

COAL PILE SEDIMENT POND
10 YEAR, 24 HOUR STORM
PHASE ONE

July 11, 1994

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*****
*          (program name)          * SEDIMOT S/N   : 1353220014      *
*          (program description)   * HMVersion    : 3.20              *
*                                   * Date         : 5/25/94        *
*                                   * Time        : 9:56:23        *
*                                   * Input file   : csp1024.in     *
*                                   * Output file  : csp1024.out    *
*                                   *                   *
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XXXXXX  XXXXXXXX  XXXXXXXX  XXXXXX  X      X      XXXXXX  XXXXXXXX
X      X  X      X      X      X      XX     XX   X      X      X
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::: Full Microcomputer Implementation :::
::: by :::
::: Haestad Methods, Inc. :::
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37 Brookside Road * Waterbury, Connecticut 06708 * (203) 755-1666

UNIVERSITY OF KENTUCKY COMPUTER MODEL
OF SURFACE MINE HYDROLOGY AND SEDIMENTOLOGY
FOR MORE INFORMATION CONTACT THE AGRICULTURAL
ENGINEERING DEPARTMENT

THE UK MODEL IS A DESIGN MODEL DEVELOPED TO PREDICT
THE HYDRAULIC AND SEDIMENT RESPONSE FROM SURFACE
MINED LANDS FOR A SPECIFIED RAINFALL EVENT (SINGLE STORM)

VERSION DATE 5-25-83

DISCLAIMER: NEITHER THE UNIVERSITY NOR ANY OF ITS EMPLOYEES
ACCEPT ANY RESPONSIBILITY OR LEGAL LIABILITY FOR THE
CONCLUSIONS DRAWN FROM THE RESULTS OF THIS MODEL

WATERSHED IDENTIFICATION CODE

COAL PILE SEDIMENT POND 10 YEAR 24 HOUR STORM Phase 1 Reclam

===== STORM INPUT =====

QUESTION
NO.

1. STORM TYPE -	SCS'S TYPE 2
2. RAINFALL DEPTH -	1.84 INCHES
3. STORM DURATION -	24.00 HOURS
4. TIME INCREMENT -	.10 HOURS

=====

===== WATERSHED DATA =====

QUESTION
NO.

1. NUMBER OF JUNCTIONS -	1
2. JUNCTION	NUMBER OF BRANCHES

10 15.00
 11 13.80
 12 12.30
 13 11.00
 14 10.00
 15 .00

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===== STRUCTURE INPUT FOR JUNCTION #1 =====

BRANCH	NUMBER OF STRUCTURES
1	1

=====

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1	2	3
1	PRIOR J OR S TO STRUCTURE 1	TIME .00	MUSK. K .00	MUSK. X, .00

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===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION NO.

1. NUMBER OF SUBWATERSHEDS - 2
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - POND

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* * * * *
 JUNCTION 1, BRANCH 1, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	2.00	84.00	.090	.000	.000	.00	.0
2	.30	90.00	.020	.000	.000	.00	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	300.0	1.00	.850	1.0	.0
2	1	.20	50.0	1.00	.850	1.0	.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.39	.63	.99	.088	1.000	1.000
2	.30	.96	.11	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	24.00	HOURS
PRECIPITATION DEPTH	=	1.84	INCHES
RUNOFF VOLUME	=	.1295	ACRE-FT
PEAK DISCHARGE	=	1.6849	CFS
AREA	=	2.3000	ACRES
TIME OF PEAK DISCHARGE	=	12.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	12374.97	MG/L
PEAK SETTLEABLE CONCENTRATION	=	5.9150	ML/L
PEAK SETTLEABLE CONCENTRATION	=	10351.23	MG/L
TOTAL SEDIMENT YIELD	=	1.0910	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	12.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	12.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	3.10	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	3.10	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	1.39	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.75	ML/L

===== POND INPUT =====

QUESTION

- NO.
- 1. TIME INCREMENT OF THE ROUTED HYDROGRAPH - .10 HOURS
- 2. NON-IDEAL SETTLING CORRECTION FACTOR - 1.00
- 3. PERCENT OF PERMANENT POOL THAT IS DEAD SPACE - 10.00
- 4. OUTFLOW WITHDRAWAL OPTION - SURFACE
- 5. INFLOW VERTICAL CONCENTRATION - COMP. MIXED

6. NUMBER OF STAGE POINTS -	7
7. NUMBER OF ROUTED HYDROGRAPH POINTS -	500
8. STAGE-DISCHARGE OPTION -	INPUT
9. OUTPUT OPTION -	SUM. TABLES
10. NUMBER OF CONTINUOUS STIRRED REACTORS	3

=====

* * * * *

POND RESULTS

* * * * *

***** BASIN GEOMETRY *****

STAGE (FT)	AREA (ACRES)	AVERAGE DEPTH (FT)	DISCHARGE (CFS)	CAPACITY (ACRES-FT)
.00	.200	.00	.00	.00
1.00	.230	.97	.00	.22
1.50	.250	1.44	.00	.34
2.50	.280	2.35	.01	.60
3.00	.300	2.79	1.50	.75
3.50	.310	3.23	3.00	.90
4.00	.330	3.67	5.00	1.06

***** STORM EVENT SUMMARY *****

TURBULENCE FACTOR	=	1.00	
PERMANENT POOL CAPACITY	=	.335	ACRE-FT
DEAD STORAGE	=	10.00	PERCENT
TIME INCREMENT OUTFLOW	=	.10	HRS
VISCOSITY	=	.009	CM**2/SEC
INFLOW RUNOFF VOLUME	=	.129	ACRE-FT
OUTFLOW ROUTED VOLUME	=	.014	ACRE-FT
STORM VOLUME DISCHARGED	=	.014	ACRE-FT
POND VOLUME AT PEAK STAGE	=	.455	ACRE-FT
PEAK STAGE	=	1.951	FT
PEAK INFLOW RATE	=	1.685	CFS
PEAK DISCHARGE RATE	=	.005	CFS
PEAK INFLOW SEDIMENT CONCENTRATION	=	12374.97	MG/L
PEAK EFFLUENT SEDIMENT CONCENTRATION	=	19.59	MG/L
PEAK EFFLUENT SETTLEABLE CONCENTRATION	=	.0000	ML/L
PEAK EFFLUENT SETTLEABLE CONCENTRATION	=	.00	MG/L
STORM AVERAGE EFFLUENT CONCENTRATION	=	17.29	MG/L
AVERAGE EFFLUENT SEDIMENT CONCENTRATION	=	17.29	MG/L
BASIN TRAP EFFICIENCY	=	99.97	PERCENT
DETENTION TIME OF FLOW WITH SEDIMENT	=	17.51	HRS
DETENTION TIME FROM HYDROGRAPH CENTERS	=	17.51	HRS
DETENTION TIME INCLUDING STORED FLOW	=	17.51	HRS

SEDIMENT LOAD DISCHARGED	=	.00	TONS
PERIOD OF SIGNIFICANT CONCENTRATION	=	38.40	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L

*** RUN COMPLETED ****

COAL PILE SEDIMENT POND

25 YEAR, 6 HOUR STORM

PHASE ONE

July 11, 1994

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*****
*          (program name)          * SEDIMOT S/N : 1353220014 *
*          (program description)   * HMVersion  : 3.20      *
*                                   * Date       : 5/25/94   *
*                                   * Time      : 9:56:56   *
*                                   * Input file  : csp256.in   *
*                                   * Output file : csp256.out  *
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VERSION DATE 5-25-83

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WATERSHED IDENTIFICATION CODE

COAL PILE SEDIMENT POND 25 YEAR 6 HOUR STORM Phase 1 Reclama

===== STORM INPUT =====

QUESTION
NO.

1. STORM TYPE -	SCS'S TYPE 2
2. RAINFALL DEPTH -	1.62 INCHES
3. STORM DURATION -	6.00 HOURS
4. TIME INCREMENT -	.10 HOURS

=====

===== WATERSHED DATA =====

QUESTION
NO.

1. NUMBER OF JUNCTIONS -	1
2. JUNCTION	NUMBER OF BRANCHES

1 1
3. COMPUTATION - BOTH HYDROLOGY AND SEDIMENTOLOGY

===== SEDIMENTOLOGY INPUTS =====

QUESTION
NO.

