5290	5270	5250	5230	5210	5190	5170	5150	5130	5110	5090	5070	5040	5010	4990	4970
1395.	4940	4910	4880	4860	4840	4810	4780	4750	4720	4710	4700	4700	4700	4700	4700	4700
1396.	4700	4680	4640	4590	4520	4410										
1397.		6560	6520	6300	6000	5850	5740	5670	5590	5520	5450	5410	5380	5360	5340	5320
1398.	5300	5280	5260	5240	5220	5200	5180	5160	5140	5120	5100	5070	5040	5010	4990	4960
1399.	4930	4910	4880	4860	4840	4800	4770	4730	4690	4680	4680	4670	4660	4650	4630	4610
1400.	4600	4600	4580	4540	4500	4430										
1401.		6530	6510	6290	5990	5840	5740	5680	5600	5520	5470	5420	5390	5370	5340	5320
1402.	5310	5290	5270	5250	5230	5200	5180	5160	5140	5120	5100	5070	5040	5020	5000	4970
1403.	4940	4910	4880	4860	4830	4800	4770	4730	4700	4690	4680	4660	4640	4620	4600	4590
1404.	4580	4580	4570	4560	4480	4450										
1405.			6490	6290	5980	5820	5740	5680	5600	5520	5470	5430	5390	5380	5360	5340
1406.	5320	5300	5280	5260	5240	5220	5190	5170	5150	5130	5100	5080	5050	5020	5000	4970
1407.	4940	4910	4880	4850	4830	4810	4790	4760	4730	4710	4700	4680	4660	4630	4600	4600
1408.	4590	4560	4530	4500	4470	4450										
1409.			6490	6290	5970	5810	5750	5690	5600	5520	5470	5430	5400	5380	5360	5340
1410.	5330	5310	5290	5270	5250	5220	5200	5180	5150	5120	5100	5080	5050	5020	5000	4970
1411.	4940	4910	4890	4870	4850	4830	4810	4790	4770	4740	4720	4700	4690	4670	4640	4620

