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_____
************************************************************************

          F L O O D    R O U T I N G    A N A L Y S I S
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                    Analysis prepared by:




 *************************** DESCRIPTION OF STUDY **************************
 * RMV PA-3 BODR 2022 - NODE 133C                                         *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL            *
 * 100-YR EV MAY 2023 ROKAMOTO                                            *
 *************************************************************************

  FILE NAME: EV0033CF.DAT
  TIME/DATE OF STUDY: 06:05 05/14/2023


                        ** INPUT SUMMARY **


************************************************************************
  FLOW PROCESS FROM NODE  10100.00 TO NODE    119.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
========================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    1.964 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.380
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.51; 30-MINUTE =  0.95; 1-HOUR =  1.32
    3-HOUR =  2.49;    6-HOUR =  3.72; 24-HOUR =  6.54
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;     6-HOUR = 0.891; 24-HOUR = 0.936


************************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
========================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.183 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.374
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87; 1-HOUR =  1.15
    3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;     6-HOUR = 0.891; 24-HOUR = 0.936


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =    286.00
  CHANNEL LENGTH(FT) =    3046.70     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
=====================================================================
 WATERSHED AREA =      553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.215 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.254; LOW LOSS FRACTION = 0.434
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87; 1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
   3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


*********************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
 -------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ===================================================================


*********************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
 -------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ===================================================================


*********************************************************************
 FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
 -------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ===================================================================
 WATERSHED AREA =      218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.289 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.711
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87; 1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
   3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


*********************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
 -------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ===================================================================


*********************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
 -------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ===================================================================
```

```
*********************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
 -------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ===================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00    CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =    286.00; DOWNSTREAM ELEVATION(FT) =    258.00
 CHANNEL LENGTH(FT) =    4077.05    MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =     0.00
 ===================================================================



*********************************************************************
 FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =    1
 -------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ===================================================================
 WATERSHED AREA =      712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.285 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.100; LOW LOSS FRACTION = 0.239
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87; 1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
   3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


*********************************************************************
 FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =    1
 -------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
 ===================================================================
 WATERSHED AREA =      462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.240 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.135; LOW LOSS FRACTION = 0.311
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87; 1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
   3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


*********************************************************************
 FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =    1
 -------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
 ===================================================================
 WATERSHED AREA =      117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.360 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.283; LOW LOSS FRACTION = 0.451
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
  3-HOUR =  1.94;   6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
  3-HOUR = 0.754;   6-HOUR = 0.891; 24-HOUR = 0.936


*********************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
===================================================================

*********************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
===================================================================


*********************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
===================================================================

*********************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
===================================================================


*********************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===================================================================


*********************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===================================================================


*********************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
-------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===================================================================
```

```
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) = 200.00     CHANNEL Z =  5.00
   UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
   CHANNEL LENGTH(FT) =    3114.00      MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
===================================================================


*********************************************************************
   FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
-------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===================================================================
   WATERSHED AREA =      711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.401 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.293; LOW LOSS FRACTION = 0.598
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
    3-HOUR =  1.94;   6-HOUR =  2.71; 24-HOUR =  4.49
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;   6-HOUR = 0.891; 24-HOUR = 0.936


*********************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===================================================================


*********************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===================================================================


*********************************************************************
   FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
-------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===================================================================
   WATERSHED AREA =     1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.355 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.295; LOW LOSS FRACTION = 0.491
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
    3-HOUR =  1.94;   6-HOUR =  2.71; 24-HOUR =  4.49
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
```

```
      3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


  ******************************************************************************
    FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
  ------------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ==============================================================================



  ******************************************************************************
    FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
  ------------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ==============================================================================



  ******************************************************************************
    FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
  ------------------------------------------------------------------------------
    >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ==============================================================================
    THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
    ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
    (Reference: the National Engineering Handbook, Hydrology,
    Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

    ASSUMED REGULAR CHANNEL INFORMATION:
    BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
    UPSTREAM ELEVATION(FT) =    240.00; DOWNSTREAM ELEVATION(FT) =    213.00
    CHANNEL LENGTH(FT) =   4905.42    MANNING'S FACTOR = 0.030
    CONSTANT LOSS RATE(CFS) =   0.00
  ==============================================================================



  ******************************************************************************
    FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =   1
  ------------------------------------------------------------------------------
    >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ==============================================================================
    WATERSHED AREA =     634.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
    *USER ENTERED "LAG" TIME =    0.371 HOURS
    VALLEY(DEVELOPED) S-GRAPH SELECTED
    MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.282; LOW LOSS FRACTION = 0.579
    SPECIFIED PEAK RAINFALL DEPTHS(INCH):
    5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
      3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
    *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
    5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
      3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


  ******************************************************************************
    FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   7
  ------------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ==============================================================================
```

```
  ******************************************************************************
    FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
  ------------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ==============================================================================



  ******************************************************************************
    FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =   1
  ------------------------------------------------------------------------------
    >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ==============================================================================
    WATERSHED AREA =     213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
    *USER ENTERED "LAG" TIME =    0.252 HOURS
    VALLEY(DEVELOPED) S-GRAPH SELECTED
    MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.128; LOW LOSS FRACTION = 0.323
    SPECIFIED PEAK RAINFALL DEPTHS(INCH):
    5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
      3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
    *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
    5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
      3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936



  ******************************************************************************
    FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =   7
  ------------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ==============================================================================



  ******************************************************************************
    FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
  ------------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ==============================================================================



  ******************************************************************************
    FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
  ------------------------------------------------------------------------------
    >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ==============================================================================
    THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
    ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
    (Reference: the National Engineering Handbook, Hydrology,
    Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

    ASSUMED REGULAR CHANNEL INFORMATION:
    BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
    UPSTREAM ELEVATION(FT) =    213.00; DOWNSTREAM ELEVATION(FT) =    212.00
    CHANNEL LENGTH(FT) =   1389.52    MANNING'S FACTOR = 0.030
    CONSTANT LOSS RATE(CFS) =   0.00
  ==============================================================================



  ******************************************************************************
```

```
 FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
-------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
 WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.795 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.244; LOW LOSS FRACTION = 0.515
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87; 1-HOUR =  1.15
   3-HOUR =  1.94;   6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
   3-HOUR = 0.754;   6-HOUR = 0.891; 24-HOUR = 0.936


*************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
-------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
=========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00      CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =    315.00
 CHANNEL LENGTH(FT) =   9760.05      MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =   0.00
=========================================================================



*************************************************************************
 FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
-------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
=========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00      CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =    212.00
 CHANNEL LENGTH(FT) =   6877.24      MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =   0.00
=========================================================================



*************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
-------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
=========================================================================
 WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.556 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.363
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87; 1-HOUR =  1.15
   3-HOUR =  1.94;   6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
   3-HOUR = 0.754;   6-HOUR = 0.891; 24-HOUR = 0.936



*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=========================================================================



*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=========================================================================



*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================



*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================



*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =  11
-------------------------------------------------------------------------
 >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
=========================================================================
=========================================================================
```

```
+-------------------------------------------------------------------------------------------------------+
|                                    * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
|INPUT FILENAME: [EV0033CF.DAT   ]
Page:   1 of    |
+------------------+----------------------------------+--------------------+-----------+------------+-----------+
|UPSTREAM  DOWNSTREAM|                                 | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|          |
| NODE #      NODE # | HYDROLOGIC/HYDRAULIC PROCESS    |PEAK (CFS)  PEAK (CFS)|
PEAK (HR) | MODELED (AF)| FOOTNOTES |
+------------------+----------------------------------+--------------------+-----------+------------+-----------+
| 10100.00    119.00| Subarea (UH) Added to Stream #1|      0.0     19223.4|
18.000 |          |          |
|   119.00  12603.00| Convex Routing:       Stream #1| 19223.4     19085.2|
18.000 |          |          |
|   810.00    809.00| Subarea (UH) Added to Stream #2|      0.0       117.9|
16.250 |          |          |
| 12603.00  12603.00| Stream #2 Added to:   Stream #1| 19085.2     19117.8|
18.000 |          |          |
| 12603.00  12603.00| Zero Out:             Stream #2|    117.9         0.0|
|          |          |
+------------------+----------------------------------+--------------------+-----------+------------+-----------+
| 12603.00    126.00| Convex Routing:       Stream #1| 19117.8     19100.6|
18.083 |          |          |
|   920.00    905.00| Subarea (UH) Added to Stream #2|      0.0       312.6|
16.250 |          |          |
|   126.00    126.00| Stream #2 Added to:   Stream #1| 19100.6     19194.4|
18.083 |          |          |
|   126.00    126.00| Zero Out:             Stream #2|    312.6         0.0|
|          |          |
|   600.00    126.00| Subarea (UH) Added to Stream #2|      0.0        93.3|
16.333 |          |          |
+------------------+----------------------------------+--------------------+-----------+------------+-----------+
|   126.00    126.00| Stream #2 Added to:   Stream #1| 19194.4     19213.7|
18.083 |          |          |
|   126.00    126.00| Zero Out:             Stream #2|     93.3         0.0|
|          |          |
|   126.00  12720.50| Convex Routing:       Stream #1| 19213.7     19203.0|
18.167 |          |          |
|   320.00    331.00| Subarea (UH) Added to Stream #2|      0.0       440.6|
16.333 |          |          |
|   400.00    331.00| Subarea (UH) Added to Stream #3|      0.0       288.6|
16.333 |          |          |
+------------------+----------------------------------+--------------------+-----------+------------+-----------+
|   390.00    331.00| Subarea (UH) Added to Stream #4|      0.0        51.0|
16.417 |          |          |
|   331.00    331.00| Stream #4 Added to:   Stream #2|    440.6       487.7|
16.333 |          |          |
|   331.00    331.00| Zero Out:             Stream #4|     51.0         0.0|
|          |          |
|   331.00    331.00| Stream #3 Added to:   Stream #2|    487.7       776.3|
16.333 |          |          |
```

```
|   331.00    331.00| Zero Out:             Stream #3|    288.6         0.0|
|          |          |
+------------------+----------------------------------+--------------------+-----------+------------+-----------+
|   331.00  12720.50| Stream #2 Added to:   Stream #1| 19203.0     19468.7|
18.167 |          |          |
| 12720.50  12720.50| Zero Out:             Stream #2|    776.3         0.0|
|          |          |
| 12720.50    127.00| Convex Routing:       Stream #1| 19468.7     19429.6|
18.250 |          |          |
| 12710.00    127.00| Subarea (UH) Added to Stream #2|      0.0       261.0|
16.500 |          |          |
|   127.00    127.00| Stream #2 Added to:   Stream #1| 19429.6     19511.8|
18.250 |          |          |
+------------------+----------------------------------+--------------------+-----------+------------+-----------+
|   127.00    127.00| Zero Out:             Stream #2|    261.0         0.0|
|          |          |
| 50150.00    127.00| Subarea (UH) Added to Stream #2|      0.0       451.4|
16.417 |          |          |
|   127.00    127.00| Stream #2 Added to:   Stream #1| 19511.8     19743.4|
17.250 |          |          |
|   127.00    127.00| Zero Out:             Stream #2|    451.4         0.0|
|          |          |
|   127.00    129.00| Convex Routing:       Stream #1| 19743.4     19720.4|
17.333 |          |          |
+------------------+----------------------------------+--------------------+-----------+------------+-----------+
| 50300.00    129.00| Subarea (UH) Added to Stream #2|      0.0       251.3|
16.417 |          |          |
|   129.00    129.00| Stream #2 Added to:   Stream #1| 19720.4     19846.2|
17.333 |          |          |
|   129.00    129.00| Zero Out:             Stream #2|    251.3         0.0|
|          |          |
|   210.00    221.00| Subarea (UH) Added to Stream #2|      0.0       133.2|
16.333 |          |          |
|   222.00    129.00| Stream #2 Added to:   Stream #1| 19846.2     19907.9|
17.333 |          |          |
+------------------+----------------------------------+--------------------+-----------+------------+-----------+
|   129.00    129.00| Zero Out:             Stream #2|    133.2         0.0|
|          |          |
|   129.00    133.00| Convex Routing:       Stream #1| 19907.9     19894.7|
17.417 |          |          |
| 13010.00    132.00| Subarea (UH) Added to Stream #2|      0.0      1571.5|
16.833 |          |          |
|   132.00  13305.00| Convex Routing:       Stream #2|   1571.5      1524.7|
17.250 |          |          |
| 13305.00    133.00| Convex Routing:       Stream #2|   1524.7      1513.8|
17.500 |          |          |
+------------------+----------------------------------+--------------------+-----------+------------+-----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                                       |
|      3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                                              |
+-------------------------------------------------------------------------------------------------------+
```

```
 +----------------------------------------------------------------------------------------------------------+
 |                                          * AES FLOODSCx PROGRAM RESULTS SUMMARY *
 |
 |INPUT FILENAME: [EV0033CF.DAT   ]
Page:  2 of   |
 +-------------------+------------------------------+----------------------+----------+------------+-----------+
 |UPSTREAM  DOWNSTREAM|                             | UPSTREAM  DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|              |
 | NODE #     NODE # | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +-------------------+------------------------------+----------------------+----------+------------+-----------+
 |  132.00     133.00| Subarea (UH) Added to Stream #3|      0.0       690.0|
16.583 |          |          |
 |  133.00     133.00| Stream #3 Added to:   Stream #2|   1513.8      2005.2|
17.417 |          |          |
 |  133.00     133.00| Zero Out:             Stream #3|    690.0        0.0|
|          |          |
 |  133.00     133.00| Stream #2 Added to:   Stream #1|  19894.7     21900.0|
17.417 |          |          |
 |  133.00     133.00| Zero Out:             Stream #2|   2005.2        0.0|
|          |          |
 +-------------------+------------------------------+----------------------+----------+------------+-----------+
 |  133.00     133.00| View:                Stream #1|              21900.0|
17.417 |   17986.87|    3     |
 +-------------------+------------------------------+----------------------+----------+------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                      |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                         |
 +----------------------------------------------------------------------------------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

```
_____
*************************************************************************

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           Ver. 20.0  Release Date: 06/01/2013  License ID 1237

                       Analysis prepared by:




 ************************** DESCRIPTION OF STUDY **************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 133T                              *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL           *
 * 100-YR EV OCT 2022 ROKAMOTO                                           *
 *************************************************************************

 FILE NAME: EV0033TF.DAT
 TIME/DATE OF STUDY: 14:54 10/25/2022


                       ** INPUT SUMMARY **


*************************************************************************
   FLOW PROCESS FROM NODE  13010.00 TO NODE   132.00 IS CODE =   1
-------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
   WATERSHED AREA =   4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.795 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.244; LOW LOSS FRACTION = 0.515
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
     3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.744; 30-MINUTE = 0.744;  1-HOUR = 0.744
     3-HOUR = 0.959;    6-HOUR = 0.978; 24-HOUR = 0.987


*************************************************************************
   FLOW PROCESS FROM NODE   132.00 TO NODE  13305.00 IS CODE = 5.2
-------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
=========================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =  50.00     CHANNEL Z =  3.00
   UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =    315.00
```

```
   CHANNEL LENGTH(FT) =   9760.05     MANNING'S FACTOR = 0.040
   CONSTANT LOSS RATE(CFS) =    0.00
   ======================================================================


*************************************************************************
   FLOW PROCESS FROM NODE  13305.00 TO NODE   133.00 IS CODE = 5.2
-------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
=========================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =  50.00     CHANNEL Z =  3.00
   UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =    212.00
   CHANNEL LENGTH(FT) =   6877.24     MANNING'S FACTOR = 0.040
   CONSTANT LOSS RATE(CFS) =    0.00
   ======================================================================


*************************************************************************
   FLOW PROCESS FROM NODE   132.00 TO NODE   133.00 IS CODE =   1
-------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
=========================================================================
   WATERSHED AREA =   1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.556 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.363
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
     3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.744; 30-MINUTE = 0.744;  1-HOUR = 0.744
     3-HOUR = 0.959;    6-HOUR = 0.978; 24-HOUR = 0.987


*************************************************************************
   FLOW PROCESS FROM NODE   133.00 TO NODE   133.00 IS CODE =   7
-------------------------------------------------------------------------
   >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=========================================================================


*************************************************************************
   FLOW PROCESS FROM NODE   133.00 TO NODE   133.00 IS CODE =   6
-------------------------------------------------------------------------
   >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
   FLOW PROCESS FROM NODE   133.00 TO NODE   133.00 IS CODE =   7
-------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
```

```
=================================================================

*********************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =    6
-----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=================================================================


*********************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   11
-----------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
=================================================================
=================================================================
```

```
 +----------------------------------------------------------------------
------------------------------------+
 |                              * AES FLOODSCx PROGRAM RESULTS SUMMARY *
 |
 |INPUT FILENAME: [EV0033TF.DAT   ]
Page:  1 of   |
 +------------------+------------------------------+--------------------+-
-----------+------------+-----------+
 |UPSTREAM  DOWNSTREAM|                            | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|             |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS  |PEAK (CFS)   PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +------------------+------------------------------+--------------------+-
-----------+------------+-----------+
 | 13010.00     132.00| Subarea (UH) Added to Stream #2|      0.0      3421.1|
16.833 |          |           |
 |   132.00   13305.00| Convex Routing:      Stream #2|   3421.1      3313.5|
17.083 |          |           |
 | 13305.00     133.00| Convex Routing:      Stream #2|   3313.5      3247.5|
17.250 |          |           |
 |   132.00     133.00| Subarea (UH) Added to Stream #3|      0.0      1499.0|
16.583 |          |           |
 |   133.00     133.00| Stream #3 Added to:   Stream #2|   3247.5      3888.1|
17.250 |          |           |
 +------------------+------------------------------+--------------------+-
-----------+------------+-----------+
 |   133.00     133.00| Zero Out:            Stream #3|   1499.0         0.0|
 |          |           |
 |   133.00     133.00| Stream #2 Added to:   Stream #1|      0.0      3888.1|
17.250 |          |           |
 |   133.00     133.00| Zero Out:            Stream #2|   3888.1         0.0|
 |          |           |
 |   133.00     133.00| View:                Stream #1|              3888.1|
17.250 |    1403.36|    3      |
 +------------------+------------------------------+--------------------+-
-----------+------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                               |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                      |
 +----------------------------------------------------------------------
------------------------------------+


    END OF FLOODSCx ROUTING ANALYSIS
```

```
_____
*************************************************************************

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                     Analysis prepared by:




 ************************** DESCRIPTION OF STUDY **************************
 * RMV PA-3 BODR 2022 - NODE 133U                                        *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL           *
 * 100-YR EV MAY 2023 ROKAMOTO                                           *
 *************************************************************************

 FILE NAME: EV0033UF.DAT
 TIME/DATE OF STUDY: 06:05 05/14/2023


                       ** INPUT SUMMARY **


*************************************************************************
  FLOW PROCESS FROM NODE 10100.00 TO NODE   119.00 IS CODE =  1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
=========================================================================
  WATERSHED AREA =  49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    1.964 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.380
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.51; 30-MINUTE =  0.95;  1-HOUR =  1.32
   3-HOUR =  2.49;    6-HOUR =  3.72; 24-HOUR =  6.54
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
   3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


*************************************************************************
  FLOW PROCESS FROM NODE   119.00 TO NODE  12603.00 IS CODE = 5.2
-------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE   810.00 TO NODE   809.00 IS CODE =  1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
  WATERSHED AREA =    171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.183 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.374
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
   3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


*************************************************************************
  FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE =  7
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE =  6
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE 12603.00 TO NODE   126.00 IS CODE = 5.2
-------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =    286.00
  CHANNEL LENGTH(FT) =    3046.70     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE   920.00 TO NODE   905.00 IS CODE =  1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
=============================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.215 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.254; LOW LOSS FRACTION = 0.434
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
    3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


*****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
-----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=================================================================


*****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
-----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=================================================================


*****************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
-----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=================================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.289 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.711
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
    3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


*****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
-----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=================================================================


*****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
-----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=================================================================
```

```
*****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
-----------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=================================================================


*****************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =    1
-----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=================================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.285 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.100; LOW LOSS FRACTION = 0.239
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
    3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


*****************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =    1
-----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
=================================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.240 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.135; LOW LOSS FRACTION = 0.311
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
    3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


*****************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =    1
-----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
=================================================================
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.360 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.283; LOW LOSS FRACTION = 0.451
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;   6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
   3-HOUR = 0.771;   6-HOUR = 0.897; 24-HOUR = 0.940


 *****************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
 ---------------------------------------------------------------
   >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
 ===============================================================

 *****************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
 ---------------------------------------------------------------
   >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
 ===============================================================


 *****************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
 ---------------------------------------------------------------
   >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
 ===============================================================

 *****************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
 ---------------------------------------------------------------
   >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
 ===============================================================


 *****************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
 ---------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ===============================================================


 *****************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
 ---------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ===============================================================

 *****************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
 ---------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ===============================================================
```

```
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =    240.00
 CHANNEL LENGTH(FT) =    3114.00     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
 ===============================================================


 *****************************************************************
   FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
 ---------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ===============================================================
 WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.401 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.293; LOW LOSS FRACTION = 0.598
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;   6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
   3-HOUR = 0.771;   6-HOUR = 0.897; 24-HOUR = 0.940


 *****************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
 ---------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ===============================================================


 *****************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
 ---------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ===============================================================


 *****************************************************************
   FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
 ---------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ===============================================================
 WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.355 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.295; LOW LOSS FRACTION = 0.491
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;   6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
```

```
      3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


 ********************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE     127.00 IS CODE =   7
 ------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ==================================================================


 ********************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE     127.00 IS CODE =   6
 ------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ==================================================================


 ********************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE     129.00 IS CODE = 5.2
 ------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ==================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
   UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
   CHANNEL LENGTH(FT) =   4905.42     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
 ==================================================================


 ********************************************************************
   FLOW PROCESS FROM NODE  50300.00 TO NODE     129.00 IS CODE =   1
 ------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ==================================================================
   WATERSHED AREA =      634.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =     0.371 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.282; LOW LOSS FRACTION = 0.579
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
     3-HOUR =  1.94;     6-HOUR =  2.71; 24-HOUR =  4.49
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
     3-HOUR = 0.771;     6-HOUR = 0.897; 24-HOUR = 0.940


 ********************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE     129.00 IS CODE =   7
 ------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ==================================================================
```

```
 ********************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE     129.00 IS CODE =   6
 ------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ==================================================================


 ********************************************************************
   FLOW PROCESS FROM NODE    210.00 TO NODE     221.00 IS CODE =   1
 ------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ==================================================================
   WATERSHED AREA =      213.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =     0.252 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.128; LOW LOSS FRACTION = 0.323
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
     3-HOUR =  1.94;     6-HOUR =  2.71; 24-HOUR =  4.49
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
     3-HOUR = 0.771;     6-HOUR = 0.897; 24-HOUR = 0.940


 ********************************************************************
   FLOW PROCESS FROM NODE    222.00 TO NODE     129.00 IS CODE =   7
 ------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ==================================================================


 ********************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE     129.00 IS CODE =   6
 ------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ==================================================================


 ********************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE     133.00 IS CODE = 5.2
 ------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ==================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
   UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
   CHANNEL LENGTH(FT) =   1389.52     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
 ==================================================================


 ********************************************************************
```

   >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
==
==

```
  +----------------------------------------------------------------------
-------------------------------------+
  |                              * AES FLOODSCx PROGRAM RESULTS SUMMARY *
  |
  |INPUT FILENAME: [EV0033UF.DAT   ]
Page:   1 of    |
  +------------------+----------------------------+-------------------+-
----------+------------+----------+
  |UPSTREAM  DOWNSTREAM|                          | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|           |
  | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
  +------------------+----------------------------+-------------------+-
----------+------------+----------+
  | 10100.00     119.00| Subarea (UH) Added to Stream #1|     0.0     19714.9|
18.000 |           |           |
  |   119.00   12603.00| Convex Routing:      Stream #1|  19714.9     19567.5|
18.000 |           |           |
  |   810.00     809.00| Subarea (UH) Added to Stream #2|     0.0       125.7|
16.250 |           |           |
  | 12603.00   12603.00| Stream #2 Added to:   Stream #1|  19567.5     19599.5|
18.000 |           |           |
  | 12603.00   12603.00| Zero Out:            Stream #2|    125.7         0.0|
|           |           |
  +------------------+----------------------------+-------------------+-
----------+------------+----------+
  | 12603.00     126.00| Convex Routing:      Stream #1|  19599.5     19578.5|
18.083 |           |           |
  |   920.00     905.00| Subarea (UH) Added to Stream #2|     0.0       334.1|
16.250 |           |           |
  |   126.00     126.00| Stream #2 Added to:   Stream #1|  19578.5     19670.4|
18.083 |           |           |
  |   126.00     126.00| Zero Out:            Stream #2|    334.1         0.0|
|           |           |
  |   600.00     126.00| Subarea (UH) Added to Stream #2|     0.0       100.7|
16.333 |           |           |
  +------------------+----------------------------+-------------------+-
----------+------------+----------+
  |   126.00     126.00| Stream #2 Added to:   Stream #1|  19670.4     19689.2|
18.083 |           |           |
  |   126.00     126.00| Zero Out:            Stream #2|    100.7         0.0|
|           |           |
  |   126.00   12720.50| Convex Routing:      Stream #1|  19689.2     19677.4|
18.167 |           |           |
  |   320.00     331.00| Subarea (UH) Added to Stream #2|     0.0       465.7|
16.333 |           |           |
  |   400.00     331.00| Subarea (UH) Added to Stream #3|     0.0       306.1|
16.333 |           |           |
  +------------------+----------------------------+-------------------+-
----------+------------+----------+
  |   390.00     331.00| Subarea (UH) Added to Stream #4|     0.0        54.3|
16.417 |           |           |
  |   331.00     331.00| Stream #4 Added to:   Stream #2|    465.7       515.7|
16.333 |           |           |
  |   331.00     331.00| Zero Out:            Stream #4|     54.3         0.0|
|           |           |
  |   331.00     331.00| Stream #3 Added to:   Stream #2|    515.7       821.8|
16.333 |           |           |
```

```
|   331.00     331.00| Zero Out:            Stream #3|    306.1       0.0|
|           |        |
 +------------------+----------------------------+--------------------+-
----------+------------+-----------+
|   331.00   12720.50| Stream #2 Added to:   Stream #1|  19677.4    19937.8|
18.167 |          |        |
| 12720.50   12720.50| Zero Out:            Stream #2|    821.8       0.0|
|           |        |
| 12720.50     127.00| Convex Routing:      Stream #1|  19937.8    19894.2|
18.250 |          |        |
| 12710.00     127.00| Subarea (UH) Added to Stream #2|     0.0     278.7|
16.500 |          |        |
|   127.00     127.00| Stream #2 Added to:   Stream #1|  19894.2    19975.0|
18.250 |          |        |
 +------------------+----------------------------+--------------------+-
----------+------------+-----------+
|   127.00     127.00| Zero Out:            Stream #2|    278.7       0.0|
|           |        |
| 50150.00     127.00| Subarea (UH) Added to Stream #2|     0.0     480.6|
16.417 |          |        |
|   127.00     127.00| Stream #2 Added to:   Stream #1|  19975.0    20134.2|
17.250 |          |        |
|   127.00     127.00| Zero Out:            Stream #2|    480.6       0.0|
|           |        |
|   127.00     129.00| Convex Routing:      Stream #1|  20134.2    20113.5|
17.417 |          |        |
 +------------------+----------------------------+--------------------+-
----------+------------+-----------+
| 50300.00     129.00| Subarea (UH) Added to Stream #2|     0.0     268.7|
16.417 |          |        |
|   129.00     129.00| Stream #2 Added to:   Stream #1|  20113.5    20232.9|
17.333 |          |        |
|   129.00     129.00| Zero Out:            Stream #2|    268.7       0.0|
|           |        |
|   210.00     221.00| Subarea (UH) Added to Stream #2|     0.0     141.3|
16.333 |          |        |
|   222.00     129.00| Stream #2 Added to:   Stream #1|  20232.9    20294.9|
17.333 |          |        |
 +------------------+----------------------------+--------------------+-
----------+------------+-----------+
|   129.00     129.00| Zero Out:            Stream #2|    141.3       0.0|
|           |        |
|   129.00     133.00| Convex Routing:      Stream #1|  20294.9    20283.6|
17.417 |          |        |
|   133.00     133.00| View:                Stream #1|             20283.6|
17.417 |   16819.72|     3   |
 +------------------+----------------------------+--------------------+-
----------+------------+-----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                   |
|      3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                  |
 +----------------------------------------------------------------------
------------------------------------+
```

   END OF FLOODSCx ROUTING ANALYSIS

```
_____
************************************************************************

        F L O O D   R O U T I N G   A N A L Y S I S
          USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                   Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 134C                            *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL         *
 * 100-YR EV AUG 2023 ROKAMOTO                                         *
 **********************************************************************

  FILE NAME: EV0034CF.DAT
  TIME/DATE OF STUDY: 07:16 08/10/2023


                       ** INPUT SUMMARY **


 **********************************************************************
  FLOW PROCESS FROM NODE 10100.00 TO NODE   119.00 IS CODE =   1
 ----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
 ======================================================================
  WATERSHED AREA =  49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    1.964 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.380
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.51; 30-MINUTE =  0.95; 1-HOUR =  1.32
    3-HOUR =  2.49;    6-HOUR =  3.72; 24-HOUR =  6.54
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;     6-HOUR = 0.887; 24-HOUR = 0.933


 **********************************************************************
  FLOW PROCESS FROM NODE   119.00 TO NODE  12603.00 IS CODE = 5.2
 ----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00    CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =      341.63; DOWNSTREAM ELEVATION(FT) =     312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
 ======================================================================


 **********************************************************************
  FLOW PROCESS FROM NODE   810.00 TO NODE   809.00 IS CODE =   1
 ----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ======================================================================
  WATERSHED AREA =    171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.183 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.374
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87; 1-HOUR =  1.15
    3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;     6-HOUR = 0.887; 24-HOUR = 0.933


 **********************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
 ----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ======================================================================


 **********************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
 ----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ======================================================================


 **********************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE   126.00 IS CODE = 5.2
 ----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00    CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =      312.40; DOWNSTREAM ELEVATION(FT) =     286.00
  CHANNEL LENGTH(FT) =    3046.70    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
 ======================================================================


 **********************************************************************
  FLOW PROCESS FROM NODE   920.00 TO NODE   905.00 IS CODE =   1
 ----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
====================================================================
   WATERSHED AREA =     553.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.215 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.254; LOW LOSS FRACTION = 0.434
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
   3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


********************************************************************
   FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =    7
--------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
====================================================================


********************************************************************
   FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =    6
--------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
====================================================================


********************************************************************
   FLOW PROCESS FROM NODE   600.00 TO NODE   126.00 IS CODE =    1
--------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
====================================================================
   WATERSHED AREA =     218.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.289 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.711
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
   3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


********************************************************************
   FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =    7
--------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
====================================================================


********************************************************************
   FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =    6
--------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
====================================================================
```

```
********************************************************************
   FLOW PROCESS FROM NODE   126.00 TO NODE 12720.50 IS CODE = 5.2
--------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
====================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
   UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
   CHANNEL LENGTH(FT) =    4077.05     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =     0.00
====================================================================



********************************************************************
   FLOW PROCESS FROM NODE   320.00 TO NODE   331.00 IS CODE =    1
--------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
====================================================================
   WATERSHED AREA =     712.600 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.285 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.100; LOW LOSS FRACTION = 0.239
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
   3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


********************************************************************
   FLOW PROCESS FROM NODE   400.00 TO NODE   331.00 IS CODE =    1
--------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
====================================================================
   WATERSHED AREA =     462.500 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.240 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.135; LOW LOSS FRACTION = 0.311
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
   3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


********************************************************************
   FLOW PROCESS FROM NODE   390.00 TO NODE   331.00 IS CODE =    1
--------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
====================================================================
   WATERSHED AREA =     117.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.360 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.283; LOW LOSS FRACTION = 0.451
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87; 1-HOUR =  1.15
  3-HOUR =  1.94;  6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
  3-HOUR = 0.741;  6-HOUR = 0.887; 24-HOUR = 0.933


******************************************************************************
  FLOW PROCESS FROM NODE   331.00 TO NODE    331.00 IS CODE =   7
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
==============================================================================

******************************************************************************
  FLOW PROCESS FROM NODE   331.00 TO NODE    331.00 IS CODE =   6
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
==============================================================================

******************************************************************************
  FLOW PROCESS FROM NODE   331.00 TO NODE    331.00 IS CODE =   7
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
==============================================================================

******************************************************************************
  FLOW PROCESS FROM NODE   331.00 TO NODE    331.00 IS CODE =   6
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
==============================================================================

******************************************************************************
  FLOW PROCESS FROM NODE   331.00 TO NODE  12720.50 IS CODE =   7
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==============================================================================

******************************************************************************
  FLOW PROCESS FROM NODE 12720.50 TO NODE  12720.50 IS CODE =   6
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==============================================================================

******************************************************************************
  FLOW PROCESS FROM NODE 12720.50 TO NODE    127.00 IS CODE = 5.2
------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==============================================================================
```

```
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00      CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
 CHANNEL LENGTH(FT) =    3114.00      MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE 12710.00 TO NODE    127.00 IS CODE =   1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================================
 WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.401 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.293; LOW LOSS FRACTION = 0.598
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87; 1-HOUR =  1.15
  3-HOUR =  1.94;  6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.294; 30-MINUTE = 0.352; 1-HOUR = 0.397
  3-HOUR = 0.741;  6-HOUR = 0.887; 24-HOUR = 0.933


******************************************************************************
  FLOW PROCESS FROM NODE   127.00 TO NODE    127.00 IS CODE =   7
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE   127.00 TO NODE    127.00 IS CODE =   6
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE 50150.00 TO NODE    127.00 IS CODE =   1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================================
 WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.355 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.295; LOW LOSS FRACTION = 0.491
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87; 1-HOUR =  1.15
  3-HOUR =  1.94;  6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
```

```
      3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


  ********************************************************************
   FLOW PROCESS FROM NODE   127.00 TO NODE    127.00 IS CODE =   7
  ------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ==================================================================


  ********************************************************************
   FLOW PROCESS FROM NODE   127.00 TO NODE    127.00 IS CODE =   6
  ------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ==================================================================


  ********************************************************************
   FLOW PROCESS FROM NODE   127.00 TO NODE    129.00 IS CODE = 5.2
  ------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ==================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
   UPSTREAM ELEVATION(FT) =    240.00; DOWNSTREAM ELEVATION(FT) =    213.00
   CHANNEL LENGTH(FT) =   4905.42     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
  ==================================================================


  ********************************************************************
   FLOW PROCESS FROM NODE 50300.00 TO NODE    129.00 IS CODE =   1
  ------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ==================================================================
   WATERSHED AREA =     634.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.371 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.282; LOW LOSS FRACTION = 0.579
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
     3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
     3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


  ********************************************************************
   FLOW PROCESS FROM NODE   129.00 TO NODE    129.00 IS CODE =   7
  ------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ==================================================================
```

```
  ********************************************************************
   FLOW PROCESS FROM NODE   129.00 TO NODE    129.00 IS CODE =   6
  ------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ==================================================================


  ********************************************************************
   FLOW PROCESS FROM NODE   210.00 TO NODE    221.00 IS CODE =   1
  ------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ==================================================================
   WATERSHED AREA =     213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.252 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.128; LOW LOSS FRACTION = 0.323
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
     3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
     3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


  ********************************************************************
   FLOW PROCESS FROM NODE   222.00 TO NODE    129.00 IS CODE =   7
  ------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ==================================================================


  ********************************************************************
   FLOW PROCESS FROM NODE   129.00 TO NODE    129.00 IS CODE =   6
  ------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ==================================================================


  ********************************************************************
   FLOW PROCESS FROM NODE   129.00 TO NODE    133.00 IS CODE = 5.2
  ------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ==================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
   UPSTREAM ELEVATION(FT) =    213.00; DOWNSTREAM ELEVATION(FT) =    212.00
   CHANNEL LENGTH(FT) =   1389.52     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
  ==================================================================


  ********************************************************************
```

```
  FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
  WATERSHED AREA =    4924.400 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.795 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.244; LOW LOSS FRACTION = 0.515
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87; 1-HOUR =  1.15
    3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;     6-HOUR = 0.887; 24-HOUR = 0.933


*************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
--------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =     315.00
  CHANNEL LENGTH(FT) =   9760.05     MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
--------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =   6877.24     MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================
*************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
==========================================================================
  WATERSHED AREA =    1713.900 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
  *USER ENTERED "LAG" TIME =    0.556 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.363
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87; 1-HOUR =  1.15
    3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;     6-HOUR = 0.887; 24-HOUR = 0.933


*************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
==========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
==========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
--------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =     170.00
  CHANNEL LENGTH(FT) =   6461.31     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


*************************************************************************
```

```
  FLOW PROCESS FROM NODE     133.00 TO NODE     134.00 IS CODE =    1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
  WATERSHED AREA =     1705.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.350 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.245; LOW LOSS FRACTION = 0.412
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
   3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


*******************************************************************************
  FLOW PROCESS FROM NODE     134.00 TO NODE     134.00 IS CODE =    7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================



*******************************************************************************
  FLOW PROCESS FROM NODE     134.00 TO NODE     134.00 IS CODE =    6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================



*******************************************************************************
  FLOW PROCESS FROM NODE  13500.00 TO NODE     134.00 IS CODE =    1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
  WATERSHED AREA =     3859.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    1.252 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.284; LOW LOSS FRACTION = 0.408
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
   3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


*******************************************************************************
  FLOW PROCESS FROM NODE     134.00 TO NODE     134.00 IS CODE =    7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE     134.00 TO NODE     134.00 IS CODE =    6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
```

```
===============================================================================

*******************************************************************************
  FLOW PROCESS FROM NODE     134.00 TO NODE     134.00 IS CODE =   11
-------------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
===============================================================================
===============================================================================
```

+-------------------+-------------------------------+-----------------+----------------+-------------+-----------+
|UPSTREAM DOWNSTREAM| | UPSTREAM DOWNSTREAM| | TIME(2) TO | MAX. STORAGE|
| NODE #   NODE # | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS) PEAK (CFS)| PEAK (HR) | MODELED (AF)| FOOTNOTES |
+-------------------+-------------------------------+-----------------+----------------+-------------+-----------+

10100.00 119.00	Subarea (UH) Added to Stream #1	0.0 18838.6	18.000
119.00 12603.00	Convex Routing: Stream #1	18838.6 18705.5	18.000
810.00 809.00	Subarea (UH) Added to Stream #2	0.0 112.5	16.250
12603.00 12603.00	Stream #2 Added to: Stream #1	18705.5 18738.8	18.000
12603.00 12603.00	Zero Out: Stream #2	112.5 0.0

+-------------------+-------------------------------+-----------------+----------------+-------------+-----------+
12603.00 126.00	Convex Routing: Stream #1	18738.8 18724.5	18.083
920.00 905.00	Subarea (UH) Added to Stream #2	0.0 297.6	16.250
126.00 126.00	Stream #2 Added to: Stream #1	18724.5 18820.0	18.083
126.00 126.00	Zero Out: Stream #2	297.6 0.0
600.00 126.00	Subarea (UH) Added to Stream #2	0.0 88.2	16.333

+-------------------+-------------------------------+-----------------+----------------+-------------+-----------+
126.00 126.00	Stream #2 Added to: Stream #1	18820.0 18839.6	18.083
126.00 126.00	Zero Out: Stream #2	88.2 0.0
126.00 12720.50	Convex Routing: Stream #1	18839.6 18829.2	18.167
320.00 331.00	Subarea (UH) Added to Stream #2	0.0 423.2	16.333
400.00 331.00	Subarea (UH) Added to Stream #3	0.0 276.5	16.333

+-------------------+-------------------------------+-----------------+----------------+-------------+-----------+
390.00 331.00	Subarea (UH) Added to Stream #4	0.0 48.8	16.417
331.00 331.00	Stream #4 Added to: Stream #2	423.2 468.3	16.333
331.00 331.00	Zero Out: Stream #4	48.8 0.0
331.00 331.00	Stream #3 Added to: Stream #2	468.3 744.8	16.333

| 331.00   331.00| Zero Out: Stream #3| 276.5   0.0|

+-------------------+-------------------------------+-----------------+----------------+-------------+-----------+
331.00 12720.50	Stream #2 Added to: Stream #1	18829.2 19099.4	18.167
12720.50 12720.50	Zero Out: Stream #2	744.8 0.0
12720.50 127.00	Convex Routing: Stream #1	19099.4 19064.0	18.250
12710.00 127.00	Subarea (UH) Added to Stream #2	0.0 248.5	16.500
127.00 127.00	Stream #2 Added to: Stream #1	19064.0 19176.1	17.250

+-------------------+-------------------------------+-----------------+----------------+-------------+-----------+
127.00 127.00	Zero Out: Stream #2	248.5 0.0
50150.00 127.00	Subarea (UH) Added to Stream #2	0.0 430.5	16.417
127.00 127.00	Stream #2 Added to: Stream #1	19176.1 19433.8	17.250
127.00 127.00	Zero Out: Stream #2	430.5 0.0
127.00 129.00	Convex Routing: Stream #1	19433.8 19416.8	17.333

+-------------------+-------------------------------+-----------------+----------------+-------------+-----------+
50300.00 129.00	Subarea (UH) Added to Stream #2	0.0 239.2	16.417
129.00 129.00	Stream #2 Added to: Stream #1	19416.8 19540.4	17.333
129.00 129.00	Zero Out: Stream #2	239.2 0.0
210.00 221.00	Subarea (UH) Added to Stream #2	0.0 127.6	16.333
222.00 129.00	Stream #2 Added to: Stream #1	19540.4 19602.0	17.333

+-------------------+-------------------------------+-----------------+----------------+-------------+-----------+
129.00 129.00	Zero Out: Stream #2	127.6 0.0
129.00 133.00	Convex Routing: Stream #1	19602.0 19586.9	17.417
13010.00 132.00	Subarea (UH) Added to Stream #2	0.0 1508.6	16.833
132.00 13305.00	Convex Routing: Stream #2	1508.6 1463.9	17.250
13305.00 133.00	Convex Routing: Stream #2	1463.9 1454.2	17.500

+-------------------+-------------------------------+-----------------+----------------+-------------+-----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL |
| 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM |
+--+

```
+-----------------------------------------------------------------------------
--------------------------------------+
|                                       * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
|INPUT FILENAME: [EV0034CF.DAT   ]
Page:  2 of    |
+------------------+---------------------------+----------------------+-
----------+------------+-----------+
|UPSTREAM  DOWNSTREAM|                                     | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|             |
| NODE #     NODE # | HYDROLOGIC/HYDRAULIC PROCESS  |PEAK (CFS)  PEAK (CFS)|
PEAK (HR) | MODELED (AF)| FOOTNOTES |
+------------------+---------------------------+----------------------+-
----------+------------+-----------+
|   132.00     133.00| Subarea (UH) Added to Stream #3|      0.0        664.4|
16.583 |            |           |
|   133.00     133.00| Stream #3 Added to:    Stream #2|   1454.2       1938.0|
17.417 |            |           |
|   133.00     133.00| Zero Out:              Stream #3|    664.4         0.0|
|            |           |
|   133.00     133.00| Stream #2 Added to:    Stream #1|  19586.9      21524.9|
17.417 |            |           |
|   133.00     133.00| Zero Out:              Stream #2|   1938.0         0.0|
|            |           |
+------------------+---------------------------+----------------------+-
----------+------------+-----------+
|   133.00     134.00| Convex Routing:        Stream #1|  21524.9      21500.6|
17.583 |            |           |
|   133.00     134.00| Subarea (UH) Added to Stream #2|      0.0        761.3|
16.417 |            |           |
|   134.00     134.00| Stream #2 Added to:    Stream #1|  21500.6      21868.3|
17.583 |            |           |
|   134.00     134.00| Zero Out:              Stream #2|    761.3         0.0|
|            |           |
| 13500.00     134.00| Subarea (UH) Added to Stream #2|      0.0       1187.6|
17.250 |            |           |
+------------------+---------------------------+----------------------+-
----------+------------+-----------+
|   134.00     134.00| Stream #2 Added to:    Stream #1|  21868.3      23039.5|
17.500 |            |           |
|   134.00     134.00| Zero Out:              Stream #2|   1187.6         0.0|
|            |           |
|   134.00     134.00| View:                  Stream #1|               23039.5|
17.500 |   19068.87|    3     |
+------------------+---------------------------+----------------------+-
----------+------------+-----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                              |
|       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                 |
+-----------------------------------------------------------------------------
--------------------------------------+


  END OF FLOODSCx ROUTING ANALYSIS
```

```
_____
***********************************************************************

         F L O O D   R O U T I N G   A N A L Y S I S
         USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                     Analysis prepared by:




 ************************* DESCRIPTION OF STUDY ************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 134U                           *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL        *
 * 100-YR EV AUG 2023 ROKAMOTO                                        *
 **********************************************************************

 FILE NAME: EV0034UF.DAT
 TIME/DATE OF STUDY: 07:16 08/10/2023


                     ** INPUT SUMMARY **


***********************************************************************
  FLOW PROCESS FROM NODE  10100.00 TO NODE   119.00 IS CODE =   1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
=======================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    1.964 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.380
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.51; 30-MINUTE =  0.95; 1-HOUR =  1.32
    3-HOUR =  2.49;    6-HOUR =  3.72; 24-HOUR =  6.54
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


***********************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
-----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00    CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=======================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.183 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.374
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87; 1-HOUR =  1.15
    3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


***********************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
-----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00    CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =    286.00
  CHANNEL LENGTH(FT) =    3046.70    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
========================================================================
  WATERSHED AREA =      553.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.215 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.254; LOW LOSS FRACTION = 0.434
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
    3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
========================================================================
  WATERSHED AREA =      218.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.289 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.290; LOW LOSS FRACTION = 0.711
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
    3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
========================================================================
```

```
************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
========================================================================



************************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =    1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
========================================================================
  WATERSHED AREA =      712.600 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.285 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.100; LOW LOSS FRACTION = 0.239
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
    3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


************************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =    1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
========================================================================
  WATERSHED AREA =      462.500 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.240 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.135; LOW LOSS FRACTION = 0.311
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
    3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


************************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =    1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
========================================================================
  WATERSHED AREA =      117.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.360 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.283; LOW LOSS FRACTION = 0.451
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;   6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
   3-HOUR = 0.750;   6-HOUR = 0.890; 24-HOUR = 0.936


****************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =    7
----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
============================================================================

****************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =    6
----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =    7
----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================

****************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =    6
----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =    7
----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =    6
----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================

****************************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
----------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
```

```
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
 CHANNEL LENGTH(FT) =    3114.00     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
   FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =    1
----------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
 WATERSHED AREA =      711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.401 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.293; LOW LOSS FRACTION = 0.598
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;   6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
   3-HOUR = 0.750;   6-HOUR = 0.890; 24-HOUR = 0.936


****************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    7
----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    6
----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
   FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =    1
----------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
 WATERSHED AREA =     1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.355 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.295; LOW LOSS FRACTION = 0.491
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;   6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
```

```
     3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


  *****************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
  ----------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ================================================================


  *****************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
  ----------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ================================================================


  *****************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
  ----------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) = 200.00    CHANNEL Z = 5.00
   UPSTREAM ELEVATION(FT) =    240.00; DOWNSTREAM ELEVATION(FT) =    213.00
   CHANNEL LENGTH(FT) =   4905.42    MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =   0.00
  ================================================================


  *****************************************************************
   FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =   1
  ----------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ================================================================
   WATERSHED AREA =    634.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.371 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.282; LOW LOSS FRACTION = 0.579
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE = 0.40; 30-MINUTE = 0.87; 1-HOUR = 1.15
     3-HOUR = 1.94;    6-HOUR = 2.71; 24-HOUR = 4.49
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
     3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


  *****************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   7
  ----------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ================================================================
```

```
  *****************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
  ----------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ================================================================


  *****************************************************************
   FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =   1
  ----------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ================================================================
   WATERSHED AREA =     213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.252 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.128; LOW LOSS FRACTION = 0.323
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE = 0.40; 30-MINUTE = 0.87; 1-HOUR = 1.15
     3-HOUR = 1.94;    6-HOUR = 2.71; 24-HOUR = 4.49
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
     3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


  *****************************************************************
   FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =   7
  ----------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ================================================================


  *****************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
  ----------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ================================================================


  *****************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
  ----------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) = 200.00    CHANNEL Z = 5.00
   UPSTREAM ELEVATION(FT) =    213.00; DOWNSTREAM ELEVATION(FT) =    212.00
   CHANNEL LENGTH(FT) =   1389.52    MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =   0.00
  ================================================================


  *****************************************************************
```

```
 FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
-------------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
 WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.795 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.244; LOW LOSS FRACTION = 0.515
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87; 1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
   3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


*************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
-------------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
===============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =     315.00
 CHANNEL LENGTH(FT) =   9760.05     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
===============================================================================


*************************************************************************
 FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
-------------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
===============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =     212.00
 CHANNEL LENGTH(FT) =   6877.24     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
===============================================================================


*************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
-------------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
===============================================================================
 WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.556 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.363
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87; 1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
   3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
-------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
===============================================================================


*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
-------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
===============================================================================


*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
-------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
-------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================


*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
-------------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =     170.00
 CHANNEL LENGTH(FT) =   6461.31     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
===============================================================================


*************************************************************************
```

```
   FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =    1
-----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=============================================================================
  WATERSHED AREA =    1705.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.350 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.245; LOW LOSS FRACTION = 0.412
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.40; 30-MINUTE = 0.87;  1-HOUR = 1.15
   3-HOUR = 1.94;     6-HOUR = 2.71; 24-HOUR = 4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
   3-HOUR = 0.750;     6-HOUR = 0.890; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =    7
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =    6
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   11
-----------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
=============================================================================
=============================================================================
```

```
   +-------------------------------------------------------------------------
------------------------------------+
   |                            * AES FLOODSCx PROGRAM RESULTS SUMMARY *
   |
   |INPUT FILENAME: [EV0034UF.DAT  ]
Page:  1 of   |
   +-----------------+-----------------------------+-------------------+-
----------+------------+----------+
   |UPSTREAM  DOWNSTREAM|                            |  UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|           |
   | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
   +-----------------+-----------------------------+-------------------+-
----------+------------+----------+
   | 10100.00     119.00| Subarea (UH) Added to Stream #1|      0.0     19103.9|
18.000 |           |           |
   |   119.00   12603.00| Convex Routing:     Stream #1|  19103.9     18968.2|
18.000 |           |           |
   |   810.00     809.00| Subarea (UH) Added to Stream #2|      0.0       116.0|
16.250 |           |           |
   | 12603.00   12603.00| Stream #2 Added to:   Stream #1|  18968.2     19001.1|
18.000 |           |           |
   | 12603.00   12603.00| Zero Out:           Stream #2|    116.0         0.0|
   |           |           |
   +-----------------+-----------------------------+-------------------+-
----------+------------+----------+
   | 12603.00     126.00| Convex Routing:     Stream #1|  19001.1     18984.2|
18.083 |           |           |
   |   920.00     905.00| Subarea (UH) Added to Stream #2|      0.0       307.2|
16.250 |           |           |
   |   126.00     126.00| Stream #2 Added to:   Stream #1|  18984.2     19078.6|
18.083 |           |           |
   |   126.00     126.00| Zero Out:           Stream #2|    307.2         0.0|
   |           |           |
   |   600.00     126.00| Subarea (UH) Added to Stream #2|      0.0        91.4|
16.333 |           |           |
   +-----------------+-----------------------------+-------------------+-
----------+------------+----------+
   |   126.00     126.00| Stream #2 Added to:   Stream #1|  19078.6     19097.9|
18.083 |           |           |
   |   126.00     126.00| Zero Out:           Stream #2|     91.4         0.0|
   |           |           |
   |   126.00   12720.50| Convex Routing:     Stream #1|  19097.9     19087.3|
18.167 |           |           |
   |   320.00     331.00| Subarea (UH) Added to Stream #2|      0.0       434.3|
16.333 |           |           |
   |   400.00     331.00| Subarea (UH) Added to Stream #3|      0.0       284.4|
16.333 |           |           |
   +-----------------+-----------------------------+-------------------+-
----------+------------+----------+
   |   390.00     331.00| Subarea (UH) Added to Stream #4|      0.0        50.2|
16.417 |           |           |
   |   331.00     331.00| Stream #4 Added to:   Stream #2|    434.3       480.6|
16.333 |           |           |
   |   331.00     331.00| Zero Out:           Stream #4|     50.2         0.0|
   |           |           |
   |   331.00     331.00| Stream #3 Added to:   Stream #2|    480.6       765.0|
16.333 |           |           |
```

```
|   331.00     331.00| Zero Out:            Stream #3|    284.4        0.0|
|               |            |
 +------------------+----------------------------+--------------------+-
----------+------------+-----------+
|   331.00   12720.50| Stream #2 Added to:   Stream #1|  19087.3    19354.4|
18.167 |        |            |
| 12720.50   12720.50| Zero Out:            Stream #2|    765.0        0.0|
|               |            |
| 12720.50     127.00| Convex Routing:      Stream #1|  19354.4    19316.4|
18.250 |        |            |
| 12710.00     127.00| Subarea (UH) Added to Stream #2|      0.0      256.6|
16.500 |        |            |
|   127.00     127.00| Stream #2 Added to:   Stream #1|  19316.4    19399.0|
18.250 |        |            |
 +------------------+----------------------------+--------------------+-
----------+------------+-----------+
|   127.00     127.00| Zero Out:            Stream #2|    256.6        0.0|
|               |            |
| 50150.00     127.00| Subarea (UH) Added to Stream #2|      0.0      444.1|
16.417 |        |            |
|   127.00     127.00| Stream #2 Added to:   Stream #1|  19399.0    19651.0|
17.250 |        |            |
|   127.00     127.00| Zero Out:            Stream #2|    444.1        0.0|
|               |            |
|   127.00     129.00| Convex Routing:      Stream #1|  19651.0    19629.6|
17.333 |        |            |
 +------------------+----------------------------+--------------------+-
----------+------------+-----------+
| 50300.00     129.00| Subarea (UH) Added to Stream #2|      0.0      247.0|
16.417 |        |            |
|   129.00     129.00| Stream #2 Added to:   Stream #1|  19629.6    19754.8|
17.333 |        |            |
|   129.00     129.00| Zero Out:            Stream #2|    247.0        0.0|
|               |            |
|   210.00     221.00| Subarea (UH) Added to Stream #2|      0.0      131.2|
16.333 |        |            |
|   222.00     129.00| Stream #2 Added to:   Stream #1|  19754.8    19816.5|
17.333 |        |            |
 +------------------+----------------------------+--------------------+-
----------+------------+-----------+
|   129.00     129.00| Zero Out:            Stream #2|    131.2        0.0|
|               |            |
|   129.00     133.00| Convex Routing:      Stream #1|  19816.5    19802.8|
17.417 |        |            |
| 13010.00     132.00| Subarea (UH) Added to Stream #2|      0.0     1550.2|
16.833 |        |            |
|   132.00   13305.00| Convex Routing:      Stream #2|   1550.2     1504.4|
17.250 |        |            |
| 13305.00     133.00| Convex Routing:      Stream #2|   1504.4     1493.8|
17.500 |        |            |
 +------------------+----------------------------+--------------------+-
----------+------------+-----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                        |
|      3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                |
 +----------------------------------------------------------------------
------------------------------------+
```

| UPSTREAM DOWNSTREAM | HYDROLOGIC/HYDRAULIC PROCESS | UPSTREAM PEAK (CFS) | DOWNSTREAM PEAK (CFS) | TIME(2) TO PEAK (HR) | MAX. STORAGE MODELED (AF) | FOOTNOTES |
NODE # NODE #						
132.00 133.00	Subarea (UH) Added to Stream #3	0.0	681.2	16.583		
133.00 133.00	Stream #3 Added to: Stream #2	1493.8	1982.6	17.417		
133.00 133.00	Zero Out: Stream #3	681.2	0.0			
133.00 133.00	Stream #2 Added to: Stream #1	19802.8	21785.4	17.417		
133.00 133.00	Zero Out: Stream #2	1982.6	0.0			
133.00 134.00	Convex Routing: Stream #1	21785.4	21761.0	17.583		
133.00 134.00	Subarea (UH) Added to Stream #2	0.0	783.8	16.417		
134.00 134.00	Stream #2 Added to: Stream #1	21761.0	22127.2	17.583		
134.00 134.00	Zero Out: Stream #2	783.8	0.0			
134.00 134.00	View: Stream #1		22127.2	17.583	18320.44	3

```
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                            |
|       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                    |
```

    END OF FLOODSCx ROUTING ANALYSIS

```
********************************************************************************
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            USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                        Analysis prepared by:

                    Michael Baker International
                    5 Hutton Centre Drive, Suite 500
                        Santa Ana, CA 92707


 *************************** DESCRIPTION OF STUDY ***************************
 * RANCHO MISSION VIEJO - FREE DRAINING UH                                 *
 * PHASE CONDITION NO PA5 - REGIONAL NODE 119                              *
 * 100-YR EV APRIL 2019 FKAZI                                             *
 **************************************************************************

  FILE NAME: EV00119F.DAT
  TIME/DATE OF STUDY: 14:10 04/10/2019


                        ** INPUT SUMMARY **


********************************************************************************
  FLOW PROCESS FROM NODE  10100.00 TO NODE    119.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
================================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    1.964 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.376
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.51; 30-MINUTE =  0.95;  1-HOUR =  1.32
    3-HOUR =  2.49;    6-HOUR =  3.72; 24-HOUR =  6.54
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.345; 30-MINUTE = 0.395;  1-HOUR = 0.435
    3-HOUR = 0.785;    6-HOUR = 0.904; 24-HOUR = 0.944


********************************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE    119.00 IS CODE =  11
--------------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
================================================================================
================================================================================
```

```
  +----------------------------------------------------------------------
-------------------------------------+
  |                                * AES FLOODSCx PROGRAM RESULTS SUMMARY *
  |
  |INPUT FILENAME: [EV00119F.DAT   ]
Page:   1 of   |
  +------------------+----------------------------+--------------------+-
----------+------------+----------+
  |UPSTREAM  DOWNSTREAM|                            | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|          |
  | NODE #     NODE # | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
  +------------------+----------------------------+--------------------+-
----------+------------+----------+
  | 10100.00    119.00| Subarea (UH) Added to Stream #1|       0.0    20321.2|
18.000 |           |          |
  |  119.00    119.00| View:              Stream #1|              20321.2|
18.000 |    16050.08|    3     |
  +------------------+----------------------------+--------------------+-
----------+------------+----------+
  |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                            |
  |      3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                     |
  +----------------------------------------------------------------------
-------------------------------------+

    END OF FLOODSCx ROUTING ANALYSIS
```

```
  _____
  *******************************************************************************
            F L O O D   R O U T I N G   A N A L Y S I S
              USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                        Analysis prepared by:




   *************************** DESCRIPTION OF STUDY ***************************
  * RMV PA-3 BODR 2022 - NODE 126                                            *
  * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL              *
  * 100-YR EV MAY 2023 ROKAMOTO                                              *
   ***************************************************************************

   FILE NAME: EV00126F.DAT
   TIME/DATE OF STUDY: 06:05 05/14/2023


                          ** INPUT SUMMARY **


  *******************************************************************************
   FLOW PROCESS FROM NODE 10100.00 TO NODE    119.00 IS CODE =   1
  -------------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
  ===============================================================================
   WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    1.964 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.380
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.51; 30-MINUTE =  0.95; 1-HOUR =  1.32
     3-HOUR =  2.49;    6-HOUR =  3.72; 24-HOUR =  6.54
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.341; 30-MINUTE = 0.392;  1-HOUR = 0.432
     3-HOUR = 0.782;    6-HOUR = 0.902; 24-HOUR = 0.943


  *******************************************************************************
   FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
  -------------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ===============================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) = 200.00    CHANNEL Z = 5.00
   UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
   CHANNEL LENGTH(FT) =    3157.79    MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
  ===============================================================================


  *******************************************************************************
   FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
  -------------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ===============================================================================
   WATERSHED AREA =    171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.183 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.374
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.40; 30-MINUTE =  0.87; 1-HOUR =  1.15
     3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.341; 30-MINUTE = 0.392;  1-HOUR = 0.432
     3-HOUR = 0.782;    6-HOUR = 0.902; 24-HOUR = 0.943


  *******************************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
  -------------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ===============================================================================


  *******************************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
  -------------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ===============================================================================


  *******************************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
  -------------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ===============================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) = 200.00    CHANNEL Z = 5.00
   UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =    286.00
   CHANNEL LENGTH(FT) =    3046.70    MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
  ===============================================================================


  *******************************************************************************
   FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
  -------------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
=============================================================================
 WATERSHED AREA =     553.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.215 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.254; LOW LOSS FRACTION = 0.434
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.341; 30-MINUTE = 0.392;  1-HOUR = 0.432
   3-HOUR = 0.782;    6-HOUR = 0.902; 24-HOUR = 0.943


*****************************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
-----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=============================================================================



*****************************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
-----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=============================================================================



*****************************************************************************
 FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =   1
-----------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=============================================================================
 WATERSHED AREA =     218.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.289 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.711
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.341; 30-MINUTE = 0.392;  1-HOUR = 0.432
   3-HOUR = 0.782;    6-HOUR = 0.902; 24-HOUR = 0.943


*****************************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
-----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=============================================================================



*****************************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
-----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=============================================================================
```

```
*****************************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =  11
-----------------------------------------------------------------------------
 >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
=============================================================================
=============================================================================
```

```
+----------------------------------------------------------------------------------------------------+
|                              * AES FLOODSCx PROGRAM RESULTS SUMMARY *                               |
|INPUT FILENAME: [EV00126F.DAT   ]                                                                    |
Page:   1 of    |
 +------------------+---------------------------+----------------------+----------+------------+-----------+
|UPSTREAM  DOWNSTREAM|                          | UPSTREAM   DOWNSTREAM| TIME(2) TO | MAX. STORAGE|          |
| NODE #      NODE # | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)| PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +------------------+---------------------------+----------------------+----------+------------+-----------+
| 10100.00    119.00| Subarea (UH) Added to Stream #1|      0.0      20065.4| 18.000 |        |        |
|   119.00  12603.00| Convex Routing:      Stream #1|  20065.4     19912.0| 18.000 |        |        |
|   810.00    809.00| Subarea (UH) Added to Stream #2|      0.0        130.8| 16.250 |        |        |
| 12603.00  12603.00| Stream #2 Added to:   Stream #1|  19912.0     19943.7| 18.000 |        |        |
| 12603.00  12603.00| Zero Out:            Stream #2|    130.8         0.0|        |        |        |
 +------------------+---------------------------+----------------------+----------+------------+-----------+
| 12603.00    126.00| Convex Routing:      Stream #1|  19943.7     19920.5| 18.083 |        |        |
|   920.00    905.00| Subarea (UH) Added to Stream #2|      0.0        348.3| 16.250 |        |        |
|   126.00    126.00| Stream #2 Added to:   Stream #1|  19920.5     20011.3| 18.083 |        |        |
|   126.00    126.00| Zero Out:            Stream #2|    348.3         0.0|        |        |        |
|   600.00    126.00| Subarea (UH) Added to Stream #2|      0.0        105.7| 16.333 |        |        |
 +------------------+---------------------------+----------------------+----------+------------+-----------+
|   126.00    126.00| Stream #2 Added to:   Stream #1|  20011.3     20029.9| 18.083 |        |        |
|   126.00    126.00| Zero Out:            Stream #2|    105.7         0.0|        |        |        |
|   126.00    126.00| View:                Stream #1|              20029.9| 18.083 | 16097.37|   3    |
 +------------------+---------------------------+----------------------+----------+------------+-----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL                 |
|       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM         |
 +----------------------------------------------------------------------------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

```
 _____
 *****************************************************************

          F L O O D   R O U T I N G   A N A L Y S I S
           USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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              Ver. 20.0  Release Date: 06/01/2013  License ID 1237

                      Analysis prepared by:




 *************************** DESCRIPTION OF STUDY **************************
 * RMV PA-3 BODR 2022 - NODE 127                                          *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL            *
 * 100-YR EV MAY 2023 ROKAMOTO                                            *
 *************************************************************************

  FILE NAME: EV00127F.DAT
  TIME/DATE OF STUDY: 06:05 05/14/2023


                       ** INPUT SUMMARY **


 *************************************************************************
  FLOW PROCESS FROM NODE 10100.00 TO NODE    119.00 IS CODE = 1
 -------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
 =========================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    1.964 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.380
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.51; 30-MINUTE =  0.95;  1-HOUR =  1.32
    3-HOUR =  2.49;     6-HOUR =  3.72; 24-HOUR =  6.54
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
    3-HOUR = 0.773;     6-HOUR = 0.898; 24-HOUR = 0.941


 *************************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
 -------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 =========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00    CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
 =========================================================================


 *************************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE = 1
 -------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 =========================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.183 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.374
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
    3-HOUR =  1.94;     6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
    3-HOUR = 0.773;     6-HOUR = 0.898; 24-HOUR = 0.941


 *************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE = 7
 -------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 =========================================================================


 *************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE = 6
 -------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 =========================================================================


 *************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
 -------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 =========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00    CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =    286.00
  CHANNEL LENGTH(FT) =    3046.70    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
 =========================================================================


 *************************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE = 1
 -------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
===========================================================================
 WATERSHED AREA =     553.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.215 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.254; LOW LOSS FRACTION = 0.434
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
   3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


****************************************************************************
 FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =    7
 --------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ===========================================================================


****************************************************************************
 FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =    6
 --------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ===========================================================================


****************************************************************************
 FLOW PROCESS FROM NODE   600.00 TO NODE   126.00 IS CODE =    1
 --------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ===========================================================================
 WATERSHED AREA =     218.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.289 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.711
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
   3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


****************************************************************************
 FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =    7
 --------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ===========================================================================


****************************************************************************
 FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =    6
 --------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ===========================================================================
```

```
****************************************************************************
 FLOW PROCESS FROM NODE   126.00 TO NODE  12720.50 IS CODE = 5.2
 --------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ===========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) = 200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =    258.00
 CHANNEL LENGTH(FT) =    4077.05     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =     0.00
 ===========================================================================



****************************************************************************
 FLOW PROCESS FROM NODE   320.00 TO NODE   331.00 IS CODE =    1
 --------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ===========================================================================
 WATERSHED AREA =     712.600 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.285 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.100; LOW LOSS FRACTION = 0.239
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
   3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


****************************************************************************
 FLOW PROCESS FROM NODE   400.00 TO NODE   331.00 IS CODE =    1
 --------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
 ===========================================================================
 WATERSHED AREA =     462.500 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.240 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.135; LOW LOSS FRACTION = 0.311
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
   3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


****************************************************************************
 FLOW PROCESS FROM NODE   390.00 TO NODE   331.00 IS CODE =    1
 --------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
 ===========================================================================
 WATERSHED AREA =     117.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.360 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.283; LOW LOSS FRACTION = 0.451
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
  3-HOUR =  1.94;   6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
  3-HOUR = 0.773;   6-HOUR = 0.898; 24-HOUR = 0.941


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
============================================================================

****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================

****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
```

```
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
 CHANNEL LENGTH(FT) =    3114.00     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
 WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.401 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.293; LOW LOSS FRACTION = 0.598
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
  3-HOUR =  1.94;   6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
  3-HOUR = 0.773;   6-HOUR = 0.898; 24-HOUR = 0.941


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
 WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.355 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.295; LOW LOSS FRACTION = 0.491
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
  3-HOUR =  1.94;   6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
```

```
     3-HOUR = 0.773;     6-HOUR = 0.898; 24-HOUR = 0.941


***********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    7
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    6
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   11
-----------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
=======================================================================
=======================================================================
```

```
 +-------------------------------------------------------------------------
 -------------------------------------+
 |                              * AES FLOODSCx PROGRAM RESULTS SUMMARY *
 |
 |INPUT FILENAME: [EV00127F.DAT   ]
Page:   1 of   |
 +------------------+----------------------------+--------------------+-
 -----------+------------+-----------+
 |UPSTREAM  DOWNSTREAM|                          | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|                      |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +------------------+----------------------------+--------------------+-
 -----------+------------+-----------+
 | 10100.00    119.00| Subarea (UH) Added to Stream #1|      0.0    19781.2|
18.000 |            |           |
 |   119.00  12603.00| Convex Routing:       Stream #1|  19781.2    19632.3|
18.000 |            |           |
 |   810.00    809.00| Subarea (UH) Added to Stream #2|      0.0      126.7|
16.250 |            |           |
 | 12603.00  12603.00| Stream #2 Added to:    Stream #1|  19632.3    19664.2|
18.000 |            |           |
 | 12603.00  12603.00| Zero Out:              Stream #2|    126.7        0.0|
 |            |           |
 +------------------+----------------------------+--------------------+-
 -----------+------------+-----------+
 | 12603.00    126.00| Convex Routing:       Stream #1|  19664.2    19642.9|
18.083 |            |           |
 |   920.00    905.00| Subarea (UH) Added to Stream #2|      0.0      336.9|
16.250 |            |           |
 |   126.00    126.00| Stream #2 Added to:    Stream #1|  19642.9    19734.6|
18.083 |            |           |
 |   126.00    126.00| Zero Out:              Stream #2|    336.9        0.0|
 |            |           |
 |   600.00    126.00| Subarea (UH) Added to Stream #2|      0.0      101.7|
16.333 |            |           |
 +------------------+----------------------------+--------------------+-
 -----------+------------+-----------+
 |   126.00    126.00| Stream #2 Added to:    Stream #1|  19734.6    19753.4|
18.083 |            |           |
 |   126.00    126.00| Zero Out:              Stream #2|    101.7        0.0|
 |            |           |
 |   126.00  12720.50| Convex Routing:       Stream #1|  19753.4    19741.1|
18.167 |            |           |
 |   320.00    331.00| Subarea (UH) Added to Stream #2|      0.0      469.0|
16.333 |            |           |
 |   400.00    331.00| Subarea (UH) Added to Stream #3|      0.0      308.4|
16.333 |            |           |
 +------------------+----------------------------+--------------------+-
 -----------+------------+-----------+
 |   390.00    331.00| Subarea (UH) Added to Stream #4|      0.0       54.7|
16.417 |            |           |
 |   331.00    331.00| Stream #4 Added to:    Stream #2|    469.0      519.4|
16.333 |            |           |
 |   331.00    331.00| Zero Out:              Stream #4|     54.7        0.0|
 |            |           |
 |   331.00    331.00| Stream #3 Added to:    Stream #2|    519.4      827.8|
16.333 |            |           |
```

```
|   331.00     331.00| Zero Out:            Stream #3|    308.4        0.0|
|              |          |
 +-----------------+----------------------------+--------------------+-
----------+------------+----------+
|   331.00   12720.50| Stream #2 Added to:   Stream #1|   19741.1    20000.9|
18.167 |          |          |
| 12720.50   12720.50| Zero Out:            Stream #2|    827.8        0.0|
|              |          |
| 12720.50     127.00| Convex Routing:      Stream #1|   20000.9    19956.5|
18.250 |          |          |
| 12710.00     127.00| Subarea (UH) Added to Stream #2|      0.0      281.0|
16.500 |          |          |
|   127.00     127.00| Stream #2 Added to:   Stream #1|   19956.5    20037.1|
18.250 |          |          |
 +-----------------+----------------------------+--------------------+-
----------+------------+----------+
|   127.00     127.00| Zero Out:            Stream #2|    281.0        0.0|
|              |          |
| 50150.00     127.00| Subarea (UH) Added to Stream #2|      0.0      484.5|
16.417 |          |          |
|   127.00     127.00| Stream #2 Added to:   Stream #1|   20037.1    20189.2|
18.167 |          |          |
|   127.00     127.00| Zero Out:            Stream #2|    484.5        0.0|
|              |          |
|   127.00     127.00| View:                Stream #1|             20189.2|
18.167 |   16680.59|    3    |
 +-----------------+----------------------------+--------------------+-
----------+------------+----------+
 +-----------------+----------------------------+--------------------+-
----------+------------+----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                          |
|       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                  |
 +-----------------------------------------------------------------------
--------------------------------------+
```

   END OF FLOODSCx ROUTING ANALYSIS

```
_____
************************************************************************

      F L O O D   R O U T I N G   A N A L Y S I S
        USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                  Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 137                             *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL         *
 * 100-YR EV AUG 2023 ROKAMOTO                                         *
 ***********************************************************************

  FILE NAME: EV00137F.DAT
  TIME/DATE OF STUDY: 07:15 08/10/2023


                        ** INPUT SUMMARY **


************************************************************************
  FLOW PROCESS FROM NODE 10100.00 TO NODE    119.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
==========================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    1.964 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.380
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.51; 30-MINUTE =  0.95;  1-HOUR =  1.32
    3-HOUR =  2.49;    6-HOUR =  3.72; 24-HOUR =  6.54
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


************************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
--------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =      341.63; DOWNSTREAM ELEVATION(FT) =     312.40
```

```
  CHANNEL LENGTH(FT) =     3157.79     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =      0.00
==========================================================================


************************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.215 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.374
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
    3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
--------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =      312.40; DOWNSTREAM ELEVATION(FT) =     286.00
  CHANNEL LENGTH(FT) =     3046.70     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =      0.00
==========================================================================


************************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
=======================================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.215 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.254; LOW LOSS FRACTION = 0.434
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
   3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


***********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=======================================================================



***********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=======================================================================



***********************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=======================================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.289 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.711
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
   3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


***********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=======================================================================



***********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=======================================================================
```

```
***********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE   12720.50 IS CODE = 5.2
-----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
=======================================================================



***********************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =    1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=======================================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.285 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.100; LOW LOSS FRACTION = 0.239
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
   3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


***********************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =    1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
=======================================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.240 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.135; LOW LOSS FRACTION = 0.311
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
   3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


***********************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =    1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
=======================================================================
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.360 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.283; LOW LOSS FRACTION = 0.451
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
  3-HOUR =  1.94;   6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
  3-HOUR = 0.738;   6-HOUR = 0.886; 24-HOUR = 0.933


*****************************************************************************
  FLOW PROCESS FROM NODE   331.00 TO NODE   331.00 IS CODE =   7
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
=============================================================================

*****************************************************************************
  FLOW PROCESS FROM NODE   331.00 TO NODE   331.00 IS CODE =   6
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
=============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE   331.00 TO NODE   331.00 IS CODE =   7
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=============================================================================

*****************************************************************************
  FLOW PROCESS FROM NODE   331.00 TO NODE   331.00 IS CODE =   6
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE   331.00 TO NODE 12720.50 IS CODE =   7
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE 12720.50 TO NODE 12720.50 IS CODE =   6
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=============================================================================

*****************************************************************************
  FLOW PROCESS FROM NODE 12720.50 TO NODE   127.00 IS CODE = 5.2
-----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=============================================================================
```

```
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
 CHANNEL LENGTH(FT) =    3114.00      MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
=============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE 12710.00 TO NODE   127.00 IS CODE =   1
-----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=============================================================================
 WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.401 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.293; LOW LOSS FRACTION = 0.598
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
  3-HOUR =  1.94;   6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
  3-HOUR = 0.738;   6-HOUR = 0.886; 24-HOUR = 0.933


*****************************************************************************
  FLOW PROCESS FROM NODE   127.00 TO NODE   127.00 IS CODE =   7
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE   127.00 TO NODE   127.00 IS CODE =   6
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE 50150.00 TO NODE   127.00 IS CODE =   1
-----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=============================================================================
 WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.355 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.295; LOW LOSS FRACTION = 0.491
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
  3-HOUR =  1.94;   6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
```

```
     3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


*************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    7
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    6
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
-------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
  CHANNEL LENGTH(FT) =    4905.42      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =    1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
  WATERSHED AREA =      634.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.371 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.282; LOW LOSS FRACTION = 0.579
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
    3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


*************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    7
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================
```

```
*************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    6
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =    1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
  WATERSHED AREA =      213.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.252 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.128; LOW LOSS FRACTION = 0.323
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
    3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


*************************************************************************
  FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =    7
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    6
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
-------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    1389.52      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=========================================================================


*************************************************************************
```

```
 FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
========================================================================
 WATERSHED AREA =    4924.400 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.795 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.244; LOW LOSS FRACTION = 0.515
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87; 1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
   3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


*************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00      CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =     315.00
 CHANNEL LENGTH(FT) =   9760.05     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
========================================================================


*************************************************************************
 FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00      CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =     212.00
 CHANNEL LENGTH(FT) =   6877.24     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
========================================================================


*************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
========================================================================
 WATERSHED AREA =    1713.900 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.556 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.363
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87; 1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
   3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
========================================================================


*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
========================================================================


*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
========================================================================


*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
========================================================================


*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00      CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =     170.00
 CHANNEL LENGTH(FT) =   6461.31     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
========================================================================


*************************************************************************
```

```
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =   1
-----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=============================================================================
  WATERSHED AREA =    1705.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.350 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.245; LOW LOSS FRACTION = 0.412
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
    3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933

*********************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=============================================================================

*********************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=============================================================================

*********************************************************************
  FLOW PROCESS FROM NODE  13500.00 TO NODE    134.00 IS CODE =   1
-----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=============================================================================
  WATERSHED AREA =    3859.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    1.252 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.284; LOW LOSS FRACTION = 0.408
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
    3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933

*********************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=============================================================================

*********************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
```

```
=============================================================================

  FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE = 5.2
-----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00    CHANNEL Z =  4.00
  UPSTREAM ELEVATION(FT) =     170.00; DOWNSTREAM ELEVATION(FT) =     135.00
  CHANNEL LENGTH(FT) =    6064.09    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=============================================================================

*********************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE =   1
-----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=============================================================================
  WATERSHED AREA =    1240.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.402 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.237; LOW LOSS FRACTION = 0.421
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
    3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933

*********************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   7
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=============================================================================

*********************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   6
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=============================================================================

*********************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =  11
-----------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
=============================================================================
=============================================================================
```

```
+---------------------------------------------------------------------------------------------------------+
|                                      * AES FLOODSCx PROGRAM RESULTS SUMMARY *                            |
|INPUT FILENAME: [EV00137F.DAT   ]
Page:  1 of    |
+------------------+----------------------------+--------------------+-----------+------------+-----------+
|UPSTREAM  DOWNSTREAM|                           | UPSTREAM  DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|            |
| NODE #      NODE # | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
+------------------+----------------------------+--------------------+-----------+------------+-----------+
| 10100.00     119.00| Subarea (UH) Added to Stream #1|     0.0    18754.2|
18.000 |            |           |
|   119.00   12603.00| Convex Routing:     Stream #1| 18754.2    18622.0|
18.000 |            |           |
|   810.00     809.00| Subarea (UH) Added to Stream #2|     0.0      101.1|
16.250 |            |           |
| 12603.00   12603.00| Stream #2 Added to:  Stream #1| 18622.0    18655.6|
18.000 |            |           |
| 12603.00   12603.00| Zero Out:           Stream #2|   101.1        0.0|
|            |           |
+------------------+----------------------------+--------------------+-----------+------------+-----------+
| 12603.00     126.00| Convex Routing:     Stream #1| 18655.6    18641.6|
18.083 |            |           |
|   920.00     905.00| Subarea (UH) Added to Stream #2|     0.0      294.9|
16.250 |            |           |
|   126.00     126.00| Stream #2 Added to:  Stream #1| 18641.6    18737.6|
18.083 |            |           |
|   126.00     126.00| Zero Out:           Stream #2|   294.9        0.0|
|            |           |
|   600.00     126.00| Subarea (UH) Added to Stream #2|     0.0       87.4|
16.333 |            |           |
+------------------+----------------------------+--------------------+-----------+------------+-----------+
|   126.00     126.00| Stream #2 Added to:  Stream #1| 18737.6    18757.2|
18.083 |            |           |
|   126.00     126.00| Zero Out:           Stream #2|    87.4        0.0|
|            |           |
|   126.00   12720.50| Convex Routing:     Stream #1| 18757.2    18747.0|
18.167 |            |           |
|   320.00     331.00| Subarea (UH) Added to Stream #2|     0.0      420.2|
16.333 |            |           |
|   400.00     331.00| Subarea (UH) Added to Stream #3|     0.0      274.2|
16.333 |            |           |
+------------------+----------------------------+--------------------+-----------+------------+-----------+
|   390.00     331.00| Subarea (UH) Added to Stream #4|     0.0       48.3|
16.417 |            |           |
|   331.00     331.00| Stream #4 Added to:  Stream #2|   420.2      464.9|
16.333 |            |           |
|   331.00     331.00| Zero Out:           Stream #4|    48.3        0.0|
|            |           |
|   331.00     331.00| Stream #3 Added to:  Stream #2|   464.9      739.1|
16.333 |            |           |
```

```
|   331.00    331.00| Zero Out:          Stream #3|   274.2       0.0|
|           |           |
 +------------------+---------------------------+--------------------+-
----------+------------+-----------+
|   331.00  12720.50| Stream #2 Added to:   Stream #1|  18747.0   19018.2|
18.167 |           |           |
| 12720.50  12720.50| Zero Out:          Stream #2|   739.1       0.0|
|           |           |
| 12720.50    127.00| Convex Routing:       Stream #1|  19018.2   18983.2|
18.250 |           |           |
| 12710.00    127.00| Subarea (UH) Added to Stream #2|     0.0     246.1|
16.500 |           |           |
|   127.00    127.00| Stream #2 Added to:   Stream #1|  18983.2   19105.7|
17.250 |           |           |
 +------------------+---------------------------+--------------------+-
----------+------------+-----------+
|   127.00    127.00| Zero Out:          Stream #2|   246.1       0.0|
|           |           |
| 50150.00    127.00| Subarea (UH) Added to Stream #2|     0.0     426.6|
16.417 |           |           |
|   127.00    127.00| Stream #2 Added to:   Stream #1|  19105.7   19362.7|
17.250 |           |           |
|   127.00    127.00| Zero Out:          Stream #2|   426.6       0.0|
|           |           |
|   127.00    129.00| Convex Routing:       Stream #1|  19362.7   19347.3|
17.333 |           |           |
 +------------------+---------------------------+--------------------+-
----------+------------+-----------+
| 50300.00    129.00| Subarea (UH) Added to Stream #2|     0.0     237.0|
16.417 |           |           |
|   129.00    129.00| Stream #2 Added to:   Stream #1|  19347.3   19470.4|
17.333 |           |           |
|   129.00    129.00| Zero Out:          Stream #2|   237.0       0.0|
|           |           |
|   210.00    221.00| Subarea (UH) Added to Stream #2|     0.0     126.5|
16.333 |           |           |
|   222.00    129.00| Stream #2 Added to:   Stream #1|  19470.4   19532.0|
17.333 |           |           |
 +------------------+---------------------------+--------------------+-
----------+------------+-----------+
|   129.00    129.00| Zero Out:          Stream #2|   126.5       0.0|
|           |           |
|   129.00    133.00| Convex Routing:       Stream #1|  19532.0   19516.6|
17.417 |           |           |
| 13010.00    132.00| Subarea (UH) Added to Stream #2|     0.0    1496.3|
16.833 |           |           |
|   132.00  13305.00| Convex Routing:       Stream #2|  1496.3    1452.1|
17.250 |           |           |
| 13305.00    133.00| Convex Routing:       Stream #2|  1452.1    1442.4|
17.500 |           |           |
 +------------------+---------------------------+--------------------+-
----------+------------+-----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                              |
|       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                   |
 +----------------------------------------------------------------------
------------------------------------+
```

| * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
|INPUT FILENAME: [EV00137F.DAT   ]
Page: 2 of |

| UPSTREAM DOWNSTREAM| | UPSTREAM DOWNSTREAM| TIME(2) TO | MAX. STORAGE| |
| NODE #   NODE # | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS) PEAK (CFS)| PEAK (HR) | MODELED (AF)| FOOTNOTES |

132.00 133.00	Subarea (UH) Added to Stream #3	0.0 659.6	16.583		
133.00 133.00	Stream #3 Added to: Stream #2	1442.4 1924.9	17.417		
133.00 133.00	Zero Out: Stream #3	659.6 0.0			
133.00 133.00	Stream #2 Added to: Stream #1	19516.6 21441.4	17.417		
133.00 133.00	Zero Out: Stream #2	1924.9 0.0			

133.00 134.00	Convex Routing: Stream #1	21441.4 21417.1	17.583		
133.00 134.00	Subarea (UH) Added to Stream #2	0.0 754.9	16.417		
134.00 134.00	Stream #2 Added to: Stream #1	21417.1 21785.4	17.583		
134.00 134.00	Zero Out: Stream #2	754.9 0.0			
13500.00 134.00	Subarea (UH) Added to Stream #2	0.0 1180.6	17.250		

134.00 134.00	Stream #2 Added to: Stream #1	21785.4 22951.6	17.500		
134.00 134.00	Zero Out: Stream #2	1180.6 0.0			
134.00 137.00	Convex Routing: Stream #1	22951.6 22928.1	17.667		
134.00 137.00	Subarea (UH) Added to Stream #2	0.0 509.1	16.500		
137.00 137.00	Stream #2 Added to: Stream #1	22928.1 23189.5	17.667		

| 137.00   137.00| Zero Out: Stream #2| 509.1   0.0| | | |
| 137.00   137.00| View: Stream #1| 23189.5| 17.667 | 19302.52| 3 |

|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL |

| 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM |
+--+

END OF FLOODSCx ROUTING ANALYSIS

```
_____
***********************************************************************

          F L O O D    R O U T I N G    A N A L Y S I S
          USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                      Analysis prepared by:




 ************************* DESCRIPTION OF STUDY **************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 138                              *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL          *
 * 100-YR EV AUG 2023 ROKAMOTO                                          *
 ***********************************************************************

  FILE NAME: EV00138F.DAT
  TIME/DATE OF STUDY: 07:15 08/10/2023


                      ** INPUT SUMMARY **


***********************************************************************
  FLOW PROCESS FROM NODE  10100.00 TO NODE    119.00 IS CODE =   1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
=======================================================================
  WATERSHED AREA =    49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     1.964 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.380
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.51; 30-MINUTE =  0.95; 1-HOUR =  1.32
    3-HOUR =  2.49;    6-HOUR =  3.72; 24-HOUR =  6.54
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


***********************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
-----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00      CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =      341.63; DOWNSTREAM ELEVATION(FT) =     312.40
```

```
  CHANNEL LENGTH(FT) =     3157.79     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=======================================================================
  WATERSHED AREA =      171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.183 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.374
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87; 1-HOUR =  1.15
    3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


***********************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
-----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00      CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =      312.40; DOWNSTREAM ELEVATION(FT) =     286.00
  CHANNEL LENGTH(FT) =     3046.70     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
================================================================
 WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.215 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.254; LOW LOSS FRACTION = 0.434
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


*****************************************************************
 FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   7
----------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================


*****************************************************************
 FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   6
----------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================


*****************************************************************
 FLOW PROCESS FROM NODE   600.00 TO NODE   126.00 IS CODE =   1
----------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================
 WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.289 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.711
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


*****************************************************************
 FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   7
----------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================


*****************************************************************
 FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   6
----------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================
```

```
*****************************************************************
 FLOW PROCESS FROM NODE   126.00 TO NODE  12720.50 IS CODE = 5.2
----------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) = 200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
 CHANNEL LENGTH(FT) =    4077.05     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =     0.00
================================================================


*****************************************************************
 FLOW PROCESS FROM NODE   320.00 TO NODE   331.00 IS CODE =   1
----------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================
 WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.285 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.100; LOW LOSS FRACTION = 0.239
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


*****************************************************************
 FLOW PROCESS FROM NODE   400.00 TO NODE   331.00 IS CODE =   1
----------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
================================================================
 WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.240 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.135; LOW LOSS FRACTION = 0.311
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


*****************************************************************
 FLOW PROCESS FROM NODE   390.00 TO NODE   331.00 IS CODE =   1
----------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
================================================================
 WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.360 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.283; LOW LOSS FRACTION = 0.451
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;   6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;   6-HOUR = 0.885; 24-HOUR = 0.932


*******************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
-----------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
=================================================================

*******************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
-----------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
=================================================================


*******************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
-----------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=================================================================

*******************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
-----------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=================================================================


*******************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
-----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=================================================================


*******************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
-----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=================================================================

*******************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
-----------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=================================================================
```

```
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
 CHANNEL LENGTH(FT) =    3114.00     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =     0.00
=================================================================


*******************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
-----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=================================================================
 WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.401 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.293; LOW LOSS FRACTION = 0.598
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;   6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;   6-HOUR = 0.885; 24-HOUR = 0.932


*******************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
-----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=================================================================


*******************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
-----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=================================================================


*******************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
-----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=================================================================
 WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.355 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.295; LOW LOSS FRACTION = 0.491
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;   6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
```

```
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
--------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
  CHANNEL LENGTH(FT) =    4905.42     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =    1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
  WATERSHED AREA =     634.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.371 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.282; LOW LOSS FRACTION = 0.579
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
    3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================
```