1. SPECIFIC GRAVITY -	2.75
2. COEFFICIENT FOR DISTRIBUTING SEDIMENT LOAD -	1.50
3. SUBMERGED BULK SPECIFIC GRAVITY -	1.75
4. NUMBER OF PARTICLE SIZE DISTRIBUTIONS -	1
5. NUMBER OF DATA VALUES PER PARTICLE SIZE DISTRIBUTION -	15

===== INPUT PARTICLE SIZE DISTRIBUTIONS =====

VALUE NO.	SIZE, MM
1	13.0000
2	2.0000
3	.4250
4	.2500
5	.1500
6	.0750
7	.0500
8	.0300
9	.0200
10	.0100
11	.0080
12	.0060
13	.0040
14	.0020
15	.0001

===== PERCENT FINER DISTRIBUTIONS =====

VALUE NO.	PARTICLE SIZE #
1	94.30
2	83.70
3	78.00
4	73.30
6	66.30
7	45.00
8	34.00
9	26.30
	20.30

10 15.00
 11 13.80
 12 12.30
 13 11.00
 14 10.00
 15 .00

=====

===== STRUCTURE INPUT FOR JUNCTION #1 =====

BRANCH	NUMBER OF STRUCTURES
1	1

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1	2	3
1	PRIOR J OR S TO STRUCTURE 1	TIME .00	MUSK. K .00	MUSK. X, .00

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

NO.
 1. NUMBER OF SUBWATERSHEDS - 2
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - POND

* * * * *
 JUNCTION 1, BRANCH 1, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	2.00	84.00	.090	.000	.000	.00	.0
2	.30	90.00	.020	.000	.000	.00	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	300.0	1.00	.850	1.0	.0
2	1	.20	50.0	1.00	.850	1.0	.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.67	.				

49 .95 .088 1.000 1.000
 2 .36 .78 .11 .088 1.000 1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

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-----
STORM DURATION = 6.00 HOURS
PRECIPITATION DEPTH = 1.62 INCHES
RUNOFF VOLUME = .1009 ACRE-FT
PEAK DISCHARGE = 2.0348 CFS
AREA = 2.3000 ACRES
TIME OF PEAK DISCHARGE = 3.00 HRS
LOAD RATE EXPONENT FACTOR = 1.50
BETA = 1.0000
SUBMERGE BULK SPECIFIC GRAVITY = 1.75
RAINFALL EROSITIVITY FACTOR = 24.10 EI UNIT
PEAK CONCENTRATION = 12746.19 MG/L
PEAK SETTLEABLE CONCENTRATION = 6.0924 ML/L
PEAK SETTLEABLE CONCENTRATION = 10661.74 MG/L
TOTAL SEDIMENT YIELD = 1.0508 TONS
REPRESENTATIVE PARTICLE SIZE = .0883 MM
TIME OF PEAK CONCENTRATION = 3.00 HRS

PERIOD OF SIGNIFICANT CONCENTRATION= 3.30 HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE
CONCENTRATION DURING PERIOD OF
SIGNIFICANT CONCENTRATION = 3.72 ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE
CONCENTRATION DURING PEAK 24 HOUR
PERIOD = 3.72 ML/L
ARITHMETIC AVERAGE SETTLEABLE
CONCENTRATION DURING PERIOD OF
SIGNIFICANT CONCENTRATION = 2.28 ML/L
ARITHMETIC AVERAGE SETTLEABLE
CONCENTRATION DURING PEAK 24 HOUR
PERIOD = .31 ML/L
  
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===== POND INPUT =====

QUESTION

- NO.
1. TIME INCREMENT OF THE ROUTED HYDROGRAPH - .10 HOURS
 2. NON-IDEAL SETTLING CORRECTION FACTOR - 1.00
 3. PERCENT OF PERMANENT POOL THAT IS DEAD SPACE - 10.00
 4. OUTFLOW WITHDRAWAL OPTION - SURFACE
 5. INFLOW VERTICAL CONCENTRATION - COMP. MIXED
 6. NUMBER OF STAGE POINTS - 7
 7. NUMBER OF ROUTED HYDROGRAPH POINTS - 500
 8. STAGE-DISCHARGE OPTION - INPUT
 9. OUTPUT OPTION - SUM. TABLES
 10. NUMBER OF CONTINUOUS STIRRED REACTORS 3

=====

* * * * *

POND RESULTS

6

* * * * *

***** BASIN GEOMETRY *****

STAGE (FT)	AREA (ACRES)	AVERAGE DEPTH (FT)	DISCHARGE (CFS)	CAPACITY (ACRES-FT)
.00	.200	.00	.00	.00
1.00	.230	.97	.00	.22
1.50	.250	1.44	.00	.34
2.50	.280	2.35	.01	.60
3.00	.300	2.79	1.50	.75
3.50	.310	3.23	3.00	.90
4.00	.330	3.67	5.00	1.06

***** STORM EVENT SUMMARY *****

TURBULENCE FACTOR	=	1.00	
PERMANENT POOL CAPACITY	=	.335	ACRE-FT
DEAD STORAGE	=	10.00	PERCENT
TIME INCREMENT OUTFLOW	=	.10	HRS
VISCOSITY	=	.009	CM**2/SEC
INFLOW RUNOFF VOLUME	=	.101	ACRE-FT
OUTFLOW ROUTED VOLUME	=	.014	ACRE-FT
STORM VOLUME DISCHARGED	=	.014	ACRE-FT
POND VOLUME AT PEAK STAGE	=	.433	ACRE-FT
PEAK STAGE	=	1.870	FT
PEAK INFLOW RATE	=	2.035	CFS
PEAK DISCHARGE RATE	=	.004	CFS
PEAK INFLOW SEDIMENT CONCENTRATION	=	12746.19	MG/L
PEAK EFFLUENT SEDIMENT CONCENTRATION	=	15.17	MG/L
PEAK EFFLUENT SETTLEABLE CONCENTRATION	=	.0000	ML/L
PEAK EFFLUENT SETTLEABLE CONCENTRATION	=	.00	MG/L
STORM AVERAGE EFFLUENT CONCENTRATION	=	13.73	MG/L
AVERAGE EFFLUENT SEDIMENT CONCENTRATION	=	13.73	MG/L
BASIN TRAP EFFICIENCY	=	99.98	PERCENT
DETENTION TIME OF FLOW WITH SEDIMENT	=	22.66	HRS
DETENTION TIME FROM HYDROGRAPH CENTERS	=	22.66	HRS
DETENTION TIME INCLUDING STORED FLOW	=	22.66	HRS
SEDIMENT LOAD DISCHARGED	=	.00	TONS
PERIOD OF SIGNIFICANT CONCENTRATION	=	47.30	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L

COAL PILE SEDIMENT POND

10 YEAR, 6 HOUR STORM

PHASE TWO

July 11, 1994

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*****
*          (program name)          * SEDIMOT S/N : *
*          (program description)   * HMVersion  : 3.20 *
*                                   * Date       : 5/27/94 *
*                                   * Time      : 14:38:13 *
*                                   * Input file  : CPSP1062.IN *
*                                   * Output file : CPSP1062.OUT *
*                                   * * *
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WATERSHED IDENTIFICATION CODE

COAL PILE SEDIMENT POND 10 YEAR 6 HOUR STORM Phase 2 Reclama

===== STORM INPUT =====

QUESTION
NO.

1. STORM TYPE -	SCS'S TYPE 2
2. RAINFALL DEPTH -	1.31 INCHES
3. STORM DURATION -	6.00 HOURS
4. TIME INCREMENT -	.10 HOURS

=====

===== WATERSHED DATA =====

QUESTION
NO.