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Bottom of aquifer, in feet--Continued
1412.	4600 4590 4560 4500 4480 4450
1413.	6280 5920 5800 5740 5700 5610 5520 5480 5440 5410 5390 5370 5350
1414.	5330 5320 5300 5280 5250 5220 5200 5170 5140 5120 5100 5080 5050 5020 5000 4970
1415.	4940 4920 4900 4880 4860 4840 4820 4800 4790 4770 4750 4730 4710 4690 4680 4660
1416.	4640 4620 4600 4550 4490 4470
1417.	6250 5880 5790 5720 5700 5620 5520 5480 5440 5410 5390 5370 5360
1418.	5340 5320 5310 5290 5270 5240 5200 5180 5150 5120 5100 5080 5060 5030 5000 4970
1419.	4940 4920 4900 4880 4860 4840 4830 4820 4810 4800 4780 4760 4740 4720 4700 4690
1420.	4680 4660 4630 4590 4510 4480
1421.	6180 5880 5770 5700 5700 5620 5520 5480 5440 5420 5400 5380 5370
1422.	5350 5330 5310 5300 5270 5240 5210 5180 5150 5120 5100 5070 5040 5020 5000 4980
1423.	4960 4940 4920 4900 4880 4860 4840 4830 4820 4810 4800 4780 4760 4740 4720 4710
1424.	4700 4680 4650 4610 4560 4490
1425.	6150 5850 5740 5700 5700 5620 5530 5480 5440 5430 5410 5390 5380
1426.	5360 5340 5320 5300 5280 5260 5220 5190 5150 5110 5090 5070 5040 5020 5000 4980
1427.	4960 4940 4920 4900 4890 4880 4860 4840 4830 4820 4810 4800 4790 4770 4750 4730
1428.	4710 4690 4670 4640 4590 4510
1429.	6500 6100 5830 5730 5700 5700 5630 5520 5480 5450 5430 5410 5390 5370
1430.	5350 5340 5320 5300 5280 5250 5220 5190 5160 5120 5090 5060 5040 5020 4990 4970
1431.	4950 4940 4930 4920 4900 4880 4870 4860 4850 4840 4830 4820 4800 4780 4760 4740
1432.	4720 4700 4680 4650 4600 4540
1433.	6480 6100 5820 5700 5690 5700 5660 5550 5480 5450 5430 5420 5400 5380
1434.	5360 5340 5330 5310 5290 5270 5240 5200 5160 5120 5090 5070 5040 5020 4990 4980
1435.	4960 4950 4940 4930 4920 4900 4890 4880 4870 4850 4840 4830 4810 4800 4790 4770
1436.	4750 4730 4700 4670 4630 4580
1437.	6450 6080 5810 5700 5680 5700 5680 5580 5490 5460 5440 5420 5400 5390
1438.	5370 5350 5330 5320 5300 5270 5240 5200 5170 5140 5100 5070 5040 5010 4990 4980
1439.	4970 4960 4950 4940 4930 4920 4910 4900 4880 4870 4850 4840 4830 4820 4800 4790
1440.	4770 4750 4720 4680 4640 4600
1441.	6450 6080 5810 5700 5680 5700 5690 5590 5490 5470 5450 5430 5410 5390
1442.	5380 5370 5350 5330 5300 5270 5240 5200 5170 5140 5100 5080 5060 5030 5000 4990
1443.	4980 4970 4960 4950 4940 4930 4920 4910 4890 4880 4870 4860 4840 4830 4820 4800
1444.	4790 4770 4740 4700 4660 4610
1445.	6900 6400 6080 5820 5700 5680 5690 5700 5600 5500 5470 5450 5440 5420 5400
1446.	5380 5370 5350 5330 5300 5280 5240 5200 5180 5140 5100 5090 5070 5040 5020 5000
1447.	4990 4980 4970 4960 4950 4940 4930 4920 4900 4890 4880 4870 4850 4830 4820 4810
1448.	4800 4780 4740 4710 4680 4620
1449.	6900 6420 6090 5880 5750 5690 5690 5700 5630 5510 5480 5450 5440 5420 5400
1450.	5390 5380 5360 5330 5310 5290 5250 5210 5180 5150 5120 5100 5080 5050 5030 5010
1451.	4990 4980 4970 4960 4950 4940 4930 4920 4910 4900 4890 4880 4860 4840 4830 4820
1452.	4800 4780 4750 4720 4680 4630
1453.	6900 6420 6090 5880 5720 5690 5690 5700 5630 5520 5480 5460 5440 5430 5410
1454.	5390 5380 5350 5330 5310 5290 5270 5240 5190 5170 5140 5100 5090 5070 5050 5030
1455.	5010 5000 4990 4980 4970 4960 4940 4930 4920 4910 4890 4880 4870 4850 4840 4820
1456.	4800 4780 4760 4720 4680 4630
1457.	6850 6420 6110 5900 5780 5700 5690 5700 5660 5560 5490 5470 5450 5430 5410
1458.	5390 5380 5360 5340 5310 5280 5250 5220 5190 5160 5130 5110 5100 5080 5060 5040
1459.	5030 5020 5000 4990 4980 4970 4960 4940 4930 4920 4900 4880 4870 4860 4840 4820
1460.	4800 4780 4750 4720 4680 4640