```
****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =    1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
  WATERSHED AREA =     213.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.252 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.128; LOW LOSS FRACTION = 0.323
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
    3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =    7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
--------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    1389.52     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


****************************************************************************
```

```
   FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
  WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.795 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.244; LOW LOSS FRACTION = 0.515
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87; 1-HOUR =  1.15
    3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


*************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
-------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
=========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =    315.00
  CHANNEL LENGTH(FT) =   9760.05     MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
-------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
=========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =    212.00
  CHANNEL LENGTH(FT) =   6877.24     MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
=========================================================================
  WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
  *USER ENTERED "LAG" TIME =    0.556 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.363
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87; 1-HOUR =  1.15
    3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


*************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
-------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =    170.00
  CHANNEL LENGTH(FT) =   6461.31     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=========================================================================


*************************************************************************
```

```
   FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =   1
-------------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
   WATERSHED AREA =    1705.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.350 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.245; LOW LOSS FRACTION = 0.412
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.40; 30-MINUTE =  0.87; 1-HOUR =  1.15
    3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932

*******************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
-------------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================

*******************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
-------------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================

*******************************************************************************
   FLOW PROCESS FROM NODE  13500.00 TO NODE    134.00 IS CODE =   1
-------------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
   WATERSHED AREA =    3859.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    1.252 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.284; LOW LOSS FRACTION = 0.408
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.40; 30-MINUTE =  0.87; 1-HOUR =  1.15
    3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932

*******************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
-------------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================

*******************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
-------------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
```

```
===============================================================================
   FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE = 5.2
-------------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===============================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =  200.00    CHANNEL Z =  4.00
   UPSTREAM ELEVATION(FT) =     170.00; DOWNSTREAM ELEVATION(FT) =     135.00
   CHANNEL LENGTH(FT) =    6064.09    MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
===============================================================================

*******************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE =   1
-------------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
   WATERSHED AREA =    1240.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.402 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.237; LOW LOSS FRACTION = 0.421
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.40; 30-MINUTE =  0.87; 1-HOUR =  1.15
    3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932

*******************************************************************************
   FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   7
-------------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================

*******************************************************************************
   FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   6
-------------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================

*******************************************************************************
   FLOW PROCESS FROM NODE    137.00 TO NODE    138.00 IS CODE = 5.2
-------------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===============================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
```

```
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  100.00     CHANNEL Z =  4.00
  UPSTREAM ELEVATION(FT) =     135.00; DOWNSTREAM ELEVATION(FT) =     119.70
  CHANNEL LENGTH(FT) =   4643.67     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    138.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
  WATERSHED AREA =    1303.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.502 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.267; LOW LOSS FRACTION = 0.450
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87; 1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


*******************************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =   7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =   6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =  11
-------------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
===============================================================================
===============================================================================
```

UPSTREAM DOWNSTREAM TIME(2) TO	MAX. STORAGE		UPSTREAM DOWNSTREAM PEAK (HR)				
NODE # NODE #	HYDROLOGIC/HYDRAULIC PROCESS	PEAK (CFS) PEAK (CFS)	MODELED (AF)	FOOTNOTES

```
  +------------------+-----------+-----------------------------+--------------------+-
-----------+------------+-----------+
| 10100.00    119.00| Subarea (UH) Added to Stream #1|     0.0    18668.4|
18.000 |           |           |
|   119.00  12603.00| Convex Routing:      Stream #1|  18668.4    18537.1|
18.000 |           |           |
|   810.00    809.00| Subarea (UH) Added to Stream #2|     0.0     110.4|
16.250 |           |           |
| 12603.00  12603.00| Stream #2 Added to:   Stream #1|  18537.1    18570.6|
18.000 |           |           |
| 12603.00  12603.00| Zero Out:            Stream #2|    110.4       0.0|
|           |           |           |
  +------------------+-----------+-----------------------------+--------------------+-
-----------+------------+-----------+
| 12603.00    126.00| Convex Routing:      Stream #1|  18570.6    18557.3|
18.083 |           |           |
|   920.00    905.00| Subarea (UH) Added to Stream #2|     0.0     292.0|
16.250 |           |           |
|   126.00    126.00| Stream #2 Added to:   Stream #1|  18557.3    18653.7|
18.083 |           |           |
|   126.00    126.00| Zero Out:            Stream #2|    292.0       0.0|
|           |           |           |
|   600.00    126.00| Subarea (UH) Added to Stream #2|     0.0      86.4|
16.333 |           |           |
  +------------------+-----------+-----------------------------+--------------------+-
-----------+------------+-----------+
|   126.00    126.00| Stream #2 Added to:   Stream #1|  18653.7    18673.4|
18.083 |           |           |
|   126.00    126.00| Zero Out:            Stream #2|     86.4       0.0|
|           |           |           |
|   126.00  12720.50| Convex Routing:      Stream #1|  18673.4    18663.4|
18.167 |           |           |
|   320.00    331.00| Subarea (UH) Added to Stream #2|     0.0     416.9|
16.333 |           |           |
|   400.00    331.00| Subarea (UH) Added to Stream #3|     0.0     271.8|
16.333 |           |           |
  +------------------+-----------+-----------------------------+--------------------+-
-----------+------------+-----------+
|   390.00    331.00| Subarea (UH) Added to Stream #4|     0.0      47.9|
16.417 |           |           |
|   331.00    331.00| Stream #4 Added to:   Stream #2|    416.9     461.3|
16.333 |           |           |
|   331.00    331.00| Zero Out:            Stream #4|     47.9       0.0|
|           |           |           |
|   331.00    331.00| Stream #3 Added to:   Stream #2|    461.3     733.0|
16.333 |           |           |
```

```
|    331.00     331.00| Zero Out:           Stream #3|    271.8        0.0|
|              |               |
 +------------------+------------------------------+---------------------+-
----------+------------+-----------+
|    331.00   12720.50| Stream #2 Added to:   Stream #1|   18663.4     18935.7|
18.167 |              |               |
| 12720.50   12720.50| Zero Out:           Stream #2|    733.0        0.0|
|              |               |
| 12720.50     127.00| Convex Routing:     Stream #1|   18935.7     18901.8|
18.250 |              |               |
| 12710.00     127.00| Subarea (UH) Added to Stream #2|      0.0      243.6|
16.500 |              |               |
|    127.00     127.00| Stream #2 Added to:   Stream #1|   18901.8     19034.8|
17.250 |              |               |
 +------------------+------------------------------+---------------------+-
----------+------------+-----------+
|    127.00     127.00| Zero Out:           Stream #2|    243.6        0.0|
|              |               |
| 50150.00     127.00| Subarea (UH) Added to Stream #2|      0.0      422.5|
16.417 |              |               |
|    127.00     127.00| Stream #2 Added to:   Stream #1|   19034.8     19291.2|
17.250 |              |               |
|    127.00     127.00| Zero Out:           Stream #2|    422.5        0.0|
|              |               |
|    127.00     129.00| Convex Routing:     Stream #1|   19291.2     19277.0|
17.333 |              |               |
 +------------------+------------------------------+---------------------+-
----------+------------+-----------+
| 50300.00     129.00| Subarea (UH) Added to Stream #2|      0.0      234.6|
16.417 |              |               |
|    129.00     129.00| Stream #2 Added to:   Stream #1|   19277.0     19399.6|
17.333 |              |               |
|    129.00     129.00| Zero Out:           Stream #2|    234.6        0.0|
|              |               |
|    210.00     221.00| Subarea (UH) Added to Stream #2|      0.0      125.4|
16.333 |              |               |
|    222.00     129.00| Stream #2 Added to:   Stream #1|   19399.6     19461.1|
17.333 |              |               |
 +------------------+------------------------------+---------------------+-
----------+------------+-----------+
|    129.00     129.00| Zero Out:           Stream #2|    125.4        0.0|
|              |               |
|    129.00     133.00| Convex Routing:     Stream #1|   19461.1     19445.2|
17.417 |              |               |
| 13010.00     132.00| Subarea (UH) Added to Stream #2|      0.0     1483.7|
16.833 |              |               |
|    132.00   13305.00| Convex Routing:     Stream #2|   1483.7     1440.1|
17.250 |              |               |
| 13305.00     133.00| Convex Routing:     Stream #2|   1440.1     1430.2|
17.500 |              |               |
 +------------------+------------------------------+---------------------+-
----------+------------+-----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                                |
|       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                          |
 +----------------------------------------------------------------------------
------------------------------------+
```

UPSTREAM TO NODE #	DOWNSTREAM NODE #	HYDROLOGIC/HYDRAULIC PROCESS	UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)	TIME(2) TO PEAK (HR)	MAX. STORAGE MODELED (AF)	FOOTNOTES
132.00	133.00	Subarea (UH) Added to Stream #3	0.0	654.4	16.583		
133.00	133.00	Stream #3 Added to: Stream #2	1430.2	1911.7	17.500		
133.00	133.00	Zero Out: Stream #3	654.4	0.0			
133.00	133.00	Stream #2 Added to: Stream #1	19445.2	21356.3	17.417		
133.00	133.00	Zero Out: Stream #2	1911.7	0.0			
133.00	134.00	Convex Routing: Stream #1	21356.3	21331.9	17.583		
133.00	134.00	Subarea (UH) Added to Stream #2	0.0	748.0	16.417		
134.00	134.00	Stream #2 Added to: Stream #1	21331.9	21700.7	17.583		
134.00	134.00	Zero Out: Stream #2	748.0	0.0			
13500.00	134.00	Subarea (UH) Added to Stream #2	0.0	1173.4	17.250		
134.00	134.00	Stream #2 Added to: Stream #1	21700.7	22861.1	17.500		
134.00	134.00	Zero Out: Stream #2	1173.4	0.0			
134.00	137.00	Convex Routing: Stream #1	22861.1	22837.8	17.667		
134.00	137.00	Subarea (UH) Added to Stream #2	0.0	504.6	16.500		
137.00	137.00	Stream #2 Added to: Stream #1	22837.8	23099.5	17.667		
137.00	137.00	Zero Out: Stream #2	504.6	0.0			
137.00	138.00	Convex Routing: Stream #1	23099.5	23081.0	17.750		
137.00	138.00	Subarea (UH) Added to Stream #2	0.0	469.8	16.583		
138.00	138.00	Stream #2 Added to: Stream #1	23081.0	23351.1	17.750		
138.00	138.00	Zero Out: Stream #2	469.8	0.0			
138.00	138.00	View: Stream #1		23351.1	17.750	19535.32	3

|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL |
| 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM |

  END OF FLOODSCx ROUTING ANALYSIS

```
  _____
 ****************************************************************************
         F L O O D   R O U T I N G   A N A L Y S I S
          USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                    Analysis prepared by:




 ************************** DESCRIPTION OF STUDY **************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 139                               *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL           *
 * 100-YR EV AUG 2023 ROKAMOTO                                           *
 ************************************************************************

  FILE NAME: EV00139F.DAT
  TIME/DATE OF STUDY: 07:14 08/10/2023


                    ** INPUT SUMMARY **


 ****************************************************************************
  FLOW PROCESS FROM NODE  10100.00 TO NODE    119.00 IS CODE =   1
 ---------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
 ===========================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    1.964 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.380
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.51; 30-MINUTE =  0.95;  1-HOUR =  1.32
    3-HOUR =  2.49;    6-HOUR =  3.72; 24-HOUR =  6.54
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


 ****************************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
 ---------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ===========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
 ===========================================================================


 ****************************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
 ---------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ===========================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.183 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.374
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
    3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


 ****************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
 ---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ===========================================================================


 ****************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
 ---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ===========================================================================


 ****************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
 ---------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ===========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =    286.00
  CHANNEL LENGTH(FT) =    3046.70    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
 ===========================================================================


 ****************************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
 ---------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
============================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.215 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.254; LOW LOSS FRACTION = 0.434
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
    3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
  ------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ============================================================


****************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
  ------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ============================================================


****************************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
  ------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ============================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.289 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.711
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
    3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
  ------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ============================================================


****************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
  ------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ============================================================
```

```
****************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
  ------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ============================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
  ============================================================



****************************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =    1
  ------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ============================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.285 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.100; LOW LOSS FRACTION = 0.239
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
    3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =    1
  ------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
  ============================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.240 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.135; LOW LOSS FRACTION = 0.311
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
    3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =    1
  ------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
  ============================================================
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.360 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.283; LOW LOSS FRACTION = 0.451
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;   6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;   6-HOUR = 0.885; 24-HOUR = 0.932


***********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
=======================================================================

***********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=======================================================================

***********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
-----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=======================================================================
```

```
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =      258.00; DOWNSTREAM ELEVATION(FT) =      240.00
 CHANNEL LENGTH(FT) =     3114.00     MANNING'S FACTOR =  0.030
 CONSTANT LOSS RATE(CFS) =     0.00
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=======================================================================
 WATERSHED AREA =      711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.401 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.293; LOW LOSS FRACTION = 0.598
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;   6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;   6-HOUR = 0.885; 24-HOUR = 0.932


***********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=======================================================================
 WATERSHED AREA =     1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.355 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.295; LOW LOSS FRACTION = 0.491
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;   6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
```

```
     3-HOUR = 0.733;     6-HOUR = 0.885; 24-HOUR = 0.932


  *********************************************************************
   FLOW PROCESS FROM NODE     127.00 TO NODE     127.00 IS CODE =    7
  ---------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  =====================================================================


  *********************************************************************
   FLOW PROCESS FROM NODE     127.00 TO NODE     127.00 IS CODE =    6
  ---------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  =====================================================================


  *********************************************************************
   FLOW PROCESS FROM NODE     127.00 TO NODE     129.00 IS CODE = 5.2
  ---------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  =====================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =  200.00      CHANNEL Z =  5.00
   UPSTREAM ELEVATION(FT) =      240.00; DOWNSTREAM ELEVATION(FT) =      213.00
   CHANNEL LENGTH(FT) =    4905.42      MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
  =====================================================================


  *********************************************************************
   FLOW PROCESS FROM NODE  50300.00 TO NODE     129.00 IS CODE =    1
  ---------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  =====================================================================
   WATERSHED AREA =     634.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.371 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.282; LOW LOSS FRACTION = 0.579
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE = 0.40; 30-MINUTE = 0.87;  1-HOUR = 1.15
     3-HOUR = 1.94;     6-HOUR = 2.71; 24-HOUR = 4.49
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
     3-HOUR = 0.733;     6-HOUR = 0.885; 24-HOUR = 0.932


  *********************************************************************
   FLOW PROCESS FROM NODE     129.00 TO NODE     129.00 IS CODE =    7
  ---------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  =====================================================================
```

```
  *********************************************************************
   FLOW PROCESS FROM NODE     129.00 TO NODE     129.00 IS CODE =    6
  ---------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  =====================================================================


  *********************************************************************
   FLOW PROCESS FROM NODE     210.00 TO NODE     221.00 IS CODE =    1
  ---------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  =====================================================================
   WATERSHED AREA =     213.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.252 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.128; LOW LOSS FRACTION = 0.323
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
     3-HOUR =  1.94;     6-HOUR =  2.71; 24-HOUR =  4.49
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
     3-HOUR = 0.733;     6-HOUR = 0.885; 24-HOUR = 0.932


  *********************************************************************
   FLOW PROCESS FROM NODE     222.00 TO NODE     129.00 IS CODE =    7
  ---------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  =====================================================================


  *********************************************************************
   FLOW PROCESS FROM NODE     129.00 TO NODE     129.00 IS CODE =    6
  ---------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  =====================================================================


  *********************************************************************
   FLOW PROCESS FROM NODE     129.00 TO NODE     133.00 IS CODE = 5.2
  ---------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  =====================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =  200.00      CHANNEL Z =  5.00
   UPSTREAM ELEVATION(FT) =      213.00; DOWNSTREAM ELEVATION(FT) =      212.00
   CHANNEL LENGTH(FT) =    1389.52      MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
  =====================================================================


  *********************************************************************
```

```
 FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
--------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
 WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.795 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.244; LOW LOSS FRACTION = 0.515
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87; 1-HOUR =  1.15
   3-HOUR =  1.94;   6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
   3-HOUR = 0.733;   6-HOUR = 0.885; 24-HOUR = 0.932


*************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
--------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
==========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00    CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =    315.00
 CHANNEL LENGTH(FT) =   9760.05    MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =   0.00
==========================================================================


*************************************************************************
 FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
--------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
==========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00    CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =    212.00
 CHANNEL LENGTH(FT) =   6877.24    MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =   0.00
==========================================================================


*************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
--------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
==========================================================================
 WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.556 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.363
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87; 1-HOUR =  1.15
   3-HOUR =  1.94;   6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
   3-HOUR = 0.733;   6-HOUR = 0.885; 24-HOUR = 0.932


*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
==========================================================================


*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
==========================================================================


*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
--------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00    CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =    170.00
 CHANNEL LENGTH(FT) =   6461.31    MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =   0.00
==========================================================================


*************************************************************************
```

```
  FLOW PROCESS FROM NODE   133.00 TO NODE   134.00 IS CODE =  1
---------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===========================================================================
 WATERSHED AREA =    1705.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.350 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.245; LOW LOSS FRACTION = 0.412
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932

****************************************************************************
  FLOW PROCESS FROM NODE   134.00 TO NODE   134.00 IS CODE =  7
---------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===========================================================================


****************************************************************************
  FLOW PROCESS FROM NODE   134.00 TO NODE   134.00 IS CODE =  6
---------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===========================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  13500.00 TO NODE   134.00 IS CODE =  1
---------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===========================================================================
 WATERSHED AREA =    3859.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    1.252 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.284; LOW LOSS FRACTION = 0.408
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932

****************************************************************************
  FLOW PROCESS FROM NODE   134.00 TO NODE   134.00 IS CODE =  7
---------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===========================================================================


****************************************************************************
  FLOW PROCESS FROM NODE   134.00 TO NODE   134.00 IS CODE =  6
---------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
```

```
===========================================================================

****************************************************************************
  FLOW PROCESS FROM NODE   134.00 TO NODE   137.00 IS CODE = 5.2
---------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00     CHANNEL Z =  4.00
 UPSTREAM ELEVATION(FT) =     170.00; DOWNSTREAM ELEVATION(FT) =     135.00
 CHANNEL LENGTH(FT) =   6064.09     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
===========================================================================


****************************************************************************
  FLOW PROCESS FROM NODE   134.00 TO NODE   137.00 IS CODE =  1
---------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===========================================================================
 WATERSHED AREA =    1240.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.402 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.237; LOW LOSS FRACTION = 0.421
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.40; 30-MINUTE =  0.87;  1-HOUR =  1.15
   3-HOUR =  1.94;    6-HOUR =  2.71; 24-HOUR =  4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE   137.00 TO NODE   137.00 IS CODE =  7
---------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===========================================================================


****************************************************************************
  FLOW PROCESS FROM NODE   137.00 TO NODE   137.00 IS CODE =  6
---------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===========================================================================


****************************************************************************
  FLOW PROCESS FROM NODE   137.00 TO NODE   138.00 IS CODE = 5.2
---------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
```

```
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) = 100.00     CHANNEL Z = 4.00
UPSTREAM ELEVATION(FT) =      135.00; DOWNSTREAM ELEVATION(FT) =      119.70
CHANNEL LENGTH(FT) =    4643.67     MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) =    0.00
=================================================================

***********************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    138.00 IS CODE =    1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=================================================================
 WATERSHED AREA =    1303.500 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.502 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.267; LOW LOSS FRACTION = 0.450
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE = 0.40; 30-MINUTE = 0.87; 1-HOUR = 1.15
   3-HOUR = 1.94;    6-HOUR = 2.71; 24-HOUR = 4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932

***********************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =    7
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=================================================================

***********************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =    6
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=================================================================

***********************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    139.00 IS CODE = 5.2
-----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) = 100.00     CHANNEL Z = 4.00
 UPSTREAM ELEVATION(FT) =      119.70; DOWNSTREAM ELEVATION(FT) =      100.00
 CHANNEL LENGTH(FT) =    3107.78     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
```

```
=================================================================

***********************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    139.00 IS CODE =    1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=================================================================
 WATERSHED AREA =     428.000 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.240 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.207; LOW LOSS FRACTION = 0.422
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE = 0.40; 30-MINUTE = 0.87;  1-HOUR = 1.15
   3-HOUR = 1.94;    6-HOUR = 2.71; 24-HOUR = 4.49
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.347;  1-HOUR = 0.391
   3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932

***********************************************************************
  FLOW PROCESS FROM NODE    139.00 TO NODE    139.00 IS CODE =    7
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=================================================================

***********************************************************************
  FLOW PROCESS FROM NODE    139.00 TO NODE    139.00 IS CODE =    6
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=================================================================

***********************************************************************
  FLOW PROCESS FROM NODE    139.00 TO NODE    139.00 IS CODE =   11
-----------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
=================================================================
=================================================================
```

| * AES FLOODSCx PROGRAM RESULTS SUMMARY * |
| |
| |INPUT FILENAME: [EV00139F.DAT   ] |
| Page: 1 of |
+------------------+-----------------------------------+--------------------+------------+-----------+------------+-----------+
|UPSTREAM DOWNSTREAM| | UPSTREAM   DOWNSTREAM| TIME(2) TO | MAX. STORAGE| |
| NODE #   NODE # | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS) PEAK (CFS)| PEAK (HR) | MODELED (AF)| FOOTNOTES |

Node Up	Node Down	Process	Stream	Upstream Peak (CFS)	Downstream Peak (CFS)	Time to Peak (HR)
10100.00	119.00	Subarea (UH) Added to	Stream #1	0.0	18626.3	18.000
119.00	12603.00	Convex Routing:	Stream #1	18626.3	18495.2	18.000
810.00	809.00	Subarea (UH) Added to	Stream #2	0.0	110.0	16.250
12603.00	12603.00	Stream #2 Added to:	Stream #1	18495.2	18528.8	18.000
12603.00	12603.00	Zero Out:	Stream #2	110.0	0.0	
12603.00	126.00	Convex Routing:	Stream #1	18528.8	18515.9	18.083
920.00	905.00	Subarea (UH) Added to	Stream #2	0.0	291.0	16.250
126.00	126.00	Stream #2 Added to:	Stream #1	18515.9	18612.4	18.083
126.00	126.00	Zero Out:	Stream #2	291.0	0.0	
600.00	126.00	Subarea (UH) Added to	Stream #2	0.0	86.0	16.333
126.00	126.00	Stream #2 Added to:	Stream #1	18612.4	18632.2	18.083
126.00	126.00	Zero Out:	Stream #2	86.0	0.0	
126.00	12720.50	Convex Routing:	Stream #1	18632.2	18622.1	18.167
320.00	331.00	Subarea (UH) Added to	Stream #2	0.0	415.7	16.333
400.00	331.00	Subarea (UH) Added to	Stream #3	0.0	270.9	16.333
390.00	331.00	Subarea (UH) Added to	Stream #4	0.0	47.7	16.417
331.00	331.00	Stream #4 Added to:	Stream #2	415.7	459.9	16.333
331.00	331.00	Zero Out:	Stream #4	47.7	0.0	
331.00	331.00	Stream #3 Added to:	Stream #2	459.9	730.8	16.333
331.00	331.00	Zero Out:	Stream #3	270.9	0.0	
331.00	12720.50	Stream #2 Added to:	Stream #1	18622.1	18894.7	18.167
12720.50	12720.50	Zero Out:	Stream #2	730.8	0.0	
12720.50	127.00	Convex Routing:	Stream #1	18894.7	18861.3	18.250
12710.00	127.00	Subarea (UH) Added to	Stream #2	0.0	242.8	16.500
127.00	127.00	Stream #2 Added to:	Stream #1	18861.3	18997.6	17.250
127.00	127.00	Zero Out:	Stream #2	242.8	0.0	
50150.00	127.00	Subarea (UH) Added to	Stream #2	0.0	421.0	16.417
127.00	127.00	Stream #2 Added to:	Stream #1	18997.6	19253.8	17.250
127.00	127.00	Zero Out:	Stream #2	421.0	0.0	
127.00	129.00	Convex Routing:	Stream #1	19253.8	19240.4	17.333
50300.00	129.00	Subarea (UH) Added to	Stream #2	0.0	233.8	16.417
129.00	129.00	Stream #2 Added to:	Stream #1	19240.4	19362.8	17.333
129.00	129.00	Zero Out:	Stream #2	233.8	0.0	
210.00	221.00	Subarea (UH) Added to	Stream #2	0.0	125.0	16.333
222.00	129.00	Stream #2 Added to:	Stream #1	19362.8	19424.3	17.333
129.00	129.00	Zero Out:	Stream #2	125.0	0.0	
129.00	133.00	Convex Routing:	Stream #1	19424.3	19408.1	17.417
13010.00	132.00	Subarea (UH) Added to	Stream #2	0.0	1479.7	16.833
132.00	13305.00	Convex Routing:	Stream #2	1479.7	1436.1	17.250
13305.00	133.00	Convex Routing:	Stream #2	1436.1	1426.3	17.500

|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL |
| 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM |
+---+

```
+---------------------------------------------------------------------------------------------------------+
|                                      * AES FLOODSCx PROGRAM RESULTS SUMMARY *                            |
|INPUT FILENAME: [EV00139F.DAT   ]
Page:   2 of    |
 +-------------------+---------------------------------+----------------------+------------+-----------+
 |UPSTREAM  DOWNSTREAM|                                |  UPSTREAM   DOWNSTREAM| TIME(2) TO | MAX. STORAGE|
 | NODE #     NODE # | HYDROLOGIC/HYDRAULIC PROCESS   |PEAK (CFS)   PEAK (CFS)| PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +-------------------+---------------------------------+----------------------+------------+-----------+
 |  132.00    133.00| Subarea (UH) Added to Stream #3|      0.0       652.7| 16.583 |         |           |
 |  133.00    133.00| Stream #3 Added to:   Stream #2|   1426.3      1907.5| 17.500 |         |           |
 |  133.00    133.00| Zero Out:             Stream #3|    652.7         0.0|        |         |           |
 |  133.00    133.00| Stream #2 Added to:   Stream #1|  19408.1     21314.9| 17.417 |         |           |
 |  133.00    133.00| Zero Out:             Stream #2|   1907.5         0.0|        |         |           |
 +-------------------+---------------------------------+----------------------+------------+-----------+
 |  133.00    134.00| Convex Routing:       Stream #1|  21314.9     21290.4| 17.583 |         |           |
 |  133.00    134.00| Subarea (UH) Added to Stream #2|      0.0       745.6| 16.417 |         |           |
 |  134.00    134.00| Stream #2 Added to:   Stream #1|  21290.4     21659.4| 17.583 |         |           |
 |  134.00    134.00| Zero Out:             Stream #2|    745.6         0.0|        |         |           |
 | 13500.00   134.00| Subarea (UH) Added to Stream #2|      0.0      1171.3| 17.250 |         |           |
 +-------------------+---------------------------------+----------------------+------------+-----------+
 |  134.00    134.00| Stream #2 Added to:   Stream #1|  21659.4     22819.0| 17.500 |         |           |
 |  134.00    134.00| Zero Out:             Stream #2|   1171.3         0.0|        |         |           |
 |  134.00    137.00| Convex Routing:       Stream #1|  22819.0     22795.3| 17.667 |         |           |
 |  134.00    137.00| Subarea (UH) Added to Stream #2|      0.0       503.1| 16.500 |         |           |
 |  137.00    137.00| Stream #2 Added to:   Stream #1|  22795.3     23057.2| 17.667 |         |           |
 +-------------------+---------------------------------+----------------------+------------+-----------+
 |  137.00    137.00| Zero Out:             Stream #2|    503.1         0.0|        |         |           |
 |  137.00    138.00| Convex Routing:       Stream #1|  23057.2     23039.0| 17.750 |         |           |
 |  137.00    138.00| Subarea (UH) Added to Stream #2|      0.0       467.9| 16.583 |         |           |
 |  138.00    138.00| Stream #2 Added to:   Stream #1|  23039.0     23309.4| 17.750 |         |           |
```

```
|  138.00     138.00| Zero Out:              Stream #2|    467.9        0.0|
|             |        |
 +------------------+----------------------------+---------------------+-
----------+------------+----------+
|  138.00     139.00| Convex Routing:        Stream #1|  23309.4    23297.4|
17.833 |            |          |
|  138.00     139.00| Subarea (UH) Added to Stream #2|     0.0      225.0|
16.333 |            |          |
|  139.00     139.00| Stream #2 Added to:    Stream #1|  23297.4    23378.0|
17.833 |            |          |
|  139.00     139.00| Zero Out:              Stream #2|    225.0        0.0|
|             |        |
|  139.00     139.00| View:                  Stream #1|             23378.0|
17.833 |    19614.50|    3     |
 +------------------+----------------------------+---------------------+-
----------+------------+----------+
 +------------------+----------------------------+---------------------+-
----------+------------+----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                               |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                       |
 +-----------------------------------------------------------------------
-------------------------------------+
```

    END OF FLOODSCx ROUTING ANALYSIS

```
 _____
***********************************************************************
        F L O O D   R O U T I N G   A N A L Y S I S
         USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
      (c) Copyright 1989-2010 Advanced Engineering Software (aes)
          Ver. 17.0  Release Date: 07/01/2010  License ID 1527

                     Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 133C                            *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL         *
 * 2-YR EV AUG 2023 ROKAMOTO                                           *
 ***********************************************************************

  FILE NAME: EV0233CF.DAT
  TIME/DATE OF STUDY: 10:21 08/10/2023


                       ** INPUT SUMMARY **


***********************************************************************
  FLOW PROCESS FROM NODE 10100.00 TO NODE    119.00 IS CODE =   1
 ----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
 ======================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    5.382 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.595; LOW LOSS FRACTION = 0.931
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.16; 30-MINUTE =  0.30;  1-HOUR =  0.41
    3-HOUR =  0.77;    6-HOUR =  1.15; 24-HOUR =  2.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


***********************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
 ----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01    CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
 ======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
 ----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ======================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.220 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.348; LOW LOSS FRACTION = 0.638
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
    3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


***********************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
 ----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
 ----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
 ----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01    CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =    286.00
  CHANNEL LENGTH(FT) =    3046.70    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
 ======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
 ----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
=====================================================================
  WATERSHED AREA =      553.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.292 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.509; LOW LOSS FRACTION = 0.862
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
   3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


**********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
---------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====================================================================



**********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
---------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====================================================================



**********************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
---------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====================================================================
  WATERSHED AREA =      218.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.430 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.580; LOW LOSS FRACTION = 0.966
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
   3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


**********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
---------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====================================================================



**********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
---------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====================================================================
```

```
**********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
---------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=====================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =     0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =      286.00; DOWNSTREAM ELEVATION(FT) =      258.00
  CHANNEL LENGTH(FT) =     4077.05     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
=====================================================================



**********************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =    1
---------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====================================================================
  WATERSHED AREA =      712.600 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.360 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.201; LOW LOSS FRACTION = 0.412
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
   3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


**********************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =    1
---------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
=====================================================================
  WATERSHED AREA =      462.500 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.315 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.270; LOW LOSS FRACTION = 0.508
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
   3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


**********************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =    1
---------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
=====================================================================
  WATERSHED AREA =      117.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.578 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.566; LOW LOSS FRACTION = 0.925
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
  3-HOUR =  0.62;   6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
  3-HOUR = 0.754;   6-HOUR = 0.891; 24-HOUR = 0.936


*************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
=========================================================================

*************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
=========================================================================

*************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=========================================================================

*************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=========================================================================

*************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================

*************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================

*************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
-------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=========================================================================
```

```
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =    240.00
 CHANNEL LENGTH(FT) =    3114.00      MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
-------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
 WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.472 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.586; LOW LOSS FRACTION = 0.976
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
  3-HOUR =  0.62;   6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
  3-HOUR = 0.754;   6-HOUR = 0.891; 24-HOUR = 0.936


*************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================

*************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================

*************************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
-------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
 WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.589 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.589; LOW LOSS FRACTION = 0.962
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
  3-HOUR =  0.62;   6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
```

```
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


*****************************************************************************
   FLOW PROCESS FROM NODE   127.00 TO NODE    127.00 IS CODE =   7
-----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=============================================================================


*****************************************************************************
   FLOW PROCESS FROM NODE   127.00 TO NODE    127.00 IS CODE =   6
-----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=============================================================================


*****************************************************************************
   FLOW PROCESS FROM NODE   127.00 TO NODE    129.00 IS CODE = 5.2
-----------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=============================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =    0.01      CHANNEL Z =  3.00
   UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
   CHANNEL LENGTH(FT) =    4905.42      MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
=============================================================================


*****************************************************************************
   FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =   1
-----------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=============================================================================
   WATERSHED AREA =     634.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =     0.622 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.564; LOW LOSS FRACTION = 0.940
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE = 0.13; 30-MINUTE = 0.28;  1-HOUR =  0.37
    3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


*****************************************************************************
   FLOW PROCESS FROM NODE   129.00 TO NODE    129.00 IS CODE =   7
-----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=============================================================================
```

```
*****************************************************************************
   FLOW PROCESS FROM NODE   129.00 TO NODE    129.00 IS CODE =   6
-----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=============================================================================


*****************************************************************************
   FLOW PROCESS FROM NODE   210.00 TO NODE    221.00 IS CODE =   1
-----------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=============================================================================
   WATERSHED AREA =     213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =     0.309 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.256; LOW LOSS FRACTION = 0.498
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
    3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


*****************************************************************************
   FLOW PROCESS FROM NODE   222.00 TO NODE    129.00 IS CODE =   7
-----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=============================================================================


*****************************************************************************
   FLOW PROCESS FROM NODE   129.00 TO NODE    129.00 IS CODE =   6
-----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=============================================================================


*****************************************************************************
   FLOW PROCESS FROM NODE   129.00 TO NODE    133.00 IS CODE = 5.2
-----------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=============================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =    0.01      CHANNEL Z =  3.00
   UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
   CHANNEL LENGTH(FT) =    1389.52      MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
=============================================================================


*****************************************************************************
```

```
 FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
--------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
 WATERSHED AREA =    4924.400 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    1.262 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.487; LOW LOSS FRACTION = 0.830
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28; 1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
   3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


***************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
--------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
==========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =    0.01    CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =    315.00
 CHANNEL LENGTH(FT) =    9760.05    MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================



***************************************************************************
 FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
--------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
==========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =    0.01    CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =    212.00
 CHANNEL LENGTH(FT) =    6877.24    MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================



***************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
--------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
==========================================================================
 WATERSHED AREA =    1713.900 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.948 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.449; LOW LOSS FRACTION = 0.752
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28; 1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
   3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936



***************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
==========================================================================



***************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
==========================================================================



***************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================



***************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================



***************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =  11
--------------------------------------------------------------------------
 >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
==========================================================================
==========================================================================
```

+-------------------+-------------------------------+--------------------+-----------+------------+-----------+

| UPSTREAM DOWNSTREAM| | UPSTREAM   DOWNSTREAM| TIME(2) TO | MAX. STORAGE| |
| NODE #   NODE # | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)   PEAK (CFS)| PEAK (HR) | MODELED (AF)| FOOTNOTES |

UPSTREAM NODE #	DOWNSTREAM NODE #	HYDROLOGIC/HYDRAULIC PROCESS	UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)	TIME(2) TO PEAK (HR)	MAX. STORAGE MODELED (AF)	FOOTNOTES
10100.00	119.00	Subarea (UH) Added to Stream #1	0.0	508.6	20.417		
119.00	12603.00	Convex Routing: Stream #1	508.6	507.2	20.500		
810.00	809.00	Subarea (UH) Added to Stream #2	0.0	15.7	16.250		
12603.00	12603.00	Stream #2 Added to: Stream #1	507.2	509.3	20.500		
12603.00	12603.00	Zero Out: Stream #2	15.7	0.0			
12603.00	126.00	Convex Routing: Stream #1	509.3	508.4	20.583		
920.00	905.00	Subarea (UH) Added to Stream #2	0.0	17.5	16.333		
126.00	126.00	Stream #2 Added to: Stream #1	508.4	511.0	20.583		
126.00	126.00	Zero Out: Stream #2	17.5	0.0			
600.00	126.00	Subarea (UH) Added to Stream #2	0.0	1.5	16.500		
126.00	126.00	Stream #2 Added to: Stream #1	511.0	511.3	20.583		
126.00	126.00	Zero Out: Stream #2	1.5	0.0			
126.00	12720.50	Convex Routing: Stream #1	511.3	510.6	20.750		
320.00	331.00	Subarea (UH) Added to Stream #2	0.0	89.1	16.417		
400.00	331.00	Subarea (UH) Added to Stream #3	0.0	49.9	16.333		
390.00	331.00	Subarea (UH) Added to Stream #4	0.0	1.6	16.667		
331.00	331.00	Stream #4 Added to: Stream #2	89.1	90.5	16.417		
331.00	331.00	Zero Out: Stream #4	1.6	0.0			
331.00	331.00	Stream #3 Added to: Stream #2	90.5	140.2	16.417		

UPSTREAM NODE #	DOWNSTREAM NODE #	HYDROLOGIC/HYDRAULIC PROCESS	UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)	TIME(2) TO PEAK (HR)	MAX. STORAGE MODELED (AF)	FOOTNOTES
331.00	331.00	Zero Out: Stream #3	49.9	0.0			
331.00	12720.50	Stream #2 Added to: Stream #1	510.6	532.8	20.750		
12720.50	12720.50	Zero Out: Stream #2	140.2	0.0			
12720.50	127.00	Convex Routing: Stream #1	532.8	532.4	20.833		
12710.00	127.00	Subarea (UH) Added to Stream #2	0.0	3.3	16.500		
127.00	127.00	Stream #2 Added to: Stream #1	532.4	532.9	20.833		
127.00	127.00	Zero Out: Stream #2	3.3	0.0			
50150.00	127.00	Subarea (UH) Added to Stream #2	0.0	7.4	16.667		
127.00	127.00	Stream #2 Added to: Stream #1	532.9	534.3	20.833		
127.00	127.00	Zero Out: Stream #2	7.4	0.0			
127.00	129.00	Convex Routing: Stream #1	534.3	534.0	21.000		
50300.00	129.00	Subarea (UH) Added to Stream #2	0.0	6.8	16.667		
129.00	129.00	Stream #2 Added to: Stream #1	534.0	535.3	21.000		
129.00	129.00	Zero Out: Stream #2	6.8	0.0			
210.00	221.00	Subarea (UH) Added to Stream #2	0.0	23.8	16.333		
222.00	129.00	Stream #2 Added to: Stream #1	535.3	538.8	21.000		
129.00	129.00	Zero Out: Stream #2	23.8	0.0			
129.00	133.00	Convex Routing: Stream #1	538.8	538.6	21.167		
13010.00	132.00	Subarea (UH) Added to Stream #2	0.0	134.5	17.333		
132.00	13305.00	Convex Routing: Stream #2	134.5	133.0	17.917		
13305.00	133.00	Convex Routing: Stream #2	133.0	132.4	18.250		

|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL |
| 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM |
+--+

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+----------------------------------------------------------------------------------------------------------+
|                                    * AES FLOODSCx PROGRAM RESULTS SUMMARY *                               |
|INPUT FILENAME: [EV0233CF.DAT   ]                                                                          |
Page:   2 of    |
 +-------------------+-----------------------------+----------------------+------------+-----------+
 |UPSTREAM  DOWNSTREAM|                             | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|          |
 | NODE #     NODE # | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)   PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +-------------------+-----------------------------+----------------------+------------+-----------+
 |  132.00     133.00| Subarea (UH) Added to Stream #3|      0.0        71.5|
17.000 |             |          |
 |  133.00     133.00| Stream #3 Added to:   Stream #2|    132.4       192.8|
17.167 |             |          |
 |  133.00     133.00| Zero Out:             Stream #3|     71.5         0.0|
 |             |          |
 |  133.00     133.00| Stream #2 Added to:   Stream #1|    538.6       681.8|
17.667 |             |          |
 |  133.00     133.00| Zero Out:             Stream #2|    192.8         0.0|
 |             |          |
 +-------------------+-----------------------------+----------------------+------------+-----------+
 |  133.00     133.00| View:                 Stream #1|                681.8|
17.667 |      794.43|    3      |
 +-------------------+-----------------------------+----------------------+------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                              |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                      |
 +----------------------------------------------------------------------------------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

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************************************************************************

    F L O O D    R O U T I N G    A N A L Y S I S
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       Ver. 20.0  Release Date: 06/01/2013  License ID 1237

              Analysis prepared by:




 *************************** DESCRIPTION OF STUDY **************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 133T                              *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL           *
 * 2-YR EV OCT 2022 ROKAMOTO                                             *
 *************************************************************************

  FILE NAME: EV0233TF.DAT
  TIME/DATE OF STUDY: 12:39 10/27/2022

                    ** INPUT SUMMARY **


************************************************************************
  FLOW PROCESS FROM NODE 13010.00 TO NODE    132.00 IS CODE =    1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
========================================================================
  WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    1.262 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.487; LOW LOSS FRACTION = 0.830
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.13; 30-MINUTE = 0.28;  1-HOUR = 0.37
   3-HOUR = 0.62;   6-HOUR = 0.85; 24-HOUR = 1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.744; 30-MINUTE = 0.744;  1-HOUR = 0.744
   3-HOUR = 0.959;   6-HOUR = 0.978; 24-HOUR = 0.987


************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01    CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =     315.00
```

```
  CHANNEL LENGTH(FT) =     427.51    MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
========================================================================



************************************************************************
  FLOW PROCESS FROM NODE 13305.00 TO NODE    133.00 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01    CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =    212.00
  CHANNEL LENGTH(FT) =    6877.24     MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
========================================================================



************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =    1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
========================================================================
  WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.947 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.449; LOW LOSS FRACTION = 0.752
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.13; 30-MINUTE = 0.28;  1-HOUR = 0.37
   3-HOUR = 0.62;   6-HOUR = 0.85; 24-HOUR = 1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.744; 30-MINUTE = 0.744;  1-HOUR = 0.744
   3-HOUR = 0.959;   6-HOUR = 0.978; 24-HOUR = 0.987


************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =    7
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
========================================================================



************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =    6
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
========================================================================



************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =    7
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
```

```
================================================================
 
 ****************************************************************
   FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =    6
 ----------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ================================================================
 
 
 ****************************************************************
   FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   11
 ----------------------------------------------------------------
   >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
 ================================================================
 ================================================================
```

```
 +------------------------------------------------------------------
-------------------------------------+
 |                              * AES FLOODSCx PROGRAM RESULTS SUMMARY *
 |
 |INPUT FILENAME: [EV0233TF.DAT   ]
Page:   1 of    |
 +-------------------+----------------------------+---------------------+-
-----------+------------+-----------+
 |UPSTREAM  DOWNSTREAM|                            | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|             |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
PEAK (HR) | MODELED (AF)| FOOTNOTES |
 +-------------------+----------------------------+---------------------+-
-----------+------------+-----------+
 | 13010.00     132.00| Subarea (UH) Added to Stream #2|     0.0       352.4|
17.333 |            |           |
 |   132.00   13305.00| Convex Routing:      Stream #2|   352.4       352.3|
17.333 |            |           |
 | 13305.00     133.00| Convex Routing:      Stream #2|   352.3       339.7|
17.583 |            |           |
 |   132.00     133.00| Subarea (UH) Added to Stream #3|     0.0       178.9|
17.000 |            |           |
 |   133.00     133.00| Stream #3 Added to:   Stream #2|   339.7       451.4|
17.500 |            |           |
 +-------------------+----------------------------+---------------------+-
-----------+------------+-----------+
 |   133.00     133.00| Zero Out:             Stream #3|   178.9         0.0|
|            |           |
 |   133.00     133.00| Stream #2 Added to:   Stream #1|     0.0       451.4|
17.500 |            |           |
 |   133.00     133.00| Zero Out:             Stream #2|   451.4         0.0|
|            |           |
 |   133.00     133.00| View:                 Stream #1|               451.4|
17.500 |     170.65|    3       |
 +-------------------+----------------------------+---------------------+-
-----------+------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                           |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                  |
 +------------------------------------------------------------------
-------------------------------------+


   END OF FLOODSCx ROUTING ANALYSIS
```

```
_____
************************************************************************

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           Ver. 17.0  Release Date: 07/01/2010  License ID 1527

                       Analysis prepared by:




 ************************ DESCRIPTION OF STUDY **************************
* RMV PA-3 ROMP AMENDMENT 2022 - NODE 133U                             *
* PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL          *
* 2-YR EV AUG 2023 ROKAMOTO                                            *
 **********************************************************************

  FILE NAME: EV0233UF.DAT
  TIME/DATE OF STUDY: 10:22 08/10/2023


                        ** INPUT SUMMARY **


************************************************************************
  FLOW PROCESS FROM NODE 10100.00 TO NODE   119.00 IS CODE = 1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
========================================================================
  WATERSHED AREA =  49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    5.382 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.595; LOW LOSS FRACTION = 0.931
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.16; 30-MINUTE = 0.30; 1-HOUR = 0.41
   3-HOUR = 0.77;   6-HOUR = 1.15; 24-HOUR = 2.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
   3-HOUR = 0.771;     6-HOUR = 0.897; 24-HOUR = 0.940


************************************************************************
  FLOW PROCESS FROM NODE   119.00 TO NODE  12603.00 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01    CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
  ========================================================================


************************************************************************
  FLOW PROCESS FROM NODE   810.00 TO NODE   809.00 IS CODE = 1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
========================================================================
  WATERSHED AREA =    171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.220 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.348; LOW LOSS FRACTION = 0.638
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28; 1-HOUR =  0.37
   3-HOUR =  0.62;   6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
   3-HOUR = 0.771;     6-HOUR = 0.897; 24-HOUR = 0.940


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE   126.00 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01    CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =    286.00
  CHANNEL LENGTH(FT) =    3046.70    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
  ========================================================================


************************************************************************
  FLOW PROCESS FROM NODE   920.00 TO NODE   905.00 IS CODE = 1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
===========================================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.292 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.509; LOW LOSS FRACTION = 0.862
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
   3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


****************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===========================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===========================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
---------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===========================================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.430 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.580; LOW LOSS FRACTION = 0.966
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
   3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


****************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===========================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===========================================================================
```

```
****************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
---------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
===========================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =    1
---------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===========================================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.360 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.201; LOW LOSS FRACTION = 0.412
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
   3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


****************************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =    1
---------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
===========================================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.315 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.270; LOW LOSS FRACTION = 0.508
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
   3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


****************************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =    1
---------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
===========================================================================
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.578 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.566; LOW LOSS FRACTION = 0.925
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
  3-HOUR =  0.62;   6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
  3-HOUR = 0.771;   6-HOUR = 0.897; 24-HOUR = 0.940


**********************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
---------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
=====================================================================

**********************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
---------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
=====================================================================


**********************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
---------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=====================================================================

**********************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
---------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=====================================================================


**********************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
---------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====================================================================


**********************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
---------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====================================================================


**********************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
---------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=====================================================================
```

```
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =     0.01     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
 CHANNEL LENGTH(FT) =   3114.00     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
=====================================================================


**********************************************************************
   FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
---------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====================================================================
 WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.472 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.586; LOW LOSS FRACTION = 0.976
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
  3-HOUR =  0.62;   6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
  3-HOUR = 0.771;   6-HOUR = 0.897; 24-HOUR = 0.940


**********************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
---------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====================================================================


**********************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
---------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====================================================================


**********************************************************************
   FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
---------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====================================================================
 WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.589 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.589; LOW LOSS FRACTION = 0.962
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
  3-HOUR =  0.62;   6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
```

```
     3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


**************************************************************************
  FLOW PROCESS FROM NODE   127.00 TO NODE    127.00 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE   127.00 TO NODE    127.00 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE   127.00 TO NODE    129.00 IS CODE = 5.2
--------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
  CHANNEL LENGTH(FT) =   4905.42     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE 50300.00 TO NODE    129.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
  WATERSHED AREA =     634.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.622 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.564; LOW LOSS FRACTION = 0.940
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.13; 30-MINUTE = 0.28;  1-HOUR =  0.37
     3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
     3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


**************************************************************************
  FLOW PROCESS FROM NODE   129.00 TO NODE    129.00 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================
```

```
**************************************************************************
  FLOW PROCESS FROM NODE   129.00 TO NODE    129.00 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE   210.00 TO NODE    221.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
  WATERSHED AREA =     213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.309 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.256; LOW LOSS FRACTION = 0.498
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
     3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
     3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


**************************************************************************
  FLOW PROCESS FROM NODE   222.00 TO NODE    129.00 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE   129.00 TO NODE    129.00 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE   129.00 TO NODE    133.00 IS CODE = 5.2
--------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =   1389.52     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


**************************************************************************
```

```
   FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =  11
-------------------------------------------------------------------------------
   >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
================================================================================
================================================================================
```

```
+------------------------------------------------------------------------
----------------------------------------+
|                              * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
|INPUT FILENAME: [EV0233UF.DAT   ]
Page:  1 of   |
```

UPSTREAM NODE # TIME(2) TO PEAK (HR)	DOWNSTREAM NODE # MAX. STORAGE MODELED (AF)	HYDROLOGIC/HYDRAULIC PROCESS FOOTNOTES	UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)
10100.00 20.417	119.00	Subarea (UH) Added to Stream #1	0.0	513.4
119.00 20.500	12603.00	Convex Routing: Stream #1	513.4	511.9
810.00 16.250	809.00	Subarea (UH) Added to Stream #2	0.0	16.5
12603.00 20.500	12603.00	Stream #2 Added to: Stream #1	511.9	514.0
12603.00	12603.00	Zero Out: Stream #2	16.5	0.0
12603.00 20.583	126.00	Convex Routing: Stream #1	514.0	513.0
920.00 16.333	905.00	Subarea (UH) Added to Stream #2	0.0	18.4
126.00 20.583	126.00	Stream #2 Added to: Stream #1	513.0	515.6
126.00	126.00	Zero Out: Stream #2	18.4	0.0
600.00 16.500	126.00	Subarea (UH) Added to Stream #2	0.0	1.5
126.00 20.583	126.00	Stream #2 Added to: Stream #1	515.6	515.9
126.00	126.00	Zero Out: Stream #2	1.5	0.0
126.00 20.750	12720.50	Convex Routing: Stream #1	515.9	515.1
320.00 16.417	331.00	Subarea (UH) Added to Stream #2	0.0	94.6
400.00 16.333	331.00	Subarea (UH) Added to Stream #3	0.0	52.4
390.00 16.667	331.00	Subarea (UH) Added to Stream #4	0.0	1.7
331.00 16.417	331.00	Stream #4 Added to: Stream #2	94.6	96.1
331.00	331.00	Zero Out: Stream #4	1.7	0.0
331.00 16.417	331.00	Stream #3 Added to: Stream #2	96.1	148.1

```
|   331.00     331.00| Zero Out:           Stream #3|      52.4       0.0|
|             |            |
 +-----------------+----------------------------+--------------------+-
----------+------------+-----------+
|   331.00   12720.50| Stream #2 Added to:   Stream #1|    515.1     537.3|
20.750 |             |            |
| 12720.50   12720.50| Zero Out:           Stream #2|     148.1       0.0|
|             |            |
| 12720.50     127.00| Convex Routing:       Stream #1|    537.3     536.8|
20.833 |             |            |
| 12710.00     127.00| Subarea (UH) Added to Stream #2|      0.0       3.4|
16.500 |             |            |
|   127.00     127.00| Stream #2 Added to:   Stream #1|    536.8     537.4|
20.833 |             |            |
 +-----------------+----------------------------+--------------------+-
----------+------------+-----------+
|   127.00     127.00| Zero Out:           Stream #2|      3.4       0.0|
|             |            |
| 50150.00     127.00| Subarea (UH) Added to Stream #2|      0.0       7.7|
16.667 |             |            |
|   127.00     127.00| Stream #2 Added to:   Stream #1|    537.4     538.8|
20.833 |             |            |
|   127.00     127.00| Zero Out:           Stream #2|      7.7       0.0|
|             |            |
|   127.00     129.00| Convex Routing:       Stream #1|    538.8     538.4|
21.083 |             |            |
 +-----------------+----------------------------+--------------------+-
----------+------------+-----------+
| 50300.00     129.00| Subarea (UH) Added to Stream #2|      0.0       7.1|
16.667 |             |            |
|   129.00     129.00| Stream #2 Added to:   Stream #1|    538.4     539.7|
21.083 |             |            |
|   129.00     129.00| Zero Out:           Stream #2|      7.1       0.0|
|             |            |
|   210.00     221.00| Subarea (UH) Added to Stream #2|      0.0      25.0|
16.333 |             |            |
|   222.00     129.00| Stream #2 Added to:   Stream #1|    539.7     543.2|
21.083 |             |            |
 +-----------------+----------------------------+--------------------+-
----------+------------+-----------+
|   129.00     129.00| Zero Out:           Stream #2|     25.0       0.0|
|             |            |
|   129.00     133.00| Convex Routing:       Stream #1|    543.2     543.0|
21.167 |             |            |
|   133.00     133.00| View:               Stream #1|              543.0|
21.167 |      655.24|     3    |
 +-----------------+----------------------------+--------------------+-
----------+------------+-----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                       |
|       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                      |
 +-------------------------------------------------------------------------
-----------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

```
_____
*************************************************************************

          F L O O D   R O U T I N G   A N A L Y S I S
            USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                    Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 134C                            *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL         *
 * 2-YR EV AUG 2023 ROKAMOTO                                           *
 *********************************************************************

  FILE NAME: EV0234CF.DAT
  TIME/DATE OF STUDY: 10:19 08/10/2023


                    ** INPUT SUMMARY **


*************************************************************************
  FLOW PROCESS FROM NODE  10100.00 TO NODE   119.00 IS CODE =   1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
=========================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    5.382 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.595; LOW LOSS FRACTION = 0.931
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.16; 30-MINUTE =  0.30;  1-HOUR =  0.41
    3-HOUR =  0.77;    6-HOUR =  1.15; 24-HOUR =  2.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


*************************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
-------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.220 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.348; LOW LOSS FRACTION = 0.638
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
    3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


*************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
-------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =    286.00
  CHANNEL LENGTH(FT) =    3046.70     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
===========================================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.292 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.509; LOW LOSS FRACTION = 0.862
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
    3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


***************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===========================================================================



***************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===========================================================================



***************************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
---------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===========================================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.430 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.580; LOW LOSS FRACTION = 0.966
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
    3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


***************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===========================================================================



***************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===========================================================================
```

```
***************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE   12720.50 IS CODE = 5.2
---------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01    CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =    258.00
  CHANNEL LENGTH(FT) =    4077.05    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
===========================================================================



***************************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =    1
---------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===========================================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.360 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.201; LOW LOSS FRACTION = 0.412
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
    3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


***************************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =    1
---------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
===========================================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.315 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.270; LOW LOSS FRACTION = 0.508
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
    3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


***************************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =    1
---------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
===========================================================================
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.578 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.566; LOW LOSS FRACTION = 0.925
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
  3-HOUR =  0.62;   6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
  3-HOUR = 0.741;   6-HOUR = 0.887; 24-HOUR = 0.933


******************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
==============================================================================

******************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
==============================================================================

******************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==============================================================================
```

```
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01    CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =    258.00; DOWNSTREAM ELEVATION(FT) =    240.00
  CHANNEL LENGTH(FT) =   3114.00    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================================
  WATERSHED AREA =    711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.472 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.586; LOW LOSS FRACTION = 0.976
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
  3-HOUR =  0.62;   6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
  3-HOUR = 0.741;   6-HOUR = 0.887; 24-HOUR = 0.933


******************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================================
  WATERSHED AREA =   1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.589 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.589; LOW LOSS FRACTION = 0.962
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
  3-HOUR =  0.62;   6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
```

```
      3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


  ****************************************************************************
    FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    7
  --------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ==========================================================================


  ****************************************************************************
    FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    6
  --------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ==========================================================================


  ****************************************************************************
    FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE =  5.2
  --------------------------------------------------------------------------
    >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ==========================================================================
    THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
    ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
    (Reference: the National Engineering Handbook, Hydrology,
    Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

    ASSUMED REGULAR CHANNEL INFORMATION:
    BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
    UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
    CHANNEL LENGTH(FT) =   4905.42     MANNING'S FACTOR = 0.030
    CONSTANT LOSS RATE(CFS) =    0.00
  ==========================================================================


  ****************************************************************************
    FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =    1
  --------------------------------------------------------------------------
    >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ==========================================================================
    WATERSHED AREA =     634.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
    *USER ENTERED "LAG" TIME =    0.622 HOURS
    VALLEY(DEVELOPED) S-GRAPH SELECTED
    MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.564; LOW LOSS FRACTION = 0.940
    SPECIFIED PEAK RAINFALL DEPTHS(INCH):
    5-MINUTE = 0.13; 30-MINUTE = 0.28;  1-HOUR = 0.37
      3-HOUR = 0.62;    6-HOUR = 0.85; 24-HOUR = 1.44
    *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
    5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
      3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


  ****************************************************************************
    FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    7
  --------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ==========================================================================
```

```
  ****************************************************************************
    FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    6
  --------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ==========================================================================


  ****************************************************************************
    FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =    1
  --------------------------------------------------------------------------
    >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ==========================================================================
    WATERSHED AREA =     213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
    *USER ENTERED "LAG" TIME =    0.309 HOURS
    VALLEY(DEVELOPED) S-GRAPH SELECTED
    MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.256; LOW LOSS FRACTION = 0.498
    SPECIFIED PEAK RAINFALL DEPTHS(INCH):
    5-MINUTE = 0.13; 30-MINUTE = 0.28;  1-HOUR = 0.37
      3-HOUR = 0.62;    6-HOUR = 0.85; 24-HOUR = 1.44
    *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
    5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
      3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


  ****************************************************************************
    FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =    7
  --------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ==========================================================================


  ****************************************************************************
    FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    6
  --------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ==========================================================================


  ****************************************************************************
    FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE =  5.2
  --------------------------------------------------------------------------
    >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ==========================================================================
    THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
    ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
    (Reference: the National Engineering Handbook, Hydrology,
    Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

    ASSUMED REGULAR CHANNEL INFORMATION:
    BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
    UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
    CHANNEL LENGTH(FT) =   1389.52     MANNING'S FACTOR = 0.030
    CONSTANT LOSS RATE(CFS) =    0.00
  ==========================================================================


  ****************************************************************************
```

```
 FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
--------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
 WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    1.262 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.487; LOW LOSS FRACTION = 0.830
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
   3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


**************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
--------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
==========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   0.01     CHANNEL Z = 3.00
 UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =     315.00
 CHANNEL LENGTH(FT) =   9760.05     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =   0.00
==========================================================================


**************************************************************************
 FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
--------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
==========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   0.01     CHANNEL Z = 3.00
 UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =     212.00
 CHANNEL LENGTH(FT) =   6877.24     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =   0.00
==========================================================================


**************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
--------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
==========================================================================
 WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.948 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.449; LOW LOSS FRACTION = 0.752
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
   3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


**************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
==========================================================================


**************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


**************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
--------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   0.01     CHANNEL Z = 3.00
 UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =     170.00
 CHANNEL LENGTH(FT) =   6461.31     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =   0.00
==========================================================================


**************************************************************************
```

```
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =   1
-------------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
 WATERSHED AREA =    1705.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.448 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.490; LOW LOSS FRACTION = 0.819
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
  3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
  3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


*******************************************************************************
 FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
-------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================



*******************************************************************************
 FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
-------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================



*******************************************************************************
 FLOW PROCESS FROM NODE  13500.00 TO NODE    134.00 IS CODE =   1
-------------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
 WATERSHED AREA =    3859.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    2.991 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.567; LOW LOSS FRACTION = 0.908
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
  3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
  3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


*******************************************************************************
 FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
-------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


*******************************************************************************
 FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
-------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
```

```
===============================================================================

*******************************************************************************
 FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =  11
-------------------------------------------------------------------------------
 >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
===============================================================================
===============================================================================
```

+------------------+--+--------------------+----------+------------+-----------+

| UPSTREAM DOWNSTREAM| | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE| |
| NODE #   NODE # | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)   PEAK (CFS)|
PEAK (HR) | MODELED (AF)| FOOTNOTES |

+------------------+--+--------------------+----------+------------+-----------+

UPSTREAM	DOWNSTREAM	HYDROLOGIC/HYDRAULIC PROCESS	UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)	TIME(2) TO PEAK (HR)	MAX. STORAGE MODELED (AF)	FOOTNOTES
10100.00	119.00	Subarea (UH) Added to Stream #1	0.0	504.8	20.417		
119.00	12603.00	Convex Routing: Stream #1	504.8	503.5	20.500		
810.00	809.00	Subarea (UH) Added to Stream #2	0.0	15.1	16.250		
12603.00	12603.00	Stream #2 Added to: Stream #1	503.5	505.6	20.500		
12603.00	12603.00	Zero Out: Stream #2	15.1	0.0			
12603.00	126.00	Convex Routing: Stream #1	505.6	504.8	20.583		
920.00	905.00	Subarea (UH) Added to Stream #2	0.0	16.9	16.333		
126.00	126.00	Stream #2 Added to: Stream #1	504.8	507.4	20.583		
126.00	126.00	Zero Out: Stream #2	16.9	0.0			
600.00	126.00	Subarea (UH) Added to Stream #2	0.0	1.4	16.500		
126.00	126.00	Stream #2 Added to: Stream #1	507.4	507.6	20.583		
126.00	126.00	Zero Out: Stream #2	1.4	0.0			
126.00	12720.50	Convex Routing: Stream #1	507.6	507.0	20.750		
320.00	331.00	Subarea (UH) Added to Stream #2	0.0	86.1	16.417		
400.00	331.00	Subarea (UH) Added to Stream #3	0.0	48.3	16.333		
390.00	331.00	Subarea (UH) Added to Stream #4	0.0	1.6	16.667		
331.00	331.00	Stream #4 Added to: Stream #2	86.1	87.5	16.417		
331.00	331.00	Zero Out: Stream #4	1.6	0.0			
331.00	331.00	Stream #3 Added to: Stream #2	87.5	135.5	16.417		
331.00	331.00	Zero Out: Stream #3	48.3	0.0			
331.00	12720.50	Stream #2 Added to: Stream #1	507.0	529.1	20.750		
12720.50	12720.50	Zero Out: Stream #2	135.5	0.0			
12720.50	127.00	Convex Routing: Stream #1	529.1	528.8	20.833		
12710.00	127.00	Subarea (UH) Added to Stream #2	0.0	3.2	16.500		
127.00	127.00	Stream #2 Added to: Stream #1	528.8	529.4	20.833		
127.00	127.00	Zero Out: Stream #2	3.2	0.0			
50150.00	127.00	Subarea (UH) Added to Stream #2	0.0	7.2	16.667		
127.00	127.00	Stream #2 Added to: Stream #1	529.4	530.8	20.833		
127.00	127.00	Zero Out: Stream #2	7.2	0.0			
127.00	129.00	Convex Routing: Stream #1	530.8	530.5	21.000		
50300.00	129.00	Subarea (UH) Added to Stream #2	0.0	6.6	16.667		
129.00	129.00	Stream #2 Added to: Stream #1	530.5	531.8	21.000		
129.00	129.00	Zero Out: Stream #2	6.6	0.0			
210.00	221.00	Subarea (UH) Added to Stream #2	0.0	23.0	16.333		
222.00	129.00	Stream #2 Added to: Stream #1	531.8	535.3	21.000		
129.00	129.00	Zero Out: Stream #2	23.0	0.0			
129.00	133.00	Convex Routing: Stream #1	535.3	535.1	21.167		
13010.00	132.00	Subarea (UH) Added to Stream #2	0.0	131.5	17.333		
132.00	13305.00	Convex Routing: Stream #2	131.5	130.1	17.917		
13305.00	133.00	Convex Routing: Stream #2	130.1	129.6	18.250		

|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL |
| 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM |
+--+

```
 +--------------------------------------------------------------------------------
--------------------------------------+
 |                                      * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
 |INPUT FILENAME: [EV0234CF.DAT   ]
Page:   2 of    |
 +---------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |UPSTREAM  DOWNSTREAM|                                | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|            |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS   |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +---------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   132.00     133.00| Subarea (UH) Added to Stream #3|       0.0        69.7|
17.000 |             |           |
 |   133.00     133.00| Stream #3 Added to:   Stream #2|     129.6       189.2|
17.167 |             |           |
 |   133.00     133.00| Zero Out:             Stream #3|      69.7         0.0|
|            |           |
 |   133.00     133.00| Stream #2 Added to:   Stream #1|     535.1       676.7|
17.667 |             |           |
 |   133.00     133.00| Zero Out:             Stream #2|     189.2         0.0|
|            |           |
 +---------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   133.00     134.00| Convex Routing:       Stream #1|     676.7       676.2|
17.917 |             |           |
 |   133.00     134.00| Subarea (UH) Added to Stream #2|       0.0        58.8|
16.500 |             |           |
 |   134.00     134.00| Stream #2 Added to:   Stream #1|     676.2       711.0|
17.250 |             |           |
 |   134.00     134.00| Zero Out:             Stream #2|      58.8         0.0|
|            |           |
 | 13500.00     134.00| Subarea (UH) Added to Stream #2|       0.0        48.0|
18.500 |             |           |
 +---------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |   134.00     134.00| Stream #2 Added to:   Stream #1|     711.0       755.5|
17.917 |             |           |
 |   134.00     134.00| Zero Out:             Stream #2|      48.0         0.0|
|            |           |
 |   134.00     134.00| View:                 Stream #1|                 755.5|
17.917 |       866.20|     3     |
 +---------------------+--------------------------------+----------------------+-
-----------+-------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                               |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                       |
 +--------------------------------------------------------------------------------
--------------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

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_____
************************************************************************

        F L O O D   R O U T I N G   A N A L Y S I S
        USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
    (c) Copyright 1989-2010 Advanced Engineering Software (aes)
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                    Analysis prepared by:




 *************************** DESCRIPTION OF STUDY **************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 134U                              *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL           *
 * 2-YR EV AUG 2023 ROKAMOTO                                             *
 ***********************************************************************

  FILE NAME: EV0234UF.DAT
  TIME/DATE OF STUDY: 10:20 08/10/2023


                    ** INPUT SUMMARY **


************************************************************************
  FLOW PROCESS FROM NODE 10100.00 TO NODE   119.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
==========================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    5.382 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.595; LOW LOSS FRACTION = 0.931
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.16; 30-MINUTE =  0.30; 1-HOUR =  0.41
    3-HOUR =  0.77;    6-HOUR =  1.15; 24-HOUR =  2.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


************************************************************************
  FLOW PROCESS FROM NODE   119.00 TO NODE  12603.00 IS CODE = 5.2
--------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01    CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
==========================================================================


************************************************************************
  FLOW PROCESS FROM NODE   810.00 TO NODE   809.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
  WATERSHED AREA =    171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.220 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.348; LOW LOSS FRACTION = 0.638
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28; 1-HOUR =  0.37
    3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE   126.00 IS CODE = 5.2
--------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01    CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =    286.00
  CHANNEL LENGTH(FT) =    3046.70     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
==========================================================================


************************************************************************
  FLOW PROCESS FROM NODE   920.00 TO NODE   905.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
=============================================================
 WATERSHED AREA =      553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.292 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.509; LOW LOSS FRACTION = 0.862
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
   3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


*************************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================



*************************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================



*************************************************************************
 FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
-------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
 WATERSHED AREA =      218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.430 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.580; LOW LOSS FRACTION = 0.966
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
   3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


*************************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================



*************************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================
```

```
*************************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
-------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =     0.01     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =      286.00; DOWNSTREAM ELEVATION(FT) =     258.00
 CHANNEL LENGTH(FT) =     4077.05     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =     0.00
=========================================================================



*************************************************************************
 FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =    1
-------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
 WATERSHED AREA =      712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.360 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.201; LOW LOSS FRACTION = 0.412
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
   3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


*************************************************************************
 FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =    1
-------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
=========================================================================
 WATERSHED AREA =      462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.315 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.270; LOW LOSS FRACTION = 0.508
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
   3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


*************************************************************************
 FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =    1
-------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
=========================================================================
 WATERSHED AREA =      117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =     0.578 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.566; LOW LOSS FRACTION = 0.925
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
  3-HOUR =  0.62;   6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
  3-HOUR = 0.750;   6-HOUR = 0.890; 24-HOUR = 0.936


 *************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
 -------------------------------------------------------------------------
   >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
 =========================================================================

 *************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
 -------------------------------------------------------------------------
   >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
 =========================================================================


 *************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
 -------------------------------------------------------------------------
   >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
 =========================================================================

 *************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
 -------------------------------------------------------------------------
   >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
 =========================================================================


 *************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
 -------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 =========================================================================


 *************************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
 -------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 =========================================================================

 *************************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
 -------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 =========================================================================
```

```
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =     0.01     CHANNEL Z =  3.00
   UPSTREAM ELEVATION(FT) =      258.00; DOWNSTREAM ELEVATION(FT) =     240.00
   CHANNEL LENGTH(FT) =    3114.00     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =     0.00
 =========================================================================


 *************************************************************************
   FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
 -------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 =========================================================================
   WATERSHED AREA =      711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =     0.472 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.586; LOW LOSS FRACTION = 0.976
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
    3-HOUR =  0.62;   6-HOUR =  0.85; 24-HOUR =  1.44
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;   6-HOUR = 0.890; 24-HOUR = 0.936


 *************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
 -------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 =========================================================================


 *************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
 -------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 =========================================================================


 *************************************************************************
   FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
 -------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 =========================================================================
   WATERSHED AREA =     1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =     0.589 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.589; LOW LOSS FRACTION = 0.962
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
    3-HOUR =  0.62;   6-HOUR =  0.85; 24-HOUR =  1.44
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
```

```
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


*******************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
-------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =      240.00; DOWNSTREAM ELEVATION(FT) =     213.00
  CHANNEL LENGTH(FT) =     4905.42      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =    1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
  WATERSHED AREA =     634.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.622 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.564; LOW LOSS FRACTION = 0.940
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.13; 30-MINUTE = 0.28;  1-HOUR =  0.37
    3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


*******************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================
```

```
*******************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =    1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
  WATERSHED AREA =     213.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.309 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.256; LOW LOSS FRACTION = 0.498
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
    3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


*******************************************************************************
  FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =    7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
-------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =      213.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =     1389.52      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
===============================================================================


*******************************************************************************
```

```
  FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    1.262 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.487; LOW LOSS FRACTION = 0.830
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;     6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
   3-HOUR = 0.750;     6-HOUR = 0.890; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =     315.00
  CHANNEL LENGTH(FT) =   9760.05     MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =   6877.24     MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
============================================================================
  WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
  *USER ENTERED "LAG" TIME =     0.948 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.449; LOW LOSS FRACTION = 0.752
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;     6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
   3-HOUR = 0.750;     6-HOUR = 0.890; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =     170.00
  CHANNEL LENGTH(FT) =   6461.31     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
```

```
   FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =    1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     1705.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.449 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.490; LOW LOSS FRACTION = 0.819
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.13; 30-MINUTE = 0.28; 1-HOUR = 0.37
   3-HOUR =  0.62;    6-HOUR = 0.85; 24-HOUR = 1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
   3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


****************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =    7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =    6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   11
----------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
============================================================================
============================================================================
```

```
  +--------------------------------------------------------------------------
------------------------------------+
  |                                 * AES FLOODSCx PROGRAM RESULTS SUMMARY *
  |
  |INPUT FILENAME: [EV0234UF.DAT   ]
Page:  1 of   |
  +------------------+----------------------------+--------------------+-
----------+------------+-----------+
  |UPSTREAM  DOWNSTREAM|                           | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|          |
  | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
  +------------------+----------------------------+--------------------+-
----------+------------+-----------+
  | 10100.00    119.00| Subarea (UH) Added to Stream #1|    0.0       507.5|
20.417 |             |          |
  |   119.00  12603.00| Convex Routing:     Stream #1|    507.5      506.1|
20.500 |             |          |
  |   810.00    809.00| Subarea (UH) Added to Stream #2|    0.0        15.5|
16.250 |             |          |
  | 12603.00  12603.00| Stream #2 Added to:    Stream #1|  506.1      508.3|
20.500 |             |          |
  | 12603.00  12603.00| Zero Out:              Stream #2|   15.5        0.0|
  |             |          |
  +------------------+----------------------------+--------------------+-
----------+------------+-----------+
  | 12603.00    126.00| Convex Routing:     Stream #1|    508.3      507.3|
20.583 |             |          |
  |   920.00    905.00| Subarea (UH) Added to Stream #2|    0.0        17.3|
16.333 |             |          |
  |   126.00    126.00| Stream #2 Added to:    Stream #1|  507.3      510.0|
20.583 |             |          |
  |   126.00    126.00| Zero Out:              Stream #2|   17.3        0.0|
  |             |          |
  |   600.00    126.00| Subarea (UH) Added to Stream #2|    0.0         1.5|
16.500 |             |          |
  +------------------+----------------------------+--------------------+-
----------+------------+-----------+
  |   126.00    126.00| Stream #2 Added to:    Stream #1|  510.0      510.2|
20.583 |             |          |
  |   126.00    126.00| Zero Out:              Stream #2|    1.5        0.0|
  |             |          |
  |   126.00  12720.50| Convex Routing:     Stream #1|    510.2      509.6|
20.750 |             |          |
  |   320.00    331.00| Subarea (UH) Added to Stream #2|    0.0        88.0|
16.417 |             |          |
  |   400.00    331.00| Subarea (UH) Added to Stream #3|    0.0        49.3|
16.333 |             |          |
  +------------------+----------------------------+--------------------+-
----------+------------+-----------+
  |   390.00    331.00| Subarea (UH) Added to Stream #4|    0.0         1.6|
16.667 |             |          |
  |   331.00    331.00| Stream #4 Added to:    Stream #2|   88.0       89.4|
16.417 |             |          |
  |   331.00    331.00| Zero Out:              Stream #4|    1.6        0.0|
  |             |          |
  |   331.00    331.00| Stream #3 Added to:    Stream #2|   89.4      138.5|
16.417 |             |          |
```

```
|   331.00     331.00| Zero Out:            Stream #3|    49.3       0.0|
|            |             |
 +------------------+----------------------------+--------------------+-
----------+------------+----------+
|   331.00   12720.50| Stream #2 Added to:   Stream #1|   509.6     531.7|
20.750 |            |             |
| 12720.50   12720.50| Zero Out:            Stream #2|   138.5       0.0|
|            |             |
| 12720.50     127.00| Convex Routing:      Stream #1|   531.7     531.3|
20.833 |            |             |
| 12710.00     127.00| Subarea (UH) Added to Stream #2|     0.0       3.2|
16.500 |            |             |
|   127.00     127.00| Stream #2 Added to:   Stream #1|   531.3     531.9|
20.833 |            |             |
 +------------------+----------------------------+--------------------+-
----------+------------+----------+
|   127.00     127.00| Zero Out:            Stream #2|     3.2       0.0|
|            |             |
| 50150.00     127.00| Subarea (UH) Added to Stream #2|     0.0       7.3|
16.667 |            |             |
|   127.00     127.00| Stream #2 Added to:   Stream #1|   531.9     533.3|
20.833 |            |             |
|   127.00     127.00| Zero Out:            Stream #2|     7.3       0.0|
|            |             |
|   127.00     129.00| Convex Routing:      Stream #1|   533.3     533.0|
21.000 |            |             |
 +------------------+----------------------------+--------------------+-
----------+------------+----------+
| 50300.00     129.00| Subarea (UH) Added to Stream #2|     0.0       6.8|
16.667 |            |             |
|   129.00     129.00| Stream #2 Added to:   Stream #1|   533.0     534.3|
21.000 |            |             |
|   129.00     129.00| Zero Out:            Stream #2|     6.8       0.0|
|            |             |
|   210.00     221.00| Subarea (UH) Added to Stream #2|     0.0      23.5|
16.333 |            |             |
|   222.00     129.00| Stream #2 Added to:   Stream #1|   534.3     537.8|
21.000 |            |             |
 +------------------+----------------------------+--------------------+-
----------+------------+----------+
|   129.00     129.00| Zero Out:            Stream #2|    23.5       0.0|
|            |             |
|   129.00     133.00| Convex Routing:      Stream #1|   537.8     537.6|
21.167 |            |             |
| 13010.00     132.00| Subarea (UH) Added to Stream #2|     0.0     133.6|
17.333 |            |             |
|   132.00   13305.00| Convex Routing:      Stream #2|   133.6     132.1|
17.917 |            |             |
| 13305.00     133.00| Convex Routing:      Stream #2|   132.1     131.5|
18.250 |            |             |
 +------------------+----------------------------+--------------------+-
----------+------------+----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                          |
|      3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                  |
 +--------------------------------------------------------------------------
------------------------------------+
```

```
 +---------------------------------------------------------------------------------------------------------+
 |                                    * AES FLOODSCx PROGRAM RESULTS SUMMARY *                              |
 |INPUT FILENAME: [EV0234UF.DAT   ]                                                                         |
Page:   2 of   |
 +------------------+-------------------------------+---------------------+------------+-----------+
 |UPSTREAM  DOWNSTREAM|                             | UPSTREAM   DOWNSTREAM|                              |
 TIME(2) TO | MAX. STORAGE|          |                                                                     |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|                             |
 PEAK (HR)  | MODELED (AF)| FOOTNOTES |                                                                   |
 +------------------+-------------------------------+---------------------+------------+-----------+
 |   132.00    133.00| Subarea (UH) Added to Stream #3|      0.0        70.9|                            |
 17.000 |           |          |                                                                         |
 |   133.00    133.00| Stream #3 Added to:   Stream #2|    131.5       191.7|                            |
 17.167 |           |          |                                                                         |
 |   133.00    133.00| Zero Out:             Stream #3|     70.9         0.0|                            |
 |           |          |                                                                                 |
 |   133.00    133.00| Stream #2 Added to:   Stream #1|    537.6       680.4|                            |
 17.667 |           |          |                                                                         |
 |   133.00    133.00| Zero Out:             Stream #2|    191.7         0.0|                            |
 |           |          |                                                                                 |
 +------------------+-------------------------------+---------------------+------------+-----------+
 |   133.00    134.00| Convex Routing:       Stream #1|    680.4       679.8|                            |
 17.917 |           |          |                                                                         |
 |   133.00    134.00| Subarea (UH) Added to Stream #2|      0.0        60.0|                            |
 16.500 |           |          |                                                                         |
 |   134.00    134.00| Stream #2 Added to:   Stream #1|    679.8       716.9|                            |
 17.250 |           |          |                                                                         |
 |   134.00    134.00| Zero Out:             Stream #2|     60.0         0.0|                            |
 |           |          |                                                                                 |
 |   134.00    134.00| View:                 Stream #1|                716.9|                            |
 17.250 |     828.40|    3     |                                                                          |
 +------------------+-------------------------------+---------------------+------------+-----------+
 +------------------+-------------------------------+---------------------+------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
 INTERVAL                               |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
 THE DESIGN STORM                      |
 +---------------------------------------------------------------------------------------------------------+


   END OF FLOODSCx ROUTING ANALYSIS
```

```
  _____
  ****************************************************************
         F L O O D   R O U T I N G   A N A L Y S I S
            USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
        (c) Copyright 1989-2010 Advanced Engineering Software (aes)
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                    Analysis prepared by:




  *************************** DESCRIPTION OF STUDY ***************************
  * RMV PA-3 ROMP AMENDMENT 2022 - NODE 133C                      *
  * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL    *
  * 5-YR EV AUG 2023 ROKAMOTO                                      *
  *************************************************************************

   FILE NAME: EV0533CF.DAT
   TIME/DATE OF STUDY: 09:37 08/10/2023


                        ** INPUT SUMMARY **


  *************************************************************************
   FLOW PROCESS FROM NODE 10100.00 TO NODE   119.00 IS CODE =   1
  --------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
  ==========================================================================
   WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    3.308 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.496; LOW LOSS FRACTION = 0.845
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE = 0.23; 30-MINUTE =  0.44; 1-HOUR =  0.62
     3-HOUR =  1.15;    6-HOUR =  1.71; 24-HOUR =  3.02
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
     3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


  *************************************************************************
   FLOW PROCESS FROM NODE   119.00 TO NODE  12603.00 IS CODE = 5.2
  --------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ==========================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =   0.01     CHANNEL Z =  3.00
   UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
   CHANNEL LENGTH(FT) =    3157.79     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
  ==========================================================================


  *************************************************************************
   FLOW PROCESS FROM NODE   810.00 TO NODE   809.00 IS CODE =   1
  --------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ==========================================================================
   WATERSHED AREA =    171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.203 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.598
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.18; 30-MINUTE =  0.41; 1-HOUR =  0.55
     3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
     3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


  *************************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
  --------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ==========================================================================


  *************************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
  --------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ==========================================================================


  *************************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE   126.00 IS CODE = 5.2
  --------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ==========================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =   0.01     CHANNEL Z =  3.00
   UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =    286.00
   CHANNEL LENGTH(FT) =    3046.70     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
  ==========================================================================


  *************************************************************************
   FLOW PROCESS FROM NODE   920.00 TO NODE   905.00 IS CODE =   1
  --------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
=============================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.253 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.424; LOW LOSS FRACTION = 0.818
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.18; 30-MINUTE = 0.41; 1-HOUR = 0.55
    3-HOUR = 0.92;    6-HOUR = 1.27; 24-HOUR = 2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


*************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
-------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=============================================================


*************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
-------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=============================================================


*************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
-------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=============================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.313 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.483; LOW LOSS FRACTION = 0.944
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.18; 30-MINUTE = 0.41; 1-HOUR = 0.55
    3-HOUR = 0.92;    6-HOUR = 1.27; 24-HOUR = 2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


*************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
-------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=============================================================


*************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
-------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=============================================================
```

```
*************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
-------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=============================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =    258.00
  CHANNEL LENGTH(FT) =    4077.05     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=============================================================



*************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =    1
-------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=============================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.330 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.167; LOW LOSS FRACTION = 0.352
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.18; 30-MINUTE = 0.41; 1-HOUR = 0.55
    3-HOUR = 0.92;    6-HOUR = 1.27; 24-HOUR = 2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


*************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =    1
-------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
=============================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.284 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.225; LOW LOSS FRACTION = 0.447
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.18; 30-MINUTE = 0.41; 1-HOUR = 0.55
    3-HOUR = 0.92;    6-HOUR = 1.27; 24-HOUR = 2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


*************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =    1
-------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
=============================================================
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.448 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.472; LOW LOSS FRACTION = 0.863
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
  3-HOUR =  0.92;   6-HOUR =  1.27; 24-HOUR =  2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
  3-HOUR = 0.754;   6-HOUR = 0.891; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
============================================================================

****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================

****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================

****************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================

****************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
```

```
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
  CHANNEL LENGTH(FT) =    3114.00     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.370 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.489; LOW LOSS FRACTION = 0.949
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
   3-HOUR =  0.92;   6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
   3-HOUR = 0.754;   6-HOUR = 0.891; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.447 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.491; LOW LOSS FRACTION = 0.915
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
   3-HOUR =  0.92;   6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
```

```
     3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


**************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
--------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
  CHANNEL LENGTH(FT) =   4905.42     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =    1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
  WATERSHED AREA =      634.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.444 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.470; LOW LOSS FRACTION = 0.908
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
    3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


**************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================
```

```
**************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =    1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
  WATERSHED AREA =      213.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.286 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.213; LOW LOSS FRACTION = 0.446
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
    3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


**************************************************************************
  FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =    7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
--------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =   1389.52     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


**************************************************************************
```

```
 FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
------------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================================
 WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.986 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.406; LOW LOSS FRACTION = 0.789
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.18; 30-MINUTE =  0.41; 1-HOUR =  0.55
   3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
   3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


*****************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
------------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
==============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   0.01     CHANNEL Z = 3.00
 UPSTREAM ELEVATION(FT) =    427.51; DOWNSTREAM ELEVATION(FT) =     315.00
 CHANNEL LENGTH(FT) =   9760.05     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =   0.00
==============================================================================



*****************************************************************************
 FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
------------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
==============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   0.01     CHANNEL Z = 3.00
 UPSTREAM ELEVATION(FT) =    315.00; DOWNSTREAM ELEVATION(FT) =     212.00
 CHANNEL LENGTH(FT) =   6877.24     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =   0.00
==============================================================================



*****************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
------------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
==============================================================================
 WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.699 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.375; LOW LOSS FRACTION = 0.691
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.18; 30-MINUTE =  0.41; 1-HOUR =  0.55
   3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
   3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936



*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
==============================================================================



*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
==============================================================================



*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==============================================================================



*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==============================================================================



*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =  11
------------------------------------------------------------------------------
 >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
==============================================================================
==============================================================================
```

UPSTREAM NODE #	DOWNSTREAM NODE #	HYDROLOGIC/HYDRAULIC PROCESS	UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)	TIME(2) TO PEAK (HR)	MAX. STORAGE MODELED (AF)	FOOTNOTES
10100.00	119.00	Subarea (UH) Added to Stream #1	0.0	2236.6	19.333		
119.00	12603.00	Convex Routing: Stream #1	2236.6	2215.5	19.417		
810.00	809.00	Subarea (UH) Added to Stream #2	0.0	32.0	16.250		
12603.00	12603.00	Stream #2 Added to: Stream #1	2215.5	2219.5	19.417		
12603.00	12603.00	Zero Out: Stream #2	32.0	0.0			
12603.00	126.00	Convex Routing: Stream #1	2219.5	2209.6	19.250		
920.00	905.00	Subarea (UH) Added to Stream #2	0.0	53.6	16.333		
126.00	126.00	Stream #2 Added to: Stream #1	2209.6	2215.8	19.250		
126.00	126.00	Zero Out: Stream #2	53.6	0.0			
600.00	126.00	Subarea (UH) Added to Stream #2	0.0	10.9	16.417		
126.00	126.00	Stream #2 Added to: Stream #1	2215.8	2216.6	19.250		
126.00	126.00	Zero Out: Stream #2	10.9	0.0			
126.00	12720.50	Convex Routing: Stream #1	2216.6	2209.7	19.417		
320.00	331.00	Subarea (UH) Added to Stream #2	0.0	156.2	16.417		
400.00	331.00	Subarea (UH) Added to Stream #3	0.0	94.0	16.333		
390.00	331.00	Subarea (UH) Added to Stream #4	0.0	6.5	16.500		
331.00	331.00	Stream #4 Added to: Stream #2	156.2	162.2	16.417		
331.00	331.00	Zero Out: Stream #4	6.5	0.0			
331.00	331.00	Stream #3 Added to: Stream #2	162.2	251.8	16.333		
331.00	331.00	Zero Out: Stream #3	94.0	0.0			
331.00	12720.50	Stream #2 Added to: Stream #1	2209.7	2254.2	19.333		
12720.50	12720.50	Zero Out: Stream #2	251.8	0.0			
12720.50	127.00	Convex Routing: Stream #1	2254.2	2253.4	19.500		
12710.00	127.00	Subarea (UH) Added to Stream #2	0.0	30.2	16.417		
127.00	127.00	Stream #2 Added to: Stream #1	2253.4	2255.6	19.500		
127.00	127.00	Zero Out: Stream #2	30.2	0.0			
50150.00	127.00	Subarea (UH) Added to Stream #2	0.0	46.2	16.500		
127.00	127.00	Stream #2 Added to: Stream #1	2255.6	2261.2	19.500		
127.00	127.00	Zero Out: Stream #2	46.2	0.0			
127.00	129.00	Convex Routing: Stream #1	2261.2	2259.0	19.667		
50300.00	129.00	Subarea (UH) Added to Stream #2	0.0	30.7	16.500		
129.00	129.00	Stream #2 Added to: Stream #1	2259.0	2262.4	19.667		
129.00	129.00	Zero Out: Stream #2	30.7	0.0			
210.00	221.00	Subarea (UH) Added to Stream #2	0.0	43.9	16.333		
222.00	129.00	Stream #2 Added to: Stream #1	2262.4	2269.2	19.667		
129.00	129.00	Zero Out: Stream #2	43.9	0.0			
129.00	133.00	Convex Routing: Stream #1	2269.2	2267.7	19.750		
13010.00	132.00	Subarea (UH) Added to Stream #2	0.0	301.2	17.000		
132.00	13305.00	Convex Routing: Stream #2	301.2	293.6	17.500		
13305.00	133.00	Convex Routing: Stream #2	293.6	292.0	17.833		

|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL |
| 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM |

```
    +-------------------+------------------------------+----------------------+-
-----------+------------+-----------+
    |UPSTREAM  DOWNSTREAM|                              | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|           |
    | NODE #     NODE # | HYDROLOGIC/HYDRAULIC PROCESS  |PEAK (CFS)   PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
    +-------------------+------------------------------+----------------------+-
-----------+------------+-----------+
    |  132.00     133.00| Subarea (UH) Added to Stream #3|      0.0       153.3|
16.750 |           |           |
    |  133.00     133.00| Stream #3 Added to:   Stream #2|    292.0       396.9|
17.667 |           |           |
    |  133.00     133.00| Zero Out:             Stream #3|    153.3         0.0|
|           |           |
    |  133.00     133.00| Stream #2 Added to:   Stream #1|   2267.7      2576.7|
18.417 |           |           |
    |  133.00     133.00| Zero Out:             Stream #2|    396.9         0.0|
|           |           |
    +-------------------+------------------------------+----------------------+-
-----------+------------+-----------+
    |  133.00     133.00| View:                 Stream #1|               2576.7|
18.417 |     2353.66|     3      |
    +-------------------+------------------------------+----------------------+-
-----------+------------+-----------+
    |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                              |
    |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                      |
    +--------------------------------------------------------------------------
--------------------------------------+

    END OF FLOODSCx ROUTING ANALYSIS
```

```
 _____
 ************************************************************************

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           USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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            Ver. 20.0  Release Date: 06/01/2013  License ID 1237

                        Analysis prepared by:




 *************************** DESCRIPTION OF STUDY **************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 133T                               *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL            *
 * 5-YR EV OCT 2022 ROKAMOTO                                              *
 *************************************************************************

  FILE NAME: EV0533TF.DAT
  TIME/DATE OF STUDY: 09:40 10/27/2022


                        ** INPUT SUMMARY **


 ************************************************************************
   FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
 -----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 =======================================================================
  WATERSHED AREA =    4924.400 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.986 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.406; LOW LOSS FRACTION = 0.789
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
    3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.744; 30-MINUTE = 0.744;  1-HOUR = 0.744
    3-HOUR = 0.959;    6-HOUR = 0.978; 24-HOUR = 0.987


 ************************************************************************
   FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
 -----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
 =======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01    CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =    315.00
```

```
  CHANNEL LENGTH(FT) =    9760.05     MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
 =======================================================================



 ************************************************************************
   FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
 -----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
 =======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01    CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =    212.00
  CHANNEL LENGTH(FT) =    6877.24     MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
 =======================================================================



 ************************************************************************
   FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
 -----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
 =======================================================================
  WATERSHED AREA =    1713.900 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.699 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.375; LOW LOSS FRACTION = 0.691
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
    3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.744; 30-MINUTE = 0.744;  1-HOUR = 0.744
    3-HOUR = 0.959;    6-HOUR = 0.978; 24-HOUR = 0.987



 ************************************************************************
   FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
 -----------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
 =======================================================================



 ************************************************************************
   FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
 -----------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
 =======================================================================



 ************************************************************************
   FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
 -----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
```

```
================================================================
***************************************************************
 FLOW PROCESS FROM NODE     133.00 TO NODE     133.00 IS CODE =    6
----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================


***************************************************************
 FLOW PROCESS FROM NODE     133.00 TO NODE     133.00 IS CODE =   11
----------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
================================================================
================================================================
```

```
 +--------------------------------------------------------------
-------------------------------------+
 |                            * AES FLOODSCx PROGRAM RESULTS SUMMARY *
 |
 |INPUT FILENAME: [EV0533TF.DAT   ]
Page:   1 of    |
 +------------------+------------------------------+--------------------+-
----------+------------+-----------+
 |UPSTREAM  DOWNSTREAM|                            | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|              |
 | NODE #      NODE # | HYDROLOGIC/HYDRAULIC PROCESS  |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +------------------+------------------------------+--------------------+-
----------+------------+-----------+
 | 13010.00     132.00| Subarea (UH) Added to Stream #2|       0.0       777.5|
17.000 |             |           |
 |   132.00   13305.00| Convex Routing:      Stream #2|     777.5       736.9|
17.333 |             |           |
 | 13305.00     133.00| Convex Routing:      Stream #2|     736.9       724.1|
17.583 |             |           |
 |   132.00     133.00| Subarea (UH) Added to Stream #3|       0.0       389.8|
16.750 |             |           |
 |   133.00     133.00| Stream #3 Added to:   Stream #2|     724.1       856.7|
17.583 |             |           |
 +------------------+------------------------------+--------------------+-
----------+------------+-----------+
 |   133.00     133.00| Zero Out:             Stream #3|     389.8         0.0|
|             |           |
 |   133.00     133.00| Stream #2 Added to:   Stream #1|       0.0       856.7|
17.583 |             |           |
 |   133.00     133.00| Zero Out:             Stream #2|     856.7         0.0|
|             |           |
 |   133.00     133.00| View:                 Stream #1|                 856.7|
17.583 |       314.32|     3     |
 +------------------+------------------------------+--------------------+-
----------+------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                              |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                      |
 +--------------------------------------------------------------
-------------------------------------+


   END OF FLOODSCx ROUTING ANALYSIS
```

```
_____
************************************************************************

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                    Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 133U                            *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL         *
 * 5-YR EV AUG 2023 ROKAMOTO                                           *
 ***********************************************************************

  FILE NAME: EV0533UF.DAT
  TIME/DATE OF STUDY: 09:38 08/10/2023


                    ** INPUT SUMMARY **


************************************************************************
  FLOW PROCESS FROM NODE  10100.00 TO NODE    119.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
========================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    3.308 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.496; LOW LOSS FRACTION = 0.845
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.23; 30-MINUTE =  0.44; 1-HOUR =  0.62
    3-HOUR =  1.15;    6-HOUR =  1.71; 24-HOUR =  3.02
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


************************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =      341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
========================================================================



************************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
========================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.203 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.598
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41; 1-HOUR =  0.55
    3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
========================================================================



************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
========================================================================



************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =      312.40; DOWNSTREAM ELEVATION(FT) =    286.00
  CHANNEL LENGTH(FT) =    3046.70     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
========================================================================



************************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
================================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.253 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.424; LOW LOSS FRACTION = 0.818
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.18; 30-MINUTE = 0.41;  1-HOUR = 0.55
    3-HOUR = 0.92;    6-HOUR = 1.27; 24-HOUR = 2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
  ----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ================================================================



****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
  ----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ================================================================



****************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
  ----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ================================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.313 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.483; LOW LOSS FRACTION = 0.944
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.18; 30-MINUTE = 0.41;  1-HOUR = 0.55
    3-HOUR = 0.92;    6-HOUR = 1.27; 24-HOUR = 2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
  ----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ================================================================



****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
  ----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ================================================================
```

```
****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE   12720.50 IS CODE = 5.2
  ----------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =     0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
  ================================================================



****************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =    1
  ----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ================================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.330 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.167; LOW LOSS FRACTION = 0.352
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.18; 30-MINUTE = 0.41;  1-HOUR = 0.55
    3-HOUR = 0.92;    6-HOUR = 1.27; 24-HOUR = 2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


****************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =    1
  ----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
  ================================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.284 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.225; LOW LOSS FRACTION = 0.447
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.18; 30-MINUTE = 0.41;  1-HOUR = 0.55
    3-HOUR = 0.92;    6-HOUR = 1.27; 24-HOUR = 2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


****************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =    1
  ----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
  ================================================================
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
  *USER ENTERED "LAG" TIME =    0.448 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.472; LOW LOSS FRACTION = 0.863
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41; 1-HOUR =  0.55
   3-HOUR =  0.92;   6-HOUR = 1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
   3-HOUR = 0.771;   6-HOUR = 0.897; 24-HOUR = 0.940


  *****************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
  ---------------------------------------------------------------------------
   >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
  ===========================================================================

  *****************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
  ---------------------------------------------------------------------------
   >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
  ===========================================================================


  *****************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
  ---------------------------------------------------------------------------
   >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
  ===========================================================================

  *****************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
  ---------------------------------------------------------------------------
   >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
  ===========================================================================


  *****************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
  ---------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ===========================================================================


  *****************************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
  ---------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ===========================================================================


  *****************************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
  ---------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ===========================================================================
```

```
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =    0.01    CHANNEL Z =  3.00
   UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =    240.00
   CHANNEL LENGTH(FT) =    3114.00     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
  ===========================================================================


  *****************************************************************************
   FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
  ---------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ===========================================================================
   WATERSHED AREA =      711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.370 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.489; LOW LOSS FRACTION = 0.949
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.18; 30-MINUTE =  0.41; 1-HOUR =  0.55
    3-HOUR =  0.92;   6-HOUR = 1.27; 24-HOUR =  2.12
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;   6-HOUR = 0.897; 24-HOUR = 0.940


  *****************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
  ---------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ===========================================================================


  *****************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
  ---------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ===========================================================================


  *****************************************************************************
   FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
  ---------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ===========================================================================
   WATERSHED AREA =     1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.447 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.491; LOW LOSS FRACTION = 0.915
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.18; 30-MINUTE =  0.41; 1-HOUR =  0.55
    3-HOUR =  0.92;   6-HOUR = 1.27; 24-HOUR =  2.12
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
```

```
     3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


  ************************************************************************
    FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    7
  ------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ========================================================================


  ************************************************************************
    FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    6
  ------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ========================================================================


  ************************************************************************
    FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
  ------------------------------------------------------------------------
    >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ========================================================================
    THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
    ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
    (Reference: the National Engineering Handbook, Hydrology,
    Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

    ASSUMED REGULAR CHANNEL INFORMATION:
    BASEWIDTH(FT) =    0.01      CHANNEL Z =  3.00
    UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
    CHANNEL LENGTH(FT) =    4905.42      MANNING'S FACTOR = 0.030
    CONSTANT LOSS RATE(CFS) =    0.00
  ========================================================================


  ************************************************************************
    FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =    1
  ------------------------------------------------------------------------
    >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ========================================================================
    WATERSHED AREA =     634.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
    *USER ENTERED "LAG" TIME =    0.444 HOURS
    VALLEY(DEVELOPED) S-GRAPH SELECTED
    MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.470; LOW LOSS FRACTION = 0.908
    SPECIFIED PEAK RAINFALL DEPTHS(INCH):
    5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
     3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
    *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
    5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
     3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


  ************************************************************************
    FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    7
  ------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ========================================================================
```

```
  ************************************************************************
    FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    6
  ------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ========================================================================


  ************************************************************************
    FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =    1
  ------------------------------------------------------------------------
    >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ========================================================================
    WATERSHED AREA =     213.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
    *USER ENTERED "LAG" TIME =    0.286 HOURS
    VALLEY(DEVELOPED) S-GRAPH SELECTED
    MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.213; LOW LOSS FRACTION = 0.446
    SPECIFIED PEAK RAINFALL DEPTHS(INCH):
    5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
     3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
    *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
    5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
     3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


  ************************************************************************
    FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =    7
  ------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ========================================================================


  ************************************************************************
    FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    6
  ------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ========================================================================


  ************************************************************************
    FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
  ------------------------------------------------------------------------
    >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ========================================================================
    THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
    ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
    (Reference: the National Engineering Handbook, Hydrology,
    Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

    ASSUMED REGULAR CHANNEL INFORMATION:
    BASEWIDTH(FT) =    0.01      CHANNEL Z =  3.00
    UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
    CHANNEL LENGTH(FT) =    1389.52      MANNING'S FACTOR = 0.030
    CONSTANT LOSS RATE(CFS) =    0.00
  ========================================================================


  ************************************************************************
```

FLOW PROCESS FROM NODE   133.00 TO NODE   133.00 IS CODE = 11

 >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
==
==

+---+
| * AES FLOODSCx PROGRAM RESULTS SUMMARY * |
|INPUT FILENAME: [EV0533UF.DAT   ] |
Page: 1 of |
+-------------------+-----------------------------+--------------------+-----------+------------+-----------+

| UPSTREAM DOWNSTREAM| | | UPSTREAM   DOWNSTREAM| TIME(2) TO | MAX. STORAGE|
| NODE #   NODE # | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS) PEAK (CFS)| PEAK (HR) | MODELED (AF)| FOOTNOTES |

Node #	Node #	Hydrologic/Hydraulic Process	Upstream Peak (CFS)	Downstream Peak (CFS)	Time(2) to Peak (HR)	Max. Storage Modeled (AF)	Footnotes
10100.00	119.00	Subarea (UH) Added to Stream #1	0.0	2327.4	19.333		
119.00	12603.00	Convex Routing: Stream #1	2327.4	2302.3	19.417		
810.00	809.00	Subarea (UH) Added to Stream #2	0.0	34.8	16.250		
12603.00	12603.00	Stream #2 Added to: Stream #1	2302.3	2306.4	19.417		
12603.00	12603.00	Zero Out: Stream #2	34.8	0.0			
12603.00	126.00	Convex Routing: Stream #1	2306.4	2290.1	19.250		
920.00	905.00	Subarea (UH) Added to Stream #2	0.0	60.7	16.333		
126.00	126.00	Stream #2 Added to: Stream #1	2290.1	2296.3	19.250		
126.00	126.00	Zero Out: Stream #2	60.7	0.0			
600.00	126.00	Subarea (UH) Added to Stream #2	0.0	13.0	16.417		
126.00	126.00	Stream #2 Added to: Stream #1	2296.3	2297.0	19.250		
126.00	126.00	Zero Out: Stream #2	13.0	0.0			
126.00	12720.50	Convex Routing: Stream #1	2297.0	2292.4	19.583		
320.00	331.00	Subarea (UH) Added to Stream #2	0.0	165.3	16.417		
400.00	331.00	Subarea (UH) Added to Stream #3	0.0	100.4	16.333		
390.00	331.00	Subarea (UH) Added to Stream #4	0.0	7.4	16.500		
331.00	331.00	Stream #4 Added to: Stream #2	165.3	172.1	16.417		
331.00	331.00	Zero Out: Stream #4	7.4	0.0			
331.00	331.00	Stream #3 Added to: Stream #2	172.1	267.6	16.333		

```
|   331.00    331.00| Zero Out:            Stream #3|   100.4      0.0|
|            |       |
 +------------------+----------------------------+---------------------+-
----------+------------+-----------+
|   331.00  12720.50| Stream #2 Added to:   Stream #1|  2292.4   2335.4|
19.583 |            |       |
| 12720.50  12720.50| Zero Out:            Stream #2|   267.6      0.0|
|            |       |
| 12720.50    127.00| Convex Routing:      Stream #1|  2335.4   2333.5|
19.500 |            |       |
| 12710.00    127.00| Subarea (UH) Added to Stream #2|     0.0     36.1|
16.417 |            |       |
|   127.00    127.00| Stream #2 Added to:   Stream #1|  2333.5   2335.7|
19.500 |            |       |
 +------------------+----------------------------+---------------------+-
----------+------------+-----------+
|   127.00    127.00| Zero Out:            Stream #2|    36.1      0.0|
|            |       |
| 50150.00    127.00| Subarea (UH) Added to Stream #2|     0.0     54.0|
16.500 |            |       |
|   127.00    127.00| Stream #2 Added to:   Stream #1|  2335.7   2341.3|
19.500 |            |       |
|   127.00    127.00| Zero Out:            Stream #2|    54.0      0.0|
|            |       |
|   127.00    129.00| Convex Routing:      Stream #1|  2341.3   2340.1|
19.750 |            |       |
 +------------------+----------------------------+---------------------+-
----------+------------+-----------+
| 50300.00    129.00| Subarea (UH) Added to Stream #2|     0.0     35.4|
16.500 |            |       |
|   129.00    129.00| Stream #2 Added to:   Stream #1|  2340.1   2343.5|
19.750 |            |       |
|   129.00    129.00| Zero Out:            Stream #2|    35.4      0.0|
|            |       |
|   210.00    221.00| Subarea (UH) Added to Stream #2|     0.0     46.8|
16.333 |            |       |
|   222.00    129.00| Stream #2 Added to:   Stream #1|  2343.5   2350.2|
19.750 |            |       |
 +------------------+----------------------------+---------------------+-
----------+------------+-----------+
|   129.00    129.00| Zero Out:            Stream #2|    46.8      0.0|
|            |       |
|   129.00    133.00| Convex Routing:      Stream #1|  2350.2   2347.7|
19.750 |            |       |
|   133.00    133.00| View:                Stream #1|           2347.7|
19.750 |    2113.73|     3    |
 +------------------+----------------------------+---------------------+-
----------+------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                        |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                |
 +---------------------------------------------------------------------------
------------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

```
 _____
 *********************************************************************
           F L O O D   R O U T I N G   A N A L Y S I S
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                      Analysis prepared by:




 *************************** DESCRIPTION OF STUDY ***************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 134C                               *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL            *
 * 5-YR EV AUG 2023 ROKAMOTO                                              *
 *************************************************************************

  FILE NAME: EV0534CF.DAT
  TIME/DATE OF STUDY: 09:36 08/10/2023


                      ** INPUT SUMMARY **


 *********************************************************************
   FLOW PROCESS FROM NODE 10100.00 TO NODE    119.00 IS CODE = 1
 -------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
 ===================================================================
   WATERSHED AREA = 49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    3.308 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.496; LOW LOSS FRACTION = 0.845
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE = 0.23; 30-MINUTE =  0.44; 1-HOUR =  0.62
     3-HOUR = 1.15;    6-HOUR = 1.71; 24-HOUR = 3.02
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
     3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


 *********************************************************************
   FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
 -------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ===================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =   0.01    CHANNEL Z = 3.00
   UPSTREAM ELEVATION(FT) =    341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
   CHANNEL LENGTH(FT) =   3157.79    MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
 ===================================================================


 *********************************************************************
   FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE = 1
 -------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ===================================================================
   WATERSHED AREA =    171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.203 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.598
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE = 0.18; 30-MINUTE =  0.41; 1-HOUR =  0.55
     3-HOUR = 0.92;    6-HOUR = 1.27; 24-HOUR = 2.12
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
     3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


 *********************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE = 7
 -------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ===================================================================


 *********************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE = 6
 -------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ===================================================================


 *********************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
 -------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ===================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =   0.01    CHANNEL Z = 3.00
   UPSTREAM ELEVATION(FT) =    312.40; DOWNSTREAM ELEVATION(FT) =    286.00
   CHANNEL LENGTH(FT) =   3046.70    MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
 ===================================================================


 *********************************************************************
   FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE = 1
 -------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
=============================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.253 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.424; LOW LOSS FRACTION = 0.818
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
    3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


*****************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=============================================================


*****************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=============================================================


*****************************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
-----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=============================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.313 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.483; LOW LOSS FRACTION = 0.944
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
    3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


*****************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=============================================================


*****************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=============================================================
```

```
*****************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    12720.50 IS CODE = 5.2
-----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=============================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01      CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=============================================================


*****************************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =    1
-----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=============================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.330 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.167; LOW LOSS FRACTION = 0.352
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
    3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


*****************************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =    1
-----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
=============================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.284 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.447
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
    3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


*****************************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =    1
-----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
=============================================================
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.448 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.472; LOW LOSS FRACTION = 0.863
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
  3-HOUR =  0.92;   6-HOUR =  1.27; 24-HOUR =  2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
  3-HOUR = 0.741;   6-HOUR = 0.887; 24-HOUR = 0.933


***************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
===========================================================================


***************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
===========================================================================


***************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
===========================================================================


***************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
===========================================================================


***************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===========================================================================


***************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===========================================================================


***************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
---------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===========================================================================
```

```
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
 CHANNEL LENGTH(FT) =    3114.00     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
===========================================================================


***************************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
---------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===========================================================================
 WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.370 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.489; LOW LOSS FRACTION = 0.949
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
  3-HOUR =  0.92;   6-HOUR =  1.27; 24-HOUR =  2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
  3-HOUR = 0.741;   6-HOUR = 0.887; 24-HOUR = 0.933


***************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===========================================================================


***************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===========================================================================


***************************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
---------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===========================================================================
 WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.447 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.491; LOW LOSS FRACTION = 0.915
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
  3-HOUR =  0.92;   6-HOUR =  1.27; 24-HOUR =  2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
```

```
     3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


  ********************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    7
  ------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ==================================================================


  ********************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    6
  ------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ==================================================================


  ********************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
  ------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ==================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
   UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =      213.00
   CHANNEL LENGTH(FT) =    4905.42     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
  ==================================================================


  ********************************************************************
   FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =    1
  ------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ==================================================================
   WATERSHED AREA =     634.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =     0.444 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.470; LOW LOSS FRACTION = 0.908
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
     3-HOUR =  0.92;     6-HOUR =  1.27; 24-HOUR =  2.12
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
     3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


  ********************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    7
  ------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ==================================================================
```

```
  ********************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    6
  ------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ==================================================================


  ********************************************************************
   FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =    1
  ------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ==================================================================
   WATERSHED AREA =     213.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =     0.286 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.213; LOW LOSS FRACTION = 0.446
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
     3-HOUR =  0.92;     6-HOUR =  1.27; 24-HOUR =  2.12
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
     3-HOUR = 0.741;     6-HOUR = 0.887; 24-HOUR = 0.933


  ********************************************************************
   FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =    7
  ------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ==================================================================


  ********************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    6
  ------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ==================================================================


  ********************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
  ------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ==================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
   UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =      212.00
   CHANNEL LENGTH(FT) =    1389.52     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
  ==================================================================


  ********************************************************************
```

```
 FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
-----------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=============================================================================
 WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.986 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.406; LOW LOSS FRACTION = 0.789
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.18; 30-MINUTE =  0.41; 1-HOUR =  0.55
   3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
   3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


*****************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
-----------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
=============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   0.01     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =     315.00
 CHANNEL LENGTH(FT) =   9760.05     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
=============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
-----------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
=============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   0.01     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =     212.00
 CHANNEL LENGTH(FT) =   6877.24     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
=============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
-----------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
=============================================================================
 WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.699 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.375; LOW LOSS FRACTION = 0.691
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.18; 30-MINUTE =  0.41; 1-HOUR =  0.55
   3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
   3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
-----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
-----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
-----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
-----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
-----------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   0.01     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =     170.00
 CHANNEL LENGTH(FT) =   6461.31     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
=============================================================================


*****************************************************************************
```

```
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
  WATERSHED AREA =    1705.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.390 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.409; LOW LOSS FRACTION = 0.762
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
   3-HOUR =  0.92;    6-HOUR = 1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
   3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


*******************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================



*******************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================



*******************************************************************************
  FLOW PROCESS FROM NODE  13500.00 TO NODE    134.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
  WATERSHED AREA =    3859.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    2.180 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.473; LOW LOSS FRACTION = 0.843
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
   3-HOUR =  0.92;    6-HOUR = 1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
   3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


*******************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
```

```
===============================================================================

*******************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =  11
-------------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
===============================================================================
===============================================================================
```

|INPUT FILENAME: [EV0534CF.DAT   ]
Page: 1 of |

| UPSTREAM DOWNSTREAM| | | UPSTREAM DOWNSTREAM| TIME(2) TO | MAX. STORAGE| |
NODE # NODE #	HYDROLOGIC/HYDRAULIC PROCESS	PEAK (CFS) PEAK (CFS)	PEAK (HR)	MODELED (AF)	FOOTNOTES
10100.00 119.00	Subarea (UH) Added to Stream #1	0.0 2166.7	19.333		
119.00 12603.00	Convex Routing: Stream #1	2166.7 2148.6	19.417		
810.00 809.00	Subarea (UH) Added to Stream #2	0.0 30.0	16.250		
12603.00 12603.00	Stream #2 Added to: Stream #1	2148.6 2152.8	18.833		
12603.00 12603.00	Zero Out: Stream #2	30.0 0.0			
12603.00 126.00	Convex Routing: Stream #1	2152.8 2148.3	19.250		
920.00 905.00	Subarea (UH) Added to Stream #2	0.0 48.4	16.333		
126.00 126.00	Stream #2 Added to: Stream #1	2148.3 2154.5	19.250		
126.00 126.00	Zero Out: Stream #2	48.4 0.0			
600.00 126.00	Subarea (UH) Added to Stream #2	0.0 9.3	16.417		
126.00 126.00	Stream #2 Added to: Stream #1	2154.5 2155.3	19.250		
126.00 126.00	Zero Out: Stream #2	9.3 0.0			
126.00 12720.50	Convex Routing: Stream #1	2155.3 2148.8	19.333		
320.00 331.00	Subarea (UH) Added to Stream #2	0.0 149.5	16.417		
400.00 331.00	Subarea (UH) Added to Stream #3	0.0 89.5	16.333		
390.00 331.00	Subarea (UH) Added to Stream #4	0.0 5.9	16.500		
331.00 331.00	Stream #4 Added to: Stream #2	149.5 154.9	16.417		
331.00 331.00	Zero Out: Stream #4	5.9 0.0			
331.00 331.00	Stream #3 Added to: Stream #2	154.9 240.6	16.333		
331.00 331.00	Zero Out: Stream #3	89.5 0.0			
331.00 12720.50	Stream #2 Added to: Stream #1	2148.8 2199.4	18.500		
12720.50 12720.50	Zero Out: Stream #2	240.6 0.0			
12720.50 127.00	Convex Routing: Stream #1	2199.4 2196.7	18.583		
12710.00 127.00	Subarea (UH) Added to Stream #2	0.0 25.8	16.417		
127.00 127.00	Stream #2 Added to: Stream #1	2196.7 2199.9	18.583		
127.00 127.00	Zero Out: Stream #2	25.8 0.0			
50150.00 127.00	Subarea (UH) Added to Stream #2	0.0 40.4	16.500		
127.00 127.00	Stream #2 Added to: Stream #1	2199.9 2208.6	18.583		
127.00 127.00	Zero Out: Stream #2	40.4 0.0			
127.00 129.00	Convex Routing: Stream #1	2208.6 2201.8	18.667		
50300.00 129.00	Subarea (UH) Added to Stream #2	0.0 27.1	16.500		
129.00 129.00	Stream #2 Added to: Stream #1	2201.8 2208.5	18.333		
129.00 129.00	Zero Out: Stream #2	27.1 0.0			
210.00 221.00	Subarea (UH) Added to Stream #2	0.0 41.8	16.333		
222.00 129.00	Stream #2 Added to: Stream #1	2208.5 2221.2	18.333		
129.00 129.00	Zero Out: Stream #2	41.8 0.0			
129.00 133.00	Convex Routing: Stream #1	2221.2 2217.0	18.500		
13010.00 132.00	Subarea (UH) Added to Stream #2	0.0 285.1	17.000		
132.00 13305.00	Convex Routing: Stream #2	285.1 278.7	17.583		
13305.00 133.00	Convex Routing: Stream #2	278.7 277.4	17.833		

|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL |
| 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM |

| UPSTREAM | DOWNSTREAM | HYDROLOGIC/HYDRAULIC PROCESS | UPSTREAM PEAK (CFS) | DOWNSTREAM PEAK (CFS) | TIME(2) TO PEAK (HR) | MAX. STORAGE MODELED (AF) | FOOTNOTES |
NODE #	NODE #						
132.00	133.00	Subarea (UH) Added to Stream #3	0.0	145.3	16.750		
133.00	133.00	Stream #3 Added to: Stream #2	277.4	381.2	17.667		
133.00	133.00	Zero Out: Stream #3	145.3	0.0			
133.00	133.00	Stream #2 Added to: Stream #1	2217.0	2531.2	18.417		
133.00	133.00	Zero Out: Stream #2	381.2	0.0			
133.00	134.00	Convex Routing: Stream #1	2531.2	2528.6	18.583		
133.00	134.00	Subarea (UH) Added to Stream #2	0.0	138.8	16.417		
134.00	134.00	Stream #2 Added to: Stream #1	2528.6	2565.8	18.500		
134.00	134.00	Zero Out: Stream #2	138.8	0.0			
13500.00	134.00	Subarea (UH) Added to Stream #2	0.0	138.3	18.083		
134.00	134.00	Stream #2 Added to: Stream #1	2565.8	2699.5	18.583		
134.00	134.00	Zero Out: Stream #2	138.3	0.0			
134.00	134.00	View: Stream #1		2699.5	18.583	2501.90	3

|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL
| 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

END OF FLOODSCx ROUTING ANALYSIS

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    _____
 *******************************************************************

          F L O O D   R O U T I N G   A N A L Y S I S
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                    Analysis prepared by:




 ************************** DESCRIPTION OF STUDY **************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 134U                            *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL         *
 * 5-YR EV AUG 2023 ROKAMOTO                                           *
 ***********************************************************************

  FILE NAME: EV0534UF.DAT
  TIME/DATE OF STUDY: 09:37 08/10/2023


                    ** INPUT SUMMARY **


 *******************************************************************
   FLOW PROCESS FROM NODE 10100.00 TO NODE   119.00 IS CODE = 1
 -------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
 ===================================================================
   WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    3.308 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.496; LOW LOSS FRACTION = 0.845
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE = 0.23; 30-MINUTE = 0.44;  1-HOUR = 0.62
     3-HOUR = 1.15;    6-HOUR = 1.71; 24-HOUR = 3.02
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
     3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


 *******************************************************************
   FLOW PROCESS FROM NODE   119.00 TO NODE 12603.00 IS CODE = 5.2
 -------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ===================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =    0.01    CHANNEL Z = 3.00
   UPSTREAM ELEVATION(FT) =    341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

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   CHANNEL LENGTH(FT) =    3157.79    MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
 ===================================================================



 *******************************************************************
   FLOW PROCESS FROM NODE   810.00 TO NODE   809.00 IS CODE = 1
 -------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ===================================================================
   WATERSHED AREA =    171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.203 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.290; LOW LOSS FRACTION = 0.598
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE = 0.18; 30-MINUTE = 0.41;  1-HOUR = 0.55
     3-HOUR = 0.92;    6-HOUR = 1.27; 24-HOUR = 2.12
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
     3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


 *******************************************************************
   FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 7
 -------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ===================================================================



 *******************************************************************
   FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 6
 -------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ===================================================================



 *******************************************************************
   FLOW PROCESS FROM NODE 12603.00 TO NODE   126.00 IS CODE = 5.2
 -------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ===================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =    0.01    CHANNEL Z = 3.00
   UPSTREAM ELEVATION(FT) =    312.40; DOWNSTREAM ELEVATION(FT) =    286.00
   CHANNEL LENGTH(FT) =    3046.70    MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
 ===================================================================


 *******************************************************************
   FLOW PROCESS FROM NODE   920.00 TO NODE   905.00 IS CODE = 1
 -------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
================================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.253 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.424; LOW LOSS FRACTION = 0.818
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
   3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
   3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
  ----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================


****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
  ----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================


****************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
  ----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.313 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.483; LOW LOSS FRACTION = 0.944
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
   3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
   3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
  ----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================


****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
  ----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================
```

```
****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
  ----------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
================================================================


****************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =    1
  ----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.330 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.167; LOW LOSS FRACTION = 0.352
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
   3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
   3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


****************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =    1
  ----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
================================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.284 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.225; LOW LOSS FRACTION = 0.447
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
   3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
   3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


****************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =    1
  ----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
================================================================
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.448 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.472; LOW LOSS FRACTION = 0.863
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
  3-HOUR =  0.92;   6-HOUR =  1.27; 24-HOUR =  2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
  3-HOUR = 0.750;   6-HOUR = 0.890; 24-HOUR = 0.936


*************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
-------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=========================================================================
```

```
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =    0.01    CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =    240.00
 CHANNEL LENGTH(FT) =   3114.00     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
-------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
 WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.370 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.489; LOW LOSS FRACTION = 0.949
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
  3-HOUR =  0.92;   6-HOUR =  1.27; 24-HOUR =  2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
  3-HOUR = 0.750;   6-HOUR = 0.890; 24-HOUR = 0.936


*************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
-------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
 WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.447 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.491; LOW LOSS FRACTION = 0.915
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
  3-HOUR =  0.92;   6-HOUR =  1.27; 24-HOUR =  2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
```

```
     3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


*****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
-----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =   0.01    CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =    240.00; DOWNSTREAM ELEVATION(FT) =    213.00
  CHANNEL LENGTH(FT) =   4905.42    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =   0.00
=============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =   1
-----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=============================================================================
  WATERSHED AREA =     634.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.444 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.470; LOW LOSS FRACTION = 0.908
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
    3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


*****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   7
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=============================================================================
```

```
*****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =   1
-----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=============================================================================
  WATERSHED AREA =     213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.286 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.213; LOW LOSS FRACTION = 0.446
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
    3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


*****************************************************************************
  FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =   7
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
-----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =   0.01    CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =    213.00; DOWNSTREAM ELEVATION(FT) =    212.00
  CHANNEL LENGTH(FT) =   1389.52    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =   0.00
=============================================================================


*****************************************************************************
```

```
  FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.986 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.406; LOW LOSS FRACTION = 0.789
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41; 1-HOUR =  0.55
   3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
   3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


********************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
--------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
================================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =   0.01    CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =    315.00
  CHANNEL LENGTH(FT) =   9760.05    MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =   0.00
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
--------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
================================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =   0.01    CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =    212.00
  CHANNEL LENGTH(FT) =   6877.24    MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =   0.00
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
================================================================================
  WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
  *USER ENTERED "LAG" TIME =    0.699 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.375; LOW LOSS FRACTION = 0.691
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41; 1-HOUR =  0.55
   3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
   3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


********************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
--------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =   0.01    CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =    170.00
  CHANNEL LENGTH(FT) =   6461.31    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =   0.00
================================================================================


********************************************************************************
```

```
   FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =   1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
   WATERSHED AREA =    1705.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.390 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.409; LOW LOSS FRACTION = 0.762
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE = 0.18; 30-MINUTE = 0.41; 1-HOUR = 0.55
    3-HOUR = 0.92;    6-HOUR = 1.27; 24-HOUR = 2.12
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


*************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================


*************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =  11
-------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
=========================================================================
=========================================================================
```

```
+-----------------------------------------------------------------------
-------------------------------------+
|                            * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
|INPUT FILENAME: [EV0534UF.DAT   ]
Page:  1 of   |
+-------------------+-----------------------------+--------------------+-
----------+------------+----------+
|UPSTREAM  DOWNSTREAM|                             | UPSTREAM  DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|                        |
| NODE #      NODE # | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
+-------------------+-----------------------------+--------------------+-
----------+------------+----------+
| 10100.00    119.00| Subarea (UH) Added to Stream #1|    0.0    2214.6|
19.333 |            |           |
|   119.00  12603.00| Convex Routing:     Stream #1| 2214.6    2194.4|
19.417 |            |           |
|   810.00    809.00| Subarea (UH) Added to Stream #2|    0.0      31.3|
16.250 |            |           |
| 12603.00  12603.00| Stream #2 Added to:  Stream #1| 2194.4    2198.4|
19.417 |            |           |
| 12603.00  12603.00| Zero Out:            Stream #2|   31.3       0.0|
|            |           |
+-------------------+-----------------------------+--------------------+-
----------+------------+----------+
| 12603.00    126.00| Convex Routing:     Stream #1| 2198.4    2190.2|
19.250 |            |           |
|   920.00    905.00| Subarea (UH) Added to Stream #2|    0.0      51.9|
16.333 |            |           |
|   126.00    126.00| Stream #2 Added to:  Stream #1| 2190.2    2196.4|
19.250 |            |           |
|   126.00    126.00| Zero Out:            Stream #2|   51.9       0.0|
|            |           |
|   600.00    126.00| Subarea (UH) Added to Stream #2|    0.0      10.3|
16.417 |            |           |
+-------------------+-----------------------------+--------------------+-
----------+------------+----------+
|   126.00    126.00| Stream #2 Added to:  Stream #1| 2196.4    2197.2|
19.250 |            |           |
|   126.00    126.00| Zero Out:            Stream #2|   10.3       0.0|
|            |           |
|   126.00  12720.50| Convex Routing:     Stream #1| 2197.2    2190.3|
19.417 |            |           |
|   320.00    331.00| Subarea (UH) Added to Stream #2|    0.0     153.9|
16.417 |            |           |
|   400.00    331.00| Subarea (UH) Added to Stream #3|    0.0      92.5|
16.333 |            |           |
+-------------------+-----------------------------+--------------------+-
----------+------------+----------+
|   390.00    331.00| Subarea (UH) Added to Stream #4|    0.0       6.3|
16.500 |            |           |
|   331.00    331.00| Stream #4 Added to:  Stream #2|  153.9     159.7|
16.417 |            |           |
|   331.00    331.00| Zero Out:            Stream #4|    6.3       0.0|
|            |           |
|   331.00    331.00| Stream #3 Added to:  Stream #2|  159.7     247.8|
16.333 |            |           |
```

```
|   331.00     331.00| Zero Out:          Stream #3|    92.5       0.0|
|              |                |
 +------------------+-----------------------------+--------------------+-
----------+------------+-----------+
|   331.00   12720.50| Stream #2 Added to:   Stream #1|  2190.3    2235.1|
19.333 |            |                |
| 12720.50   12720.50| Zero Out:          Stream #2|   247.8       0.0|
|              |                |
| 12720.50     127.00| Convex Routing:    Stream #1|  2235.1    2234.1|
19.500 |            |                |
| 12710.00     127.00| Subarea (UH) Added to Stream #2|    0.0      28.8|
16.417 |            |                |
|   127.00     127.00| Stream #2 Added to:   Stream #1|  2234.1    2236.3|
19.500 |            |                |
 +------------------+-----------------------------+--------------------+-
----------+------------+-----------+
|   127.00     127.00| Zero Out:          Stream #2|    28.8       0.0|
|              |                |
| 50150.00     127.00| Subarea (UH) Added to Stream #2|    0.0      44.3|
16.500 |            |                |
|   127.00     127.00| Stream #2 Added to:   Stream #1|  2236.3    2242.5|
18.583 |            |                |
|   127.00     127.00| Zero Out:          Stream #2|    44.3       0.0|
|              |                |
|   127.00     129.00| Convex Routing:    Stream #1|  2242.5    2239.6|
19.667 |            |                |
 +------------------+-----------------------------+--------------------+-
----------+------------+-----------+
| 50300.00     129.00| Subarea (UH) Added to Stream #2|    0.0      29.5|
16.500 |            |                |
|   129.00     129.00| Stream #2 Added to:   Stream #1|  2239.6    2243.1|
19.667 |            |                |
|   129.00     129.00| Zero Out:          Stream #2|    29.5       0.0|
|              |                |
|   210.00     221.00| Subarea (UH) Added to Stream #2|    0.0      43.2|
16.333 |            |                |
|   222.00     129.00| Stream #2 Added to:   Stream #1|  2243.1    2249.8|
19.667 |            |                |
 +------------------+-----------------------------+--------------------+-
----------+------------+-----------+
|   129.00     129.00| Zero Out:          Stream #2|    43.2       0.0|
|              |                |
|   129.00     133.00| Convex Routing:    Stream #1|  2249.8    2248.4|
19.750 |            |                |
| 13010.00     132.00| Subarea (UH) Added to Stream #2|    0.0     296.0|
17.000 |            |                |
|   132.00   13305.00| Convex Routing:    Stream #2|   296.0     288.7|
17.500 |            |                |
| 13305.00     133.00| Convex Routing:    Stream #2|   288.7     287.3|
17.833 |            |                |
 +------------------+-----------------------------+--------------------+-
----------+------------+-----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                              |
|      3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                  |
 +-----------------------------------------------------------------------
------------------------------------+
```

| UPSTREAM DOWNSTREAM | HYDROLOGIC/HYDRAULIC PROCESS | UPSTREAM PEAK (CFS) | DOWNSTREAM PEAK (CFS) | TIME(2) TO PEAK (HR) | MAX. STORAGE MODELED (AF) | FOOTNOTES |
NODE # NODE #						
132.00 133.00	Subarea (UH) Added to Stream #3	0.0	150.7	16.750		
133.00 133.00	Stream #3 Added to: Stream #2	287.3	391.8	17.667		
133.00 133.00	Zero Out: Stream #3	150.7	0.0			
133.00 133.00	Stream #2 Added to: Stream #1	2248.4	2562.6	18.417		
133.00 133.00	Zero Out: Stream #2	391.8	0.0			
133.00 134.00	Convex Routing: Stream #1	2562.6	2559.8	18.583		
133.00 134.00	Subarea (UH) Added to Stream #2	0.0	146.1	16.417		
134.00 134.00	Stream #2 Added to: Stream #1	2559.8	2596.4	18.500		
134.00 134.00	Zero Out: Stream #2	146.1	0.0			
134.00 134.00	View: Stream #1		2596.4	18.500	2415.42	3

```
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                        |
|       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                 |
```

   END OF FLOODSCx ROUTING ANALYSIS

```
     _____
*********************************************************************

          F L O O D   R O U T I N G   A N A L Y S I S
          USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                    Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
* MV PA-3 ROMP AMENDMENT 2022 - NODE 133C                             *
* PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL         *
* 10-YR EV MAY 2023 ROKAMOTO                                          *
 *********************************************************************


  FILE NAME: EV1033CF.DAT
  TIME/DATE OF STUDY: 06:28 05/14/2023


                    ** INPUT SUMMARY **


*********************************************************************
  FLOW PROCESS FROM NODE 10100.00 TO NODE   119.00 IS CODE =   1
----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
======================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =   2.320 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.746
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.33; 30-MINUTE =  0.63; 1-HOUR =  0.88
   3-HOUR =  1.65;    6-HOUR =  2.45; 24-HOUR =  4.32
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
   3-HOUR = 0.754;     6-HOUR = 0.891; 24-HOUR = 0.936


*********************************************************************
  FLOW PROCESS FROM NODE   119.00 TO NODE  12603.00 IS CODE = 5.2
----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
======================================================================


*********************************************************************
  FLOW PROCESS FROM NODE   810.00 TO NODE   809.00 IS CODE =   1
----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
======================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =   0.191 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.548
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59; 1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
   3-HOUR = 0.754;     6-HOUR = 0.891; 24-HOUR = 0.936


*********************************************************************
  FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE =   7
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
======================================================================


*********************************************************************
  FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE =   6
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
======================================================================


*********************************************************************
  FLOW PROCESS FROM NODE 12603.00 TO NODE   126.00 IS CODE = 5.2
----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =    286.00
  CHANNEL LENGTH(FT) =    3046.70    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
======================================================================


*********************************************************************
  FLOW PROCESS FROM NODE   920.00 TO NODE   905.00 IS CODE =   1
----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
====================================================================
  WATERSHED AREA =      553.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.231 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.254; LOW LOSS FRACTION = 0.750
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
    3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
--------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
====================================================================


****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
--------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
====================================================================


****************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
--------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
====================================================================
  WATERSHED AREA =      218.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.318 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.905
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
    3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
--------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
====================================================================


****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
--------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
====================================================================
```

```
****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    12720.50 IS CODE = 5.2
--------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
====================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =      286.00; DOWNSTREAM ELEVATION(FT) =      258.00
  CHANNEL LENGTH(FT) =     4077.05     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =      0.00
====================================================================


****************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =    1
--------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
====================================================================
  WATERSHED AREA =      712.600 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.305 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.100; LOW LOSS FRACTION = 0.297
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
    3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


****************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =    1
--------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
====================================================================
  WATERSHED AREA =      462.500 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.260 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.135; LOW LOSS FRACTION = 0.385
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
    3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


****************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =    1
--------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
====================================================================
  WATERSHED AREA =      117.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.394 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.283; LOW LOSS FRACTION = 0.778
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
  3-HOUR =  1.31;   6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
  3-HOUR = 0.754;   6-HOUR = 0.891; 24-HOUR = 0.936


*********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
---------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
=====================================================================

*********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
---------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
=====================================================================

*********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
---------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=====================================================================

*********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
---------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=====================================================================

*********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
---------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====================================================================

*********************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
---------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====================================================================

*********************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
---------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=====================================================================
```

```
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =    240.00
 CHANNEL LENGTH(FT) =    3114.00     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
=====================================================================


*********************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
---------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====================================================================
 WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.446 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.293; LOW LOSS FRACTION = 0.898
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
  3-HOUR =  1.31;   6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
  3-HOUR = 0.754;   6-HOUR = 0.891; 24-HOUR = 0.936


*********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
---------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====================================================================


*********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
---------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====================================================================


*********************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
---------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====================================================================
 WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.389 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.295; LOW LOSS FRACTION = 0.855
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
  3-HOUR =  1.31;   6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
```

```
        3-HOUR = 0.754;     6-HOUR = 0.891; 24-HOUR = 0.936


  *************************************************************************
    FLOW PROCESS FROM NODE    127.00 TO NODE     127.00 IS CODE =    7
  -------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  =========================================================================


  *************************************************************************
    FLOW PROCESS FROM NODE    127.00 TO NODE     127.00 IS CODE =    6
  -------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  =========================================================================


  *************************************************************************
    FLOW PROCESS FROM NODE    127.00 TO NODE     129.00 IS CODE = 5.2
  -------------------------------------------------------------------------
    >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  =========================================================================
    THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
    ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
    (Reference: the National Engineering Handbook, Hydrology,
    Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

    ASSUMED REGULAR CHANNEL INFORMATION:
    BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
    UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
    CHANNEL LENGTH(FT) =    4905.42     MANNING'S FACTOR = 0.030
    CONSTANT LOSS RATE(CFS) =    0.00
  =========================================================================


  *************************************************************************
    FLOW PROCESS FROM NODE 50300.00 TO NODE     129.00 IS CODE =    1
  -------------------------------------------------------------------------
    >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  =========================================================================
    WATERSHED AREA =     634.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
    *USER ENTERED "LAG" TIME =    0.407 HOURS
    VALLEY(DEVELOPED) S-GRAPH SELECTED
    MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.282; LOW LOSS FRACTION = 0.855
    SPECIFIED PEAK RAINFALL DEPTHS(INCH):
    5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
      3-HOUR =  1.31;     6-HOUR =  1.81; 24-HOUR =  3.03
    *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
    5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
      3-HOUR = 0.754;     6-HOUR = 0.891; 24-HOUR = 0.936


  *************************************************************************
    FLOW PROCESS FROM NODE    129.00 TO NODE     129.00 IS CODE =    7
  -------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  =========================================================================
```

```
  *************************************************************************
    FLOW PROCESS FROM NODE    129.00 TO NODE     129.00 IS CODE =    6
  -------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  =========================================================================


  *************************************************************************
    FLOW PROCESS FROM NODE    210.00 TO NODE     221.00 IS CODE =    1
  -------------------------------------------------------------------------
    >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  =========================================================================
    WATERSHED AREA =     213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
    *USER ENTERED "LAG" TIME =    0.268 HOURS
    VALLEY(DEVELOPED) S-GRAPH SELECTED
    MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.128; LOW LOSS FRACTION = 0.391
    SPECIFIED PEAK RAINFALL DEPTHS(INCH):
    5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
      3-HOUR =  1.31;     6-HOUR =  1.81; 24-HOUR =  3.03
    *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
    5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
      3-HOUR = 0.754;     6-HOUR = 0.891; 24-HOUR = 0.936


  *************************************************************************
    FLOW PROCESS FROM NODE    221.00 TO NODE     129.00 IS CODE =    7
  -------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  =========================================================================


  *************************************************************************
    FLOW PROCESS FROM NODE    129.00 TO NODE     129.00 IS CODE =    6
  -------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  =========================================================================


  *************************************************************************
    FLOW PROCESS FROM NODE    129.00 TO NODE     133.00 IS CODE = 5.2
  -------------------------------------------------------------------------
    >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  =========================================================================
    THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
    ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
    (Reference: the National Engineering Handbook, Hydrology,
    Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

    ASSUMED REGULAR CHANNEL INFORMATION:
    BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
    UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
    CHANNEL LENGTH(FT) =    1389.52     MANNING'S FACTOR = 0.030
    CONSTANT LOSS RATE(CFS) =    0.00
  =========================================================================


  *************************************************************************
```

```
 FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
---------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===========================================================================
 WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.938 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.244; LOW LOSS FRACTION = 0.727
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59; 1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
   3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


***************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
---------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
===========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =    315.00
 CHANNEL LENGTH(FT) =   9760.05     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =   0.00
===========================================================================



***************************************************************************
 FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
---------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
===========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =    212.00
 CHANNEL LENGTH(FT) =   6877.24     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =   0.00
===========================================================================



***************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
---------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
===========================================================================
 WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.637 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.618
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59; 1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
   3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936



***************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
---------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
===========================================================================



***************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
---------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
===========================================================================



***************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
---------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===========================================================================



***************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
---------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===========================================================================



***************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =  11
---------------------------------------------------------------------------
 >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
===========================================================================
===========================================================================
```

```
+----------------------------------------------------------------------
-------------------------------------+
|                         * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
| |INPUT FILENAME: [EV1033CF.DAT   ]
Page:  1 of    |
+-----------------+---------------------------------+--------------------+-
-----------+------------+-----------+
|UPSTREAM  DOWNSTREAM|                               | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|           |
| NODE #    NODE #  | HYDROLOGIC/HYDRAULIC PROCESS   |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
+-----------------+---------------------------------+--------------------+-
-----------+------------+-----------+
| 10100.00    119.00| Subarea (UH) Added to Stream #1|     0.0      6558.5|
18.333 |           |           |
|   119.00  12603.00| Convex Routing:       Stream #1|  6558.5      6543.8|
18.417 |           |           |
|   810.00    809.00| Subarea (UH) Added to Stream #2|     0.0        66.7|
16.250 |           |           |
| 12603.00  12603.00| Stream #2 Added to:   Stream #1|  6543.8      6552.4|
18.417 |           |           |
| 12603.00  12603.00| Zero Out:             Stream #2|    66.7         0.0|
|           |           |
+-----------------+---------------------------------+--------------------+-
-----------+------------+-----------+
| 12603.00    126.00| Convex Routing:       Stream #1|  6552.4      6537.3|
18.500 |           |           |
|   920.00    905.00| Subarea (UH) Added to Stream #2|     0.0       150.0|
16.333 |           |           |
|   126.00    126.00| Stream #2 Added to:   Stream #1|  6537.3      6552.4|
18.500 |           |           |
|   126.00    126.00| Zero Out:             Stream #2|   150.0         0.0|
|           |           |
|   600.00    126.00| Subarea (UH) Added to Stream #2|     0.0        40.8|
16.417 |           |           |
+-----------------+---------------------------------+--------------------+-
-----------+------------+-----------+
|   126.00    126.00| Stream #2 Added to:   Stream #1|  6552.4      6555.0|
18.500 |           |           |
|   126.00    126.00| Zero Out:             Stream #2|    40.8         0.0|
|           |           |
|   126.00  12720.50| Convex Routing:       Stream #1|  6555.0      6520.4|
18.583 |           |           |
|   320.00    331.00| Subarea (UH) Added to Stream #2|     0.0       264.5|
16.333 |           |           |
|   400.00    331.00| Subarea (UH) Added to Stream #3|     0.0       172.6|
16.333 |           |           |
+-----------------+---------------------------------+--------------------+-
-----------+------------+-----------+
|   390.00    331.00| Subarea (UH) Added to Stream #4|     0.0        21.3|
16.500 |           |           |
|   331.00    331.00| Stream #4 Added to:   Stream #2|   264.5       283.3|
16.333 |           |           |
|   331.00    331.00| Zero Out:             Stream #4|    21.3         0.0|
|           |           |
|   331.00    331.00| Stream #3 Added to:   Stream #2|   283.3       455.9|
16.333 |           |           |
```

```
|   331.00    331.00| Zero Out:             Stream #3|   172.6         0.0|
|           |           |
+-----------------+---------------------------------+--------------------+-
-----------+------------+-----------+
|   331.00  12720.50| Stream #2 Added to:   Stream #1|  6520.4      6610.4|
18.583 |           |           |
| 12720.50  12720.50| Zero Out:             Stream #2|   455.9         0.0|
|           |           |
| 12720.50    127.00| Convex Routing:       Stream #1|  6610.4      6595.3|
18.667 |           |           |
| 12710.00    127.00| Subarea (UH) Added to Stream #2|     0.0       106.7|
16.500 |           |           |
|   127.00    127.00| Stream #2 Added to:   Stream #1|  6595.3      6604.4|
18.667 |           |           |
+-----------------+---------------------------------+--------------------+-
-----------+------------+-----------+
|   127.00    127.00| Zero Out:             Stream #2|   106.7         0.0|
|           |           |
| 50150.00    127.00| Subarea (UH) Added to Stream #2|     0.0       176.1|
16.417 |           |           |
|   127.00    127.00| Stream #2 Added to:   Stream #1|  6604.4      6622.3|
18.667 |           |           |
|   127.00    127.00| Zero Out:             Stream #2|   176.1         0.0|
|           |           |
|   127.00    129.00| Convex Routing:       Stream #1|  6622.3      6605.2|
18.833 |           |           |
+-----------------+---------------------------------+--------------------+-
-----------+------------+-----------+
| 50300.00    129.00| Subarea (UH) Added to Stream #2|     0.0       106.6|
16.500 |           |           |
|   129.00    129.00| Stream #2 Added to:   Stream #1|  6605.2      6614.9|
18.833 |           |           |
|   129.00    129.00| Zero Out:             Stream #2|   106.6         0.0|
|           |           |
|   210.00    221.00| Subarea (UH) Added to Stream #2|     0.0        79.5|
16.333 |           |           |
|   221.00    129.00| Stream #2 Added to:   Stream #1|  6614.9      6627.7|
18.833 |           |           |
+-----------------+---------------------------------+--------------------+-
-----------+------------+-----------+
|   129.00    129.00| Zero Out:             Stream #2|    79.5         0.0|
|           |           |
|   129.00    133.00| Convex Routing:       Stream #1|  6627.7      6617.2|
18.917 |           |           |
| 13010.00    132.00| Subarea (UH) Added to Stream #2|     0.0       685.5|
17.000 |           |           |
|   132.00  13305.00| Convex Routing:       Stream #2|   685.5       656.4|
17.417 |           |           |
| 13305.00    133.00| Convex Routing:       Stream #2|   656.4       649.6|
17.833 |           |           |
+-----------------+---------------------------------+--------------------+-
-----------+------------+-----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                            |
|      3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                    |
+----------------------------------------------------------------------
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```

```
+-----------------------------------------------------------------------------
--------------------------------------+
|                                      * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
|INPUT FILENAME: [EV1033CF.DAT    ]
Page:   2 of    |
+-------------------+-------------------------------+---------------------+-
-----------+------------+-----------+
|UPSTREAM  DOWNSTREAM|                              | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|           |
| NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS  |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
+-------------------+-------------------------------+---------------------+-
-----------+------------+-----------+
|  132.00     133.00| Subarea (UH) Added to Stream #3|      0.0        323.9|
16.667 |           |           |
|  133.00     133.00| Stream #3 Added to:    Stream #2|    649.6        824.5|
17.750 |           |           |
|  133.00     133.00| Zero Out:              Stream #3|    323.9          0.0|
|           |           |
|  133.00     133.00| Stream #2 Added to:    Stream #1|   6617.2       7383.5|
17.917 |           |           |
|  133.00     133.00| Zero Out:              Stream #2|    824.5          0.0|
|           |           |
+-------------------+-------------------------------+---------------------+-
-----------+------------+-----------+
|  133.00     133.00| View:                  Stream #1|                7383.5|
17.917 |     5575.52|     3     |
+-------------------+-------------------------------+---------------------+-
-----------+------------+-----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                |
|       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                      |
+-----------------------------------------------------------------------------
--------------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

```
 _____
 ***********************************************************************
          F L O O D    R O U T I N G    A N A L Y S I S
            USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
         (c) Copyright 1989-2013 Advanced Engineering Software (aes)
             Ver. 20.0  Release Date: 06/01/2013  License ID 1237

                       Analysis prepared by:




 ************************** DESCRIPTION OF STUDY ************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 133T                           *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL        *
 * 10-YR EV OCT 2022 ROKAMOTO                                         *
 *********************************************************************

  FILE NAME: EV1033TF.DAT
  TIME/DATE OF STUDY: 08:09 10/27/2022

                        ** INPUT SUMMARY **


 ***********************************************************************
   FLOW PROCESS FROM NODE 13010.00 TO NODE    132.00 IS CODE =   1
 -----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 =======================================================================
   WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.938 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.244; LOW LOSS FRACTION = 0.727
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE = 0.26; 30-MINUTE = 0.59;  1-HOUR = 0.78
     3-HOUR = 1.31;    6-HOUR = 1.81; 24-HOUR = 3.03
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.744; 30-MINUTE = 0.744;  1-HOUR = 0.744
     3-HOUR = 0.959;    6-HOUR = 0.978; 24-HOUR = 0.987


 ***********************************************************************
   FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
 -----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
 =======================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
   UPSTREAM ELEVATION(FT) =      427.51; DOWNSTREAM ELEVATION(FT) =     315.00
```

```
   CHANNEL LENGTH(FT) =    9760.05      MANNING'S FACTOR = 0.040
   CONSTANT LOSS RATE(CFS) =    0.00
 =======================================================================



 ***********************************************************************
   FLOW PROCESS FROM NODE 13305.00 TO NODE    133.00 IS CODE = 5.2
 -----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
 =======================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
   UPSTREAM ELEVATION(FT) =      315.00; DOWNSTREAM ELEVATION(FT) =     212.00
   CHANNEL LENGTH(FT) =    6877.24      MANNING'S FACTOR = 0.040
   CONSTANT LOSS RATE(CFS) =    0.00
 =======================================================================



 ***********************************************************************
   FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
 -----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
 =======================================================================
   WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.637 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.618
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE = 0.26; 30-MINUTE = 0.59;  1-HOUR = 0.78
     3-HOUR = 1.31;    6-HOUR = 1.81; 24-HOUR = 3.03
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.744; 30-MINUTE = 0.744;  1-HOUR = 0.744
     3-HOUR = 0.959;    6-HOUR = 0.978; 24-HOUR = 0.987


 ***********************************************************************
   FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
 -----------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
 =======================================================================



 ***********************************************************************
   FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
 -----------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
 =======================================================================



 ***********************************************************************
   FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
 -----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
```

```
================================================================

****************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================


****************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =  11
----------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
================================================================
================================================================
```

```
 +----------------------------------------------------------------
 -------------------------------------+
 |                        * AES FLOODSCx PROGRAM RESULTS SUMMARY *
 |
 |INPUT FILENAME: [EV1033TF.DAT   ]
Page:  1 of    |
 +-------------------+----------------------------+--------------------+-
 ----------+-------------+-----------+
 |UPSTREAM  DOWNSTREAM|                            | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|            |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +-------------------+----------------------------+--------------------+-
 ----------+-------------+-----------+
 | 13010.00    132.00| Subarea (UH) Added to Stream #2|     0.0     1730.8|
17.000 |           |           |
 |   132.00  13305.00| Convex Routing:     Stream #2|  1730.8     1657.0|
17.333 |           |           |
 | 13305.00    133.00| Convex Routing:     Stream #2|  1657.0     1627.3|
17.583 |           |           |
 |   132.00    133.00| Subarea (UH) Added to Stream #3|     0.0      812.1|
16.667 |           |           |
 |   133.00    133.00| Stream #3 Added to:   Stream #2|  1627.3     1868.9|
17.500 |           |           |
 +-------------------+----------------------------+--------------------+-
 ----------+-------------+-----------+
 |   133.00    133.00| Zero Out:           Stream #3|   812.1        0.0|
 |           |           |
 |   133.00    133.00| Stream #2 Added to:   Stream #1|     0.0     1868.9|
17.500 |           |           |
 |   133.00    133.00| Zero Out:           Stream #2|  1868.9        0.0|
 |           |           |
 |   133.00    133.00| View:               Stream #1|             1868.9|
17.500 |     610.61|    3     |
 +-------------------+----------------------------+--------------------+-
 ----------+-------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                              |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                   |
 +----------------------------------------------------------------
 -------------------------------------+


   END OF FLOODSCx ROUTING ANALYSIS
```

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              Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 133U                            *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL         *
 * 10-YR EV MAY 2023 ROKAMOTO                                          *
 **********************************************************************

  FILE NAME: EV1033UF.DAT
  TIME/DATE OF STUDY: 06:29 05/14/2023


                   ** INPUT SUMMARY **


************************************************************************
  FLOW PROCESS FROM NODE 10100.00 TO NODE   119.00 IS CODE =   1
-------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
========================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    2.320 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.746
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.33; 30-MINUTE =  0.63; 1-HOUR =  0.88
   3-HOUR =  1.65;    6-HOUR =  2.45; 24-HOUR =  4.32
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
   3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


************************************************************************
  FLOW PROCESS FROM NODE   119.00 TO NODE  12603.00 IS CODE = 5.2
-------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00    CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
========================================================================



************************************************************************
  FLOW PROCESS FROM NODE   810.00 TO NODE   809.00 IS CODE =   1
-------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
========================================================================
  WATERSHED AREA =    171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.191 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.548
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59; 1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
   3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
========================================================================



************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
========================================================================



************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE   126.00 IS CODE = 5.2
-------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00    CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =    286.00
  CHANNEL LENGTH(FT) =    3046.70    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE   920.00 TO NODE   905.00 IS CODE =   1
-------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
================================================================
   WATERSHED AREA =     553.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.231 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.254; LOW LOSS FRACTION = 0.750
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
    3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


****************************************************************
   FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
----------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================


****************************************************************
   FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
----------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================


****************************************************************
   FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
----------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================
   WATERSHED AREA =     218.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.318 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.905
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
    3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


****************************************************************
   FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
----------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================


****************************************************************
   FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
----------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================
```

```
****************************************************************
   FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
----------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
   UPSTREAM ELEVATION(FT) =      286.00; DOWNSTREAM ELEVATION(FT) =      258.00
   CHANNEL LENGTH(FT) =     4077.05     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =      0.00
================================================================


****************************************************************
   FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =    1
----------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================
   WATERSHED AREA =     712.600 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.305 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.100; LOW LOSS FRACTION = 0.297
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
    3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


****************************************************************
   FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =    1
----------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
================================================================
   WATERSHED AREA =     462.500 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.260 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.135; LOW LOSS FRACTION = 0.385
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
    3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


****************************************************************
   FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =    1
----------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
================================================================
   WATERSHED AREA =     117.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.394 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.283; LOW LOSS FRACTION = 0.778
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
  3-HOUR =  1.31;   6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
  3-HOUR = 0.771;   6-HOUR = 0.897; 24-HOUR = 0.940


*******************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
-----------------------------------------------------------------
 >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
=================================================================

*******************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
-----------------------------------------------------------------
 >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
=================================================================

*******************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
-----------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=================================================================

*******************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
-----------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=================================================================

*******************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
-----------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=================================================================

*******************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
-----------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=================================================================

*******************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
-----------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=================================================================
```

```
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
 CHANNEL LENGTH(FT) =    3114.00     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
=================================================================


*******************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
-----------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=================================================================
 WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.446 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.293; LOW LOSS FRACTION = 0.898
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
  3-HOUR =  1.31;   6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
  3-HOUR = 0.771;   6-HOUR = 0.897; 24-HOUR = 0.940


*******************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
-----------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=================================================================


*******************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
-----------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=================================================================


*******************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
-----------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=================================================================
 WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.389 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.295; LOW LOSS FRACTION = 0.855
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
  3-HOUR =  1.31;   6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
```

```
     3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


**************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
-------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00      CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
  CHANNEL LENGTH(FT) =   4905.42      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =   1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
  WATERSHED AREA =     634.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.407 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.282; LOW LOSS FRACTION = 0.855
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
    3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


**************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   7
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================
```

```
**************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =   1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
  WATERSHED AREA =     213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.268 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.128; LOW LOSS FRACTION = 0.391
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
    3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


**************************************************************************
  FLOW PROCESS FROM NODE    221.00 TO NODE    129.00 IS CODE =   7
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
-------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00      CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =   1389.52      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=========================================================================


**************************************************************************
```

```
   FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =  11
--------------------------------------------------------------------------------
   >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
================================================================================
================================================================================
```

```
  +-------------------------------------------------------------------------
------------------------------------+
  |                               * AES FLOODSCx PROGRAM RESULTS SUMMARY *
  |
  |INPUT FILENAME: [EV1033UF.DAT   ]
Page:   1 of    |
  +------------------+--------------------------+-------------------+-
----------+------------+----------+
  |UPSTREAM  DOWNSTREAM|                         | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|            |
  | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS  |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
  +------------------+--------------------------+-------------------+-
----------+------------+----------+
  | 10100.00     119.00| Subarea (UH) Added to Stream #1|      0.0     6898.7|
18.333 |            |            |
  |   119.00   12603.00| Convex Routing:       Stream #1|   6898.7     6880.8|
18.417 |            |            |
  |   810.00     809.00| Subarea (UH) Added to Stream #2|      0.0       71.6|
16.250 |            |            |
  | 12603.00   12603.00| Stream #2 Added to:   Stream #1|   6880.8     6889.4|
18.417 |            |            |
  | 12603.00   12603.00| Zero Out:             Stream #2|     71.6        0.0|
|            |            |
  +------------------+--------------------------+-------------------+-
----------+------------+----------+
  | 12603.00     126.00| Convex Routing:       Stream #1|   6889.4     6871.8|
18.500 |            |            |
  |   920.00     905.00| Subarea (UH) Added to Stream #2|      0.0      162.7|
16.333 |            |            |
  |   126.00     126.00| Stream #2 Added to:   Stream #1|   6871.8     6886.9|
18.500 |            |            |
  |   126.00     126.00| Zero Out:             Stream #2|    162.7        0.0|
|            |            |
  |   600.00     126.00| Subarea (UH) Added to Stream #2|      0.0       44.8|
16.417 |            |            |
  +------------------+--------------------------+-------------------+-
----------+------------+----------+
  |   126.00     126.00| Stream #2 Added to:   Stream #1|   6886.9     6889.5|
18.500 |            |            |
  |   126.00     126.00| Zero Out:             Stream #2|     44.8        0.0|
|            |            |
  |   126.00   12720.50| Convex Routing:       Stream #1|   6889.5     6856.9|
18.583 |            |            |
  |   320.00     331.00| Subarea (UH) Added to Stream #2|      0.0      280.0|
16.333 |            |            |
  |   400.00     331.00| Subarea (UH) Added to Stream #3|      0.0      183.6|
16.333 |            |            |
  +------------------+--------------------------+-------------------+-
----------+------------+----------+
  |   390.00     331.00| Subarea (UH) Added to Stream #4|      0.0       23.0|
16.500 |            |            |
  |   331.00     331.00| Stream #4 Added to:   Stream #2|    280.0      300.2|
16.333 |            |            |
  |   331.00     331.00| Zero Out:             Stream #4|     23.0        0.0|
|            |            |
  |   331.00     331.00| Stream #3 Added to:   Stream #2|    300.2      483.9|
16.333 |            |            |
```

```
| 331.00     331.00| Zero Out:           Stream #3|    183.6        0.0|
|            |          |
 +------------------+----------------------------+--------------------+-
-----------+------------+-----------+
| 331.00   12720.50| Stream #2 Added to:   Stream #1|   6856.9     6946.6|
18.583 |            |          |
| 12720.50   12720.50| Zero Out:           Stream #2|    483.9        0.0|
|            |          |
| 12720.50     127.00| Convex Routing:       Stream #1|   6946.6     6931.9|
18.667 |            |          |
| 12710.00     127.00| Subarea (UH) Added to Stream #2|      0.0      117.5|
16.500 |            |          |
|   127.00     127.00| Stream #2 Added to:   Stream #1|   6931.9     6940.9|
18.667 |            |          |
 +------------------+----------------------------+--------------------+-
-----------+------------+-----------+
|   127.00     127.00| Zero Out:           Stream #2|    117.5        0.0|
|            |          |
| 50150.00     127.00| Subarea (UH) Added to Stream #2|      0.0      193.7|
16.417 |            |          |
|   127.00     127.00| Stream #2 Added to:   Stream #1|   6940.9     6958.8|
18.667 |            |          |
|   127.00     127.00| Zero Out:           Stream #2|    193.7        0.0|
|            |          |
|   127.00     129.00| Convex Routing:       Stream #1|   6958.8     6938.3|
18.833 |            |          |
 +------------------+----------------------------+--------------------+-
-----------+------------+-----------+
| 50300.00     129.00| Subarea (UH) Added to Stream #2|      0.0      116.6|
16.500 |            |          |
|   129.00     129.00| Stream #2 Added to:   Stream #1|   6938.3     6948.0|
18.833 |            |          |
|   129.00     129.00| Zero Out:           Stream #2|    116.6        0.0|
|            |          |
|   210.00     221.00| Subarea (UH) Added to Stream #2|      0.0       84.5|
16.333 |            |          |
|   221.00     129.00| Stream #2 Added to:   Stream #1|   6948.0     6960.8|
18.833 |            |          |
 +------------------+----------------------------+--------------------+-
-----------+------------+-----------+
|   129.00     129.00| Zero Out:           Stream #2|     84.5        0.0|
|            |          |
|   129.00     133.00| Convex Routing:       Stream #1|   6960.8     6948.1|
18.917 |            |          |
|   133.00     133.00| View:              Stream #1|              6948.1|
18.917 |     5174.30|    3     |
 +------------------+----------------------------+--------------------+-
-----------+------------+-----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                    |
|      3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                   |
 +--------------------------------------------------------------------------
------------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

```
 _____
****************************************************************************
          F L O O D   R O U T I N G   A N A L Y S I S
            USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                   Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 134C                            *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL         *
 * 10-YR EV MAY 2023 ROKAMOTO                                          *
 **********************************************************************

  FILE NAME: EV1034CF.DAT
  TIME/DATE OF STUDY: 06:27 05/14/2023


                   ** INPUT SUMMARY **


****************************************************************************
  FLOW PROCESS FROM NODE  10100.00 TO NODE   119.00 IS CODE =  1
 --------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
 ==========================================================================
  WATERSHED AREA =  49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    2.320 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.746
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.33; 30-MINUTE =  0.63; 1-HOUR =  0.88
   3-HOUR =  1.65;    6-HOUR =  2.45; 24-HOUR =  4.32
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
   3-HOUR = 0.741;     6-HOUR = 0.887; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE   119.00 TO NODE  12603.00 IS CODE = 5.2
 --------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
 ==========================================================================


****************************************************************************
  FLOW PROCESS FROM NODE   810.00 TO NODE   809.00 IS CODE =  1
 --------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ==========================================================================
  WATERSHED AREA =    171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.191 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.548
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59; 1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
   3-HOUR = 0.741;     6-HOUR = 0.887; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =  7
 --------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ==========================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =  6
 --------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ==========================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE   126.00 IS CODE = 5.2
 --------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =    286.00
  CHANNEL LENGTH(FT) =    3046.70     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
 ==========================================================================


****************************************************************************
  FLOW PROCESS FROM NODE   920.00 TO NODE   905.00 IS CODE =  1
 --------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
========================================================================
  WATERSHED AREA =      553.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.231 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.254; LOW LOSS FRACTION = 0.750
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
    3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
========================================================================
  WATERSHED AREA =      218.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.318 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.905
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
    3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
========================================================================
```

```
************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00      CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =      286.00; DOWNSTREAM ELEVATION(FT) =      258.00
  CHANNEL LENGTH(FT) =    4077.05      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
========================================================================



************************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =    1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
========================================================================
  WATERSHED AREA =      712.600 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.305 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.100; LOW LOSS FRACTION = 0.297
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
    3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


************************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =    1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
========================================================================
  WATERSHED AREA =      462.500 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.260 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.135; LOW LOSS FRACTION = 0.385
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
    3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


************************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =    1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
========================================================================
  WATERSHED AREA =      117.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.394 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.283; LOW LOSS FRACTION = 0.778
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
  3-HOUR =  1.31;   6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
  3-HOUR = 0.741;   6-HOUR = 0.887; 24-HOUR = 0.933


*************************************************************************
  FLOW PROCESS FROM NODE   331.00 TO NODE   331.00 IS CODE =   7
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE   331.00 TO NODE   331.00 IS CODE =   6
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE   331.00 TO NODE   331.00 IS CODE =   7
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE   331.00 TO NODE   331.00 IS CODE =   6
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE   331.00 TO NODE  12720.50 IS CODE =   7
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE   127.00 IS CODE = 5.2
-------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=========================================================================
```

```
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
 CHANNEL LENGTH(FT) =    3114.00     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =     0.00
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE   127.00 IS CODE =   1
-------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
 WATERSHED AREA =      711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.446 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.293; LOW LOSS FRACTION = 0.898
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
  3-HOUR =  1.31;   6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
  3-HOUR = 0.741;   6-HOUR = 0.887; 24-HOUR = 0.933


*************************************************************************
  FLOW PROCESS FROM NODE   127.00 TO NODE   127.00 IS CODE =   7
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE   127.00 TO NODE   127.00 IS CODE =   6
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE   127.00 IS CODE =   1
-------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
 WATERSHED AREA =     1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.389 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.295; LOW LOSS FRACTION = 0.855
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
  3-HOUR =  1.31;   6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
```

```
      3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


**********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
======================================================================


**********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
======================================================================


**********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =      213.00
  CHANNEL LENGTH(FT) =   4905.42     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
======================================================================


**********************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =   1
----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
======================================================================
  WATERSHED AREA =     634.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.407 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.282; LOW LOSS FRACTION = 0.855
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
     3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
     3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


**********************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   7
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
======================================================================
```

```
**********************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
======================================================================


**********************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =   1
----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
======================================================================
  WATERSHED AREA =     213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.268 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.128; LOW LOSS FRACTION = 0.391
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
     3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
     3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


**********************************************************************
  FLOW PROCESS FROM NODE    221.00 TO NODE    129.00 IS CODE =   7
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
======================================================================


**********************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
======================================================================


**********************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =      212.00
  CHANNEL LENGTH(FT) =   1389.52     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
======================================================================


**********************************************************************
```

```
 FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
------------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================================
 WATERSHED AREA =     4924.400 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.938 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.244; LOW LOSS FRACTION = 0.727
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59; 1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
   3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


*******************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
------------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
==============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =    315.00
 CHANNEL LENGTH(FT) =   9760.05     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
==============================================================================


*******************************************************************************
 FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
------------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
==============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =    212.00
 CHANNEL LENGTH(FT) =   6877.24     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
==============================================================================


*******************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
------------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
==============================================================================
 WATERSHED AREA =    1713.900 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =     0.637 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.618
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59; 1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
   3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


*******************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
==============================================================================


*******************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
==============================================================================


*******************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==============================================================================


*******************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==============================================================================


*******************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
------------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =    170.00
 CHANNEL LENGTH(FT) =   6461.31     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
==============================================================================


*******************************************************************************
```

```
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
  WATERSHED AREA =    1705.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.386 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.245; LOW LOSS FRACTION = 0.690
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
   3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


*******************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================



*******************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================



*******************************************************************************
  FLOW PROCESS FROM NODE  13500.00 TO NODE    134.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
  WATERSHED AREA =    3859.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    1.489 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.284; LOW LOSS FRACTION = 0.760
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
   3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


*******************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
```

```
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =  11
-------------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
===============================================================================
===============================================================================
```

```
+------------------------------------------------------------------------------------------------------+
|                        * AES FLOODSCx PROGRAM RESULTS SUMMARY *                                       |
| |INPUT FILENAME: [EV1034CF.DAT   ]                                                                    |
```

UPSTREAM NODE #	DOWNSTREAM NODE #	HYDROLOGIC/HYDRAULIC PROCESS		UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)	TIME(2) TO PEAK (HR)	MAX. STORAGE MODELED (AF)	FOOTNOTES
10100.00	119.00	Subarea (UH) Added to	Stream #1	0.0	6299.2	18.333		
119.00	12603.00	Convex Routing:	Stream #1	6299.2	6285.9	18.417		
810.00	809.00	Subarea (UH) Added to	Stream #2	0.0	63.3	16.250		
12603.00	12603.00	Stream #2 Added to:	Stream #1	6285.9	6294.5	18.417		
12603.00	12603.00	Zero Out:	Stream #2	63.3	0.0			
12603.00	126.00	Convex Routing:	Stream #1	6294.5	6281.6	18.500		
920.00	905.00	Subarea (UH) Added to	Stream #2	0.0	140.9	16.333		
126.00	126.00	Stream #2 Added to:	Stream #1	6281.6	6296.8	18.500		
126.00	126.00	Zero Out:	Stream #2	140.9	0.0			
600.00	126.00	Subarea (UH) Added to	Stream #2	0.0	37.9	16.417		
126.00	126.00	Stream #2 Added to:	Stream #1	6296.8	6299.4	18.500		
126.00	126.00	Zero Out:	Stream #2	37.9	0.0			
126.00	12720.50	Convex Routing:	Stream #1	6299.4	6262.9	18.583		
320.00	331.00	Subarea (UH) Added to	Stream #2	0.0	253.9	16.333		
400.00	331.00	Subarea (UH) Added to	Stream #3	0.0	165.0	16.333		
390.00	331.00	Subarea (UH) Added to	Stream #4	0.0	20.1	16.500		
331.00	331.00	Stream #4 Added to:	Stream #2	253.9	271.6	16.333		
331.00	331.00	Zero Out:	Stream #4	20.1	0.0			
331.00	331.00	Stream #3 Added to:	Stream #2	271.6	436.6	16.333		
331.00	331.00	Zero Out:	Stream #3	165.0	0.0			
331.00	12720.50	Stream #2 Added to:	Stream #1	6262.9	6353.0	18.583		
12720.50	12720.50	Zero Out:	Stream #2	436.6	0.0			
12720.50	127.00	Convex Routing:	Stream #1	6353.0	6337.9	18.667		
12710.00	127.00	Subarea (UH) Added to	Stream #2	0.0	99.2	16.500		
127.00	127.00	Stream #2 Added to:	Stream #1	6337.9	6347.0	18.667		
127.00	127.00	Zero Out:	Stream #2	99.2	0.0			
50150.00	127.00	Subarea (UH) Added to	Stream #2	0.0	164.4	16.417		
127.00	127.00	Stream #2 Added to:	Stream #1	6347.0	6365.0	18.667		
127.00	127.00	Zero Out:	Stream #2	164.4	0.0			
127.00	129.00	Convex Routing:	Stream #1	6365.0	6350.3	18.833		
50300.00	129.00	Subarea (UH) Added to	Stream #2	0.0	99.7	16.500		
129.00	129.00	Stream #2 Added to:	Stream #1	6350.3	6360.1	18.833		
129.00	129.00	Zero Out:	Stream #2	99.7	0.0			
210.00	221.00	Subarea (UH) Added to	Stream #2	0.0	75.9	16.333		
221.00	129.00	Stream #2 Added to:	Stream #1	6360.1	6372.8	18.833		
129.00	129.00	Zero Out:	Stream #2	75.9	0.0			
129.00	133.00	Convex Routing:	Stream #1	6372.8	6364.5	18.583		
13010.00	132.00	Subarea (UH) Added to	Stream #2	0.0	654.8	17.000		
132.00	13305.00	Convex Routing:	Stream #2	654.8	627.5	17.417		
13305.00	133.00	Convex Routing:	Stream #2	627.5	621.5	17.833		

```
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL
|       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM
+------------------------------------------------------------------------------------------------------+
```

+--------------------+-----------------------------+--------------------+------------+-----------+
|UPSTREAM DOWNSTREAM| | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE| |
| NODE #   NODE # | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS) PEAK (CFS)|
PEAK (HR) | MODELED (AF)| FOOTNOTES |
+--------------------+-----------------------------+--------------------+------------+-----------+
| 132.00   133.00| Subarea (UH) Added to Stream #3| 0.0   309.9|
16.667 | | |
| 133.00   133.00| Stream #3 Added to: Stream #2| 621.5   794.8|
17.750 | | |
133.00 133.00	Zero Out: Stream #3	309.9 0.0
133.00 133.00	Stream #2 Added to: Stream #1	6364.5 7132.9
17.917		
133.00 133.00	Zero Out: Stream #2	794.8 0.0
+--------------------+-----------------------------+--------------------+------------+-----------+
| 133.00   134.00| Convex Routing: Stream #1| 7132.9   7119.8|
18.167 | | |
| 133.00   134.00| Subarea (UH) Added to Stream #2| 0.0   346.2|
16.417 | | |
| 134.00   134.00| Stream #2 Added to: Stream #1| 7119.8   7229.4|
18.083 | | |
134.00 134.00	Zero Out: Stream #2	346.2 0.0
13500.00 134.00	Subarea (UH) Added to Stream #2	0.0 391.0
17.500 | | |
+--------------------+-----------------------------+--------------------+------------+-----------+
| 134.00   134.00| Stream #2 Added to: Stream #1| 7229.4   7562.0|
18.083 | | |
134.00 134.00	Zero Out: Stream #2	391.0 0.0
134.00 134.00	View: Stream #1	7562.0
18.083 | 5859.03| 3 |
+--------------------+-----------------------------+--------------------+------------+-----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL |
| 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM |
+--+

  END OF FLOODSCx ROUTING ANALYSIS

```
   _____
   ***********************************************************************

            F L O O D   R O U T I N G   A N A L Y S I S
            USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                        Analysis prepared by:




   *************************** DESCRIPTION OF STUDY **************************
   * MV PA-3 ROMP AMENDMENT 2022 - NODE 134U                                *
   * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL            *
   * 10-YR EV JUNE 2023 ROKAMOTO                                            *
    ***********************************************************************

    FILE NAME: EV1034UF.DAT
    TIME/DATE OF STUDY: 11:31 06/30/2023


                        ** INPUT SUMMARY **


   ***********************************************************************
    FLOW PROCESS FROM NODE 10100.00 TO NODE    119.00 IS CODE =   1
   ------------------------------------------------------------------------
    >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
   ========================================================================
    WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
    *USER ENTERED "LAG" TIME =    2.320 HOURS
    VALLEY(DEVELOPED) S-GRAPH SELECTED
    MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.746
    SPECIFIED PEAK RAINFALL DEPTHS(INCH):
    5-MINUTE =  0.33; 30-MINUTE =  0.63; 1-HOUR =  0.88
      3-HOUR =  1.65;    6-HOUR =  2.45; 24-HOUR =  4.32
    *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
    5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
      3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


   ***********************************************************************
    FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
   ------------------------------------------------------------------------
    >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
   ========================================================================
    THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
    ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
    (Reference: the National Engineering Handbook, Hydrology,
    Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

    ASSUMED REGULAR CHANNEL INFORMATION:
    BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
    UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
    CHANNEL LENGTH(FT) =    3157.79    MANNING'S FACTOR = 0.030
    CONSTANT LOSS RATE(CFS) =    0.00
   ========================================================================


   ***********************************************************************
    FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
   ------------------------------------------------------------------------
    >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
   ========================================================================
    WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
    *USER ENTERED "LAG" TIME =    0.191 HOURS
    VALLEY(DEVELOPED) S-GRAPH SELECTED
    MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.548
    SPECIFIED PEAK RAINFALL DEPTHS(INCH):
    5-MINUTE =  0.26; 30-MINUTE =  0.59; 1-HOUR =  0.78
      3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
    *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
    5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
      3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


   ***********************************************************************
    FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
   ------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
   ========================================================================


   ***********************************************************************
    FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
   ------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
   ========================================================================


   ***********************************************************************
    FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
   ------------------------------------------------------------------------
    >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
   ========================================================================
    THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
    ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
    (Reference: the National Engineering Handbook, Hydrology,
    Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

    ASSUMED REGULAR CHANNEL INFORMATION:
    BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
    UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =    286.00
    CHANNEL LENGTH(FT) =    3046.70    MANNING'S FACTOR = 0.030
    CONSTANT LOSS RATE(CFS) =    0.00
   ========================================================================


   ***********************************************************************
    FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
   ------------------------------------------------------------------------
    >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
===============================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.231 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.254; LOW LOSS FRACTION = 0.750
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
   3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


******************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =    7
  ---------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================


******************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =    6
  ---------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================


******************************************************************
  FLOW PROCESS FROM NODE   600.00 TO NODE   126.00 IS CODE =    1
  ---------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.318 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.290; LOW LOSS FRACTION = 0.905
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
   3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


******************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =    7
  ---------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================


******************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =    6
  ---------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================
```

```
********************************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   12720.50 IS CODE = 5.2
  --------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
================================================================================



********************************************************************************
  FLOW PROCESS FROM NODE   320.00 TO NODE   331.00 IS CODE =    1
  --------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.305 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.100; LOW LOSS FRACTION = 0.297
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
   3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


********************************************************************************
  FLOW PROCESS FROM NODE   400.00 TO NODE   331.00 IS CODE =    1
  --------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
================================================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.260 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.135; LOW LOSS FRACTION = 0.385
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
   3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


********************************************************************************
  FLOW PROCESS FROM NODE   390.00 TO NODE   331.00 IS CODE =    1
  --------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
================================================================================
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
*USER ENTERED "LAG" TIME =   0.394 HOURS
VALLEY(DEVELOPED) S-GRAPH SELECTED
MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.283; LOW LOSS FRACTION = 0.778
SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
  3-HOUR =  1.31;   6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
  3-HOUR = 0.750;   6-HOUR = 0.890; 24-HOUR = 0.936


**************************************************************************
  FLOW PROCESS FROM NODE   331.00 TO NODE   331.00 IS CODE =   7
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
==========================================================================

**************************************************************************
  FLOW PROCESS FROM NODE   331.00 TO NODE   331.00 IS CODE =   6
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
==========================================================================

**************************************************************************
  FLOW PROCESS FROM NODE   331.00 TO NODE   331.00 IS CODE =   7
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
==========================================================================

**************************************************************************
  FLOW PROCESS FROM NODE   331.00 TO NODE   331.00 IS CODE =   6
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
==========================================================================

**************************************************************************
  FLOW PROCESS FROM NODE   331.00 TO NODE  12720.50 IS CODE =   7
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================

**************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================

**************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE   127.00 IS CODE = 5.2
--------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
```

```
THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
UPSTREAM ELEVATION(FT) =    258.00; DOWNSTREAM ELEVATION(FT) =    240.00
CHANNEL LENGTH(FT) =   3114.00     MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE   127.00 IS CODE =   1
--------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
 WATERSHED AREA =    711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =   0.446 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.293; LOW LOSS FRACTION = 0.898
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
  3-HOUR =  1.31;   6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
  3-HOUR = 0.750;   6-HOUR = 0.890; 24-HOUR = 0.936


**************************************************************************
  FLOW PROCESS FROM NODE   127.00 TO NODE   127.00 IS CODE =   7
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE   127.00 TO NODE   127.00 IS CODE =   6
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE   127.00 IS CODE =   1
--------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
 WATERSHED AREA =   1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =   0.389 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.295; LOW LOSS FRACTION = 0.855
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
  3-HOUR =  1.31;   6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
```

```
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


**************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
--------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
  CHANNEL LENGTH(FT) =    4905.42     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
  WATERSHED AREA =      634.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.407 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.282; LOW LOSS FRACTION = 0.855
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
    3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


**************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================
```

```
**************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
  WATERSHED AREA =      213.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.268 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.128; LOW LOSS FRACTION = 0.391
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
    3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


**************************************************************************
  FLOW PROCESS FROM NODE    221.00 TO NODE    129.00 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
--------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    1389.52     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


**************************************************************************
```

```
FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
--------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
 WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.938 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.244; LOW LOSS FRACTION = 0.727
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59; 1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
   3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


**************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
--------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
==========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =    315.00
 CHANNEL LENGTH(FT) =   9760.05     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =   0.00
==========================================================================


**************************************************************************
 FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
--------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
==========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =    212.00
 CHANNEL LENGTH(FT) =   6877.24     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =   0.00
==========================================================================


**************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
--------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
==========================================================================
 WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.637 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.618
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59; 1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
   3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


**************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
==========================================================================


**************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


**************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
--------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =    170.00
 CHANNEL LENGTH(FT) =   6461.31     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =   0.00
==========================================================================


**************************************************************************
```

```
    FLOW PROCESS FROM NODE     133.00 TO NODE    134.00 IS CODE =   1
---------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===========================================================================
  WATERSHED AREA =     1705.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.386 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.245; LOW LOSS FRACTION = 0.690
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.26; 30-MINUTE = 0.59;  1-HOUR = 0.78
   3-HOUR = 1.31;    6-HOUR = 1.81; 24-HOUR = 3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
   3-HOUR = 0.750;     6-HOUR = 0.890; 24-HOUR = 0.936


****************************************************************************
   FLOW PROCESS FROM NODE     134.00 TO NODE    134.00 IS CODE =   7
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===========================================================================


****************************************************************************
   FLOW PROCESS FROM NODE     134.00 TO NODE    134.00 IS CODE =   6
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===========================================================================


****************************************************************************
   FLOW PROCESS FROM NODE     134.00 TO NODE    134.00 IS CODE =  11
---------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
===========================================================================
===========================================================================
```

UPSTREAM DOWNSTREAM	HYDROLOGIC/HYDRAULIC PROCESS	UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)	TIME(2) TO PEAK (HR)	MAX. STORAGE MODELED (AF)	FOOTNOTES
10100.00 119.00	Subarea (UH) Added to Stream #1	0.0	6477.1	18.333		
119.00 12603.00	Convex Routing: Stream #1	6477.1	6462.8	18.417		
810.00 809.00	Subarea (UH) Added to Stream #2	0.0	65.5	16.250		
12603.00 12603.00	Stream #2 Added to: Stream #1	6462.8	6471.4	18.417		
12603.00 12603.00	Zero Out: Stream #2	65.5	0.0			
12603.00 126.00	Convex Routing: Stream #1	6471.4	6457.2	18.500		
920.00 905.00	Subarea (UH) Added to Stream #2	0.0	146.9	16.333		
126.00 126.00	Stream #2 Added to: Stream #1	6457.2	6472.4	18.500		
126.00 126.00	Zero Out: Stream #2	146.9	0.0			
600.00 126.00	Subarea (UH) Added to Stream #2	0.0	39.8	16.417		
126.00 126.00	Stream #2 Added to: Stream #1	6472.4	6475.0	18.500		
126.00 126.00	Zero Out: Stream #2	39.8	0.0			
126.00 12720.50	Convex Routing: Stream #1	6475.0	6439.5	18.583		
320.00 331.00	Subarea (UH) Added to Stream #2	0.0	260.7	16.333		
400.00 331.00	Subarea (UH) Added to Stream #3	0.0	170.0	16.333		
390.00 331.00	Subarea (UH) Added to Stream #4	0.0	20.9	16.500		
331.00 331.00	Stream #4 Added to: Stream #2	260.7	279.0	16.333		
331.00 331.00	Zero Out: Stream #4	20.9	0.0			
331.00 331.00	Stream #3 Added to: Stream #2	279.0	449.0	16.333		