1. NUMBER OF JUNCTIONS -	1
2. JUNCTION	NUMBER OF BRANCHES

2

1 1
3. COMPUTATION - BOTH HYDROLOGY AND SEDIMENTOLOGY

=====

===== SEDIMENTOLOGY INPUTS =====

QUESTION

NO.		
1.	SPECIFIC GRAVITY -	2.75
2.	COEFFICIENT FOR DISTRIBUTING SEDIMENT LOAD -	1.50
3.	SUBMERGED BULK SPECIFIC GRAVITY -	1.75
4.	NUMBER OF PARTICLE SIZE DISTRIBUTIONS -	1
5.	NUMBER OF DATA VALUES PER PARTICLE SIZE DISTRIBUTION -	15

=====

===== INPUT PARTICLE SIZE DISTRIBUTIONS =====

VALUE NO.	SIZE, MM
1	13.0000
2	2.0000
3	.4250
4	.2500
5	.1500
6	.0750
7	.0500
8	.0300
9	.0200
10	.0100
11	.0080
12	.0060
13	.0040
14	.0020
15	.0001

=====

===== PERCENT FINER DISTRIBUTIONS =====

VALUE NO.	PARTICLE SIZE #
	1
1	94.30
2	83.70
3	78.00
4	73.30
5	66.30
6	45.00
7	34.00
8	26.30
9	20.30

10 15.00
 11 13.80
 12 12.30
 13 11.00
 14 10.00
 15 .00

=====

===== STRUCTURE INPUT FOR JUNCTION #1 =====

BRANCH	NUMBER OF STRUCTURES
1	1

=====

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

=====

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION NO.
 1. NUMBER OF SUBWATERSHEDS - 2
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

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* * * * *
 JUNCTION 1, BRANCH 1, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	2.00	69.00	.090	.000	.000	.00	.0
2	.30	69.00	.020	.000	.000	.00	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	300.0	1.00	.250	1.0	.0
2	1	.20	50.0	1.00	.250	1.0	.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.04	.03	.01	.088	1.000	1.000
2	.00	.03	.00	.001	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0066	ACRE-FT
PEAK DISCHARGE	=	.0417	CFS
AREA	=	2.3000	ACRES
TIME OF PEAK DISCHARGE	=	3.50	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	1418.56	MG/L
PEAK SETTLEABLE CONCENTRATION	=	.6780	ML/L
PEAK SETTLEABLE CONCENTRATION	=	1186.57	MG/L
TOTAL SEDIMENT YIELD	=	.0080	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.50	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	2.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.51	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.51	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.50	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.06	ML/L

*** RUN COMPLETED ***

COAL PILE SEDIMENT POND

100 YEAR, 6 HOUR STORM

PHASE TWO

July 11, 1994

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*****
*          (program name)          * SEDIMOT S/N : *
*          (program description)   * HMVersion  : 3.20 *
*                                   * Date       : 5/27/94 *
*                                   * Time      : 14:37:56 *
*                                   * Input file : CPSP1006.IN *
*                                   * Output file: CPSP1006.OUT *
*                                   * * *
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::: Full Microcomputer Implementation :::
::: by :::
::: Haestad Methods, Inc. :::
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37 Brookside Road * Waterbury, Connecticut 06708 * (203) 755-1666

UNIVERSITY OF KENTUCKY COMPUTER MODEL
OF SURFACE MINE HYDROLOGY AND SEDIMENTOLOGY
FOR MORE INFORMATION CONTACT THE AGRICULTURAL
ENGINEERING DEPARTMENT

THE UK MODEL IS A DESIGN MODEL DEVELOPED TO PREDICT
THE HYDRAULIC AND SEDIMENT RESPONSE FROM SURFACE
MINED LANDS FOR A SPECIFIED RAINFALL EVENT (SINGLE STORM)

VERSION DATE 5-25-83

DISCLAIMER: NEITHER THE UNIVERSITY NOR ANY OF ITS EMPLOYEES
ACCEPT ANY RESPONSIBILITY OR LEGAL LIABILITY FOR THE
CONCLUSIONS DRAWN FROM THE RESULTS OF THIS MODEL

WATERSHED IDENTIFICATION CODE

COAL PILE SEDIMENT POND 100 YEAR 6 HOUR STORM Phase 2 Reclam

===== STORM INPUT =====

QUESTION
NO.

1. STORM TYPE -	SCS'S TYPE 2
2. RAINFALL DEPTH -	2.05 INCHES
3. STORM DURATION -	6.00 HOURS
4. TIME INCREMENT -	.10 HOURS

=====

===== WATERSHED DATA =====

QUESTION
NO.

1. NUMBER OF JUNCTIONS -	1
2. JUNCTION	NUMBER OF BRANCHES

10 15.00
 11 13.80
 12 12.30
 13 11.00
 14 10.00
 15 .00

=====

===== STRUCTURE INPUT FOR JUNCTION #1 =====

BRANCH	NUMBER OF STRUCTURES
1	1

=====

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1	2	3
1	PRIOR J OR S TO STRUCTURE 1	TIME .00	MUSK. K .00	MUSK. X, .00

=====

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

NO.
 1. NUMBER OF SUBWATERSHEDS - 2
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

=====

* * * * *
 JUNCTION 1, BRANCH 1, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	2.00	69.00	.090	.000	.000	.00	.0
2	.30	69.00	.020	.000	.000	.00	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	300.0	1.00	.250	1.0	.0
2	1	.20	50.0	1.00	.250	1.0	.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.84	.23	.13	.088	1.000	1.000
2	.13	.23	.01	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	2.05	INCHES
RUNOFF VOLUME	=	.0450	ACRE-FT
PEAK DISCHARGE	=	.9680	CFS
AREA	=	2.3000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	40.00	EI UNIT
PEAK CONCENTRATION	=	4149.91	MG/L
PEAK SETTLEABLE CONCENTRATION	=	1.9836	ML/L
PEAK SETTLEABLE CONCENTRATION	=	3471.26	MG/L
TOTAL SEDIMENT YIELD	=	.1345	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.10	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	1.09	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	1.09	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.79	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.10	ML/L