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Bottom of aquifer, in feet--Continued
1461.	6850 6400 6120 6040 5820 5720 5690 5700 5690 5590 5500 5470 5460 5440 5420
1462.	5400 5380 5360 5340 5320 5290 5260 5230 5200 5180 5160 5130 5110 5090 5070 5050
1463.	5040 5030 5020 5000 4990 4980 4970 4960 4940 4920 4900 4890 4870 4850 4830 4820
1464.	4800 4780 4760 4730 4680 4640
1465.	6850 6400 6150 5980 5880 5780 5700 5700 5700 5610 5520 5480 5460 5440 5420
1466.	5400 5390 5370 5350 5320 5290 5260 5230 5200 5180 5160 5140 5120 5100 5090 5070
1467.	5050 5040 5020 5010 5000 4980 4960 4940 4930 4920 4910 4890 4880 4860 4840 4820
1468.	4800 4780 4760 4720 4680 4640
1469.	6800 6420 6170 6010 5910 5810 5750 5730 5720 5640 5550 5500 5490 5460 5430
1470.	5410 5390 5370 5350 5320 5300 5270 5240 5210 5190 5170 5150 5130 5110 5090 5080
1471.	5060 5050 5030 5020 5000 4990 4970 4950 4940 4930 4910 4890 4880 4860 4830 4810
1472.	4790 4770 4740 4710 4680 4640
1473.	6770 6440 6180 6050 5930 5860 5790 5770 5730 5630 5550 5500 5490 5460 5440
1474.	5410 5390 5370 5350 5330 5300 5280 5260 5230 5200 5180 5160 5140 5120 5100 5080
1475.	5070 5060 5040 5030 5010 4990 4970 4960 4940 4930 4910 4890 4870 4850 4830 4810
1476.	4790 4780 4740 4710 4680 4640
1477.	6680 6450 6200 6050 5930 5860 5780 5720 5750 5700 5600 5540 5500 5490 5470
1478.	5440 5400 5380 5360 5340 5310 5280 5250 5230 5200 5180 5170 5150 5130 5110 5090
1479.	5070 5060 5040 5030 5010 4990 4980 4970 4950 4930 4910 4890 4880 4860 4840 4810
1480.	4790 4770 4730 4700 4680 4640
1481.	6600 6420 6220 6050 5930 5830 5750 5650 5700 5710 5610 5570 5530 5500 5480
1482.	5450 5410 5390 5370 5340 5310 5290 5270 5240 5210 5190 5170 5150 5130 5120 5100
1483.	5080 5060 5040 5030 5010 4990 4980 4960 4940 4930 4910 4890 4870 4850 4830 4800
1484.	4780 4760 4730 4700 4670 4630
1485.	6530 6350 6180 6000 5850 5750 5700 5630 5640 5660 5680 5590 5550 5510 5490
1486.	5440 5410 5390 5370 5340 5300 5290 5250 5230 5200 5190 5140 5150 5130 5120 5100
1487.	5080 5060 5040 5030 5010 4990 4980 4970 4950 4930 4910 4890 4870 4850 4830 4800
1488.	4780 4760 4730 4700 4670 4630
1489.	6450 6280 6120 5970 5840 5740 5650 5610 5590 5590 5620 5610 5580 5530 5500
1490.	5430 5390 5340 5320 5300 5280 5270 5250 5220 5190 5180 5140 5140 5120 5100 5080
1491.	5080 5070 5050 5030 5010 4990 4980 4970 4950 4930 4910 4890 4870 4840 4810 4790
1492.	4770 4740 4720 4690 4660 4630
1493.	6370 6180 6050 5880 5780 5680 5620 5575 5560 5550 5550 5550 5530 5480 5430
1494.	5380 5330 5310 5280 5270 5240 5220 5200 5190 5160 5150 5130 5110 5090 5070 5060
1495.	5040 5040 5020 5010 5010 4990 4980 4960 4940 4920 4900 4890 4860 4830 4800 4780
1496.	4760 4740 4720 4680 4650 4620
1497.	6250 6100 5930 5800 5720 5650 5590 5550 5530 5510 5490 5470 5450 5410 5360
1498.	5330 5300 5270 5250 5220 5200 5190 5170 5160 5130 5120 5100 5080 5070 5040 5030
1499.	5010 5000 4990 4980 4980 4970 4970 4960 4940 4920 4900 4870 4840 4810 4790 4770
1500.	4750 4730 4700 4670 4640 4610
1501.	0
1502.	0
1503.	0
1504.	0

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Specific yield, dimensionless (Parameter card)
1505.	.15

Group III: Array data--Continued
Confining bed thickness at stream nodes, in feet
(First card is parameter card)