```
|    331.00     331.00| Zero Out:           Stream #3|    170.0       0.0|
|             |             |
+-------------------+----------------------------+--------------------+-
----------+-------------+-----------+
|    331.00   12720.50| Stream #2 Added to:   Stream #1|   6439.5    6529.5|
18.583 |             |             |
| 12720.50   12720.50| Zero Out:           Stream #2|    449.0       0.0|
|             |             |
| 12720.50     127.00| Convex Routing:       Stream #1|   6529.5    6514.5|
18.667 |             |             |
| 12710.00     127.00| Subarea (UH) Added to Stream #2|      0.0     104.0|
16.500 |             |             |
|    127.00     127.00| Stream #2 Added to:   Stream #1|   6514.5    6523.6|
18.667 |             |             |
+-------------------+----------------------------+--------------------+-
----------+-------------+-----------+
|    127.00     127.00| Zero Out:           Stream #2|    104.0       0.0|
|             |             |
| 50150.00     127.00| Subarea (UH) Added to Stream #2|      0.0     171.7|
16.417 |             |             |
|    127.00     127.00| Stream #2 Added to:   Stream #1|   6523.6    6541.5|
18.667 |             |             |
|    127.00     127.00| Zero Out:           Stream #2|    171.7       0.0|
|             |             |
|    127.00     129.00| Convex Routing:       Stream #1|   6541.5    6525.3|
18.833 |             |             |
+-------------------+----------------------------+--------------------+-
----------+-------------+-----------+
| 50300.00     129.00| Subarea (UH) Added to Stream #2|      0.0     104.2|
16.500 |             |             |
|    129.00     129.00| Stream #2 Added to:   Stream #1|   6525.3    6535.1|
18.833 |             |             |
|    129.00     129.00| Zero Out:           Stream #2|    104.2       0.0|
|             |             |
|    210.00     221.00| Subarea (UH) Added to Stream #2|      0.0      78.2|
16.333 |             |             |
|    221.00     129.00| Stream #2 Added to:   Stream #1|   6535.1    6547.8|
18.833 |             |             |
+-------------------+----------------------------+--------------------+-
----------+-------------+-----------+
|    129.00     129.00| Zero Out:           Stream #2|     78.2       0.0|
|             |             |
|    129.00     133.00| Convex Routing:       Stream #1|   6547.8    6537.9|
18.917 |             |             |
| 13010.00     132.00| Subarea (UH) Added to Stream #2|      0.0     674.8|
17.000 |             |             |
|    132.00   13305.00| Convex Routing:       Stream #2|    674.8     646.4|
17.417 |             |             |
| 13305.00     133.00| Convex Routing:       Stream #2|    646.4     639.9|
17.833 |             |             |
+-------------------+----------------------------+--------------------+-
----------+-------------+-----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                 |
|       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                         |
+------------------------------------------------------------------------
------------------------------------+
```

| UPSTREAM DOWNSTREAM | HYDROLOGIC/HYDRAULIC PROCESS | UPSTREAM PEAK (CFS) | DOWNSTREAM PEAK (CFS) | TIME(2) TO PEAK (HR) | MAX. STORAGE MODELED (AF) | FOOTNOTES |
NODE # NODE #						
132.00 133.00	Subarea (UH) Added to Stream #3	0.0	319.1	16.667		
133.00 133.00	Stream #3 Added to: Stream #2	639.9	814.5	17.750		
133.00 133.00	Zero Out: Stream #3	319.1	0.0			
133.00 133.00	Stream #2 Added to: Stream #1	6537.9	7305.4	17.917		
133.00 133.00	Zero Out: Stream #2	814.5	0.0			
133.00 134.00	Convex Routing: Stream #1	7305.4	7291.6	18.167		
133.00 134.00	Subarea (UH) Added to Stream #2	0.0	358.7	16.417		
134.00 134.00	Stream #2 Added to: Stream #1	7291.6	7400.0	18.083		
134.00 134.00	Zero Out: Stream #2	358.7	0.0			
134.00 134.00	View: Stream #1		7400.0	18.083	5682.56	3

```
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL                        |
|       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM                |
+-----------------------------------------------------------------------------------------------------------+
```

   END OF FLOODSCx ROUTING ANALYSIS

```
********************************************************************************
                F L O O D   R O U T I N G   A N A L Y S I S
             USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                        Analysis prepared by:

                    Michael Baker International
                   5 Hutton Centre Drive, Suite 500
                        Santa Ana, CA 92707


 ************************* DESCRIPTION OF STUDY *************************
 * RANCHO MISSION VIEJO                                                *
 * PHASE CONDITION NO PA5 - UH FREE DRAINING REGIONAL NODE 119         *
 * 2-YR EV APRIL 2019 FKAZI                                            *
 **********************************************************************

   FILE NAME: EV02119F.DAT
   TIME/DATE OF STUDY: 16:24 04/10/2019


                        ** INPUT SUMMARY **


********************************************************************************
   FLOW PROCESS FROM NODE  10100.00 TO NODE    119.00 IS CODE =   1
--------------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
================================================================================
   WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    5.382 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.595; LOW LOSS FRACTION = 0.931
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.16; 30-MINUTE =  0.30; 1-HOUR =  0.41
     3-HOUR =  0.77;    6-HOUR =  1.15; 24-HOUR =  2.03
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.345; 30-MINUTE = 0.395;  1-HOUR = 0.435
     3-HOUR = 0.785;    6-HOUR = 0.904; 24-HOUR = 0.944



********************************************************************************
   FLOW PROCESS FROM NODE    119.00 TO NODE    119.00 IS CODE =  11
--------------------------------------------------------------------------------
   >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
================================================================================
================================================================================
```

```
   +--------------------------------------------------------------------------
------------------------------------------+
   |                                       * AES FLOODSCx PROGRAM RESULTS SUMMARY *
   |
   |INPUT FILENAME: [EV02119F.DAT   ]
Page:  1 of   |
   +-------------------+-----------------------------+--------------------+-
-----------+------------+-----------+
   |UPSTREAM  DOWNSTREAM|                              | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|             |
   | NODE #     NODE # | HYDROLOGIC/HYDRAULIC PROCESS  |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
   +-------------------+-----------------------------+--------------------+-
-----------+------------+-----------+
   | 10100.00    119.00| Subarea (UH) Added to Stream #1|      0.0       525.2|
20.417 |          |          |
   |  119.00    119.00| View:             Stream #1|                 525.2|
20.417 |     547.46|    3     |
   +-------------------+-----------------------------+--------------------+-
-----------+------------+-----------+
   |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                   |
   |      3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                   |
   +--------------------------------------------------------------------------
------------------------------------------+

     END OF FLOODSCx ROUTING ANALYSIS
```

```
 _____
 ***********************************************************************

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                        Analysis prepared by:




  ************************* DESCRIPTION OF STUDY *************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 126                              *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL          *
 * 2-YR EV MAY 2023 ROKAMOTO                                            *
  **********************************************************************

  FILE NAME: EV02126F.DAT
  TIME/DATE OF STUDY: 06:40 05/14/2023


                        ** INPUT SUMMARY **


 ***********************************************************************
   FLOW PROCESS FROM NODE 10100.00 TO NODE    119.00 IS CODE =   1
 -----------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
 =======================================================================
   WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    5.382 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.595; LOW LOSS FRACTION = 0.931
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.16; 30-MINUTE =  0.30;  1-HOUR =  0.41
     3-HOUR =  0.77;     6-HOUR =  1.15; 24-HOUR =  2.03
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.341; 30-MINUTE = 0.392;  1-HOUR = 0.432
     3-HOUR = 0.782;     6-HOUR = 0.902; 24-HOUR = 0.943


 ***********************************************************************
   FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
 -----------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 =======================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =    0.01    CHANNEL Z =  3.00
   UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

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   CHANNEL LENGTH(FT) =    3157.79    MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
 =======================================================================


 ***********************************************************************
   FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
 -----------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 =======================================================================
   WATERSHED AREA =    171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.220 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.348; LOW LOSS FRACTION = 0.638
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
     3-HOUR =  0.62;     6-HOUR =  0.85; 24-HOUR =  1.44
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.341; 30-MINUTE = 0.392;  1-HOUR = 0.432
     3-HOUR = 0.782;     6-HOUR = 0.902; 24-HOUR = 0.943


 ***********************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
 -----------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 =======================================================================


 ***********************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
 -----------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 =======================================================================


 ***********************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
 -----------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 =======================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =    0.01    CHANNEL Z =  3.00
   UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =    286.00
   CHANNEL LENGTH(FT) =    3046.70    MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
 =======================================================================


 ***********************************************************************
   FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
 -----------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
================================================================================
  WATERSHED AREA =      553.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.292 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.509; LOW LOSS FRACTION = 0.862
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
    3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.341; 30-MINUTE = 0.392;  1-HOUR = 0.432
    3-HOUR = 0.782;    6-HOUR = 0.902; 24-HOUR = 0.943


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================



********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================



********************************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =      218.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.430 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.580; LOW LOSS FRACTION = 0.966
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
    3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.341; 30-MINUTE = 0.392;  1-HOUR = 0.432
    3-HOUR = 0.782;    6-HOUR = 0.902; 24-HOUR = 0.943


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================



********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================
```

```
********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =  11
--------------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
================================================================================

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 +--------------------------------------------------------------------------------
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 |                              * AES FLOODSCx PROGRAM RESULTS SUMMARY *
 |
 |INPUT FILENAME: [EV02126F.DAT  ]
Page:   1 of    |
 +------------------+---------------------------------+--------------------+-
----------+------------+-----------+
 |UPSTREAM  DOWNSTREAM|                                 | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|         |
 | NODE #     NODE # | HYDROLOGIC/HYDRAULIC PROCESS  |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +------------------+---------------------------------+--------------------+-
----------+------------+-----------+
 | 10100.00    119.00| Subarea (UH) Added to Stream #1|     0.0       519.9|
20.417 |           |          |
 |   119.00  12603.00| Convex Routing:     Stream #1|    519.9       518.1|
20.500 |           |          |
 |   810.00    809.00| Subarea (UH) Added to Stream #2|     0.0        17.1|
16.250 |           |          |
 | 12603.00  12603.00| Stream #2 Added to:  Stream #1|    518.1       520.2|
20.500 |           |          |
 | 12603.00  12603.00| Zero Out:            Stream #2|    17.1         0.0|
|          |          |
 +------------------+---------------------------------+--------------------+-
----------+------------+-----------+
 | 12603.00    126.00| Convex Routing:     Stream #1|    520.2       518.9|
20.583 |           |          |
 |   920.00    905.00| Subarea (UH) Added to Stream #2|     0.0        18.9|
16.333 |           |          |
 |   126.00    126.00| Stream #2 Added to:  Stream #1|    518.9       521.6|
20.583 |           |          |
 |   126.00    126.00| Zero Out:            Stream #2|    18.9         0.0|
|          |          |
 |   600.00    126.00| Subarea (UH) Added to Stream #2|     0.0         1.6|
16.500 |           |          |
 +------------------+---------------------------------+--------------------+-
----------+------------+-----------+
 |   126.00    126.00| Stream #2 Added to:  Stream #1|    521.6       521.8|
20.583 |           |          |
 |   126.00    126.00| Zero Out:            Stream #2|     1.6         0.0|
|          |          |
 |   126.00    126.00| View:               Stream #1|                521.8|
20.583 |     561.48|    3     |
 +------------------+---------------------------------+--------------------+-
----------+------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                            |
 |      3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                     |
 +--------------------------------------------------------------------------------
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   END OF FLOODSCx ROUTING ANALYSIS
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       F L O O D   R O U T I N G   A N A L Y S I S
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               Analysis prepared by:




 ************************** DESCRIPTION OF STUDY **************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 127                               *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL           *
 * 2-YR EV AUG 2023 ROKAMOTO                                             *
 *************************************************************************

  FILE NAME: EV02127F.DAT
  TIME/DATE OF STUDY: 10:22 08/10/2023


                    ** INPUT SUMMARY **


*************************************************************************
  FLOW PROCESS FROM NODE 10100.00 TO NODE   119.00 IS CODE =  1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
=========================================================================
  WATERSHED AREA =  49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    5.382 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.595; LOW LOSS FRACTION = 0.931
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.16; 30-MINUTE =  0.30; 1-HOUR =  0.41
    3-HOUR =  0.77;    6-HOUR = 1.15; 24-HOUR = 2.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
    3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


*************************************************************************
  FLOW PROCESS FROM NODE   119.00 TO NODE  12603.00 IS CODE = 5.2
-------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE   810.00 TO NODE   809.00 IS CODE =  1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
  WATERSHED AREA =    171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.220 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.348; LOW LOSS FRACTION = 0.638
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28; 1-HOUR =  0.37
    3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
    3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


*************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =  7
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =  6
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE   126.00 IS CODE = 5.2
-------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =    286.00
  CHANNEL LENGTH(FT) =    3046.70     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE   920.00 TO NODE   905.00 IS CODE =  1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
================================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.292 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.509; LOW LOSS FRACTION = 0.862
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;   6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
   3-HOUR = 0.773;   6-HOUR = 0.898; 24-HOUR = 0.941


*****************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   7
  --------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================


*****************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   6
  --------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================


*****************************************************************
  FLOW PROCESS FROM NODE   600.00 TO NODE   126.00 IS CODE =   1
  --------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.430 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.580; LOW LOSS FRACTION = 0.966
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;   6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
   3-HOUR = 0.773;   6-HOUR = 0.898; 24-HOUR = 0.941


*****************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   7
  --------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================


*****************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   6
  --------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================
```

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*****************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   12720.50 IS CODE = 5.2
  --------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01    CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =    258.00
  CHANNEL LENGTH(FT) =    4077.05    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
================================================================


*****************************************************************
  FLOW PROCESS FROM NODE   320.00 TO NODE   331.00 IS CODE =   1
  --------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.360 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.201; LOW LOSS FRACTION = 0.412
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;   6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
   3-HOUR = 0.773;   6-HOUR = 0.898; 24-HOUR = 0.941


*****************************************************************
  FLOW PROCESS FROM NODE   400.00 TO NODE   331.00 IS CODE =   1
  --------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
================================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.315 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.270; LOW LOSS FRACTION = 0.508
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;   6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
   3-HOUR = 0.773;   6-HOUR = 0.898; 24-HOUR = 0.941


*****************************************************************
  FLOW PROCESS FROM NODE   390.00 TO NODE   331.00 IS CODE =   1
  --------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
================================================================
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.578 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.566; LOW LOSS FRACTION = 0.925
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
  3-HOUR =  0.62;   6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
  3-HOUR = 0.773;   6-HOUR = 0.898; 24-HOUR = 0.941


*********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
--------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
====================================================================

*********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
--------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
====================================================================


*********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
--------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
====================================================================

*********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
--------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
====================================================================


*********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
--------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
====================================================================


*********************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
--------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
====================================================================


*********************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
--------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
====================================================================
```

```
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =     0.01     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
 CHANNEL LENGTH(FT) =    3114.00     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =     0.00
====================================================================


*********************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
--------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
====================================================================
 WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.472 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.586; LOW LOSS FRACTION = 0.976
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
  3-HOUR =  0.62;   6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
  3-HOUR = 0.773;   6-HOUR = 0.898; 24-HOUR = 0.941


*********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
--------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
====================================================================


*********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
--------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
====================================================================


*********************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
--------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
====================================================================
 WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.589 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.589; LOW LOSS FRACTION = 0.962
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
  3-HOUR =  0.62;   6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
```

```
****************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================


****************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================


****************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =  11
----------------------------------------------------------------
   >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
================================================================
================================================================
```

```
+----------------------------------------------------------------
---------------------------------------+
|                               * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
|INPUT FILENAME: [EV02127F.DAT   ]
Page:  1 of   |
+------------------+----------------------------+--------------------+-
----------+------------+----------+
|UPSTREAM  DOWNSTREAM|                           | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|            |
| NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
   +------------------+----------------------------+--------------------+-
----------+------------+----------+
| 10100.00    119.00| Subarea (UH) Added to Stream #1|    0.0      514.1|
20.417 |           |          |
|   119.00  12603.00| Convex Routing:      Stream #1|  514.1      512.6|
20.500 |           |          |
|   810.00    809.00| Subarea (UH) Added to Stream #2|    0.0       16.6|
16.250 |           |          |
| 12603.00  12603.00| Stream #2 Added to:   Stream #1|  512.6      514.7|
20.500 |           |          |
| 12603.00  12603.00| Zero Out:            Stream #2|   16.6        0.0|
|           |           |          |
   +------------------+----------------------------+--------------------+-
----------+------------+----------+
| 12603.00    126.00| Convex Routing:      Stream #1|  514.7      513.6|
20.583 |           |          |
|   920.00    905.00| Subarea (UH) Added to Stream #2|    0.0       18.5|
16.333 |           |          |
|   126.00    126.00| Stream #2 Added to:   Stream #1|  513.6      516.3|
20.583 |           |          |
|   126.00    126.00| Zero Out:            Stream #2|   18.5        0.0|
|           |           |          |
|   600.00    126.00| Subarea (UH) Added to Stream #2|    0.0        1.6|
16.500 |           |          |
   +------------------+----------------------------+--------------------+-
----------+------------+----------+
|   126.00    126.00| Stream #2 Added to:   Stream #1|  516.3      516.5|
20.583 |           |          |
|   126.00    126.00| Zero Out:            Stream #2|    1.6        0.0|
|           |           |          |
|   126.00  12720.50| Convex Routing:      Stream #1|  516.5      515.8|
20.750 |           |          |
|   320.00    331.00| Subarea (UH) Added to Stream #2|    0.0       95.4|
16.417 |           |          |
|   400.00    331.00| Subarea (UH) Added to Stream #3|    0.0       52.7|
16.333 |           |          |
   +------------------+----------------------------+--------------------+-
----------+------------+----------+
|   390.00    331.00| Subarea (UH) Added to Stream #4|    0.0        1.7|
16.667 |           |          |
|   331.00    331.00| Stream #4 Added to:   Stream #2|   95.4       96.9|
16.417 |           |          |
|   331.00    331.00| Zero Out:            Stream #4|    1.7        0.0|
|           |           |          |
|   331.00    331.00| Stream #3 Added to:   Stream #2|   96.9      149.2|
16.417 |           |          |
```

```
|   331.00     331.00| Zero Out:            Stream #3|    52.7        0.0|
|             |          |                                                   |
 +------------------+---------------------------------+--------------------+-
-----------+------------+----------+
|   331.00   12720.50| Stream #2 Added to:   Stream #1|   515.8      538.0|
20.750 |           |          |
| 12720.50   12720.50| Zero Out:            Stream #2|   149.2        0.0|
|             |          |
| 12720.50     127.00| Convex Routing:       Stream #1|   538.0      537.5|
20.833 |           |          |
| 12710.00     127.00| Subarea (UH) Added to Stream #2|     0.0        3.4|
16.500 |           |          |
|   127.00     127.00| Stream #2 Added to:   Stream #1|   537.5      538.0|
20.833 |           |          |
 +------------------+---------------------------------+--------------------+-
-----------+------------+----------+
|   127.00     127.00| Zero Out:            Stream #2|     3.4        0.0|
|             |          |
| 50150.00     127.00| Subarea (UH) Added to Stream #2|     0.0        7.7|
16.667 |           |          |
|   127.00     127.00| Stream #2 Added to:   Stream #1|   538.0      539.4|
20.833 |           |          |
|   127.00     127.00| Zero Out:            Stream #2|     7.7        0.0|
|             |          |
|   127.00     127.00| View:                Stream #1|            539.4|
20.833 |     639.23|    3     |
 +------------------+---------------------------------+--------------------+-
-----------+------------+----------+
 +------------------+---------------------------------+--------------------+-
-----------+------------+----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                          |
 |        3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                  |
  +----------------------------------------------------------------------------
-------------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

```
_____
************************************************************************

       F L O O D   R O U T I N G   A N A L Y S I S
         USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                    Analysis prepared by:




 *************************** DESCRIPTION OF STUDY **************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 137                                *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL            *
 * 2-YR EV AUG 2023 ROKAMOTO                                              *
 *************************************************************************

  FILE NAME: EV02137F.DAT
  TIME/DATE OF STUDY: 10:18 08/10/2023


                    ** INPUT SUMMARY **


************************************************************************
  FLOW PROCESS FROM NODE  10100.00 TO NODE    119.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
========================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    5.382 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.595; LOW LOSS FRACTION = 0.931
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.16; 30-MINUTE =  0.30; 1-HOUR =  0.41
    3-HOUR =  0.77;    6-HOUR =  1.15; 24-HOUR =  2.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


************************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
========================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.220 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.348; LOW LOSS FRACTION = 0.638
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28; 1-HOUR =  0.37
    3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =    286.00
  CHANNEL LENGTH(FT) =    3046.70     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
================================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.292 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.509; LOW LOSS FRACTION = 0.862
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
    3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


****************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   7
  --------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================


****************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   6
  --------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================


****************************************************************
  FLOW PROCESS FROM NODE   600.00 TO NODE   126.00 IS CODE =   1
  --------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.430 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.580; LOW LOSS FRACTION = 0.966
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
    3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


****************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   7
  --------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================


****************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   6
  --------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================
```

```
****************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE  12720.50 IS CODE = 5.2
  --------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =    258.00
  CHANNEL LENGTH(FT) =    4077.05     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
================================================================



****************************************************************
  FLOW PROCESS FROM NODE   320.00 TO NODE   331.00 IS CODE =   1
  --------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.360 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.201; LOW LOSS FRACTION = 0.412
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
    3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


****************************************************************
  FLOW PROCESS FROM NODE   400.00 TO NODE   331.00 IS CODE =   1
  --------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
================================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.315 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.270; LOW LOSS FRACTION = 0.508
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
    3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


****************************************************************
  FLOW PROCESS FROM NODE   390.00 TO NODE   331.00 IS CODE =   1
  --------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
================================================================
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.578 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.566; LOW LOSS FRACTION = 0.925
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
  3-HOUR =  0.62;   6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
  3-HOUR = 0.738;   6-HOUR = 0.886; 24-HOUR = 0.933


*************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
=========================================================================


*************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=========================================================================


*************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================


*************************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
-------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=========================================================================
```

```
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =    240.00
 CHANNEL LENGTH(FT) =    3114.00     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
=========================================================================


*************************************************************************
   FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
-------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
 WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.472 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.586; LOW LOSS FRACTION = 0.976
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
  3-HOUR =  0.62;   6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
  3-HOUR = 0.738;   6-HOUR = 0.886; 24-HOUR = 0.933


*************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================


*************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
   FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
-------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
 WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.589 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.589; LOW LOSS FRACTION = 0.962
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
  3-HOUR =  0.62;   6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
```

```
         3-HOUR =  0.738;    6-HOUR =  0.886; 24-HOUR =  0.933


  ****************************************************************************
   FLOW PROCESS FROM NODE     127.00 TO NODE     127.00 IS CODE =    7
  ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ============================================================================


  ****************************************************************************
   FLOW PROCESS FROM NODE     127.00 TO NODE     127.00 IS CODE =    6
  ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ============================================================================


  ****************************************************************************
   FLOW PROCESS FROM NODE     127.00 TO NODE     129.00 IS CODE =  5.2
  ----------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ============================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =    0.01      CHANNEL Z =  3.00
   UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
   CHANNEL LENGTH(FT) =    4905.42      MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
  ============================================================================


  ****************************************************************************
   FLOW PROCESS FROM NODE  50300.00 TO NODE     129.00 IS CODE =    1
  ----------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ============================================================================
   WATERSHED AREA =     634.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.622 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.564; LOW LOSS FRACTION = 0.940
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
     3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
     3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


  ****************************************************************************
   FLOW PROCESS FROM NODE     129.00 TO NODE     129.00 IS CODE =    7
  ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ============================================================================
```

```
  ****************************************************************************
   FLOW PROCESS FROM NODE     129.00 TO NODE     129.00 IS CODE =    6
  ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ============================================================================


  ****************************************************************************
   FLOW PROCESS FROM NODE     210.00 TO NODE     221.00 IS CODE =    1
  ----------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ============================================================================
   WATERSHED AREA =     213.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.309 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.256; LOW LOSS FRACTION = 0.498
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
     3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
     3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


  ****************************************************************************
   FLOW PROCESS FROM NODE     222.00 TO NODE     129.00 IS CODE =    7
  ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ============================================================================


  ****************************************************************************
   FLOW PROCESS FROM NODE     129.00 TO NODE     129.00 IS CODE =    6
  ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ============================================================================


  ****************************************************************************
   FLOW PROCESS FROM NODE     129.00 TO NODE     133.00 IS CODE =  5.2
  ----------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ============================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =    0.01      CHANNEL Z =  3.00
   UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
   CHANNEL LENGTH(FT) =    1389.52      MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
  ============================================================================


  ****************************************************************************
```

```
  FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
  WATERSHED AREA =    4924.400 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    1.262 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.487; LOW LOSS FRACTION = 0.830
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
    3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


**************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
--------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =   0.01     CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =    427.51; DOWNSTREAM ELEVATION(FT) =    315.00
  CHANNEL LENGTH(FT) =   9760.05     MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =   0.00
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
--------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =   0.01     CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =    315.00; DOWNSTREAM ELEVATION(FT) =    212.00
  CHANNEL LENGTH(FT) =   6877.24     MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =   0.00
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
==========================================================================
  WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
  *USER ENTERED "LAG" TIME =    0.948 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.449; LOW LOSS FRACTION = 0.752
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
    3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


**************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
--------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =   0.01     CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =    212.00; DOWNSTREAM ELEVATION(FT) =    170.00
  CHANNEL LENGTH(FT) =   6461.31     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =   0.00
==========================================================================


**************************************************************************
```

```
  FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =    1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =    1705.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.448 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.490; LOW LOSS FRACTION = 0.819
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
   3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =    7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =    6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE  13500.00 TO NODE    134.00 IS CODE =    1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =    3859.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    2.991 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.567; LOW LOSS FRACTION = 0.908
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
   3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =    7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =    6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
```

```
================================================================================

********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE = 5.2
--------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01      CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =      170.00; DOWNSTREAM ELEVATION(FT) =     135.00
  CHANNEL LENGTH(FT) =    6064.09      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE =    1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =    1240.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.539 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.474; LOW LOSS FRACTION = 0.780
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
   3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


********************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =    7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =    6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   11
--------------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
================================================================================
================================================================================
```

```
+---------------------------------------------------------------------------
------------------------------------+
|                                  * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
||INPUT FILENAME: [EV02137F.DAT   ]
Page:  1 of   |
+------------------+-----------------------------+--------------------+-
----------+------------+----------+
|UPSTREAM  DOWNSTREAM|                            | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|            |
| NODE #      NODE # | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
PEAK (HR) | MODELED (AF)| FOOTNOTES |
+------------------+-----------------------------+--------------------+-
----------+------------+----------+
| 10100.00    119.00| Subarea (UH) Added to Stream #1|    0.0      503.8|
20.417 |          |            |
|   119.00  12603.00| Convex Routing:      Stream #1|   503.8      502.6|
20.500 |          |            |
|   810.00    809.00| Subarea (UH) Added to Stream #2|    0.0       15.0|
16.250 |          |            |
| 12603.00  12603.00| Stream #2 Added to:   Stream #1|   502.6      504.7|
20.500 |          |            |
| 12603.00  12603.00| Zero Out:            Stream #2|    15.0       0.0|
|          |          |
+------------------+-----------------------------+--------------------+-
----------+------------+----------+
| 12603.00    126.00| Convex Routing:      Stream #1|   504.7      503.9|
20.583 |          |            |
|   920.00    905.00| Subarea (UH) Added to Stream #2|    0.0       16.8|
16.333 |          |            |
|   126.00    126.00| Stream #2 Added to:   Stream #1|   503.9      506.5|
20.583 |          |            |
|   126.00    126.00| Zero Out:            Stream #2|    16.8       0.0|
|          |          |
|   600.00    126.00| Subarea (UH) Added to Stream #2|    0.0        1.4|
16.500 |          |            |
+------------------+-----------------------------+--------------------+-
----------+------------+----------+
|   126.00    126.00| Stream #2 Added to:   Stream #1|   506.5      506.8|
20.583 |          |            |
|   126.00    126.00| Zero Out:            Stream #2|     1.4       0.0|
|          |          |
|   126.00  12720.50| Convex Routing:      Stream #1|   506.8      506.2|
20.750 |          |            |
|   320.00    331.00| Subarea (UH) Added to Stream #2|    0.0       85.6|
16.417 |          |            |
|   400.00    331.00| Subarea (UH) Added to Stream #3|    0.0       48.0|
16.333 |          |            |
+------------------+-----------------------------+--------------------+-
----------+------------+----------+
|   390.00    331.00| Subarea (UH) Added to Stream #4|    0.0        1.5|
16.667 |          |            |
|   331.00    331.00| Stream #4 Added to:   Stream #2|    85.6       87.0|
16.417 |          |            |
|   331.00    331.00| Zero Out:            Stream #4|     1.5       0.0|
|          |          |
|   331.00    331.00| Stream #3 Added to:   Stream #2|    87.0      134.6|
16.417 |          |            |
```

```
|   331.00    331.00| Zero Out:          Stream #3|    48.0      0.0|
|            |          |
 +------------------+----------------------------+---------------------+-
----------+------------+-----------+
|   331.00  12720.50| Stream #2 Added to:   Stream #1|   506.2    528.3|
20.750 |          |          |
| 12720.50  12720.50| Zero Out:          Stream #2|   134.6      0.0|
|            |          |
| 12720.50    127.00| Convex Routing:     Stream #1|   528.3    528.0|
20.833 |          |          |
| 12710.00    127.00| Subarea (UH) Added to Stream #2|     0.0      3.2|
16.500 |          |          |
|   127.00    127.00| Stream #2 Added to:   Stream #1|   528.0    528.6|
20.833 |          |          |
 +------------------+----------------------------+---------------------+-
----------+------------+-----------+
|   127.00    127.00| Zero Out:          Stream #2|     3.2      0.0|
|            |          |
| 50150.00    127.00| Subarea (UH) Added to Stream #2|     0.0      7.1|
16.667 |          |          |
|   127.00    127.00| Stream #2 Added to:   Stream #1|   528.6    530.0|
20.833 |          |          |
|   127.00    127.00| Zero Out:          Stream #2|     7.1      0.0|
|            |          |
|   127.00    129.00| Convex Routing:     Stream #1|   530.0    529.7|
21.000 |          |          |
 +------------------+----------------------------+---------------------+-
----------+------------+-----------+
| 50300.00    129.00| Subarea (UH) Added to Stream #2|     0.0      6.6|
16.667 |          |          |
|   129.00    129.00| Stream #2 Added to:   Stream #1|   529.7    531.0|
21.000 |          |          |
|   129.00    129.00| Zero Out:          Stream #2|     6.6      0.0|
|            |          |
|   210.00    221.00| Subarea (UH) Added to Stream #2|     0.0     22.9|
16.333 |          |          |
|   222.00    129.00| Stream #2 Added to:   Stream #1|   531.0    534.5|
21.000 |          |          |
 +------------------+----------------------------+---------------------+-
----------+------------+-----------+
|   129.00    129.00| Zero Out:          Stream #2|    22.9      0.0|
|            |          |
|   129.00    133.00| Convex Routing:     Stream #1|   534.5    534.3|
21.167 |          |          |
| 13010.00    132.00| Subarea (UH) Added to Stream #2|     0.0    130.9|
17.333 |          |          |
|   132.00  13305.00| Convex Routing:     Stream #2|   130.9    129.5|
17.917 |          |          |
| 13305.00    133.00| Convex Routing:     Stream #2|   129.5    129.0|
18.250 |          |          |
 +------------------+----------------------------+---------------------+-
----------+------------+-----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                          |
|      3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                 |
 +--------------------------------------------------------------------------
------------------------------------+
```

| * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
|INPUT FILENAME: [EV02137F.DAT   ]
Page: 2 of |

| UPSTREAM DOWNSTREAM| | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE| |
| NODE #   NODE # | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS) PEAK (CFS)|
PEAK (HR) | MODELED (AF)| FOOTNOTES |

| Table of routing results |

UPSTREAM NODE #	DOWNSTREAM NODE #	HYDROLOGIC/HYDRAULIC PROCESS	UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)	TIME(2) TO PEAK (HR)	MAX. STORAGE MODELED (AF)	FOOTNOTES
132.00	133.00	Subarea (UH) Added to Stream #3	0.0	69.3	17.000		
133.00	133.00	Stream #3 Added to: Stream #2	129.0	188.4	17.167		
133.00	133.00	Zero Out: Stream #3	69.3	0.0			
133.00	133.00	Stream #2 Added to: Stream #1	534.3	675.7	17.750		
133.00	133.00	Zero Out: Stream #2	188.4	0.0			
133.00	134.00	Convex Routing: Stream #1	675.7	675.1	18.000		
133.00	134.00	Subarea (UH) Added to Stream #2	0.0	58.4	16.500		
134.00	134.00	Stream #2 Added to: Stream #1	675.1	709.1	17.250		
134.00	134.00	Zero Out: Stream #2	58.4	0.0			
13500.00	134.00	Subarea (UH) Added to Stream #2	0.0	47.9	18.000		
134.00	134.00	Stream #2 Added to: Stream #1	709.1	754.3	17.917		
134.00	134.00	Zero Out: Stream #2	47.9	0.0			
134.00	137.00	Convex Routing: Stream #1	754.3	754.1	18.167		
134.00	137.00	Subarea (UH) Added to Stream #2	0.0	48.9	16.583		
137.00	137.00	Stream #2 Added to: Stream #1	754.1	788.9	17.500		
137.00	137.00	Zero Out: Stream #2	48.9	0.0			
137.00	137.00	View: Stream #1		788.9	17.500	896.01	3

|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL |

| 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM |
+--+

   END OF FLOODSCx ROUTING ANALYSIS

```
 ************************** DESCRIPTION OF STUDY **************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 138                               *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL           *
 * 2-YR EV AUG 2023 ROKAMOTO                                             *
 ************************************************************************

  FILE NAME: EV02138F.DAT
  TIME/DATE OF STUDY: 10:16 08/10/2023


                    ** INPUT SUMMARY **


************************************************************************
  FLOW PROCESS FROM NODE 10100.00 TO NODE    119.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
================================================================================
  WATERSHED AREA =  49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    5.382 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.595; LOW LOSS FRACTION = 0.931
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.16; 30-MINUTE =  0.30;  1-HOUR =  0.41
    3-HOUR =  0.77;   6-HOUR = 1.15; 24-HOUR = 2.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


************************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
--------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =      341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
================================================================================


************************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =    171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.220 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.348; LOW LOSS FRACTION = 0.638
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
    3-HOUR =  0.62;   6-HOUR = 0.85; 24-HOUR = 1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
--------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =      312.40; DOWNSTREAM ELEVATION(FT) =    286.00
  CHANNEL LENGTH(FT) =    3046.70     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
================================================================================


************************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
===================================================================
 WATERSHED AREA =    553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.292 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.509; LOW LOSS FRACTION = 0.862
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


*******************************************************************
 FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =    7
-------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===================================================================


*******************************************************************
 FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =    6
-------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===================================================================


*******************************************************************
 FLOW PROCESS FROM NODE   600.00 TO NODE   126.00 IS CODE =    1
-------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===================================================================
 WATERSHED AREA =    218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.430 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.580; LOW LOSS FRACTION = 0.966
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


*******************************************************************
 FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =    7
-------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===================================================================


*******************************************************************
 FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =    6
-------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===================================================================
```

```
*******************************************************************
 FLOW PROCESS FROM NODE   126.00 TO NODE  12720.50 IS CODE = 5.2
-------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =    258.00
 CHANNEL LENGTH(FT) =    4077.05     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
===================================================================



*******************************************************************
 FLOW PROCESS FROM NODE   320.00 TO NODE   331.00 IS CODE =    1
-------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===================================================================
 WATERSHED AREA =    712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.360 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.201; LOW LOSS FRACTION = 0.412
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


*******************************************************************
 FLOW PROCESS FROM NODE   400.00 TO NODE   331.00 IS CODE =    1
-------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
===================================================================
 WATERSHED AREA =    462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.315 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.270; LOW LOSS FRACTION = 0.508
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


*******************************************************************
 FLOW PROCESS FROM NODE   390.00 TO NODE   331.00 IS CODE =    1
-------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
===================================================================
 WATERSHED AREA =    117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.578 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.566; LOW LOSS FRACTION = 0.925
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
  3-HOUR =  0.62;   6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;   6-HOUR = 0.885; 24-HOUR = 0.932


***********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
-----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=======================================================================
```

```
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =    240.00
 CHANNEL LENGTH(FT) =   3114.00      MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=======================================================================
 WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.472 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.586; LOW LOSS FRACTION = 0.976
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
  3-HOUR =  0.62;   6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;   6-HOUR = 0.885; 24-HOUR = 0.932


***********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=======================================================================
 WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.589 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.589; LOW LOSS FRACTION = 0.962
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
  3-HOUR =  0.62;   6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
```

```
        3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


 ********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
 ------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ==================================================================


 ********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
 ------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ==================================================================


 ********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
 ------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ==================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
  CHANNEL LENGTH(FT) =    4905.42     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
 ==================================================================


 ********************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =   1
 ------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ==================================================================
  WATERSHED AREA =     634.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.622 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.564; LOW LOSS FRACTION = 0.940
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.13; 30-MINUTE = 0.28;  1-HOUR =  0.37
    3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


 ********************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   7
 ------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ==================================================================
```

```
 ********************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
 ------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ==================================================================


 ********************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =   1
 ------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ==================================================================
  WATERSHED AREA =     213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.309 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.256; LOW LOSS FRACTION = 0.498
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.13; 30-MINUTE = 0.28;  1-HOUR =  0.37
    3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


 ********************************************************************
  FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =   7
 ------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ==================================================================


 ********************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
 ------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ==================================================================


 ********************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
 ------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ==================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    1389.52     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
 ==================================================================


 ********************************************************************
```

```
 FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
------------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================================
 WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    1.262 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.487; LOW LOSS FRACTION = 0.830
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28; 1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


*****************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
------------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
==============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =     315.00
 CHANNEL LENGTH(FT) =   9760.05     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
==============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
------------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
==============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =     212.00
 CHANNEL LENGTH(FT) =   6877.24     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
==============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
------------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
==============================================================================
 WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.948 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.449; LOW LOSS FRACTION = 0.752
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28; 1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
==============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
==============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
------------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =     170.00
 CHANNEL LENGTH(FT) =   6461.31     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
==============================================================================


*****************************************************************************
```

```
 FLOW PROCESS FROM NODE     133.00 TO NODE     134.00 IS CODE =   1
---------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===========================================================================
  WATERSHED AREA =    1705.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.448 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.490; LOW LOSS FRACTION = 0.819
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
    3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


***************************************************************************
  FLOW PROCESS FROM NODE     134.00 TO NODE     134.00 IS CODE =   7
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===========================================================================


***************************************************************************
  FLOW PROCESS FROM NODE     134.00 TO NODE     134.00 IS CODE =   6
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===========================================================================


***************************************************************************
  FLOW PROCESS FROM NODE   13500.00 TO NODE     134.00 IS CODE =   1
---------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===========================================================================
  WATERSHED AREA =    3859.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    2.991 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.567; LOW LOSS FRACTION = 0.908
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
    3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


***************************************************************************
  FLOW PROCESS FROM NODE     134.00 TO NODE     134.00 IS CODE =   7
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===========================================================================


***************************************************************************
  FLOW PROCESS FROM NODE     134.00 TO NODE     134.00 IS CODE =   6
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
```

```
===========================================================================


***************************************************************************
  FLOW PROCESS FROM NODE     134.00 TO NODE     137.00 IS CODE = 5.2
---------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01    CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     170.00; DOWNSTREAM ELEVATION(FT) =    135.00
  CHANNEL LENGTH(FT) =    6064.09     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
===========================================================================


***************************************************************************
  FLOW PROCESS FROM NODE     134.00 TO NODE     137.00 IS CODE =   1
---------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===========================================================================
  WATERSHED AREA =    1240.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.539 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.474; LOW LOSS FRACTION = 0.780
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
    3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


***************************************************************************
  FLOW PROCESS FROM NODE     137.00 TO NODE     137.00 IS CODE =   7
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===========================================================================


***************************************************************************
  FLOW PROCESS FROM NODE     137.00 TO NODE     137.00 IS CODE =   6
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===========================================================================


***************************************************************************
  FLOW PROCESS FROM NODE     137.00 TO NODE     138.00 IS CODE = 5.2
---------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
```

```
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =    0.01     CHANNEL Z = 3.00
 UPSTREAM ELEVATION(FT) =      135.00; DOWNSTREAM ELEVATION(FT) =     119.70
 CHANNEL LENGTH(FT) =   4643.67     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
================================================================================


**********************************************************************
 FLOW PROCESS FROM NODE    137.00 TO NODE    138.00 IS CODE =   1
--------------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
 WATERSHED AREA =    1303.500 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.924 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.534; LOW LOSS FRACTION = 0.861
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE = 0.13; 30-MINUTE = 0.28; 1-HOUR = 0.37
  3-HOUR = 0.62;    6-HOUR = 0.85; 24-HOUR = 1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
  3-HOUR = 0.734;     6-HOUR = 0.885; 24-HOUR = 0.932


**********************************************************************
 FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =   7
--------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


**********************************************************************
 FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =   6
--------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


**********************************************************************
 FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =  11
--------------------------------------------------------------------------------
 >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
================================================================================
================================================================================
```

```
 +----------------------------------------------------------------------
--------------------------------------+
 |                           * AES FLOODSCx PROGRAM RESULTS SUMMARY *
 |
 |INPUT FILENAME: [EV02138F.DAT   ]
Page:  1 of    |
 +------------------+----------------------------+--------------------+-
----------+------------+----------+
 |UPSTREAM  DOWNSTREAM|                           | UPSTREAM  DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|             |
 | NODE #     NODE # | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +------------------+----------------------------+--------------------+-
----------+------------+----------+
 | 10100.00    119.00| Subarea (UH) Added to Stream #1|    0.0      502.9|
20.417 |            |           |
 |  119.00   12603.00| Convex Routing:       Stream #1|  502.9      501.7|
20.500 |            |           |
 |  810.00    809.00| Subarea (UH) Added to Stream #2|    0.0       14.9|
16.250 |            |           |
 | 12603.00  12603.00| Stream #2 Added to:   Stream #1|  501.7      503.8|
20.500 |            |           |
 | 12603.00  12603.00| Zero Out:             Stream #2|   14.9        0.0|
 |            |           |
 +------------------+----------------------------+--------------------+-
----------+------------+----------+
 | 12603.00    126.00| Convex Routing:       Stream #1|  503.8      503.0|
20.583 |            |           |
 |  920.00    905.00| Subarea (UH) Added to Stream #2|    0.0       16.7|
16.333 |            |           |
 |  126.00    126.00| Stream #2 Added to:   Stream #1|  503.0      505.7|
20.583 |            |           |
 |  126.00    126.00| Zero Out:             Stream #2|   16.7        0.0|
 |            |           |
 |  600.00    126.00| Subarea (UH) Added to Stream #2|    0.0        1.4|
16.500 |            |           |
 +------------------+----------------------------+--------------------+-
----------+------------+----------+
 |  126.00    126.00| Stream #2 Added to:   Stream #1|  505.7      505.9|
20.583 |            |           |
 |  126.00    126.00| Zero Out:             Stream #2|    1.4        0.0|
 |            |           |
 |  126.00   12720.50| Convex Routing:       Stream #1|  505.9      505.3|
20.750 |            |           |
 |  320.00    331.00| Subarea (UH) Added to Stream #2|    0.0       85.0|
16.417 |            |           |
 |  400.00    331.00| Subarea (UH) Added to Stream #3|    0.0       47.7|
16.333 |            |           |
 +------------------+----------------------------+--------------------+-
----------+------------+----------+
 |  390.00    331.00| Subarea (UH) Added to Stream #4|    0.0        1.5|
16.667 |            |           |
 |  331.00    331.00| Stream #4 Added to:   Stream #2|   85.0       86.4|
16.417 |            |           |
 |  331.00    331.00| Zero Out:             Stream #4|    1.5        0.0|
 |            |           |
 |  331.00    331.00| Stream #3 Added to:   Stream #2|   86.4      133.7|
16.417 |            |           |
```

```
|   331.00     331.00| Zero Out:          Stream #3|    47.7      0.0|
|            |            |       |                  |
 +------------------+---------------------------+--------------------+-
-----------+------------+-----------+
|   331.00   12720.50| Stream #2 Added to:  Stream #1|   505.3    527.4|
20.750 |            |       |                  |
| 12720.50   12720.50| Zero Out:          Stream #2|   133.7      0.0|
|            |            |       |                  |
| 12720.50     127.00| Convex Routing:     Stream #1|   527.4    527.2|
20.833 |            |       |                  |
| 12710.00     127.00| Subarea (UH) Added to Stream #2|    0.0      3.1|
16.500 |            |       |                  |
|   127.00     127.00| Stream #2 Added to:  Stream #1|   527.2    527.8|
20.833 |            |       |                  |
 +------------------+---------------------------+--------------------+-
-----------+------------+-----------+
|   127.00     127.00| Zero Out:          Stream #2|    3.1      0.0|
|            |            |       |                  |
| 50150.00     127.00| Subarea (UH) Added to Stream #2|    0.0      7.1|
16.667 |            |       |                  |
|   127.00     127.00| Stream #2 Added to:  Stream #1|   527.8    529.2|
20.833 |            |       |                  |
|   127.00     127.00| Zero Out:          Stream #2|    7.1      0.0|
|            |            |       |                  |
|   127.00     129.00| Convex Routing:     Stream #1|   529.2    528.9|
21.000 |            |       |                  |
 +------------------+---------------------------+--------------------+-
-----------+------------+-----------+
| 50300.00     129.00| Subarea (UH) Added to Stream #2|    0.0      6.6|
16.667 |            |       |                  |
|   129.00     129.00| Stream #2 Added to:  Stream #1|   528.9    530.2|
21.000 |            |       |                  |
|   129.00     129.00| Zero Out:          Stream #2|    6.6      0.0|
|            |            |       |                  |
|   210.00     221.00| Subarea (UH) Added to Stream #2|    0.0     22.7|
16.333 |            |       |                  |
|   222.00     129.00| Stream #2 Added to:  Stream #1|   530.2    533.7|
21.000 |            |       |                  |
 +------------------+---------------------------+--------------------+-
-----------+------------+-----------+
|   129.00     129.00| Zero Out:          Stream #2|   22.7      0.0|
|            |            |       |                  |
|   129.00     133.00| Convex Routing:     Stream #1|   533.7    533.5|
21.083 |            |       |                  |
| 13010.00     132.00| Subarea (UH) Added to Stream #2|    0.0    130.2|
17.333 |            |       |                  |
|   132.00   13305.00| Convex Routing:     Stream #2|   130.2    128.9|
17.917 |            |       |                  |
| 13305.00     133.00| Convex Routing:     Stream #2|   128.9    128.4|
18.250 |            |       |                  |
 +------------------+---------------------------+--------------------+-
-----------+------------+-----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                          |
|      3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                        |
 +---------------------------------------------------------------------
------------------------------------+
```

| UPSTREAM DOWNSTREAM | | | UPSTREAM DOWNSTREAM | TIME(2) TO | MAX. STORAGE |
NODE # NODE #	HYDROLOGIC/HYDRAULIC PROCESS	PEAK (CFS) PEAK (CFS)	PEAK (HR)	MODELED (AF)	FOOTNOTES
132.00 133.00	Subarea (UH) Added to Stream #3	0.0 68.9	17.000		
133.00 133.00	Stream #3 Added to: Stream #2	128.4 187.6	17.167		
133.00 133.00	Zero Out: Stream #3	68.9 0.0			
133.00 133.00	Stream #2 Added to: Stream #1	533.5 674.6	17.750		
133.00 133.00	Zero Out: Stream #2	187.6 0.0			
133.00 134.00	Convex Routing: Stream #1	674.6 674.0	18.000		
133.00 134.00	Subarea (UH) Added to Stream #2	0.0 58.0	16.500		
134.00 134.00	Stream #2 Added to: Stream #1	674.0 707.2	17.250		
134.00 134.00	Zero Out: Stream #2	58.0 0.0			
13500.00 134.00	Subarea (UH) Added to Stream #2	0.0 47.7	18.000		
134.00 134.00	Stream #2 Added to: Stream #1	707.2 753.1	18.000		
134.00 134.00	Zero Out: Stream #2	47.7 0.0			
134.00 137.00	Convex Routing: Stream #1	753.1 752.8	18.167		
134.00 137.00	Subarea (UH) Added to Stream #2	0.0 48.6	16.583		
137.00 137.00	Stream #2 Added to: Stream #1	752.8 786.9	17.500		
137.00 137.00	Zero Out: Stream #2	48.6 0.0			
137.00 138.00	Convex Routing: Stream #1	786.9 784.7	17.750		
137.00 138.00	Subarea (UH) Added to Stream #2	0.0 29.4	17.000		
138.00 138.00	Stream #2 Added to: Stream #1	784.7 810.4	17.750		
138.00 138.00	Zero Out: Stream #2	29.4 0.0			
138.00 138.00	View: Stream #1	810.4	17.750	915.54	3

```
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                                                  |
|       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                                                          |
+------------------------------------------------------------------------
------------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

```
     _____
     **********************************************************************

              F L O O D   R O U T I N G   A N A L Y S I S
                 USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                        Analysis prepared by:




      ************************* DESCRIPTION OF STUDY *************************
     * RMV PA-3 ROMP AMENDMENT 2022 - NODE 139                               *
     * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL           *
     * 2-YR EV AUG 2023 ROKAMOTO                                             *
      **********************************************************************

      FILE NAME: EV02139F.DAT
      TIME/DATE OF STUDY: 10:15 08/10/2023


                        ** INPUT SUMMARY **


     **********************************************************************
      FLOW PROCESS FROM NODE 10100.00 TO NODE   119.00 IS CODE =   1
     ----------------------------------------------------------------------
      >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
     ======================================================================
      WATERSHED AREA =  49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
      *USER ENTERED "LAG" TIME =    5.382 HOURS
      VALLEY(DEVELOPED) S-GRAPH SELECTED
      MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.595; LOW LOSS FRACTION = 0.931
      SPECIFIED PEAK RAINFALL DEPTHS(INCH):
      5-MINUTE = 0.16; 30-MINUTE =  0.30; 1-HOUR =  0.41
        3-HOUR =  0.77;    6-HOUR = 1.15; 24-HOUR = 2.03
      *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
      5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
        3-HOUR = 0.733;     6-HOUR = 0.885; 24-HOUR = 0.932


     **********************************************************************
      FLOW PROCESS FROM NODE   119.00 TO NODE  12603.00 IS CODE = 5.2
     ----------------------------------------------------------------------
      >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
     ======================================================================
      THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
      ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
      (Reference: the National Engineering Handbook, Hydrology,
      Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

      ASSUMED REGULAR CHANNEL INFORMATION:
      BASEWIDTH(FT) =    0.01    CHANNEL Z = 3.00
      UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
      CHANNEL LENGTH(FT) =    3157.79    MANNING'S FACTOR = 0.030
      CONSTANT LOSS RATE(CFS) =    0.00
     ======================================================================


     **********************************************************************
      FLOW PROCESS FROM NODE   810.00 TO NODE   809.00 IS CODE =   1
     ----------------------------------------------------------------------
      >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
     ======================================================================
      WATERSHED AREA =    171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
      *USER ENTERED "LAG" TIME =    0.220 HOURS
      VALLEY(DEVELOPED) S-GRAPH SELECTED
      MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.348; LOW LOSS FRACTION = 0.638
      SPECIFIED PEAK RAINFALL DEPTHS(INCH):
      5-MINUTE = 0.13; 30-MINUTE =  0.28; 1-HOUR =  0.37
        3-HOUR =  0.62;    6-HOUR = 0.85; 24-HOUR = 1.44
      *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
      5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
        3-HOUR = 0.733;     6-HOUR = 0.885; 24-HOUR = 0.932


     **********************************************************************
      FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
     ----------------------------------------------------------------------
      >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
     ======================================================================


     **********************************************************************
      FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
     ----------------------------------------------------------------------
      >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
     ======================================================================


     **********************************************************************
      FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
     ----------------------------------------------------------------------
      >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
     ======================================================================
      THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
      ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
      (Reference: the National Engineering Handbook, Hydrology,
      Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

      ASSUMED REGULAR CHANNEL INFORMATION:
      BASEWIDTH(FT) =    0.01    CHANNEL Z = 3.00
      UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =    286.00
      CHANNEL LENGTH(FT) =    3046.70    MANNING'S FACTOR = 0.030
      CONSTANT LOSS RATE(CFS) =    0.00
     ======================================================================


     **********************************************************************
      FLOW PROCESS FROM NODE   920.00 TO NODE   905.00 IS CODE =   1
     ----------------------------------------------------------------------
      >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
================================================================
  WATERSHED AREA =    553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.292 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.509; LOW LOSS FRACTION = 0.862
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


*****************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   7
----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================



*****************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   6
----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================



*****************************************************************
  FLOW PROCESS FROM NODE   600.00 TO NODE   126.00 IS CODE =   1
----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================
  WATERSHED AREA =    218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.430 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.580; LOW LOSS FRACTION = 0.966
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


*****************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   7
----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================



*****************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   6
----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================
```

```
*****************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   12720.50 IS CODE = 5.2
----------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =    258.00
  CHANNEL LENGTH(FT) =    4077.05     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
================================================================



*****************************************************************
  FLOW PROCESS FROM NODE   320.00 TO NODE   331.00 IS CODE =   1
----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================
  WATERSHED AREA =    712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.360 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.201; LOW LOSS FRACTION = 0.412
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


*****************************************************************
  FLOW PROCESS FROM NODE   400.00 TO NODE   331.00 IS CODE =   1
----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
================================================================
  WATERSHED AREA =    462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.315 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.270; LOW LOSS FRACTION = 0.508
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


*****************************************************************
  FLOW PROCESS FROM NODE   390.00 TO NODE   331.00 IS CODE =   1
----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
================================================================
  WATERSHED AREA =    117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.578 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.566; LOW LOSS FRACTION = 0.925
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
  3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
  3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


**************************************************************************
  FLOW PROCESS FROM NODE   331.00 TO NODE    331.00 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE   331.00 TO NODE    331.00 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE   331.00 TO NODE    331.00 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE   331.00 TO NODE    331.00 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE   331.00 TO NODE  12720.50 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE   127.00 IS CODE = 5.2
--------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
```

```
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =    0.01    CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
 CHANNEL LENGTH(FT) =    3114.00     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
 WATERSHED AREA =      711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.472 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.586; LOW LOSS FRACTION = 0.976
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
  3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
  3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


**************************************************************************
  FLOW PROCESS FROM NODE   127.00 TO NODE    127.00 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE   127.00 TO NODE    127.00 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
 WATERSHED AREA =     1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.589 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.589; LOW LOSS FRACTION = 0.962
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
  3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
```

```
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
========================================================================


****************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
========================================================================


****************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01    CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
  CHANNEL LENGTH(FT) =    4905.42     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
========================================================================


****************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
========================================================================
  WATERSHED AREA =     634.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.622 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.564; LOW LOSS FRACTION = 0.940
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
    3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   7
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
========================================================================
```

```
****************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
========================================================================


****************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
========================================================================
  WATERSHED AREA =     213.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.309 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.256; LOW LOSS FRACTION = 0.498
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
    3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************
  FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =   7
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
========================================================================


****************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
========================================================================


****************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01    CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    1389.52     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
========================================================================


****************************************************************
```

```
 FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
------------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================================
 WATERSHED AREA =    4924.400 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    1.262 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.487; LOW LOSS FRACTION = 0.830
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


*******************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
------------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
==============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =     315.00
 CHANNEL LENGTH(FT) =   9760.05     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
==============================================================================


*******************************************************************************
 FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
------------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
==============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =     212.00
 CHANNEL LENGTH(FT) =   6877.24     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
==============================================================================


*******************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
------------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
==============================================================================
 WATERSHED AREA =    1713.900 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.948 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.449; LOW LOSS FRACTION = 0.752
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


*******************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
==============================================================================


*******************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
==============================================================================


*******************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==============================================================================


*******************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==============================================================================


*******************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
------------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =     170.00
 CHANNEL LENGTH(FT) =   6461.31     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
==============================================================================


*******************************************************************************
```

```
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
  WATERSHED AREA =    1705.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.448 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.490; LOW LOSS FRACTION = 0.819
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932

*******************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE  13500.00 TO NODE    134.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
  WATERSHED AREA =    3859.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    2.991 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.567; LOW LOSS FRACTION = 0.908
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932

*******************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
```

```
===============================================================================

*******************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE = 5.2
-------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     170.00; DOWNSTREAM ELEVATION(FT) =     135.00
  CHANNEL LENGTH(FT) =    6064.09     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
  WATERSHED AREA =    1240.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.539 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.474; LOW LOSS FRACTION = 0.780
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
   3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932

*******************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    138.00 IS CODE = 5.2
-------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
```

```
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) =    0.01    CHANNEL Z =  3.00
UPSTREAM ELEVATION(FT) =     135.00; DOWNSTREAM ELEVATION(FT) =     119.70
CHANNEL LENGTH(FT) =   4643.67    MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) =    0.00
=======================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    138.00 IS CODE =   1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=======================================================================
  WATERSHED AREA =    1303.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.924 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.534; LOW LOSS FRACTION = 0.861
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
    3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


*************************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =   7
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=======================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =   6
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=======================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    139.00 IS CODE = 5.2
-------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01    CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     119.70; DOWNSTREAM ELEVATION(FT) =     100.00
  CHANNEL LENGTH(FT) =   3107.78    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
```

```
=======================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    139.00 IS CODE =   1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=======================================================================
  WATERSHED AREA =     428.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.289 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.413; LOW LOSS FRACTION = 0.670
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.13; 30-MINUTE =  0.28;  1-HOUR =  0.37
    3-HOUR =  0.62;    6-HOUR =  0.85; 24-HOUR =  1.44
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


*************************************************************************
  FLOW PROCESS FROM NODE    139.00 TO NODE    139.00 IS CODE =   7
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=======================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    139.00 TO NODE    139.00 IS CODE =   6
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=======================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    139.00 TO NODE    139.00 IS CODE =  11
-------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
=======================================================================
=======================================================================
```

INPUT FILENAME: [EV02139F.DAT   ]   Page: 1 of

UPSTREAM NODE #	DOWNSTREAM NODE #	HYDROLOGIC/HYDRAULIC PROCESS	UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)	TIME(2) TO PEAK (HR)	MAX. STORAGE MODELED (AF)	FOOTNOTES
10100.00	119.00	Subarea (UH) Added to Stream #1	0.0	502.7	20.417		
119.00	12603.00	Convex Routing: Stream #1	502.7	501.5	20.500		
810.00	809.00	Subarea (UH) Added to Stream #2	0.0	14.9	16.250		
12603.00	12603.00	Stream #2 Added to: Stream #1	501.5	503.6	20.500		
12603.00	12603.00	Zero Out: Stream #2	14.9	0.0			
12603.00	126.00	Convex Routing: Stream #1	503.6	502.8	20.583		
920.00	905.00	Subarea (UH) Added to Stream #2	0.0	16.6	16.333		
126.00	126.00	Stream #2 Added to: Stream #1	502.8	505.4	20.583		
126.00	126.00	Zero Out: Stream #2	16.6	0.0			
600.00	126.00	Subarea (UH) Added to Stream #2	0.0	1.4	16.500		
126.00	126.00	Stream #2 Added to: Stream #1	505.4	505.7	20.583		
126.00	126.00	Zero Out: Stream #2	1.4	0.0			
126.00	12720.50	Convex Routing: Stream #1	505.7	505.1	20.750		
320.00	331.00	Subarea (UH) Added to Stream #2	0.0	84.8	16.417		
400.00	331.00	Subarea (UH) Added to Stream #3	0.0	47.6	16.333		
390.00	331.00	Subarea (UH) Added to Stream #4	0.0	1.5	16.667		
331.00	331.00	Stream #4 Added to: Stream #2	84.8	86.2	16.417		
331.00	331.00	Zero Out: Stream #4	1.5	0.0			
331.00	331.00	Stream #3 Added to: Stream #2	86.2	133.4	16.417		
331.00	331.00	Zero Out: Stream #3	47.6	0.0			
331.00	12720.50	Stream #2 Added to: Stream #1	505.1	527.2	20.750		
12720.50	12720.50	Zero Out: Stream #2	133.4	0.0			
12720.50	127.00	Convex Routing: Stream #1	527.2	527.0	20.833		
12710.00	127.00	Subarea (UH) Added to Stream #2	0.0	3.1	16.500		
127.00	127.00	Stream #2 Added to: Stream #1	527.0	527.6	20.833		
127.00	127.00	Zero Out: Stream #2	3.1	0.0			
50150.00	127.00	Subarea (UH) Added to Stream #2	0.0	7.1	16.667		
127.00	127.00	Stream #2 Added to: Stream #1	527.6	529.0	20.833		
127.00	127.00	Zero Out: Stream #2	7.1	0.0			
127.00	129.00	Convex Routing: Stream #1	529.0	528.7	21.000		
50300.00	129.00	Subarea (UH) Added to Stream #2	0.0	6.6	16.667		
129.00	129.00	Stream #2 Added to: Stream #1	528.7	530.0	21.000		
129.00	129.00	Zero Out: Stream #2	6.6	0.0			
210.00	221.00	Subarea (UH) Added to Stream #2	0.0	22.7	16.333		
222.00	129.00	Stream #2 Added to: Stream #1	530.0	533.5	21.000		
129.00	129.00	Zero Out: Stream #2	22.7	0.0			
129.00	133.00	Convex Routing: Stream #1	533.5	533.3	21.083		
13010.00	132.00	Subarea (UH) Added to Stream #2	0.0	130.0	17.333		
132.00	13305.00	Convex Routing: Stream #2	130.0	128.7	17.917		
13305.00	133.00	Convex Routing: Stream #2	128.7	128.2	18.250		

Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL
3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

```
+----------------------------------------------------------------------------------------------------------+
|                                      * AES FLOODSCx PROGRAM RESULTS SUMMARY *                             |
|INPUT FILENAME: [EV02139F.DAT   ]                                                                          |
Page:  2 of   |
+-------------------+----------------------------+---------------------+------------+-----------+
|UPSTREAM  DOWNSTREAM|                           | UPSTREAM   DOWNSTREAM| TIME(2) TO | MAX. STORAGE|
| NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)| PEAK (HR) | MODELED (AF)| FOOTNOTES |
+-------------------+----------------------------+---------------------+------------+-----------+
|   132.00     133.00| Subarea (UH) Added to Stream #3|    0.0       68.8| 17.000 |
|   133.00     133.00| Stream #3 Added to:   Stream #2|  128.2      187.4| 17.167 |
|   133.00     133.00| Zero Out:             Stream #3|   68.8        0.0|
|   133.00     133.00| Stream #2 Added to:   Stream #1|  533.3      674.3| 17.750 |
|   133.00     133.00| Zero Out:             Stream #2|  187.4        0.0|
+-------------------+----------------------------+---------------------+------------+-----------+
|   133.00     134.00| Convex Routing:       Stream #1|  674.3      673.7| 18.000 |
|   133.00     134.00| Subarea (UH) Added to Stream #2|    0.0       57.9| 16.500 |
|   134.00     134.00| Stream #2 Added to:   Stream #1|  673.7      706.7| 17.250 |
|   134.00     134.00| Zero Out:             Stream #2|   57.9        0.0|
| 13500.00     134.00| Subarea (UH) Added to Stream #2|    0.0       47.7| 18.000 |
+-------------------+----------------------------+---------------------+------------+-----------+
|   134.00     134.00| Stream #2 Added to:   Stream #1|  706.7      752.9| 18.000 |
|   134.00     134.00| Zero Out:             Stream #2|   47.7        0.0|
|   134.00     137.00| Convex Routing:       Stream #1|  752.9      752.6| 18.167 |
|   134.00     137.00| Subarea (UH) Added to Stream #2|    0.0       48.5| 16.583 |
|   137.00     137.00| Stream #2 Added to:   Stream #1|  752.6      786.4| 17.500 |
+-------------------+----------------------------+---------------------+------------+-----------+
|   137.00     137.00| Zero Out:             Stream #2|   48.5        0.0|
|   137.00     138.00| Convex Routing:       Stream #1|  786.4      784.2| 17.750 |
|   137.00     138.00| Subarea (UH) Added to Stream #2|    0.0       29.4| 17.000 |
|   138.00     138.00| Stream #2 Added to:   Stream #1|  784.2      809.9| 17.750 |
```

```
|   138.00     138.00| Zero Out:               Stream #2|     29.4          0.0|
|               |          |
  +------------------+------------------------------+--------------------+-
----------+------------+----------+
|   138.00     139.00| Convex Routing:         Stream #1|    809.9        809.0|
17.833 |           |          |
|   138.00     139.00| Subarea (UH) Added to Stream #2|      0.0         30.9|
16.333 |           |          |
|   139.00     139.00| Stream #2 Added to:     Stream #1|    809.0        823.2|
17.833 |           |          |
|   139.00     139.00| Zero Out:               Stream #2|     30.9          0.0|
|               |          |
|   139.00     139.00| View:                   Stream #1|                 823.2|
17.833 |      931.14|    3     |
  +------------------+------------------------------+--------------------+-
----------+------------+----------+
  +------------------+------------------------------+--------------------+-
----------+------------+----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                        |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                  |
  +----------------------------------------------------------------------------
-------------------------------------+
```

   END OF FLOODSCx ROUTING ANALYSIS

```
    _____
****************************************************************************

        F L O O D   R O U T I N G   A N A L Y S I S
          USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                  Analysis prepared by:




 *************************** DESCRIPTION OF STUDY ***************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 133C                                 *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL              *
 * 25-YR EV MAY 2023 ROKAMOTO                                               *
 ***************************************************************************

 FILE NAME: EV2533CF.DAT
 TIME/DATE OF STUDY: 06:18 05/14/2023


                      ** INPUT SUMMARY **


****************************************************************************
 FLOW PROCESS FROM NODE  10100.00 TO NODE    119.00 IS CODE =   1
-----------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
=============================================================================
 WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    2.119 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.433
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.42; 30-MINUTE =  0.78; 1-HOUR =  1.08
   3-HOUR =  2.02;    6-HOUR =  3.00; 24-HOUR =  5.30
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
   3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


****************************************************************************
 FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
-----------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
 UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
 CHANNEL LENGTH(FT) =    3157.79     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =     0.00
=============================================================================


****************************************************************************
 FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
-----------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=============================================================================
 WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.187 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.412
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72; 1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
   3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


****************************************************************************
 FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
-----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=============================================================================


****************************************************************************
 FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
-----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=============================================================================


****************************************************************************
 FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
-----------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
 UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =    286.00
 CHANNEL LENGTH(FT) =    3046.70     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =     0.00
=============================================================================


****************************************************************************
 FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
-----------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
===================================================================
 WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.222 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.254; LOW LOSS FRACTION = 0.488
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
  3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
  3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


******************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
 ------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ==================================================================



******************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
 ------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ==================================================================



******************************************************************
 FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
 ------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ==================================================================
 WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.301 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.759
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
  3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
  3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


******************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
 ------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ==================================================================



******************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
 ------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ==================================================================
```

```
******************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
 ------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ==================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
 CHANNEL LENGTH(FT) =    4077.05     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =     0.00
 ==================================================================




******************************************************************
 FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =    1
 ------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ==================================================================
 WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.294 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.100; LOW LOSS FRACTION = 0.268
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
  3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
  3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


******************************************************************
 FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =    1
 ------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
 ==================================================================
 WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.249 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.135; LOW LOSS FRACTION = 0.346
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
  3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
  3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


******************************************************************
 FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =    1
 ------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
 ==================================================================
 WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.373 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.283; LOW LOSS FRACTION = 0.507
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
  3-HOUR =  1.59;   6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
  3-HOUR = 0.754;   6-HOUR = 0.891; 24-HOUR = 0.936


**************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
==========================================================================

**************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
==========================================================================

**************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
==========================================================================

**************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
==========================================================================

**************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================

**************************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================

**************************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
--------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
```

```
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
   UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
   CHANNEL LENGTH(FT) =    3114.00     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =     0.00
==========================================================================

**************************************************************************
   FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
   WATERSHED AREA =    711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.419 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.293; LOW LOSS FRACTION = 0.655
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
    3-HOUR =  1.59;   6-HOUR =  2.20; 24-HOUR =  3.68
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;   6-HOUR = 0.891; 24-HOUR = 0.936


**************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================

**************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================

**************************************************************************
   FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
   WATERSHED AREA =   1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.369 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.295; LOW LOSS FRACTION = 0.551
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
    3-HOUR =  1.59;   6-HOUR =  2.20; 24-HOUR =  3.68
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
```

```
      3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


*******************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
-------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00    CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =    240.00; DOWNSTREAM ELEVATION(FT) =    213.00
  CHANNEL LENGTH(FT) =   4905.42    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =   0.00
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
  WATERSHED AREA =     634.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.386 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.282; LOW LOSS FRACTION = 0.628
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
    3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


*******************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================
```

```
*******************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
  WATERSHED AREA =     213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.257 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.128; LOW LOSS FRACTION = 0.356
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
    3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


*******************************************************************************
  FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =   7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
-------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00    CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =    213.00; DOWNSTREAM ELEVATION(FT) =    212.00
  CHANNEL LENGTH(FT) =   1389.52    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =   0.00
===============================================================================


*******************************************************************************
```

```
  FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =    1
----------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
 WATERSHED AREA =    4924.400 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.856 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.244; LOW LOSS FRACTION = 0.567
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72; 1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
   3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
----------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00      CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =     315.00
 CHANNEL LENGTH(FT) =   9760.05      MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
============================================================================



****************************************************************************
  FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00      CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =     212.00
 CHANNEL LENGTH(FT) =   6877.24      MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
============================================================================



****************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =    1
----------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
============================================================================
 WATERSHED AREA =    1713.900 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.589 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.409
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72; 1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
   3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936



****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =    7
----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================



****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =    6
----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================



****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =    7
----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================



****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =    6
----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================



****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   11
----------------------------------------------------------------------------
 >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
============================================================================
============================================================================
```

| |INPUT FILENAME: [EV2533CF.DAT   ] |
| Page: 1 of |

UPSTREAM NODE #	DOWNSTREAM NODE #	HYDROLOGIC/HYDRAULIC PROCESS	UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)	TIME(2) TO PEAK (HR)	MAX. STORAGE MODELED (AF)	FOOTNOTES
10100.00	119.00	Subarea (UH) Added to Stream #1	0.0	14188.3	18.167		
119.00	12603.00	Convex Routing: Stream #1	14188.3	14112.2	18.083		
810.00	809.00	Subarea (UH) Added to Stream #2	0.0	93.4	16.250		
12603.00	12603.00	Stream #2 Added to: Stream #1	14112.2	14136.0	18.083		
12603.00	12603.00	Zero Out: Stream #2	93.4	0.0			
12603.00	126.00	Convex Routing: Stream #1	14136.0	14114.3	18.250		
920.00	905.00	Subarea (UH) Added to Stream #2	0.0	236.9	16.250		
126.00	126.00	Stream #2 Added to: Stream #1	14114.3	14176.2	18.167		
126.00	126.00	Zero Out: Stream #2	236.9	0.0			
600.00	126.00	Subarea (UH) Added to Stream #2	0.0	67.3	16.333		
126.00	126.00	Stream #2 Added to: Stream #1	14176.2	14188.5	18.167		
126.00	126.00	Zero Out: Stream #2	67.3	0.0			
126.00	12720.50	Convex Routing: Stream #1	14188.5	14174.5	18.333		
320.00	331.00	Subarea (UH) Added to Stream #2	0.0	349.7	16.333		
400.00	331.00	Subarea (UH) Added to Stream #3	0.0	231.7	16.333		
390.00	331.00	Subarea (UH) Added to Stream #4	0.0	38.5	16.417		
331.00	331.00	Stream #4 Added to: Stream #2	349.7	384.7	16.333		
331.00	331.00	Zero Out: Stream #4	38.5	0.0			
331.00	331.00	Stream #3 Added to: Stream #2	384.7	616.4	16.333		
331.00	331.00	Zero Out: Stream #3	231.7	0.0			
331.00	12720.50	Stream #2 Added to: Stream #1	14174.5	14335.6	18.333		
12720.50	12720.50	Zero Out: Stream #2	616.4	0.0			
12720.50	127.00	Convex Routing: Stream #1	14335.6	14317.4	18.417		
12710.00	127.00	Subarea (UH) Added to Stream #2	0.0	195.5	16.500		
127.00	127.00	Stream #2 Added to: Stream #1	14317.4	14365.9	18.417		
127.00	127.00	Zero Out: Stream #2	195.5	0.0			
50150.00	127.00	Subarea (UH) Added to Stream #2	0.0	334.6	16.417		
127.00	127.00	Stream #2 Added to: Stream #1	14365.9	14501.8	17.333		
127.00	127.00	Zero Out: Stream #2	334.6	0.0			
127.00	129.00	Convex Routing: Stream #1	14501.8	14483.5	17.500		
50300.00	129.00	Subarea (UH) Added to Stream #2	0.0	184.6	16.417		
129.00	129.00	Stream #2 Added to: Stream #1	14483.5	14559.4	17.500		
129.00	129.00	Zero Out: Stream #2	184.6	0.0			
210.00	221.00	Subarea (UH) Added to Stream #2	0.0	106.5	16.333		
222.00	129.00	Stream #2 Added to: Stream #1	14559.4	14599.0	17.500		
129.00	129.00	Zero Out: Stream #2	106.5	0.0			
129.00	133.00	Convex Routing: Stream #1	14599.0	14591.5	17.583		
13010.00	132.00	Subarea (UH) Added to Stream #2	0.0	1157.4	16.917		
132.00	13305.00	Convex Routing: Stream #2	1157.4	1116.7	17.417		
13305.00	133.00	Convex Routing: Stream #2	1116.7	1106.0	17.667		

|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL |
| 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM |

```
+------------------+-----------------------------+--------------------+-
----------+------------+-----------+
|UPSTREAM  DOWNSTREAM|                           | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|           |
| NODE #     NODE # | HYDROLOGIC/HYDRAULIC PROCESS  |PEAK (CFS)   PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
+------------------+-----------------------------+--------------------+-
----------+------------+-----------+
|  132.00     133.00| Subarea (UH) Added to Stream #3|      0.0       533.2|
16.667 |           |           |
|  133.00     133.00| Stream #3 Added to:   Stream #2|   1106.0      1462.4|
17.500 |           |           |
|  133.00     133.00| Zero Out:             Stream #3|    533.2        0.0|
|           |           |
|  133.00     133.00| Stream #2 Added to:   Stream #1|  14591.5     16052.5|
17.583 |           |           |
|  133.00     133.00| Zero Out:             Stream #2|   1462.4        0.0|
|           |           |
+------------------+-----------------------------+--------------------+-
----------+------------+-----------+
|  133.00     133.00| View:                 Stream #1|              16052.5|
17.583 |    13338.17|     3     |
+------------------+-----------------------------+--------------------+-
----------+------------+-----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                    |
|       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                            |
+-----------------------------------------------------------------------------
--------------------------------------+
```

   END OF FLOODSCx ROUTING ANALYSIS

```
 _____
 ***********************************************************************

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        Ver. 20.0  Release Date: 06/01/2013  License ID 1237

              Analysis prepared by:




 *************************** DESCRIPTION OF STUDY **************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 133T                               *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL            *
 * 25-YR EV OCT 2022 ROKAMOTO                                             *
 *************************************************************************

  FILE NAME: EV2533TF.DAT
  TIME/DATE OF STUDY: 14:04 10/26/2022

                         ** INPUT SUMMARY **


 ***********************************************************************
   FLOW PROCESS FROM NODE 13010.00 TO NODE    132.00 IS CODE =   1
 -----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 =======================================================================
  WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.856 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.244; LOW LOSS FRACTION = 0.567
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
    3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.744; 30-MINUTE = 0.744;  1-HOUR = 0.744
    3-HOUR = 0.959;    6-HOUR = 0.978; 24-HOUR = 0.987



 ***********************************************************************
   FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
 -----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
 =======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  50.00    CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =    315.00
```

```
  CHANNEL LENGTH(FT) =   9760.05    MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
 =======================================================================



 ***********************************************************************
   FLOW PROCESS FROM NODE 13305.00 TO NODE    133.00 IS CODE = 5.2
 -----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
 =======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  50.00    CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =    212.00
  CHANNEL LENGTH(FT) =   6877.24    MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
 =======================================================================



 ***********************************************************************
   FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
 -----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
 =======================================================================
  WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.589 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.409
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
    3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.744; 30-MINUTE = 0.744;  1-HOUR = 0.744
    3-HOUR = 0.959;    6-HOUR = 0.978; 24-HOUR = 0.987



 ***********************************************************************
   FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
 -----------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
 =======================================================================



 ***********************************************************************
   FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
 -----------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
 =======================================================================



 ***********************************************************************
   FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
 -----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
```

```
================================================================
****************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =    6
----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================


****************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   11
----------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
================================================================
================================================================
```

```
+----------------------------------------------------------------
------------------------------------+
|                         * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
|INPUT FILENAME: [EV2533TF.DAT   ]
Page:  1 of    |
+-------------------+-----------------------------+-------------------+-
----------+-----------+-----------+
|UPSTREAM  DOWNSTREAM|                             | UPSTREAM  DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|            |
| NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)   PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES  |
+-------------------+-----------------------------+-------------------+-
----------+-----------+-----------+
| 13010.00     132.00| Subarea (UH) Added to Stream #2|      0.0      2536.8|
16.917 |            |            |
|   132.00   13305.00| Convex Routing:      Stream #2|   2536.8      2443.8|
17.167 |            |            |
| 13305.00     133.00| Convex Routing:      Stream #2|   2443.8      2399.9|
17.417 |            |            |
|   132.00     133.00| Subarea (UH) Added to Stream #3|      0.0      1156.9|
16.667 |            |            |
|   133.00     133.00| Stream #3 Added to:  Stream #2|   2399.9      2847.6|
17.333 |            |            |
+-------------------+-----------------------------+-------------------+-
----------+-----------+-----------+
|   133.00     133.00| Zero Out:            Stream #3|   1156.9         0.0|
|            |            |
|   133.00     133.00| Stream #2 Added to:  Stream #1|      0.0      2847.6|
17.333 |            |            |
|   133.00     133.00| Zero Out:            Stream #2|   2847.6         0.0|
|            |            |
|   133.00     133.00| View:                Stream #1|              2847.6|
17.333 |    1045.15|     3      |
+-------------------+-----------------------------+-------------------+-
----------+-----------+-----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                               |
|       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                       |
+----------------------------------------------------------------
------------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

```
_____
***********************************************************************

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                 Analysis prepared by:




 *************************** DESCRIPTION OF STUDY ***************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 133U                                *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL             *
 * 25-YR EV MAY 2023 ROKAMOTO                                              *
 *************************************************************************


  FILE NAME: EV2533UF.DAT
  TIME/DATE OF STUDY: 06:18 05/14/2023


                      ** INPUT SUMMARY **


***********************************************************************
  FLOW PROCESS FROM NODE 10100.00 TO NODE    119.00 IS CODE =   1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
=======================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    2.119 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.433
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.42; 30-MINUTE =  0.78; 1-HOUR =  1.08
   3-HOUR =  2.02;    6-HOUR =  3.00; 24-HOUR =  5.30
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
   3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


***********************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
-----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
=======================================================================



***********************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=======================================================================
  WATERSHED AREA =    171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.187 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.412
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72; 1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
   3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940



***********************************************************************
  FLOW PROCESS FROM NODE    809.00 TO NODE  12603.00 IS CODE = 3.1
-----------------------------------------------------------------------
  >>>>>FLOW-THROUGH DETENTION BASIN ROUTING MODEL APPLIED TO STREAM #2<<<<<
=======================================================================
  ROUTE RUNOFF HYDROGRAPH FROM STREAM NUMBER 2
  THROUGH A FLOW-THROUGH DETENTION BASIN.
  SPECIFIED BASIN CONDITIONS ARE AS FOLLOWS:
  DEAD STORAGE(AF) =       0.000
  SPECIFIED DEAD STORAGE(AF) FILLED =        0.000
  SPECIFIED EFFECTIVE VOLUME(AF) FILLED ABOVE OUTLET =       0.000
  DETENTION BASIN CONSTANT LOSS RATE(CFS) =     0.00

  BASIN DEPTH VERSUS OUTFLOW AND STORAGE INFORMATION:

       INTERVAL    DEPTH     OUTFLOW     STORAGE
       NUMBER      (FT)      (CFS)        (AF)
          1        0.00       0.00       0.000
          2        1.00       0.80       1.520
          3        2.00       1.30       3.150
          4        3.00       1.60       4.900
          5        4.00       1.80       6.790
          6        5.00       2.10       8.810
          7        6.00       2.30      10.970
          8        7.00      47.90      13.270
          9        8.00     131.60      15.720
         10        9.00     241.70      18.320
         11       10.00     372.80      21.060
=======================================================================



***********************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=======================================================================
```

```
**************************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
--------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
--------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
   UPSTREAM ELEVATION(FT) =      312.40; DOWNSTREAM ELEVATION(FT) =      286.00
   CHANNEL LENGTH(FT) =    3046.70     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


**************************************************************************
   FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
--------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
   WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.222 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.254; LOW LOSS FRACTION = 0.488
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
    3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


**************************************************************************
   FLOW PROCESS FROM NODE    905.00 TO NODE    126.00 IS CODE = 3.1
--------------------------------------------------------------------------
   >>>>>FLOW-THROUGH DETENTION BASIN ROUTING MODEL APPLIED TO STREAM #2<<<<<
==========================================================================
   ROUTE RUNOFF HYDROGRAPH FROM STREAM NUMBER 2
   THROUGH A FLOW-THROUGH DETENTION BASIN.
   SPECIFIED BASIN CONDITIONS ARE AS FOLLOWS:
   DEAD STORAGE(AF) =     0.000
   SPECIFIED DEAD STORAGE(AF) FILLED =     0.000
   SPECIFIED EFFECTIVE VOLUME(AF) FILLED ABOVE OUTLET =     0.000
   DETENTION BASIN CONSTANT LOSS RATE(CFS) =    0.00

   BASIN DEPTH VERSUS OUTFLOW AND STORAGE INFORMATION:
```

```
   INTERVAL     DEPTH      OUTFLOW      STORAGE
   NUMBER       (FT)       (CFS)         (AF)
      1         0.00        0.00        0.000
      2         1.00        0.80        2.460
      3         2.00        1.30        5.020
      4         3.00        1.60        7.690
      5         4.00       17.00       10.460
      6         5.00       23.40       13.330
      7         6.00       28.50       16.310
      8         7.00      230.70       19.400
      9         8.00      625.80       22.600
     10         9.00     1142.40       25.910
     11        10.00     1723.00       29.340
==========================================================================


**************************************************************************
   FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
--------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


**************************************************************************
   FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
--------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
   FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =   1
--------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
   WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.301 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.759
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
    3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


**************************************************************************
   FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
--------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


**************************************************************************
   FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
--------------------------------------------------------------------------
```

```
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**********************************************************************
   FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
--------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
   UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
   CHANNEL LENGTH(FT) =   4077.05     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


**********************************************************************
   FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =    1
--------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
   WATERSHED AREA =     712.600 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.294 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.100; LOW LOSS FRACTION = 0.268
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE = 0.34; 30-MINUTE = 0.72; 1-HOUR = 0.95
    3-HOUR = 1.59;    6-HOUR = 2.20; 24-HOUR = 3.68
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


**********************************************************************
   FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =    1
--------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
==========================================================================
   WATERSHED AREA =     462.500 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.249 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.135; LOW LOSS FRACTION = 0.346
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE = 0.34; 30-MINUTE = 0.72; 1-HOUR = 0.95
    3-HOUR = 1.59;    6-HOUR = 2.20; 24-HOUR = 3.68
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


**********************************************************************
   FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =    1
```

```
--------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
==========================================================================
   WATERSHED AREA =     117.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.373 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.283; LOW LOSS FRACTION = 0.507
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE = 0.34; 30-MINUTE = 0.72; 1-HOUR = 0.95
    3-HOUR = 1.59;    6-HOUR = 2.20; 24-HOUR = 3.68
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


**********************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =    7
--------------------------------------------------------------------------
   >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
==========================================================================


**********************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =    6
--------------------------------------------------------------------------
   >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**********************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =    7
--------------------------------------------------------------------------
   >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
==========================================================================


**********************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =    6
--------------------------------------------------------------------------
   >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**********************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE = 3.1
--------------------------------------------------------------------------
   >>>>>FLOW-THROUGH DETENTION BASIN ROUTING MODEL APPLIED TO STREAM #2<<<<<
==========================================================================
   ROUTE RUNOFF HYDROGRAPH FROM STREAM NUMBER 2
   THROUGH A FLOW-THROUGH DETENTION BASIN.
   SPECIFIED BASIN CONDITIONS ARE AS FOLLOWS:
   DEAD STORAGE(AF) =       0.000
   SPECIFIED DEAD STORAGE(AF) FILLED =      0.000
   SPECIFIED EFFECTIVE VOLUME(AF) FILLED ABOVE OUTLET =      0.000
   DETENTION BASIN CONSTANT LOSS RATE(CFS) =    0.00

   BASIN DEPTH VERSUS OUTFLOW AND STORAGE INFORMATION:
```

```
        INTERVAL    DEPTH    OUTFLOW    STORAGE
        NUMBER      (FT)      (CFS)      (AF)
          1         0.00      0.00       0.000
          2         1.00      4.00       2.000
          3         2.00     15.00       7.000
          4         3.00     21.00      14.000
          5         4.00     26.00      23.000
          6         5.00     30.00      34.000
          7         6.00     34.00      46.000
          8         7.00    117.00      59.000
          9         8.00    316.00      71.000
         10         9.00    700.00      84.000
         11        10.00   1211.00      98.000
         12        11.00   1479.00     111.000
         13        12.00   1574.00     125.000
         14        13.00   1664.00     139.000
         15        14.00   1749.00     154.000
         16        15.00   1830.00     168.000
         17        16.00   2120.00     183.000
         18        17.00   3085.00     198.000
         19        18.00   4426.00     212.000
         20        19.00   6053.00     227.000
==================================================================


***************************************************************************
  FLOW PROCESS FROM NODE   331.00 TO NODE  12720.50 IS CODE =    7
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==================================================================


***************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =    6
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==================================================================


***************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE   127.00 IS CODE = 5.2
---------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00    CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
  CHANNEL LENGTH(FT) =   3114.00    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =   0.00
==================================================================


***************************************************************************
```

```
  FLOW PROCESS FROM NODE  12710.00 TO NODE   127.00 IS CODE =   1
---------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==================================================================
  WATERSHED AREA =      711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.419 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.293; LOW LOSS FRACTION = 0.655
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72; 1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
   3-HOUR = 0.771;     6-HOUR = 0.897; 24-HOUR = 0.940


***************************************************************************
  FLOW PROCESS FROM NODE   127.00 TO NODE   127.00 IS CODE =   7
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==================================================================


***************************************************************************
  FLOW PROCESS FROM NODE   127.00 TO NODE   127.00 IS CODE =   6
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==================================================================


***************************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE   127.00 IS CODE =   1
---------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==================================================================
  WATERSHED AREA =     1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.369 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.295; LOW LOSS FRACTION = 0.551
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72; 1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
   3-HOUR = 0.771;     6-HOUR = 0.897; 24-HOUR = 0.940


***************************************************************************
  FLOW PROCESS FROM NODE   127.00 TO NODE   127.00 IS CODE =   7
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==================================================================


***************************************************************************
  FLOW PROCESS FROM NODE   127.00 TO NODE   127.00 IS CODE =   6
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
```

```
================================================================================

*********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
--------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00      CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =      240.00; DOWNSTREAM ELEVATION(FT) =      213.00
  CHANNEL LENGTH(FT) =     4905.42     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
================================================================================