*** RUN COMPLETED ***

COARSE REFUSE TOE POND

10 YEAR, 6 HOUR STORM

PHASE ONE

July 11, 1994

```

*****
*          (program name)          * SEDIMOT S/N   : 1353220014      *
*          (program description)   * HMVersion    : 3.20              *
*                                   * Date         : 5/25/94        *
*                                   * Time        : 16:06:15       *
*                                   * Input file   : crt106.in     *
*                                   * Output file  : crt106.out    *
*                                   *                  *
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::: Full Microcomputer Implementation :::
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WATERSHED IDENTIFICATION CODE

COARSE REFUSE TOE POND 10 YEAR, 6 HOUR STORM Phase 1 Reclam

===== STORM INPUT =====

QUESTION
NO.

1. STORM TYPE -	SCS'S TYPE 2
2. RAINFALL DEPTH -	1.31 INCHES
3. STORM DURATION -	6.00 HOURS
4. TIME INCREMENT -	.10 HOURS

=====

===== WATERSHED DATA =====

QUESTION
NO.

1. NUMBER OF JUNCTIONS -	2
2. JUNCTION	NUMBER OF BRANCHES

1
2

2
1

3. COMPUTATION - BOTH HYDROLOGY AND SEDIMENTOLOGY

===== SEDIMENTOLOGY INPUTS =====

QUESTION

NO.

1. SPECIFIC GRAVITY -	2.75
2. COEFFICIENT FOR DISTRIBUTING SEDIMENT LOAD -	1.50
3. SUBMERGED BULK SPECIFIC GRAVITY -	1.75
4. NUMBER OF PARTICLE SIZE DISTRIBUTIONS -	1
5. NUMBER OF DATA VALUES PER PARTICLE SIZE DISTRIBUTION -	15

===== INPUT PARTICLE SIZE DISTRIBUTIONS =====

VALUE NO.	SIZE, MM
1	13.0000
2	2.0000
3	.4250
4	.2500
5	.1500
6	.0750
7	.0500
8	.0300
9	.0200
10	.0100
11	.0080
12	.0060
13	.0040
14	.0020
15	.0001

===== PERCENT FINER DISTRIBUTIONS =====

VALUE NO.	PARTICLE SIZE #
1	1
1	94.30
2	83.70
3	78.00
4	73.30
5	66.30
6	45.00
7	34.00
8	26.30

9	20.30
10	15.00
11	13.80
12	12.30
13	11.00
14	10.00
15	.00

=====

===== STRUCTURE INPUT FOR JUNCTION #1 =====

BRANCH	NUMBER OF STRUCTURES
1	3
2	1

=====

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
1	PRIOR J OR S TO STRUCTURE 2	.05	.05	.35
1	PRIOR J OR S TO STRUCTURE 3	.03	.03	.35
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

=====

===== STRUCTURE INPUT FOR JUNCTION #2 =====

BRANCH	NUMBER OF STRUCTURES
1	1

=====

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

=====

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION
NO.

1. NUMBER OF SUBWATERSHEDS - 1
2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

JUNCTION 1, BRANCH 1, STRUCTURE 1

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	2.30	84.00	.140	.040	.040	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	38.00	.850	1.0	1.0
	2	.20	450.0	1.10	.850	1.0	1.0

*** COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS ***

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.00	.30	24.69	.020	.409	.994

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0584	ACRE-FT
PEAK DISCHARGE	=	.9975	CFS
AREA	=	2.3000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	424064.70	MG/L
PEAK SETTLEABLE CONCENTRATION	=	150.2290	ML/L
PEAK SETTLEABLE CONCENTRATION	=	262900.70	MG/L
TOTAL SEDIMENT YIELD	=	24.5531	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0200	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS

PERIOD OF SIGNIFICANT CONCENTRATION= 3.80 HRS
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 95.13 ML/L
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 95.13 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 63.30 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 10.02 ML/L

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

NO.

1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

=====

* * * * *
 JUNCTION 1, BRANCH 1, STRUCTURE 2
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	2.50	84.00	.080	.020	.020	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	150.0	40.00	.850	1.0	1.0
	2	.20	250.0	5.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.35	.30	75.02	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0635	ACRE-FT
PEAK DISCHARGE	=	1.3463	CFS
AREA	=	2.5000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	972089.30	MG/L
PEAK SETTLEABLE CONCENTRATION	=	464.6340	ML/L
PEAK SETTLEABLE CONCENTRATION	=	813109.50	MG/L
TOTAL SEDIMENT YIELD	=	75.0201	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0882	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.20	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	307.64	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	307.64	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	217.85	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	29.05	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0500	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	1.00	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.10	HRS
TOTAL DRAINAGE AREA	=	4.80	ACRES
TOTAL RUNOFF VOLUME	=	.1218	AC-FT
PEAK RUNOFF DISCHARGE	=	2.12	CFS
TIME TO PEAK DISCHARGE	=	3.00	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0500	HRS
TOTAL SEDIMENT YIELD	=	99.5715	TONS
PEAK SEDIMENT CONCENTRATION	=	794033.70	MG/L
PEAK SETTLEABLE CONCENTRATION	=	354.1848	ML/L
PEAK SETTLEABLE CONCENTRATION	=	619823.50	MG/L
TIME TO PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.80	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	211.24	ML/L

VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 211.24 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 137.05 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 21.70 ML/L

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION
 NO.

1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

=====

* * * * *
 JUNCTION 1, BRANCH 1, STRUCTURE 3
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	.80	84.00	.060	.020	.020	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	70.0	40.00	.850	1.0	1.0
	2	.20	270.0	9.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.43	.30	14.14	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION = 6.00 HOURS

8

PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0203	ACRE-FT
PEAK DISCHARGE	=	.4308	CFS
AREA	=	.8000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	669851.70	MG/L
PEAK SETTLEABLE CONCENTRATION	=	320.1721	ML/L
PEAK SETTLEABLE CONCENTRATION	=	560301.20	MG/L
TOTAL SEDIMENT YIELD	=	14.1364	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0882	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.20	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	203.66	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	203.66	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	139.14	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	18.55	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0300	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	2.12	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.00	HRS
TOTAL DRAINAGE AREA	=	5.60	ACRES
TOTAL RUNOFF VOLUME	=	.1421	AC-FT
PEAK RUNOFF DISCHARGE	=	2.55	CFS
TIME TO PEAK DISCHARGE	=	3.00	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0300	HRS
TOTAL SEDIMENT YIELD	=	113.7007	TONS
PEAK SEDIMENT CONCENTRATION	=	774067.10	MG/L
PEAK SETTLEABLE CONCENTRATION	=	348.3067	ML/L
PEAK SETTLEABLE CONCENTRATION	=	609536.80	MG/L
TIME TO PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.80	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	210.35	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	210.35	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF			

SIGNIFICANT CONCENTRATION = 135.11 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 21.39 ML/L

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

NO.

1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

=====

* * * * *
 JUNCTION 1, BRANCH 2, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	.40	80.00	.040	.010	.010	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	65.0	40.00	.350	1.0	1.0
	2	.20	20.0	2.00	.350	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.14	.20	1.83	.081	.945	.997

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

 STORM DURATION = 6.00 HOURS
 PRECIPITATION DEPTH = 1.31 INCHES
 RUNOFF VOLUME = .0066 ACRE-FT
 PEAK DISCHARGE = .1437 CFS
 AREA = .4000 ACRES
 TIME OF PEAK DISCHARGE = 3.00 HRS
 LOAD RATE EXPONENT FACTOR = 1.50
 BETA = 1.0000

SUBMERGE BULK SPECIFIC GRAVITY = 1.75
 RAINFALL EROSIVITY FACTOR = 15.26 EI UNIT
 PEAK CONCENTRATION = 340208.80 MG/L
 PEAK SETTLEABLE CONCENTRATION = 160.7328 ML/L
 PEAK SETTLEABLE CONCENTRATION = 281282.40 MG/L
 TOTAL SEDIMENT YIELD = 1.8241 TONS
 REPRESENTATIVE PARTICLE SIZE = .0804 MM
 TIME OF PEAK CONCENTRATION = 3.00 HRS

PERIOD OF SIGNIFICANT CONCENTRATION= 2.30 HRS
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 99.31 ML/L
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 99.31 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 73.45 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 7.04 ML/L

===== STRUCTURE DATA FOR JUNCTION #2 =====

QUESTION

NO.

- 1. NUMBER OF SUBWATERSHEDS - 1
- 2. TYPE OF SEDIMENT CONTROL STRUCTURE - POND

=====

* * * * *
 JUNCTION 2, BRANCH 1, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	.80	80.00	.020	.000	.000	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	5.00	.850	1.0	.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.29	.20	.38	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0132	ACRE-FT
PEAK DISCHARGE	=	.2874	CFS
AREA	=	.8000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	38116.32	MG/L
PEAK SETTLEABLE CONCENTRATION	=	18.2188	ML/L
PEAK SETTLEABLE CONCENTRATION	=	31882.97	MG/L
TOTAL SEDIMENT YIELD	=	.3799	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION=		3.10	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE			
CONCENTRATION DURING PERIOD OF			
SIGNIFICANT CONCENTRATION	=	10.28	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE			
CONCENTRATION DURING PEAK 24 HOUR			
PERIOD	=	10.28	ML/L
ARITHMETIC AVERAGE SETTLEABLE			
CONCENTRATION DURING PERIOD OF			
SIGNIFICANT CONCENTRATION	=	7.04	ML/L
ARITHMETIC AVERAGE SETTLEABLE			
CONCENTRATION DURING PEAK 24 HOUR			
PERIOD	=	.91	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.00	
PREVIOUS MUSKINGUM ROUTING K	=	.0000	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	2.69	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.00	HRS
TOTAL DRAINAGE AREA	=	6.80	ACRES
TOTAL RUNOFF VOLUME	=	.1620	AC-FT
PEAK RUNOFF DISCHARGE	=	2.98	CFS
TIME TO PEAK DISCHARGE	=	3.00	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0000	HRS
TOTAL SEDIMENT YIELD	=	115.9048	TONS
PEAK SEDIMENT CONCENTRATION	=	702735.30	MG/L
PEAK SETTLEABLE CONCENTRATION	=	316.5208	ML/L
PEAK SETTLEABLE CONCENTRATION	=	553911.30	MG/L
TIME TO PEAK CONCENTRATION	=	3.00	HRS

PERIOD OF SIGNIFICANT CONCENTRATION = 3.80 HRS
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 193.84 ML/L
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 193.84 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 124.22 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 19.67 ML/L

===== POND INPUT =====

QUESTION

- NO.
1. TIME INCREMENT OF THE ROUTED HYDROGRAPH - .20 HOURS
 2. NON-IDEAL SETTLING CORRECTION FACTOR - 1.00
 3. PERCENT OF PERMANENT POOL THAT IS DEAD SPACE - 13.00
 4. OUTFLOW WITHDRAWAL OPTION - SURFACE
 5. INFLOW VERTICAL CONCENTRATION - COMP. MIXED
 6. NUMBER OF STAGE POINTS - 13
 7. NUMBER OF ROUTED HYDROGRAPH POINTS - 500
 8. STAGE-DISCHARGE OPTION - INPUT
 9. OUTPUT OPTION - GRAPHS
 10. NUMBER OF CONTINUOUS STIRRED REACTORS 2

=====

* * * * *

POND RESULTS

* * * * *

***** BASIN GEOMETRY *****

STAGE (FT)	AREA (ACRES)	AVERAGE DEPTH (FT)	DISCHARGE (CFS)	CAPACITY (ACRES-FT)
.00	.001	.00	.00	.00
1.00	.050	.52	.00	.03
2.00	.080	1.35	.00	.09
3.00	.100	2.15	.00	.18
4.00	.130	2.90	.00	.30
5.00	.160	3.60	.00	.44
6.00	.200	4.25	.00	.62
7.00	.250	4.84	.00	.85
7.63	.280	5.19	.00	1.01

7.70	.285	5.23	.28	1.03
7.90	.295	5.34	2.81	1.09
8.10	.305	5.45	7.67	1.15
8.40	.320	5.62	19.70	1.24

***** STORM EVENT SUMMARY *****

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-----
TURBULENCE FACTOR = 1.00
PERMANENT POOL CAPACITY = .296 ACRE-FT
DEAD STORAGE = 13.00 PERCENT
TIME INCREMENT OUTFLOW = .20 HRS
VISCOSITY = .009 CM**2/SEC
INFLOW RUNOFF VOLUME = .162 ACRE-FT
OUTFLOW ROUTED VOLUME = .004 ACRE-FT
STORM VOLUME DISCHARGED = .004 ACRE-FT
POND VOLUME AT PEAK STAGE = .455 ACRE-FT
PEAK STAGE = 5.083 FT
PEAK INFLOW RATE = 2.981 CFS
PEAK DISCHARGE RATE = .001 CFS
PEAK INFLOW SEDIMENT CONCENTRATION = 702735.30 MG/L
PEAK EFFLUENT SEDIMENT CONCENTRATION = 17779.05 MG/L
PEAK EFFLUENT SETTLEABLE CONCENTRATION = .0000 ML/L
PEAK EFFLUENT SETTLEABLE CONCENTRATION = .03 MG/L
STORM AVERAGE EFFLUENT CONCENTRATION = 13727.43 MG/L
AVERAGE EFFLUENT SEDIMENT CONCENTRATION = 13727.43 MG/L
BASIN TRAP EFFICIENCY = 99.94 PERCENT
DETENTION TIME OF FLOW WITH SEDIMENT = 23.03 HRS
DETENTION TIME FROM HYDROGRAPH CENTERS = 23.03 HRS
DETENTION TIME INCLUDING STORED FLOW = 23.03 HRS
SEDIMENT LOAD DISCHARGED = .07 TONS
PERIOD OF SIGNIFICANT CONCENTRATION = 47.20 HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE
CONCENTRATION DURING PERIOD OF
SIGNIFICANT CONCENTRATION = .00 ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE
CONCENTRATION DURING PEAK 24 HOUR
PERIOD = .00 ML/L
ARITHMETIC AVERAGE SETTLEABLE
CONCENTRATION DURING PERIOD OF
SIGNIFICANT CONCENTRATION = .00 ML/L
ARITHMETIC AVERAGE SETTLEABLE
CONCENTRATION DURING PEAK 24 HOUR
PERIOD = .00 ML/L