1506.			2	100
1507.	4	44	1.0	
1508.	5	30	1.0	
1509.	5	31	1.0	
1510.	5	32	1.0	
1511.	5	33	1.0	
1512.	5	34	1.0	
1513.	5	43	1.0	
1514.	6	28	1.0	
1515.	6	29	1.0	
1516.	6	35	1.0	
1517.	6	40	1.0	
1518.	6	41	1.0	
1519.	6	42	1.0	
1520.	6	43	1.0	
1521.	7	26	1.0	
1522.	7	27	1.0	
1523.	7	33	1.0	
1524.	7	34	1.0	
1525.	7	35	1.0	
1526.	7	36	1.0	
1527.	7	37	1.0	
1528.	7	38	1.0	
1529.	7	39	1.0	
1530.	8	25	1.0	
1531.	8	32	1.0	
1532.	9	20	1.0	
1533.	9	21	1.0	
1534.	9	22	1.0	
1535.	9	23	1.0	
1536.	9	24	1.0	
1537.	9	30	1.0	
1538.	9	31	1.0	
1539.	10	17	1.0	
1540.	10	18	1.0	
1541.	10	19	1.0	
1542.	10	29	1.0	
1543.	11	9	1.0	
1544.	11	10	1.0	
1545.	11	11	1.0	
1546.	11	12	1.0	
1547.	11	13	1.0	

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Confining bed thickness at stream nodes, in feet--Continued		
1548.	11	14	1.0
1549.	11	15	1.0
1550.	11	16	1.0
1551.	11	28	1.0
1552.	12	8	1.0
1553.	13	5	1.0
1554.	13	6	1.0
1555.	13	7	1.0
1556.	14	3	1.0
1557.	14	4	1.0
1558.	28	54	1.0
1559.	29	52	1.0
1560.	29	53	1.0
1561.	30	49	1.0
1562.	30	50	1.0
1563.	30	51	1.0
1564.	31	5	1.0
1565.	31	6	1.0
1566.	31	7	1.0
1567.	31	8	1.0
1568.	32	4	1.0
1569.	32	9	1.0
1570.	33	9	1.0
1571.	34	10	1.0
1572.	34	14	1.0
1573.	35	11	1.0
1574.	35	12	1.0
1575.	35	13	1.0
1576.	35	14	1.0
1577.	35	15	1.0
1578.	35	16	1.0
1579.	35	17	1.0
1580.	35	18	1.0
1581.	35	19	1.0
1582.	35	20	1.0
1583.	35	21	1.0
1584.	35	22	1.0
1585.	36	23	1.0
1586.	36	24	1.0
1587.	36	25	1.0
1588.	36	26	1.0
1589.	36	27	1.0
1590.	36	28	1.0
1591.	37	29	1.0
1592.	37	30	1.0
1593.	38	31	1.0
1594.	39	32	1.0
1595.	40	32	1.0
1596.	41	32	1.0

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Confining bed thickness at stream nodes, in feet--Continued		
1597.	42	32	1.0
1598.	43	33	1.0
1599.	44	34	1.0
1600.	45	35	1.0
1601.	46	36	1.0
1602.	47	37	1.0
1603.	48	38	1.0
1604.	49	38	1.0
1605.	50	38	1.0
1606.	51	38	1.0

Group III: Array data--Continued
Initial rate of gain in stream cells, in cubic feet per second
(First card is parameter card)

1607.	1	1	2	1	1	0.5	3.0-07
1608.	0						
1609.	0						
1610.	0						
1611.	0						
1612.	0						
1613.	0						
1614.	0						
1615.	0						
1616.	0						
1617.	0						
1618.	0						
1619.	0						
1620.	0						
1621.	0						
1622.	0						
1623.	0						
1624.	0						
1625.	0						
1626.	0						
1627.	0						
1628.	0						
1629.	0						
1630.	0						
1631.	0						
1632.	0						
1633.	0						
1634.			4.5E-01				
1635.	0						
1636.	0						
1637.	0						
1638.	0						
1639.						1.0E-01	1.0E-01 1.0E-01