*********************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =   1
--------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =      634.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.386 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.282; LOW LOSS FRACTION = 0.628
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72; 1-HOUR =  0.95
    3-HOUR =  1.59;   6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;     6-HOUR = 0.897; 24-HOUR = 0.940


*********************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   7
--------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


*********************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
--------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


*********************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =   1
--------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =      213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
  *USER ENTERED "LAG" TIME =     0.257 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.128; LOW LOSS FRACTION = 0.356
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
    3-HOUR =  1.59;   6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;     6-HOUR = 0.897; 24-HOUR = 0.940


*********************************************************************
  FLOW PROCESS FROM NODE    221.00 TO NODE    221.00 IS CODE =   2
--------------------------------------------------------------------
  >>>>>FLOWBY STRUCTURE ROUTING MODEL APPLIED TO STREAM #2<<<<<
================================================================================
  MODEL STREAM NUMBER 2 FLOWING PAST A FLOWBY STRUCTURE:
  FLOWRATES IN STREAM # 2 WHICH ARE GREATER THAN Qpass IN
  THE FOLLOWING RELATIONSHIPS ARE ASSUMED TO BE EXCESS FLOWS.
              DATA PAIR          Qenter          Qpass
               NUMBER            (CFS)           (CFS)
                 -               0.00            0.00
                 1              25.00           13.59
                 2              75.00           16.84
                 3             100.00           18.46
                 4             250.00           28.22
                 5             550.00           47.73
  FLOW EXCESS IS ASSUMED TO BE ADDED TO STREAM NUMBER 5
================================================================================


*********************************************************************
  FLOW PROCESS FROM NODE    221.00 TO NODE    223.00 IS CODE = 3.1
--------------------------------------------------------------------
  >>>>>FLOW-THROUGH DETENTION BASIN ROUTING MODEL APPLIED TO STREAM #2<<<<<
================================================================================
  ROUTE RUNOFF HYDROGRAPH FROM STREAM NUMBER 2
  THROUGH A FLOW-THROUGH DETENTION BASIN.
  SPECIFIED BASIN CONDITIONS ARE AS FOLLOWS:
  DEAD STORAGE(AF) =      2.070
  SPECIFIED DEAD STORAGE(AF) FILLED =       0.000
  SPECIFIED EFFECTIVE VOLUME(AF) FILLED ABOVE OUTLET =      0.000
  DETENTION BASIN CONSTANT LOSS RATE(CFS) =    0.00

  BASIN DEPTH VERSUS OUTFLOW AND STORAGE INFORMATION:

            INTERVAL   DEPTH    OUTFLOW     STORAGE
             NUMBER    (FT)     (CFS)        (AF)
                1      0.00      0.00       0.000
                2      1.00      0.01       0.310
                3      2.00      0.83       1.240
                4      3.00      5.60       2.600
                5      4.00     16.88       4.130
                6      5.00     23.48       5.790
                7      6.00     36.73       7.560
                8      7.00     55.95       9.440
                9      8.00     78.70      11.430
               10      9.00    228.67      12.460
```

```
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    221.00 TO NODE    222.00 IS CODE = 3.1
--------------------------------------------------------------------------------
  >>>>>FLOW-THROUGH DETENTION BASIN ROUTING MODEL APPLIED TO STREAM #5<<<<<
================================================================================
  ROUTE RUNOFF HYDROGRAPH FROM STREAM NUMBER 5
  THROUGH A FLOW-THROUGH DETENTION BASIN.
  SPECIFIED BASIN CONDITIONS ARE AS FOLLOWS:
  DEAD STORAGE(AF) =       0.000
  SPECIFIED DEAD STORAGE(AF) FILLED =        0.000
  SPECIFIED EFFECTIVE VOLUME(AF) FILLED ABOVE OUTLET =        0.000
  DETENTION BASIN CONSTANT LOSS RATE(CFS) =    0.00

  BASIN DEPTH VERSUS OUTFLOW AND STORAGE INFORMATION:

         INTERVAL    DEPTH     OUTFLOW     STORAGE
          NUMBER     (FT)       (CFS)       (AF)
            1        0.00        0.00       0.000
            2        1.00        1.84       0.260
            3        2.00        3.22       1.160
            4        3.00        4.16       2.520
            5        4.00        4.94       3.990
            6        5.00        5.60       5.550
            7        6.00        7.17       7.200
            8        7.00       14.13       8.950
            9        8.00       18.54      10.800
           10        9.00       21.90      12.740
           11       10.00       24.73      14.750
           12       11.00       37.17      16.920
           13       12.00       57.63      19.160
           14       13.00       83.32      21.500
           15       14.00      112.96      23.940
           16       15.00      133.28      26.480
           17       16.00      144.34      29.150
           18       17.00      154.45      31.950
           19       18.00      163.94      34.870
           20       19.00      172.92      37.940
           21       20.00      181.39      41.140
           22       21.00      189.45      44.500
           23       22.00      197.22      48.010
           24       23.00      466.70      51.740
           25       24.00      951.81      53.820
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    223.00 TO NODE    222.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 5 ADDED TO STREAM NUMBER 2<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    222.00 TO NODE    222.00 IS CODE =   6
--------------------------------------------------------------------------------
```

```
  >>>>>STREAM NUMBER 5 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
--------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =      213.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    1389.52     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =  11
--------------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
================================================================================
================================================================================
```

UPSTREAM NODE #	DOWNSTREAM NODE #	HYDROLOGIC/HYDRAULIC PROCESS	UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)	TIME(2) TO PEAK (HR)	MAX. STORAGE MODELED (AF)	FOOTNOTES
10100.00	119.00	Subarea (UH) Added to Stream #1	0.0	14547.9	18.167		
119.00	12603.00	Convex Routing: Stream #1	14547.9	14462.9	18.083		
810.00	809.00	Subarea (UH) Added to Stream #2	0.0	99.7	16.250		
809.00	12603.00	Flow-Through Basin: Stream #2	99.7	54.0	16.417	13.46	
12603.00	12603.00	Stream #2 Added to: Stream #1	14462.9	14492.8	18.083		
12603.00	12603.00	Zero Out: Stream #2	54.0	0.0			
12603.00	126.00	Convex Routing: Stream #1	14492.8	14471.4	18.250		
920.00	905.00	Subarea (UH) Added to Stream #2	0.0	254.2	16.250		
905.00	126.00	Flow-Through Basin: Stream #2	254.2	199.7	16.417	19.01	
126.00	126.00	Stream #2 Added to: Stream #1	14471.4	14537.4	18.167		
126.00	126.00	Zero Out: Stream #2	199.7	0.0			
600.00	126.00	Subarea (UH) Added to Stream #2	0.0	72.9	16.333		
126.00	126.00	Stream #2 Added to: Stream #1	14537.4	14549.4	18.167		
126.00	126.00	Zero Out: Stream #2	72.9	0.0			
126.00	12720.50	Convex Routing: Stream #1	14549.4	14539.6	18.333		
320.00	331.00	Subarea (UH) Added to Stream #2	0.0	369.6	16.333		
400.00	331.00	Subarea (UH) Added to Stream #3	0.0	245.8	16.333		
390.00	331.00	Subarea (UH) Added to Stream #4	0.0	40.8	16.417		
331.00	331.00	Stream #4 Added to: Stream #2	369.6	406.7	16.333		
331.00	331.00	Zero Out: Stream #4	40.8	0.0			
331.00	331.00	Stream #3 Added to: Stream #2	406.7	652.5	16.333		
331.00	331.00	Zero Out: Stream #3	245.8	0.0			
331.00	331.00	Flow-Through Basin: Stream #2	652.5	457.5	16.500	75.82	
331.00	12720.50	Stream #2 Added to: Stream #1	14539.6	14787.0	18.333		
12720.50	12720.50	Zero Out: Stream #2	457.5	0.0			
12720.50	127.00	Convex Routing: Stream #1	14787.0	14766.3	18.417		
12710.00	127.00	Subarea (UH) Added to Stream #2	0.0	209.1	16.500		
127.00	127.00	Stream #2 Added to: Stream #1	14766.3	14814.1	18.417		
127.00	127.00	Zero Out: Stream #2	209.1	0.0			
50150.00	127.00	Subarea (UH) Added to Stream #2	0.0	357.3	16.417		
127.00	127.00	Stream #2 Added to: Stream #1	14814.1	14901.1	18.417		
127.00	127.00	Zero Out: Stream #2	357.3	0.0			
127.00	129.00	Convex Routing: Stream #1	14901.1	14882.8	18.500		
50300.00	129.00	Subarea (UH) Added to Stream #2	0.0	197.5	16.417		
129.00	129.00	Stream #2 Added to: Stream #1	14882.8	14922.1	18.500		
129.00	129.00	Zero Out: Stream #2	197.5	0.0			
210.00	221.00	Subarea (UH) Added to Stream #2	0.0	112.9	16.333		
221.00	221.00	Flowby Basin Model: Stream #2	112.9	19.3	16.333		
221.00	223.00	Flow-Through Basin: Stream #2	19.3	15.4	17.250	3.92	
221.00	222.00	Flow-Through Basin: Stream #5	93.6	22.0	17.667	12.84	

Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL
      3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

```
 +-------------------+------------------------------+----------------------+------------+-----------+
 |UPSTREAM  DOWNSTREAM|                             | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|             |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +-------------------+------------------------------+----------------------+------------+-----------+
 |   223.00    222.00| Stream #5 Added to:   Stream #2|     15.4        37.3|
17.500 |            |            |
 |   222.00    222.00| Zero Out:             Stream #5|     22.0         0.0|
|            |            |
 |   222.00    129.00| Stream #2 Added to:   Stream #1|  14922.1    14958.0|
18.500 |            |            |
 |   129.00    129.00| Zero Out:             Stream #2|     37.3         0.0|
|            |            |
 |   129.00    133.00| Convex Routing:       Stream #1|  14958.0    14941.7|
17.667 |            |            |
 +-------------------+------------------------------+----------------------+------------+-----------+
 |   133.00    133.00| View:                 Stream #1|             14941.7|
17.667 |    12478.56|    3     |
 +-------------------+------------------------------+----------------------+------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                               |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                       |
 +---------------------------------------------------------------------------------------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
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 ****************************************************************

        F L O O D   R O U T I N G   A N A L Y S I S
        USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                    Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 134C                            *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL         *
 * 25-YR EV MAY 2023 ROKAMOTO                                          *
 **********************************************************************

  FILE NAME: EV2534CF.DAT
  TIME/DATE OF STUDY: 06:18 05/14/2023


                    ** INPUT SUMMARY **


 ****************************************************************
  FLOW PROCESS FROM NODE 10100.00 TO NODE   119.00 IS CODE = 1
 -------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
 ==================================================================
  WATERSHED AREA =  49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    2.119 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.433
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.42; 30-MINUTE = 0.78;  1-HOUR = 1.08
   3-HOUR = 2.02;    6-HOUR = 3.00; 24-HOUR = 5.30
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
   3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


 ****************************************************************
  FLOW PROCESS FROM NODE   119.00 TO NODE 12603.00 IS CODE = 5.2
 -------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ==================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00    CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
  CHANNEL LENGTH(FT) =   3157.79    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =   0.00
 ==================================================================



 ****************************************************************
  FLOW PROCESS FROM NODE   810.00 TO NODE   809.00 IS CODE = 1
 -------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ==================================================================
  WATERSHED AREA =    171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.187 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.412
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.34; 30-MINUTE = 0.72;  1-HOUR = 0.95
   3-HOUR = 1.59;    6-HOUR = 2.20; 24-HOUR = 3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
   3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


 ****************************************************************
  FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 7
 -------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ==================================================================



 ****************************************************************
  FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 6
 -------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ==================================================================



 ****************************************************************
  FLOW PROCESS FROM NODE 12603.00 TO NODE   126.00 IS CODE = 5.2
 -------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ==================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00    CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =    286.00
  CHANNEL LENGTH(FT) =   3046.70    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =   0.00
 ==================================================================



 ****************************************************************
  FLOW PROCESS FROM NODE   920.00 TO NODE   905.00 IS CODE = 1
 -------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
================================================================
 WATERSHED AREA =     553.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.222 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.254; LOW LOSS FRACTION = 0.488
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
   3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


**************************************************************
 FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   7
----------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================


**************************************************************
 FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   6
----------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================


**************************************************************
 FLOW PROCESS FROM NODE   600.00 TO NODE   126.00 IS CODE =   1
----------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================
 WATERSHED AREA =     218.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.301 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.759
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
   3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


**************************************************************
 FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   7
----------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================


**************************************************************
 FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   6
----------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================
```

```
**************************************************************
 FLOW PROCESS FROM NODE   126.00 TO NODE 12720.50 IS CODE = 5.2
----------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00      CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =    286.00; DOWNSTREAM ELEVATION(FT) =    258.00
 CHANNEL LENGTH(FT) =    4077.05      MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
================================================================


**************************************************************
 FLOW PROCESS FROM NODE   320.00 TO NODE   331.00 IS CODE =   1
----------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================
 WATERSHED AREA =     712.600 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.294 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.100; LOW LOSS FRACTION = 0.268
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
   3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


**************************************************************
 FLOW PROCESS FROM NODE   400.00 TO NODE   331.00 IS CODE =   1
----------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
================================================================
 WATERSHED AREA =     462.500 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.249 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.135; LOW LOSS FRACTION = 0.346
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
   3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


**************************************************************
 FLOW PROCESS FROM NODE   390.00 TO NODE   331.00 IS CODE =   1
----------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
================================================================
 WATERSHED AREA =     117.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.373 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.283; LOW LOSS FRACTION = 0.507
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
  3-HOUR =  1.59;   6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
  3-HOUR = 0.741;   6-HOUR = 0.887; 24-HOUR = 0.933


 ********************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
 ------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
 ==================================================================

 ********************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
 ------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
 ==================================================================


 ********************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
 ------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
 ==================================================================

 ********************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
 ------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
 ==================================================================


 ********************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
 ------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ==================================================================


 ********************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
 ------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ==================================================================


 ********************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
 ------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ==================================================================
```

```
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
   UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
   CHANNEL LENGTH(FT) =    3114.00     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
 ==================================================================


 ********************************************************************
   FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
 ------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ==================================================================
   WATERSHED AREA =      711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.419 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.293; LOW LOSS FRACTION = 0.655
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
    3-HOUR =  1.59;   6-HOUR =  2.20; 24-HOUR =  3.68
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;   6-HOUR = 0.887; 24-HOUR = 0.933


 ********************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
 ------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ==================================================================


 ********************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
 ------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ==================================================================


 ********************************************************************
   FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
 ------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ==================================================================
   WATERSHED AREA =     1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.369 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.295; LOW LOSS FRACTION = 0.551
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
    3-HOUR =  1.59;   6-HOUR =  2.20; 24-HOUR =  3.68
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
```

```
      3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


 *************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
 -------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 =========================================================================


 *************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
 -------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 =========================================================================


 *************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
 -------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 =========================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =  200.00      CHANNEL Z =  5.00
   UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
   CHANNEL LENGTH(FT) =    4905.42      MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
 =========================================================================


 *************************************************************************
   FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =   1
 -------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 =========================================================================
   WATERSHED AREA =     634.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.386 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.282; LOW LOSS FRACTION = 0.628
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
      3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
      3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


 *************************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   7
 -------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 =========================================================================
```

```
 *************************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
 -------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 =========================================================================


 *************************************************************************
   FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =   1
 -------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 =========================================================================
   WATERSHED AREA =     213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.257 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.128; LOW LOSS FRACTION = 0.356
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
      3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
      3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


 *************************************************************************
   FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =   7
 -------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 =========================================================================


 *************************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
 -------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 =========================================================================


 *************************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
 -------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 =========================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =  200.00      CHANNEL Z =  5.00
   UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
   CHANNEL LENGTH(FT) =    1389.52      MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
 =========================================================================


 *************************************************************************
```

```
 FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
-----------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=============================================================================
 WATERSHED AREA =    4924.400 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.856 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.244; LOW LOSS FRACTION = 0.567
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
   3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


*****************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
-----------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
=============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00      CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =      427.51; DOWNSTREAM ELEVATION(FT) =     315.00
 CHANNEL LENGTH(FT) =    9760.05     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
=============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
-----------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
=============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00      CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =      315.00; DOWNSTREAM ELEVATION(FT) =     212.00
 CHANNEL LENGTH(FT) =    6877.24     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
=============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
-----------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
=============================================================================
 WATERSHED AREA =    1713.900 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.589 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.225; LOW LOSS FRACTION = 0.409
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
   3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
-----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
-----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
-----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
-----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
-----------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00      CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =      212.00; DOWNSTREAM ELEVATION(FT) =     170.00
 CHANNEL LENGTH(FT) =    6461.31     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
=============================================================================


*****************************************************************************
```

```
  FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
  WATERSHED AREA =    1705.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.365 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.245; LOW LOSS FRACTION = 0.462
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
    3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


*******************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================



*******************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================



*******************************************************************************
  FLOW PROCESS FROM NODE  13500.00 TO NODE    134.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
  WATERSHED AREA =    3859.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    1.350 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.284; LOW LOSS FRACTION = 0.463
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
    3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


*******************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================



*******************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
```

```
===============================================================================

*******************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =  11
-------------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
===============================================================================
===============================================================================
```

UPSTREAM NODE #	DOWNSTREAM NODE #	HYDROLOGIC/HYDRAULIC PROCESS		UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)	TIME(2) TO PEAK (HR)	MAX. STORAGE MODELED (AF)	FOOTNOTES
10100.00	119.00	Subarea (UH) Added to Stream #1		0.0	13906.9	18.167		
119.00	12603.00	Convex Routing:	Stream #1	13906.9	13834.9	18.083		
810.00	809.00	Subarea (UH) Added to Stream #2		0.0	89.0	16.250		
12603.00	12603.00	Stream #2 Added to:	Stream #1	13834.9	13859.1	18.083		
12603.00	12603.00	Zero Out:	Stream #2	89.0	0.0			
12603.00	126.00	Convex Routing:	Stream #1	13859.1	13840.2	18.250		
920.00	905.00	Subarea (UH) Added to Stream #2		0.0	225.2	16.250		
126.00	126.00	Stream #2 Added to:	Stream #1	13840.2	13901.6	18.167		
126.00	126.00	Zero Out:	Stream #2	225.2	0.0			
600.00	126.00	Subarea (UH) Added to Stream #2		0.0	63.4	16.333		
126.00	126.00	Stream #2 Added to:	Stream #1	13901.6	13914.1	18.167		
126.00	126.00	Zero Out:	Stream #2	63.4	0.0			
126.00	12720.50	Convex Routing:	Stream #1	13914.1	13901.2	18.333		
320.00	331.00	Subarea (UH) Added to Stream #2		0.0	335.9	16.333		
400.00	331.00	Subarea (UH) Added to Stream #3		0.0	221.6	16.333		
390.00	331.00	Subarea (UH) Added to Stream #4		0.0	36.8	16.417		
331.00	331.00	Stream #4 Added to:	Stream #2	335.9	369.5	16.333		
331.00	331.00	Zero Out:	Stream #4	36.8	0.0			
331.00	331.00	Stream #3 Added to:	Stream #2	369.5	591.1	16.333		
331.00	331.00	Zero Out:	Stream #3	221.6	0.0			
331.00	12720.50	Stream #2 Added to:	Stream #1	13901.2	14064.2	18.333		
12720.50	12720.50	Zero Out:	Stream #2	591.1	0.0			
12720.50	127.00	Convex Routing:	Stream #1	14064.2	14047.8	18.417		
12710.00	127.00	Subarea (UH) Added to Stream #2		0.0	185.7	16.500		
127.00	127.00	Stream #2 Added to:	Stream #1	14047.8	14113.3	17.333		
127.00	127.00	Zero Out:	Stream #2	185.7	0.0			
50150.00	127.00	Subarea (UH) Added to Stream #2		0.0	319.5	16.417		
127.00	127.00	Stream #2 Added to:	Stream #1	14113.3	14289.0	17.333		
127.00	127.00	Zero Out:	Stream #2	319.5	0.0			
127.00	129.00	Convex Routing:	Stream #1	14289.0	14268.7	17.500		
50300.00	129.00	Subarea (UH) Added to Stream #2		0.0	175.5	16.417		
129.00	129.00	Stream #2 Added to:	Stream #1	14268.7	14344.7	17.500		
129.00	129.00	Zero Out:	Stream #2	175.5	0.0			
210.00	221.00	Subarea (UH) Added to Stream #2		0.0	101.9	16.333		
222.00	129.00	Stream #2 Added to:	Stream #1	14344.7	14384.5	17.500		
129.00	129.00	Zero Out:	Stream #2	101.9	0.0			
129.00	133.00	Convex Routing:	Stream #1	14384.5	14376.2	17.583		
13010.00	132.00	Subarea (UH) Added to Stream #2		0.0	1114.8	16.917		
132.00	13305.00	Convex Routing:	Stream #2	1114.8	1077.4	17.417		
13305.00	133.00	Convex Routing:	Stream #2	1077.4	1067.7	17.667		

Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL
3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

```
 +----------------------------------------------------------------------------------------------------------+
 |                                           * AES FLOODSCx PROGRAM RESULTS SUMMARY *                        |
 |INPUT FILENAME: [EV2534CF.DAT   ]
Page:   2 of    |
 +------------------+----------------------------+----------------------+------------+------------+-----------+
 |UPSTREAM  DOWNSTREAM|                                        | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|            |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS  |PEAK (CFS)   PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +------------------+----------------------------+----------------------+------------+------------+-----------+
 |  132.00     133.00| Subarea (UH) Added to Stream #3|      0.0        514.0|
16.667 |             |            |
 |  133.00     133.00| Stream #3 Added to:   Stream #2|   1067.7       1418.5|
17.583 |             |            |
 |  133.00     133.00| Zero Out:             Stream #3|    514.0          0.0|
|             |            |
 |  133.00     133.00| Stream #2 Added to:   Stream #1|  14376.2      15794.7|
17.583 |             |            |
 |  133.00     133.00| Zero Out:             Stream #2|   1418.5          0.0|
|             |            |
 +------------------+----------------------------+----------------------+------------+------------+-----------+
 |  133.00     134.00| Convex Routing:       Stream #1|  15794.7      15781.2|
17.750 |             |            |
 |  133.00     134.00| Subarea (UH) Added to Stream #2|      0.0        578.2|
16.417 |             |            |
 |  134.00     134.00| Stream #2 Added to:   Stream #1|  15781.2      16034.5|
17.750 |             |            |
 |  134.00     134.00| Zero Out:             Stream #2|    578.2          0.0|
|             |            |
 | 13500.00    134.00| Subarea (UH) Added to Stream #2|      0.0        887.8|
17.417 |             |            |
 +------------------+----------------------------+----------------------+------------+------------+-----------+
 |  134.00     134.00| Stream #2 Added to:   Stream #1|  16034.5      16896.4|
17.667 |             |            |
 |  134.00     134.00| Zero Out:             Stream #2|    887.8          0.0|
|             |            |
 |  134.00     134.00| View:                 Stream #1|               16896.4|
17.667 |   14146.46|    3     |
 +------------------+----------------------------+----------------------+------------+------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                             |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM             |
 +----------------------------------------------------------------------------------------------------------+


   END OF FLOODSCx ROUTING ANALYSIS
```

```
  _____
 ****************************************************************************

          F L O O D   R O U T I N G   A N A L Y S I S
          USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                      Analysis prepared by:




 ************************** DESCRIPTION OF STUDY **************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 134U                              *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL           *
 * 25-YR EV MAY 2023 ROKAMOTO                                            *
 ************************************************************************

 FILE NAME: EV2534UF.DAT
 TIME/DATE OF STUDY: 06:18 05/14/2023


                      ** INPUT SUMMARY **


 ****************************************************************************
   FLOW PROCESS FROM NODE 10100.00 TO NODE    119.00 IS CODE =   1
 ----------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
 ============================================================================
   WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    2.119 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.433
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE = 0.42; 30-MINUTE =  0.78; 1-HOUR =  1.08
    3-HOUR =  2.02;    6-HOUR =  3.00; 24-HOUR =  5.30
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;     6-HOUR = 0.890; 24-HOUR = 0.936


 ****************************************************************************
   FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
 ----------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ============================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) = 200.00     CHANNEL Z =  5.00
   UPSTREAM ELEVATION(FT) =      341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
   CHANNEL LENGTH(FT) =    3157.79     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =     0.00
 ============================================================================



 ****************************************************************************
   FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
 ----------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ============================================================================
   WATERSHED AREA =    171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.187 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.412
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.34; 30-MINUTE =  0.72; 1-HOUR =  0.95
    3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;     6-HOUR = 0.890; 24-HOUR = 0.936



 ****************************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ============================================================================



 ****************************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ============================================================================



 ****************************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
 ----------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ============================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) = 200.00     CHANNEL Z =  5.00
   UPSTREAM ELEVATION(FT) =      312.40; DOWNSTREAM ELEVATION(FT) =    286.00
   CHANNEL LENGTH(FT) =    3046.70     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =     0.00
 ============================================================================



 ****************************************************************************
   FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
 ----------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
=========================================================================
   WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.222 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.254; LOW LOSS FRACTION = 0.488
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
   3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


*************************************************************************
   FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
-------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================



*************************************************************************
   FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
-------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================



*************************************************************************
   FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
-------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
   WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.301 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.759
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
   3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


*************************************************************************
   FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
-------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================



*************************************************************************
   FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
-------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================
```

```
*************************************************************************
   FLOW PROCESS FROM NODE    126.00 TO NODE    12720.50 IS CODE = 5.2
-------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=========================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =  200.00      CHANNEL Z =  5.00
   UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
   CHANNEL LENGTH(FT) =    4077.05     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =     0.00
=========================================================================



*************************************************************************
   FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =    1
-------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
   WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.294 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.100; LOW LOSS FRACTION = 0.268
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
   3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


*************************************************************************
   FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =    1
-------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
=========================================================================
   WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.249 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.135; LOW LOSS FRACTION = 0.346
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
   3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


*************************************************************************
   FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =    1
-------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
=========================================================================
   WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.373 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.283; LOW LOSS FRACTION = 0.507
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
  3-HOUR =  1.59;   6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
  3-HOUR = 0.750;   6-HOUR = 0.890; 24-HOUR = 0.936


*******************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
===================================================================

*******************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
===================================================================


*******************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
===================================================================

*******************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
===================================================================


*******************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===================================================================


*******************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===================================================================


*******************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
-------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===================================================================
```

```
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
  CHANNEL LENGTH(FT) =    3114.00     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
===================================================================


*******************************************************************
   FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
-------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===================================================================
  WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.419 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.293; LOW LOSS FRACTION = 0.655
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
   3-HOUR =  1.59;   6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
   3-HOUR = 0.750;   6-HOUR = 0.890; 24-HOUR = 0.936


*******************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===================================================================


*******************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===================================================================


*******************************************************************
   FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
-------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===================================================================
  WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.369 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.295; LOW LOSS FRACTION = 0.551
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
   3-HOUR =  1.59;   6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
```

```
     3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =      213.00
  CHANNEL LENGTH(FT) =    4905.42     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =    1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     634.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.386 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.282; LOW LOSS FRACTION = 0.628
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
    3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================
```

```
****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =    1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.257 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.128; LOW LOSS FRACTION = 0.356
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
    3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


****************************************************************************
  FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =    7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =      212.00
  CHANNEL LENGTH(FT) =    1389.52     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
```

```
 FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
--------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
 WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.856 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.244; LOW LOSS FRACTION = 0.567
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
  3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
  3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


*************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
--------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
==========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00      CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =     315.00
 CHANNEL LENGTH(FT) =   9760.05     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


*************************************************************************
 FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
--------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
==========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00      CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =     212.00
 CHANNEL LENGTH(FT) =   6877.24     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


*************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
--------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
==========================================================================
 WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.589 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.409
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
  3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
  3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
==========================================================================


*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
==========================================================================


*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
--------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00      CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =     170.00
 CHANNEL LENGTH(FT) =   6461.31     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


*************************************************************************
```

Left column:

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   FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
  WATERSHED AREA =    1705.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.365 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.245; LOW LOSS FRACTION = 0.462
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.34; 30-MINUTE = 0.72;  1-HOUR = 0.95
   3-HOUR = 1.59;    6-HOUR = 2.20; 24-HOUR = 3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
   3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


*******************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


*******************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================


*******************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =  11
-------------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
===============================================================================
===============================================================================
```

Right column:

```
   +---------------------------------------------------------------------------
-----------------------------------------+
   |                            * AES FLOODSCx PROGRAM RESULTS SUMMARY *
   |
   |INPUT FILENAME: [EV2534UF.DAT  ]
Page:  1 of   |
   +------------------+----------------------------+--------------------+-
-----------+------------+-----------+
   |UPSTREAM  DOWNSTREAM|                            | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|            |
   | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
   +------------------+----------------------------+--------------------+-
-----------+------------+-----------+
   | 10100.00    119.00| Subarea (UH) Added to Stream #1|      0.0     14101.0|
18.167 |
   |   119.00  12603.00| Convex Routing:      Stream #1|  14101.0     14027.1|
18.083 |             |            |
   |   810.00    809.00| Subarea (UH) Added to Stream #2|      0.0        91.9|
16.250 |             |            |
   | 12603.00  12603.00| Stream #2 Added to:   Stream #1|  14027.1     14051.0|
18.083 |             |            |
   | 12603.00  12603.00| Zero Out:             Stream #2|     91.9         0.0|
   |             |            |
   +------------------+----------------------------+--------------------+-
-----------+------------+-----------+
   | 12603.00    126.00| Convex Routing:      Stream #1|  14051.0     14029.7|
18.250 |             |            |
   |   920.00    905.00| Subarea (UH) Added to Stream #2|      0.0       232.6|
16.250 |             |            |
   |   126.00    126.00| Stream #2 Added to:   Stream #1|  14029.7     14091.7|
18.167 |             |            |
   |   126.00    126.00| Zero Out:             Stream #2|    232.6         0.0|
   |             |            |
   |   600.00    126.00| Subarea (UH) Added to Stream #2|      0.0        65.9|
16.333 |             |            |
   +------------------+----------------------------+--------------------+-
-----------+------------+-----------+
   |   126.00    126.00| Stream #2 Added to:   Stream #1|  14091.7     14104.0|
18.167 |             |            |
   |   126.00    126.00| Zero Out:             Stream #2|     65.9         0.0|
   |             |            |
   |   126.00  12720.50| Convex Routing:      Stream #1|  14104.0     14090.1|
18.333 |             |            |
   |   320.00    331.00| Subarea (UH) Added to Stream #2|      0.0       344.7|
16.333 |             |            |
   |   400.00    331.00| Subarea (UH) Added to Stream #3|      0.0       228.1|
16.333 |             |            |
   +------------------+----------------------------+--------------------+-
-----------+------------+-----------+
   |   390.00    331.00| Subarea (UH) Added to Stream #4|      0.0        37.9|
16.417 |             |            |
   |   331.00    331.00| Stream #4 Added to:   Stream #2|    344.7       379.2|
16.333 |             |            |
   |   331.00    331.00| Zero Out:             Stream #4|     37.9         0.0|
   |             |            |
   |   331.00    331.00| Stream #3 Added to:   Stream #2|    379.2       607.3|
16.333 |             |            |
```

```
|   331.00     331.00| Zero Out:          Stream #3|    228.1         0.0|
|            |             |        |
 +----------------+------------------------------+-------------------+-
----------+-----------+-----------+
|   331.00   12720.50| Stream #2 Added to:   Stream #1|   14090.1     14251.8|
18.333 |            |        |
| 12720.50   12720.50| Zero Out:          Stream #2|    607.3         0.0|
|            |             |        |
| 12720.50     127.00| Convex Routing:      Stream #1|   14251.8     14234.4|
18.417 |            |        |
| 12710.00     127.00| Subarea (UH) Added to Stream #2|      0.0       192.2|
16.500 |            |        |
|   127.00     127.00| Stream #2 Added to:   Stream #1|   14234.4     14283.1|
18.417 |            |        |
 +----------------+------------------------------+-------------------+-
----------+-----------+-----------+
|   127.00     127.00| Zero Out:          Stream #2|    192.2         0.0|
|            |             |        |
| 50150.00     127.00| Subarea (UH) Added to Stream #2|      0.0       329.4|
16.417 |            |        |
|   127.00     127.00| Stream #2 Added to:   Stream #1|   14283.1     14437.8|
17.333 |            |        |
|   127.00     127.00| Zero Out:          Stream #2|    329.4         0.0|
|            |             |        |
|   127.00     129.00| Convex Routing:      Stream #1|   14437.8     14419.0|
17.500 |            |        |
 +----------------+------------------------------+-------------------+-
----------+-----------+-----------+
| 50300.00     129.00| Subarea (UH) Added to Stream #2|      0.0       181.4|
16.417 |            |        |
|   129.00     129.00| Stream #2 Added to:   Stream #1|   14419.0     14494.9|
17.500 |            |        |
|   129.00     129.00| Zero Out:          Stream #2|    181.4         0.0|
|            |             |        |
|   210.00     221.00| Subarea (UH) Added to Stream #2|      0.0       104.8|
16.333 |            |        |
|   222.00     129.00| Stream #2 Added to:   Stream #1|   14494.9     14534.5|
17.500 |            |        |
 +----------------+------------------------------+-------------------+-
----------+-----------+-----------+
|   129.00     129.00| Zero Out:          Stream #2|    104.8         0.0|
|            |             |        |
|   129.00     133.00| Convex Routing:      Stream #1|   14534.5     14526.8|
17.583 |            |        |
| 13010.00     132.00| Subarea (UH) Added to Stream #2|      0.0      1143.1|
16.917 |            |        |
|   132.00   13305.00| Convex Routing:      Stream #2|   1143.1      1103.7|
17.417 |            |        |
| 13305.00     133.00| Convex Routing:      Stream #2|   1103.7      1093.2|
17.667 |            |        |
 +----------------+------------------------------+-------------------+-
----------+-----------+-----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                              |
|      3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                 |
 +-----------------------------------------------------------------------
-------------------------------------+
```

```
+---------------------------------------------------------------------------
--------------------------------------+
|                                         * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
|INPUT FILENAME: [EV2534UF.DAT   ]
Page:   2 of    |
  +------------------+-----------------------------+---------------------+-
----------+------------+----------+
|UPSTREAM  DOWNSTREAM|                                | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|        |
| NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS  |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
  +------------------+-----------------------------+---------------------+-
----------+------------+----------+
|   132.00     133.00| Subarea (UH) Added to Stream #3|       0.0        526.8|
16.667 |            |          |
|   133.00     133.00| Stream #3 Added to:   Stream #2|    1093.2       1447.8|
17.500 |            |          |
|   133.00     133.00| Zero Out:              Stream #3|     526.8          0.0|
|            |          |
|   133.00     133.00| Stream #2 Added to:   Stream #1|   14526.8      15973.8|
17.583 |            |          |
|   133.00     133.00| Zero Out:              Stream #2|    1447.8          0.0|
|            |          |
  +------------------+-----------------------------+---------------------+-
----------+------------+----------+
|   133.00     134.00| Convex Routing:        Stream #1|   15973.8      15959.6|
17.750 |            |          |
|   133.00     134.00| Subarea (UH) Added to Stream #2|       0.0        594.9|
16.417 |            |          |
|   134.00     134.00| Stream #2 Added to:   Stream #1|   15959.6      16211.0|
17.750 |            |          |
|   134.00     134.00| Zero Out:              Stream #2|     594.9          0.0|
|            |          |
|   134.00     134.00| View:                  Stream #1|               16211.0|
17.750 |    13588.84|     3    |
  +------------------+-----------------------------+---------------------+-
----------+------------+----------+
  +------------------+-----------------------------+---------------------+-
----------+------------+----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                       |
|      3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                      |
  +---------------------------------------------------------------------------
--------------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

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_____
************************************************************************

        F L O O D    R O U T I N G    A N A L Y S I S
        USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
     (c) Copyright 1989-2010 Advanced Engineering Software (aes)
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                    Analysis prepared by:




 ************************** DESCRIPTION OF STUDY **************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 133C                             *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL          *
 * 50-YR EV JULY 2023 ROKAMOTO                                          *
 *************************************************************************

  FILE NAME: EV5033CF.DAT
  TIME/DATE OF STUDY: 16:09 07/05/2023


                      ** INPUT SUMMARY **


************************************************************************
  FLOW PROCESS FROM NODE 10100.00 TO NODE    119.00 IS CODE =    1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
========================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    2.043 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.400
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.46; 30-MINUTE =  0.87;  1-HOUR =  1.21
    3-HOUR =  2.28;    6-HOUR =  3.40; 24-HOUR =  5.99
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


************************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =     312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
  ========================================================================


************************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =    1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
========================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.185 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.391
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
    3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =    7
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =    6
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =     286.00
  CHANNEL LENGTH(FT) =    3046.70    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
  ========================================================================


************************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =    1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
=================================================================
  WATERSHED AREA =    553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.219 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.254; LOW LOSS FRACTION = 0.457
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.37; 30-MINUTE = 0.79; 1-HOUR = 1.06
    3-HOUR = 1.78;    6-HOUR = 2.47; 24-HOUR = 4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


*****************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   7
-----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=================================================================


*****************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   6
-----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=================================================================


*****************************************************************
  FLOW PROCESS FROM NODE   600.00 TO NODE   126.00 IS CODE =   1
-----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=================================================================
  WATERSHED AREA =    218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.295 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.290; LOW LOSS FRACTION = 0.732
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.37; 30-MINUTE = 0.80; 1-HOUR = 1.06
    3-HOUR = 1.78;    6-HOUR = 2.47; 24-HOUR = 4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


*****************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   7
-----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=================================================================


*****************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   6
-----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=================================================================
```

```
*****************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   12720.50 IS CODE = 5.2
-----------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00    CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =    286.00; DOWNSTREAM ELEVATION(FT) =    258.00
  CHANNEL LENGTH(FT) =   4077.05    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=================================================================



*****************************************************************
  FLOW PROCESS FROM NODE   320.00 TO NODE   331.00 IS CODE =   1
-----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=================================================================
  WATERSHED AREA =    712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.289 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.100; LOW LOSS FRACTION = 0.252
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.37; 30-MINUTE = 0.80; 1-HOUR = 1.06
    3-HOUR = 1.78;    6-HOUR = 2.47; 24-HOUR = 4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


*****************************************************************
  FLOW PROCESS FROM NODE   400.00 TO NODE   331.00 IS CODE =   1
-----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
=================================================================
  WATERSHED AREA =    462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.244 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.135; LOW LOSS FRACTION = 0.326
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.37; 30-MINUTE = 0.80; 1-HOUR = 1.06
    3-HOUR = 1.78;    6-HOUR = 2.47; 24-HOUR = 4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


*****************************************************************
  FLOW PROCESS FROM NODE   390.00 TO NODE   331.00 IS CODE =   1
-----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
=================================================================
  WATERSHED AREA =    117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.366 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.283; LOW LOSS FRACTION = 0.475
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
   3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
   3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


 *****************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =    7
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
 ============================================================================


 *****************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =    6
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
 ============================================================================


 *****************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =    7
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
 ============================================================================


 *****************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =    6
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
 ============================================================================


 *****************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =    7
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ============================================================================


 *****************************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =    6
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ============================================================================


 *****************************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
 ----------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ============================================================================
```

```
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
   UPSTREAM ELEVATION(FT) =      258.00; DOWNSTREAM ELEVATION(FT) =      240.00
   CHANNEL LENGTH(FT) =    3114.00      MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =     0.00
 ============================================================================


 *****************************************************************************
   FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =    1
 ----------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ============================================================================
   WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.410 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.293; LOW LOSS FRACTION = 0.623
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
     3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
     3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


 *****************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    7
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ============================================================================


 *****************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    6
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ============================================================================


 *****************************************************************************
   FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =    1
 ----------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ============================================================================
   WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.363 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.295; LOW LOSS FRACTION = 0.517
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
     3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
```

```
     3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


*************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    7
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    6
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
-------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00    CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
  CHANNEL LENGTH(FT) =   4905.42     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =    1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
  WATERSHED AREA =      634.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.378 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.282; LOW LOSS FRACTION = 0.601
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.37; 30-MINUTE = 0.80;  1-HOUR = 1.06
    3-HOUR = 1.78;    6-HOUR = 2.47; 24-HOUR = 4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


*************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    7
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================
```

```
*************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    6
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =    1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
  WATERSHED AREA =      213.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.255 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.128; LOW LOSS FRACTION = 0.337
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.37; 30-MINUTE = 0.80;  1-HOUR = 1.06
    3-HOUR = 1.78;    6-HOUR = 2.47; 24-HOUR = 4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363;  1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


*************************************************************************
  FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =    7
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    6
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
-------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00    CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =   1389.52     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=========================================================================


*************************************************************************
```

```
 FLOW PROCESS FROM NODE  13010.00 TO NODE     132.00 IS CODE =    1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     4924.400 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.821 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =   0.244; LOW LOSS FRACTION = 0.538
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =   0.37; 30-MINUTE =   0.80; 1-HOUR =   1.06
    3-HOUR =   1.78;    6-HOUR =   2.47; 24-HOUR =   4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936


********************************************************************************
  FLOW PROCESS FROM NODE     132.00 TO NODE  13305.00 IS CODE = 5.2
--------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
================================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =     315.00
  CHANNEL LENGTH(FT) =    9760.05     MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
================================================================================



********************************************************************************
  FLOW PROCESS FROM NODE  13305.00 TO NODE     133.00 IS CODE = 5.2
--------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
================================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    6877.24     MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
================================================================================



********************************************************************************
  FLOW PROCESS FROM NODE     132.00 TO NODE     133.00 IS CODE =    1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
================================================================================
  WATERSHED AREA =     1713.900 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
  *USER ENTERED "LAG" TIME =     0.572 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =   0.225; LOW LOSS FRACTION = 0.383
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =   0.37; 30-MINUTE =   0.80; 1-HOUR =   1.06
    3-HOUR =   1.78;    6-HOUR =   2.47; 24-HOUR =   4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.308; 30-MINUTE = 0.363; 1-HOUR = 0.408
    3-HOUR = 0.754;    6-HOUR = 0.891; 24-HOUR = 0.936




********************************************************************************
  FLOW PROCESS FROM NODE     133.00 TO NODE     133.00 IS CODE =    7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
================================================================================



********************************************************************************
  FLOW PROCESS FROM NODE     133.00 TO NODE     133.00 IS CODE =    6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
================================================================================



********************************************************************************
  FLOW PROCESS FROM NODE     133.00 TO NODE     133.00 IS CODE =    7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================



********************************************************************************
  FLOW PROCESS FROM NODE     133.00 TO NODE     133.00 IS CODE =    6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================



********************************************************************************
  FLOW PROCESS FROM NODE     133.00 TO NODE     133.00 IS CODE =   11
--------------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
================================================================================
================================================================================
```

INPUT FILENAME: [EV5033CF.DAT   ]
Page: 1 of

UPSTREAM NODE #	DOWNSTREAM NODE #	HYDROLOGIC/HYDRAULIC PROCESS		UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)	TIME(2) TO PEAK (HR)	MAX. STORAGE MODELED (AF)	FOOTNOTES
10100.00	119.00	Subarea (UH) Added to	Stream #1	0.0	16936.3	18.083		
119.00	12603.00	Convex Routing:	Stream #1	16936.3	16822.8	18.083		
810.00	809.00	Subarea (UH) Added to	Stream #2	0.0	106.1	16.250		
12603.00	12603.00	Stream #2 Added to:	Stream #1	16822.8	16850.6	18.083		
12603.00	12603.00	Zero Out:	Stream #2	106.1	0.0			
12603.00	126.00	Convex Routing:	Stream #1	16850.6	16834.1	18.167		
920.00	905.00	Subarea (UH) Added to	Stream #2	0.0	272.9	16.250		
126.00	126.00	Stream #2 Added to:	Stream #1	16834.1	16909.0	18.167		
126.00	126.00	Zero Out:	Stream #2	272.9	0.0			
600.00	126.00	Subarea (UH) Added to	Stream #2	0.0	80.3	16.333		
126.00	126.00	Stream #2 Added to:	Stream #1	16909.0	16924.3	18.167		
126.00	126.00	Zero Out:	Stream #2	80.3	0.0			
126.00	12720.50	Convex Routing:	Stream #1	16924.3	16917.8	18.250		
320.00	331.00	Subarea (UH) Added to	Stream #2	0.0	396.6	16.333		
400.00	331.00	Subarea (UH) Added to	Stream #3	0.0	261.3	16.333		
390.00	331.00	Subarea (UH) Added to	Stream #4	0.0	44.9	16.417		
331.00	331.00	Stream #4 Added to:	Stream #2	396.6	437.8	16.333		
331.00	331.00	Zero Out:	Stream #4	44.9	0.0			
331.00	331.00	Stream #3 Added to:	Stream #2	437.8	699.1	16.333		
331.00	331.00	Zero Out:	Stream #3	261.3	0.0			
331.00	12720.50	Stream #2 Added to:	Stream #1	16917.8	17130.3	18.250		
12720.50	12720.50	Zero Out:	Stream #2	699.1	0.0			
12720.50	127.00	Convex Routing:	Stream #1	17130.3	17100.0	18.333		
12710.00	127.00	Subarea (UH) Added to	Stream #2	0.0	229.1	16.500		
127.00	127.00	Stream #2 Added to:	Stream #1	17100.0	17167.3	18.250		
127.00	127.00	Zero Out:	Stream #2	229.1	0.0			
50150.00	127.00	Subarea (UH) Added to	Stream #2	0.0	394.1	16.417		
127.00	127.00	Stream #2 Added to:	Stream #1	17167.3	17385.6	17.250		
127.00	127.00	Zero Out:	Stream #2	394.1	0.0			
127.00	129.00	Convex Routing:	Stream #1	17385.6	17365.0	17.417		
50300.00	129.00	Subarea (UH) Added to	Stream #2	0.0	218.8	16.417		
129.00	129.00	Stream #2 Added to:	Stream #1	17365.0	17463.0	17.417		
129.00	129.00	Zero Out:	Stream #2	218.8	0.0			
210.00	221.00	Subarea (UH) Added to	Stream #2	0.0	120.4	16.333		
222.00	129.00	Stream #2 Added to:	Stream #1	17463.0	17512.2	17.417		
129.00	129.00	Zero Out:	Stream #2	120.4	0.0			
129.00	133.00	Convex Routing:	Stream #1	17512.2	17501.0	17.500		
13010.00	132.00	Subarea (UH) Added to	Stream #2	0.0	1348.6	16.833		
132.00	13305.00	Convex Routing:	Stream #2	1348.6	1326.0	17.333		
13305.00	133.00	Convex Routing:	Stream #2	1326.0	1312.1	17.583		

Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL
   3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

```
+-------------------+------------------------------+----------------------+-
-----------+------------+-----------+
|UPSTREAM  DOWNSTREAM|                             | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|          |
| NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
+-------------------+------------------------------+----------------------+-
-----------+------------+-----------+
|   132.00     133.00| Subarea (UH) Added to Stream #3|      0.0       613.1|
16.667 |            |           |
|   133.00     133.00| Stream #3 Added to:    Stream #2|   1312.1      1741.4|
17.500 |            |           |
|   133.00     133.00| Zero Out:              Stream #3|    613.1        0.0|
|            |           |
|   133.00     133.00| Stream #2 Added to:    Stream #1|  17501.0     19242.4|
17.500 |            |           |
|   133.00     133.00| Zero Out:              Stream #2|   1741.4        0.0|
|            |           |
+-------------------+------------------------------+----------------------+-
-----------+------------+-----------+
|   133.00     133.00| View:                  Stream #1|              19242.4|
17.500 |    15912.53|    3     |
+-------------------+------------------------------+----------------------+-
-----------+------------+-----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                  |
|       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                |
+-----------------------------------------------------------------------------
--------------------------------------+
```

   END OF FLOODSCx ROUTING ANALYSIS

```
_____
***********************************************************************

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           Ver. 20.0  Release Date: 06/01/2013  License ID 1237

                    Analysis prepared by:




 ************************** DESCRIPTION OF STUDY **************************
* RMV PA-3 ROMP AMENDMENT 2022 - NODE 133T                               *
* PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL            *
* 50-YR EV OCT 2022 ROKAMOTO                                             *
 ************************************************************************

  FILE NAME: EV5033TF.DAT
  TIME/DATE OF STUDY: 10:48 10/26/2022

                        ** INPUT SUMMARY **


***********************************************************************
  FLOW PROCESS FROM NODE 13010.00 TO NODE    132.00 IS CODE =  1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=======================================================================
  WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =   0.821 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.244; LOW LOSS FRACTION = 0.538
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.37; 30-MINUTE = 0.80; 1-HOUR = 1.06
    3-HOUR = 1.78;   6-HOUR = 2.47; 24-HOUR = 4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.744; 30-MINUTE = 0.744; 1-HOUR = 0.744
    3-HOUR = 0.959;   6-HOUR = 0.978; 24-HOUR = 0.987


***********************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
-----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
=======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  50.00    CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =    315.00
```

```
  CHANNEL LENGTH(FT) =   9760.05     MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE 13305.00 TO NODE    133.00 IS CODE = 5.2
-----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
=======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  50.00    CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =    212.00
  CHANNEL LENGTH(FT) =   6877.24     MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
=======================================================================
  WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =   0.572 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.225; LOW LOSS FRACTION = 0.383
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.37; 30-MINUTE = 0.80; 1-HOUR = 1.06
    3-HOUR = 1.78;   6-HOUR = 2.71; 24-HOUR = 4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.744; 30-MINUTE = 0.744; 1-HOUR = 0.744
    3-HOUR = 0.959;   6-HOUR = 0.978; 24-HOUR = 0.987


***********************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
```

```
=====================================================================

*********************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =    6
---------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====================================================================


*********************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   11
---------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
=====================================================================
=====================================================================
```

```
+--------------------------------------------------------------------
-------------------------------------+
|                               * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
|INPUT FILENAME: [EV5033TF.DAT   ]
Page:   1 of    |
+------------------+------------------------------+----------------------+-
-----------+------------+----------+
|UPSTREAM  DOWNSTREAM|                             | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|          |
| NODE #      NODE # | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
+------------------+------------------------------+----------------------+-
-----------+------------+----------+
| 13010.00     132.00| Subarea (UH) Added to Stream #2|      0.0      2969.6|
16.833 |             |           |
|   132.00   13305.00| Convex Routing:     Stream #2|   2969.6      2885.2|
17.167 |             |           |
| 13305.00     133.00| Convex Routing:     Stream #2|   2885.2      2858.7|
17.333 |             |           |
|   132.00     133.00| Subarea (UH) Added to Stream #3|      0.0      1317.1|
16.583 |             |           |
|   133.00     133.00| Stream #3 Added to:  Stream #2|   2858.7      3401.0|
17.333 |             |           |
+------------------+------------------------------+----------------------+-
-----------+------------+----------+
|   133.00     133.00| Zero Out:           Stream #3|   1317.1         0.0|
|             |             |           |
|   133.00     133.00| Stream #2 Added to:  Stream #1|      0.0      3401.0|
17.333 |             |           |
|   133.00     133.00| Zero Out:           Stream #2|   3401.0         0.0|
|             |             |           |
|   133.00     133.00| View:               Stream #1|             3401.0|
17.333 |     1235.39|    3     |
+------------------+------------------------------+----------------------+-
-----------+------------+----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                |
|       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                    |
+--------------------------------------------------------------------
-------------------------------------+

  END OF FLOODSCx ROUTING ANALYSIS
```

```
 _____
 ****************************************************************************

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                    Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 133U                            *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL         *
 * 50-YR EV JULY 2023 ROKAMOTO                                         *
 ********************************************************************

  FILE NAME: EV5033UF.DAT
  TIME/DATE OF STUDY: 16:10 07/05/2023


                      ** INPUT SUMMARY **


 ****************************************************************************
  FLOW PROCESS FROM NODE 10100.00 TO NODE   119.00 IS CODE =  1
 ------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
 ========================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    2.043 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.400
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.46; 30-MINUTE =  0.87; 1-HOUR =  1.21
    3-HOUR =  2.28;    6-HOUR =  3.40; 24-HOUR =  5.99
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


 ****************************************************************************
  FLOW PROCESS FROM NODE   119.00 TO NODE 12603.00 IS CODE = 5.2
 ------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
 ========================================================================


 ****************************************************************************
  FLOW PROCESS FROM NODE   810.00 TO NODE   809.00 IS CODE =  1
 ------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ========================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.185 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.391
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80; 1-HOUR =  1.06
    3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


 ****************************************************************************
  FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE =  7
 ------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ========================================================================


 ****************************************************************************
  FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE =  6
 ------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ========================================================================


 ****************************************************************************
  FLOW PROCESS FROM NODE 12603.00 TO NODE   126.00 IS CODE = 5.2
 ------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =    286.00
  CHANNEL LENGTH(FT) =    3046.70     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
 ========================================================================


 ****************************************************************************
  FLOW PROCESS FROM NODE   920.00 TO NODE   905.00 IS CODE =  1
 ------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
===========================================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.219 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.254; LOW LOSS FRACTION = 0.457
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.79;  1-HOUR =  1.06
    3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


***************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===========================================================================


***************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===========================================================================


***************************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
---------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===========================================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.295 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.732
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
    3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


***************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===========================================================================


***************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===========================================================================
```

```
***************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE   12720.50 IS CODE = 5.2
---------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
===========================================================================



***************************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =    1
---------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===========================================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.289 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.100; LOW LOSS FRACTION = 0.252
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
    3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


***************************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =    1
---------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
===========================================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.244 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.135; LOW LOSS FRACTION = 0.326
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
    3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


***************************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =    1
---------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
===========================================================================
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.366 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.283; LOW LOSS FRACTION = 0.475
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80; 1-HOUR =  1.06
  3-HOUR =  1.78;   6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
  3-HOUR = 0.771;   6-HOUR = 0.897; 24-HOUR = 0.940


 ****************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
 ============================================================================


 ****************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
 ============================================================================


 ****************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
 ============================================================================


 ****************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
 ============================================================================


 ****************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ============================================================================


 ****************************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ============================================================================


 ****************************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
 ----------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ============================================================================
```

```
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00    CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
  CHANNEL LENGTH(FT) =    3114.00      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
 ============================================================================


 ****************************************************************************
   FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
 ----------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ============================================================================
  WATERSHED AREA =      711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.410 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.293; LOW LOSS FRACTION = 0.623
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80; 1-HOUR =  1.06
   3-HOUR =  1.78;   6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381; 1-HOUR = 0.422
   3-HOUR = 0.771;   6-HOUR = 0.897; 24-HOUR = 0.940


 ****************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ============================================================================


 ****************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ============================================================================


 ****************************************************************************
   FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
 ----------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ============================================================================
  WATERSHED AREA =     1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.363 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.295; LOW LOSS FRACTION = 0.517
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80; 1-HOUR =  1.06
   3-HOUR =  1.78;   6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
```

```
          3-HOUR = 0.771;    6-HOUR = 0.897; 24-HOUR = 0.940


 ********************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
 --------------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ================================================================================


 ********************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
 --------------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ================================================================================


 ********************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
 --------------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ================================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
   UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
   CHANNEL LENGTH(FT) =    4905.42     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
 ================================================================================


 ********************************************************************************
   FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =   1
 --------------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ================================================================================
   WATERSHED AREA =     634.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.378 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.282; LOW LOSS FRACTION = 0.601
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
    3-HOUR =  1.78;     6-HOUR =  2.47; 24-HOUR =  4.12
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;     6-HOUR = 0.897; 24-HOUR = 0.940


 ********************************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   7
 --------------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ================================================================================
```

```
 ********************************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
 --------------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ================================================================================


 ********************************************************************************
   FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =   1
 --------------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ================================================================================
   WATERSHED AREA =     213.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.255 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.128; LOW LOSS FRACTION = 0.337
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
    3-HOUR =  1.78;     6-HOUR =  2.47; 24-HOUR =  4.12
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.328; 30-MINUTE = 0.381;  1-HOUR = 0.422
    3-HOUR = 0.771;     6-HOUR = 0.897; 24-HOUR = 0.940


 ********************************************************************************
   FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =   7
 --------------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ================================================================================


 ********************************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
 --------------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ================================================================================


 ********************************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
 --------------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ================================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
   UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
   CHANNEL LENGTH(FT) =    1389.52     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
 ================================================================================


 ********************************************************************************
```

```
   FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =  11
-------------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
================================================================================
================================================================================
```

```
+-----------------------------------------------------------------------------
--------------------------------------+
|                              * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
|INPUT FILENAME: [EV5033UF.DAT   ]
Page:   1 of   |
  +------------------+---------------------------+---------------------+-
----------+------------+----------+
 |UPSTREAM  DOWNSTREAM|                            |  UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|             |
 | NODE #      NODE #  | HYDROLOGIC/HYDRAULIC PROCESS  |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
  +------------------+---------------------------+---------------------+-
----------+------------+----------+
 | 10100.00     119.00| Subarea (UH) Added to Stream #1|      0.0     17363.1|
18.083 |           |           |
 |   119.00  12603.00| Convex Routing:        Stream #1|   17363.1    17240.4|
18.083 |           |           |
 |   810.00     809.00| Subarea (UH) Added to Stream #2|      0.0       113.2|
16.250 |           |           |
 | 12603.00  12603.00| Stream #2 Added to:    Stream #1|   17240.4    17267.7|
18.083 |           |           |
 | 12603.00  12603.00| Zero Out:              Stream #2|    113.2        0.0|
|           |           |
  +------------------+---------------------------+---------------------+-
----------+------------+----------+
 | 12603.00     126.00| Convex Routing:        Stream #1|   17267.7    17248.4|
18.167 |           |           |
 |   920.00     905.00| Subarea (UH) Added to Stream #2|      0.0       292.1|
16.250 |           |           |
 |   126.00     126.00| Stream #2 Added to:    Stream #1|   17248.4    17321.9|
18.167 |           |           |
 |   126.00     126.00| Zero Out:              Stream #2|    292.1        0.0|
|           |           |
 |   600.00     126.00| Subarea (UH) Added to Stream #2|      0.0        87.0|
16.333 |           |           |
  +------------------+---------------------------+---------------------+-
----------+------------+----------+
 |   126.00     126.00| Stream #2 Added to:    Stream #1|   17321.9    17336.9|
18.167 |           |           |
 |   126.00     126.00| Zero Out:              Stream #2|     87.0        0.0|
|           |           |
 |   126.00  12720.50| Convex Routing:        Stream #1|   17336.9    17330.6|
18.250 |           |           |
 |   320.00     331.00| Subarea (UH) Added to Stream #2|      0.0       419.3|
16.333 |           |           |
 |   400.00     331.00| Subarea (UH) Added to Stream #3|      0.0       277.0|
16.333 |           |           |
  +------------------+---------------------------+---------------------+-
----------+------------+----------+
 |   390.00     331.00| Subarea (UH) Added to Stream #4|      0.0        47.8|
16.417 |           |           |
 |   331.00     331.00| Stream #4 Added to:    Stream #2|    419.3       463.1|
16.333 |           |           |
 |   331.00     331.00| Zero Out:              Stream #4|     47.8        0.0|
|           |           |
 |   331.00     331.00| Stream #3 Added to:    Stream #2|    463.1       740.1|
16.333 |           |           |
```

```
|   331.00     331.00| Zero Out:            Stream #3|    277.0        0.0|
|            |            |
 +-----------------+-----------------------------+--------------------+-
----------+------------+----------+
|   331.00   12720.50| Stream #2 Added to:   Stream #1|  17330.6    17539.4|
18.250 |            |            |
| 12720.50   12720.50| Zero Out:            Stream #2|    740.1        0.0|
|            |            |
| 12720.50     127.00| Convex Routing:      Stream #1|  17539.4    17505.4|
18.333 |            |            |
| 12710.00     127.00| Subarea (UH) Added to Stream #2|     0.0      244.6|
16.500 |            |            |
|   127.00     127.00| Stream #2 Added to:   Stream #1|  17505.4    17573.6|
18.250 |            |            |
 +-----------------+-----------------------------+--------------------+-
----------+------------+----------+
|   127.00     127.00| Zero Out:            Stream #2|    244.6        0.0|
|            |            |
| 50150.00     127.00| Subarea (UH) Added to Stream #2|     0.0      420.4|
16.417 |            |            |
|   127.00     127.00| Stream #2 Added to:   Stream #1|  17573.6    17711.8|
17.250 |            |            |
|   127.00     127.00| Zero Out:            Stream #2|    420.4        0.0|
|            |            |
|   127.00     129.00| Convex Routing:      Stream #1|  17711.8    17694.9|
17.417 |            |            |
 +-----------------+-----------------------------+--------------------+-
----------+------------+----------+
| 50300.00     129.00| Subarea (UH) Added to Stream #2|     0.0      234.0|
16.417 |            |            |
|   129.00     129.00| Stream #2 Added to:   Stream #1|  17694.9    17793.4|
17.417 |            |            |
|   129.00     129.00| Zero Out:            Stream #2|    234.0        0.0|
|            |            |
|   210.00     221.00| Subarea (UH) Added to Stream #2|     0.0      127.8|
16.333 |            |            |
|   222.00     129.00| Stream #2 Added to:   Stream #1|  17793.4    17842.5|
17.417 |            |            |
 +-----------------+-----------------------------+--------------------+-
----------+------------+----------+
|   129.00     129.00| Zero Out:            Stream #2|    127.8        0.0|
|            |            |
|   129.00     133.00| Convex Routing:      Stream #1|  17842.5    17832.8|
17.500 |            |            |
|   133.00     133.00| View:                Stream #1|             17832.8|
17.500 |   14894.27|     3     |
 +-----------------+-----------------------------+--------------------+-
----------+------------+----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                          |
|      3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                  |
 +-----------------------------------------------------------------------
------------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

```
 _____
 ***********************************************************************

         F L O O D   R O U T I N G   A N A L Y S I S
          USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                     Analysis prepared by:




 ************************** DESCRIPTION OF STUDY **************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 134C                             *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL          *
 * 50-YR EV AUG 2023 ROKAMOTO                                           *
 ***********************************************************************

  FILE NAME: EV5034CF.DAT
  TIME/DATE OF STUDY: 07:39 08/10/2023


                        ** INPUT SUMMARY **


 ***********************************************************************
   FLOW PROCESS FROM NODE 10100.00 TO NODE   119.00 IS CODE =   1
 -----------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
 =======================================================================
   WATERSHED AREA =   49495.699 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    2.043 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.400
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.46; 30-MINUTE =  0.87;  1-HOUR =  1.21
    3-HOUR =  2.28;     6-HOUR =  3.40; 24-HOUR =  5.99
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;     6-HOUR = 0.887; 24-HOUR = 0.933


 ***********************************************************************
   FLOW PROCESS FROM NODE   119.00 TO NODE  12603.00 IS CODE = 5.2
 -----------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 =======================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
   UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
   CHANNEL LENGTH(FT) =    3157.79     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =     0.00
 =======================================================================



 ***********************************************************************
   FLOW PROCESS FROM NODE   810.00 TO NODE   809.00 IS CODE =   1
 -----------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 =======================================================================
   WATERSHED AREA =    171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.185 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.391
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
    3-HOUR =  1.78;     6-HOUR =  2.47; 24-HOUR =  4.12
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;     6-HOUR = 0.887; 24-HOUR = 0.933


 ***********************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
 -----------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 =======================================================================



 ***********************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
 -----------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 =======================================================================



 ***********************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE   126.00 IS CODE = 5.2
 -----------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 =======================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
   UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =    286.00
   CHANNEL LENGTH(FT) =    3046.70     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =     0.00
 =======================================================================



 ***********************************************************************
   FLOW PROCESS FROM NODE   920.00 TO NODE   905.00 IS CODE =   1
 -----------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
===============================================================
   WATERSHED AREA =     553.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.219 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.254; LOW LOSS FRACTION = 0.457
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.79;  1-HOUR =  1.06
    3-HOUR =  1.78;     6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;     6-HOUR = 0.887; 24-HOUR = 0.933


******************************************************************
   FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
  ---------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ===============================================================


******************************************************************
   FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
  ---------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ===============================================================


******************************************************************
   FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
  ---------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ===============================================================
   WATERSHED AREA =     218.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.295 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.732
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
    3-HOUR =  1.78;     6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;     6-HOUR = 0.887; 24-HOUR = 0.933


******************************************************************
   FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
  ---------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ===============================================================


******************************************************************
   FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
  ---------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ===============================================================
```

```
******************************************************************
   FLOW PROCESS FROM NODE    126.00 TO NODE    12720.50 IS CODE = 5.2
  ---------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ===============================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
   UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
   CHANNEL LENGTH(FT) =     4077.05     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =     0.00
  ===============================================================


******************************************************************
   FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =    1
  ---------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ===============================================================
   WATERSHED AREA =     712.600 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.289 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.100; LOW LOSS FRACTION = 0.252
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
    3-HOUR =  1.78;     6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;     6-HOUR = 0.887; 24-HOUR = 0.933


******************************************************************
   FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =    1
  ---------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
  ===============================================================
   WATERSHED AREA =     462.500 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.244 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.135; LOW LOSS FRACTION = 0.326
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
    3-HOUR =  1.78;     6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
    3-HOUR = 0.741;     6-HOUR = 0.887; 24-HOUR = 0.933


******************************************************************
   FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =    1
  ---------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
  ===============================================================
   WATERSHED AREA =     117.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.366 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.283; LOW LOSS FRACTION = 0.475
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80; 1-HOUR =  1.06
  3-HOUR =  1.78;   6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
  3-HOUR = 0.741;   6-HOUR = 0.887; 24-HOUR = 0.933


 **************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
 --------------------------------------------------------------------------
   >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
 ==========================================================================

 **************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
 --------------------------------------------------------------------------
   >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
 ==========================================================================


 **************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
 --------------------------------------------------------------------------
   >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
 ==========================================================================

 **************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
 --------------------------------------------------------------------------
   >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
 ==========================================================================


 **************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
 --------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ==========================================================================


 **************************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
 --------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ==========================================================================


 **************************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
 --------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ==========================================================================
```

```
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
 CHANNEL LENGTH(FT) =    3114.00     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
 ==========================================================================


 **************************************************************************
   FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
 --------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ==========================================================================
 WATERSHED AREA =      711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.410 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.293; LOW LOSS FRACTION = 0.623
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80; 1-HOUR =  1.06
  3-HOUR =  1.78;   6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
  3-HOUR = 0.741;   6-HOUR = 0.887; 24-HOUR = 0.933


 **************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
 --------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ==========================================================================


 **************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
 --------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ==========================================================================


 **************************************************************************
   FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
 --------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ==========================================================================
 WATERSHED AREA =     1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.363 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.295; LOW LOSS FRACTION = 0.517
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80; 1-HOUR =  1.06
  3-HOUR =  1.78;   6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
```

```
     3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


 ***************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    7
 -------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 =========================================================================


 ***************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    6
 -------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 =========================================================================


 ***************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
 -------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 =========================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
   UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =      213.00
   CHANNEL LENGTH(FT) =    4905.42     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
 =========================================================================


 ***************************************************************************
   FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =    1
 -------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 =========================================================================
   WATERSHED AREA =     634.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.378 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.282; LOW LOSS FRACTION = 0.601
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE = 0.37; 30-MINUTE = 0.80; 1-HOUR = 1.06
     3-HOUR = 1.78;    6-HOUR = 2.47; 24-HOUR = 4.12
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
     3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


 ***************************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    7
 -------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 =========================================================================
```

```
 ***************************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    6
 -------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 =========================================================================


 ***************************************************************************
   FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =    1
 -------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 =========================================================================
   WATERSHED AREA =      213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.255 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.128; LOW LOSS FRACTION = 0.337
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE = 0.37; 30-MINUTE = 0.80; 1-HOUR = 1.06
     3-HOUR = 1.78;    6-HOUR = 2.47; 24-HOUR = 4.12
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
     3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


 ***************************************************************************
   FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =    7
 -------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 =========================================================================


 ***************************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    6
 -------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 =========================================================================


 ***************************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
 -------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 =========================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
   UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =      212.00
   CHANNEL LENGTH(FT) =    1389.52     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
 =========================================================================


 ***************************************************************************
```

```
 FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
--------------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
 WATERSHED AREA =    4924.400 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.821 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.244; LOW LOSS FRACTION = 0.538
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80; 1-HOUR =  1.06
   3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
   3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


********************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
--------------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
================================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =     315.00
 CHANNEL LENGTH(FT) =   9760.05     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
================================================================================


********************************************************************************
 FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
--------------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
================================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =     212.00
 CHANNEL LENGTH(FT) =   6877.24     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
================================================================================


********************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
--------------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
================================================================================
 WATERSHED AREA =    1713.900 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.572 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.383
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80; 1-HOUR =  1.06
   3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
   3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933



********************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
--------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
================================================================================



********************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
--------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
================================================================================



********************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
--------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================



********************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
--------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================



********************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
--------------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =     173.00
 CHANNEL LENGTH(FT) =   6461.31     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
================================================================================



********************************************************************************
```

```
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
  WATERSHED AREA =    1705.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.358 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.245; LOW LOSS FRACTION = 0.433
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
   3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
   3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


*******************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================



*******************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================



*******************************************************************************
  FLOW PROCESS FROM NODE  13500.00 TO NODE    134.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
  WATERSHED AREA =    3859.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    1.294 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.284; LOW LOSS FRACTION = 0.431
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
   3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.294; 30-MINUTE = 0.352;  1-HOUR = 0.397
   3-HOUR = 0.741;    6-HOUR = 0.887; 24-HOUR = 0.933


*******************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
```

```
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =  11
-------------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
===============================================================================
===============================================================================
```

UPSTREAM NODE #	DOWNSTREAM NODE #	HYDROLOGIC/HYDRAULIC PROCESS		UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)	TIME(2) TO PEAK (HR)	MAX. STORAGE MODELED (AF)	FOOTNOTES
10100.00	119.00	Subarea (UH) Added to Stream #1		0.0	16602.1	18.083		
119.00	12603.00	Convex Routing:	Stream #1	16602.1	16494.2	18.083		
810.00	809.00	Subarea (UH) Added to Stream #2		0.0	101.1	16.250		
12603.00	12603.00	Stream #2 Added to:	Stream #1	16494.2	16522.5	18.083		
12603.00	12603.00	Zero Out:	Stream #2	101.1	0.0			
12603.00	126.00	Convex Routing:	Stream #1	16522.5	16508.0	18.167		
920.00	905.00	Subarea (UH) Added to Stream #2		0.0	259.5	16.250		
126.00	126.00	Stream #2 Added to:	Stream #1	16508.0	16584.3	18.167		
126.00	126.00	Zero Out:	Stream #2	259.5	0.0			
600.00	126.00	Subarea (UH) Added to Stream #2		0.0	76.0	16.333		
126.00	126.00	Stream #2 Added to:	Stream #1	16584.3	16599.9	18.167		
126.00	126.00	Zero Out:	Stream #2	76.0	0.0			
126.00	12720.50	Convex Routing:	Stream #1	16599.9	16593.0	18.250		
320.00	331.00	Subarea (UH) Added to Stream #2		0.0	381.1	16.333		
400.00	331.00	Subarea (UH) Added to Stream #3		0.0	250.2	16.333		
390.00	331.00	Subarea (UH) Added to Stream #4		0.0	43.0	16.417		
331.00	331.00	Stream #4 Added to:	Stream #2	381.1	420.7	16.333		
331.00	331.00	Zero Out:	Stream #4	43.0	0.0			
331.00	331.00	Stream #3 Added to:	Stream #2	420.7	670.9	16.333		

UPSTREAM NODE #	DOWNSTREAM NODE #	HYDROLOGIC/HYDRAULIC PROCESS		UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)	TIME(2) TO PEAK (HR)	MAX. STORAGE MODELED (AF)	FOOTNOTES
331.00	331.00	Zero Out:	Stream #3	250.2	0.0			
331.00	12720.50	Stream #2 Added to:	Stream #1	16593.0	16808.8	18.250		
12720.50	12720.50	Zero Out:	Stream #2	670.9	0.0			
12720.50	127.00	Convex Routing:	Stream #1	16808.8	16787.2	17.250		
12710.00	127.00	Subarea (UH) Added to Stream #2		0.0	218.1	16.500		
127.00	127.00	Stream #2 Added to:	Stream #1	16787.2	16905.3	17.250		
127.00	127.00	Zero Out:	Stream #2	218.1	0.0			
50150.00	127.00	Subarea (UH) Added to Stream #2		0.0	375.4	16.417		
127.00	127.00	Stream #2 Added to:	Stream #1	16905.3	17128.8	17.250		
127.00	127.00	Zero Out:	Stream #2	375.4	0.0			
127.00	129.00	Convex Routing:	Stream #1	17128.8	17104.5	17.417		
50300.00	129.00	Subarea (UH) Added to Stream #2		0.0	208.4	16.417		
129.00	129.00	Stream #2 Added to:	Stream #1	17104.5	17202.2	17.417		
129.00	129.00	Zero Out:	Stream #2	208.4	0.0			
210.00	221.00	Subarea (UH) Added to Stream #2		0.0	115.2	16.333		
222.00	129.00	Stream #2 Added to:	Stream #1	17202.2	17251.6	17.417		
129.00	129.00	Zero Out:	Stream #2	115.2	0.0			
129.00	133.00	Convex Routing:	Stream #1	17251.6	17239.9	17.417		
13010.00	132.00	Subarea (UH) Added to Stream #2		0.0	1298.3	16.833		
132.00	13305.00	Convex Routing:	Stream #2	1298.3	1279.1	17.333		
13305.00	133.00	Convex Routing:	Stream #2	1279.1	1266.0	17.583		

Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL
    3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

```
 +------------------------------------------------------------------------
--------------------------------------+
 |                              * AES FLOODSCx PROGRAM RESULTS SUMMARY *
 |
 |INPUT FILENAME: [EV5034CF.DAT   ]
Page:   2 of    |
 +------------------+----------------------------+--------------------+-
----------+------------+-----------+
 |UPSTREAM  DOWNSTREAM|                           | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|          |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS  |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +------------------+----------------------------+--------------------+-
----------+------------+-----------+
 |   132.00     133.00| Subarea (UH) Added to Stream #3|      0.0       591.1|
16.667 |          |          |
 |   133.00     133.00| Stream #3 Added to:    Stream #2|   1266.0     1689.4|
17.500 |          |          |
 |   133.00     133.00| Zero Out:           Stream #3|    591.1        0.0|
 |          |          |
 |   133.00     133.00| Stream #2 Added to:    Stream #1|  17239.9    18928.3|
17.500 |          |          |
 |   133.00     133.00| Zero Out:           Stream #2|   1689.4        0.0|
 |          |          |
 +------------------+----------------------------+--------------------+-
----------+------------+-----------+
 |   133.00     134.00| Convex Routing:       Stream #1|  18928.3    18908.4|
17.667 |          |          |
 |   133.00     134.00| Subarea (UH) Added to Stream #2|      0.0       672.3|
16.417 |          |          |
 |   134.00     134.00| Stream #2 Added to:    Stream #1|  18908.4    19225.4|
17.583 |          |          |
 |   134.00     134.00| Zero Out:           Stream #2|    672.3        0.0|
 |          |          |
 | 13500.00     134.00| Subarea (UH) Added to Stream #2|      0.0     1050.0|
17.333 |          |          |
 +------------------+----------------------------+--------------------+-
----------+------------+-----------+
 |   134.00     134.00| Stream #2 Added to:    Stream #1|  19225.4    20259.2|
17.583 |          |          |
 |   134.00     134.00| Zero Out:           Stream #2|   1050.0        0.0|
 |          |          |
 |   134.00     134.00| View:               Stream #1|             20259.2|
17.583 |   16868.71|    3     |
 +------------------+----------------------------+--------------------+-
----------+------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                            |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                 |
 +------------------------------------------------------------------------
--------------------------------------+


   END OF FLOODSCx ROUTING ANALYSIS
```

```
 _____
 *****************************************************************

          F L O O D    R O U T I N G    A N A L Y S I S
            USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                        Analysis prepared by:




  ************************* DESCRIPTION OF STUDY *************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 134U                           *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL        *
 * 50-YR EV AUG 2023 ROKAMOTO                                         *
  *********************************************************************

  FILE NAME: EV5034UF.DAT
  TIME/DATE OF STUDY: 07:40 08/10/2023


                        ** INPUT SUMMARY **


 *****************************************************************
  FLOW PROCESS FROM NODE  10100.00 TO NODE    119.00 IS CODE =   1
 -----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
 =================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    2.043 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.400
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.46; 30-MINUTE =  0.87; 1-HOUR =  1.21
    3-HOUR =  2.28;    6-HOUR =  3.40; 24-HOUR =  5.99
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


 *****************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
 -----------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 =================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =     312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
 =================================================================


 *****************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
 -----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 =================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.185 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.391
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80; 1-HOUR =  1.06
    3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


 *****************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
 -----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 =================================================================


 *****************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
 -----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 =================================================================


 *****************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
 -----------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 =================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =     286.00
  CHANNEL LENGTH(FT) =    3046.70     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
 =================================================================


 *****************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
 -----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
===============================================================
 WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.219 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.254; LOW LOSS FRACTION = 0.457
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE = 0.37; 30-MINUTE = 0.79; 1-HOUR = 1.06
   3-HOUR = 1.78;    6-HOUR = 2.47; 24-HOUR = 4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
   3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


**************************************************************
 FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   7
---------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================


**************************************************************
 FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   6
---------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================


**************************************************************
 FLOW PROCESS FROM NODE   600.00 TO NODE   126.00 IS CODE =   1
---------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================
 WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.295 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.290; LOW LOSS FRACTION = 0.732
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE = 0.37; 30-MINUTE = 0.80; 1-HOUR = 1.06
   3-HOUR = 1.78;    6-HOUR = 2.47; 24-HOUR = 4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
   3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


**************************************************************
 FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   7
---------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================


**************************************************************
 FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   6
---------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================
```

```
**************************************************************************
 FLOW PROCESS FROM NODE   126.00 TO NODE   12720.50 IS CODE = 5.2
--------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) = 200.00    CHANNEL Z = 5.00
 UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =    258.00
 CHANNEL LENGTH(FT) =    4077.05    MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================



**************************************************************************
 FLOW PROCESS FROM NODE   320.00 TO NODE   331.00 IS CODE =   1
--------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
 WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.289 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.100; LOW LOSS FRACTION = 0.252
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE = 0.37; 30-MINUTE = 0.80; 1-HOUR = 1.06
   3-HOUR = 1.78;    6-HOUR = 2.47; 24-HOUR = 4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
   3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


**************************************************************************
 FLOW PROCESS FROM NODE   400.00 TO NODE   331.00 IS CODE =   1
--------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
==========================================================================
 WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.244 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.135; LOW LOSS FRACTION = 0.326
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE = 0.37; 30-MINUTE = 0.80; 1-HOUR = 1.06
   3-HOUR = 1.78;    6-HOUR = 2.47; 24-HOUR = 4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
   3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


**************************************************************************
 FLOW PROCESS FROM NODE   390.00 TO NODE   331.00 IS CODE =   1
--------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
==========================================================================
 WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =     0.366 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.283; LOW LOSS FRACTION = 0.475
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
  3-HOUR =  1.78;   6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
  3-HOUR = 0.750;   6-HOUR = 0.890; 24-HOUR = 0.936


 *************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =    7
 -------------------------------------------------------------------------
   >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
 =========================================================================

 *************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =    6
 -------------------------------------------------------------------------
   >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
 =========================================================================


 *************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =    7
 -------------------------------------------------------------------------
   >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
 =========================================================================

 *************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =    6
 -------------------------------------------------------------------------
   >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
 =========================================================================


 *************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =    7
 -------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 =========================================================================


 *************************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =    6
 -------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 =========================================================================

 *************************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
 -------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 =========================================================================
```

```
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
   UPSTREAM ELEVATION(FT) =      258.00; DOWNSTREAM ELEVATION(FT) =     240.00
   CHANNEL LENGTH(FT) =    3114.00      MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =     0.00
 =========================================================================


 *************************************************************************
   FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =    1
 -------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 =========================================================================
   WATERSHED AREA =      711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.410 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.293; LOW LOSS FRACTION = 0.623
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
    3-HOUR =  1.78;   6-HOUR =  2.47; 24-HOUR =  4.12
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;   6-HOUR = 0.890; 24-HOUR = 0.936


 *************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    7
 -------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 =========================================================================


 *************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    6
 -------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 =========================================================================


 *************************************************************************
   FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =    1
 -------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 =========================================================================
   WATERSHED AREA =     1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.363 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.295; LOW LOSS FRACTION = 0.517
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
    3-HOUR =  1.78;   6-HOUR =  2.47; 24-HOUR =  4.12
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
```

```
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


**********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    7
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
======================================================================


**********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    6
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
======================================================================


**********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =      213.00
  CHANNEL LENGTH(FT) =    4905.42     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
======================================================================


**********************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =    1
----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
======================================================================
  WATERSHED AREA =      634.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.378 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.282; LOW LOSS FRACTION = 0.601
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.37; 30-MINUTE = 0.80;  1-HOUR = 1.06
    3-HOUR = 1.78;    6-HOUR = 2.47; 24-HOUR = 4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


**********************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    7
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
======================================================================
```

```
**********************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    6
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
======================================================================


**********************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =    1
----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
======================================================================
  WATERSHED AREA =      213.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.255 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.128; LOW LOSS FRACTION = 0.337
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.37; 30-MINUTE = 0.80;  1-HOUR = 1.06
    3-HOUR = 1.78;    6-HOUR = 2.47; 24-HOUR = 4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
    3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


**********************************************************************
  FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =    7
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
======================================================================


**********************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    6
----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
======================================================================


**********************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =      212.00
  CHANNEL LENGTH(FT) =    1389.52     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
======================================================================


**********************************************************************
```

```
 FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
--------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
 WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.821 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.244; LOW LOSS FRACTION = 0.538
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80; 1-HOUR =  1.06
   3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
   3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


***************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
--------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
==========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =     315.00
 CHANNEL LENGTH(FT) =   9760.05     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


***************************************************************************
 FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
--------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
==========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =     212.00
 CHANNEL LENGTH(FT) =   6877.24     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================

***************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
--------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
==========================================================================
 WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.572 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.383
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80; 1-HOUR =  1.06
   3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.304; 30-MINUTE = 0.358; 1-HOUR = 0.405
   3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


***************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
==========================================================================


***************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
==========================================================================


***************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


***************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


***************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
--------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =     173.00
 CHANNEL LENGTH(FT) =   6461.31     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


***************************************************************************
```

```
   FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
  WATERSHED AREA =    1705.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.358 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.245; LOW LOSS FRACTION = 0.433
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.37; 30-MINUTE = 0.80;  1-HOUR = 1.06
   3-HOUR = 1.78;    6-HOUR = 2.47; 24-HOUR = 4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.304; 30-MINUTE = 0.358;  1-HOUR = 0.405
   3-HOUR = 0.750;    6-HOUR = 0.890; 24-HOUR = 0.936


****************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


****************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================


****************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =  11
-------------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
===============================================================================
===============================================================================
```

```
  +--------------------------------------------------------------------------
-------------------------------------+
  |                        * AES FLOODSCx PROGRAM RESULTS SUMMARY *
  |
  |INPUT FILENAME: [EV5034UF.DAT   ]
Page:  1 of   |
  +-------------------+--------------------------------+-------------------+-
-----------+------------+-----------+
  |UPSTREAM  DOWNSTREAM|                               | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|                |
  | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS  |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
  +-------------------+--------------------------------+-------------------+-
-----------+------------+-----------+
  | 10100.00     119.00| Subarea (UH) Added to Stream #1|    0.0      16832.6|
18.083 |        |        |
  |   119.00   12603.00| Convex Routing:      Stream #1| 16832.6      16721.7|
18.083 |        |        |
  |   810.00     809.00| Subarea (UH) Added to Stream #2|    0.0        104.4|
16.250 |        |        |
  | 12603.00   12603.00| Stream #2 Added to:   Stream #1| 16721.7      16749.6|
18.083 |        |        |
  | 12603.00   12603.00| Zero Out:            Stream #2|  104.4         0.0|
  |        |        |
  +-------------------+--------------------------------+-------------------+-
-----------+------------+-----------+
  | 12603.00     126.00| Convex Routing:      Stream #1| 16749.6      16733.3|
18.167 |        |        |
  |   920.00     905.00| Subarea (UH) Added to Stream #2|    0.0        268.1|
16.250 |        |        |
  |   126.00     126.00| Stream #2 Added to:   Stream #1| 16733.3      16808.6|
18.167 |        |        |
  |   126.00     126.00| Zero Out:            Stream #2|  268.1         0.0|
  |        |        |
  |   600.00     126.00| Subarea (UH) Added to Stream #2|    0.0         78.8|
16.333 |        |        |
  +-------------------+--------------------------------+-------------------+-
-----------+------------+-----------+
  |   126.00     126.00| Stream #2 Added to:   Stream #1| 16808.6      16824.0|
18.167 |        |        |
  |   126.00     126.00| Zero Out:            Stream #2|   78.8         0.0|
  |        |        |
  |   126.00   12720.50| Convex Routing:      Stream #1| 16824.0      16817.7|
18.250 |        |        |
  |   320.00     331.00| Subarea (UH) Added to Stream #2|    0.0        391.0|
16.333 |        |        |
  |   400.00     331.00| Subarea (UH) Added to Stream #3|    0.0        257.4|
16.333 |        |        |
  +-------------------+--------------------------------+-------------------+-
-----------+------------+-----------+
  |   390.00     331.00| Subarea (UH) Added to Stream #4|    0.0         44.3|
16.417 |        |        |
  |   331.00     331.00| Stream #4 Added to:   Stream #2|  391.0        431.6|
16.333 |        |        |
  |   331.00     331.00| Zero Out:            Stream #4|   44.3         0.0|
  |        |        |
  |   331.00     331.00| Stream #3 Added to:   Stream #2|  431.6        689.0|
16.333 |        |        |
```

```
|   331.00     331.00| Zero Out:          Stream #3|   257.4       0.0|
|             |             |
 +-----------------+---------------------------+--------------------+-
----------+-----------+-----------+
|   331.00   12720.50| Stream #2 Added to:   Stream #1| 16817.7   17031.1|
18.250 |             |             |
| 12720.50   12720.50| Zero Out:          Stream #2|   689.0       0.0|
|             |             |
| 12720.50     127.00| Convex Routing:    Stream #1| 17031.1   17001.3|
18.333 |             |             |
| 12710.00     127.00| Subarea (UH) Added to Stream #2|     0.0     225.3|
16.500 |             |             |
|   127.00     127.00| Stream #2 Added to:   Stream #1| 17001.3   17084.0|
17.250 |             |             |
 +-----------------+---------------------------+--------------------+-
----------+-----------+-----------+
|   127.00     127.00| Zero Out:          Stream #2|   225.3       0.0|
|             |             |
| 50150.00     127.00| Subarea (UH) Added to Stream #2|     0.0     387.6|
16.417 |             |             |
|   127.00     127.00| Stream #2 Added to:   Stream #1| 17084.0   17309.1|
17.250 |             |             |
|   127.00     127.00| Zero Out:          Stream #2|   387.6       0.0|
|             |             |
|   127.00     129.00| Convex Routing:    Stream #1| 17309.1   17287.3|
17.417 |             |             |
 +-----------------+---------------------------+--------------------+-
----------+-----------+-----------+
| 50300.00     129.00| Subarea (UH) Added to Stream #2|     0.0     215.1|
16.417 |             |             |
|   129.00     129.00| Stream #2 Added to:   Stream #1| 17287.3   17385.3|
17.417 |             |             |
|   129.00     129.00| Zero Out:          Stream #2|   215.1       0.0|
|             |             |
|   210.00     221.00| Subarea (UH) Added to Stream #2|     0.0     118.6|
16.333 |             |             |
|   222.00     129.00| Stream #2 Added to:   Stream #1| 17385.3   17434.6|
17.417 |             |             |
 +-----------------+---------------------------+--------------------+-
----------+-----------+-----------+
|   129.00     129.00| Zero Out:          Stream #2|   118.6       0.0|
|             |             |
|   129.00     133.00| Convex Routing:    Stream #1| 17434.6   17422.9|
17.500 |             |             |
| 13010.00     132.00| Subarea (UH) Added to Stream #2|     0.0    1331.1|
16.833 |             |             |
|   132.00   13305.00| Convex Routing:    Stream #2|  1331.1    1309.9|
17.333 |             |             |
| 13305.00     133.00| Convex Routing:    Stream #2|  1309.9    1296.3|
17.583 |             |             |
 +-----------------+---------------------------+--------------------+-
----------+-----------+-----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                    |
|      3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                 |
 +---------------------------------------------------------------------
------------------------------------+
```