```

*** PARTICLE SIZE DISTRIBUTION OF SEDIMENT ***

SIZE,MM	13.0000	2.0000	.4250	.2500	.1500	.0750
PERCENT FINER	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
SIZE,MM	.0500	.0300	.0200	.0100	.0080	.0060
PERCENT FINER	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
SIZE,MM	.0040	.0020	.0001			
PERCENT FINER	100.0000	100.0000	.0000			

*** HYDROGRAPH AND SEDIMENT GRAPH ***
 (TWO CONSECUTIVE VALUES PER LINE)

TIME (HR)	DISCHARGE (CFS)	SED DISC (MG/L)	***** *	TIME (HR)	DISCHARGE (CFS)	SED DISC (MG/L)
.00	.000	.000	*	.20	.000	.000
.40	.000	.000	*	.60	.000	.000
.80	.000	.000	*	1.00	.000	.000
1.20	.000	.000	*	1.40	.000	.000
1.60	.000	.000	*	1.80	.000	.000
2.00	.000	.000	*	2.20	.000	.000
2.40	.000	.000	*	2.60	.000	.000
2.80	.000	372.044	*	3.00	.000	7500.908
3.20	.000	14575.430	*	3.40	.001	16307.510
3.60	.001	17245.510	*	3.80	.001	17358.500
4.00	.001	17576.880	*	4.20	.001	17649.130
4.40	.001	17698.470	*	4.60	.001	17760.420
4.80	.001	17750.380	*	5.00	.001	17779.050
5.20	.001	17708.720	*	5.40	.001	17629.830
5.60	.001	17586.900	*	5.80	.001	17566.320
6.00	.001	17356.550	*	6.20	.001	17153.450
6.40	.001	16923.720	*	6.60	.001	16718.060
6.80	.001	16537.850	*	7.00	.001	16375.010
7.20	.001	16228.280	*	7.40	.001	16097.700
7.60	.001	15979.860	*	7.80	.001	15870.710
8.00	.001	15768.450	*	8.20	.001	15672.020
8.40	.001	15580.730	*	8.60	.001	15493.900
8.80	.001	15410.990	*	9.00	.001	15331.670
9.20	.001	15255.600	*	9.40	.001	15182.460
9.60	.001	15112.170	*	9.80	.001	15045.530
10.00	.001	14983.910	*	10.20	.001	14926.750
10.40	.001	14872.380	*	10.60	.001	14820.080
10.80	.001	14769.640	*	11.00	.001	14721.210
11.20	.001	14675.010	*	11.40	.001	14630.690
11.60	.001	14587.790	*	11.80	.001	14546.190
12.00	.001	14505.780	*	12.20	.001	14466.700
12.40	.001	14429.190	*	12.60	.001	14393.330
12.80	.001	14359.460	*	13.00	.001	14327.490
13.20	.001	14296.680	*	13.40	.001	14266.770
13.60	.001	14237.630	*	13.80	.001	14209.210
14.00	.001	14181.460	*	14.20	.001	14154.350
14.40	.001	14127.830	*	14.60	.001	14101.860
14.80	.001	14076.430	*	15.00	.001	14051.500
15.20	.001	14027.050	*	15.40	.001	14003.230
15.60	.001	13980.510	*	15.80	.001	13958.800
16.00	.001	13937.670	*	16.20	.001	13917.000
16.40	.001	13896.730	*	16.60	.001	13876.840
16.80	.001	13857.310	*	17.00	.001	13838.120
17.20	.001	13819.250	*	17.40	.001	13800.700
17.60	.001	13782.450	*	17.80	.001	13764.490
18.00	.001	13746.810	*	18.20	.001	13729.550
18.40	.001	13713.070	*	18.60	.001	13697.300
18.80	.001	13681.870	*	19.00	.001	13666.740
19.20	.001	13651.860	*	19.40	.001	13637.200
19.60	.001	13622.480	*	19.80	.001	13607.010
20.00	.001	13590.950	*	20.20	.001	13574.890
20.40	.001	13558.910	*	20.60	.001	13543.060
20.80	.001	13527.350	*	21.00	.001	13511.880

21.20	.001	13496.860	*	21.40	.001	13482.220
21.60	.001	13467.790	*	21.80	.001	13453.540
22.00	.001	13439.440	*	22.20	.001	13425.510
22.40	.001	13411.740	*	22.60	.001	13398.110
22.80	.001	13384.640	*	23.00	.001	13371.320
23.20	.001	13358.160	*	23.40	.001	13345.150
23.60	.001	13332.290	*	23.80	.001	13319.670
24.00	.001	13307.410	*	24.20	.001	13295.450
24.40	.001	13283.660	*	24.60	.001	13272.020
24.80	.001	13260.520	*	25.00	.001	13249.160
25.20	.001	13237.920	*	25.40	.001	13226.800
25.60	.001	13215.800	*	25.80	.001	13204.920
26.00	.001	13194.150	*	26.20	.001	13183.500
26.40	.001	13172.950	*	26.60	.001	13162.500
26.80	.001	13152.150	*	27.00	.001	13141.910
27.20	.001	13131.760	*	27.40	.001	13121.700
27.60	.001	13111.740	*	27.80	.001	13101.860
28.00	.001	13092.080	*	28.20	.001	13082.380
28.40	.001	13072.760	*	28.60	.001	13063.230
28.80	.001	13053.790	*	29.00	.001	13044.430
29.20	.001	13035.140	*	29.40	.001	13025.940
29.60	.001	13016.810	*	29.80	.001	13007.760
30.00	.001	12998.790	*	30.20	.001	12989.890
30.40	.001	12981.060	*	30.60	.001	12972.250
30.80	.001	12963.210	*	31.00	.001	12953.750
31.20	.001	12944.060	*	31.40	.001	12934.350
31.60	.001	12924.660	*	31.80	.001	12914.990
32.00	.001	12905.370	*	32.20	.001	12895.780
32.40	.001	12886.250	*	32.60	.001	12876.760
32.80	.001	12867.330	*	33.00	.001	12857.940
33.20	.001	12848.620	*	33.40	.001	12839.350
33.60	.001	12830.140	*	33.80	.001	12820.980
34.00	.001	12811.890	*	34.20	.001	12802.860
34.40	.001	12793.900	*	34.60	.001	12785.000
34.80	.001	12776.160	*	35.00	.001	12767.380
35.20	.001	12758.670	*	35.40	.001	12750.010
35.60	.001	12741.410	*	35.80	.001	12732.870
36.00	.001	12724.390	*	36.20	.001	12715.970
36.40	.001	12707.610	*	36.60	.001	12699.290
36.80	.001	12691.040	*	37.00	.001	12682.840
37.20	.001	12674.700	*	37.40	.001	12666.600
37.60	.001	12658.560	*	37.80	.001	12650.580
38.00	.001	12642.640	*	38.20	.001	12634.760
38.40	.001	12626.920	*	38.60	.001	12619.140
38.80	.001	12611.400	*	39.00	.001	12603.710
39.20	.001	12596.080	*	39.40	.001	12588.480
39.60	.001	12580.940	*	39.80	.001	12573.440
40.00	.001	12565.990	*	40.20	.001	12558.580
40.40	.001	12551.220	*	40.60	.001	12543.900
40.80	.001	12536.630	*	41.00	.001	12529.400
41.20	.001	12522.220	*	41.40	.001	12515.070
41.60	.001	12507.970	*	41.80	.001	12500.850
42.00	.001	12493.490	*	42.20	.001	12485.910
42.40	.001	12478.260	*	42.60	.001	12470.600
42.80	.001	12462.950	*	43.00	.001	12455.330
43.20	.001	12447.720	*	43.40	.001	12440.140
43.60	.001	12432.590	*	43.80	.001	12425.070
44.00	.001	12417.580	*	44.20	.001	12410.120
44.40	.001	12402.690	*	44.60	.001	12395.300
44.80	.001	12387.940	*	45.00	.001	12380.620