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Initial rate of gain in stream cells, in cubic feet per second--Continued							
1640.	9.0E-02	9.0E-02						
1641.			4.5E-01					
1642.	0							
1643.	0							
1644.	0							
1645.	0							
1646.				3.0E-01	1.0E-01			
1647.			1.8E-01					3.0E-01
1648.	3.0E-01	3.0E-01						
1649.	0							
1650.	0							
1651.	0							
1652.	0							
1653.		5.0E-01	3.0E-01					
1654.	1.1E-01	1.2E-01	1.5E-01	1.7E-01	3.0E-01	3.0E-01	3.0E-01	
1655.	0							
1656.	0							
1657.	0							
1658.	0							
1659.	0							
1660.	5.0E-01							4.9E-01
1661.	0							
1662.	0							
1663.	0							
1664.	0							
1665.	0							
1666.				6.0E-01	5.5E-01	5.5E-01	5.0E-01	5.0E-01
1667.						6.9E-01	4.8E-01	
1668.	0							
1669.	0							
1670.	0							
1671.	0							
1672.	0							
1673.	6.5E-01	6.5E-01	6.0E-01					
1674.					7.0E-01			
1675.	0							
1676.	0							
1677.	0							
1678.	0							
1679.	4.5E-01	5.5E-01	6.7E-01	9.0E-01	7.5E-01	7.5E-01	7.0E-01	7.0E-01
1680.	0							
1681.				1.53E 00				
1682.	0							
1683.	0							
1684.	0							
1685.								3.5E-01
1686.	0							
1687.	0							
1688.	0							

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Initial rate of gain in stream cells, in cubic feet per second--Continued				
1689.	0				
1690.	0				
1691.	0				
1692.				1.0E-01	2.5E-01	3.0E-01
1693.	0				
1694.	0				
1695.	0				
1696.	0				
1697.	0				
1698.	0				
1699.		9.0E-02	9.0E-02		
1700.	0				
1701.	0				
1702.	0				
1703.	0				
1704.	0				
1705.	0				
1706.	0				
1707.	0				
1708.	0				
1709.	0				
1710.	0				
1711.	0				
1712.	0				
1713.	0				
1714.	0				
1715.	0				
1716.	0				
1717.	0				
1718.	0				
1719.	0				
1720.	0				
1721.	0				
1722.	0				
1723.	0				
1724.	0				
1725.	0				
1726.	0				
1727.	0				
1728.	0				
1729.	0				
1730.	0				
1731.	0				
1732.	0				
1733.	0				
1734.	0				
1735.	0				
1736.	0				
1737.	0				

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Initial rate of gain in stream cells, in cubic feet per second--Continued
1738.	0
1739.	0
1740.	0
1741.	0
1742.	0
1743.	0
1744.	0
1745.	0
1746.	0
1747.	0
1748.	0
1749.	0
1750.	0
1751.	0
1752.	0
1753.	0
1754.	0
1755.	0
1756.	0
1757.	0
1758.	0
1759.	0
1760.	0
1761.	0
1762.	0
1763.	0
1764.	0
1765.	0
1766.	0
1767.	0
1768.	0
1769.	0
1770.	0
1771.	0
1772.	0
1773.	0
1774.	0
1775.	0
1776.	0
1777.	0
1778.	0
1779.	0
1780.	0
1781.	0
1782.	0
1783.	0
1784.	0
1785.	0
1786.	0

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Initial rate of gain in stream cells, in cubic feet per second--Continued					
1787.	0					
1788.	0					
1789.	0					
1790.	0					
1791.	0					
1792.	0					
1793.	0					
1794.	0					
1795.	0					
1796.	0					
1797.	0					
1798.	0					
1799.	0					
1800.	0					
1801.	0					
1802.	0					
1803.						3.0E 00
1804.	0					
1805.	0					
1806.	0					
1807.	0					
1808.	0					
1809.	0					
1810.				2.0E 00	3.0E 00	
1811.	0					
1812.	0					
1813.	0					
1814.	0					
1815.	0					
1816.	0					
1817.	4.5E-01	4.5E-01	2.0E 00			
1818.	0					
1819.	0					
1820.	0					
1821.	0					
1822.	0					
1823.	0					
1824.	0					
1825.				3.9E-01		
1826.	2.0E-02					
1827.	0					
1828.	0					
1829.	0					
1830.	0					
1831.	0					
1832.	0					
1833.	6.0E-02					
1834.	0					