```
+----------------------------------------------------------------------------------------------------------+
|                                    * AES FLOODSCx PROGRAM RESULTS SUMMARY *  |
|INPUT FILENAME: [EV5034UF.DAT   ]
Page:   2 of    |
 +------------------+------------------------------+---------------------+-----------+-----------+----------+
 |UPSTREAM  DOWNSTREAM|                             | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|         |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
PEAK (HR) | MODELED (AF)| FOOTNOTES |
 +------------------+------------------------------+---------------------+-----------+-----------+----------+
 |  132.00     133.00| Subarea (UH) Added to Stream #3|      0.0       605.4|
16.667 |           |          |
 |  133.00     133.00| Stream #3 Added to:   Stream #2|   1296.3      1723.7|
17.500 |           |          |
 |  133.00     133.00| Zero Out:             Stream #3|    605.4        0.0|
|           |          |
 |  133.00     133.00| Stream #2 Added to:   Stream #1|  17422.9     19146.7|
17.500 |           |          |
 |  133.00     133.00| Zero Out:             Stream #2|   1723.7        0.0|
|           |          |
 +------------------+------------------------------+---------------------+-----------+-----------+----------+
 |  133.00     134.00| Convex Routing:      Stream #1|  19146.7     19126.3|
17.667 |           |          |
 |  133.00     134.00| Subarea (UH) Added to Stream #2|      0.0       692.5|
16.417 |           |          |
 |  134.00     134.00| Stream #2 Added to:   Stream #1|  19126.3     19437.6|
17.583 |           |          |
 |  134.00     134.00| Zero Out:             Stream #2|    692.5        0.0|
|           |          |
 |  134.00     134.00| View:                Stream #1|             19437.6|
17.583 |   16207.99|    3     |
 +------------------+------------------------------+---------------------+-----------+-----------+----------+
 +------------------+------------------------------+---------------------+-----------+-----------+----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                        |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                     |
 +----------------------------------------------------------------------------------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

```
********************************************************************
          F L O O D   R O U T I N G   A N A L Y S I S
          USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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         Ver. 20.0  Release Date: 06/01/2013  License ID 1264

                     Analysis prepared by:

                  Michael Baker International
                 5 Hutton Centre Drive, Suite 500
                       Santa Ana, CA 92707


 ************************** DESCRIPTION OF STUDY **************************
 * RANCHO MISSION VIEJO - FREE DRAINING UH                              *
 * PHASE CONDITION NO PA5 - REGIONAL NODE 119                           *
 * 5-YR EV APRIL 2019 FKAZI                                             *
 ************************************************************************

   FILE NAME: EV05119F.DAT
   TIME/DATE OF STUDY: 15:44 04/10/2019


                       ** INPUT SUMMARY **


********************************************************************
   FLOW PROCESS FROM NODE  10100.00 TO NODE    119.00 IS CODE =   1
--------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
====================================================================

   WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    3.308 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.496; LOW LOSS FRACTION = 0.845
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.23; 30-MINUTE =  0.44;  1-HOUR =  0.62
     3-HOUR =  1.15;    6-HOUR =  1.71; 24-HOUR =  3.02
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.345; 30-MINUTE = 0.395;  1-HOUR = 0.435
     3-HOUR = 0.785;    6-HOUR = 0.904; 24-HOUR = 0.944


********************************************************************
   FLOW PROCESS FROM NODE    119.00 TO NODE    119.00 IS CODE =  11
--------------------------------------------------------------------
   >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
====================================================================
====================================================================
```

```
  +---------------------------------------------------------------------
------------------------------------+
  |                               * AES FLOODSCx PROGRAM RESULTS SUMMARY *
  |
  |INPUT FILENAME: [EV05119F.DAT   ]
Page:  1 of    |
  +------------------+----------------------------+--------------------+-
----------+------------+----------+
  |UPSTREAM  DOWNSTREAM|                           | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|            |
  | NODE #     NODE # | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
  +------------------+----------------------------+--------------------+-
----------+------------+----------+
  | 10100.00    119.00| Subarea (UH) Added to Stream #1|     0.0     2406.9|
19.333 |          |          |
  |  119.00     119.00| View:           Stream #1|              2406.9|
19.333 |     1926.99|    3     |
  +------------------+----------------------------+--------------------+-
----------+------------+----------+
  |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                        |
  |     3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                 |
  +---------------------------------------------------------------------
------------------------------------+

     END OF FLOODSCx ROUTING ANALYSIS
```

```
_____
****************************************************************************

        F L O O D   R O U T I N G   A N A L Y S I S
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                  Analysis prepared by:




 *************************** DESCRIPTION OF STUDY **************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 126                                *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL            *
 * 5-YR EV MAY 2023 ROKAMOTO                                              *
 *************************************************************************

  FILE NAME: EV05126F.DAT
  TIME/DATE OF STUDY: 06:32 05/14/2023


                     ** INPUT SUMMARY **


****************************************************************************
  FLOW PROCESS FROM NODE 10100.00 TO NODE    119.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
============================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    3.308 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.496; LOW LOSS FRACTION = 0.845
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.23; 30-MINUTE =  0.44;  1-HOUR =  0.62
   3-HOUR =  1.15;    6-HOUR =  1.71; 24-HOUR =  3.02
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.341; 30-MINUTE = 0.392;  1-HOUR = 0.432
   3-HOUR = 0.782;    6-HOUR = 0.902; 24-HOUR = 0.943


****************************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.203 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.598
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
   3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.341; 30-MINUTE = 0.392;  1-HOUR = 0.432
   3-HOUR = 0.782;    6-HOUR = 0.902; 24-HOUR = 0.943


****************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =    286.00
  CHANNEL LENGTH(FT) =    3046.70    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
================================================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.253 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.424; LOW LOSS FRACTION = 0.818
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.18; 30-MINUTE = 0.41; 1-HOUR = 0.55
   3-HOUR = 0.92;    6-HOUR = 1.27; 24-HOUR = 2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.341; 30-MINUTE = 0.392; 1-HOUR = 0.432
   3-HOUR = 0.782;    6-HOUR = 0.902; 24-HOUR = 0.943


********************************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE    126.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================



********************************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE    126.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================



********************************************************************************
  FLOW PROCESS FROM NODE   600.00 TO NODE    126.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.313 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.483; LOW LOSS FRACTION = 0.944
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.18; 30-MINUTE = 0.41; 1-HOUR = 0.55
   3-HOUR = 0.92;    6-HOUR = 1.27; 24-HOUR = 2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.341; 30-MINUTE = 0.392; 1-HOUR = 0.432
   3-HOUR = 0.782;    6-HOUR = 0.902; 24-HOUR = 0.943


********************************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE    126.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================



********************************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE    126.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================
```

```
********************************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE    126.00 IS CODE =  11
--------------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
================================================================================

================================================================================
```

```
+------------------------------------------------------------------------
-----------------------------------+
|                                    * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
|INPUT FILENAME: [EV05126F.DAT   ]
Page:   1 of    |
 +------------------+---------------------------------+---------------------+-
----------+------------+----------+
|UPSTREAM  DOWNSTREAM|                                 | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|          |
 | NODE #     NODE # | HYDROLOGIC/HYDRAULIC PROCESS  |PEAK (CFS)   PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +------------------+---------------------------------+---------------------+-
----------+------------+----------+
 | 10100.00    119.00| Subarea (UH) Added to Stream #1|       0.0      2390.7|
19.333 |             |          |
 |   119.00   12603.00| Convex Routing:      Stream #1|   2390.7      2362.7|
19.417 |             |          |
 |   810.00     809.00| Subarea (UH) Added to Stream #2|       0.0        36.6|
16.250 |             |          |
 | 12603.00   12603.00| Stream #2 Added to:   Stream #1|   2362.7      2366.7|
19.417 |             |          |
 | 12603.00   12603.00| Zero Out:             Stream #2|     36.6        0.0|
|             |          |
 +------------------+---------------------------------+---------------------+-
----------+------------+----------+
 | 12603.00     126.00| Convex Routing:      Stream #1|   2366.7      2345.9|
19.250 |             |          |
 |   920.00     905.00| Subarea (UH) Added to Stream #2|       0.0        65.4|
16.333 |             |          |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|   2345.9      2352.2|
19.250 |             |          |
 |   126.00     126.00| Zero Out:             Stream #2|     65.4        0.0|
|             |          |
 |   600.00     126.00| Subarea (UH) Added to Stream #2|       0.0        14.4|
16.417 |             |          |
 +------------------+---------------------------------+---------------------+-
----------+------------+----------+
 |   126.00     126.00| Stream #2 Added to:   Stream #1|   2352.2      2352.9|
19.250 |             |          |
 |   126.00     126.00| Zero Out:             Stream #2|     14.4        0.0|
|             |          |
 |   126.00     126.00| View:                Stream #1|              2352.9|
19.250 |    1954.26|    3     |
 +------------------+---------------------------------+---------------------+-
----------+------------+----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                          |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                 |
 +------------------------------------------------------------------------
-----------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

```
 _____
 ***********************************************************************

            F L O O D   R O U T I N G   A N A L Y S I S
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                      Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 127                             *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL         *
 * 5-YR EV MAY 2023 ROKAMOTO                                           *
 ***********************************************************************

  FILE NAME: EV05127F.DAT
  TIME/DATE OF STUDY: 06:32 05/14/2023


                         ** INPUT SUMMARY **


 ***********************************************************************
  FLOW PROCESS FROM NODE 10100.00 TO NODE    119.00 IS CODE =   1
 -----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
 =======================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    3.308 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.496; LOW LOSS FRACTION = 0.845
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.23; 30-MINUTE =  0.44; 1-HOUR =  0.62
   3-HOUR =  1.15;    6-HOUR =  1.71; 24-HOUR =  3.02
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
   3-HOUR = 0.773;     6-HOUR = 0.898; 24-HOUR = 0.941


 ***********************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
 -----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 =======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =     312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
 =======================================================================



 ***********************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
 -----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 =======================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.203 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.598
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41; 1-HOUR =  0.55
   3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
   3-HOUR = 0.773;     6-HOUR = 0.898; 24-HOUR = 0.941


 ***********************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
 -----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 =======================================================================



 ***********************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
 -----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 =======================================================================



 ***********************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
 -----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 =======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =     286.00
  CHANNEL LENGTH(FT) =    3046.70     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
 =======================================================================



 ***********************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
 -----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
================================================================
  WATERSHED AREA =      553.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.253 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.424; LOW LOSS FRACTION = 0.818
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
    3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
    3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================


****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================


****************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================
  WATERSHED AREA =      218.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.313 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.483; LOW LOSS FRACTION = 0.944
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
    3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
    3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================


****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================
```

```
****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
----------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =     0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
================================================================


****************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =    1
----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================
  WATERSHED AREA =      712.600 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.330 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.167; LOW LOSS FRACTION = 0.352
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
    3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
    3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


****************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =    1
----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
================================================================
  WATERSHED AREA =      462.500 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.284 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.447
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
    3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
    3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


****************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =    1
----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
================================================================
  WATERSHED AREA =      117.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.448 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.472; LOW LOSS FRACTION = 0.863
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
  3-HOUR =  0.92;   6-HOUR =  1.27; 24-HOUR =  2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
  3-HOUR = 0.773;   6-HOUR = 0.898; 24-HOUR = 0.941


******************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
==============================================================================

******************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
==============================================================================

******************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==============================================================================
```

```
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
   UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
   CHANNEL LENGTH(FT) =    3114.00     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================================
  WATERSHED AREA =      711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.370 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.489; LOW LOSS FRACTION = 0.949
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
   3-HOUR =  0.92;   6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
   3-HOUR = 0.773;   6-HOUR = 0.898; 24-HOUR = 0.941


******************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================================
  WATERSHED AREA =     1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.447 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.491; LOW LOSS FRACTION = 0.915
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
   3-HOUR =  0.92;   6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
```

```
      3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


*********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    7
---------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====================================================================


*********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    6
---------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====================================================================


*********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   11
---------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
=====================================================================
=====================================================================
```

```
+---------------------------------------------------------------------
-------------------------------------+
|                            * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
|INPUT FILENAME: [EV05127F.DAT   ]
Page:  1 of   |
+------------------+----------------------------+--------------------+-
----------+------------+-----------+
|UPSTREAM  DOWNSTREAM|                           | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|            |
| NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
  +-----------------+-----------------------------+--------------------+-
----------+------------+-----------+
| 10100.00    119.00| Subarea (UH) Added to Stream #1|      0.0     2339.7|
19.333 |             |            |
|   119.00  12603.00| Convex Routing:      Stream #1|  2339.7     2314.2|
19.417 |             |            |
|   810.00    809.00| Subarea (UH) Added to Stream #2|      0.0       35.1|
16.250 |             |            |
| 12603.00  12603.00| Stream #2 Added to:   Stream #1|  2314.2     2318.3|
19.417 |             |            |
| 12603.00  12603.00| Zero Out:             Stream #2|    35.1        0.0|
|           |            |
  +------------------+----------------------------+--------------------+-
----------+------------+-----------+
| 12603.00    126.00| Convex Routing:      Stream #1|  2318.3     2301.0|
19.250 |             |            |
|   920.00    905.00| Subarea (UH) Added to Stream #2|      0.0       61.6|
16.333 |             |            |
|   126.00    126.00| Stream #2 Added to:   Stream #1|  2301.0     2307.2|
19.250 |             |            |
|   126.00    126.00| Zero Out:             Stream #2|    61.6        0.0|
|           |            |
|   600.00    126.00| Subarea (UH) Added to Stream #2|      0.0       13.2|
16.417 |             |            |
  +------------------+----------------------------+--------------------+-
----------+------------+-----------+
|   126.00    126.00| Stream #2 Added to:   Stream #1|  2307.2     2308.0|
19.250 |             |            |
|   126.00    126.00| Zero Out:             Stream #2|    13.2        0.0|
|           |            |
|   126.00  12720.50| Convex Routing:      Stream #1|  2308.0     2303.7|
19.583 |             |            |
|   320.00    331.00| Subarea (UH) Added to Stream #2|      0.0      166.5|
16.417 |             |            |
|   400.00    331.00| Subarea (UH) Added to Stream #3|      0.0      101.3|
16.333 |             |            |
  +------------------+----------------------------+--------------------+-
----------+------------+-----------+
|   390.00    331.00| Subarea (UH) Added to Stream #4|      0.0        7.6|
16.500 |             |            |
|   331.00    331.00| Stream #4 Added to:   Stream #2|  166.5      173.4|
16.417 |             |            |
|   331.00    331.00| Zero Out:             Stream #4|     7.6        0.0|
|           |            |
|   331.00    331.00| Stream #3 Added to:   Stream #2|  173.4      269.7|
16.333 |             |            |
```

```
|   331.00     331.00| Zero Out:            Stream #3|    101.3        0.0|
|             |           |
 +------------------+-----------------------------+---------------------+-
----------+-------------+-----------+
|   331.00   12720.50| Stream #2 Added to:   Stream #1|   2303.7     2346.7|
19.583 |          |           |
| 12720.50   12720.50| Zero Out:            Stream #2|    269.7        0.0|
|             |           |
| 12720.50     127.00| Convex Routing:      Stream #1|   2346.7     2344.4|
19.500 |          |           |
| 12710.00     127.00| Subarea (UH) Added to Stream #2|      0.0       36.9|
16.417 |          |           |
|   127.00     127.00| Stream #2 Added to:   Stream #1|   2344.4     2346.6|
19.500 |          |           |
 +------------------+-----------------------------+---------------------+-
----------+-------------+-----------+
|   127.00     127.00| Zero Out:            Stream #2|     36.9        0.0|
|             |           |
| 50150.00     127.00| Subarea (UH) Added to Stream #2|      0.0       55.1|
16.500 |          |           |
|   127.00     127.00| Stream #2 Added to:   Stream #1|   2346.6     2352.1|
19.500 |          |           |
|   127.00     127.00| Zero Out:            Stream #2|     55.1        0.0|
|             |           |
|   127.00     127.00| View:                Stream #1|              2352.1|
19.500 |   2086.83|   3    |
 +------------------+-----------------------------+---------------------+-
----------+-------------+-----------+
 +------------------+-----------------------------+---------------------+-
----------+-------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                                            |
 |        3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                          |
 +-----------------------------------------------------------------------
--------------------------------------+
```

   END OF FLOODSCx ROUTING ANALYSIS

```
_____
***********************************************************************

     F L O O D   R O U T I N G   A N A L Y S I S
      USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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              Analysis prepared by:




 ************************** DESCRIPTION OF STUDY **************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 137                                *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL            *
 * 5-YR EV AUG 2023 ROKAMOTO                                              *
 *************************************************************************

  FILE NAME: EV05137F.DAT
  TIME/DATE OF STUDY: 09:35 08/10/2023


                      ** INPUT SUMMARY **


***********************************************************************
  FLOW PROCESS FROM NODE 10100.00 TO NODE    119.00 IS CODE =   1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
=======================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    3.308 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.496; LOW LOSS FRACTION = 0.845
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.23; 30-MINUTE = 0.44; 1-HOUR = 0.62
   3-HOUR = 1.15;    6-HOUR = 1.71; 24-HOUR = 3.02
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
   3-HOUR = 0.738;     6-HOUR = 0.886; 24-HOUR = 0.933


***********************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
-----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =    341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=======================================================================



***********************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=======================================================================
  WATERSHED AREA =    171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.203 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.598
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.18; 30-MINUTE = 0.41; 1-HOUR = 0.55
   3-HOUR = 0.92;    6-HOUR = 1.27; 24-HOUR = 2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
   3-HOUR = 0.738;     6-HOUR = 0.886; 24-HOUR = 0.933


***********************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=======================================================================



***********************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=======================================================================



***********************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
-----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =    312.40; DOWNSTREAM ELEVATION(FT) =    286.00
  CHANNEL LENGTH(FT) =    3046.70    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
=====================================================================
  WATERSHED AREA =      553.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.253 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.424; LOW LOSS FRACTION = 0.818
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
    3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


*********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
  -------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====================================================================


*********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
  -------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====================================================================


*********************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
  -------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====================================================================
  WATERSHED AREA =      218.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.313 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.483; LOW LOSS FRACTION = 0.944
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
    3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


*********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
  -------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=====================================================================


*********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
  -------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=====================================================================
```

```
*********************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    12720.50 IS CODE = 5.2
  -------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=====================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =     0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =      286.00; DOWNSTREAM ELEVATION(FT) =      258.00
  CHANNEL LENGTH(FT) =     4077.05      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
=====================================================================


*********************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =    1
  -------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=====================================================================
  WATERSHED AREA =      712.600 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.330 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.167; LOW LOSS FRACTION = 0.352
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
    3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


*********************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =    1
  -------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
=====================================================================
  WATERSHED AREA =      462.500 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.284 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.447
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
    3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


*********************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =    1
  -------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
=====================================================================
  WATERSHED AREA =      117.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.448 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.472; LOW LOSS FRACTION = 0.863
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
  3-HOUR =  0.92;   6-HOUR =  1.27; 24-HOUR =  2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
  3-HOUR = 0.738;   6-HOUR = 0.886; 24-HOUR = 0.933


*******************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
-------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===============================================================================
```

```
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =    240.00
 CHANNEL LENGTH(FT) =    3114.00     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =     0.00
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
 WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.370 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.489; LOW LOSS FRACTION = 0.949
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
  3-HOUR =  0.92;   6-HOUR =  1.27; 24-HOUR =  2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
  3-HOUR = 0.738;   6-HOUR = 0.886; 24-HOUR = 0.933


*******************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
 WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.447 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.491; LOW LOSS FRACTION = 0.915
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
  3-HOUR =  0.92;   6-HOUR =  1.27; 24-HOUR =  2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
```

```
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


*****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
  CHANNEL LENGTH(FT) =    4905.42     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =    1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     634.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.444 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.470; LOW LOSS FRACTION = 0.908
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
    3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


*****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================
```

```
*****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =    1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =     213.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.286 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.213; LOW LOSS FRACTION = 0.446
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
    3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


*****************************************************************************
  FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =    7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    1389.52     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


*****************************************************************************
```

```
 FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
-----------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=============================================================================
 WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.986 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.406; LOW LOSS FRACTION = 0.789
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.18; 30-MINUTE =  0.41; 1-HOUR =  0.55
   3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
   3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


**************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
-----------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
=============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   0.01     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =    427.51; DOWNSTREAM ELEVATION(FT) =    315.00
 CHANNEL LENGTH(FT) =   9760.05     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =   0.00
=============================================================================


**************************************************************************
 FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
-----------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
=============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   0.01     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =    315.00; DOWNSTREAM ELEVATION(FT) =    212.00
 CHANNEL LENGTH(FT) =   6877.24     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =   0.00
=============================================================================


**************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
-----------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
=============================================================================
 WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.699 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.375; LOW LOSS FRACTION = 0.691
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.18; 30-MINUTE =  0.41; 1-HOUR =  0.55
   3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
   3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


**************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
-----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=============================================================================


**************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
-----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=============================================================================


**************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
-----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=============================================================================


**************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
-----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=============================================================================


**************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
-----------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   0.01     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =    212.00; DOWNSTREAM ELEVATION(FT) =    170.00
 CHANNEL LENGTH(FT) =   6461.31     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =   0.00
=============================================================================


**************************************************************************
```

```
  FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =    1705.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.390 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.409; LOW LOSS FRACTION = 0.762
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
    3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE  13500.00 TO NODE    134.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =    3859.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     2.180 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.473; LOW LOSS FRACTION = 0.843
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
    3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
```

```
================================================================================

********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE = 5.2
--------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =      170.00; DOWNSTREAM ELEVATION(FT) =      135.00
  CHANNEL LENGTH(FT) =     6064.09     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =    1240.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.439 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.395; LOW LOSS FRACTION = 0.714
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
    3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


********************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =  11
--------------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
================================================================================
================================================================================
```

```
+----------------------------------------------------------------------------------------------------------+
|                                      * AES FLOODSCx PROGRAM RESULTS SUMMARY *                             |
|INPUT FILENAME: [EV05137F.DAT   ]
Page:   1 of     |
+------------------+----------------------------+---------------------+-----------+------------+-----------+
|UPSTREAM  DOWNSTREAM|                            |  UPSTREAM   DOWNSTREAM| TIME(2) TO | MAX. STORAGE|         |
| NODE #     NODE # | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)   PEAK (CFS)| PEAK (HR) | MODELED (AF)| FOOTNOTES |
+------------------+----------------------------+---------------------+-----------+------------+-----------+
| 10100.00    119.00| Subarea (UH) Added to Stream #1|    0.0     2151.5|
19.333 |           |           |
|   119.00  12603.00| Convex Routing:      Stream #1|  2151.5     2135.2|
18.833 |           |           |
|   810.00    809.00| Subarea (UH) Added to Stream #2|    0.0       29.6|
16.250 |           |           |
| 12603.00  12603.00| Stream #2 Added to:   Stream #1|  2135.2     2139.8|
18.833 |           |           |
| 12603.00  12603.00| Zero Out:            Stream #2|   29.6        0.0|
|           |           |
+------------------+----------------------------+---------------------+-----------+------------+-----------+
| 12603.00    126.00| Convex Routing:      Stream #1|  2139.8     2135.2|
19.250 |           |           |
|   920.00    905.00| Subarea (UH) Added to Stream #2|    0.0       47.3|
16.333 |           |           |
|   126.00    126.00| Stream #2 Added to:   Stream #1|  2135.2     2141.4|
19.250 |           |           |
|   126.00    126.00| Zero Out:            Stream #2|   47.3        0.0|
|           |           |
|   600.00    126.00| Subarea (UH) Added to Stream #2|    0.0        8.9|
16.417 |           |           |
+------------------+----------------------------+---------------------+-----------+------------+-----------+
|   126.00    126.00| Stream #2 Added to:   Stream #1|  2141.4     2142.2|
19.250 |           |           |
|   126.00    126.00| Zero Out:            Stream #2|    8.9        0.0|
|           |           |
|   126.00  12720.50| Convex Routing:      Stream #1|  2142.2     2135.8|
19.333 |           |           |
|   320.00    331.00| Subarea (UH) Added to Stream #2|    0.0      148.2|
16.417 |           |           |
|   400.00    331.00| Subarea (UH) Added to Stream #3|    0.0       88.7|
16.333 |           |           |
+------------------+----------------------------+---------------------+-----------+------------+-----------+
|   390.00    331.00| Subarea (UH) Added to Stream #4|    0.0        5.7|
16.500 |           |           |
|   331.00    331.00| Stream #4 Added to:   Stream #2|  148.2      153.5|
16.417 |           |           |
|   331.00    331.00| Zero Out:            Stream #4|    5.7        0.0|
|           |           |
|   331.00    331.00| Stream #3 Added to:   Stream #2|  153.5      238.6|
16.333 |           |           |
```

```
|   331.00     331.00| Zero Out:           Stream #3|     88.7         0.0|
|            |            |
 +------------------+----------------------------+---------------------+-
-----------+-------------+-----------+
|   331.00   12720.50| Stream #2 Added to:   Stream #1|   2135.8     2188.4|
18.500 |            |            |
| 12720.50   12720.50| Zero Out:           Stream #2|    238.6         0.0|
|            |            |
| 12720.50     127.00| Convex Routing:       Stream #1|   2188.4     2185.9|
18.583 |            |            |
| 12710.00     127.00| Subarea (UH) Added to Stream #2|      0.0        24.9|
16.417 |            |            |
|   127.00     127.00| Stream #2 Added to:   Stream #1|   2185.9     2189.0|
18.583 |            |            |
 +------------------+----------------------------+---------------------+-
-----------+-------------+-----------+
|   127.00     127.00| Zero Out:           Stream #2|     24.9         0.0|
|            |            |
| 50150.00     127.00| Subarea (UH) Added to Stream #2|      0.0        39.2|
16.500 |            |            |
|   127.00     127.00| Stream #2 Added to:   Stream #1|   2189.0     2198.0|
18.250 |            |            |
|   127.00     127.00| Zero Out:           Stream #2|     39.2         0.0|
|            |            |
|   127.00     129.00| Convex Routing:       Stream #1|   2198.0     2192.2|
18.417 |            |            |
 +------------------+----------------------------+---------------------+-
-----------+-------------+-----------+
| 50300.00     129.00| Subarea (UH) Added to Stream #2|      0.0        26.4|
16.500 |            |            |
|   129.00     129.00| Stream #2 Added to:   Stream #1|   2192.2     2199.5|
18.333 |            |            |
|   129.00     129.00| Zero Out:           Stream #2|     26.4         0.0|
|            |            |
|   210.00     221.00| Subarea (UH) Added to Stream #2|      0.0        41.4|
16.333 |            |            |
|   222.00     129.00| Stream #2 Added to:   Stream #1|   2199.5     2212.2|
18.333 |            |            |
 +------------------+----------------------------+---------------------+-
-----------+-------------+-----------+
|   129.00     129.00| Zero Out:           Stream #2|     41.4         0.0|
|            |            |
|   129.00     133.00| Convex Routing:       Stream #1|   2212.2     2208.1|
18.500 |            |            |
| 13010.00     132.00| Subarea (UH) Added to Stream #2|      0.0       281.7|
17.000 |            |            |
|   132.00   13305.00| Convex Routing:       Stream #2|    281.7       275.6|
17.583 |            |            |
| 13305.00     133.00| Convex Routing:       Stream #2|    275.6       274.3|
17.833 |            |            |
 +------------------+----------------------------+---------------------+-
-----------+-------------+-----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                              |
|      3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                      |
 +-----------------------------------------------------------------------
------------------------------------+
```

UPSTREAM DOWNSTREAM		UPSTREAM DOWNSTREAM	TIME(2) TO	MAX. STORAGE	
NODE # NODE #	HYDROLOGIC/HYDRAULIC PROCESS	PEAK (CFS) PEAK (CFS)	PEAK (HR)	MODELED (AF)	FOOTNOTES
132.00 133.00	Subarea (UH) Added to Stream #3	0.0 143.7	16.750		
133.00 133.00	Stream #3 Added to: Stream #2	274.3 377.8	17.667		
133.00 133.00	Zero Out: Stream #3	143.7 0.0			
133.00 133.00	Stream #2 Added to: Stream #1	2208.1 2521.2	18.417		
133.00 133.00	Zero Out: Stream #2	377.8 0.0			
133.00 134.00	Convex Routing: Stream #1	2521.2 2518.7	18.583		
133.00 134.00	Subarea (UH) Added to Stream #2	0.0 136.6	16.417		
134.00 134.00	Stream #2 Added to: Stream #1	2518.7 2556.0	18.500		
134.00 134.00	Zero Out: Stream #2	136.6 0.0			
13500.00 134.00	Subarea (UH) Added to Stream #2	0.0 137.0	18.083		
134.00 134.00	Stream #2 Added to: Stream #1	2556.0 2688.7	18.250		
134.00 134.00	Zero Out: Stream #2	137.0 0.0			
134.00 137.00	Convex Routing: Stream #1	2688.7 2687.5	18.667		
134.00 137.00	Subarea (UH) Added to Stream #2	0.0 109.6	16.500		
137.00 137.00	Stream #2 Added to: Stream #1	2687.5 2728.0	18.417		
137.00 137.00	Zero Out: Stream #2	109.6 0.0			
137.00 137.00	View: Stream #1	2728.0	18.417	2555.69	3

```
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                                 |
```

```
|      3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                          |
 +----------------------------------------------------------------------
------------------------------------+
```

END OF FLOODSCx ROUTING ANALYSIS

```
 _____
***********************************************************************
         F L O O D   R O U T I N G   A N A L Y S I S
           USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                      Analysis prepared by:




 ************************** DESCRIPTION OF STUDY **************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 138                              *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL          *
 * 5-YR EV AUG 2023 ROKAMOTO                                            *
 ***********************************************************************

  FILE NAME: EV05138F.DAT
  TIME/DATE OF STUDY: 09:33 08/10/2023


                     ** INPUT SUMMARY **


***********************************************************************
  FLOW PROCESS FROM NODE 10100.00 TO NODE   119.00 IS CODE =   1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
=======================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    3.308 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.496; LOW LOSS FRACTION = 0.845
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.23; 30-MINUTE =  0.44; 1-HOUR =  0.62
   3-HOUR =  1.15;    6-HOUR =  1.71; 24-HOUR =  3.02
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


***********************************************************************
  FLOW PROCESS FROM NODE   119.00 TO NODE  12603.00 IS CODE = 5.2
-----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01    CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```
```
  CHANNEL LENGTH(FT) =    3157.79    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=======================================================================



***********************************************************************
  FLOW PROCESS FROM NODE   810.00 TO NODE   809.00 IS CODE =   1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=======================================================================
  WATERSHED AREA =    171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.203 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.598
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41; 1-HOUR =  0.55
   3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


***********************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=======================================================================



***********************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=======================================================================



***********************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE   126.00 IS CODE = 5.2
-----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01    CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =    286.00
  CHANNEL LENGTH(FT) =    3046.70    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=======================================================================



***********************************************************************
  FLOW PROCESS FROM NODE   920.00 TO NODE   905.00 IS CODE =   1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
===================================================================
 WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.253 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.424; LOW LOSS FRACTION = 0.818
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE = 0.18; 30-MINUTE = 0.41; 1-HOUR = 0.55
   3-HOUR = 0.92;   6-HOUR = 1.27; 24-HOUR = 2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
   3-HOUR = 0.734;   6-HOUR = 0.885; 24-HOUR = 0.932


***************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
-------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===================================================================


***************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
-------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===================================================================


***************************************************************
 FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
-------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===================================================================
 WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.313 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.483; LOW LOSS FRACTION = 0.944
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE = 0.18; 30-MINUTE = 0.41; 1-HOUR = 0.55
   3-HOUR = 0.92;   6-HOUR = 1.27; 24-HOUR = 2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
   3-HOUR = 0.734;   6-HOUR = 0.885; 24-HOUR = 0.932


***************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
-------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===================================================================


***************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
-------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===================================================================
```

```
***************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
-------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =     0.01     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
 CHANNEL LENGTH(FT) =    4077.05     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =     0.00
===================================================================


***************************************************************
 FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =    1
-------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===================================================================
 WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.330 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.167; LOW LOSS FRACTION = 0.352
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE = 0.18; 30-MINUTE = 0.41; 1-HOUR = 0.55
   3-HOUR = 0.92;   6-HOUR = 1.27; 24-HOUR = 2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
   3-HOUR = 0.734;   6-HOUR = 0.885; 24-HOUR = 0.932


***************************************************************
 FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =    1
-------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
===================================================================
 WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.284 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.225; LOW LOSS FRACTION = 0.447
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE = 0.18; 30-MINUTE = 0.41; 1-HOUR = 0.55
   3-HOUR = 0.92;   6-HOUR = 1.27; 24-HOUR = 2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
   3-HOUR = 0.734;   6-HOUR = 0.885; 24-HOUR = 0.932


***************************************************************
 FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =    1
-------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
===================================================================
 WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.448 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.472; LOW LOSS FRACTION = 0.863
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
   3-HOUR =  0.92;   6-HOUR =  1.27; 24-HOUR =  2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;   6-HOUR = 0.885; 24-HOUR = 0.932


 ***********************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
 ----------------------------------------------------------------------
   >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
 ======================================================================

 ***********************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
 ----------------------------------------------------------------------
   >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
 ======================================================================


 ***********************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
 ----------------------------------------------------------------------
   >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
 ======================================================================

 ***********************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
 ----------------------------------------------------------------------
   >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
 ======================================================================


 ***********************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
 ----------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ======================================================================


 ***********************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
 ----------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ======================================================================


 ***********************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
 ----------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ======================================================================
```

```
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
   UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =    240.00
   CHANNEL LENGTH(FT) =    3114.00      MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
 ======================================================================


 ***********************************************************************
   FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
 ----------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ======================================================================
   WATERSHED AREA =      711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.370 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.489; LOW LOSS FRACTION = 0.949
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
     3-HOUR =  0.92;   6-HOUR =  1.27; 24-HOUR =  2.12
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
     3-HOUR = 0.734;   6-HOUR = 0.885; 24-HOUR = 0.932


 ***********************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
 ----------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ======================================================================


 ***********************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
 ----------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ======================================================================


 ***********************************************************************
   FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
 ----------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ======================================================================
   WATERSHED AREA =     1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.447 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.491; LOW LOSS FRACTION = 0.915
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
     3-HOUR =  0.92;   6-HOUR =  1.27; 24-HOUR =  2.12
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
```

```
       3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


  **********************************************************************
   FLOW PROCESS FROM NODE     127.00 TO NODE     127.00 IS CODE =   7
  --------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ====================================================================


  **********************************************************************
   FLOW PROCESS FROM NODE     127.00 TO NODE     127.00 IS CODE =   6
  --------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ====================================================================


  **********************************************************************
   FLOW PROCESS FROM NODE     127.00 TO NODE     129.00 IS CODE = 5.2
  --------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ====================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
   UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
   CHANNEL LENGTH(FT) =   4905.42     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
  ====================================================================


  **********************************************************************
   FLOW PROCESS FROM NODE  50300.00 TO NODE     129.00 IS CODE =   1
  --------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ====================================================================
   WATERSHED AREA =     634.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.444 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.470; LOW LOSS FRACTION = 0.908
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
      3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
      3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


  **********************************************************************
   FLOW PROCESS FROM NODE     129.00 TO NODE     129.00 IS CODE =   7
  --------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ====================================================================
```

```
  **********************************************************************
   FLOW PROCESS FROM NODE     129.00 TO NODE     129.00 IS CODE =   6
  --------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ====================================================================


  **********************************************************************
   FLOW PROCESS FROM NODE     210.00 TO NODE     221.00 IS CODE =   1
  --------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ====================================================================
   WATERSHED AREA =     213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.286 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.213; LOW LOSS FRACTION = 0.446
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
      3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
      3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


  **********************************************************************
   FLOW PROCESS FROM NODE     222.00 TO NODE     129.00 IS CODE =   7
  --------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ====================================================================


  **********************************************************************
   FLOW PROCESS FROM NODE     129.00 TO NODE     129.00 IS CODE =   6
  --------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ====================================================================


  **********************************************************************
   FLOW PROCESS FROM NODE     129.00 TO NODE     133.00 IS CODE = 5.2
  --------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ====================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
   UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
   CHANNEL LENGTH(FT) =   1389.52     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
  ====================================================================


  **********************************************************************
```

```
 FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
-------------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
 WATERSHED AREA =    4924.400 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.986 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.406; LOW LOSS FRACTION = 0.789
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.18; 30-MINUTE =  0.41; 1-HOUR =  0.55
   3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


*****************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
-------------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
===============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =     315.00
 CHANNEL LENGTH(FT) =   9760.05     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
===============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
-------------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
===============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =     212.00
 CHANNEL LENGTH(FT) =   6877.24     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
===============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
-------------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
===============================================================================
 WATERSHED AREA =    1713.900 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.699 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.375; LOW LOSS FRACTION = 0.691
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.18; 30-MINUTE =  0.41; 1-HOUR =  0.55
   3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
-------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
===============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
-------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
===============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
-------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
-------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
-------------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =     170.00
 CHANNEL LENGTH(FT) =   6461.31     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
===============================================================================


*****************************************************************************
```

```
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =   1
--------------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
 WATERSHED AREA =    1705.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.390 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.409; LOW LOSS FRACTION = 0.762
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
   3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932

********************************************************************************
 FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
--------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
 FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
--------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
 FLOW PROCESS FROM NODE  13500.00 TO NODE    134.00 IS CODE =   1
--------------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
 WATERSHED AREA =    3859.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     2.180 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.473; LOW LOSS FRACTION = 0.843
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
   3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932

********************************************************************************
 FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
--------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
 FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
--------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
```

```
================================================================================
 FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE = 5.2
--------------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =     0.01     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =      170.00; DOWNSTREAM ELEVATION(FT) =      135.00
 CHANNEL LENGTH(FT) =    6064.09     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =     0.00
================================================================================


********************************************************************************
 FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE =   1
--------------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
 WATERSHED AREA =    1240.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.439 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.395; LOW LOSS FRACTION = 0.714
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
   3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


********************************************************************************
 FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   7
--------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
 FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   6
--------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
 FLOW PROCESS FROM NODE    137.00 TO NODE    138.00 IS CODE = 5.2
--------------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
```

```
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =   0.01      CHANNEL Z = 3.00
  UPSTREAM ELEVATION(FT) =     135.00; DOWNSTREAM ELEVATION(FT) =    119.70
  CHANNEL LENGTH(FT) =   4643.67     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =   0.00
==================================================================================


*********************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    138.00 IS CODE =   1
---------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==================================================================================
  WATERSHED AREA =    1303.500 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.607 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.445; LOW LOSS FRACTION = 0.797
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.18; 30-MINUTE = 0.41; 1-HOUR = 0.55
   3-HOUR = 0.90;    6-HOUR = 1.27; 24-HOUR = 2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


*********************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =   7
---------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==================================================================================


*********************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =   6
---------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==================================================================================


*********************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =  11
---------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
==================================================================================
==================================================================================
```

```
+----------------------------------------------------------------------------------------------------------+
|                                        * AES FLOODSCx PROGRAM RESULTS SUMMARY *                           |
|INPUT FILENAME: [EV05138F.DAT   ]
Page:  1 of   |
+------------------+------------+---------------------------------+----------------+------------+----------+
|UPSTREAM  DOWNSTREAM|                                           | UPSTREAM  DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|                                       |
| NODE #      NODE #  | HYDROLOGIC/HYDRAULIC PROCESS  |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
+------------------+------------+---------------------------------+----------------+------------+----------+
| 10100.00    119.00| Subarea (UH) Added to Stream #1|     0.0    2135.9|
19.333 |
|  119.00   12603.00| Convex Routing:      Stream #1|  2135.9    2121.8|
18.833 |
|  810.00     809.00| Subarea (UH) Added to Stream #2|     0.0     29.2|
16.250 |
| 12603.00  12603.00| Stream #2 Added to:   Stream #1|  2121.8    2126.4|
18.833 |
| 12603.00  12603.00| Zero Out:            Stream #2|    29.2      0.0|
+------------------+------------+---------------------------------+----------------+------------+----------+
| 12603.00    126.00| Convex Routing:      Stream #1|  2126.4    2121.7|
19.250 |
|  920.00     905.00| Subarea (UH) Added to Stream #2|     0.0     46.2|
16.333 |
|  126.00     126.00| Stream #2 Added to:   Stream #1|  2121.7    2127.9|
19.250 |
|  126.00     126.00| Zero Out:            Stream #2|    46.2      0.0|
|  600.00     126.00| Subarea (UH) Added to Stream #2|     0.0      8.6|
16.417 |
+------------------+------------+---------------------------------+----------------+------------+----------+
|  126.00     126.00| Stream #2 Added to:   Stream #1|  2127.9    2128.6|
19.250 |
|  126.00     126.00| Zero Out:            Stream #2|     8.6      0.0|
|  126.00   12720.50| Convex Routing:      Stream #1|  2128.6    2122.4|
19.333 |
|  320.00     331.00| Subarea (UH) Added to Stream #2|     0.0    146.9|
16.417 |
|  400.00     331.00| Subarea (UH) Added to Stream #3|     0.0     87.7|
16.333 |
+------------------+------------+---------------------------------+----------------+------------+----------+
|  390.00     331.00| Subarea (UH) Added to Stream #4|     0.0      5.6|
16.500 |
|  331.00     331.00| Stream #4 Added to:   Stream #2|   146.9    152.1|
16.417 |
|  331.00     331.00| Zero Out:            Stream #4|     5.6      0.0|
|  331.00     331.00| Stream #3 Added to:   Stream #2|   152.1    236.4|
16.333 |
```

```
|   331.00     331.00| Zero Out:            Stream #3|    87.7        0.0|
|             |              |
  +------------------+---------------------------+--------------------+-
-----------+-------------+-----------+
|   331.00   12720.50| Stream #2 Added to:   Stream #1|  2122.4     2177.1|
18.500 |             |
|  12720.50  12720.50| Zero Out:            Stream #2|   236.4        0.0|
|             |              |
| 12720.50     127.00| Convex Routing:      Stream #1|  2177.1     2174.7|
18.583 |             |
| 12710.00     127.00| Subarea (UH) Added to Stream #2|     0.0       23.9|
16.417 |             |
|   127.00     127.00| Stream #2 Added to:   Stream #1|  2174.7     2177.8|
18.583 |             |
  +------------------+---------------------------+--------------------+-
-----------+-------------+-----------+
|   127.00     127.00| Zero Out:            Stream #2|    23.9        0.0|
|             |              |
|  50150.00     127.00| Subarea (UH) Added to Stream #2|     0.0       38.0|
16.500 |             |
|   127.00     127.00| Stream #2 Added to:   Stream #1|  2177.8     2188.8|
18.250 |             |
|   127.00     127.00| Zero Out:            Stream #2|    38.0        0.0|
|             |              |
|   127.00     129.00| Convex Routing:      Stream #1|  2188.8     2183.0|
18.417 |             |
  +------------------+---------------------------+--------------------+-
-----------+-------------+-----------+
|  50300.00     129.00| Subarea (UH) Added to Stream #2|     0.0       25.7|
16.500 |             |
|   129.00     129.00| Stream #2 Added to:   Stream #1|  2183.0     2190.3|
18.333 |             |
|   129.00     129.00| Zero Out:            Stream #2|    25.7        0.0|
|             |              |
|   210.00     221.00| Subarea (UH) Added to Stream #2|     0.0       41.0|
16.333 |             |
|   222.00     129.00| Stream #2 Added to:   Stream #1|  2190.3     2203.1|
18.333 |             |
  +------------------+---------------------------+--------------------+-
-----------+-------------+-----------+
|   129.00     129.00| Zero Out:            Stream #2|    41.0        0.0|
|             |              |
|   129.00     133.00| Convex Routing:      Stream #1|  2203.1     2199.0|
18.500 |             |
|  13010.00     132.00| Subarea (UH) Added to Stream #2|     0.0      278.2|
17.000 |             |
|   132.00   13305.00| Convex Routing:      Stream #2|   278.2      272.5|
17.583 |             |
|  13305.00     133.00| Convex Routing:      Stream #2|   272.5      271.1|
17.833 |             |
  +------------------+---------------------------+--------------------+-
-----------+-------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                             |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                     |
  +----------------------------------------------------------------------
------------------------------------+
```

UPSTREAM DOWNSTREAM	TIME(2) TO	MAX. STORAGE		UPSTREAM DOWNSTREAM	
NODE #	NODE #	HYDROLOGIC/HYDRAULIC PROCESS	PEAK (CFS) PEAK (CFS)	PEAK (HR)	MODELED (AF)| FOOTNOTES

UPSTREAM NODE #	DOWNSTREAM NODE #	HYDROLOGIC/HYDRAULIC PROCESS	UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)	TIME(2) TO PEAK (HR)	MAX. STORAGE MODELED (AF)	FOOTNOTES
132.00	133.00	Subarea (UH) Added to Stream #3	0.0	142.0	16.750		
133.00	133.00	Stream #3 Added to: Stream #2	271.1	374.3	17.667		
133.00	133.00	Zero Out: Stream #3	142.0	0.0			
133.00	133.00	Stream #2 Added to: Stream #1	2199.0	2511.0	18.417		
133.00	133.00	Zero Out: Stream #2	374.3	0.0			
133.00	134.00	Convex Routing: Stream #1	2511.0	2508.6	18.583		
133.00	134.00	Subarea (UH) Added to Stream #2	0.0	134.3	16.417		
134.00	134.00	Stream #2 Added to: Stream #1	2508.6	2546.2	18.500		
134.00	134.00	Zero Out: Stream #2	134.3	0.0			
13500.00	134.00	Subarea (UH) Added to Stream #2	0.0	135.7	18.083		
134.00	134.00	Stream #2 Added to: Stream #1	2546.2	2678.0	18.250		
134.00	134.00	Zero Out: Stream #2	135.7	0.0			
134.00	137.00	Convex Routing: Stream #1	2678.0	2676.5	18.667		
134.00	137.00	Subarea (UH) Added to Stream #2	0.0	107.9	16.500		
137.00	137.00	Stream #2 Added to: Stream #1	2676.5	2717.6	18.417		
137.00	137.00	Zero Out: Stream #2	107.9	0.0			
137.00	138.00	Convex Routing: Stream #1	2717.6	2715.3	18.583		
137.00	138.00	Subarea (UH) Added to Stream #2	0.0	75.3	16.667		
138.00	138.00	Stream #2 Added to: Stream #1	2715.3	2748.6	18.500		
138.00	138.00	Zero Out: Stream #2	75.3	0.0			
138.00	138.00	View: Stream #1		2748.6	18.500	2594.38	3

|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL
| 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

END OF FLOODSCx ROUTING ANALYSIS

```
 _____
 *************************************************************************

           F L O O D   R O U T I N G   A N A L Y S I S
             USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                    Analysis prepared by:




  ************************ DESCRIPTION OF STUDY **************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 139                              *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL          *
 * 5-YR EV AUG 2023 ROKAMOTO                                            *
  **********************************************************************

  FILE NAME: EV05139F.DAT
  TIME/DATE OF STUDY: 09:32 08/10/2023


                    ** INPUT SUMMARY **


 *************************************************************************
  FLOW PROCESS FROM NODE  10100.00 TO NODE    119.00 IS CODE =   1
 ------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
 ========================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    3.308 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.496; LOW LOSS FRACTION = 0.845
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.23; 30-MINUTE =  0.44; 1-HOUR =  0.62
    3-HOUR =  1.15;    6-HOUR =  1.71; 24-HOUR =  3.02
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


 *************************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
 ------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
 ========================================================================


 *************************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
 ------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ========================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.203 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.598
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41; 1-HOUR =  0.55
    3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


 *************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
 ------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ========================================================================


 *************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
 ------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ========================================================================


 *************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
 ------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =    286.00
  CHANNEL LENGTH(FT) =    3046.70    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
 ========================================================================


 *************************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
 ------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
================================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.253 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.424; LOW LOSS FRACTION = 0.818
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.18; 30-MINUTE = 0.41; 1-HOUR = 0.55
   3-HOUR = 0.92;   6-HOUR = 1.27; 24-HOUR = 2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
   3-HOUR = 0.733;   6-HOUR = 0.885; 24-HOUR = 0.932


*****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
  --------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================


*****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
  --------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================


*****************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =   1
  --------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.313 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.483; LOW LOSS FRACTION = 0.944
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.18; 30-MINUTE = 0.41; 1-HOUR = 0.55
   3-HOUR = 0.92;   6-HOUR = 1.27; 24-HOUR = 2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
   3-HOUR = 0.733;   6-HOUR = 0.885; 24-HOUR = 0.932


*****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
  --------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================


*****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
  --------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================
```

```
*****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE   12720.50 IS CODE = 5.2
  --------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
================================================================


*****************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =   1
  --------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.330 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.167; LOW LOSS FRACTION = 0.352
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.18; 30-MINUTE = 0.41; 1-HOUR = 0.55
   3-HOUR = 0.92;   6-HOUR = 1.27; 24-HOUR = 2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
   3-HOUR = 0.733;   6-HOUR = 0.885; 24-HOUR = 0.932


*****************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =   1
  --------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
================================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.284 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.225; LOW LOSS FRACTION = 0.447
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.18; 30-MINUTE = 0.41; 1-HOUR = 0.55
   3-HOUR = 0.92;   6-HOUR = 1.27; 24-HOUR = 2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
   3-HOUR = 0.733;   6-HOUR = 0.885; 24-HOUR = 0.932


*****************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =   1
  --------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
================================================================
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.448 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.472; LOW LOSS FRACTION = 0.863
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
  3-HOUR =  0.92;   6-HOUR = 1.27; 24-HOUR =  2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
  3-HOUR = 0.733;   6-HOUR = 0.885; 24-HOUR = 0.932


 ****************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
 ============================================================================

 ****************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
 ============================================================================


 ****************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
 ============================================================================

 ****************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
 ============================================================================


 ****************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ============================================================================


 ****************************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ============================================================================

 ****************************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
 ----------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ============================================================================
```

```
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =    0.01    CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =    240.00
 CHANNEL LENGTH(FT) =    3114.00      MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
 ============================================================================


 ****************************************************************************
   FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
 ----------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ============================================================================
 WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.370 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.489; LOW LOSS FRACTION = 0.949
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
  3-HOUR =  0.92;   6-HOUR = 1.27; 24-HOUR =  2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
  3-HOUR = 0.733;   6-HOUR = 0.885; 24-HOUR = 0.932


 ****************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ============================================================================


 ****************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ============================================================================


 ****************************************************************************
   FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
 ----------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ============================================================================
 WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.447 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.491; LOW LOSS FRACTION = 0.915
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
  3-HOUR =  0.92;   6-HOUR = 1.27; 24-HOUR =  2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
```

```
      3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


  **********************************************************************
    FLOW PROCESS FROM NODE     127.00 TO NODE     127.00 IS CODE =    7
  ------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ========================================================================


  **********************************************************************
    FLOW PROCESS FROM NODE     127.00 TO NODE     127.00 IS CODE =    6
  ------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ========================================================================


  **********************************************************************
    FLOW PROCESS FROM NODE     127.00 TO NODE     129.00 IS CODE = 5.2
  ------------------------------------------------------------------------
    >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ========================================================================
    THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
    ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
    (Reference: the National Engineering Handbook, Hydrology,
    Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

    ASSUMED REGULAR CHANNEL INFORMATION:
    BASEWIDTH(FT) =    0.01      CHANNEL Z =  3.00
    UPSTREAM ELEVATION(FT) =      240.00; DOWNSTREAM ELEVATION(FT) =      213.00
    CHANNEL LENGTH(FT) =    4905.42      MANNING'S FACTOR = 0.030
    CONSTANT LOSS RATE(CFS) =    0.00
  ========================================================================


  **********************************************************************
    FLOW PROCESS FROM NODE  50300.00 TO NODE     129.00 IS CODE =    1
  ------------------------------------------------------------------------
    >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ========================================================================
    WATERSHED AREA =     634.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
    *USER ENTERED "LAG" TIME =    0.444 HOURS
    VALLEY(DEVELOPED) S-GRAPH SELECTED
    MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.470; LOW LOSS FRACTION = 0.908
    SPECIFIED PEAK RAINFALL DEPTHS(INCH):
    5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
      3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
    *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
    5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
      3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


  **********************************************************************
    FLOW PROCESS FROM NODE     129.00 TO NODE     129.00 IS CODE =    7
  ------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ========================================================================
```

```
  **********************************************************************
    FLOW PROCESS FROM NODE     129.00 TO NODE     129.00 IS CODE =    6
  ------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ========================================================================


  **********************************************************************
    FLOW PROCESS FROM NODE     210.00 TO NODE     221.00 IS CODE =    1
  ------------------------------------------------------------------------
    >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ========================================================================
    WATERSHED AREA =      213.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
    *USER ENTERED "LAG" TIME =    0.286 HOURS
    VALLEY(DEVELOPED) S-GRAPH SELECTED
    MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.213; LOW LOSS FRACTION = 0.446
    SPECIFIED PEAK RAINFALL DEPTHS(INCH):
    5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
      3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
    *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
    5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
      3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


  **********************************************************************
    FLOW PROCESS FROM NODE     222.00 TO NODE     129.00 IS CODE =    7
  ------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ========================================================================


  **********************************************************************
    FLOW PROCESS FROM NODE     129.00 TO NODE     129.00 IS CODE =    6
  ------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ========================================================================


  **********************************************************************
    FLOW PROCESS FROM NODE     129.00 TO NODE     133.00 IS CODE = 5.2
  ------------------------------------------------------------------------
    >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ========================================================================
    THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
    ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
    (Reference: the National Engineering Handbook, Hydrology,
    Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

    ASSUMED REGULAR CHANNEL INFORMATION:
    BASEWIDTH(FT) =    0.01      CHANNEL Z =  3.00
    UPSTREAM ELEVATION(FT) =      213.00; DOWNSTREAM ELEVATION(FT) =      212.00
    CHANNEL LENGTH(FT) =    1389.52      MANNING'S FACTOR = 0.030
    CONSTANT LOSS RATE(CFS) =    0.00
  ========================================================================


  **********************************************************************
```

```
  FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
-----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=============================================================================
  WATERSHED AREA =    4924.400 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.986 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.406; LOW LOSS FRACTION = 0.789
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41; 1-HOUR =  0.55
    3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


*****************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
-----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
=============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =    427.51; DOWNSTREAM ELEVATION(FT) =    315.00
  CHANNEL LENGTH(FT) =  9760.05     MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
=============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
-----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
=============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =    315.00; DOWNSTREAM ELEVATION(FT) =    212.00
  CHANNEL LENGTH(FT) =  6877.24     MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
=============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
-----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
=============================================================================
  WATERSHED AREA =    1713.900 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
  *USER ENTERED "LAG" TIME =    0.699 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.375; LOW LOSS FRACTION = 0.691
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.18; 30-MINUTE =  0.41; 1-HOUR =  0.55
    3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


*****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
-----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =    0.01     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =    212.00; DOWNSTREAM ELEVATION(FT) =    170.00
  CHANNEL LENGTH(FT) =  6461.31     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=============================================================================


*****************************************************************************
```

```
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =   1
-------------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
 WATERSHED AREA =    1705.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.390 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.409; LOW LOSS FRACTION = 0.762
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE = 0.18; 30-MINUTE = 0.41; 1-HOUR = 0.55
  3-HOUR = 0.92;   6-HOUR = 1.27; 24-HOUR = 2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
  3-HOUR = 0.733;   6-HOUR = 0.885; 24-HOUR = 0.932

******************************************************************************
 FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
-------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


******************************************************************************
 FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
-------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================


******************************************************************************
 FLOW PROCESS FROM NODE  13500.00 TO NODE    134.00 IS CODE =   1
-------------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
 WATERSHED AREA =    3859.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    2.180 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.473; LOW LOSS FRACTION = 0.843
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE = 0.18; 30-MINUTE = 0.41; 1-HOUR = 0.55
  3-HOUR = 0.92;   6-HOUR = 1.27; 24-HOUR = 2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
  3-HOUR = 0.733;   6-HOUR = 0.885; 24-HOUR = 0.932

******************************************************************************
 FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
-------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


******************************************************************************
 FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
-------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
```

```
===============================================================================
 FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE = 5.2
-------------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =    0.01    CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =    170.00; DOWNSTREAM ELEVATION(FT) =    135.00
 CHANNEL LENGTH(FT) =    6064.09    MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
===============================================================================


******************************************************************************
 FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE =   1
-------------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
 WATERSHED AREA =    1240.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.439 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.395; LOW LOSS FRACTION = 0.714
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE = 0.18; 30-MINUTE = 0.41; 1-HOUR = 0.55
  3-HOUR = 0.92;   6-HOUR = 1.27; 24-HOUR = 2.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
  3-HOUR = 0.733;   6-HOUR = 0.885; 24-HOUR = 0.932


******************************************************************************
 FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   7
-------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


******************************************************************************
 FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   6
-------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================


******************************************************************************
 FLOW PROCESS FROM NODE    137.00 TO NODE    138.00 IS CODE = 5.2
-------------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
```

```
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =    0.01     CHANNEL Z = 3.00
   UPSTREAM ELEVATION(FT) =     135.00; DOWNSTREAM ELEVATION(FT) =     119.70
   CHANNEL LENGTH(FT) =    4643.67     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
==============================================================================


****************************************************************************
   FLOW PROCESS FROM NODE    137.00 TO NODE    138.00 IS CODE =    1
   ----------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================================
   WATERSHED AREA =    1303.500 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =     0.607 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.445; LOW LOSS FRACTION = 0.797
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
     3-HOUR =  0.90;    6-HOUR =  1.27; 24-HOUR =  2.12
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
     3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
   FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =    7
   ----------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==============================================================================


****************************************************************************
   FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =    6
   ----------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==============================================================================


****************************************************************************
   FLOW PROCESS FROM NODE    138.00 TO NODE    139.00 IS CODE = 5.2
   ----------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==============================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =    0.01     CHANNEL Z = 3.00
   UPSTREAM ELEVATION(FT) =     119.70; DOWNSTREAM ELEVATION(FT) =     100.00
   CHANNEL LENGTH(FT) =    3107.78     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
```

```
==============================================================================


****************************************************************************
   FLOW PROCESS FROM NODE    138.00 TO NODE    139.00 IS CODE =    1
   ----------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================================
   WATERSHED AREA =     428.000 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =     0.255 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.345; LOW LOSS FRACTION = 0.606
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.18; 30-MINUTE =  0.41;  1-HOUR =  0.55
     3-HOUR =  0.92;    6-HOUR =  1.27; 24-HOUR =  2.12
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
     3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
   FLOW PROCESS FROM NODE    139.00 TO NODE    139.00 IS CODE =    7
   ----------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==============================================================================


****************************************************************************
   FLOW PROCESS FROM NODE    139.00 TO NODE    139.00 IS CODE =    6
   ----------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==============================================================================


****************************************************************************
   FLOW PROCESS FROM NODE    139.00 TO NODE    139.00 IS CODE =   11
   ----------------------------------------------------------------------
   >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
==============================================================================
==============================================================================
```

| * AES FLOODSCx PROGRAM RESULTS SUMMARY *

|INPUT FILENAME: [EV05139F.DAT   ]
Page: 1 of |

UPSTREAM DOWNSTREAM		UPSTREAM DOWNSTREAM
TIME(2) TO	MAX. STORAGE	
NODE # NODE #	HYDROLOGIC/HYDRAULIC PROCESS	PEAK (CFS) PEAK (CFS)
PEAK (HR)	MODELED (AF)	FOOTNOTES

UPSTREAM NODE #	DOWNSTREAM NODE #	HYDROLOGIC/HYDRAULIC PROCESS	UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)	TIME(2) TO PEAK (HR)	MAX. STORAGE MODELED (AF)	FOOTNOTES
10100.00	119.00	Subarea (UH) Added to Stream #1	0.0	2131.1	19.333		
119.00	12603.00	Convex Routing: Stream #1	2131.1	2117.8	18.833		
810.00	809.00	Subarea (UH) Added to Stream #2	0.0	29.1	16.250		
12603.00	12603.00	Stream #2 Added to: Stream #1	2117.8	2122.4	18.833		
12603.00	12603.00	Zero Out: Stream #2	29.1	0.0			
12603.00	126.00	Convex Routing: Stream #1	2122.4	2117.5	19.250		
920.00	905.00	Subarea (UH) Added to Stream #2	0.0	45.8	16.333		
126.00	126.00	Stream #2 Added to: Stream #1	2117.5	2123.7	19.250		
126.00	126.00	Zero Out: Stream #2	45.8	0.0			
600.00	126.00	Subarea (UH) Added to Stream #2	0.0	8.5	16.417		
126.00	126.00	Stream #2 Added to: Stream #1	2123.7	2124.4	19.250		
126.00	126.00	Zero Out: Stream #2	8.5	0.0			
126.00	12720.50	Convex Routing: Stream #1	2124.4	2118.4	19.333		
320.00	331.00	Subarea (UH) Added to Stream #2	0.0	146.4	16.417		
400.00	331.00	Subarea (UH) Added to Stream #3	0.0	87.4	16.333		
390.00	331.00	Subarea (UH) Added to Stream #4	0.0	5.6	16.500		
331.00	331.00	Stream #4 Added to: Stream #2	146.4	151.6	16.417		
331.00	331.00	Zero Out: Stream #4	5.6	0.0			
331.00	331.00	Stream #3 Added to: Stream #2	151.6	235.6	16.333		
331.00	331.00	Zero Out: Stream #3	87.4	0.0			
331.00	12720.50	Stream #2 Added to: Stream #1	2118.4	2173.7	18.500		
12720.50	12720.50	Zero Out: Stream #2	235.6	0.0			
12720.50	127.00	Convex Routing: Stream #1	2173.7	2171.4	18.583		
12710.00	127.00	Subarea (UH) Added to Stream #2	0.0	23.6	16.417		
127.00	127.00	Stream #2 Added to: Stream #1	2171.4	2174.5	18.583		
127.00	127.00	Zero Out: Stream #2	23.6	0.0			
50150.00	127.00	Subarea (UH) Added to Stream #2	0.0	37.5	16.500		
127.00	127.00	Stream #2 Added to: Stream #1	2174.5	2186.0	18.250		
127.00	127.00	Zero Out: Stream #2	37.5	0.0			
127.00	129.00	Convex Routing: Stream #1	2186.0	2180.3	18.417		
50300.00	129.00	Subarea (UH) Added to Stream #2	0.0	25.4	16.500		
129.00	129.00	Stream #2 Added to: Stream #1	2180.3	2187.6	18.333		
129.00	129.00	Zero Out: Stream #2	25.4	0.0			
210.00	221.00	Subarea (UH) Added to Stream #2	0.0	40.9	16.333		
222.00	129.00	Stream #2 Added to: Stream #1	2187.6	2200.4	18.333		
129.00	129.00	Zero Out: Stream #2	40.9	0.0			
129.00	133.00	Convex Routing: Stream #1	2200.4	2196.3	18.500		
13010.00	132.00	Subarea (UH) Added to Stream #2	0.0	277.1	17.000		
132.00	13305.00	Convex Routing: Stream #2	277.1	271.5	17.583		
13305.00	133.00	Convex Routing: Stream #2	271.5	270.1	17.833		

|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL |
| 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM |

UPSTREAM DOWNSTREAM			UPSTREAM DOWNSTREAM	TIME(2) TO	MAX. STORAGE	
NODE # NODE #	HYDROLOGIC/HYDRAULIC PROCESS	PEAK (CFS) PEAK (CFS)	PEAK (HR)	MODELED (AF)	FOOTNOTES

UPSTREAM NODE #	DOWNSTREAM NODE #	HYDROLOGIC/HYDRAULIC PROCESS	UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)	TIME(2) TO PEAK (HR)	MAX. STORAGE MODELED (AF)	FOOTNOTES
132.00	133.00	Subarea (UH) Added to Stream #3	0.0	141.4	16.750		
133.00	133.00	Stream #3 Added to: Stream #2	270.1	373.2	17.667		
133.00	133.00	Zero Out: Stream #3	141.4	0.0			
133.00	133.00	Stream #2 Added to: Stream #1	2196.3	2508.0	18.417		
133.00	133.00	Zero Out: Stream #2	373.2	0.0			
133.00	134.00	Convex Routing: Stream #1	2508.0	2505.6	18.583		
133.00	134.00	Subarea (UH) Added to Stream #2	0.0	133.5	16.417		
134.00	134.00	Stream #2 Added to: Stream #1	2505.6	2543.1	18.500		
134.00	134.00	Zero Out: Stream #2	133.5	0.0			
13500.00	134.00	Subarea (UH) Added to Stream #2	0.0	135.3	18.083		
134.00	134.00	Stream #2 Added to: Stream #1	2543.1	2674.7	18.250		
134.00	134.00	Zero Out: Stream #2	135.3	0.0			
134.00	137.00	Convex Routing: Stream #1	2674.7	2673.2	18.667		
134.00	137.00	Subarea (UH) Added to Stream #2	0.0	107.3	16.500		
137.00	137.00	Stream #2 Added to: Stream #1	2673.2	2714.4	18.417		
137.00	137.00	Zero Out: Stream #2	107.3	0.0			
137.00	138.00	Convex Routing: Stream #1	2714.4	2712.1	18.583		
137.00	138.00	Subarea (UH) Added to Stream #2	0.0	74.9	16.667		
138.00	138.00	Stream #2 Added to: Stream #1	2712.1	2745.5	18.500		

```
|   138.00     138.00| Zero Out:             Stream #2|     74.9        0.0|
|              |         |
 +------------------+----------------------------+--------------------+-
----------+------------+-----------+
|   138.00     139.00| Convex Routing:       Stream #1|   2745.5     2744.6|
18.583 |            |         |
|   138.00     139.00| Subarea (UH) Added to Stream #2|      0.0       59.4|
16.333 |            |         |
|   139.00     139.00| Stream #2 Added to:   Stream #1|   2744.6     2757.2|
18.583 |            |         |
|   139.00     139.00| Zero Out:             Stream #2|     59.4        0.0|
|              |         |
|   139.00     139.00| View:                 Stream #1|              2757.2|
18.583 |    2620.63|    3    |
 +------------------+----------------------------+--------------------+-
----------+------------+-----------+
 +------------------+----------------------------+--------------------+-
----------+------------+-----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                |
|       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                       |
 +----------------------------------------------------------------------
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```

   END OF FLOODSCx ROUTING ANALYSIS

```
********************************************************************************
           F L O O D    R O U T I N G    A N A L Y S I S
           USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                       Analysis prepared by:

                    Michael Baker International
                  5 Hutton Centre Drive, Suite 500
                       Santa Ana, CA 92707


 ************************* DESCRIPTION OF STUDY *************************
 * RANCHO MISSION VIEJO                                                *
 * PHASE CONDITION NO PA5 - UH FREE DRAINING REGIONAL NODE 119         *
 * 10-YR EV APRIL 2019 FKAZI                                           *
 ********************************************************************************

  FILE NAME: EV10119F.DAT
  TIME/DATE OF STUDY: 15:18 04/10/2019


                      ** INPUT SUMMARY **


********************************************************************************
  FLOW PROCESS FROM NODE  10100.00 TO NODE    119.00 IS CODE =   1
--------------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
================================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    2.320 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.746
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.33; 30-MINUTE =  0.63;  1-HOUR =  0.88
   3-HOUR =  1.65;    6-HOUR =  2.45; 24-HOUR =  4.32
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.345; 30-MINUTE = 0.395;  1-HOUR = 0.435
   3-HOUR = 0.785;    6-HOUR = 0.904; 24-HOUR = 0.944


********************************************************************************
  FLOW PROCESS FROM NODE   119.00 TO NODE    119.00 IS CODE =  11
--------------------------------------------------------------------------------
 >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
================================================================================
================================================================================
```

```
  +------------------------------------------------------------------------------
  ----------------------------------------+
  |                               * AES FLOODSCx PROGRAM RESULTS SUMMARY *
  |
  |INPUT FILENAME: [EV10119F.DAT   ]
  Page:   1 of   |
  +-------------------+-----------------------------+--------------------+-
  ----------+------------+----------+
  |UPSTREAM  DOWNSTREAM|                            | UPSTREAM   DOWNSTREAM|
  TIME(2) TO | MAX. STORAGE|             |
  | NODE #     NODE # | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
  PEAK (HR)  | MODELED (AF)| FOOTNOTES |
  +-------------------+-----------------------------+--------------------+-
  ----------+------------+----------+
  | 10100.00    119.00| Subarea (UH) Added to Stream #1|     0.0      7195.7|
  18.333 |             |          |
  |  119.00    119.00| View:              Stream #1|              7195.7|
  18.333 |    4873.32|    3     |
  +-------------------+-----------------------------+--------------------+-
  ----------+------------+----------+
  |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
  INTERVAL                                |
  |     3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
  THE DESIGN STORM                       |
  +------------------------------------------------------------------------------
  ----------------------------------------+

     END OF FLOODSCx ROUTING ANALYSIS
```

```
  _____
  **********************************************************************

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                       Analysis prepared by:




   *************************** DESCRIPTION OF STUDY **************************
  * RMV PA-3 ROMP AMENDMENT 2022 - NODE 126                                 *
  * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL             *
  * 10-YR EV MAY 2023 ROKAMOTO                                              *
   **************************************************************************

   FILE NAME: EV10126F.DAT
   TIME/DATE OF STUDY: 06:30 05/14/2023


                       ** INPUT SUMMARY **


  **********************************************************************
   FLOW PROCESS FROM NODE  10100.00 TO NODE   119.00 IS CODE =   1
  ------------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
  ==============================================================================
   WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    2.320 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.746
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.33; 30-MINUTE =  0.63; 1-HOUR =  0.88
     3-HOUR =  1.65;    6-HOUR =  2.45; 24-HOUR =  4.32
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.341; 30-MINUTE = 0.392;  1-HOUR = 0.432
     3-HOUR = 0.782;    6-HOUR = 0.902; 24-HOUR = 0.943


  **********************************************************************
   FLOW PROCESS FROM NODE   119.00 TO NODE  12603.00 IS CODE = 5.2
  ------------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ==============================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
   UPSTREAM ELEVATION(FT) =      341.63; DOWNSTREAM ELEVATION(FT) =     312.40
```

```
   CHANNEL LENGTH(FT) =    3157.79    MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
  ==============================================================================



  **********************************************************************
   FLOW PROCESS FROM NODE   810.00 TO NODE   809.00 IS CODE =   1
  ------------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ==============================================================================
   WATERSHED AREA =    171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.191 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.548
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.26; 30-MINUTE =  0.59; 1-HOUR =  0.78
     3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.341; 30-MINUTE = 0.392;  1-HOUR = 0.432
     3-HOUR = 0.782;    6-HOUR = 0.902; 24-HOUR = 0.943


  **********************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
  ------------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ==============================================================================



  **********************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
  ------------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ==============================================================================



  **********************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE   126.00 IS CODE = 5.2
  ------------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ==============================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
   UPSTREAM ELEVATION(FT) =      312.40; DOWNSTREAM ELEVATION(FT) =     286.00
   CHANNEL LENGTH(FT) =    3046.70    MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
  ==============================================================================


  **********************************************************************
   FLOW PROCESS FROM NODE   920.00 TO NODE   905.00 IS CODE =   1
  ------------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
================================================================================
  WATERSHED AREA =      553.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.231 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.254; LOW LOSS FRACTION = 0.750
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.341; 30-MINUTE = 0.392;  1-HOUR = 0.432
   3-HOUR = 0.782;    6-HOUR = 0.902; 24-HOUR = 0.943


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================



********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================



********************************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =      218.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.318 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.905
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.341; 30-MINUTE = 0.392;  1-HOUR = 0.432
   3-HOUR = 0.782;    6-HOUR = 0.902; 24-HOUR = 0.943


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================



********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================
```

```
****************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =  11
----------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
============================================================================
============================================================================
```

```
+----------------------------------------------------------------------------
--------------------------------------+
|                           * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
|INPUT FILENAME: [EV10126F.DAT   ]
Page:   1 of    |
 +-------------------+------------------------------+--------------------+-
----------+------------+-----------+
|UPSTREAM  DOWNSTREAM|                              | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|         |
| NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +-------------------+------------------------------+--------------------+-
----------+------------+-----------+
| 10100.00    119.00| Subarea (UH) Added to Stream #1|      0.0     7128.1|
18.333 |          |          |
|   119.00  12603.00| Convex Routing:      Stream #1|   7128.1     7107.7|
18.417 |          |          |
|   810.00    809.00| Subarea (UH) Added to Stream #2|      0.0       74.9|
16.250 |          |          |
| 12603.00  12603.00| Stream #2 Added to:   Stream #1|   7107.7     7116.2|
18.417 |          |          |
| 12603.00  12603.00| Zero Out:            Stream #2|     74.9        0.0|
|          |          |
 +-------------------+------------------------------+--------------------+-
----------+------------+-----------+
| 12603.00    126.00| Convex Routing:      Stream #1|   7116.2     7096.6|
18.500 |          |          |
|   920.00    905.00| Subarea (UH) Added to Stream #2|      0.0      171.2|
16.333 |          |          |
|   126.00    126.00| Stream #2 Added to:   Stream #1|   7096.6     7111.7|
18.500 |          |          |
|   126.00    126.00| Zero Out:            Stream #2|    171.2        0.0|
|          |          |
|   600.00    126.00| Subarea (UH) Added to Stream #2|      0.0       47.4|
16.417 |          |          |
 +-------------------+------------------------------+--------------------+-
----------+------------+-----------+
|   126.00    126.00| Stream #2 Added to:   Stream #1|   7111.7     7114.3|
18.500 |          |          |
|   126.00    126.00| Zero Out:            Stream #2|     47.4        0.0|
|          |          |
|   126.00    126.00| View:                Stream #1|              7114.3|
18.500 |    4918.38|    3     |
 +-------------------+------------------------------+--------------------+-
----------+------------+-----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                       |
|       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                |
 +----------------------------------------------------------------------------
--------------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

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 _____
 ***********************************************************************

         F L O O D   R O U T I N G   A N A L Y S I S
          USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                     Analysis prepared by:




  ************************* DESCRIPTION OF STUDY *************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 127                             *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL         *
 * 10-YR EV MAY 2023 ROKAMOTO                                          *
  **********************************************************************

  FILE NAME: EV10127F.DAT
  TIME/DATE OF STUDY: 06:29 05/14/2023


                       ** INPUT SUMMARY **


 ***********************************************************************
   FLOW PROCESS FROM NODE 10100.00 TO NODE   119.00 IS CODE =   1
 -----------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
 =======================================================================
   WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    2.320 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.746
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.33; 30-MINUTE =  0.63;  1-HOUR =  0.88
     3-HOUR =  1.65;     6-HOUR =  2.45; 24-HOUR =  4.32
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
     3-HOUR = 0.773;     6-HOUR = 0.898; 24-HOUR = 0.941


 ***********************************************************************
   FLOW PROCESS FROM NODE   119.00 TO NODE  12603.00 IS CODE = 5.2
 -----------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 =======================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
   UPSTREAM ELEVATION(FT) =      341.63; DOWNSTREAM ELEVATION(FT) =     312.40
```

```
   CHANNEL LENGTH(FT) =    3157.79     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
 =======================================================================



 ***********************************************************************
   FLOW PROCESS FROM NODE   810.00 TO NODE    809.00 IS CODE =   1
 -----------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 =======================================================================
   WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =     0.191 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.548
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
     3-HOUR =  1.31;     6-HOUR =  1.81; 24-HOUR =  3.03
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
     3-HOUR = 0.773;     6-HOUR = 0.898; 24-HOUR = 0.941


 ***********************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
 -----------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 =======================================================================



 ***********************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
 -----------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 =======================================================================



 ***********************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
 -----------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 =======================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
   UPSTREAM ELEVATION(FT) =      312.40; DOWNSTREAM ELEVATION(FT) =     286.00
   CHANNEL LENGTH(FT) =    3046.70     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
 =======================================================================



 ***********************************************************************
   FLOW PROCESS FROM NODE   920.00 TO NODE    905.00 IS CODE =   1
 -----------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
================================================================
  WATERSHED AREA =      553.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.231 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.254; LOW LOSS FRACTION = 0.750
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
   3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


*****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
-----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================


*****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
-----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================


*****************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
-----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================
  WATERSHED AREA =      218.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.318 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.905
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
   3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


*****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
-----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================


*****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
-----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================
```

```
*****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE   12720.50 IS CODE = 5.2
-----------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
================================================================



*****************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =    1
-----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================
  WATERSHED AREA =      712.600 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.305 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.100; LOW LOSS FRACTION = 0.297
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
   3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


*****************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =    1
-----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
================================================================
  WATERSHED AREA =      462.500 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.260 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.135; LOW LOSS FRACTION = 0.385
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
   3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


*****************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =    1
-----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
================================================================
  WATERSHED AREA =      117.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.394 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.283; LOW LOSS FRACTION = 0.778
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
  3-HOUR =  1.31;   6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
  3-HOUR = 0.773;   6-HOUR = 0.898; 24-HOUR = 0.941


 *********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
 -------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
 ===================================================================

 *********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
 -------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
 ===================================================================


 *********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
 -------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
 ===================================================================

 *********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
 -------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
 ===================================================================


 *********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
 -------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ===================================================================


 *********************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
 -------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ===================================================================


 *********************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
 -------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ===================================================================
```

```
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =    240.00
 CHANNEL LENGTH(FT) =   3114.00     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
 ===================================================================


 *********************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
 -------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ===================================================================
 WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.446 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.293; LOW LOSS FRACTION = 0.898
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
  3-HOUR =  1.31;   6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
  3-HOUR = 0.773;   6-HOUR = 0.898; 24-HOUR = 0.941


 *********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
 -------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ===================================================================


 *********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
 -------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ===================================================================


 *********************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
 -------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ===================================================================
 WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.389 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.295; LOW LOSS FRACTION = 0.855
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
  3-HOUR =  1.31;   6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
```

```
        3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


*************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    7
-------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================


*************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    6
-------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   11
-------------------------------------------------------------------------
   >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
=========================================================================
=========================================================================
```

```
+-----------------------------------------------------------------------
---------------------------------------+
|                              * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
|INPUT FILENAME: [EV10127F.DAT   ]
Page:  1 of    |
+------------------+---------------------------+-------------------+-
-----------+------------+-----------+
|UPSTREAM  DOWNSTREAM|                          | UPSTREAM  DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|                |
| NODE #    NODE #  | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
PEAK (HR) | MODELED (AF)| FOOTNOTES |
+-----------------+---------------------------+-------------------+-
-----------+------------+-----------+
| 10100.00    119.00| Subarea (UH) Added to Stream #1|     0.0      6945.3|
18.333 |           |          |
|   119.00  12603.00| Convex Routing:      Stream #1|  6945.3      6926.5|
18.417 |           |          |
|   810.00    809.00| Subarea (UH) Added to Stream #2|     0.0       72.3|
16.250 |           |          |
| 12603.00  12603.00| Stream #2 Added to:    Stream #1|  6926.5      6935.1|
18.417 |           |          |
| 12603.00  12603.00| Zero Out:            Stream #2|    72.3        0.0|
|           |          |
  +-----------------+---------------------------+-------------------+-
-----------+------------+-----------+
| 12603.00    126.00| Convex Routing:      Stream #1|  6935.1      6916.9|
18.500 |           |          |
|   920.00    905.00| Subarea (UH) Added to Stream #2|     0.0      164.4|
16.333 |           |          |
|   126.00    126.00| Stream #2 Added to:    Stream #1|  6916.9      6932.0|
18.500 |           |          |
|   126.00    126.00| Zero Out:            Stream #2|   164.4        0.0|
|           |          |
|   600.00    126.00| Subarea (UH) Added to Stream #2|     0.0       45.3|
16.417 |           |          |
  +-----------------+---------------------------+-------------------+-
-----------+------------+-----------+
|   126.00    126.00| Stream #2 Added to:    Stream #1|  6932.0      6934.5|
18.500 |           |          |
|   126.00    126.00| Zero Out:            Stream #2|    45.3        0.0|
|           |          |
|   126.00  12720.50| Convex Routing:      Stream #1|  6934.5      6903.0|
18.583 |           |          |
|   320.00    331.00| Subarea (UH) Added to Stream #2|     0.0      282.0|
16.333 |           |          |
|   400.00    331.00| Subarea (UH) Added to Stream #3|     0.0      185.1|
16.333 |           |          |
  +-----------------+---------------------------+-------------------+-
-----------+------------+-----------+
|   390.00    331.00| Subarea (UH) Added to Stream #4|     0.0       23.3|
16.500 |           |          |
|   331.00    331.00| Stream #4 Added to:    Stream #2|   282.0      302.5|
16.333 |           |          |
|   331.00    331.00| Zero Out:            Stream #4|    23.3        0.0|
|           |          |
|   331.00    331.00| Stream #3 Added to:    Stream #2|   302.5      487.6|
16.333 |           |          |
```