45.20	.001	12373.330	*	45.40	.001	12366.080
45.60	.001	12358.870	*	45.80	.001	12351.690
46.00	.001	12344.560	*	46.20	.001	12337.460
46.40	.001	12330.400	*	46.60	.001	12323.380
46.80	.001	12316.390	*	47.00	.001	12309.430
47.20	.001	12302.520	*	47.40	.001	12295.640
47.60	.001	12288.790	*	47.80	.001	12281.980
48.00	.001	12275.200	*	48.20	.001	12268.460
48.40	.001	12261.750	*	48.60	.001	12255.070
48.80	.001	12248.430	*	49.00	.001	12241.820
49.20	.001	12235.240	*	49.40	.001	12228.700
49.60	.001	12222.180	*	49.80	.001	12215.700

*** RUN COMPLETED ****

COARSE REFUSE TOE POND

10 YEAR, 24 HOUR STORM

PHASE ONE

July 11, 1994

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*****
*          (program name)          * SEDIMOT S/N   : 1353220014      *
*          (program description)   * HMVersion    : 3.20              *
*                                     * Date         : 5/25/94       *
*                                     * Time        : 16:06:34     *
*                                     * Input file   : crt1024.in   *
*                                     * Output file  : crt1024.out  *
*                                     *              *
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      XXXXX  XXXXXXXX  XXXXXXXX  XXXXXX  X      X      XXXXXX  XXXXXXXX
X      X  X      X      X      X      XX     XX     X      X      X
X      X      X      X      X      X  X  X  X  X      X      X
XXXXXX  XXXXXX  X      X      X      X  X  X  X  X      X      X
      X  X      X      X      X      X      X  X      X      X
X      X  X      X      X      X      X      X  X      X      X
XXXXXX  XXXXXXXX  XXXXXXXX  XXXXXX  X      X      XXXXXX  X

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::: Full Microcomputer Implementation :::
::: by :::
::: Haestad Methods, Inc. :::
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37 Brookside Road * Waterbury, Connecticut 06708 * (203) 755-1666

UNIVERSITY OF KENTUCKY COMPUTER MODEL
OF SURFACE MINE HYDROLOGY AND SEDIMENTOLOGY
FOR MORE INFORMATION CONTACT THE AGRICULTURAL
ENGINEERING DEPARTMENT

THE UK MODEL IS A DESIGN MODEL DEVELOPED TO PREDICT
THE HYDRAULIC AND SEDIMENT RESPONSE FROM SURFACE
MINED LANDS FOR A SPECIFIED RAINFALL EVENT (SINGLE STORM)

VERSION DATE 5-25-83

DISCLAIMER: NEITHER THE UNIVERSITY NOR ANY OF ITS EMPLOYEES
ACCEPT ANY RESPONSIBILITY OR LEGAL LIABILITY FOR THE
CONCLUSIONS DRAWN FROM THE RESULTS OF THIS MODEL

WATERSHED IDENTIFICATION CODE

COARSE REFUSE TOE POND 10 YEAR, 24 HOUR STORM Phase 1 Rec

===== STORM INPUT =====

QUESTION

NO.

1. STORM TYPE -	SCS'S TYPE 2
2. RAINFALL DEPTH -	1.84 INCHES
3. STORM DURATION -	24.00 HOURS
4. TIME INCREMENT -	.10 HOURS

=====

===== WATERSHED DATA =====

QUESTION

NO.

1. NUMBER OF JUNCTIONS -	2
2. JUNCTION	NUMBER OF BRANCHES

9	20.30
10	15.00
11	13.80
12	12.30
13	11.00
14	10.00
15	.00

=====

===== STRUCTURE INPUT FOR JUNCTION #1 =====

BRANCH	NUMBER OF STRUCTURES
1	3
2	1

=====

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
1	PRIOR J OR S TO STRUCTURE 2	.05	.05	.35
1	PRIOR J OR S TO STRUCTURE 3	.03	.03	.35
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

=====

===== STRUCTURE INPUT FOR JUNCTION #2 =====

BRANCH	NUMBER OF STRUCTURES
1	1

=====

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

=====

===== STRUCTURE DATA FOR JUNCTION #1 =====

===

QUESTION

NO.

- 1. NUMBER OF SUBWATERSHEDS - 1
- 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

=====

* * * * *
 JUNCTION 1, BRANCH 1, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	2.30	84.00	.140	.040	.040	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	38.00	.850	1.0	1.0
	2	.20	450.0	1.10	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.41	.63	53.11	.020	.405	.994

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	24.00	HOURS
PRECIPITATION DEPTH	=	1.84	INCHES
RUNOFF VOLUME	=	.1213	ACRE-FT
PEAK DISCHARGE	=	1.4077	CFS
AREA	=	2.3000	ACRES
TIME OF PEAK DISCHARGE	=	12.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	503031.00	MG/L
PEAK SETTLEABLE CONCENTRATION	=	177.3162	ML/L
PEAK SETTLEABLE CONCENTRATION	=	310303.40	MG/L
TOTAL SEDIMENT YIELD	=	52.8094	TONS

REPRESENTATIVE PARTICLE SIZE = .0196 MM
 TIME OF PEAK CONCENTRATION = 12.10 HRS

 PERIOD OF SIGNIFICANT CONCENTRATION= 13.40 HRS
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 95.92 ML/L
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 95.92 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 48.10 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 26.86 ML/L

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

NO.
 1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

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* * * * *
 JUNCTION 1, BRANCH 1, STRUCTURE 2
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	2.50	84.00	.080	.020	.020	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	150.0	40.00	.850	1.0	1.0
	2	.20	250.0	5.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2

6

1 1.73 .63 162.51 .088 1.000 1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	24.00	HOURS
PRECIPITATION DEPTH	=	1.84	INCHES
RUNOFF VOLUME	=	.1318	ACRE-FT
PEAK DISCHARGE	=	1.7346	CFS
AREA	=	2.5000	ACRES
TIME OF PEAK DISCHARGE	=	12.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	1090764.00	MG/L
PEAK SETTLEABLE CONCENTRATION	=	521.3577	ML/L
PEAK SETTLEABLE CONCENTRATION	=	912375.90	MG/L
TOTAL SEDIMENT YIELD	=	162.4966	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0882	MM
TIME OF PEAK CONCENTRATION	=	12.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION=		13.00	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE			
CONCENTRATION DURING PERIOD OF			
SIGNIFICANT CONCENTRATION	=	302.86	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE			
CONCENTRATION DURING PEAK 24 HOUR			
PERIOD	=	302.86	ML/L
ARITHMETIC AVERAGE SETTLEABLE			
CONCENTRATION DURING PERIOD OF			
SIGNIFICANT CONCENTRATION	=	161.53	ML/L
ARITHMETIC AVERAGE SETTLEABLE			
CONCENTRATION DURING PEAK 24 HOUR			
PERIOD	=	87.50	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0500	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	1.41	CFS
TIME OF ROUTED PEAK DISCHARGE	=	12.10	HRS
TOTAL DRAINAGE AREA	=	4.80	ACRES
TOTAL RUNOFF VOLUME	=	.2531	AC-FT
PEAK RUNOFF DISCHARGE	=	3.00	CFS
TIME TO PEAK DISCHARGE	=	12.00	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0500	HRS
TOTAL SEDIMENT YIELD	=	215.3023	TONS
PEAK SEDIMENT CONCENTRATION	=	878531.00	MG/L
PEAK SETTLEABLE CONCENTRATION	=	391.6141	ML/L
PEAK SETTLEABLE CONCENTRATION	=	685324.70	MG/L
TIME TO PEAK CONCENTRATION	=	12.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	13.60	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE			

CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 211.20 ML/L
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 211.20 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 107.43 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 60.88 ML/L

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

NO.