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Initial rate of gain in stream cells, in cubic feet per second--Continued							
1835.	0							
1836.	0							
1837.	0							
1838.	0							
1839.	0							
1840.		1.0E-01						
1841.	0							
1842.	0							
1843.	0							
1844.	0							
1845.	0							
1846.	0							
1847.			1.5E-01		-2.0E-01	-1.5E 00	-1.5E 00	-1.5E 00
1848.	-1.5E 00	-1.5E 00	-5.0E-01	-2.0E-01	-1.0E-01	-1.0E-01		
1849.	0							
1850.	0							
1851.	0							
1852.	0							
1853.	0							
1854.	0							
1855.							-1.0E-01	-1.0E-01
1856.	-1.0E-01	-1.0E-01	-1.0E-01	-1.0E-01				
1857.	0							
1858.	0							
1859.	0							
1860.	0							
1861.	0							
1862.	0							
1863.					-5.0E-01	-5.0E-01		
1864.	0							
1865.	0							
1866.	0							
1867.	0							
1868.	0							
1869.	0							
1870.							5.0E-01	
1871.	0							
1872.	0							
1873.	0							
1874.	0							
1875.	0							
1876.	0							
1877.								-5.0E-01
1878.	0							
1879.	0							
1880.	0							
1881.	0							
1882.	0							
1883.	0							

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Initial rate of gain in stream cells, in cubic feet per second--Continued
1884.	0
1885.	0
1886.	0
1887.	0
1888.	0
1889.	0
1890.	0
1891.	0
1892.	0
1893.	0
1894.	0
1895.	0
1896.	0
1897.	0
1898.	0
1899.	0
1900.	0
1901.	0
1902.	0
1903.	0
1904.	0
1905.	0
1906.	5.0E-02
1907.	0
1908.	0
1909.	0
1910.	0
1911.	0
1912.	0
1913.	1.0E-01
1914.	0
1915.	0
1916.	0
1917.	0
1918.	0
1919.	0
1920.	-1.0E-01
1921.	0
1922.	0
1923.	0
1924.	0
1925.	0
1926.	0
1927.	-5.0E-02
1928.	0
1929.	0
1930.	0
1931.	0
1932.	0

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Initial rate of gain in stream cells, in cubic feet per second--Continued
1933.	0
1934.	0
1935.	0
1936.	0
1937.	0
1938.	0
1939.	0
1940.	0
1941.	0
1942.	0
1943.	0
1944.	0
1945.	0
1946.	0
1947.	0
1948.	0
1949.	0
1950.	0
1951.	0
1952.	0
1953.	0
1954.	0
1955.	0
1956.	0
1957.	0
1958.	0
1959.	0
1960.	0
1961.	0
1962.	0
1963.	0
1964.	0
1965.	0
1966.	0
1967.	0
1968.	0
1969.	0
1970.	0
1971.	0

Group III: Array data--Continued
Head at stream nodes, in feet
(Parameter card)

1972.	0	0	2

Table 3.--Listing of data for 1971-77--Continued

Card number	Group III: Array data--Continued Top of aquifer, altitude of stream, in feet (Parameter card)
1973.	0 2

Group III: Array data--Continued
Recharge rate, in feet per second
(Parameter card)

1974. 2.19E-09

Number of streams and node identification

1975. 5
1976. 10 15 20 30 35

Test card to calculate initial recharge/discharge
at constant-flux boundary nodes

1977. 0 0

Group IV: Data that change with pumping period

1978. 2 1 224 2555 1000 1.5 24

Parameters for streamflow accounting procedure

Number of streams

1979. 5

	Stream identification	Upstream node I	Upstream node J	Inflow rate, in cubic feet per second	Last downstream node I	Last downstream node J
1980.	10	14	3	.09	4	44
1981.	15	11	28		7	35
1982.	20	30	49		28	54
1983.	30	32	4	.39	46	36
1984.	35	34	14	11.0	34	14