```
|   331.00     331.00| Zero Out:            Stream #3|    185.1        0.0|
|             |          |
 +-----------------+-----------------------------+--------------------+-
----------+------------+----------+
|   331.00   12720.50| Stream #2 Added to:   Stream #1|   6903.0     6992.8|
18.583 |          |          |
| 12720.50   12720.50| Zero Out:            Stream #2|    487.6        0.0|
|             |          |
| 12720.50     127.00| Convex Routing:       Stream #1|   6992.8     6978.5|
18.667 |          |          |
| 12710.00     127.00| Subarea (UH) Added to Stream #2|      0.0      118.9|
16.500 |          |          |
|   127.00     127.00| Stream #2 Added to:   Stream #1|   6978.5     6987.5|
18.667 |          |          |
 +-----------------+-----------------------------+--------------------+-
----------+------------+----------+
|   127.00     127.00| Zero Out:            Stream #2|    118.9        0.0|
|             |          |
| 50150.00     127.00| Subarea (UH) Added to Stream #2|      0.0      196.0|
16.417 |          |          |
|   127.00     127.00| Stream #2 Added to:   Stream #1|   6987.5     7005.3|
18.667 |          |          |
|   127.00     127.00| Zero Out:            Stream #2|    196.0        0.0|
|             |          |
|   127.00     127.00| View:                Stream #1|              7005.3|
18.667 |    5130.05|     3     |
 +-----------------+-----------------------------+--------------------+-
----------+------------+----------+
 +-----------------+-----------------------------+--------------------+-
----------+------------+----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                    |
 |        3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                          |
 +------------------------------------------------------------------------------
-------------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

```
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************************************************************************

         F L O O D   R O U T I N G   A N A L Y S I S
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                     Analysis prepared by:




 *************************** DESCRIPTION OF STUDY **************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 137                                *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL            *
 * 10-YR EV AUG 2023 ROKAMOTO                                             *
 *************************************************************************

  FILE NAME: EV10137F.DAT
  TIME/DATE OF STUDY: 08:43 08/10/2023


                      ** INPUT SUMMARY **


************************************************************************
  FLOW PROCESS FROM NODE  10100.00 TO NODE    119.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
========================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     2.320 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.746
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.33; 30-MINUTE =  0.63;  1-HOUR =  0.88
   3-HOUR =  1.65;    6-HOUR =  2.45; 24-HOUR =  4.32
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
   3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


************************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00    CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =     312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
========================================================================



************************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
========================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.191 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.548
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
   3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
========================================================================



************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
========================================================================



************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =     286.00
  CHANNEL LENGTH(FT) =    3046.70     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
========================================================================



************************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
===========================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.231 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.254; LOW LOSS FRACTION = 0.750
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.26; 30-MINUTE = 0.59; 1-HOUR = 0.78
   3-HOUR = 1.31;    6-HOUR = 1.81; 24-HOUR = 3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
   3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


***************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   7
---------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================


***************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   6
---------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================


***************************************************************
  FLOW PROCESS FROM NODE   600.00 TO NODE   126.00 IS CODE =   1
---------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.318 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.290; LOW LOSS FRACTION = 0.905
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.26; 30-MINUTE = 0.59; 1-HOUR = 0.78
   3-HOUR = 1.31;    6-HOUR = 1.81; 24-HOUR = 3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
   3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


***************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   7
---------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================


***************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   6
---------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================
```

```
***************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE  12720.50 IS CODE = 5.2
---------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===============================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =    286.00; DOWNSTREAM ELEVATION(FT) =    258.00
  CHANNEL LENGTH(FT) =    4077.05     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
===============================================================


***************************************************************
  FLOW PROCESS FROM NODE   320.00 TO NODE   331.00 IS CODE =   1
---------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.305 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.100; LOW LOSS FRACTION = 0.297
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.26; 30-MINUTE = 0.59; 1-HOUR = 0.78
   3-HOUR = 1.31;    6-HOUR = 1.81; 24-HOUR = 3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
   3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


***************************************************************
  FLOW PROCESS FROM NODE   400.00 TO NODE   331.00 IS CODE =   1
---------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
===============================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.260 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.135; LOW LOSS FRACTION = 0.385
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.26; 30-MINUTE = 0.59; 1-HOUR = 0.78
   3-HOUR = 1.31;    6-HOUR = 1.81; 24-HOUR = 3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
   3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


***************************************************************
  FLOW PROCESS FROM NODE   390.00 TO NODE   331.00 IS CODE =   1
---------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
===============================================================
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.394 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.283; LOW LOSS FRACTION = 0.778
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
  3-HOUR =  1.31;   6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
  3-HOUR = 0.738;   6-HOUR = 0.886; 24-HOUR = 0.933


********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
===================================================================

********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
===================================================================

********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
===================================================================

********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
===================================================================

********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===================================================================

********************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===================================================================

********************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
-------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===================================================================
```

```
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =    240.00
 CHANNEL LENGTH(FT) =    3114.00     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
===================================================================


********************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
-------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===================================================================
 WATERSHED AREA =      711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.446 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.293; LOW LOSS FRACTION = 0.898
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
  3-HOUR =  1.31;   6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
  3-HOUR = 0.738;   6-HOUR = 0.886; 24-HOUR = 0.933


********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===================================================================


********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===================================================================


********************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
-------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===================================================================
 WATERSHED AREA =     1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.389 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.295; LOW LOSS FRACTION = 0.855
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
  3-HOUR =  1.31;   6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
```

```
     3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


  ***************************************************************************
    FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    7
  ---------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ===========================================================================


  ***************************************************************************
    FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    6
  ---------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ===========================================================================


  ***************************************************************************
    FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
  ---------------------------------------------------------------------------
    >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ===========================================================================
    THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
    ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
    (Reference: the National Engineering Handbook, Hydrology,
    Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

    ASSUMED REGULAR CHANNEL INFORMATION:
    BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
    UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
    CHANNEL LENGTH(FT) =   4905.42     MANNING'S FACTOR = 0.030
    CONSTANT LOSS RATE(CFS) =    0.00
  ===========================================================================


  ***************************************************************************
    FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =    1
  ---------------------------------------------------------------------------
    >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ===========================================================================
    WATERSHED AREA =     634.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
    *USER ENTERED "LAG" TIME =    0.407 HOURS
    VALLEY(DEVELOPED) S-GRAPH SELECTED
    MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.282; LOW LOSS FRACTION = 0.855
    SPECIFIED PEAK RAINFALL DEPTHS(INCH):
    5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
      3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
    *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
    5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
      3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


  ***************************************************************************
    FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    7
  ---------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ===========================================================================
```

```
  ***************************************************************************
    FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    6
  ---------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ===========================================================================


  ***************************************************************************
    FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =    1
  ---------------------------------------------------------------------------
    >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ===========================================================================
    WATERSHED AREA =     213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
    *USER ENTERED "LAG" TIME =    0.268 HOURS
    VALLEY(DEVELOPED) S-GRAPH SELECTED
    MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.128; LOW LOSS FRACTION = 0.391
    SPECIFIED PEAK RAINFALL DEPTHS(INCH):
    5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
      3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
    *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
    5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
      3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


  ***************************************************************************
    FLOW PROCESS FROM NODE    221.00 TO NODE    129.00 IS CODE =    7
  ---------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ===========================================================================


  ***************************************************************************
    FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    6
  ---------------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ===========================================================================


  ***************************************************************************
    FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
  ---------------------------------------------------------------------------
    >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ===========================================================================
    THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
    ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
    (Reference: the National Engineering Handbook, Hydrology,
    Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

    ASSUMED REGULAR CHANNEL INFORMATION:
    BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
    UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
    CHANNEL LENGTH(FT) =   1389.52     MANNING'S FACTOR = 0.030
    CONSTANT LOSS RATE(CFS) =    0.00
  ===========================================================================


  ***************************************************************************
```

```
FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
-------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
 WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.938 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.244; LOW LOSS FRACTION = 0.727
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
   3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


*************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
-------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
=========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =    315.00
 CHANNEL LENGTH(FT) =   9760.05     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =   0.00
=========================================================================


*************************************************************************
 FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
-------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
=========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =    212.00
 CHANNEL LENGTH(FT) =   6877.24     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =   0.00
=========================================================================


*************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
-------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
=========================================================================
 WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.637 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.618
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
   3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=========================================================================


*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================


*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
-------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
-------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =    170.00
 CHANNEL LENGTH(FT) =   6461.31     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =   0.00
=========================================================================


*************************************************************************
```

```
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =    1705.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.386 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.245; LOW LOSS FRACTION = 0.690
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
    3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE  13500.00 TO NODE    134.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =    3859.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     1.489 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.284; LOW LOSS FRACTION = 0.760
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
    3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
```

```
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE = 5.2
--------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00      CHANNEL Z =  4.00
  UPSTREAM ELEVATION(FT) =      170.00; DOWNSTREAM ELEVATION(FT) =     135.00
  CHANNEL LENGTH(FT) =    6064.09      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =    1240.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.443 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.237; LOW LOSS FRACTION = 0.636
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
    3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


********************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =  11
--------------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
================================================================================
================================================================================
```

```
 +----------------------------------------------------------------------------
-------------------------------------+
 |                                        * AES FLOODSCx PROGRAM RESULTS SUMMARY *
 |
 |INPUT FILENAME: [EV10137F.DAT   ]
 Page:   1 of    |
 +-------------------+----------------------------+--------------------+-
-----------+------------+-----------+
 |UPSTREAM  DOWNSTREAM|                            | UPSTREAM   DOWNSTREAM|
 TIME(2) TO | MAX. STORAGE|          |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)   PEAK (CFS)|
 PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +-------------------+----------------------------+--------------------+-
-----------+------------+-----------+
 | 10100.00     119.00| Subarea (UH) Added to Stream #1|     0.0      6244.8|
 18.333 |             |           |
 |   119.00   12603.00| Convex Routing:      Stream #1|  6244.8      6231.8|
 18.417 |             |           |
 |   810.00     809.00| Subarea (UH) Added to Stream #2|     0.0        62.6|
 16.250 |             |           |
 | 12603.00   12603.00| Stream #2 Added to:   Stream #1|  6231.8      6240.3|
 18.417 |             |           |
 | 12603.00   12603.00| Zero Out:            Stream #2|    62.6         0.0|
 |             |           |
 +-------------------+----------------------------+--------------------+-
-----------+------------+-----------+
 | 12603.00     126.00| Convex Routing:      Stream #1|  6240.3      6227.6|
 18.500 |             |           |
 |   920.00     905.00| Subarea (UH) Added to Stream #2|     0.0       139.2|
 16.333 |             |           |
 |   126.00     126.00| Stream #2 Added to:   Stream #1|  6227.6      6242.7|
 18.500 |             |           |
 |   126.00     126.00| Zero Out:            Stream #2|   139.2         0.0|
 |             |           |
 |   600.00     126.00| Subarea (UH) Added to Stream #2|     0.0        37.4|
 16.417 |             |           |
 +-------------------+----------------------------+--------------------+-
-----------+------------+-----------+
 |   126.00     126.00| Stream #2 Added to:   Stream #1|  6242.7      6245.3|
 18.500 |             |           |
 |   126.00     126.00| Zero Out:            Stream #2|    37.4         0.0|
 |             |           |
 |   126.00   12720.50| Convex Routing:      Stream #1|  6245.3      6208.7|
 18.583 |             |           |
 |   320.00     331.00| Subarea (UH) Added to Stream #2|     0.0       252.1|
 16.333 |             |           |
 |   400.00     331.00| Subarea (UH) Added to Stream #3|     0.0       163.6|
 16.333 |             |           |
 +-------------------+----------------------------+--------------------+-
-----------+------------+-----------+
 |   390.00     331.00| Subarea (UH) Added to Stream #4|     0.0        19.8|
 16.500 |             |           |
 |   331.00     331.00| Stream #4 Added to:   Stream #2|   252.1       269.5|
 16.333 |             |           |
 |   331.00     331.00| Zero Out:            Stream #4|    19.8         0.0|
 |             |           |
 |   331.00     331.00| Stream #3 Added to:   Stream #2|   269.5       433.2|
 16.333 |             |           |
```

```
|    331.00     331.00| Zero Out:          Stream #3|    163.6        0.0|
|              |              |
 +------------------+------------------------------+--------------------+-
---------+------------+-----------+
|    331.00   12720.50| Stream #2 Added to:   Stream #1|   6208.7     6298.8|
18.583 |              |              |
| 12720.50   12720.50| Zero Out:          Stream #2|    433.2        0.0|
|              |              |
| 12720.50     127.00| Convex Routing:      Stream #1|   6298.8     6283.6|
18.667 |              |              |
| 12710.00     127.00| Subarea (UH) Added to Stream #2|      0.0       97.9|
16.500 |              |              |
|    127.00     127.00| Stream #2 Added to:   Stream #1|   6283.6     6292.8|
18.667 |              |              |
 +------------------+------------------------------+--------------------+-
---------+------------+-----------+
|    127.00     127.00| Zero Out:          Stream #2|     97.9        0.0|
|              |              |
| 50150.00     127.00| Subarea (UH) Added to Stream #2|      0.0      162.3|
16.417 |              |              |
|    127.00     127.00| Stream #2 Added to:   Stream #1|   6292.8     6310.7|
18.667 |              |              |
|    127.00     127.00| Zero Out:          Stream #2|    162.3        0.0|
|              |              |
|    127.00     129.00| Convex Routing:      Stream #1|   6310.7     6296.5|
18.833 |              |              |
 +------------------+------------------------------+--------------------+-
---------+------------+-----------+
| 50300.00     129.00| Subarea (UH) Added to Stream #2|      0.0       98.5|
16.500 |              |              |
|    129.00     129.00| Stream #2 Added to:   Stream #1|   6296.5     6306.2|
18.833 |              |              |
|    129.00     129.00| Zero Out:          Stream #2|     98.5        0.0|
|              |              |
|    210.00     221.00| Subarea (UH) Added to Stream #2|      0.0       75.3|
16.333 |              |              |
|    221.00     129.00| Stream #2 Added to:   Stream #1|   6306.2     6319.0|
18.500 |              |              |
 +------------------+------------------------------+--------------------+-
---------+------------+-----------+
|    129.00     129.00| Zero Out:          Stream #2|     75.3        0.0|
|              |              |
|    129.00     133.00| Convex Routing:      Stream #1|   6319.0     6311.4|
18.583 |              |              |
| 13010.00     132.00| Subarea (UH) Added to Stream #2|      0.0      649.0|
17.000 |              |              |
|    132.00   13305.00| Convex Routing:      Stream #2|    649.0      622.1|
17.417 |              |              |
| 13305.00     133.00| Convex Routing:      Stream #2|    622.1      616.3|
17.833 |              |              |
 +------------------+------------------------------+--------------------+-
---------+------------+-----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                          |
|      3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                    |
 +---------------------------------------------------------------------------
------------------------------------+
```

| * AES FLOODSCx PROGRAM RESULTS SUMMARY * |
|INPUT FILENAME: [EV10137F.DAT   ]
Page: 2 of |

| UPSTREAM DOWNSTREAM| | UPSTREAM DOWNSTREAM| TIME(2) TO | MAX. STORAGE| |
NODE # NODE #	HYDROLOGIC/HYDRAULIC PROCESS	PEAK (CFS) PEAK (CFS)	PEAK (HR)	MODELED (AF)	FOOTNOTES
132.00	133.00	Subarea (UH) Added to Stream #3	0.0	307.2	16.667		
133.00	133.00	Stream #3 Added to: Stream #2	616.3	789.9	17.750		
133.00	133.00	Zero Out: Stream #3	307.2	0.0			
133.00	133.00	Stream #2 Added to: Stream #1	6311.4	7078.0	17.917		
133.00	133.00	Zero Out: Stream #2	789.9	0.0			
133.00	134.00	Convex Routing: Stream #1	7078.0	7064.9	18.167		
133.00	134.00	Subarea (UH) Added to Stream #2	0.0	342.7	16.417		
134.00	134.00	Stream #2 Added to: Stream #1	7064.9	7175.7	18.083		
134.00	134.00	Zero Out: Stream #2	342.7	0.0			
13500.00	134.00	Subarea (UH) Added to Stream #2	0.0	387.9	17.500		
134.00	134.00	Stream #2 Added to: Stream #1	7175.7	7506.5	18.083		
134.00	134.00	Zero Out: Stream #2	387.9	0.0			
134.00	137.00	Convex Routing: Stream #1	7506.5	7497.9	18.250		
134.00	137.00	Subarea (UH) Added to Stream #2	0.0	251.4	16.500		
137.00	137.00	Stream #2 Added to: Stream #1	7497.9	7586.8	18.250		
137.00	137.00	Zero Out: Stream #2	251.4	0.0			
137.00	137.00	View: Stream #1		7586.8	18.250	5951.16	3

|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL |
| 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM |
+---+

END OF FLOODSCx ROUTING ANALYSIS

```
 _____
 *************************************************************************

          F L O O D   R O U T I N G   A N A L Y S I S
            USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
       (c) Copyright 1989-2010 Advanced Engineering Software (aes)
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                        Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 138                             *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL         *
 * 10-YR EV AUG 2023 ROKAMOTO                                          *
 ***********************************************************************

  FILE NAME: EV10138F.DAT
  TIME/DATE OF STUDY: 08:42 08/10/2023


                      ** INPUT SUMMARY **


 *************************************************************************
   FLOW PROCESS FROM NODE 10100.00 TO NODE    119.00 IS CODE =   1
 -------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
 =========================================================================
   WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    2.320 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.746
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE = 0.33; 30-MINUTE =  0.63; 1-HOUR =  0.88
    3-HOUR = 1.65;    6-HOUR = 2.45; 24-HOUR = 4.32
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


 *************************************************************************
   FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
 -------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 =========================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
   UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
   CHANNEL LENGTH(FT) =    3157.79    MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
 =========================================================================


 *************************************************************************
   FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
 -------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 =========================================================================
   WATERSHED AREA =    171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.191 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.548
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.26; 30-MINUTE =  0.59; 1-HOUR =  0.78
    3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


 *************************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
 -------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 =========================================================================


 *************************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
 -------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 =========================================================================


 *************************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
 -------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 =========================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
   UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =    286.00
   CHANNEL LENGTH(FT) =    3046.70    MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
 =========================================================================


 *************************************************************************
   FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
 -------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
===============================================================
 WATERSHED AREA =    553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.231 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.254; LOW LOSS FRACTION = 0.750
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************
 FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   7
 --------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ===============================================================


****************************************************************
 FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   6
 --------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ===============================================================


****************************************************************
 FLOW PROCESS FROM NODE   600.00 TO NODE   126.00 IS CODE =   1
 --------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ===============================================================
 WATERSHED AREA =    218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.318 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.290; LOW LOSS FRACTION = 0.905
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************
 FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   7
 --------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ===============================================================


****************************************************************
 FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   6
 --------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ===============================================================
```

```
****************************************************************
 FLOW PROCESS FROM NODE   126.00 TO NODE 12720.50 IS CODE = 5.2
 --------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ===============================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) = 200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =    258.00
 CHANNEL LENGTH(FT) =    4077.05     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
 ===============================================================


****************************************************************
 FLOW PROCESS FROM NODE   320.00 TO NODE   331.00 IS CODE =   1
 --------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ===============================================================
 WATERSHED AREA =    712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.305 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.100; LOW LOSS FRACTION = 0.297
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************
 FLOW PROCESS FROM NODE   400.00 TO NODE   331.00 IS CODE =   1
 --------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
 ===============================================================
 WATERSHED AREA =    462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.260 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.135; LOW LOSS FRACTION = 0.385
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************
 FLOW PROCESS FROM NODE   390.00 TO NODE   331.00 IS CODE =   1
 --------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
 ===============================================================
 WATERSHED AREA =    117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.394 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.283; LOW LOSS FRACTION = 0.778
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
  3-HOUR =  1.31;   6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;   6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE   331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
============================================================================

****************************************************************************
  FLOW PROCESS FROM NODE   331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE   331.00 TO NODE    331.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================

****************************************************************************
  FLOW PROCESS FROM NODE   331.00 TO NODE    331.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE   331.00 TO NODE  12720.50 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE 12720.50 TO NODE  12720.50 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE 12720.50 TO NODE    127.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
```

```
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) = 200.00    CHANNEL Z = 5.00
 UPSTREAM ELEVATION(FT) =    258.00; DOWNSTREAM ELEVATION(FT) =    240.00
 CHANNEL LENGTH(FT) =   3114.00     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE 12710.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
 WATERSHED AREA =      711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.446 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.293; LOW LOSS FRACTION = 0.898
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
  3-HOUR =  1.31;   6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;   6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE   127.00 TO NODE    127.00 IS CODE =   7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE   127.00 TO NODE    127.00 IS CODE =   6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE 50150.00 TO NODE    127.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
 WATERSHED AREA =     1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.389 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.295; LOW LOSS FRACTION = 0.855
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
  3-HOUR =  1.31;   6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
```

```
      3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


  ********************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    7
  ------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ==================================================================


  ********************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    6
  ------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ==================================================================


  ********************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
  ------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ==================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =  200.00    CHANNEL Z =  5.00
   UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
   CHANNEL LENGTH(FT) =    4905.42     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
  ==================================================================


  ********************************************************************
   FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =    1
  ------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ==================================================================
   WATERSHED AREA =     634.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.407 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.282; LOW LOSS FRACTION = 0.855
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
     3-HOUR =  1.31;     6-HOUR =  1.81; 24-HOUR =  3.03
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
     3-HOUR = 0.734;     6-HOUR = 0.885; 24-HOUR = 0.932


  ********************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    7
  ------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ==================================================================
```

```
  ********************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    6
  ------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ==================================================================


  ********************************************************************
   FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =    1
  ------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ==================================================================
   WATERSHED AREA =     213.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.268 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.128; LOW LOSS FRACTION = 0.391
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
     3-HOUR =  1.31;     6-HOUR =  1.81; 24-HOUR =  3.03
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
     3-HOUR = 0.734;     6-HOUR = 0.885; 24-HOUR = 0.932


  ********************************************************************
   FLOW PROCESS FROM NODE    221.00 TO NODE    129.00 IS CODE =    7
  ------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ==================================================================


  ********************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    6
  ------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ==================================================================


  ********************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
  ------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ==================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =  200.00    CHANNEL Z =  5.00
   UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
   CHANNEL LENGTH(FT) =    1389.52     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
  ==================================================================


  ********************************************************************
```

```
 FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =    1
-----------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=============================================================================
 WATERSHED AREA =    4924.400 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.938 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.244; LOW LOSS FRACTION = 0.727
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59; 1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


*****************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
-----------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
=============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =    427.51; DOWNSTREAM ELEVATION(FT) =    315.00
 CHANNEL LENGTH(FT) =   9760.05     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
=============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
-----------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
=============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =    315.00; DOWNSTREAM ELEVATION(FT) =    212.00
 CHANNEL LENGTH(FT) =   6877.24     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
=============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =    1
-----------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
=============================================================================
 WATERSHED AREA =    1713.900 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.637 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.618
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59; 1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =    7
-----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =    6
-----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =    7
-----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =    6
-----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
-----------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =    212.00; DOWNSTREAM ELEVATION(FT) =    170.00
 CHANNEL LENGTH(FT) =   6461.31     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
=============================================================================


*****************************************************************************
```

```
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =   1
--------------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
 WATERSHED AREA =    1705.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.386 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.245; LOW LOSS FRACTION = 0.690
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


********************************************************************************
 FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
--------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
 FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
--------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
 FLOW PROCESS FROM NODE  13500.00 TO NODE    134.00 IS CODE =   1
--------------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
 WATERSHED AREA =    3859.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    1.489 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.284; LOW LOSS FRACTION = 0.760
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


********************************************************************************
 FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
--------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
 FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
--------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
```

```
================================================================================
 FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE = 5.2
--------------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00     CHANNEL Z =  4.00
 UPSTREAM ELEVATION(FT) =     170.00; DOWNSTREAM ELEVATION(FT) =     135.00
 CHANNEL LENGTH(FT) =    6064.09     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
================================================================================


********************************************************************************
 FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE =   1
--------------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
 WATERSHED AREA =    1240.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.443 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.237; LOW LOSS FRACTION = 0.636
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
   3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


********************************************************************************
 FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   7
--------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
 FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   6
--------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
 FLOW PROCESS FROM NODE    137.00 TO NODE    138.00 IS CODE = 5.2
--------------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
```

```
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) = 100.00     CHANNEL Z = 4.00
   UPSTREAM ELEVATION(FT) =      135.00; DOWNSTREAM ELEVATION(FT) =     119.70
   CHANNEL LENGTH(FT) =   4643.67     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
===================================================================

***************************************************************
   FLOW PROCESS FROM NODE    137.00 TO NODE    138.00 IS CODE =   1
-------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===================================================================
   WATERSHED AREA =    1303.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.560 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.267; LOW LOSS FRACTION = 0.717
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE = 0.26; 30-MINUTE =  0.59; 1-HOUR =  0.78
    3-HOUR = 1.31;    6-HOUR = 1.81; 24-HOUR = 3.03
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;     6-HOUR = 0.885; 24-HOUR = 0.932

***************************************************************
   FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =   7
-------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===================================================================

***************************************************************
   FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =   6
-------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===================================================================

***************************************************************
   FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =  11
-------------------------------------------------------------------
   >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
===================================================================
===================================================================
```

```
   +------------------------------------------------------------------------
-------------------------------------------+
   |                              * AES FLOODSCx PROGRAM RESULTS SUMMARY *
   |
   |INPUT FILENAME: [EV10138F.DAT   ]
Page:  1 of   |
   +-----------------+-------------------------------+-------------------+-
-----------+------------+----------+
   |UPSTREAM  DOWNSTREAM|                                | UPSTREAM  DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|                 |
   | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS  |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
   +-----------------+-------------------------------+-------------------+-
-----------+------------+----------+
   | 10100.00    119.00| Subarea (UH) Added to Stream #1|    0.0      6188.6|
18.333 |
   |  119.00   12603.00| Convex Routing:      Stream #1| 6188.6      6175.2|
18.417 |           |           |
   |  810.00     809.00| Subarea (UH) Added to Stream #2|    0.0        61.9|
16.250 |           |           |
   | 12603.00  12603.00| Stream #2 Added to:   Stream #1| 6175.2      6183.8|
18.417 |           |           |
   | 12603.00  12603.00| Zero Out:             Stream #2|   61.9         0.0|
   |           |           |
   +-----------------+-------------------------------+-------------------+-
-----------+------------+----------+
   | 12603.00    126.00| Convex Routing:      Stream #1| 6183.8      6171.6|
18.500 |           |           |
   |  920.00     905.00| Subarea (UH) Added to Stream #2|    0.0       137.4|
16.333 |           |           |
   |  126.00     126.00| Stream #2 Added to:   Stream #1| 6171.6      6186.8|
18.500 |           |           |
   |  126.00     126.00| Zero Out:             Stream #2|  137.4         0.0|
   |           |           |
   |  600.00     126.00| Subarea (UH) Added to Stream #2|    0.0        36.8|
16.417 |           |           |
   +-----------------+-------------------------------+-------------------+-
-----------+------------+----------+
   |  126.00     126.00| Stream #2 Added to:   Stream #1| 6186.8      6189.3|
18.500 |           |           |
   |  126.00     126.00| Zero Out:             Stream #2|   36.8         0.0|
   |           |           |
   |  126.00   12720.50| Convex Routing:      Stream #1| 6189.3      6152.7|
18.583 |           |           |
   |  320.00     331.00| Subarea (UH) Added to Stream #2|    0.0       250.1|
16.333 |           |           |
   |  400.00     331.00| Subarea (UH) Added to Stream #3|    0.0       162.1|
16.333 |           |           |
   +-----------------+-------------------------------+-------------------+-
-----------+------------+----------+
   |  390.00     331.00| Subarea (UH) Added to Stream #4|    0.0        19.6|
16.500 |           |           |
   |  331.00     331.00| Stream #4 Added to:   Stream #2|  250.1       267.3|
16.333 |           |           |
   |  331.00     331.00| Zero Out:             Stream #4|   19.6         0.0|
   |           |           |
   |  331.00     331.00| Stream #3 Added to:   Stream #2|  267.3       429.4|
16.333 |           |           |
```

```
| 331.00     331.00| Zero Out:          Stream #3|   162.1        0.0|
|            |               |
 +------------------+-----------------------------+--------------------+-
----------+------------+-----------+
| 331.00   12720.50| Stream #2 Added to:   Stream #1|   6152.7     6242.8|
18.583 |          |               |
| 12720.50  12720.50| Zero Out:          Stream #2|   429.4        0.0|
|            |               |
| 12720.50     127.00| Convex Routing:     Stream #1|   6242.8     6227.7|
18.667 |          |               |
| 12710.00     127.00| Subarea (UH) Added to Stream #2|    0.0       96.5|
16.500 |          |               |
|   127.00     127.00| Stream #2 Added to:   Stream #1|   6227.7     6236.8|
18.667 |          |               |
 +------------------+-----------------------------+--------------------+-
----------+------------+-----------+
|   127.00     127.00| Zero Out:          Stream #2|    96.5        0.0|
|            |               |
| 50150.00     127.00| Subarea (UH) Added to Stream #2|    0.0      160.1|
16.417 |          |               |
|   127.00     127.00| Stream #2 Added to:   Stream #1|   6236.8     6254.8|
18.667 |          |               |
|   127.00     127.00| Zero Out:          Stream #2|   160.1        0.0|
|            |               |
|   127.00     129.00| Convex Routing:     Stream #1|   6254.8     6240.9|
18.833 |          |               |
 +------------------+-----------------------------+--------------------+-
----------+------------+-----------+
| 50300.00     129.00| Subarea (UH) Added to Stream #2|    0.0       97.1|
16.500 |          |               |
|   129.00     129.00| Stream #2 Added to:   Stream #1|   6240.9     6250.7|
18.833 |          |               |
|   129.00     129.00| Zero Out:          Stream #2|    97.1        0.0|
|            |               |
|   210.00     221.00| Subarea (UH) Added to Stream #2|    0.0       74.6|
16.333 |          |               |
|   221.00     129.00| Stream #2 Added to:   Stream #1|   6250.7     6263.9|
18.500 |          |               |
 +------------------+-----------------------------+--------------------+-
----------+------------+-----------+
|   129.00     129.00| Zero Out:          Stream #2|    74.6        0.0|
|            |               |
|   129.00     133.00| Convex Routing:     Stream #1|   6263.9     6258.7|
18.000 |          |               |
| 13010.00     132.00| Subarea (UH) Added to Stream #2|    0.0      642.8|
17.000 |          |               |
|   132.00   13305.00| Convex Routing:     Stream #2|   642.8      616.3|
17.417 |          |               |
| 13305.00     133.00| Convex Routing:     Stream #2|   616.3      610.7|
17.833 |          |               |
 +------------------+-----------------------------+--------------------+-
----------+------------+-----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                              |
|       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                     |
 +----------------------------------------------------------------------
------------------------------------+
```

```
+-----------------------------------------------------------------------------------------------+
|                              * AES FLOODSCx PROGRAM RESULTS SUMMARY *                          |
|                                                                                               |
|INPUT FILENAME: [EV10138F.DAT   ]                                                              |
|Page:  2 of    |
```

UPSTREAM NODE #	DOWNSTREAM NODE #	HYDROLOGIC/HYDRAULIC PROCESS	UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)	TIME(2) TO PEAK (HR)	MAX. STORAGE MODELED (AF)	FOOTNOTES
132.00	133.00	Subarea (UH) Added to Stream #3	0.0	304.4	16.667		
133.00	133.00	Stream #3 Added to: Stream #2	610.7	783.7	17.750		
133.00	133.00	Zero Out: Stream #3	304.4	0.0			
133.00	133.00	Stream #2 Added to: Stream #1	6258.7	7022.2	17.917		
133.00	133.00	Zero Out: Stream #2	783.7	0.0			
133.00	134.00	Convex Routing: Stream #1	7022.2	7009.3	18.167		
133.00	134.00	Subarea (UH) Added to Stream #2	0.0	338.9	16.417		
134.00	134.00	Stream #2 Added to: Stream #1	7009.3	7120.1	18.083		
134.00	134.00	Zero Out: Stream #2	338.9	0.0			
13500.00	134.00	Subarea (UH) Added to Stream #2	0.0	384.7	17.500		
134.00	134.00	Stream #2 Added to: Stream #1	7120.1	7449.0	18.083		
134.00	134.00	Zero Out: Stream #2	384.7	0.0			
134.00	137.00	Convex Routing: Stream #1	7449.0	7440.4	18.250		
134.00	137.00	Subarea (UH) Added to Stream #2	0.0	248.8	16.500		
137.00	137.00	Stream #2 Added to: Stream #1	7440.4	7529.7	18.250		
137.00	137.00	Zero Out: Stream #2	248.8	0.0			
137.00	138.00	Convex Routing: Stream #1	7529.7	7519.6	18.417		
137.00	138.00	Subarea (UH) Added to Stream #2	0.0	202.1	16.583		
138.00	138.00	Stream #2 Added to: Stream #1	7519.6	7588.4	18.417		
138.00	138.00	Zero Out: Stream #2	202.1	0.0			
138.00	138.00	View: Stream #1		7588.4	18.417	6023.66	3

```
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                                                     |
|       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                                                            |
```

   END OF FLOODSCx ROUTING ANALYSIS

```
 _____
****************************************************************************

          F L O O D   R O U T I N G   A N A L Y S I S
            USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                     Analysis prepared by:




 ************************** DESCRIPTION OF STUDY **************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 139                               *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL           *
 * 10-YR EV AUG 2023 ROKAMOTO                                            *
 *************************************************************************

  FILE NAME: EV10139F.DAT
  TIME/DATE OF STUDY: 08:42 08/10/2023


                       ** INPUT SUMMARY **


****************************************************************************
  FLOW PROCESS FROM NODE 10100.00 TO NODE    119.00 IS CODE =   1
 --------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
 ==========================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     2.320 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.746
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.33; 30-MINUTE =  0.63;  1-HOUR =  0.88
    3-HOUR =  1.65;     6-HOUR =  2.45; 24-HOUR =  4.32
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;     6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
 --------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
  CHANNEL LENGTH(FT) =     3157.79     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
 ==========================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
 --------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ==========================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.191 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.548
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
    3-HOUR =  1.31;     6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;     6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
 --------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ==========================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
 --------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ==========================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
 --------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =    286.00
  CHANNEL LENGTH(FT) =     3046.70     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
 ==========================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
 --------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
==============================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.231 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.254; LOW LOSS FRACTION = 0.750
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
    3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


**************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   7
--------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==============================================================


**************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   6
--------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==============================================================


**************************************************************
  FLOW PROCESS FROM NODE   600.00 TO NODE   126.00 IS CODE =   1
--------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.318 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.905
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
    3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


**************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   7
--------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==============================================================


**************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   6
--------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==============================================================
```

```
**************************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE  12720.50 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
========================================================================



**************************************************************************
  FLOW PROCESS FROM NODE   320.00 TO NODE   331.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
========================================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.305 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.100; LOW LOSS FRACTION = 0.297
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
    3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


**************************************************************************
  FLOW PROCESS FROM NODE   400.00 TO NODE   331.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
========================================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.260 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.135; LOW LOSS FRACTION = 0.385
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
    3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


**************************************************************************
  FLOW PROCESS FROM NODE   390.00 TO NODE   331.00 IS CODE =   1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
========================================================================
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.394 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.283; LOW LOSS FRACTION = 0.778
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
  3-HOUR =  1.31;   6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
  3-HOUR = 0.733;   6-HOUR = 0.885; 24-HOUR = 0.932


******************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
==============================================================================

******************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
==============================================================================

******************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==============================================================================
```

```
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
 UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
 CHANNEL LENGTH(FT) =    3114.00     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================================
 WATERSHED AREA =      711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.446 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.293; LOW LOSS FRACTION = 0.898
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
  3-HOUR =  1.31;   6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
  3-HOUR = 0.733;   6-HOUR = 0.885; 24-HOUR = 0.932


******************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==============================================================================


******************************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================================
 WATERSHED AREA =     1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.389 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.295; LOW LOSS FRACTION = 0.855
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
  3-HOUR =  1.31;   6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
```

```
     3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


 ***************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
 --------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ==========================================================================



 ***************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
 --------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ==========================================================================



 ***************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
 --------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ==========================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
   UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
   CHANNEL LENGTH(FT) =    4905.42      MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
 ==========================================================================



 ***************************************************************************
   FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =   1
 --------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ==========================================================================
   WATERSHED AREA =     634.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.407 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.282; LOW LOSS FRACTION = 0.855
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
     3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
     3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


 ***************************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   7
 --------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ==========================================================================
```

```
 ***************************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
 --------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ==========================================================================



 ***************************************************************************
   FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =   1
 --------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ==========================================================================
   WATERSHED AREA =     213.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.268 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.128; LOW LOSS FRACTION = 0.391
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
     3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
     3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


 ***************************************************************************
   FLOW PROCESS FROM NODE    221.00 TO NODE    129.00 IS CODE =   7
 --------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ==========================================================================



 ***************************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
 --------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ==========================================================================



 ***************************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
 --------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ==========================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
   UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
   CHANNEL LENGTH(FT) =    1389.52      MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
 ==========================================================================



 ***************************************************************************
```

```
 FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
-------------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
 WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.938 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.244; LOW LOSS FRACTION = 0.727
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59; 1-HOUR =  0.78
   3-HOUR =  1.31;   6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
   3-HOUR = 0.733;   6-HOUR = 0.885; 24-HOUR = 0.932


*******************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
-------------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
===============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =    315.00
 CHANNEL LENGTH(FT) =   9760.05     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =   0.00
===============================================================================


*******************************************************************************
 FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
-------------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
===============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =    212.00
 CHANNEL LENGTH(FT) =   6877.24     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =   0.00
===============================================================================


*******************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
-------------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
===============================================================================
 WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.637 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.618
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.26; 30-MINUTE =  0.59; 1-HOUR =  0.78
   3-HOUR =  1.31;   6-HOUR =  1.81; 24-HOUR =  3.03
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
   3-HOUR = 0.733;   6-HOUR = 0.885; 24-HOUR = 0.932


*******************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
-------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
===============================================================================


*******************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
-------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
===============================================================================


*******************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
-------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


*******************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
-------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================


*******************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
-------------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =    170.00
 CHANNEL LENGTH(FT) =   6461.31     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =   0.00
===============================================================================


*******************************************************************************
```

```
   FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =   1
--------------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
   WATERSHED AREA =    1705.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.386 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.245; LOW LOSS FRACTION = 0.690
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
    3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


********************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
--------------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
--------------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
   FLOW PROCESS FROM NODE  13500.00 TO NODE    134.00 IS CODE =   1
--------------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
   WATERSHED AREA =    3859.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    1.489 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.284; LOW LOSS FRACTION = 0.760
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
    3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


********************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
--------------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
--------------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
```

```
================================================================================

********************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE = 5.2
--------------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =  200.00     CHANNEL Z =  4.00
   UPSTREAM ELEVATION(FT) =      170.00; DOWNSTREAM ELEVATION(FT) =      135.00
   CHANNEL LENGTH(FT) =    6064.09     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =     0.00
================================================================================


********************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE =   1
--------------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
   WATERSHED AREA =    1240.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.443 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.237; LOW LOSS FRACTION = 0.636
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.26; 30-MINUTE =  0.59;  1-HOUR =  0.78
    3-HOUR =  1.31;    6-HOUR =  1.81; 24-HOUR =  3.03
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


********************************************************************************
   FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   7
--------------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
   FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   6
--------------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
   FLOW PROCESS FROM NODE    137.00 TO NODE    138.00 IS CODE = 5.2
--------------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
```

```
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) = 100.00      CHANNEL Z = 4.00
UPSTREAM ELEVATION(FT) =     135.00; DOWNSTREAM ELEVATION(FT) =     119.70
CHANNEL LENGTH(FT) =    4643.67      MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


******************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    138.00 IS CODE =   1
------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
  WATERSHED AREA =    1303.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.560 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.267; LOW LOSS FRACTION = 0.717
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.26; 30-MINUTE =  0.59; 1-HOUR =  0.78
    3-HOUR =  1.31;     6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;     6-HOUR = 0.885; 24-HOUR = 0.932


******************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =   7
------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


******************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =   6
------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


******************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    139.00 IS CODE = 5.2
------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 100.00      CHANNEL Z = 4.00
  UPSTREAM ELEVATION(FT) =     119.70; DOWNSTREAM ELEVATION(FT) =     100.00
  CHANNEL LENGTH(FT) =    3107.78      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
```

```
==========================================================================


******************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    139.00 IS CODE =   1
------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
  WATERSHED AREA =     428.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.258 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.207; LOW LOSS FRACTION = 0.540
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.26; 30-MINUTE =  0.59; 1-HOUR =  0.78
    3-HOUR =  1.31;     6-HOUR =  1.81; 24-HOUR =  3.03
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;     6-HOUR = 0.885; 24-HOUR = 0.932


******************************************************************
  FLOW PROCESS FROM NODE    139.00 TO NODE    139.00 IS CODE =   7
------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


******************************************************************
  FLOW PROCESS FROM NODE    139.00 TO NODE    139.00 IS CODE =   6
------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


******************************************************************
  FLOW PROCESS FROM NODE    139.00 TO NODE    139.00 IS CODE =  11
------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
==========================================================================
==========================================================================
```

| UPSTREAM DOWNSTREAM| | UPSTREAM   DOWNSTREAM| TIME(2) TO | MAX. STORAGE| |
| NODE #   NODE # | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS) PEAK (CFS)| PEAK (HR) | MODELED (AF) | FOOTNOTES |

UPSTREAM NODE #	DOWNSTREAM NODE #	HYDROLOGIC/HYDRAULIC PROCESS	UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)	TIME(2) TO PEAK (HR)	MAX. STORAGE MODELED (AF)	FOOTNOTES
10100.00	119.00	Subarea (UH) Added to Stream #1	0.0	6171.0	18.333		
119.00	12603.00	Convex Routing: Stream #1	6171.0	6158.0	18.417		
810.00	809.00	Subarea (UH) Added to Stream #2	0.0	61.7	16.250		
12603.00	12603.00	Stream #2 Added to: Stream #1	6158.0	6166.5	18.417		
12603.00	12603.00	Zero Out: Stream #2	61.7	0.0			
12603.00	126.00	Convex Routing: Stream #1	6166.5	6154.5	18.500		
920.00	905.00	Subarea (UH) Added to Stream #2	0.0	136.7	16.333		
126.00	126.00	Stream #2 Added to: Stream #1	6154.5	6169.7	18.500		
126.00	126.00	Zero Out: Stream #2	136.7	0.0			
600.00	126.00	Subarea (UH) Added to Stream #2	0.0	36.6	16.417		
126.00	126.00	Stream #2 Added to: Stream #1	6169.7	6172.3	18.500		
126.00	126.00	Zero Out: Stream #2	36.6	0.0			
126.00	12720.50	Convex Routing: Stream #1	6172.3	6135.4	18.583		
320.00	331.00	Subarea (UH) Added to Stream #2	0.0	249.3	16.333		
400.00	331.00	Subarea (UH) Added to Stream #3	0.0	161.6	16.333		
390.00	331.00	Subarea (UH) Added to Stream #4	0.0	19.5	16.500		
331.00	331.00	Stream #4 Added to: Stream #2	249.3	266.5	16.333		
331.00	331.00	Zero Out: Stream #4	19.5	0.0			
331.00	331.00	Stream #3 Added to: Stream #2	266.5	428.1	16.333		
331.00	331.00	Zero Out: Stream #3	161.6	0.0			
331.00	12720.50	Stream #2 Added to: Stream #1	6135.4	6225.5	18.583		
12720.50	12720.50	Zero Out: Stream #2	428.1	0.0			
12720.50	127.00	Convex Routing: Stream #1	6225.5	6210.3	18.667		
12710.00	127.00	Subarea (UH) Added to Stream #2	0.0	95.9	16.500		
127.00	127.00	Stream #2 Added to: Stream #1	6210.3	6219.5	18.667		
127.00	127.00	Zero Out: Stream #2	95.9	0.0			
50150.00	127.00	Subarea (UH) Added to Stream #2	0.0	159.3	16.417		
127.00	127.00	Stream #2 Added to: Stream #1	6219.5	6237.4	18.667		
127.00	127.00	Zero Out: Stream #2	159.3	0.0			
127.00	129.00	Convex Routing: Stream #1	6237.4	6223.7	18.833		
50300.00	129.00	Subarea (UH) Added to Stream #2	0.0	96.6	16.500		
129.00	129.00	Stream #2 Added to: Stream #1	6223.7	6233.4	18.833		
129.00	129.00	Zero Out: Stream #2	96.6	0.0			
210.00	221.00	Subarea (UH) Added to Stream #2	0.0	74.4	16.333		
221.00	129.00	Stream #2 Added to: Stream #1	6233.4	6247.0	18.500		
129.00	129.00	Zero Out: Stream #2	74.4	0.0			
129.00	133.00	Convex Routing: Stream #1	6247.0	6242.8	18.000		
13010.00	132.00	Subarea (UH) Added to Stream #2	0.0	640.8	17.000		
132.00	13305.00	Convex Routing: Stream #2	640.8	614.3	17.417		
13305.00	133.00	Convex Routing: Stream #2	614.3	608.8	17.833		

|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL |
| 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM |

```
+------------------+---------------------------+--------------------+-
----------+------------+-----------+
|UPSTREAM  DOWNSTREAM|                          | UPSTREAM  DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|          |
| NODE #     NODE # | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
+------------------+---------------------------+--------------------+-
----------+------------+-----------+
| 132.00     133.00| Subarea (UH) Added to Stream #3|    0.0      303.4|
16.667 |          |          |
| 133.00     133.00| Stream #3 Added to:   Stream #2|  608.8      781.7|
17.750 |          |          |
| 133.00     133.00| Zero Out:             Stream #3|  303.4        0.0|
|          |          |
| 133.00     133.00| Stream #2 Added to:   Stream #1| 6242.8     7004.7|
17.917 |          |          |
| 133.00     133.00| Zero Out:             Stream #2|  781.7        0.0|
|          |          |
+------------------+---------------------------+--------------------+-
----------+------------+-----------+
| 133.00     134.00| Convex Routing:       Stream #1| 7004.7     6992.0|
18.167 |          |          |
| 133.00     134.00| Subarea (UH) Added to Stream #2|    0.0      337.5|
16.417 |          |          |
| 134.00     134.00| Stream #2 Added to:   Stream #1| 6992.0     7102.8|
18.083 |          |          |
| 134.00     134.00| Zero Out:             Stream #2|  337.5        0.0|
|          |          |
| 13500.00   134.00| Subarea (UH) Added to Stream #2|    0.0      383.7|
17.500 |          |          |
+------------------+---------------------------+--------------------+-
----------+------------+-----------+
| 134.00     134.00| Stream #2 Added to:   Stream #1| 7102.8     7431.0|
18.083 |          |          |
| 134.00     134.00| Zero Out:             Stream #2|  383.7        0.0|
|          |          |
| 134.00     137.00| Convex Routing:       Stream #1| 7431.0     7422.5|
18.250 |          |          |
| 134.00     137.00| Subarea (UH) Added to Stream #2|    0.0      247.9|
16.500 |          |          |
| 137.00     137.00| Stream #2 Added to:   Stream #1| 7422.5     7511.8|
18.250 |          |          |
+------------------+---------------------------+--------------------+-
----------+------------+-----------+
| 137.00     137.00| Zero Out:             Stream #2|  247.9        0.0|
|          |          |
| 137.00     138.00| Convex Routing:       Stream #1| 7511.8     7501.8|
18.417 |          |          |
| 137.00     138.00| Subarea (UH) Added to Stream #2|    0.0      201.4|
16.583 |          |          |
| 138.00     138.00| Stream #2 Added to:   Stream #1| 7501.8     7570.6|
18.417 |          |          |
```

```
| 138.00    138.00| Zero Out:              Stream #2|    201.4        0.0|
|              |        |
 +------------------+--------------------------------+--------------------+-
----------+------------+-----------+
| 138.00    139.00| Convex Routing:        Stream #1|   7570.6     7567.5|
18.500 |        |        |
| 138.00    139.00| Subarea (UH) Added to Stream #2|      0.0      125.5|
16.333 |        |        |
| 139.00    139.00| Stream #2 Added to:    Stream #1|   7567.5     7589.9|
18.500 |        |        |
| 139.00    139.00| Zero Out:              Stream #2|    125.5        0.0|
|              |        |
| 139.00    139.00| View:                  Stream #1|              7589.9|
18.500 |   6065.26|   3    |
 +------------------+--------------------------------+--------------------+-
----------+------------+-----------+
 +------------------+--------------------------------+--------------------+-
----------+------------+-----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                |
|      3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                        |
 +------------------------------------------------------------------------
--------------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

```
********************************************************************************
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                       Analysis prepared by:

                   Michael Baker International
                  5 Hutton Centre Drive, Suite 500
                       Santa Ana, CA 92707


 ************************** DESCRIPTION OF STUDY **************************
 * RANCHO MISSION VIEJO - FREE DRAINING UH                              *
 * PHASE CONDITION NO PA5 - REGIONAL NODE 119                           *
 * 25-YR EV APRIL 2019 FKAZI                                            *
 ************************************************************************

  FILE NAME: EV25119F.DAT
  TIME/DATE OF STUDY: 15:08 04/10/2019


                        ** INPUT SUMMARY **


********************************************************************************
  FLOW PROCESS FROM NODE  10100.00 TO NODE     119.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
================================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    2.119 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.433
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.42; 30-MINUTE =  0.78;  1-HOUR =  1.08
    3-HOUR =  2.02;    6-HOUR =  3.00; 24-HOUR =  5.30
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.345; 30-MINUTE = 0.395;  1-HOUR = 0.435
    3-HOUR = 0.785;    6-HOUR = 0.904; 24-HOUR = 0.944


********************************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE     119.00 IS CODE =  11
--------------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
================================================================================
================================================================================
```

```
 +------------------------------------------------------------------------
-------------------------------------------+
 |                            * AES FLOODSCx PROGRAM RESULTS SUMMARY *
 |
 |INPUT FILENAME: [EV25119F.DAT   ]
Page:   1 of   |
 +-------------------+-----------------------------+--------------------+-
----------+------------+-----------+
 |UPSTREAM   DOWNSTREAM|                            | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|            |
 | NODE #      NODE #  | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +-------------------+-----------------------------+--------------------+-
----------+------------+-----------+
 | 10100.00     119.00| Subarea (UH) Added to Stream #1|    0.0    14918.1|
18.167 |          |            |
 |   119.00     119.00| View:              Stream #1|          14918.1|
18.167 |   11843.75|     3     |
 +-------------------+-----------------------------+--------------------+-
----------+------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                       |
 |     3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                    |
 +------------------------------------------------------------------------
-------------------------------------------+

    END OF FLOODSCx ROUTING ANALYSIS
```

```
  _____
  ********************************************************************
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                   Analysis prepared by:




  ************************** DESCRIPTION OF STUDY **************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 126                               *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL           *
 * 25-YR EV MAY 2023 ROKAMOTO                                            *
  ************************************************************************

  FILE NAME: EV25126F.DAT
  TIME/DATE OF STUDY: 06:19 05/14/2023


                   ** INPUT SUMMARY **


  ************************************************************************
  FLOW PROCESS FROM NODE  10100.00 TO NODE    119.00 IS CODE =   1
  --------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
  ========================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    2.119 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.433
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.42; 30-MINUTE =  0.78;  1-HOUR =  1.08
   3-HOUR =  2.02;    6-HOUR =  3.00; 24-HOUR =  5.30
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.341; 30-MINUTE = 0.392;  1-HOUR = 0.432
   3-HOUR = 0.782;    6-HOUR = 0.902; 24-HOUR = 0.943


  ************************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
  --------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00    CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =     312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
  ========================================================================


  ************************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
  --------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ========================================================================
  WATERSHED AREA =    171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.187 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.412
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.341; 30-MINUTE = 0.392;  1-HOUR = 0.432
   3-HOUR = 0.782;    6-HOUR = 0.902; 24-HOUR = 0.943


  ************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
  --------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ========================================================================


  ************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
  --------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ========================================================================


  ************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
  --------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00    CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =     286.00
  CHANNEL LENGTH(FT) =    3046.70     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
  ========================================================================


  ************************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
  --------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
================================================================================
 WATERSHED AREA =      553.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.222 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.254; LOW LOSS FRACTION = 0.488
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
  3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.341; 30-MINUTE = 0.392;  1-HOUR = 0.432
  3-HOUR = 0.782;    6-HOUR = 0.902; 24-HOUR = 0.943


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================



********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================



********************************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =      218.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.301 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.759
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
  3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.341; 30-MINUTE = 0.392;  1-HOUR = 0.432
  3-HOUR = 0.782;    6-HOUR = 0.902; 24-HOUR = 0.943


********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================



********************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================
```

```
****************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =  11
----------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
======================================================================

======================================================================
```

```
 +----------------------------------------------------------------------------
-------------------------------------+
 |                                   * AES FLOODSCx PROGRAM RESULTS SUMMARY *
 |
 |INPUT FILENAME: [EV25126F.DAT   ]
Page:   1 of    |
 +------------------+-----------------------------+---------------------+-
----------+------------+-----------+
 |UPSTREAM  DOWNSTREAM|                            | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|        |
 | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +------------------+-----------------------------+---------------------+-
----------+------------+-----------+
 | 10100.00    119.00| Subarea (UH) Added to Stream #1|      0.0    14804.4|
18.167 |           |           |
 |   119.00  12603.00| Convex Routing:      Stream #1|  14804.4    14714.2|
18.083 |           |           |
 |   810.00    809.00| Subarea (UH) Added to Stream #2|      0.0      104.0|
16.250 |           |           |
 | 12603.00  12603.00| Stream #2 Added to:   Stream #1|  14714.2    14737.2|
18.083 |           |           |
 | 12603.00  12603.00| Zero Out:            Stream #2|    104.0        0.0|
|           |           |
 +------------------+-----------------------------+---------------------+-
----------+------------+-----------+
 | 12603.00    126.00| Convex Routing:      Stream #1|  14737.2    14712.8|
18.167 |           |           |
 |   920.00    905.00| Subarea (UH) Added to Stream #2|      0.0      265.6|
16.250 |           |           |
 |   126.00    126.00| Stream #2 Added to:   Stream #1|  14712.8    14773.7|
18.167 |           |           |
 |   126.00    126.00| Zero Out:            Stream #2|    265.6        0.0|
|           |           |
 |   600.00    126.00| Subarea (UH) Added to Stream #2|      0.0       76.6|
16.333 |           |           |
 +------------------+-----------------------------+---------------------+-
----------+------------+-----------+
 |   126.00    126.00| Stream #2 Added to:   Stream #1|  14773.7    14785.6|
18.167 |           |           |
 |   126.00    126.00| Zero Out:            Stream #2|     76.6        0.0|
|           |           |
 |   126.00    126.00| View:                Stream #1|             14785.6|
18.167 |   11943.56|    3      |
 +------------------+-----------------------------+---------------------+-
----------+------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                          |
 |      3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                  |
 +----------------------------------------------------------------------------
-------------------------------------+


   END OF FLOODSCx ROUTING ANALYSIS
```

```
_____
***********************************************************************

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                    Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 127                             *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL         *
 * 25-YR EV MAY 2023 ROKAMOTO                                          *
 **********************************************************************

  FILE NAME: EV25127F.DAT
  TIME/DATE OF STUDY: 06:19 05/14/2023


                        ** INPUT SUMMARY **


***********************************************************************
  FLOW PROCESS FROM NODE  10100.00 TO NODE    119.00 IS CODE =   1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
=======================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    2.119 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.433
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.42; 30-MINUTE =  0.78;  1-HOUR =  1.08
    3-HOUR =  2.02;    6-HOUR =  3.00; 24-HOUR =  5.30
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
    3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


***********************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
-----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=======================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.187 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.412
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
    3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
    3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


***********************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
-----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =    286.00
  CHANNEL LENGTH(FT) =    3046.70    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
=================================================================
  WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.222 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.254; LOW LOSS FRACTION = 0.488
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.34; 30-MINUTE = 0.72;  1-HOUR = 0.95
   3-HOUR = 1.59;    6-HOUR = 2.20; 24-HOUR = 3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
   3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


*****************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   7
-----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=================================================================


*****************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   6
-----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=================================================================


*****************************************************************
  FLOW PROCESS FROM NODE   600.00 TO NODE   126.00 IS CODE =   1
-----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=================================================================
  WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.301 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.759
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.34; 30-MINUTE = 0.72;  1-HOUR = 0.95
   3-HOUR = 1.59;    6-HOUR = 2.20; 24-HOUR = 3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
   3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


*****************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   7
-----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=================================================================


*****************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   126.00 IS CODE =   6
-----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=================================================================
```

```
*****************************************************************
  FLOW PROCESS FROM NODE   126.00 TO NODE   12720.50 IS CODE = 5.2
-----------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =    258.00
  CHANNEL LENGTH(FT) =    4077.05     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=================================================================



*****************************************************************
  FLOW PROCESS FROM NODE   320.00 TO NODE   331.00 IS CODE =   1
-----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=================================================================
  WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.294 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.100; LOW LOSS FRACTION = 0.268
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.34; 30-MINUTE = 0.72;  1-HOUR = 0.95
   3-HOUR = 1.59;    6-HOUR = 2.20; 24-HOUR = 3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
   3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


*****************************************************************
  FLOW PROCESS FROM NODE   400.00 TO NODE   331.00 IS CODE =   1
-----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
=================================================================
  WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.249 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.135; LOW LOSS FRACTION = 0.346
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.34; 30-MINUTE = 0.72;  1-HOUR = 0.95
   3-HOUR = 1.59;    6-HOUR = 2.20; 24-HOUR = 3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
   3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


*****************************************************************
  FLOW PROCESS FROM NODE   390.00 TO NODE   331.00 IS CODE =   1
-----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
=================================================================
  WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.373 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.283; LOW LOSS FRACTION = 0.507
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
  3-HOUR =  1.59;   6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
  3-HOUR = 0.773;   6-HOUR = 0.898; 24-HOUR = 0.941


*********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
===================================================================

*********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
===================================================================


*********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
===================================================================

*********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
===================================================================


*********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===================================================================


*********************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===================================================================


*********************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
-------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===================================================================
```

```
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00    CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =    240.00
  CHANNEL LENGTH(FT) =    3114.00     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
===================================================================


*********************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
-------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===================================================================
  WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.419 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.293; LOW LOSS FRACTION = 0.655
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
   3-HOUR =  1.59;   6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
   3-HOUR = 0.773;   6-HOUR = 0.898; 24-HOUR = 0.941


*********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===================================================================


*********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===================================================================


*********************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
-------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===================================================================
  WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.369 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.295; LOW LOSS FRACTION = 0.551
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
   3-HOUR =  1.59;   6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
```

```
      3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


****************************************************************************
  FLOW PROCESS FROM NODE     127.00 TO NODE      127.00 IS CODE =     7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE     127.00 TO NODE      127.00 IS CODE =     6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE     127.00 TO NODE      127.00 IS CODE =    11
----------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
============================================================================
============================================================================
```

UPSTREAM DOWNSTREAM NODE # NODE #	HYDROLOGIC/HYDRAULIC PROCESS	UPSTREAM DOWNSTREAM PEAK (CFS) PEAK (CFS)	TIME(2) TO MAX. STORAGE PEAK (HR) MODELED (AF) FOOTNOTES
10100.00 119.00	Subarea (UH) Added to Stream #1	0.0 14596.5	18.167
119.00 12603.00	Convex Routing: Stream #1	14596.5 14510.3	18.083
810.00 809.00	Subarea (UH) Added to Stream #2	0.0 100.6	16.250
12603.00 12603.00	Stream #2 Added to: Stream #1	14510.3 14533.5	18.083
12603.00 12603.00	Zero Out: Stream #2	100.6 0.0	
12603.00 126.00	Convex Routing: Stream #1	14533.5 14510.1	18.250
920.00 905.00	Subarea (UH) Added to Stream #2	0.0 256.4	16.250
126.00 126.00	Stream #2 Added to: Stream #1	14510.1 14571.3	18.167
126.00 126.00	Zero Out: Stream #2	256.4 0.0	
600.00 126.00	Subarea (UH) Added to Stream #2	0.0 73.6	16.333
126.00 126.00	Stream #2 Added to: Stream #1	14571.3 14583.3	18.167
126.00 126.00	Zero Out: Stream #2	73.6 0.0	
126.00 12720.50	Convex Routing: Stream #1	14583.3 14568.8	18.333
320.00 331.00	Subarea (UH) Added to Stream #2	0.0 372.2	16.333
400.00 331.00	Subarea (UH) Added to Stream #3	0.0 247.7	16.333
390.00 331.00	Subarea (UH) Added to Stream #4	0.0 41.1	16.417
331.00 331.00	Stream #4 Added to: Stream #2	372.2 409.6	16.333
331.00 331.00	Zero Out: Stream #4	41.1 0.0	
331.00 331.00	Stream #3 Added to: Stream #2	409.6 657.2	16.333

```
|   331.00     331.00| Zero Out:           Stream #3|    247.7        0.0|
|              |          |
 +-----------------+----------------------------+--------------------+-
----------+------------+----------+
|   331.00   12720.50| Stream #2 Added to:   Stream #1|   14568.8    14727.5|
18.333 |            |          |
| 12720.50   12720.50| Zero Out:           Stream #2|    657.2        0.0|
|              |          |
| 12720.50     127.00| Convex Routing:      Stream #1|   14727.5    14706.6|
18.417 |            |          |
| 12710.00     127.00| Subarea (UH) Added to Stream #2|      0.0      210.9|
16.500 |            |          |
|   127.00     127.00| Stream #2 Added to:   Stream #1|   14706.6    14754.3|
18.417 |            |          |
 +-----------------+----------------------------+--------------------+-
----------+------------+----------+
|   127.00     127.00| Zero Out:           Stream #2|    210.9        0.0|
|              |          |
| 50150.00     127.00| Subarea (UH) Added to Stream #2|      0.0      360.3|
16.417 |            |          |
|   127.00     127.00| Stream #2 Added to:   Stream #1|   14754.3    14846.5|
18.333 |            |          |
|   127.00     127.00| Zero Out:           Stream #2|    360.3        0.0|
|              |          |
|   127.00     127.00| View:                Stream #1|             14846.5|
18.333 |   12378.68|    3     |
 +-----------------+----------------------------+--------------------+-
----------+------------+----------+
 +-----------------+----------------------------+--------------------+-
----------+------------+----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                         |
 |      3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                        |
 +-----------------------------------------------------------------------------
--------------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

```
_____
************************************************************************

        F L O O D   R O U T I N G   A N A L Y S I S
          USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 137                             *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL         *
 * 25-YR EV AUG 2023 ROKAMOTO                                          *
 *********************************************************************

  FILE NAME: EV25137F.DAT
  TIME/DATE OF STUDY: 08:19 08/10/2023


                   ** INPUT SUMMARY **


************************************************************************
  FLOW PROCESS FROM NODE 10100.00 TO NODE   119.00 IS CODE =  1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
=======================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    2.119 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.433
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.42; 30-MINUTE =  0.78; 1-HOUR =  1.08
   3-HOUR =  2.02;    6-HOUR =  3.00; 24-HOUR =  5.30
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
   3-HOUR = 0.738;     6-HOUR = 0.886; 24-HOUR = 0.933


************************************************************************
  FLOW PROCESS FROM NODE   119.00 TO NODE  12603.00 IS CODE = 5.2
-----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =      341.63; DOWNSTREAM ELEVATION(FT) =     312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=======================================================================


************************************************************************
  FLOW PROCESS FROM NODE   810.00 TO NODE    809.00 IS CODE =  1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=======================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.187 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.412
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72; 1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
   3-HOUR = 0.738;     6-HOUR = 0.886; 24-HOUR = 0.933


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =  7
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=======================================================================


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =  6
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=======================================================================


************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
-----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =      312.40; DOWNSTREAM ELEVATION(FT) =     286.00
  CHANNEL LENGTH(FT) =    3046.70     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=======================================================================


************************************************************************
  FLOW PROCESS FROM NODE   920.00 TO NODE    905.00 IS CODE =  1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
===============================================================
 WATERSHED AREA =     553.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.222 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.254; LOW LOSS FRACTION = 0.488
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
   3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


*****************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
---------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================


*****************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
---------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================


*****************************************************************
 FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
---------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================
 WATERSHED AREA =     218.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.301 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.759
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
   3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


*****************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
---------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================


*****************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
---------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================
```

```
*****************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE   12720.50 IS CODE = 5.2
---------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===============================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00      CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
 CHANNEL LENGTH(FT) =    4077.05      MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =     0.00
===============================================================



*****************************************************************
 FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =    1
---------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================
 WATERSHED AREA =     712.600 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.294 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.100; LOW LOSS FRACTION = 0.268
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
   3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


*****************************************************************
 FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =    1
---------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
===============================================================
 WATERSHED AREA =     462.500 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.249 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.135; LOW LOSS FRACTION = 0.346
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
   3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


*****************************************************************
 FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =    1
---------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
===============================================================
 WATERSHED AREA =     117.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.373 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.283; LOW LOSS FRACTION = 0.507
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
  3-HOUR =  1.59;   6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
   3-HOUR = 0.738;   6-HOUR = 0.886; 24-HOUR = 0.933


 ****************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
 ============================================================================

 ****************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
 ============================================================================


 ****************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
 ============================================================================

 ****************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
 ============================================================================


 ****************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ============================================================================


 ****************************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ============================================================================


 ****************************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
 ----------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ============================================================================
```

```
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
   UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
   CHANNEL LENGTH(FT) =    3114.00     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
 ============================================================================


 ****************************************************************************
   FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
 ----------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ============================================================================
   WATERSHED AREA =      711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.419 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.293; LOW LOSS FRACTION = 0.655
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
    3-HOUR =  1.59;   6-HOUR =  2.20; 24-HOUR =  3.68
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
     3-HOUR = 0.738;   6-HOUR = 0.886; 24-HOUR = 0.933


 ****************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ============================================================================


 ****************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
 ----------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ============================================================================


 ****************************************************************************
   FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
 ----------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ============================================================================
   WATERSHED AREA =     1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.369 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.295; LOW LOSS FRACTION = 0.551
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
    3-HOUR =  1.59;   6-HOUR =  2.20; 24-HOUR =  3.68
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
```

```
   3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


*****************************************************************************
  FLOW PROCESS FROM NODE   127.00 TO NODE    127.00 IS CODE =    7
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE   127.00 TO NODE    127.00 IS CODE =    6
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE   127.00 TO NODE    129.00 IS CODE = 5.2
-----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
  CHANNEL LENGTH(FT) =   4905.42     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =   0.00
=============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE 50300.00 TO NODE    129.00 IS CODE =    1
-----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=============================================================================
  WATERSHED AREA =     634.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.386 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.282; LOW LOSS FRACTION = 0.628
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.34; 30-MINUTE = 0.72;  1-HOUR = 0.95
   3-HOUR = 1.59;    6-HOUR = 2.20; 24-HOUR = 3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
   3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


*****************************************************************************
  FLOW PROCESS FROM NODE   129.00 TO NODE    129.00 IS CODE =    7
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=============================================================================
```

```
*****************************************************************************
  FLOW PROCESS FROM NODE   129.00 TO NODE    129.00 IS CODE =    6
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE   210.00 TO NODE    221.00 IS CODE =    1
-----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=============================================================================
  WATERSHED AREA =     213.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.257 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.128; LOW LOSS FRACTION = 0.356
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
   3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


*****************************************************************************
  FLOW PROCESS FROM NODE   223.00 TO NODE    222.00 IS CODE =    7
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 5 ADDED TO STREAM NUMBER 2<<<<<
=============================================================================

***********
*****ERROR-STREAM  5 CONTAINS NO INFORMATION (EMPTY).
         PROCESS IS NEGATED.
***********


*****************************************************************************
  FLOW PROCESS FROM NODE   222.00 TO NODE    222.00 IS CODE =    6
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 5 CLEARED AND SET TO ZERO<<<<<
=============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE   222.00 TO NODE    129.00 IS CODE =    7
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE   129.00 TO NODE    129.00 IS CODE =    6
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=============================================================================
```

```
****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =      213.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    1389.52     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =  1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
============================================================================
  WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.856 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.244; LOW LOSS FRACTION = 0.567
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72; 1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
   3-HOUR = 0.738;     6-HOUR = 0.886; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  50.00     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =      427.51; DOWNSTREAM ELEVATION(FT) =     315.00
  CHANNEL LENGTH(FT) =    9760.05     MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =     0.00
============================================================================

****************************************************************************
  FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
```

```
============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  50.00     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =      315.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    6877.24     MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =     0.00
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =  1
----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
============================================================================
  WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.589 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.409
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72; 1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
   3-HOUR = 0.738;     6-HOUR = 0.886; 24-HOUR = 0.933


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =  7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =  6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =  7
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
============================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =  6
----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
============================================================================
```

```
***********************************************************************
   FLOW PROCESS FROM NODE   133.00 TO NODE    134.00 IS CODE = 5.2
-----------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=======================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) = 200.00     CHANNEL Z =  5.00
   UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =     170.00
   CHANNEL LENGTH(FT) =    6461.31     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
=======================================================================


***********************************************************************
   FLOW PROCESS FROM NODE   133.00 TO NODE    134.00 IS CODE =  1
-----------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=======================================================================
   WATERSHED AREA =    1705.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.365 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.245; LOW LOSS FRACTION = 0.462
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE = 0.34; 30-MINUTE = 0.72; 1-HOUR = 0.95
    3-HOUR = 1.59;    6-HOUR = 2.20; 24-HOUR = 3.68
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;     6-HOUR = 0.886; 24-HOUR = 0.933

***********************************************************************
   FLOW PROCESS FROM NODE   134.00 TO NODE    134.00 IS CODE =  7
-----------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=======================================================================


***********************************************************************
   FLOW PROCESS FROM NODE   134.00 TO NODE    134.00 IS CODE =  6
-----------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=======================================================================


***********************************************************************
   FLOW PROCESS FROM NODE 13500.00 TO NODE    134.00 IS CODE =  1
-----------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=======================================================================
   WATERSHED AREA =    3859.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    1.350 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
```

```
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.284; LOW LOSS FRACTION = 0.463
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE = 0.34; 30-MINUTE = 0.72; 1-HOUR = 0.95
    3-HOUR = 1.59;    6-HOUR = 2.20; 24-HOUR = 3.68
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;     6-HOUR = 0.886; 24-HOUR = 0.933


***********************************************************************
   FLOW PROCESS FROM NODE   134.00 TO NODE    134.00 IS CODE =  7
-----------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=======================================================================


***********************************************************************
   FLOW PROCESS FROM NODE   134.00 TO NODE    134.00 IS CODE =  6
-----------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=======================================================================


***********************************************************************
   FLOW PROCESS FROM NODE   134.00 TO NODE    137.00 IS CODE = 5.2
-----------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=======================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) = 200.00     CHANNEL Z =  4.00
   UPSTREAM ELEVATION(FT) =     170.00; DOWNSTREAM ELEVATION(FT) =     135.00
   CHANNEL LENGTH(FT) =    6064.09     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
=======================================================================


***********************************************************************
   FLOW PROCESS FROM NODE   134.00 TO NODE    137.00 IS CODE =  1
-----------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=======================================================================
   WATERSHED AREA =    1240.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.418 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.237; LOW LOSS FRACTION = 0.468
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE = 0.34; 30-MINUTE = 0.72; 1-HOUR = 0.95
    3-HOUR = 1.59;    6-HOUR = 2.20; 24-HOUR = 3.68
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;     6-HOUR = 0.886; 24-HOUR = 0.933
```

```
************************************************************************
   FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =    7
------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
========================================================================


************************************************************************
   FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =    6
------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
========================================================================


************************************************************************
   FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   11
------------------------------------------------------------------------
   >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
========================================================================
========================================================================
```

```
+------------------------------------------------------------------------
--------------------------------------+
|                            * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
|INPUT FILENAME: [EV25137F.DAT   ]
Page:  1 of    |
+----------------+----------------------------+-------------------+-
----------+------------+----------+
|UPSTREAM  DOWNSTREAM|                          | UPSTREAM  DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|            |
| NODE #      NODE #  | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
+----------------+----------------------------+-------------------+-
----------+------------+----------+
| 10100.00    119.00| Subarea (UH) Added to Stream #1|     0.0     13845.1|
18.167 |           |            |
|   119.00   12603.00| Convex Routing:     Stream #1|  13845.1    13773.0|
18.083 |           |            |
|   810.00    809.00| Subarea (UH) Added to Stream #2|     0.0        88.2|
16.250 |           |            |
| 12603.00   12603.00| Stream #2 Added to:   Stream #1|  13773.0    13797.4|
18.083 |           |            |
| 12603.00   12603.00| Zero Out:           Stream #2|    88.2         0.0|
|           |           |            |
+----------------+----------------------------+-------------------+-
----------+------------+----------+
| 12603.00    126.00| Convex Routing:     Stream #1|  13797.4    13779.7|
18.250 |           |            |
|   920.00    905.00| Subarea (UH) Added to Stream #2|     0.0       223.1|
16.250 |           |            |
|   126.00    126.00| Stream #2 Added to:   Stream #1|  13779.7    13840.5|
18.167 |           |            |
|   126.00    126.00| Zero Out:           Stream #2|   223.1         0.0|
|           |           |            |
|   600.00    126.00| Subarea (UH) Added to Stream #2|     0.0        62.7|
16.333 |           |            |
+----------------+----------------------------+-------------------+-
----------+------------+----------+
|   126.00    126.00| Stream #2 Added to:   Stream #1|  13840.5    13853.0|
18.167 |           |            |
|   126.00    126.00| Zero Out:           Stream #2|    62.7         0.0|
|           |           |            |
|   126.00   12720.50| Convex Routing:     Stream #1|  13853.0    13840.7|
18.333 |           |            |
|   320.00    331.00| Subarea (UH) Added to Stream #2|     0.0       333.5|
16.333 |           |            |
|   400.00    331.00| Subarea (UH) Added to Stream #3|     0.0       219.7|
16.333 |           |            |
+----------------+----------------------------+-------------------+-
----------+------------+----------+
|   390.00    331.00| Subarea (UH) Added to Stream #4|     0.0        36.5|
16.417 |           |            |
|   331.00    331.00| Stream #4 Added to:   Stream #2|   333.5       366.9|
16.333 |           |            |
|   331.00    331.00| Zero Out:           Stream #4|    36.5         0.0|
|           |           |            |
|   331.00    331.00| Stream #3 Added to:   Stream #2|   366.9       586.6|
16.333 |           |            |
```

```
|   331.00     331.00| Zero Out:          Stream #3|    219.7       0.0|
|            |             |
 +-------------------+----------------------------+---------------------+-
----------+-------------+-----------+
|   331.00   12720.50| Stream #2 Added to:   Stream #1|  13840.7    14004.1|
18.333 |            |             |
| 12720.50   12720.50| Zero Out:          Stream #2|    586.6       0.0|
|            |             |
| 12720.50     127.00| Convex Routing:       Stream #1|  14004.1    13988.2|
18.417 |            |             |
| 12710.00     127.00| Subarea (UH) Added to Stream #2|     0.0     183.9|
16.500 |            |             |
|   127.00     127.00| Stream #2 Added to:   Stream #1|  13988.2    14064.9|
17.333 |            |             |
 +-------------------+----------------------------+---------------------+-
----------+-------------+-----------+
|   127.00     127.00| Zero Out:          Stream #2|    183.9       0.0|
|            |             |
| 50150.00     127.00| Subarea (UH) Added to Stream #2|     0.0     316.6|
16.417 |            |             |
|   127.00     127.00| Stream #2 Added to:   Stream #1|  14064.9    14240.2|
17.333 |            |             |
|   127.00     127.00| Zero Out:          Stream #2|    316.6       0.0|
|            |             |
|   127.00     129.00| Convex Routing:       Stream #1|  14240.2    14219.5|
17.500 |            |             |
 +-------------------+----------------------------+---------------------+-
----------+-------------+-----------+
| 50300.00     129.00| Subarea (UH) Added to Stream #2|     0.0     173.8|
16.417 |            |             |
|   129.00     129.00| Stream #2 Added to:   Stream #1|  14219.5    14295.5|
17.500 |            |             |
|   129.00     129.00| Zero Out:          Stream #2|    173.8       0.0|
|            |             |
|   210.00     221.00| Subarea (UH) Added to Stream #2|     0.0     101.1|
16.333 |            |             |
|   222.00     222.00| Zero Out:          Stream #5|     0.0       0.0|
|            |             |
 +-------------------+----------------------------+---------------------+-
----------+-------------+-----------+
|   222.00     129.00| Stream #2 Added to:   Stream #1|  14295.5    14335.7|
17.417 |            |             |
|   129.00     129.00| Zero Out:          Stream #2|    101.1       0.0|
|            |             |
|   129.00     133.00| Convex Routing:       Stream #1|  14335.7    14326.9|
17.583 |            |             |
| 13010.00     132.00| Subarea (UH) Added to Stream #2|     0.0    1106.3|
16.917 |            |             |
|   132.00   13305.00| Convex Routing:       Stream #2|   1106.3    1069.4|
17.417 |            |             |
 +-------------------+----------------------------+---------------------+-
----------+-------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                        |
 |     3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                     |
 +-----------------------------------------------------------------------
------------------------------------+
```

| UPSTREAM DOWNSTREAM TIME(2) TO | MAX. STORAGE | | UPSTREAM DOWNSTREAM | |
NODE # NODE #	HYDROLOGIC/HYDRAULIC PROCESS	PEAK (CFS) PEAK (CFS)	PEAK (HR)	MODELED (AF)	FOOTNOTES
13305.00 133.00	Convex Routing: Stream #2	1069.4 1059.8	17.667		
132.00 133.00	Subarea (UH) Added to Stream #3	0.0 510.2	16.667		
133.00 133.00	Stream #3 Added to: Stream #2	1059.8 1410.1	17.583		
133.00 133.00	Zero Out: Stream #3	510.2 0.0			
133.00 133.00	Stream #2 Added to: Stream #1	14326.9 15737.0	17.583		
133.00 133.00	Zero Out: Stream #2	1410.1 0.0			
133.00 134.00	Convex Routing: Stream #1	15737.0 15723.7	17.750		
133.00 134.00	Subarea (UH) Added to Stream #2	0.0 573.3	16.417		
134.00 134.00	Stream #2 Added to: Stream #1	15723.7 15977.6	17.750		
134.00 134.00	Zero Out: Stream #2	573.3 0.0			
13500.00 134.00	Subarea (UH) Added to Stream #2	0.0 882.5	17.417		
134.00 134.00	Stream #2 Added to: Stream #1	15977.6 16835.7	17.667		
134.00 134.00	Zero Out: Stream #2	882.5 0.0			
134.00 137.00	Convex Routing: Stream #1	16835.7 16818.5	17.833		
134.00 137.00	Subarea (UH) Added to Stream #2	0.0 393.2	16.500		
137.00 137.00	Stream #2 Added to: Stream #1	16818.5 17000.7	17.833		
137.00 137.00	Zero Out: Stream #2	393.2 0.0			
137.00 137.00	View: Stream #1	17000.7	17.833	14322.81	3

|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL |
| 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM |
+--+

END OF FLOODSCx ROUTING ANALYSIS

```
_____
*******************************************************************************

        F L O O D   R O U T I N G   A N A L Y S I S
          USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                  Analysis prepared by:




 ************************** DESCRIPTION OF STUDY **************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 138                               *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL           *
 * 25-YR EV AUG 2023 ROKAMOTO                                            *
 *************************************************************************

  FILE NAME: EV25138F.DAT
  TIME/DATE OF STUDY: 08:18 08/10/2023


                  ** INPUT SUMMARY **


*******************************************************************************
  FLOW PROCESS FROM NODE 10100.00 TO NODE    119.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
===============================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    2.119 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.433
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.42; 30-MINUTE =  0.78;  1-HOUR =  1.08
   3-HOUR =  2.02;    6-HOUR =  3.00; 24-HOUR =  5.30
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


*******************************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
-------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =     312.40
```

```
  CHANNEL LENGTH(FT) =     3157.79     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
  WATERSHED AREA =    171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.187 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.412
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


*******************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
-------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =     286.00
  CHANNEL LENGTH(FT) =     3046.70     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
===============================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
===========================================================================
  WATERSHED AREA =      553.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.222 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.254; LOW LOSS FRACTION = 0.488
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


***************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===========================================================================


***************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===========================================================================


***************************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
---------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===========================================================================
  WATERSHED AREA =      218.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.301 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.759
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


***************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===========================================================================


***************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
---------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===========================================================================
```

```
***************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
---------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
===========================================================================



***************************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =    1
---------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===========================================================================
  WATERSHED AREA =      712.600 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.294 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.100; LOW LOSS FRACTION = 0.268
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


***************************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =    1
---------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
===========================================================================
  WATERSHED AREA =      462.500 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.249 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.135; LOW LOSS FRACTION = 0.346
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


***************************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =    1
---------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
===========================================================================
  WATERSHED AREA =      117.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.373 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.283; LOW LOSS FRACTION = 0.507
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
  3-HOUR =  1.59;   6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
  3-HOUR = 0.734;   6-HOUR = 0.885; 24-HOUR = 0.932


***********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
-----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=======================================================================
```

```
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
 CHANNEL LENGTH(FT) =    3114.00     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=======================================================================
 WATERSHED AREA =     711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.419 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.293; LOW LOSS FRACTION = 0.655
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
  3-HOUR =  1.59;   6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
  3-HOUR = 0.734;   6-HOUR = 0.885; 24-HOUR = 0.932


***********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=======================================================================
 WATERSHED AREA =    1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.369 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.295; LOW LOSS FRACTION = 0.551
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
  3-HOUR =  1.59;   6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
```

```
      3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


*************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    7
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    6
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
-------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
  CHANNEL LENGTH(FT) =    4905.42     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =    1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
  WATERSHED AREA =     634.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.386 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.282; LOW LOSS FRACTION = 0.628
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
    3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


*************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    7
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================
```

```
*************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    6
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =    1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
  WATERSHED AREA =     213.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.257 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.128; LOW LOSS FRACTION = 0.356
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
    3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


*************************************************************************
  FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =    7
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    6
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
-------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    1389.52     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=========================================================================


*************************************************************************
```

```
 FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
---------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===========================================================================
 WATERSHED AREA =    4924.400 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.856 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.244; LOW LOSS FRACTION = 0.567
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


***************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
---------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
===========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =    315.00
 CHANNEL LENGTH(FT) =   9760.05     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
===========================================================================



***************************************************************************
 FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
---------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
===========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =    212.00
 CHANNEL LENGTH(FT) =   6877.24     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
===========================================================================


***************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
---------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
===========================================================================
 WATERSHED AREA =    1713.900 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.589 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.409
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


***************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
---------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
===========================================================================



***************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
---------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
===========================================================================



***************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
---------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===========================================================================



***************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
---------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===========================================================================



***************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
---------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =    170.00
 CHANNEL LENGTH(FT) =   6461.31     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
===========================================================================



***************************************************************************
```

```
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =    1705.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.365 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.245; LOW LOSS FRACTION = 0.462
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932

********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE  13500.00 TO NODE    134.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =    3859.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    1.350 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.284; LOW LOSS FRACTION = 0.463
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932

********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
```

```
================================================================================
  FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE = 5.2
--------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  4.00
  UPSTREAM ELEVATION(FT) =     170.00; DOWNSTREAM ELEVATION(FT) =     135.00
  CHANNEL LENGTH(FT) =    6064.09     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE =   1
--------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =    1240.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.418 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.237; LOW LOSS FRACTION = 0.468
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932

********************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   7
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   6
--------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================


********************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    138.00 IS CODE = 5.2
--------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
```

```
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 100.00      CHANNEL Z = 4.00
  UPSTREAM ELEVATION(FT) =       135.00; DOWNSTREAM ELEVATION(FT) =      119.70
  CHANNEL LENGTH(FT) =   4643.67     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    138.00 IS CODE =   1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
======================================================================
  WATERSHED AREA =   1303.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.526 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.267; LOW LOSS FRACTION = 0.525
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.34; 30-MINUTE = 0.72; 1-HOUR = 0.95
   3-HOUR = 1.59;    6-HOUR = 2.20; 24-HOUR = 3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
   3-HOUR = 0.734;     6-HOUR = 0.885; 24-HOUR = 0.932


***********************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =   7
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =   6
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    139.00 TO NODE    139.00 IS CODE =  11
-----------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
======================================================================
======================================================================
```

```
+---------------------------------------------------------------------
-------------------------------------+
|                        * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
|INPUT FILENAME: [EV25138F.DAT   ]
Page:  1 of   |
+------------------+-----------------------------+-----------------+-
----------+------------+----------+
|UPSTREAM  DOWNSTREAM|                             | UPSTREAM  DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|             |
| NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
  +------------------+-----------------------------+-----------------+-
----------+------------+----------+
| 10100.00    119.00| Subarea (UH) Added to Stream #1|      0.0    13782.2|
18.167 |            |            |
|   119.00  12603.00| Convex Routing:       Stream #1| 13782.2    13710.5|
18.083 |            |            |
|   810.00    809.00| Subarea (UH) Added to Stream #2|      0.0       87.3|
16.250 |            |            |
| 12603.00  12603.00| Stream #2 Added to:    Stream #1| 13710.5    13735.0|
18.083 |            |            |
| 12603.00  12603.00| Zero Out:             Stream #2|     87.3        0.0|
|            |            |
  +------------------+-----------------------------+-----------------+-
----------+------------+----------+
| 12603.00    126.00| Convex Routing:       Stream #1| 13735.0    13718.2|
18.250 |            |            |
|   920.00    905.00| Subarea (UH) Added to Stream #2|      0.0      221.0|
16.250 |            |            |
|   126.00    126.00| Stream #2 Added to:    Stream #1| 13718.2    13778.7|
18.167 |            |            |
|   126.00    126.00| Zero Out:             Stream #2|    221.0        0.0|
|            |            |
|   600.00    126.00| Subarea (UH) Added to Stream #2|      0.0       62.0|
16.333 |            |            |
  +------------------+-----------------------------+-----------------+-
----------+------------+----------+
|   126.00    126.00| Stream #2 Added to:    Stream #1| 13778.7    13791.2|
18.167 |            |            |
|   126.00    126.00| Zero Out:             Stream #2|     62.0        0.0|
|            |            |
|   126.00  12720.50| Convex Routing:       Stream #1| 13791.2    13779.5|
18.333 |            |            |
|   320.00    331.00| Subarea (UH) Added to Stream #2|      0.0      330.9|
16.333 |            |            |
|   400.00    331.00| Subarea (UH) Added to Stream #3|      0.0      217.8|
16.333 |            |            |
  +------------------+-----------------------------+-----------------+-
----------+------------+----------+
|   390.00    331.00| Subarea (UH) Added to Stream #4|      0.0       36.2|
16.417 |            |            |
|   331.00    331.00| Stream #4 Added to:    Stream #2|    330.9      364.0|
16.333 |            |            |
|   331.00    331.00| Zero Out:             Stream #4|     36.2        0.0|
|            |            |
|   331.00    331.00| Stream #3 Added to:    Stream #2|    364.0      581.7|
16.333 |            |            |
```

```
|   331.00     331.00| Zero Out:           Stream #3|    217.8        0.0|
|            |            |
 +-------------------+----------------------------+---------------------+-
----------+------------+----------+
|   331.00   12720.50| Stream #2 Added to:   Stream #1|  13779.5    13943.4|
18.333 |            |            |
| 12720.50   12720.50| Zero Out:           Stream #2|    581.7        0.0|
|            |            |
| 12720.50     127.00| Convex Routing:     Stream #1|  13943.4    13927.6|
18.417 |            |            |
| 12710.00     127.00| Subarea (UH) Added to Stream #2|      0.0      181.9|
16.500 |            |            |
|   127.00     127.00| Stream #2 Added to:   Stream #1|  13927.6    14016.1|
17.333 |            |            |
 +-------------------+----------------------------+---------------------+-
----------+------------+----------+
|   127.00     127.00| Zero Out:           Stream #2|    181.9        0.0|
|            |            |
| 50150.00     127.00| Subarea (UH) Added to Stream #2|      0.0      313.5|
16.417 |            |            |
|   127.00     127.00| Stream #2 Added to:   Stream #1|  14016.1    14191.2|
17.333 |            |            |
|   127.00     127.00| Zero Out:           Stream #2|    313.5        0.0|
|            |            |
|   127.00     129.00| Convex Routing:     Stream #1|  14191.2    14170.0|
17.500 |            |            |
 +-------------------+----------------------------+---------------------+-
----------+------------+----------+
| 50300.00     129.00| Subarea (UH) Added to Stream #2|      0.0      172.0|
16.417 |            |            |
|   129.00     129.00| Stream #2 Added to:   Stream #1|  14170.0    14245.9|
17.500 |            |            |
|   129.00     129.00| Zero Out:           Stream #2|    172.0        0.0|
|            |            |
|   210.00     221.00| Subarea (UH) Added to Stream #2|      0.0      100.2|
16.333 |            |            |
|   222.00     129.00| Stream #2 Added to:   Stream #1|  14245.9    14288.3|
17.417 |            |            |
 +-------------------+----------------------------+---------------------+-
----------+------------+----------+
|   129.00     129.00| Zero Out:           Stream #2|    100.2        0.0|
|            |            |
|   129.00     133.00| Convex Routing:     Stream #1|  14288.3    14278.6|
17.500 |            |            |
| 13010.00     132.00| Subarea (UH) Added to Stream #2|      0.0     1097.4|
16.917 |            |            |
|   132.00   13305.00| Convex Routing:     Stream #2|   1097.4     1060.9|
17.417 |            |            |
| 13305.00     133.00| Convex Routing:     Stream #2|   1060.9     1051.6|
17.667 |            |            |
 +-------------------+----------------------------+---------------------+-
----------+------------+----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                          |
 |      3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                 |
 +-----------------------------------------------------------------------
------------------------------------+
```

| UPSTREAM DOWNSTREAM | | | UPSTREAM DOWNSTREAM | TIME(2) TO | MAX. STORAGE |
NODE # NODE #	HYDROLOGIC/HYDRAULIC PROCESS	PEAK (CFS) PEAK (CFS)	PEAK (HR)	MODELED (AF)	FOOTNOTES
132.00 133.00	Subarea (UH) Added to Stream #3	0.0 506.2	16.667		
133.00 133.00	Stream #3 Added to: Stream #2	1051.6 1400.9	17.583		
133.00 133.00	Zero Out: Stream #3	506.2 0.0			
133.00 133.00	Stream #2 Added to: Stream #1	14278.6 15678.1	17.583		
133.00 133.00	Zero Out: Stream #2	1400.9 0.0			
133.00 134.00	Convex Routing: Stream #1	15678.1 15665.0	17.750		
133.00 134.00	Subarea (UH) Added to Stream #2	0.0 568.1	16.417		
134.00 134.00	Stream #2 Added to: Stream #1	15665.0 15920.2	17.667		
134.00 134.00	Zero Out: Stream #2	568.1 0.0			
13500.00 134.00	Subarea (UH) Added to Stream #2	0.0 877.1	17.417		
134.00 134.00	Stream #2 Added to: Stream #1	15920.2 16774.4	17.667		
134.00 134.00	Zero Out: Stream #2	877.1 0.0			
134.00 137.00	Convex Routing: Stream #1	16774.4 16757.3	17.833		
134.00 137.00	Subarea (UH) Added to Stream #2	0.0 389.5	16.500		
137.00 137.00	Stream #2 Added to: Stream #1	16757.3 16939.9	17.833		
137.00 137.00	Zero Out: Stream #2	389.5 0.0			
137.00 138.00	Convex Routing: Stream #1	16939.9 16919.9	17.917		
137.00 138.00	Subarea (UH) Added to Stream #2	0.0 346.4	16.583		
138.00 138.00	Stream #2 Added to: Stream #1	16919.9 17095.0	17.917		
138.00 138.00	Zero Out: Stream #2	346.4 0.0			
139.00 139.00	View: Stream #1	17095.0	17.917	14487.67	3

|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL |
| 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM |

   END OF FLOODSCx ROUTING ANALYSIS

```
 _____
****************************************************************************

        F L O O D   R O U T I N G   A N A L Y S I S
          USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                      Analysis prepared by:




 ************************** DESCRIPTION OF STUDY **************************
* RMV PA-3 ROMP AMENDMENT 2022 - NODE 139                               *
* PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL           *
* 25-YR EV AUG 2023 ROKAMOTO                                            *
 ************************************************************************

  FILE NAME: EV25139F.DAT
  TIME/DATE OF STUDY: 08:18 08/10/2023


                      ** INPUT SUMMARY **


****************************************************************************
  FLOW PROCESS FROM NODE 10100.00 TO NODE    119.00 IS CODE =  1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
==========================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     2.119 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.433
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.42; 30-MINUTE =  0.78;  1-HOUR =  1.08
   3-HOUR =  2.02;    6-HOUR =  3.00; 24-HOUR =  5.30
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE  12603.00 IS CODE = 5.2
--------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =      341.63; DOWNSTREAM ELEVATION(FT) =     312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
==========================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =  1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.187 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.412
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


****************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =  7
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =  6
--------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


****************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
--------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =      312.40; DOWNSTREAM ELEVATION(FT) =     286.00
  CHANNEL LENGTH(FT) =    3046.70     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
==========================================================================


****************************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =  1
--------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
===============================================================
   WATERSHED AREA =     553.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.222 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.254; LOW LOSS FRACTION = 0.488
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
    3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


***************************************************************
   FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
  -------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ===============================================================


***************************************************************
   FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
  -------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ===============================================================


***************************************************************
   FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
  -------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ===============================================================
   WATERSHED AREA =     218.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.301 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.759
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
    3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


***************************************************************
   FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
  -------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ===============================================================


***************************************************************
   FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
  -------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ===============================================================
```

```
***************************************************************
   FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
  -------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ===============================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) = 200.00     CHANNEL Z =  5.00
   UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
   CHANNEL LENGTH(FT) =    4077.05     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =     0.00
  ===============================================================


***************************************************************
   FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =    1
  -------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ===============================================================
   WATERSHED AREA =     712.600 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.294 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.100; LOW LOSS FRACTION = 0.268
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
    3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


***************************************************************
   FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =    1
  -------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
  ===============================================================
   WATERSHED AREA =     462.500 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.249 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.135; LOW LOSS FRACTION = 0.346
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
    3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


***************************************************************
   FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =    1
  -------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
  ===============================================================
   WATERSHED AREA =     117.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.373 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.283; LOW LOSS FRACTION = 0.507
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
  3-HOUR =  1.59;   6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;   6-HOUR = 0.885; 24-HOUR = 0.932


***********************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
=======================================================================

***********************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
=======================================================================


***********************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=======================================================================

***********************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=======================================================================


***********************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=======================================================================


***********************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=======================================================================


***********************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
-----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=======================================================================
```

```
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
 CHANNEL LENGTH(FT) =    3114.00     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
=======================================================================


***********************************************************************
   FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=======================================================================
 WATERSHED AREA =      711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.419 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.293; LOW LOSS FRACTION = 0.655
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
  3-HOUR =  1.59;   6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;   6-HOUR = 0.885; 24-HOUR = 0.932


***********************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=======================================================================


***********************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=======================================================================


***********************************************************************
   FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=======================================================================
 WATERSHED AREA =     1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.369 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.295; LOW LOSS FRACTION = 0.551
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
  3-HOUR =  1.59;   6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
```

```
     3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


*****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
-----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
  CHANNEL LENGTH(FT) =    4905.42     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =   1
-----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=============================================================================
  WATERSHED AREA =    634.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.386 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.282; LOW LOSS FRACTION = 0.628
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
    3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


*****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   7
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=============================================================================
```

```
*****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =   1
-----------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=============================================================================
  WATERSHED AREA =    213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.257 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.128; LOW LOSS FRACTION = 0.356
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
    3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


*****************************************************************************
  FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =   7
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
-----------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=============================================================================


*****************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
-----------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =    1389.52     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=============================================================================


*****************************************************************************
```

```
 FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =    1
-----------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=============================================================================
 WATERSHED AREA =    4924.400 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.856 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.244; LOW LOSS FRACTION = 0.567
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72; 1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
   3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


*****************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
-----------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
=============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =    315.00
 CHANNEL LENGTH(FT) =   9760.05     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
=============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
-----------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
=============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =    212.00
 CHANNEL LENGTH(FT) =   6877.24     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
=============================================================================

*****************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =    1
-----------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
=============================================================================
 WATERSHED AREA =    1713.900 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.589 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.409
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.34; 30-MINUTE =  0.72; 1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
   3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932



*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =    7
-----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =    6
-----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =    7
-----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =    6
-----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
-----------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =    170.00
 CHANNEL LENGTH(FT) =   6461.31     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
=============================================================================


*****************************************************************************
```

```
   FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
  WATERSHED AREA =    1705.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.365 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.245; LOW LOSS FRACTION = 0.462
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72; 1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


*******************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


*******************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================


*******************************************************************************
   FLOW PROCESS FROM NODE  13500.00 TO NODE    134.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
  WATERSHED AREA =    3859.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    1.350 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.284; LOW LOSS FRACTION = 0.463
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72; 1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


*******************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


*******************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
```

```
===============================================================================


*******************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE = 5.2
-------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  4.00
  UPSTREAM ELEVATION(FT) =     170.00; DOWNSTREAM ELEVATION(FT) =     135.00
  CHANNEL LENGTH(FT) =    6064.09      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
===============================================================================


*******************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
  WATERSHED AREA =    1240.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.418 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.237; LOW LOSS FRACTION = 0.468
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72; 1-HOUR =  0.95
   3-HOUR =  1.59;    6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


*******************************************************************************
   FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


*******************************************************************************
   FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================


*******************************************************************************
   FLOW PROCESS FROM NODE    137.00 TO NODE    138.00 IS CODE = 5.2
-------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
```

```
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) =  100.00     CHANNEL Z =  4.00
UPSTREAM ELEVATION(FT) =       135.00; DOWNSTREAM ELEVATION(FT) =      119.70
CHANNEL LENGTH(FT) =    4643.67     MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) =    0.00
===========================================================================


******************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    138.00 IS CODE =    1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===========================================================================
  WATERSHED AREA =    1303.500 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.526 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.267; LOW LOSS FRACTION = 0.525
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
    3-HOUR =  1.59;     6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;     6-HOUR = 0.885; 24-HOUR = 0.932


******************************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =    7
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===========================================================================


******************************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =    6
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===========================================================================


******************************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    139.00 IS CODE = 5.2
------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  100.00     CHANNEL Z =  4.00
  UPSTREAM ELEVATION(FT) =       119.70; DOWNSTREAM ELEVATION(FT) =      100.00
  CHANNEL LENGTH(FT) =    3107.78     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
```

```
===========================================================================


******************************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    139.00 IS CODE =    1
------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===========================================================================
  WATERSHED AREA =     428.000 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.246 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.207; LOW LOSS FRACTION = 0.508
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.34; 30-MINUTE =  0.72;  1-HOUR =  0.95
    3-HOUR =  1.59;     6-HOUR =  2.20; 24-HOUR =  3.68
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;     6-HOUR = 0.885; 24-HOUR = 0.932


******************************************************************************
  FLOW PROCESS FROM NODE    139.00 TO NODE    139.00 IS CODE =    7
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===========================================================================


******************************************************************************
  FLOW PROCESS FROM NODE    139.00 TO NODE    139.00 IS CODE =    6
------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===========================================================================


******************************************************************************
  FLOW PROCESS FROM NODE    139.00 TO NODE    139.00 IS CODE =   11
------------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
===========================================================================
===========================================================================
```

```
+-----------------------------------------------------------------------------------------------------+
|                              * AES FLOODSCx PROGRAM RESULTS SUMMARY *                                |
|                                                                                                     |
| |INPUT FILENAME: [EV25139F.DAT   ]                                                                  |
| Page:  1 of    |                                                                                    |
+-------------------+------------------------------------+---------------------+-----------+------------+-----------+
|UPSTREAM  DOWNSTREAM|                                   | UPSTREAM   DOWNSTREAM| TIME(2) TO | MAX. STORAGE|          |
| NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS       |PEAK (CFS)  PEAK (CFS)| PEAK (HR) | MODELED (AF)| FOOTNOTES|
+-------------------+------------------------------------+---------------------+-----------+------------+-----------+
| 10100.00    119.00| Subarea (UH) Added to Stream #1    |     0.0     13751.3 | 18.167    |            |          |
|   119.00  12603.00| Convex Routing:        Stream #1   | 13751.3     13679.6 | 18.083    |            |          |
|   810.00    809.00| Subarea (UH) Added to Stream #2    |     0.0        87.0 | 16.250    |            |          |
| 12603.00  12603.00| Stream #2 Added to:    Stream #1   | 13679.6     13704.1 | 18.083    |            |          |
| 12603.00  12603.00| Zero Out:              Stream #2   |    87.0         0.0 |           |            |          |
+-------------------+------------------------------------+---------------------+-----------+------------+-----------+
| 12603.00    126.00| Convex Routing:        Stream #1   | 13704.1     13688.0 | 18.250    |            |          |
|   920.00    905.00| Subarea (UH) Added to Stream #2    |     0.0       220.2 | 16.250    |            |          |
|   126.00    126.00| Stream #2 Added to:    Stream #1   | 13688.0     13748.1 | 18.167    |            |          |
|   126.00    126.00| Zero Out:              Stream #2   |   220.2         0.0 |           |            |          |
|   600.00    126.00| Subarea (UH) Added to Stream #2    |     0.0        61.7 | 16.333    |            |          |
+-------------------+------------------------------------+---------------------+-----------+------------+-----------+
|   126.00    126.00| Stream #2 Added to:    Stream #1   | 13748.1     13760.7 | 18.167    |            |          |
|   126.00    126.00| Zero Out:              Stream #2   |    61.7         0.0 |           |            |          |
|   126.00  12720.50| Convex Routing:        Stream #1   | 13760.7     13749.3 | 18.333    |            |          |
|   320.00    331.00| Subarea (UH) Added to Stream #2    |     0.0       329.9 | 16.333    |            |          |
|   400.00    331.00| Subarea (UH) Added to Stream #3    |     0.0       217.0 | 16.333    |            |          |
+-------------------+------------------------------------+---------------------+-----------+------------+-----------+
|   390.00    331.00| Subarea (UH) Added to Stream #4    |     0.0        36.0 | 16.417    |            |          |
|   331.00    331.00| Stream #4 Added to:    Stream #2   |   329.9       362.9 | 16.333    |            |          |
|   331.00    331.00| Zero Out:              Stream #4   |    36.0         0.0 |           |            |          |
|   331.00    331.00| Stream #3 Added to:    Stream #2   |   362.9       579.9 | 16.333    |            |          |
```

```
|   331.00    331.00| Zero Out:              Stream #3   |   217.0         0.0 |           |            |          |
+-------------------+------------------------------------+---------------------+-----------+------------+-----------+
|   331.00  12720.50| Stream #2 Added to:    Stream #1   | 13749.3     13913.3 | 18.333    |            |          |
| 12720.50  12720.50| Zero Out:              Stream #2   |   579.9         0.0 |           |            |          |
| 12720.50    127.00| Convex Routing:        Stream #1   | 13913.3     13897.7 | 18.417    |            |          |
| 12710.00    127.00| Subarea (UH) Added to Stream #2    |     0.0       181.2 | 16.500    |            |          |
|   127.00    127.00| Stream #2 Added to:    Stream #1   | 13897.7     13990.5 | 17.333    |            |          |
+-------------------+------------------------------------+---------------------+-----------+------------+-----------+
|   127.00    127.00| Zero Out:              Stream #2   |   181.2         0.0 |           |            |          |
| 50150.00    127.00| Subarea (UH) Added to Stream #2    |     0.0       312.5 | 16.417    |            |          |
|   127.00    127.00| Stream #2 Added to:    Stream #1   | 13990.5     14165.4 | 17.333    |            |          |
|   127.00    127.00| Zero Out:              Stream #2   |   312.5         0.0 |           |            |          |
|   127.00    129.00| Convex Routing:        Stream #1   | 14165.4     14144.0 | 17.500    |            |          |
+-------------------+------------------------------------+---------------------+-----------+------------+-----------+
| 50300.00    129.00| Subarea (UH) Added to Stream #2    |     0.0       171.4 | 16.417    |            |          |
|   129.00    129.00| Stream #2 Added to:    Stream #1   | 14144.0     14220.7 | 17.417    |            |          |
|   129.00    129.00| Zero Out:              Stream #2   |   171.4         0.0 |           |            |          |
|   210.00    221.00| Subarea (UH) Added to Stream #2    |     0.0        99.8 | 16.333    |            |          |
|   222.00    129.00| Stream #2 Added to:    Stream #1   | 14220.7     14263.3 | 17.417    |            |          |
+-------------------+------------------------------------+---------------------+-----------+------------+-----------+
|   129.00    129.00| Zero Out:              Stream #2   |    99.8         0.0 |           |            |          |
|   129.00    133.00| Convex Routing:        Stream #1   | 14263.3     14253.4 | 17.500    |            |          |
| 13010.00    132.00| Subarea (UH) Added to Stream #2    |     0.0      1094.5 | 16.917    |            |          |
|   132.00  13305.00| Convex Routing:        Stream #2   |  1094.5      1058.4 | 17.417    |            |          |
| 13305.00    133.00| Convex Routing:        Stream #2   |  1058.4      1049.0 | 17.667    |            |          |
+-------------------+------------------------------------+---------------------+-----------+------------+-----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL                  |
|       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM          |
+-----------------------------------------------------------------------------------------------------+
```

```
+------------------+----------------------------+--------------------+-
----------+------------+----------+
|UPSTREAM  DOWNSTREAM|                          | UPSTREAM  DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|          |
| NODE #     NODE # | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
+------------------+----------------------------+--------------------+-
----------+------------+----------+
|   132.00    133.00| Subarea (UH) Added to Stream #3|    0.0     504.9|
16.667 |          |          |
|   133.00    133.00| Stream #3 Added to:   Stream #2|  1049.0    1398.2|
17.583 |          |          |
|   133.00    133.00| Zero Out:           Stream #3|   504.9      0.0|
|          |          |
|   133.00    133.00| Stream #2 Added to:   Stream #1| 14253.4   15649.8|
17.500 |          |          |
|   133.00    133.00| Zero Out:           Stream #2|  1398.2      0.0|
|          |          |
+------------------+----------------------------+--------------------+-
----------+------------+----------+
|   133.00    134.00| Convex Routing:      Stream #1| 15649.8   15636.5|
17.750 |          |          |
|   133.00    134.00| Subarea (UH) Added to Stream #2|    0.0     566.4|
16.417 |          |          |
|   134.00    134.00| Stream #2 Added to:   Stream #1| 15636.5   15892.5|
17.667 |          |          |
|   134.00    134.00| Zero Out:           Stream #2|   566.4      0.0|
|          |          |
| 13500.00    134.00| Subarea (UH) Added to Stream #2|    0.0     875.5|
17.417 |          |          |
+------------------+----------------------------+--------------------+-
----------+------------+----------+
|   134.00    134.00| Stream #2 Added to:   Stream #1| 15892.5   16745.4|
17.667 |          |          |
|   134.00    134.00| Zero Out:           Stream #2|   875.5      0.0|
|          |          |
|   134.00    137.00| Convex Routing:      Stream #1| 16745.4   16728.1|
17.833 |          |          |
|   134.00    137.00| Subarea (UH) Added to Stream #2|    0.0     388.3|
16.500 |          |          |
|   137.00    137.00| Stream #2 Added to:   Stream #1| 16728.1   16910.9|
17.833 |          |          |
+------------------+----------------------------+--------------------+-
----------+------------+----------+
|   137.00    137.00| Zero Out:           Stream #2|   388.3      0.0|
|          |          |
|   137.00    138.00| Convex Routing:      Stream #1| 16910.9   16891.5|
17.917 |          |          |
|   137.00    138.00| Subarea (UH) Added to Stream #2|    0.0     345.4|
16.583 |          |          |
|   138.00    138.00| Stream #2 Added to:   Stream #1| 16891.5   17066.7|
17.917 |          |          |
```

```
| 138.00    138.00| Zero Out:             Stream #2|    345.4        0.0|
|             |        |
 +------------------+----------------------------+--------------------+-
----------+------------+-----------+
| 138.00    139.00| Convex Routing:       Stream #1|  17066.7    17063.1|
18.000 |         |        |
| 138.00    139.00| Subarea (UH) Added to Stream #2|      0.0     174.4|
16.333 |         |        |
| 139.00    139.00| Stream #2 Added to:   Stream #1|  17063.1    17116.4|
18.000 |         |        |
| 139.00    139.00| Zero Out:             Stream #2|    174.4        0.0|
|             |        |
| 139.00    139.00| View:                 Stream #1|             17116.4|
18.000 |   14542.88|    3    |
 +------------------+----------------------------+--------------------+-
----------+------------+-----------+
 +------------------+----------------------------+--------------------+-
----------+------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                |
 |      3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                        |
 +----------------------------------------------------------------------
-------------------------------------+
```

   END OF FLOODSCx ROUTING ANALYSIS

```
********************************************************************
        F L O O D   R O U T I N G   A N A L Y S I S
       USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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               Analysis prepared by:

            Michael Baker International
            5 Hutton Centre Drive, Suite 500
               Santa Ana, CA 92707


 ************************* DESCRIPTION OF STUDY *************************
 * RANCHO MISSION VIEJO - FREE DRAINING UH                            *
 * PHASE CONDITION NO PA5 - REGIONAL NODE 119                         *
 * 50-YR EV APRIL 2019 FKAZI                                          *
 ********************************************************************

  FILE NAME: EV50119F.DAT
  TIME/DATE OF STUDY: 14:43 04/10/2019


                    ** INPUT SUMMARY **


********************************************************************
  FLOW PROCESS FROM NODE  10100.00 TO NODE    119.00 IS CODE =   1
--------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
====================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    2.043 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.399
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.46; 30-MINUTE =  0.87;  1-HOUR =  1.21
   3-HOUR =  2.28;    6-HOUR =  3.40; 24-HOUR =  5.99
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.345; 30-MINUTE = 0.395;  1-HOUR = 0.435
   3-HOUR = 0.785;    6-HOUR = 0.904; 24-HOUR = 0.944


********************************************************************
  FLOW PROCESS FROM NODE    119.00 TO NODE    119.00 IS CODE =  11
--------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
====================================================================
====================================================================
```

```
 +------------------------------------------------------------------
-------------------------------------------+
 |                          * AES FLOODSCx PROGRAM RESULTS SUMMARY *
 |
 |INPUT FILENAME: [EV50119F.DAT   ]
Page:  1 of   |
 +------------------+----------------------------+-------------------+-
-----------+------------+-----------+
 |UPSTREAM  DOWNSTREAM|                          | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|            |
 | NODE #    NODE #  | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +------------------+----------------------------+-------------------+-
-----------+------------+-----------+
 | 10100.00    119.00| Subarea (UH) Added to Stream #1|      0.0    17849.8|
18.083 |         |          |
 |  119.00    119.00| View:             Stream #1|            17849.8|
18.083 |    14162.91|    3    |
 +------------------+----------------------------+-------------------+-
-----------+------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                         |
 |    3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                    |
 +------------------------------------------------------------------
-------------------------------------------+

    END OF FLOODSCx ROUTING ANALYSIS
```

```
_____
*************************************************************************

        F L O O D   R O U T I N G   A N A L Y S I S
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                      Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 126                             *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL         *
 * 50-YR EV MAY 2023 ROKAMOTO                                          *
 *********************************************************************

  FILE NAME: EV50126F.DAT
  TIME/DATE OF STUDY: 06:12 05/14/2023


                     ** INPUT SUMMARY **


*************************************************************************
  FLOW PROCESS FROM NODE  10100.00 TO NODE   119.00 IS CODE =   1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
=========================================================================
  WATERSHED AREA =  49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    2.043 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.400
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.46; 30-MINUTE =  0.87; 1-HOUR =  1.21
   3-HOUR =  2.28;    6-HOUR =  3.40; 24-HOUR =  5.99
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.341; 30-MINUTE = 0.392;  1-HOUR = 0.432
   3-HOUR = 0.782;     6-HOUR = 0.902; 24-HOUR = 0.943


*************************************************************************
  FLOW PROCESS FROM NODE   119.00 TO NODE  12603.00 IS CODE = 5.2
-------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =     312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
  =======================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    810.00 TO NODE    809.00 IS CODE =   1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.185 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.391
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80; 1-HOUR =  1.06
   3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.341; 30-MINUTE = 0.392;  1-HOUR = 0.432
   3-HOUR = 0.782;     6-HOUR = 0.902; 24-HOUR = 0.943


*************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE  12603.00 TO NODE    126.00 IS CODE = 5.2
-------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =     286.00
  CHANNEL LENGTH(FT) =    3046.70     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
  =======================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    920.00 TO NODE    905.00 IS CODE =   1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
===============================================================================
 WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.219 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.254; LOW LOSS FRACTION = 0.457
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.79;  1-HOUR =  1.06
   3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.341; 30-MINUTE = 0.392;  1-HOUR = 0.432
   3-HOUR = 0.782;    6-HOUR = 0.902; 24-HOUR = 0.943


*******************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================



*******************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================



*******************************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
 WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.295 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.732
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
   3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.341; 30-MINUTE = 0.392;  1-HOUR = 0.432
   3-HOUR = 0.782;    6-HOUR = 0.902; 24-HOUR = 0.943


*******************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================



*******************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================
```

```
*******************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =   11
-------------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
===============================================================================

===============================================================================
```

```
 +-------------------------------------------------------------------------
--------------------------------------+
 |                          * AES FLOODSCx PROGRAM RESULTS SUMMARY *
 |
 |INPUT FILENAME: [EV50126F.DAT   ]
Page:   1 of    |
 +-------------------+----------------------------+---------------------+-
----------+------------+----------+
 |UPSTREAM  DOWNSTREAM|                            | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|         |
 | NODE #     NODE # | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +-------------------+----------------------------+---------------------+-
----------+------------+----------+
 | 10100.00    119.00| Subarea (UH) Added to Stream #1|     0.0    17667.7|
18.083 |         |         |
 |   119.00   12603.00| Convex Routing:      Stream #1|  17667.7    17539.4|
18.083 |         |         |
 |   810.00     809.00| Subarea (UH) Added to Stream #2|     0.0      117.9|
16.250 |         |         |
 | 12603.00   12603.00| Stream #2 Added to:   Stream #1|  17539.4    17566.3|
18.083 |         |         |
 | 12603.00   12603.00| Zero Out:            Stream #2|   117.9        0.0|
|           |         |
 +-------------------+----------------------------+---------------------+-
----------+------------+----------+
 | 12603.00    126.00| Convex Routing:      Stream #1|  17566.3    17545.2|
18.167 |         |         |
 |   920.00    905.00| Subarea (UH) Added to Stream #2|     0.0      304.9|
16.250 |         |         |
 |   126.00    126.00| Stream #2 Added to:   Stream #1|  17545.2    17617.8|
18.167 |         |         |
 |   126.00    126.00| Zero Out:            Stream #2|   304.9        0.0|
|           |         |
 |   600.00    126.00| Subarea (UH) Added to Stream #2|     0.0       91.4|
16.333 |         |         |
 +-------------------+----------------------------+---------------------+-
----------+------------+----------+
 |   126.00    126.00| Stream #2 Added to:   Stream #1|  17617.8    17632.7|
18.167 |         |         |
 |   126.00    126.00| Zero Out:            Stream #2|    91.4        0.0|
|           |         |
 |   126.00    126.00| View:               Stream #1|             17632.7|
18.167 |    14259.45|    3     |
 +-------------------+----------------------------+---------------------+-
----------+------------+----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                    |
 |      3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM              |
 +-------------------------------------------------------------------------
--------------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

```
 _____
 ***********************************************************************
           F L O O D   R O U T I N G   A N A L Y S I S
             USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
         (c) Copyright 1989-2010 Advanced Engineering Software (aes)
              Ver. 17.0  Release Date: 07/01/2010  License ID 1527

                       Analysis prepared by:




  ************************* DESCRIPTION OF STUDY *************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 127                             *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL         *
 * 50-YR EV JULY 2023 ROKAMOTO                                         *
  **********************************************************************

  FILE NAME: EV50127F.DAT
  TIME/DATE OF STUDY: 16:10 07/05/2023


                        ** INPUT SUMMARY **


 ***********************************************************************
   FLOW PROCESS FROM NODE 10100.00 TO NODE   119.00 IS CODE =   1
 -----------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
 =======================================================================
   WATERSHED AREA =  49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    2.043 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.400
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.46; 30-MINUTE =  0.87;  1-HOUR =  1.21
    3-HOUR =  2.28;     6-HOUR =  3.40; 24-HOUR =  5.99
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
    3-HOUR = 0.773;     6-HOUR = 0.898; 24-HOUR = 0.941


 ***********************************************************************
   FLOW PROCESS FROM NODE   119.00 TO NODE  12603.00 IS CODE = 5.2
 -----------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 =======================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) = 200.00    CHANNEL Z = 5.00
   UPSTREAM ELEVATION(FT) =    341.63; DOWNSTREAM ELEVATION(FT) =   312.40
```

```
   CHANNEL LENGTH(FT) =   3157.79    MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
 =======================================================================


 ***********************************************************************
   FLOW PROCESS FROM NODE   810.00 TO NODE   809.00 IS CODE =   1
 -----------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 =======================================================================
   WATERSHED AREA =    171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.185 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.391
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
    3-HOUR =  1.78;     6-HOUR =  2.47; 24-HOUR =  4.12
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
    3-HOUR = 0.773;     6-HOUR = 0.898; 24-HOUR = 0.941


 ***********************************************************************
   FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE =   7
 -----------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 =======================================================================


 ***********************************************************************
   FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE =   6
 -----------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 =======================================================================


 ***********************************************************************
   FLOW PROCESS FROM NODE 12603.00 TO NODE   126.00 IS CODE = 5.2
 -----------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 =======================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) = 200.00    CHANNEL Z = 5.00
   UPSTREAM ELEVATION(FT) =    312.40; DOWNSTREAM ELEVATION(FT) =   286.00
   CHANNEL LENGTH(FT) =   3046.70    MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
 =======================================================================


 ***********************************************************************
   FLOW PROCESS FROM NODE   920.00 TO NODE   905.00 IS CODE =   1
 -----------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
=================================================================
  WATERSHED AREA =      553.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.219 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.254; LOW LOSS FRACTION = 0.457
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.79;  1-HOUR =  1.06
    3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
    3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


*****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
-----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=================================================================


*****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
-----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=================================================================


*****************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
-----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=================================================================
  WATERSHED AREA =      218.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.295 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.732
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
    3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
    3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


*****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
-----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=================================================================


*****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
-----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=================================================================
```

```
*****************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
-----------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00      CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =      286.00; DOWNSTREAM ELEVATION(FT) =      258.00
  CHANNEL LENGTH(FT) =      4077.05      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =      0.00
=================================================================


*****************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =    1
-----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=================================================================
  WATERSHED AREA =      712.600 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.289 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.100; LOW LOSS FRACTION = 0.252
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
    3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
    3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


*****************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =    1
-----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
=================================================================
  WATERSHED AREA =      462.500 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.244 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.135; LOW LOSS FRACTION = 0.326
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
    3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
    3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


*****************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =    1
-----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
=================================================================
  WATERSHED AREA =      117.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.366 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.283; LOW LOSS FRACTION = 0.475
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
  3-HOUR =  1.78;   6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
  3-HOUR = 0.773;   6-HOUR = 0.898; 24-HOUR = 0.941


*************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
-------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=========================================================================
```

```
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00      CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
 CHANNEL LENGTH(FT) =   3114.00      MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =     0.00
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
 WATERSHED AREA =      711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.410 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.293; LOW LOSS FRACTION = 0.623
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
  3-HOUR =  1.78;   6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
  3-HOUR = 0.773;   6-HOUR = 0.898; 24-HOUR = 0.941


*************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
 WATERSHED AREA =     1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.363 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.295; LOW LOSS FRACTION = 0.517
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
  3-HOUR =  1.78;   6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.331; 30-MINUTE = 0.383;  1-HOUR = 0.424
```

```
     3-HOUR = 0.773;    6-HOUR = 0.898; 24-HOUR = 0.941


**************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    7
--------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


**************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    6
--------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


**************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   11
--------------------------------------------------------------------------
   >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
==========================================================================
==========================================================================
```

```
+----------------------------------------------------------------------
--------------------------------------+
|                          * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
|INPUT FILENAME: [EV50127F.DAT  ]
Page:  1 of    |
+------------------+--------------------------+-------------------+-
-----------+------------+-----------+
|UPSTREAM  DOWNSTREAM|                          | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|           |
| NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS  |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
+------------------+--------------------------+-------------------+-
-----------+------------+-----------+
| 10100.00    119.00| Subarea (UH) Added to Stream #1|      0.0    17420.8|
18.083 |           |           |
|   119.00  12603.00| Convex Routing:      Stream #1|  17420.8    17296.8|
18.083 |           |           |
|   810.00    809.00| Subarea (UH) Added to Stream #2|      0.0      114.2|
16.250 |           |           |
| 12603.00  12603.00| Stream #2 Added to:  Stream #1|  17296.8    17324.0|
18.083 |           |           |
| 12603.00  12603.00| Zero Out:            Stream #2|    114.2        0.0|
|           |           |
+------------------+--------------------------+-------------------+-
-----------+------------+-----------+
| 12603.00    126.00| Convex Routing:      Stream #1|  17324.0    17304.3|
18.167 |           |           |
|   920.00    905.00| Subarea (UH) Added to Stream #2|      0.0      294.6|
16.250 |           |           |
|   126.00    126.00| Stream #2 Added to:  Stream #1|  17304.3    17377.6|
18.167 |           |           |
|   126.00    126.00| Zero Out:            Stream #2|    294.6        0.0|
|           |           |
|   600.00    126.00| Subarea (UH) Added to Stream #2|      0.0       87.8|
16.333 |           |           |
+------------------+--------------------------+-------------------+-
-----------+------------+-----------+
|   126.00    126.00| Stream #2 Added to:  Stream #1|  17377.6    17392.6|
18.167 |           |           |
|   126.00    126.00| Zero Out:            Stream #2|     87.8        0.0|
|           |           |
|   126.00  12720.50| Convex Routing:      Stream #1|  17392.6    17386.2|
18.250 |           |           |
|   320.00    331.00| Subarea (UH) Added to Stream #2|      0.0      422.3|
16.333 |           |           |
|   400.00    331.00| Subarea (UH) Added to Stream #3|      0.0      279.1|
16.333 |           |           |
+------------------+--------------------------+-------------------+-
-----------+------------+-----------+
|   390.00    331.00| Subarea (UH) Added to Stream #4|      0.0       48.2|
16.417 |           |           |
|   331.00    331.00| Stream #4 Added to:  Stream #2|    422.3      466.4|
16.333 |           |           |
|   331.00    331.00| Zero Out:            Stream #4|     48.2        0.0|
|           |           |
|   331.00    331.00| Stream #3 Added to:  Stream #2|    466.4      745.5|
16.333 |           |           |
```

```
|   331.00     331.00| Zero Out:            Stream #3|    279.1        0.0|
|             |        |
 +-----------------+-----------------------------+--------------------+-
----------+------------+----------+
|   331.00   12720.50| Stream #2 Added to:   Stream #1|   17386.2    17594.5|
18.250 |             |        |
| 12720.50   12720.50| Zero Out:            Stream #2|    745.5        0.0|
|             |        |
| 12720.50     127.00| Convex Routing:      Stream #1|   17594.5    17560.0|
18.333 |             |        |
| 12710.00     127.00| Subarea (UH) Added to Stream #2|     0.0      246.7|
16.500 |             |        |
|   127.00     127.00| Stream #2 Added to:   Stream #1|   17560.0    17627.9|
18.250 |             |        |
 +-----------------+-----------------------------+--------------------+-
----------+------------+----------+
|   127.00     127.00| Zero Out:            Stream #2|    246.7        0.0|
|             |        |
| 50150.00     127.00| Subarea (UH) Added to Stream #2|     0.0      423.8|
16.417 |             |        |
|   127.00     127.00| Stream #2 Added to:   Stream #1|   17627.9    17756.6|
17.250 |             |        |
|   127.00     127.00| Zero Out:            Stream #2|    423.8        0.0|
|             |        |
|   127.00     127.00| View:                Stream #1|             17756.6|
17.250 |   14772.89|    3     |
 +-----------------+-----------------------------+--------------------+-
----------+------------+----------+
 +-----------------+-----------------------------+--------------------+-
----------+------------+----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                               |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                             |
 +------------------------------------------------------------------------------
-------------------------------------+
```

   END OF FLOODSCx ROUTING ANALYSIS

```
_____
************************************************************************

        F L O O D   R O U T I N G   A N A L Y S I S
          USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
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                    Analysis prepared by:




 ************************** DESCRIPTION OF STUDY **************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 137                               *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL           *
 * 50-YR EV AUG 2023 ROKAMOTO                                            *
 *************************************************************************

   FILE NAME: EV50137F.DAT
   TIME/DATE OF STUDY: 07:38 08/10/2023


                      ** INPUT SUMMARY **


************************************************************************
  FLOW PROCESS FROM NODE 10100.00 TO NODE   119.00 IS CODE = 1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
========================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    2.043 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.298; LOW LOSS FRACTION = 0.400
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.46; 30-MINUTE = 0.87; 1-HOUR = 1.21
    3-HOUR = 2.28;     6-HOUR = 3.40; 24-HOUR = 5.99
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;     6-HOUR = 0.886; 24-HOUR = 0.933


************************************************************************
  FLOW PROCESS FROM NODE   119.00 TO NODE 12603.00 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00    CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE   810.00 TO NODE   809.00 IS CODE = 1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
========================================================================
  WATERSHED AREA =    171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.185 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.174; LOW LOSS FRACTION = 0.391
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE = 0.37; 30-MINUTE = 0.80; 1-HOUR = 1.06
    3-HOUR = 1.78;     6-HOUR = 2.47; 24-HOUR = 4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
    3-HOUR = 0.738;     6-HOUR = 0.886; 24-HOUR = 0.933


************************************************************************
  FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 7
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE = 6
------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE 12603.00 TO NODE   126.00 IS CODE = 5.2
------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00    CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =    286.00
  CHANNEL LENGTH(FT) =    3046.70    MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
========================================================================


************************************************************************
  FLOW PROCESS FROM NODE   920.00 TO NODE   905.00 IS CODE = 1
------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
=========================================================================
  WATERSHED AREA =      553.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.219 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.254; LOW LOSS FRACTION = 0.457
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.79;  1-HOUR =  1.06
   3-HOUR =  1.78;     6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
   3-HOUR = 0.738;     6-HOUR = 0.886; 24-HOUR = 0.933


*************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
  WATERSHED AREA =      218.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.295 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.290; LOW LOSS FRACTION = 0.732
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
   3-HOUR =  1.78;     6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
   3-HOUR = 0.738;     6-HOUR = 0.886; 24-HOUR = 0.933


*************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================
```

```
*************************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE   12720.50 IS CODE = 5.2
-------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =     0.00
=========================================================================



*************************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =    1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
  WATERSHED AREA =      712.600 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.289 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.100; LOW LOSS FRACTION = 0.252
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
   3-HOUR =  1.78;     6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
   3-HOUR = 0.738;     6-HOUR = 0.886; 24-HOUR = 0.933


*************************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =    1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
=========================================================================
  WATERSHED AREA =      462.500 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.244 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.135; LOW LOSS FRACTION = 0.326
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
   3-HOUR =  1.78;     6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
   3-HOUR = 0.738;     6-HOUR = 0.886; 24-HOUR = 0.933


*************************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =    1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
=========================================================================
  WATERSHED AREA =      117.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.366 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.283; LOW LOSS FRACTION = 0.475
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
  3-HOUR =  1.78;   6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
  3-HOUR = 0.738;   6-HOUR = 0.886; 24-HOUR = 0.933


 ****************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
 ----------------------------------------------------------------
  >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
 ================================================================

 ****************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
 ----------------------------------------------------------------
  >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
 ================================================================


 ****************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
 ----------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
 ================================================================

 ****************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
 ----------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
 ================================================================


 ****************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
 ----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ================================================================

 ****************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
 ----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ================================================================


 ****************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
 ----------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ================================================================
```

```
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
 CHANNEL LENGTH(FT) =    3114.00     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
 ================================================================


 ****************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
 ----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ================================================================
 WATERSHED AREA =      711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.410 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.293; LOW LOSS FRACTION = 0.623
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
  3-HOUR =  1.78;   6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
  3-HOUR = 0.738;   6-HOUR = 0.886; 24-HOUR = 0.933


 ****************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
 ----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ================================================================


 ****************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
 ----------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ================================================================


 ****************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
 ----------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ================================================================
 WATERSHED AREA =     1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.363 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.295; LOW LOSS FRACTION = 0.517
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
  3-HOUR =  1.78;   6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
```

```
      3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


*************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE     127.00 IS CODE =    7
-------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================


*************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE     127.00 IS CODE =    6
-------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE     129.00 IS CODE = 5.2
-------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=========================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
   UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
   CHANNEL LENGTH(FT) =   4905.42     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
=========================================================================


*************************************************************************
   FLOW PROCESS FROM NODE  50300.00 TO NODE     129.00 IS CODE =    1
-------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
   WATERSHED AREA =     634.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.378 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.282; LOW LOSS FRACTION = 0.601
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
      3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
      3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


*************************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE     129.00 IS CODE =    7
-------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================
```

```
*************************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE     129.00 IS CODE =    6
-------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
   FLOW PROCESS FROM NODE    210.00 TO NODE     221.00 IS CODE =    1
-------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
   WATERSHED AREA =     213.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.255 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.128; LOW LOSS FRACTION = 0.337
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
      3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
      3-HOUR = 0.738;    6-HOUR = 0.886; 24-HOUR = 0.933


*************************************************************************
   FLOW PROCESS FROM NODE    222.00 TO NODE     129.00 IS CODE =    7
-------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================


*************************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE     129.00 IS CODE =    6
-------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
   FLOW PROCESS FROM NODE    129.00 TO NODE     133.00 IS CODE = 5.2
-------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=========================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
   UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
   CHANNEL LENGTH(FT) =   1389.52     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
=========================================================================


*************************************************************************
```

```
 FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
--------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==========================================================================
 WATERSHED AREA =    4924.400 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.821 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.244; LOW LOSS FRACTION = 0.538
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80; 1-HOUR =  1.06
   3-HOUR =  1.78;   6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
   3-HOUR = 0.738;   6-HOUR = 0.886; 24-HOUR = 0.933


*************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
--------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
==========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =      427.51; DOWNSTREAM ELEVATION(FT) =     315.00
 CHANNEL LENGTH(FT) =    9760.05     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


*************************************************************************
 FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
--------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
==========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =      315.00; DOWNSTREAM ELEVATION(FT) =     212.00
 CHANNEL LENGTH(FT) =    6877.24     MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


*************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
--------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
==========================================================================
 WATERSHED AREA =    1713.900 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.572 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.383
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80; 1-HOUR =  1.06
   3-HOUR =  1.78;   6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350; 1-HOUR = 0.394
   3-HOUR = 0.738;   6-HOUR = 0.886; 24-HOUR = 0.933


*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
==========================================================================


*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
==========================================================================


*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==========================================================================


*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
--------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==========================================================================


*************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
--------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==========================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =      212.00; DOWNSTREAM ELEVATION(FT) =     173.00
 CHANNEL LENGTH(FT) =    6461.31     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
==========================================================================


*************************************************************************
```

```
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =   1
-------------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
 WATERSHED AREA =    1705.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.358 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.245; LOW LOSS FRACTION = 0.433
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
   3-HOUR =  1.78;     6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
   3-HOUR = 0.738;     6-HOUR = 0.886; 24-HOUR = 0.933

********************************************************************************
 FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
-------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


********************************************************************************
 FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
-------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================


********************************************************************************
 FLOW PROCESS FROM NODE  13500.00 TO NODE    134.00 IS CODE =   1
-------------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
 WATERSHED AREA =    3859.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    1.294 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.284; LOW LOSS FRACTION = 0.431
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
   3-HOUR =  1.78;     6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
   3-HOUR = 0.738;     6-HOUR = 0.886; 24-HOUR = 0.933

********************************************************************************
 FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
-------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


********************************************************************************
 FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
-------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
```

```
===============================================================================

********************************************************************************
 FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE = 5.2
-------------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00    CHANNEL Z =  4.00
 UPSTREAM ELEVATION(FT) =     173.00; DOWNSTREAM ELEVATION(FT) =    133.00
 CHANNEL LENGTH(FT) =    6064.09    MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
===============================================================================



********************************************************************************
 FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE =   1
-------------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
 WATERSHED AREA =    1240.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.411 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.237; LOW LOSS FRACTION = 0.441
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
   3-HOUR =  1.78;     6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.291; 30-MINUTE = 0.350;  1-HOUR = 0.394
   3-HOUR = 0.738;     6-HOUR = 0.886; 24-HOUR = 0.933


********************************************************************************
 FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   7
-------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


********************************************************************************
 FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   6
-------------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================


********************************************************************************
 FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =  11
-------------------------------------------------------------------------------
 >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
===============================================================================
===============================================================================
```

```
+------------------------------------------------------------------------------------------------------------+
|                                            * AES FLOODSCx PROGRAM RESULTS SUMMARY *                         |
|INPUT FILENAME: [EV50137F.DAT   ]
Page:  1 of   |
 +------------------+----------------------------+--------------------+-----------+------------+-----------+
|UPSTREAM  DOWNSTREAM|                            |  UPSTREAM   DOWNSTREAM| TIME(2) TO | MAX. STORAGE|           |
| NODE #      NODE # | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)| PEAK (HR) | MODELED (AF)| FOOTNOTES |
 +------------------+----------------------------+--------------------+-----------+------------+-----------+
| 10100.00    119.00| Subarea (UH) Added to Stream #1|      0.0   16528.7| 18.083 |            |           |
|   119.00  12603.00| Convex Routing:      Stream #1|  16528.7   16421.8| 18.083 |            |           |
|   810.00    809.00| Subarea (UH) Added to Stream #2|      0.0     100.2| 16.250 |            |           |
| 12603.00  12603.00| Stream #2 Added to:   Stream #1|  16421.8   16450.3| 18.083 |            |           |
| 12603.00  12603.00| Zero Out:            Stream #2|    100.2       0.0|        |            |           |
 +------------------+----------------------------+--------------------+-----------+------------+-----------+
| 12603.00    126.00| Convex Routing:      Stream #1|  16450.3   16435.9| 18.167 |            |           |
|   920.00    905.00| Subarea (UH) Added to Stream #2|      0.0     257.1| 16.250 |            |           |
|   126.00    126.00| Stream #2 Added to:   Stream #1|  16435.9   16512.5| 18.167 |            |           |
|   126.00    126.00| Zero Out:            Stream #2|    257.1       0.0|        |            |           |
|   600.00    126.00| Subarea (UH) Added to Stream #2|      0.0      75.2| 16.333 |            |           |
 +------------------+----------------------------+--------------------+-----------+------------+-----------+
|   126.00    126.00| Stream #2 Added to:   Stream #1|  16512.5   16528.1| 18.167 |            |           |
|   126.00    126.00| Zero Out:            Stream #2|     75.2       0.0|        |            |           |
|   126.00  12720.50| Convex Routing:      Stream #1|  16528.1   16521.1| 18.250 |            |           |
|   320.00    331.00| Subarea (UH) Added to Stream #2|      0.0     378.4| 16.333 |            |           |
|   400.00    331.00| Subarea (UH) Added to Stream #3|      0.0     248.1| 16.333 |            |           |
 +------------------+----------------------------+--------------------+-----------+------------+-----------+
|   390.00    331.00| Subarea (UH) Added to Stream #4|      0.0      42.7| 16.417 |            |           |
|   331.00    331.00| Stream #4 Added to:   Stream #2|    378.4     417.7| 16.333 |            |           |
|   331.00    331.00| Zero Out:            Stream #4|     42.7       0.0|        |            |           |
|   331.00    331.00| Stream #3 Added to:   Stream #2|    417.7     665.8| 16.333 |            |           |
```

```
| 331.00     331.00| Zero Out:           Stream #3|    248.1       0.0|
|                  |                              |                   |
 +------------------+------------------------------+---------------------+-
-----------+-------------+-----------+
|  331.00   12720.50| Stream #2 Added to:  Stream #1|  16521.1    16741.3|
17.167 |           |             |
| 12720.50  12720.50| Zero Out:           Stream #2|    665.8       0.0|
|                  |             |
| 12720.50    127.00| Convex Routing:     Stream #1|  16741.3    16729.2|
17.250 |           |             |
| 12710.00    127.00| Subarea (UH) Added to Stream #2|      0.0     216.0|
16.500 |           |             |
|  127.00     127.00| Stream #2 Added to:  Stream #1|  16729.2    16847.0|
17.250 |           |             |
 +------------------+------------------------------+---------------------+-
-----------+-------------+-----------+
|  127.00     127.00| Zero Out:           Stream #2|    216.0       0.0|
|                  |             |
| 50150.00    127.00| Subarea (UH) Added to Stream #2|      0.0     372.0|
16.417 |           |             |
|  127.00     127.00| Stream #2 Added to:  Stream #1|  16847.0    17069.9|
17.250 |           |             |
|  127.00     127.00| Zero Out:           Stream #2|    372.0       0.0|
|                  |             |
|  127.00     129.00| Convex Routing:     Stream #1|  17069.9    17044.8|
17.417 |           |             |
 +------------------+------------------------------+---------------------+-
-----------+-------------+-----------+
| 50300.00    129.00| Subarea (UH) Added to Stream #2|      0.0     206.4|
16.417 |           |             |
|  129.00     129.00| Stream #2 Added to:  Stream #1|  17044.8    17142.4|
17.417 |           |             |
|  129.00     129.00| Zero Out:           Stream #2|    206.4       0.0|
|                  |             |
|  210.00     221.00| Subarea (UH) Added to Stream #2|      0.0     114.3|
16.333 |           |             |
|  222.00     129.00| Stream #2 Added to:  Stream #1|  17142.4    17191.9|
17.333 |           |             |
 +------------------+------------------------------+---------------------+-
-----------+-------------+-----------+
|  129.00     129.00| Zero Out:           Stream #2|    114.3       0.0|
|                  |             |
|  129.00     133.00| Convex Routing:     Stream #1|  17191.9    17181.8|
17.417 |           |             |
| 13010.00    132.00| Subarea (UH) Added to Stream #2|      0.0    1288.8|
16.833 |           |             |
|  132.00   13305.00| Convex Routing:     Stream #2|   1288.8    1270.2|
17.333 |           |             |
| 13305.00    133.00| Convex Routing:     Stream #2|   1270.2    1257.1|
17.583 |           |             |
 +------------------+------------------------------+---------------------+-
-----------+-------------+-----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                              |
|      3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                      |
 +----------------------------------------------------------------------------
------------------------------------+
```

```
+-----------------------------------------------------------------------
-------------------------------------+
|                          * AES FLOODSCx PROGRAM RESULTS SUMMARY *
|
||INPUT FILENAME: [EV50137F.DAT  ]
Page:   2 of   |
 +------------------+----------------------------+---------------------+-
----------+------------+----------+
||UPSTREAM  DOWNSTREAM|                          | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|         |
| | NODE #     NODE # | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
 +------------------+----------------------------+---------------------+-
----------+------------+----------+
| |   132.00     133.00| Subarea (UH) Added to Stream #3|     0.0       586.8|
16.667 |             |          |
| |   133.00     133.00| Stream #3 Added to:   Stream #2|  1257.1     1679.2|
17.500 |             |          |
| |   133.00     133.00| Zero Out:             Stream #3|   586.8       0.0|
|            |          |
| |   133.00     133.00| Stream #2 Added to:   Stream #1| 17181.8    18858.1|
17.500 |             |          |
| |   133.00     133.00| Zero Out:             Stream #2|  1679.2       0.0|
|            |          |
 +------------------+----------------------------+---------------------+-
----------+------------+----------+
| |   133.00     134.00| Convex Routing:       Stream #1| 18858.1    18838.3|
17.667 |             |          |
| |   133.00     134.00| Subarea (UH) Added to Stream #2|     0.0       666.5|
16.417 |             |          |
| |   134.00     134.00| Stream #2 Added to:   Stream #1| 18838.3    19156.9|
17.583 |             |          |
| |   134.00     134.00| Zero Out:             Stream #2|   666.5       0.0|
|            |          |
| | 13500.00     134.00| Subarea (UH) Added to Stream #2|     0.0      1043.8|
17.333 |             |          |
 +------------------+----------------------------+---------------------+-
----------+------------+----------+
| |   134.00     134.00| Stream #2 Added to:   Stream #1| 19156.9    20185.0|
17.583 |             |          |
| |   134.00     134.00| Zero Out:             Stream #2|  1043.8       0.0|
|            |          |
| |   134.00     137.00| Convex Routing:       Stream #1| 20185.0    20157.8|
17.750 |             |          |
| |   134.00     137.00| Subarea (UH) Added to Stream #2|     0.0       454.0|
16.500 |             |          |
| |   137.00     137.00| Stream #2 Added to:   Stream #1| 20157.8    20379.2|
17.750 |             |          |
 +------------------+----------------------------+---------------------+-
----------+------------+----------+
| |   137.00     137.00| Zero Out:             Stream #2|   454.0       0.0|
|            |          |
| |   137.00     137.00| View:                 Stream #1|            20379.2|
17.750 |   17075.96|    3      |
 +------------------+----------------------------+---------------------+-
----------+------------+----------+
||Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                    |
```

```
|      3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                              |
 +-----------------------------------------------------------------------
-------------------------------------+

   END OF FLOODSCx ROUTING ANALYSIS
```

```
 _____
 ************************************************************************

         F L O O D   R O U T I N G   A N A L Y S I S
           USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
        (c) Copyright 1989-2010 Advanced Engineering Software (aes)
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                     Analysis prepared by:




  ************************* DESCRIPTION OF STUDY *************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 138                              *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL          *
 * 50-YR EV AUG 2023 ROKAMOTO                                           *
  **********************************************************************

  FILE NAME: EV50138F.DAT
  TIME/DATE OF STUDY: 07:38 08/10/2023


                      ** INPUT SUMMARY **


 ************************************************************************
   FLOW PROCESS FROM NODE  10100.00 TO NODE   119.00 IS CODE =   1
 ------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
 ========================================================================
   WATERSHED AREA =  49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    2.043 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.400
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.46; 30-MINUTE =  0.87;  1-HOUR =  1.21
    3-HOUR =  2.28;     6-HOUR =  3.40; 24-HOUR =  5.99
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;     6-HOUR = 0.885; 24-HOUR = 0.932


 ************************************************************************
   FLOW PROCESS FROM NODE   119.00 TO NODE  12603.00 IS CODE = 5.2
 ------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ========================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
   UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =    312.40
```

```
   CHANNEL LENGTH(FT) =    3157.79     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
 ========================================================================


 ************************************************************************
   FLOW PROCESS FROM NODE   810.00 TO NODE   809.00 IS CODE =   1
 ------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ========================================================================
   WATERSHED AREA =    171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.185 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.391
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
    3-HOUR =  1.78;     6-HOUR =  2.47; 24-HOUR =  4.12
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;     6-HOUR = 0.885; 24-HOUR = 0.932


 ************************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   7
 ------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ========================================================================


 ************************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE  12603.00 IS CODE =   6
 ------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ========================================================================


 ************************************************************************
   FLOW PROCESS FROM NODE  12603.00 TO NODE   126.00 IS CODE = 5.2
 ------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ========================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
   UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =    286.00
   CHANNEL LENGTH(FT) =    3046.70     MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
 ========================================================================


 ************************************************************************
   FLOW PROCESS FROM NODE   920.00 TO NODE   905.00 IS CODE =   1
 ------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
===================================================================
  WATERSHED AREA =      553.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.219 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.254; LOW LOSS FRACTION = 0.457
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.79;  1-HOUR =  1.06
    3-HOUR =  1.78;     6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;     6-HOUR = 0.885; 24-HOUR = 0.932


*******************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===================================================================


*******************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===================================================================


*******************************************************************
  FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
-------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===================================================================
  WATERSHED AREA =      218.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.295 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.290; LOW LOSS FRACTION = 0.732
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
    3-HOUR =  1.78;     6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;     6-HOUR = 0.885; 24-HOUR = 0.932


*******************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===================================================================


*******************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
-------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===================================================================
```

```
*******************************************************************
  FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
-------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
  CHANNEL LENGTH(FT) =    4077.05     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
===================================================================



*******************************************************************
  FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =    1
-------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===================================================================
  WATERSHED AREA =      712.600 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.289 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.100; LOW LOSS FRACTION = 0.252
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
    3-HOUR =  1.78;     6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;     6-HOUR = 0.885; 24-HOUR = 0.932



*******************************************************************
  FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =    1
-------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
===================================================================
  WATERSHED AREA =      462.500 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =     0.244 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.135; LOW LOSS FRACTION = 0.326
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
    3-HOUR =  1.78;     6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;     6-HOUR = 0.885; 24-HOUR = 0.932



*******************************************************************
  FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =    1
-------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
===================================================================
  WATERSHED AREA =      117.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.366 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.283; LOW LOSS FRACTION = 0.475
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
  3-HOUR =  1.78;   6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
  3-HOUR = 0.734;   6-HOUR = 0.885; 24-HOUR = 0.932


*********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
-------------------------------------------------------------------
 >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
===================================================================

*********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
-------------------------------------------------------------------
 >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
===================================================================


*********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
-------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
===================================================================

*********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
-------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
===================================================================


*********************************************************************
  FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
-------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===================================================================


*********************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
-------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===================================================================


*********************************************************************
  FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
-------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===================================================================
```

```
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     258.00; DOWNSTREAM ELEVATION(FT) =     240.00
 CHANNEL LENGTH(FT) =    3114.00     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
===================================================================


*********************************************************************
  FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
-------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===================================================================
 WATERSHED AREA =      711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.410 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.293; LOW LOSS FRACTION = 0.623
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
  3-HOUR =  1.78;   6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
  3-HOUR = 0.734;   6-HOUR = 0.885; 24-HOUR = 0.932


*********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
-------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===================================================================


*********************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
-------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===================================================================


*********************************************************************
  FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
-------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===================================================================
 WATERSHED AREA =     1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.363 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.295; LOW LOSS FRACTION = 0.517
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
  3-HOUR =  1.78;   6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
```

```
      3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


*************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    7
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =    6
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
-------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
  CHANNEL LENGTH(FT) =   4905.42     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =    1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
  WATERSHED AREA =    634.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.378 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.282; LOW LOSS FRACTION = 0.601
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
    3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


*************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    7
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================
```

```
*************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    6
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =    1
-------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=========================================================================
  WATERSHED AREA =     213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.255 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.128; LOW LOSS FRACTION = 0.337
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
    3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;    6-HOUR = 0.885; 24-HOUR = 0.932


*************************************************************************
  FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =    7
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =    6
-------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=========================================================================


*************************************************************************
  FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
-------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=========================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =   1389.52     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=========================================================================


*************************************************************************
```

```
  FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
  WATERSHED AREA =    4924.400 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.821 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.244; LOW LOSS FRACTION = 0.538
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80; 1-HOUR =  1.06
   3-HOUR =  1.78;   6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
   3-HOUR = 0.734;   6-HOUR = 0.885; 24-HOUR = 0.932


***********************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
-------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
===============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     427.51; DOWNSTREAM ELEVATION(FT) =     315.00
  CHANNEL LENGTH(FT) =   9760.05     MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
===============================================================================


***********************************************************************
  FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
-------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
===============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =   50.00     CHANNEL Z =  3.00
  UPSTREAM ELEVATION(FT) =     315.00; DOWNSTREAM ELEVATION(FT) =     212.00
  CHANNEL LENGTH(FT) =   6877.24     MANNING'S FACTOR = 0.040
  CONSTANT LOSS RATE(CFS) =    0.00
===============================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
===============================================================================
  WATERSHED AREA =    1713.900 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
```

```
  *USER ENTERED "LAG" TIME =    0.572 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.383
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80; 1-HOUR =  1.06
   3-HOUR =  1.78;   6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.287; 30-MINUTE = 0.348; 1-HOUR = 0.392
   3-HOUR = 0.734;   6-HOUR = 0.885; 24-HOUR = 0.932


***********************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
===============================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
===============================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================


***********************************************************************
  FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
-------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
  UPSTREAM ELEVATION(FT) =     212.00; DOWNSTREAM ELEVATION(FT) =     170.00
  CHANNEL LENGTH(FT) =   6461.31     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
===============================================================================


***********************************************************************
```

```
    FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =    1
--------------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
   WATERSHED AREA =    1705.800 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =     0.358 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.245; LOW LOSS FRACTION = 0.433
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
    3-HOUR =  1.78;     6-HOUR =  2.47; 24-HOUR =  4.12
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;     6-HOUR = 0.885; 24-HOUR = 0.932

********************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =    7
--------------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================

********************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =    6
--------------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================

********************************************************************************
   FLOW PROCESS FROM NODE  13500.00 TO NODE    134.00 IS CODE =    1
--------------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
   WATERSHED AREA =    3859.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =     1.294 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.284; LOW LOSS FRACTION = 0.431
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
    3-HOUR =  1.78;     6-HOUR =  2.47; 24-HOUR =  4.12
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;     6-HOUR = 0.885; 24-HOUR = 0.932

********************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =    7
--------------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================

********************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =    6
--------------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
```

```
================================================================================
   FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE = 5.2
--------------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) =  200.00     CHANNEL Z =  4.00
   UPSTREAM ELEVATION(FT) =      170.00; DOWNSTREAM ELEVATION(FT) =     135.00
   CHANNEL LENGTH(FT) =    6064.09      MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =     0.00
================================================================================

********************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE =    1
--------------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
   WATERSHED AREA =    1240.700 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =     0.411 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.237; LOW LOSS FRACTION = 0.441
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
    3-HOUR =  1.78;     6-HOUR =  2.47; 24-HOUR =  4.12
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;     6-HOUR = 0.885; 24-HOUR = 0.932

********************************************************************************
   FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =    7
--------------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================

********************************************************************************
   FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =    6
--------------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================

********************************************************************************
   FLOW PROCESS FROM NODE    137.00 TO NODE    138.00 IS CODE = 5.2
--------------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
   THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
```

```
   ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
   (Reference: the National Engineering Handbook, Hydrology,
   Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

   ASSUMED REGULAR CHANNEL INFORMATION:
   BASEWIDTH(FT) = 100.00      CHANNEL Z =  4.00
   UPSTREAM ELEVATION(FT) =       135.00; DOWNSTREAM ELEVATION(FT) =       119.70
   CHANNEL LENGTH(FT) =    4643.67      MANNING'S FACTOR = 0.030
   CONSTANT LOSS RATE(CFS) =    0.00
   =============================================================================


   *********************************************************************
   FLOW PROCESS FROM NODE    137.00 TO NODE    138.00 IS CODE =    1
   ---------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
   =============================================================================
   WATERSHED AREA =    1303.500 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
   *USER ENTERED "LAG" TIME =    0.514 HOURS
   VALLEY(DEVELOPED) S-GRAPH SELECTED
   MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.267; LOW LOSS FRACTION = 0.495
   SPECIFIED PEAK RAINFALL DEPTHS(INCH):
   5-MINUTE =  0.37; 30-MINUTE =  0.80; 1-HOUR =  1.06
    3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
   *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
   5-MINUTE = 0.287; 30-MINUTE = 0.348;  1-HOUR = 0.392
    3-HOUR = 0.734;     6-HOUR = 0.885; 24-HOUR = 0.932


   *********************************************************************
   FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =    7
   ---------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
   =============================================================================


   *********************************************************************
   FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =    6
   ---------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
   =============================================================================


   *********************************************************************
   FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =   11
   ---------------------------------------------------------------------
   >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
   =============================================================================
   =============================================================================
```

```
   +---------------------------------------------------------------------
   ------------------------------------+
   |                          * AES FLOODSCx PROGRAM RESULTS SUMMARY *
   |
   |INPUT FILENAME: [EV50138F.DAT   ]
Page:  1 of   |
   +------------------+---------------------------+--------------------+-
   -----------+-----------+-----------+
   |UPSTREAM  DOWNSTREAM|                          | UPSTREAM  DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|           |
   | NODE #     NODE #  | HYDROLOGIC/HYDRAULIC PROCESS  |PEAK (CFS)  PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
   +------------------+---------------------------+--------------------+-
   -----------+-----------+-----------+
   | 10100.00    119.00| Subarea (UH) Added to Stream #1|     0.0     16454.1|
18.083 |           |           |
   |   119.00  12603.00| Convex Routing:     Stream #1| 16454.1     16348.2|
18.083 |           |           |
   |   810.00    809.00| Subarea (UH) Added to Stream #2|     0.0        99.2|
16.250 |           |           |
   | 12603.00  12603.00| Stream #2 Added to:   Stream #1| 16348.2     16376.8|
18.083 |           |           |
   | 12603.00  12603.00| Zero Out:           Stream #2|    99.2         0.0|
   |           |           |
   +------------------+---------------------------+--------------------+-
   -----------+-----------+-----------+
   | 12603.00    126.00| Convex Routing:     Stream #1| 16376.8     16363.0|
18.167 |           |           |
   |   920.00    905.00| Subarea (UH) Added to Stream #2|     0.0       254.5|
16.250 |           |           |
   |   126.00    126.00| Stream #2 Added to:   Stream #1| 16363.0     16439.8|
18.167 |           |           |
   |   126.00    126.00| Zero Out:           Stream #2|   254.5         0.0|
   |           |           |
   |   600.00    126.00| Subarea (UH) Added to Stream #2|     0.0        74.3|
16.333 |           |           |
   +------------------+---------------------------+--------------------+-
   -----------+-----------+-----------+
   |   126.00    126.00| Stream #2 Added to:   Stream #1| 16439.8     16455.5|
18.167 |           |           |
   |   126.00    126.00| Zero Out:           Stream #2|    74.3         0.0|
   |           |           |
   |   126.00  12720.50| Convex Routing:     Stream #1| 16455.5     16448.3|
18.250 |           |           |
   |   320.00    331.00| Subarea (UH) Added to Stream #2|     0.0       375.4|
16.333 |           |           |
   |   400.00    331.00| Subarea (UH) Added to Stream #3|     0.0       245.9|
16.333 |           |           |
   +------------------+---------------------------+--------------------+-
   -----------+-----------+-----------+
   |   390.00    331.00| Subarea (UH) Added to Stream #4|     0.0        42.3|
16.417 |           |           |
   |   331.00    331.00| Stream #4 Added to:   Stream #2|   375.4       414.4|
16.333 |           |           |
   |   331.00    331.00| Zero Out:           Stream #4|    42.3         0.0|
   |           |           |
   |   331.00    331.00| Stream #3 Added to:   Stream #2|   414.4       660.3|
16.333 |           |           |
```

```
|   331.00     331.00| Zero Out:          Stream #3|    245.9       0.0|
|            |            |
 +-----------------+---------------------------+--------------------+-
----------+------------+-----------+
|   331.00   12720.50| Stream #2 Added to:   Stream #1|  16448.3    16682.5|
17.167 |            |            |
| 12720.50   12720.50| Zero Out:          Stream #2|    660.3       0.0|
|            |            |
| 12720.50     127.00| Convex Routing:       Stream #1|  16682.5    16670.4|
17.250 |            |            |
| 12710.00     127.00| Subarea (UH) Added to Stream #2|     0.0     213.7|
16.500 |            |            |
|   127.00     127.00| Stream #2 Added to:   Stream #1|  16670.4    16787.9|
17.250 |            |            |
 +-----------------+---------------------------+--------------------+-
----------+------------+-----------+
|   127.00     127.00| Zero Out:          Stream #2|    213.7       0.0|
|            |            |
| 50150.00     127.00| Subarea (UH) Added to Stream #2|     0.0     368.3|
16.417 |            |            |
|   127.00     127.00| Stream #2 Added to:   Stream #1|  16787.9    17010.3|
17.250 |            |            |
|   127.00     127.00| Zero Out:          Stream #2|    368.3       0.0|
|            |            |
|   127.00     129.00| Convex Routing:       Stream #1|  17010.3    16984.3|
17.417 |            |            |
 +-----------------+---------------------------+--------------------+-
----------+------------+-----------+
| 50300.00     129.00| Subarea (UH) Added to Stream #2|     0.0     204.4|
16.417 |            |            |
|   129.00     129.00| Stream #2 Added to:   Stream #1|  16984.3    17081.9|
17.417 |            |            |
|   129.00     129.00| Zero Out:          Stream #2|    204.4       0.0|
|            |            |
|   210.00     221.00| Subarea (UH) Added to Stream #2|     0.0     113.3|
16.333 |            |            |
|   222.00     129.00| Stream #2 Added to:   Stream #1|  17081.9    17133.5|
17.333 |            |            |
 +-----------------+---------------------------+--------------------+-
----------+------------+-----------+
|   129.00     129.00| Zero Out:          Stream #2|    113.3       0.0|
|            |            |
|   129.00     133.00| Convex Routing:       Stream #1|  17133.5    17123.1|
17.417 |            |            |
| 13010.00     132.00| Subarea (UH) Added to Stream #2|     0.0    1278.8|
16.833 |            |            |
|   132.00   13305.00| Convex Routing:       Stream #2|   1278.8    1260.6|
17.333 |            |            |
| 13305.00     133.00| Convex Routing:       Stream #2|   1260.6    1247.7|
17.583 |            |            |
 +-----------------+---------------------------+--------------------+-
----------+------------+-----------+
|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                                |
|      3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                        |
 +--------------------------------------------------------------------
------------------------------------+
```

+------------------+----------------------------+--------------------+----------+------------+-----------+

|UPSTREAM DOWNSTREAM| | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE| |
| NODE #   NODE # | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS) PEAK (CFS)|
PEAK (HR) | MODELED (AF)| FOOTNOTES |

+------------------+----------------------------+--------------------+----------+------------+-----------+

| 132.00   133.00| Subarea (UH) Added to Stream #3| 0.0   582.4|
16.667 | | |
| 133.00   133.00| Stream #3 Added to: Stream #2| 1247.7   1668.8|
17.500 | | |
133.00 133.00	Zero Out: Stream #3	582.4 0.0
133.00 133.00	Stream #2 Added to: Stream #1	17123.1 18786.8
17.500		
133.00 133.00	Zero Out: Stream #2	1668.8 0.0

+------------------+----------------------------+--------------------+----------+------------+-----------+

| 133.00   134.00| Convex Routing: Stream #1| 18786.8   18767.1|
17.667 | | |
| 133.00   134.00| Subarea (UH) Added to Stream #2| 0.0   660.4|
16.417 | | |
| 134.00   134.00| Stream #2 Added to: Stream #1| 18767.1   19087.9|
17.583 | | |
134.00 134.00	Zero Out: Stream #2	660.4 0.0
13500.00 134.00	Subarea (UH) Added to Stream #2	0.0 1037.4
17.333 | | |

+------------------+----------------------------+--------------------+----------+------------+-----------+

| 134.00   134.00| Stream #2 Added to: Stream #1| 19087.9   20110.2|
17.583 | | |
134.00 134.00	Zero Out: Stream #2	1037.4 0.0
134.00 137.00	Convex Routing: Stream #1	20110.2 20082.9
17.750		
134.00 137.00	Subarea (UH) Added to Stream #2	0.0 449.9
16.500		
137.00 137.00	Stream #2 Added to: Stream #1	20082.9 20304.8
17.750 | | |

+------------------+----------------------------+--------------------+----------+------------+-----------+

137.00 137.00	Zero Out: Stream #2	449.9 0.0
137.00 138.00	Convex Routing: Stream #1	20304.8 20291.5
17.833		
137.00 138.00	Subarea (UH) Added to Stream #2	0.0 406.6
16.583		
138.00 138.00	Stream #2 Added to: Stream #1	20291.5 20508.3
17.833 | | |

| 138.00   138.00| Zero Out: Stream #2| 406.6   0.0|
| | |

+------------------+----------------------------+--------------------+----------+------------+-----------+

| 138.00   138.00| View: Stream #1| 20508.3|
17.833 | 17272.22| 3 |

+------------------+----------------------------+--------------------+----------+------------+-----------+

|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL |
| 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM |

+--+

   END OF FLOODSCx ROUTING ANALYSIS

```
_____
***********************************************************************

        F L O O D   R O U T I N G   A N A L Y S I S
          USING COUNTY HYDROLOGY MANUAL OF ORANGE(1986)
    (c) Copyright 1989-2010 Advanced Engineering Software (aes)
          Ver. 17.0  Release Date: 07/01/2010  License ID 1527

                Analysis prepared by:




 ************************** DESCRIPTION OF STUDY **************************
 * RMV PA-3 ROMP AMENDMENT 2022 - NODE 139                               *
 * PHASE NO PA5 REGIONAL UNIT HYDROGRAPH - FREE DRAINING MODEL           *
 * 50-YR EV AUG 2023 ROKAMOTO                                            *
 ************************************************************************

  FILE NAME: EV50139F.DAT
  TIME/DATE OF STUDY: 07:36 08/10/2023


                       ** INPUT SUMMARY **


***********************************************************************
  FLOW PROCESS FROM NODE 10100.00 TO NODE   119.00 IS CODE =   1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #1<<<<<
=======================================================================
  WATERSHED AREA =   49495.699 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    2.043 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.298; LOW LOSS FRACTION = 0.400
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.46; 30-MINUTE =  0.87;  1-HOUR =  1.21
    3-HOUR =  2.28;    6-HOUR =  3.40; 24-HOUR =  5.99
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


***********************************************************************
  FLOW PROCESS FROM NODE   119.00 TO NODE  12603.00 IS CODE = 5.2
-----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     341.63; DOWNSTREAM ELEVATION(FT) =     312.40
```

```
  CHANNEL LENGTH(FT) =    3157.79     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE   810.00 TO NODE   809.00 IS CODE =   1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=======================================================================
  WATERSHED AREA =     171.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.185 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.174; LOW LOSS FRACTION = 0.391
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
    3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
    3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


***********************************************************************
  FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE =   7
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE 12603.00 TO NODE 12603.00 IS CODE =   6
-----------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE 12603.00 TO NODE   126.00 IS CODE = 5.2
-----------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=======================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 200.00     CHANNEL Z = 5.00
  UPSTREAM ELEVATION(FT) =     312.40; DOWNSTREAM ELEVATION(FT) =     286.00
  CHANNEL LENGTH(FT) =    3046.70     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
=======================================================================


***********************************************************************
  FLOW PROCESS FROM NODE   920.00 TO NODE   905.00 IS CODE =   1
-----------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
```

```
==============================================================
 WATERSHED AREA =     553.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.219 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.254; LOW LOSS FRACTION = 0.457
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.79;  1-HOUR =  1.06
   3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


*************************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==============================================================


*************************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==============================================================


*************************************************************************
 FLOW PROCESS FROM NODE    600.00 TO NODE    126.00 IS CODE =    1
------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================
 WATERSHED AREA =     218.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.295 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.290; LOW LOSS FRACTION = 0.732
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
   3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


*************************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    7
------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
==============================================================


*************************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE    126.00 IS CODE =    6
------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
==============================================================
```

```
*************************************************************************
 FLOW PROCESS FROM NODE    126.00 TO NODE  12720.50 IS CODE = 5.2
------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
==============================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) = 200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =     286.00; DOWNSTREAM ELEVATION(FT) =     258.00
 CHANNEL LENGTH(FT) =    4077.05     MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =     0.00
==============================================================



*************************************************************************
 FLOW PROCESS FROM NODE    320.00 TO NODE    331.00 IS CODE =    1
------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
==============================================================
 WATERSHED AREA =     712.600 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.289 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.100; LOW LOSS FRACTION = 0.252
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
   3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


*************************************************************************
 FLOW PROCESS FROM NODE    400.00 TO NODE    331.00 IS CODE =    1
------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
==============================================================
 WATERSHED AREA =     462.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.244 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) = 0.135; LOW LOSS FRACTION = 0.326
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
   3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


*************************************************************************
 FLOW PROCESS FROM NODE    390.00 TO NODE    331.00 IS CODE =    1
------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #4<<<<<
==============================================================
 WATERSHED AREA =     117.200 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =     0.366 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.283; LOW LOSS FRACTION = 0.475
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
   3-HOUR =  1.78;   6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;   6-HOUR = 0.885; 24-HOUR = 0.932


 ************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
 ------------------------------------------------------------------------
   >>>>>STREAM NUMBER 4 ADDED TO STREAM NUMBER 2<<<<<
 ========================================================================


 ************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
 ------------------------------------------------------------------------
   >>>>>STREAM NUMBER 4 CLEARED AND SET TO ZERO<<<<<
 ========================================================================


 ************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   7
 ------------------------------------------------------------------------
   >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
 ========================================================================


 ************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE    331.00 IS CODE =   6
 ------------------------------------------------------------------------
   >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
 ========================================================================


 ************************************************************************
   FLOW PROCESS FROM NODE    331.00 TO NODE  12720.50 IS CODE =   7
 ------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ========================================================================


 ************************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE  12720.50 IS CODE =   6
 ------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ========================================================================


 ************************************************************************
   FLOW PROCESS FROM NODE  12720.50 TO NODE    127.00 IS CODE = 5.2
 ------------------------------------------------------------------------
   >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
 ========================================================================
```

```
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =      258.00; DOWNSTREAM ELEVATION(FT) =     240.00
 CHANNEL LENGTH(FT) =    3114.00      MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =     0.00
 ========================================================================


 ************************************************************************
   FLOW PROCESS FROM NODE  12710.00 TO NODE    127.00 IS CODE =   1
 ------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ========================================================================
 WATERSHED AREA =      711.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.410 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.293; LOW LOSS FRACTION = 0.623
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
   3-HOUR =  1.78;   6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;   6-HOUR = 0.885; 24-HOUR = 0.932


 ************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
 ------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
 ========================================================================


 ************************************************************************
   FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
 ------------------------------------------------------------------------
   >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
 ========================================================================


 ************************************************************************
   FLOW PROCESS FROM NODE  50150.00 TO NODE    127.00 IS CODE =   1
 ------------------------------------------------------------------------
   >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
 ========================================================================
 WATERSHED AREA =     1063.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =     0.363 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.295; LOW LOSS FRACTION = 0.517
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
   3-HOUR =  1.78;   6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
```

```
      3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


  **********************************************************************
    FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   7
  ----------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ======================================================================


  **********************************************************************
    FLOW PROCESS FROM NODE    127.00 TO NODE    127.00 IS CODE =   6
  ----------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ======================================================================


  **********************************************************************
    FLOW PROCESS FROM NODE    127.00 TO NODE    129.00 IS CODE = 5.2
  ----------------------------------------------------------------------
    >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ======================================================================
    THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
    ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
    (Reference: the National Engineering Handbook, Hydrology,
    Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

    ASSUMED REGULAR CHANNEL INFORMATION:
    BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
    UPSTREAM ELEVATION(FT) =     240.00; DOWNSTREAM ELEVATION(FT) =     213.00
    CHANNEL LENGTH(FT) =    4905.42     MANNING'S FACTOR = 0.030
    CONSTANT LOSS RATE(CFS) =    0.00
  ======================================================================


  **********************************************************************
    FLOW PROCESS FROM NODE  50300.00 TO NODE    129.00 IS CODE =   1
  ----------------------------------------------------------------------
    >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ======================================================================
    WATERSHED AREA =     634.200 ACRES; BASEFLOW =    0.000 CFS/SQUARE-MILE
    *USER ENTERED "LAG" TIME =    0.378 HOURS
    VALLEY(DEVELOPED) S-GRAPH SELECTED
    MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.282; LOW LOSS FRACTION = 0.601
    SPECIFIED PEAK RAINFALL DEPTHS(INCH):
    5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
      3-HOUR =  1.78;     6-HOUR =  2.47; 24-HOUR =  4.12
    *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
    5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
      3-HOUR = 0.733;     6-HOUR = 0.885; 24-HOUR = 0.932


  **********************************************************************
    FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   7
  ----------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ======================================================================
```

```
  **********************************************************************
    FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
  ----------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ======================================================================


  **********************************************************************
    FLOW PROCESS FROM NODE    210.00 TO NODE    221.00 IS CODE =   1
  ----------------------------------------------------------------------
    >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
  ======================================================================
    WATERSHED AREA =     213.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
    *USER ENTERED "LAG" TIME =    0.255 HOURS
    VALLEY(DEVELOPED) S-GRAPH SELECTED
    MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.128; LOW LOSS FRACTION = 0.337
    SPECIFIED PEAK RAINFALL DEPTHS(INCH):
    5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
      3-HOUR =  1.78;     6-HOUR =  2.47; 24-HOUR =  4.12
    *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
    5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
      3-HOUR = 0.733;     6-HOUR = 0.885; 24-HOUR = 0.932


  **********************************************************************
    FLOW PROCESS FROM NODE    222.00 TO NODE    129.00 IS CODE =   7
  ----------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
  ======================================================================


  **********************************************************************
    FLOW PROCESS FROM NODE    129.00 TO NODE    129.00 IS CODE =   6
  ----------------------------------------------------------------------
    >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
  ======================================================================


  **********************************************************************
    FLOW PROCESS FROM NODE    129.00 TO NODE    133.00 IS CODE = 5.2
  ----------------------------------------------------------------------
    >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
  ======================================================================
    THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
    ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
    (Reference: the National Engineering Handbook, Hydrology,
    Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

    ASSUMED REGULAR CHANNEL INFORMATION:
    BASEWIDTH(FT) =  200.00     CHANNEL Z =  5.00
    UPSTREAM ELEVATION(FT) =     213.00; DOWNSTREAM ELEVATION(FT) =     212.00
    CHANNEL LENGTH(FT) =    1389.52     MANNING'S FACTOR = 0.030
    CONSTANT LOSS RATE(CFS) =    0.00
  ======================================================================


  **********************************************************************
```

```
 FLOW PROCESS FROM NODE  13010.00 TO NODE    132.00 IS CODE =   1
-----------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
=============================================================================
 WATERSHED AREA =    4924.400 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
 *USER ENTERED "LAG" TIME =    0.821 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.244; LOW LOSS FRACTION = 0.538
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80; 1-HOUR =  1.06
   3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
   3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


*****************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE  13305.00 IS CODE = 5.2
-----------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
=============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00    CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =    427.51; DOWNSTREAM ELEVATION(FT) =    315.00
 CHANNEL LENGTH(FT) =   9760.05    MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
=============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE  13305.00 TO NODE    133.00 IS CODE = 5.2
-----------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #2 BY THE CONVEX METHOD<<<<<
=============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 2 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =   50.00    CHANNEL Z =  3.00
 UPSTREAM ELEVATION(FT) =    315.00; DOWNSTREAM ELEVATION(FT) =    212.00
 CHANNEL LENGTH(FT) =   6877.24    MANNING'S FACTOR = 0.040
 CONSTANT LOSS RATE(CFS) =    0.00
=============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    132.00 TO NODE    133.00 IS CODE =   1
-----------------------------------------------------------------------------
 >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #3<<<<<
=============================================================================
 WATERSHED AREA =    1713.900 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
```

```
 *USER ENTERED "LAG" TIME =    0.572 HOURS
 VALLEY(DEVELOPED) S-GRAPH SELECTED
 MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.225; LOW LOSS FRACTION = 0.383
 SPECIFIED PEAK RAINFALL DEPTHS(INCH):
 5-MINUTE =  0.37; 30-MINUTE =  0.80; 1-HOUR =  1.06
   3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
 *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
 5-MINUTE = 0.286; 30-MINUTE = 0.348; 1-HOUR = 0.391
   3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
-----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 ADDED TO STREAM NUMBER 2<<<<<
=============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
-----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 3 CLEARED AND SET TO ZERO<<<<<
=============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   7
-----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
=============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    133.00 IS CODE =   6
-----------------------------------------------------------------------------
 >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
=============================================================================


*****************************************************************************
 FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE = 5.2
-----------------------------------------------------------------------------
 >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
=============================================================================
 THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
 ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
 (Reference: the National Engineering Handbook, Hydrology,
 Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

 ASSUMED REGULAR CHANNEL INFORMATION:
 BASEWIDTH(FT) =  200.00    CHANNEL Z =  5.00
 UPSTREAM ELEVATION(FT) =    212.00; DOWNSTREAM ELEVATION(FT) =    170.00
 CHANNEL LENGTH(FT) =   6461.31    MANNING'S FACTOR = 0.030
 CONSTANT LOSS RATE(CFS) =    0.00
=============================================================================


*****************************************************************************
```

```
   FLOW PROCESS FROM NODE    133.00 TO NODE    134.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
  WATERSHED AREA =    1705.800 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.358 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.245; LOW LOSS FRACTION = 0.433
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
   3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932

*******************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


*******************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================


*******************************************************************************
   FLOW PROCESS FROM NODE  13500.00 TO NODE    134.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
  WATERSHED AREA =    3859.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    1.294 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.284; LOW LOSS FRACTION = 0.431
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
   3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


*******************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


*******************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    134.00 IS CODE =   6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
```

```
===============================================================================
   FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE = 5.2
-------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) =  200.00     CHANNEL Z =  4.00
  UPSTREAM ELEVATION(FT) =      170.00; DOWNSTREAM ELEVATION(FT) =     135.00
  CHANNEL LENGTH(FT) =    6064.09     MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
===============================================================================


*******************************************************************************
   FLOW PROCESS FROM NODE    134.00 TO NODE    137.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
===============================================================================
  WATERSHED AREA =    1240.700 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.411 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.237; LOW LOSS FRACTION = 0.441
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
   3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


*******************************************************************************
   FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
===============================================================================


*******************************************************************************
   FLOW PROCESS FROM NODE    137.00 TO NODE    137.00 IS CODE =   6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
===============================================================================


*******************************************************************************
   FLOW PROCESS FROM NODE    137.00 TO NODE    138.00 IS CODE = 5.2
-------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
===============================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
```

```
ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
(Reference: the National Engineering Handbook, Hydrology,
Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

ASSUMED REGULAR CHANNEL INFORMATION:
BASEWIDTH(FT) = 100.00      CHANNEL Z =  4.00
UPSTREAM ELEVATION(FT) =      135.00; DOWNSTREAM ELEVATION(FT) =      119.70
CHANNEL LENGTH(FT) =    4643.67      MANNING'S FACTOR = 0.030
CONSTANT LOSS RATE(CFS) =    0.00
================================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE    137.00 TO NODE    138.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =    1303.500 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.514 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.267; LOW LOSS FRACTION = 0.495
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
   3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932


*******************************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =   7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================



*******************************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    138.00 IS CODE =   6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================



*******************************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    139.00 IS CODE = 5.2
-------------------------------------------------------------------------------
  >>>>>MODEL CHANNEL ROUTING OF STREAM #1 BY THE CONVEX METHOD<<<<<
================================================================================
  THE MODIFIED C-ROUTING COEFFICIENT IS ESTIMATED IN ORDER TO
  ROUTE THE STREAM 1 INFLOW HYDROGRAPH BY 5-MINUTE INTERVALS
  (Reference: the National Engineering Handbook, Hydrology,
  Chapter 17, page 17-52, August,1972, U.S. Department of Commerce).

  ASSUMED REGULAR CHANNEL INFORMATION:
  BASEWIDTH(FT) = 100.00      CHANNEL Z =  4.00
  UPSTREAM ELEVATION(FT) =      119.70; DOWNSTREAM ELEVATION(FT) =      100.00
  CHANNEL LENGTH(FT) =    3107.78      MANNING'S FACTOR = 0.030
  CONSTANT LOSS RATE(CFS) =    0.00
```

```
================================================================================


*******************************************************************************
  FLOW PROCESS FROM NODE    138.00 TO NODE    139.00 IS CODE =   1
-------------------------------------------------------------------------------
  >>>>>SUBAREA RUNOFF (UNIT-HYDROGRAPH ANALYSIS) ADDED TO STREAM #2<<<<<
================================================================================
  WATERSHED AREA =     428.000 ACRES; BASEFLOW =   0.000 CFS/SQUARE-MILE
  *USER ENTERED "LAG" TIME =    0.244 HOURS
  VALLEY(DEVELOPED) S-GRAPH SELECTED
  MAXIMUM WATERSHED LOSS RATE(INCH/HOUR) =  0.207; LOW LOSS FRACTION = 0.487
  SPECIFIED PEAK RAINFALL DEPTHS(INCH):
  5-MINUTE =  0.37; 30-MINUTE =  0.80;  1-HOUR =  1.06
   3-HOUR =  1.78;    6-HOUR =  2.47; 24-HOUR =  4.12
  *USER SPECIFIED PRECIPITATION DEPTH-AREA REDUCTION FACTORS:
  5-MINUTE = 0.286; 30-MINUTE = 0.348;  1-HOUR = 0.391
   3-HOUR = 0.733;    6-HOUR = 0.885; 24-HOUR = 0.932



*******************************************************************************
  FLOW PROCESS FROM NODE    139.00 TO NODE    139.00 IS CODE =   7
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 ADDED TO STREAM NUMBER 1<<<<<
================================================================================



*******************************************************************************
  FLOW PROCESS FROM NODE    139.00 TO NODE    139.00 IS CODE =   6
-------------------------------------------------------------------------------
  >>>>>STREAM NUMBER 2 CLEARED AND SET TO ZERO<<<<<
================================================================================



*******************************************************************************
  FLOW PROCESS FROM NODE    139.00 TO NODE    139.00 IS CODE =  11
-------------------------------------------------------------------------------
  >>>>>VIEW STREAM NUMBER 1 HYDROGRAPH<<<<<
================================================================================
================================================================================
```

|INPUT FILENAME: [EV50139F.DAT   ]
Page: 1 of

UPSTREAM NODE #	DOWNSTREAM NODE #	HYDROLOGIC/HYDRAULIC PROCESS		UPSTREAM PEAK (CFS)	DOWNSTREAM PEAK (CFS)	TIME(2) TO PEAK (HR)	MAX. STORAGE MODELED (AF)	FOOTNOTES
10100.00	119.00	Subarea (UH) Added to Stream #1		0.0	16432.4	18.083		
119.00	12603.00	Convex Routing:	Stream #1	16432.4	16327.0	18.083		
810.00	809.00	Subarea (UH) Added to Stream #2		0.0	98.9	16.250		
12603.00	12603.00	Stream #2 Added to:	Stream #1	16327.0	16355.6	18.083		
12603.00	12603.00	Zero Out:	Stream #2	98.9	0.0			
12603.00	126.00	Convex Routing:	Stream #1	16355.6	16341.9	18.167		
920.00	905.00	Subarea (UH) Added to Stream #2		0.0	253.6	16.250		
126.00	126.00	Stream #2 Added to:	Stream #1	16341.9	16418.8	18.167		
126.00	126.00	Zero Out:	Stream #2	253.6	0.0			
600.00	126.00	Subarea (UH) Added to Stream #2		0.0	74.0	16.333		
126.00	126.00	Stream #2 Added to:	Stream #1	16418.8	16434.6	18.167		
126.00	126.00	Zero Out:	Stream #2	74.0	0.0			
126.00	12720.50	Convex Routing:	Stream #1	16434.6	16427.4	18.250		
320.00	331.00	Subarea (UH) Added to Stream #2		0.0	374.3	16.333		
400.00	331.00	Subarea (UH) Added to Stream #3		0.0	245.1	16.333		
390.00	331.00	Subarea (UH) Added to Stream #4		0.0	42.1	16.417		
331.00	331.00	Stream #4 Added to:	Stream #2	374.3	413.2	16.333		
331.00	331.00	Zero Out:	Stream #4	42.1	0.0			
331.00	331.00	Stream #3 Added to:	Stream #2	413.2	658.3	16.333		
331.00	331.00	Zero Out:	Stream #3	245.1	0.0			
331.00	12720.50	Stream #2 Added to:	Stream #1	16427.4	16665.7	17.167		
12720.50	12720.50	Zero Out:	Stream #2	658.3	0.0			
12720.50	127.00	Convex Routing:	Stream #1	16665.7	16653.6	17.250		
12710.00	127.00	Subarea (UH) Added to Stream #2		0.0	213.0	16.500		
127.00	127.00	Stream #2 Added to:	Stream #1	16653.6	16771.0	17.250		
127.00	127.00	Zero Out:	Stream #2	213.0	0.0			
50150.00	127.00	Subarea (UH) Added to Stream #2		0.0	367.0	16.417		
127.00	127.00	Stream #2 Added to:	Stream #1	16771.0	16993.2	17.250		
127.00	127.00	Zero Out:	Stream #2	367.0	0.0			
127.00	129.00	Convex Routing:	Stream #1	16993.2	16967.1	17.417		
50300.00	129.00	Subarea (UH) Added to Stream #2		0.0	203.6	16.417		
129.00	129.00	Stream #2 Added to:	Stream #1	16967.1	17064.7	17.417		
129.00	129.00	Zero Out:	Stream #2	203.6	0.0			
210.00	221.00	Subarea (UH) Added to Stream #2		0.0	112.9	16.333		
222.00	129.00	Stream #2 Added to:	Stream #1	17064.7	17116.9	17.333		
129.00	129.00	Zero Out:	Stream #2	112.9	0.0			
129.00	133.00	Convex Routing:	Stream #1	17116.9	17106.3	17.417		
13010.00	132.00	Subarea (UH) Added to Stream #2		0.0	1275.6	16.833		
132.00	13305.00	Convex Routing:	Stream #2	1275.6	1257.8	17.333		
13305.00	133.00	Convex Routing:	Stream #2	1257.8	1244.9	17.583		

|Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT INTERVAL
| 3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF THE DESIGN STORM

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+-------------------+------------------------------+---------------------+------------+-----------+
|UPSTREAM  DOWNSTREAM|                             | UPSTREAM   DOWNSTREAM|
TIME(2) TO | MAX. STORAGE|             |
| NODE #      NODE # | HYDROLOGIC/HYDRAULIC PROCESS |PEAK (CFS)   PEAK (CFS)|
PEAK (HR)  | MODELED (AF)| FOOTNOTES |
+-------------------+------------------------------+---------------------+------------+-----------+
|   132.00     133.00| Subarea (UH) Added to Stream #3|     0.0       580.9|
16.667 |           |           |
|   133.00     133.00| Stream #3 Added to:    Stream #2|  1244.9      1664.8|
17.500 |           |           |
|   133.00     133.00| Zero Out:         Stream #3|   580.9         0.0|
|           |           |
|   133.00     133.00| Stream #2 Added to:    Stream #1| 17106.3     18765.5|
17.500 |           |           |
|   133.00     133.00| Zero Out:         Stream #2|  1664.8         0.0|
|           |           |
+-------------------+------------------------------+---------------------+------------+-----------+
|   133.00     134.00| Convex Routing:       Stream #1| 18765.5     18746.0|
17.667 |           |           |
|   133.00     134.00| Subarea (UH) Added to Stream #2|     0.0       658.2|
16.417 |           |           |
|   134.00     134.00| Stream #2 Added to:    Stream #1| 18746.0     19066.8|
17.583 |           |           |
|   134.00     134.00| Zero Out:         Stream #2|   658.2         0.0|
|           |           |
| 13500.00     134.00| Subarea (UH) Added to Stream #2|     0.0      1035.5|
17.333 |           |           |
+-------------------+------------------------------+---------------------+------------+-----------+
|   134.00     134.00| Stream #2 Added to:    Stream #1| 19066.8     20087.4|
17.583 |           |           |
|   134.00     134.00| Zero Out:         Stream #2|  1035.5         0.0|
|           |           |
|   134.00     137.00| Convex Routing:       Stream #1| 20087.4     20060.3|
17.750 |           |           |
|   134.00     137.00| Subarea (UH) Added to Stream #2|     0.0       448.5|
16.500 |           |           |
|   137.00     137.00| Stream #2 Added to:    Stream #1| 20060.3     20282.3|
17.750 |           |           |
+-------------------+------------------------------+---------------------+------------+-----------+
|   137.00     137.00| Zero Out:         Stream #2|   448.5         0.0|
|           |           |
|   137.00     138.00| Convex Routing:       Stream #1| 20282.3     20269.1|
17.833 |           |           |
|   137.00     138.00| Subarea (UH) Added to Stream #2|     0.0       405.4|
16.583 |           |           |
|   138.00     138.00| Stream #2 Added to:    Stream #1| 20269.1     20486.0|
17.833 |           |           |
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|   138.00     138.00| Zero Out:               Stream #2|      405.4          0.0|
|              |          |
 +------------------+---------------------------------+---------------------+-
----------+------------+-----------+
|   138.00     139.00| Convex Routing:         Stream #1|    20486.0      20474.6|
17.917 |          |          |
|   138.00     139.00| Subarea (UH) Added to Stream #2|        0.0        198.7|
16.333 |          |          |
|   139.00     139.00| Stream #2 Added to:     Stream #1|    20474.6      20538.2|
17.917 |          |          |
|   139.00     139.00| Zero Out:               Stream #2|      198.7          0.0|
|              |          |
|   139.00     139.00| View:                   Stream #1|                 20538.2|
17.917 |    17339.83|     3    |
 +------------------+---------------------------------+---------------------+-
----------+------------+-----------+
 +------------------+---------------------------------+---------------------+-
----------+------------+-----------+
 |Notes: 1 = BASIN MODEL VOLUME EXCEEDED; 2 = TIME IS AT END OF 5-MINUTE UNIT
INTERVAL                               |
 |       3 = RUNOFF ESTIMATES DO NOT EXTEND PAST 2 DAYS AFTER THE PEAK DAY OF
THE DESIGN STORM                       |
 +------------------------------------------------------------------------------
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   END OF FLOODSCx ROUTING ANALYSIS