1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

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* * * * *
 JUNCTION 1, BRANCH 1, STRUCTURE 3
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	.80	84.00	.060	.020	.020	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	70.0	40.00	.850	1.0	1.0
	2	.20	270.0	9.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.56	.63	29.35	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	24.00	HOURS
PRECIPITATION DEPTH	=	1.84	INCHES
RUNOFF VOLUME	=	.0422	ACRE-FT
PEAK DISCHARGE	=	.5551	CFS
AREA	=	.8000	ACRES
TIME OF PEAK DISCHARGE	=	12.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	744747.90	MG/L
PEAK SETTLEABLE CONCENTRATION	=	355.9706	ML/L
PEAK SETTLEABLE CONCENTRATION	=	622948.40	MG/L
TOTAL SEDIMENT YIELD	=	29.3511	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0882	MM
TIME OF PEAK CONCENTRATION	=	12.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	12.70	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	196.72	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	196.72	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	99.01	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	52.40	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0300	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	3.00	CFS
TIME OF ROUTED PEAK DISCHARGE	=	12.00	HRS
TOTAL DRAINAGE AREA	=	5.60	ACRES
TOTAL RUNOFF VOLUME	=	.2953	AC-FT
PEAK RUNOFF DISCHARGE	=	3.56	CFS
TIME TO PEAK DISCHARGE	=	12.00	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0300	HRS
TOTAL SEDIMENT YIELD	=	244.6381	TONS
PEAK SEDIMENT CONCENTRATION	=	858821.80	MG/L
PEAK SETTLEABLE CONCENTRATION	=	386.0995	ML/L
PEAK SETTLEABLE CONCENTRATION	=	675674.10	MG/L
TIME TO PEAK CONCENTRATION	=	12.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	13.60	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	209.34	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	209.34	ML/L

ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 105.74 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 59.92 ML/L

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION
 NO.

- 1. NUMBER OF SUBWATERSHEDS - 1
- 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

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* * * * *
 JUNCTION 1, BRANCH 2, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	.40	80.00	.040	.010	.010	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	65.0	40.00	.350	1.0	1.0
	2	.20	20.0	2.00	.350	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.21	.47	4.11	.080	.942	.997

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

 STORM DURATION = 24.00 HOURS
 PRECIPITATION DEPTH = 1.84 INCHES
 RUNOFF VOLUME = .0156 ACRE-FT
 PEAK DISCHARGE = .2085 CFS
 AREA = .4000 ACRES
 TIME OF PEAK DISCHARGE = 12.00 HRS

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LOAD RATE EXPONENT FACTOR      =      1.50
BETA                            =      1.0000
SUBMERGE BULK SPECIFIC GRAVITY  =      1.75
RAINFALL EROSITIVITY FACTOR    =      18.15   EI UNIT
PEAK CONCENTRATION              = 388795.90   MG/L
PEAK SETTLEABLE CONCENTRATION  =      183.5671 ML/L
PEAK SETTLEABLE CONCENTRATION  = 321242.40   MG/L
TOTAL SEDIMENT YIELD            =      4.0943 TONS
REPRESENTATIVE PARTICLE SIZE    =      .0800 MM
TIME OF PEAK CONCENTRATION      =      12.00   HRS

PERIOD OF SIGNIFICANT CONCENTRATION=      4.50   HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE
  CONCENTRATION DURING PERIOD OF
  SIGNIFICANT CONCENTRATION      =      110.33   ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE
  CONCENTRATION DURING PEAK 24 HOUR
  PERIOD                          =      110.33   ML/L
ARITHMETIC AVERAGE SETTLEABLE
  CONCENTRATION DURING PERIOD OF
  SIGNIFICANT CONCENTRATION      =      68.28   ML/L
ARITHMETIC AVERAGE SETTLEABLE
  CONCENTRATION DURING PEAK 24 HOUR
  PERIOD                          =      12.80   ML/L

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===== STRUCTURE DATA FOR JUNCTION #2 =====

QUESTION

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NO.
1. NUMBER OF SUBWATERSHEDS - 1
2. TYPE OF SEDIMENT CONTROL STRUCTURE - POND

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  JUNCTION 2, BRANCH 1, STRUCTURE 1
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*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	.80	80.00	.020	.000	.000	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	5.00	.850	1.0	.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.42	.47	.76	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	24.00	HOURS
PRECIPITATION DEPTH	=	1.84	INCHES
RUNOFF VOLUME	=	.0312	ACRE-FT
PEAK DISCHARGE	=	.4171	CFS
AREA	=	.8000	ACRES
TIME OF PEAK DISCHARGE	=	12.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	37763.18	MG/L
PEAK SETTLEABLE CONCENTRATION	=	18.0500	ML/L
PEAK SETTLEABLE CONCENTRATION	=	31587.58	MG/L
TOTAL SEDIMENT YIELD	=	.7568	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	12.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	8.50	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	9.24	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	9.24	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	4.89	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	1.73	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.00	
PREVIOUS MUSKINGUM ROUTING K	=	.0000	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	3.77	CFS
TIME OF ROUTED PEAK DISCHARGE	=	12.00	HRS
TOTAL DRAINAGE AREA	=	6.80	ACRES
TOTAL RUNOFF VOLUME	=	.3421	AC-FT
PEAK RUNOFF DISCHARGE	=	4.19	CFS
TIME TO PEAK DISCHARGE	=	12.00	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0000	HRS
TOTAL SEDIMENT YIELD	=	249.4892	TONS
PEAK SEDIMENT CONCENTRATION	=	779870.30	MG/L
PEAK SETTLEABLE CONCENTRATION	=	350.9592	ML/L

PEAK SETTLEABLE CONCENTRATION	=	614178.60	MG/L
TIME TO PEAK CONCENTRATION	=	12.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	13.60	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	192.43	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	192.43	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	96.58	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	54.73	ML/L

===== POND INPUT =====

QUESTION
NO.

- | | |
|---|-------------|
| 1. TIME INCREMENT OF THE ROUTED HYDROGRAPH - | .20 HOURS |
| 2. NON-IDEAL SETTLING CORRECTION FACTOR - | 1.00 |
| 3. PERCENT OF PERMANENT POOL THAT IS DEAD SPACE - | 13.00 |
| 4. OUTFLOW WITHDRAWAL OPTION - | SURFACE |
| 5. INFLOW VERTICAL CONCENTRATION - | COMP. MIXED |
| 6. NUMBER OF STAGE POINTS - | 13 |
| 7. NUMBER OF ROUTED HYDROGRAPH POINTS - | 500 |
| 8. STAGE-DISCHARGE OPTION - | INPUT |
| 9. OUTPUT OPTION - | GRAPHS |
| 10. NUMBER OF CONTINUOUS STIRRED REACTORS | 2 |

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POND RESULTS

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***** BASIN GEOMETRY *****

STAGE (FT)	AREA (ACRES)	AVERAGE DEPTH (FT)	DISCHARGE (CFS)	CAPACITY (ACRES-FT)
.00	.001	.00	.00	.00
1.00	.050	.52	.00	.03
2.00	.080	1.35	.00	.09
3.00	.100	2.15	.00	.18
4.00	.130	2.90	.00	.30
5.00	.160	3.60	.00	.44
6.00	.200	4.25	.00	.62
7.00	.250	4.84	.00	.85
7.63	.280	5.19	.00	1.01

7.70	.285	5.23	.28	1.03
7.90	.295	5.34	2.81	1.09
8.10	.305	5.45	7.67	1.15
8.40	.320	5.62	19.70	1.24