Table 3.--Listing of data for 1971-77--Continued

Card number	Group IV: Data that change with pumping period--Continued I, J, and pumping rate, in cubic feet per second	
1985.	5	25-0.0331507
1986.	8	37-0.4409041
1987.	9	31-0.4770384
1988.	14	33-0.0947636
1989.	14	45-0.3275287
1990.	15	31-0.4056222
1991.	15	34-0.4100266
1992.	15	37-0.3354849
1993.	15	38-0.1776876
1994.	15	43-0.0757730
1995.	15	45-0.5163456
1996.	15	46-0.2252546
1997.	30	33-0.0639
1998.	15	47-0.5199211
1999.	16	32-0.1444423
2000.	16	33-0.1444423
2001.	16	43-0.0344530
2002.	16	45-0.0871389
2003.	16	46-0.2247616
2004.	16	47-0.7840374
2005.	16	48-0.1860464
2006.	17	19-0.1148671
2007.	17	41-0.1178269
2008.	17	42-0.3322645
2009.	17	43-0.7644548
2010.	17	45-0.2240986
2011.	17	47-0.3770654
2012.	17	48-0.3718086
2013.	18	38-0.4289935
2014.	18	41-0.2735642
2015.	18	42-0.1765984
2016.	18	43-0.2081911
2017.	18	47-0.3652021
2018.	18	48-0.4817505
2019.	19	39-0.5114677
2020.	19	41-0.2734931
2021.	19	42-0.4837158
2022.	19	47-0.0640281
2023.	20	10-0.6166027
2024.	20	17-0.0309012
2025.	20	37-0.1989040
2026.	20	42-0.4140520
2027.	20	47-0.1335973
2028.	21	22-0.1498885
2029.	21	29-0.0981734
2030.	21	31-0.1190583
2031.	21	47-0.4397438
2032.	22	2-0.0516533
2033.	22	10-0.1077397

Table 3.--Listing of data for 1971-77--Continued

Card number	Group IV: Data that change with pumping period--Continued I, J, and pumping rate, in cubic feet per second--Continued	
2034.	22	15-0.2339965
2035.	22	16-0.3028315
2036.	22	19-0.1263514
2037.	22	32-0.0331506
2038.	22	35-0.1735201
2039.	22	36-0.3237164
2040.	22	39-0.1013464
2041.	23	2-0.0454702
2042.	23	9-0.2320548
2043.	23	11-0.0994520
2044.	23	17-0.1727624
2045.	23	31-0.1577972
2046.	23	34-0.0412963
2047.	23	40-0.1549321
2048.	23	41-0.2913471
2049.	24	2-0.0166388
2050.	24	12-0.1989041
2051.	24	27-0.0910696
2052.	24	38-0.0118395
2053.	24	41-0.0467425
2054.	25	2-0.0715493
2055.	25	10-0.0140654
2056.	25	26-0.2366011
2057.	25	27-0.2928626
2058.	25	34-0.0331507
2059.	25	36-0.0576822
2060.	25	44-0.2048712
2061.	25	45-0.6892027
2062.	26	2-0.0040481
2063.	26	34-0.1277722
2064.	26	44-0.2942123
2065.	26	45-0.2265849
2066.	27	2-0.1584384
2067.	27	3-0.1203213
2068.	27	28-0.1824945
2069.	27	30-0.0927035
2070.	27	32-0.7337904
2071.	27	45-0.3392972
2072.	27	46-0.6494219
2073.	28	27-0.5809658
2074.	28	30-0.1469049
2075.	28	33-0.2635479
2076.	28	40-0.2287397
2077.	28	47-0.3305123
2078.	28	48-1.0294943
2079.	29	14-0.0282728
2080.	29	25-0.1009675
2081.	29	26-0.1330289
2082.	29	33-0.0890806

Table 3.--Listing of data for 1971-77--Continued

Card number	Group IV: Data that change with pumping period--Continued I, J, and pumping rate, in cubic feet per second--Continued	
2083.	29	37-0.2370274
2084.	29	45-0.7218561
2085.	29	46-0.6865506
2086.	29	47-0.2920575
2087.	30	7-0.3471546
2088.	30	29-0.0595292
2089.	30	30-0.1456735
2090.	30	36-0.2640452
2091.	30	37-0.6001931
2092.	30	45-0.2552602
2093.	30	46-0.1682397
2094.	30	47-0.0828767
2095.	30	48-0.7172151
2096.	31	6-0.4111289
2097.	31	7-0.9736999
2098.	31	29-0.0322746
2099.	31	33-0.1886274
2100.	31	37-0.3421150
2101.	31	42-0.2532712
2102.	31	38-0.2923298
2103.	31	44-0.7095430
2104.	31	45-0.3751000
2105.	31	46-0.7200329
2106.	31	47-0.6301945
2107.	31	48-0.4456328
2108.	32	7-0.3363960
2109.	32	23-0.1788716
2110.	32	33-0.2221096
2111.	32	37-0.2151479
2112.	32	38-0.1276301
2113.	32	39-0.2081863
2114.	32	40-0.6647422
2115.	32	42-0.4530277
2116.	32	43-0.3754551
2117.	32	44-0.2652054
2118.	32	45-0.5987014
2119.	32	46-1.0589981
2120.	33	6-0.3172117
2121.	33	7-0.0908900
2122.	33	14-0.0331507
2123.	33	23-0.1035959
2124.	33	26-0.0907381
2125.	33	40-0.1980753
2126.	33	41-0.3550438
2127.	33	42-0.1989041
2128.	33	43-0.1574657
2129.	33	44-0.2264192
2130.	33	45-0.5184767
2131.	33	46-1.2240887

Table 3.--Listing of data for 1971-77--Continued

Card number	Group IV: Data that change with pumping period--Continued I, J, and pumping rate, in cubic feet per second--Continued	
2132.	33	47-0.1873013
2133.	34	5-0.0024123
2134.	34	6-0.2815926
2135.	34	7-0.1650465
2136.	34	34-0.3068095
2137.	34	41-0.1376939
2138.	34	42-0.7775493
2139.	34	43-0.4641096
2140.	34	45-0.2787972
2141.	34	46-0.6938438
2142.	35	5-0.2143431
2143.	35	6-0.0305242
2144.	35	24-0.1752250
2145.	35	39-0.2773054
2146.	35	40-0.3112849
2147.	35	41-0.0727657
2148.	35	45-0.2068602
2149.	35	46-0.4173671
2150.	36	6-0.1553295
2151.	36	27-0.1190583
2152.	36	33-0.1226575
2153.	36	35-0.2591673
2154.	36	42-0.3152630
2155.	36	43-0.3412863
2156.	36	44-0.2068602
2157.	36	45-0.3169205
2158.	37	5-0.1209623
2159.	37	6-0.1343807
2160.	37	30-0.1334314
2161.	37	42-0.3743659
2162.	37	44-0.7533493
2163.	37	45-0.7314699
2164.	38	7-0.1659810
2165.	38	31-0.0485657
2166.	38	45-0.3612714
2167.	39	6-0.3565062
2168.	39	7-0.1782531
2169.	39	27-0.1568027
2170.	39	31-0.0536575
2171.	39	37-0.5237808
2172.	39	42-0.4901566
2173.	39	43-0.0697822
2174.	39	44-0.2645425
2175.	40	29-0.2181319
2176.	40	31-0.2295921
2177.	40	36-0.2148164
2178.	40	42-0.2630743
2179.	40	45-0.9241936
2180.	41	28-0.1463366

Table 3.--Listing of data for 1971-77--Continued

Card number	Group IV: Data that change with pumping period--Continued I, J, and pumping rate, in cubic feet per second--Continued	
2181.	41	29-0.4867468
2182.	41	30-0.1554530
2183.	41	31-0.1856912
2184.	41	35-0.2461438
2185.	41	36-1.259726
2186.	41	37-0.2018876
2187.	41	38-0.1955322
2188.	41	42-0.3104324
2189.	41	45-0.8116943
2190.	42	29-0.3773457
2191.	42	30-0.1542194
2192.	42	31-0.6105883
2193.	42	32-0.3477270
2194.	42	34-0.4470370
2195.	42	35-0.1326027
2196.	42	36-0.8922981
2197.	42	37-0.2479434
2198.	42	45-0.2201205
2199.	43	29-0.1121914
2200.	43	30-0.4440297
2201.	43	31-0.8723129
2202.	43	33-0.0752602
2203.	43	35-0.2128274
2204.	43	37-0.3091301
2205.	43	38-0.6623507
2206.	43	39-0.6354986
2207.	43	45-0.2096781
2208.	43	46-0.2105069