***** STORM EVENT SUMMARY *****

TURBULENCE FACTOR	=	1.00	
PERMANENT POOL CAPACITY	=	.296	ACRE-FT
DEAD STORAGE	=	13.00	PERCENT
TIME INCREMENT OUTFLOW	=	.20	HRS
VISCOSITY	=	.009	CM**2/SEC
INFLOW RUNOFF VOLUME	=	.342	ACRE-FT
OUTFLOW ROUTED VOLUME	=	.003	ACRE-FT
STORM VOLUME DISCHARGED	=	.003	ACRE-FT
POND VOLUME AT PEAK STAGE	=	.633	ACRE-FT
PEAK STAGE	=	6.054	FT
PEAK INFLOW RATE	=	4.185	CFS
PEAK DISCHARGE RATE	=	.001	CFS
PEAK INFLOW SEDIMENT CONCENTRATION	=	779870.30	MG/L
PEAK EFFLUENT SEDIMENT CONCENTRATION	=	38269.93	MG/L
PEAK EFFLUENT SETTLEABLE CONCENTRATION	=	.0000	ML/L
PEAK EFFLUENT SETTLEABLE CONCENTRATION	=	.06	MG/L
STORM AVERAGE EFFLUENT CONCENTRATION	=	30369.73	MG/L
AVERAGE EFFLUENT SEDIMENT CONCENTRATION	=	30369.73	MG/L
BASIN TRAP EFFICIENCY	=	99.95	PERCENT
DETENTION TIME OF FLOW WITH SEDIMENT	=	16.67	HRS
DETENTION TIME FROM HYDROGRAPH CENTERS	=	16.67	HRS
DETENTION TIME INCLUDING STORED FLOW	=	16.67	HRS
SEDIMENT LOAD DISCHARGED	=	.13	TONS
PERIOD OF SIGNIFICANT CONCENTRATION	=	39.00	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L

*** PARTICLE SIZE DISTRIBUTION OF SEDIMENT ***

SIZE,MM	13.0000	2.0000	.4250	.2500	.1500	.0750
PERCENT FINER	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
SIZE,MM	.0500	.0300	.0200	.0100	.0080	.0060
PERCENT FINER	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
SIZE,MM	.0040	.0020	.0001			
PERCENT FINER	100.0000	100.0000	.0000			

*** HYDROGRAPH AND SEDIMENT GRAPH ***
 (TWO CONSECUTIVE VALUES PER LINE)

TIME (HR)	DISCHARGE (CFS)	SED DISC (MG/L)	***** *	TIME (HR)	DISCHARGE (CFS)	SED DISC (MG/L)
.00	.000	.000	*	.20	.000	.000
.40	.000	.000	*	.60	.000	.000
.80	.000	.000	*	1.00	.000	.000
1.20	.000	.000	*	1.40	.000	.000
1.60	.000	.000	*	1.80	.000	.000
2.00	.000	.000	*	2.20	.000	.000
2.40	.000	.000	*	2.60	.000	.000
2.80	.000	.000	*	3.00	.000	.000
3.20	.000	.000	*	3.40	.000	.000
3.60	.000	.000	*	3.80	.000	.000
4.00	.000	.000	*	4.20	.000	.000
4.40	.000	.000	*	4.60	.000	.000
4.80	.000	.000	*	5.00	.000	.000
5.20	.000	.000	*	5.40	.000	.000
5.60	.000	.000	*	5.80	.000	.000
6.00	.000	.000	*	6.20	.000	.000
6.40	.000	.000	*	6.60	.000	.000
6.80	.000	.000	*	7.00	.000	.000
7.20	.000	.000	*	7.40	.000	.000
7.60	.000	.000	*	7.80	.000	.000
8.00	.000	.000	*	8.20	.000	.000
8.40	.000	.000	*	8.60	.000	.000
8.80	.000	.000	*	9.00	.000	.000
9.20	.000	.000	*	9.40	.000	.000
9.60	.000	.000	*	9.80	.000	.000
10.00	.000	.000	*	10.20	.000	.000
10.40	.000	.000	*	10.60	.000	.000
10.80	.000	.000	*	11.00	.000	.014
11.20	.000	.535	*	11.40	.000	4.156
11.60	.000	265.826	*	11.80	.000	6837.609
12.00	.000	28594.650	*	12.20	.001	38080.500
12.40	.001	38269.930	*	12.60	.001	38191.580
12.80	.001	37390.380	*	13.00	.001	37036.340
13.20	.001	36597.320	*	13.40	.001	36227.650
13.60	.001	35934.690	*	13.80	.001	35596.140
14.00	.001	35353.730	*	14.20	.001	35031.450
14.40	.001	34738.680	*	14.60	.001	34510.420
14.80	.001	34325.020	*	15.00	.001	34168.550
15.20	.001	34035.220	*	15.40	.001	33924.610
15.60	.001	33831.710	*	15.80	.001	33749.590
16.00	.001	33673.380	*	16.20	.001	33470.740
16.40	.001	33272.060	*	16.60	.001	33119.590
16.80	.001	32998.100	*	17.00	.001	32894.130
17.20	.001	32799.900	*	17.40	.001	32712.650
17.60	.001	32630.920	*	17.80	.001	32553.700
18.00	.001	32480.060	*	18.20	.001	32409.270
18.40	.001	32340.850	*	18.60	.001	32274.450
18.80	.001	32209.780	*	19.00	.001	32146.740
19.20	.001	32086.090	*	19.40	.001	32029.820
19.60	.001	31979.360	*	19.80	.001	31933.010
20.00	.001	31888.260	*	20.20	.001	31787.550
20.40	.001	31690.580	*	20.60	.001	31609.680
20.80	.001	31538.520	*	21.00	.001	31473.310

21.20	.001	31416.580	*	21.40	.001	31370.320
21.60	.001	31323.690	*	21.80	.001	31278.830
22.00	.001	31235.910	*	22.20	.001	31195.180
22.40	.001	31156.720	*	22.60	.001	31120.810
22.80	.001	31087.190	*	23.00	.001	31054.800
23.20	.001	31023.170	*	23.40	.001	30992.120
23.60	.001	30961.560	*	23.80	.001	30931.380
24.00	.001	30834.320	*	24.20	.001	30750.440
24.40	.001	30658.860	*	24.60	.001	30578.190
24.80	.001	30505.450	*	25.00	.001	30436.980
25.20	.001	30371.810	*	25.40	.001	30309.750
25.60	.001	30251.020	*	25.80	.001	30195.310
26.00	.001	30141.820	*	26.20	.001	30090.050
26.40	.001	30039.770	*	26.60	.001	29990.860
26.80	.001	29943.200	*	27.00	.001	29896.700
27.20	.001	29851.280	*	27.40	.001	29806.870
27.60	.001	29763.410	*	27.80	.001	29720.820
28.00	.001	29679.060	*	28.20	.001	29638.150
28.40	.001	29598.290	*	28.60	.001	29559.850
28.80	.001	29522.800	*	29.00	.001	29486.740
29.20	.001	29451.380	*	29.40	.001	29416.650
29.60	.001	29382.500	*	29.80	.001	29348.650
30.00	.001	29314.370	*	30.20	.001	29278.740
30.40	.001	29242.310	*	30.60	.001	29206.080
30.80	.001	29170.170	*	31.00	.001	29134.650
31.20	.001	29099.550	*	31.40	.001	29065.010
31.60	.001	29031.280	*	31.80	.001	28998.390
32.00	.001	28966.110	*	32.20	.001	28934.270
32.40	.001	28902.820	*	32.60	.001	28871.760
32.80	.001	28841.060	*	33.00	.001	28810.720
33.20	.001	28780.710	*	33.40	.001	28751.020
33.60	.001	28721.660	*	33.80	.001	28692.610
34.00	.001	28663.850	*	34.20	.001	28635.390
34.40	.001	28607.330	*	34.60	.001	28579.830
34.80	.001	28552.950	*	35.00	.001	28526.520
35.20	.001	28500.400	*	35.40	.001	28474.570
35.60	.001	28449.000	*	35.80	.001	28423.700
36.00	.001	28398.630	*	36.20	.001	28373.810
36.40	.001	28349.230	*	36.60	.001	28324.870
36.80	.001	28300.740	*	37.00	.001	28276.830
37.20	.001	28253.130	*	37.40	.001	28229.630
37.60	.001	28206.340	*	37.80	.001	28183.250
38.00	.001	28160.340	*	38.20	.001	28137.630
38.40	.001	28115.100	*	38.60	.001	28092.770
38.80	.001	28070.620	*	39.00	.001	28048.650
39.20	.001	28026.860	*	39.40	.001	28005.240
39.60	.001	27983.800	*	39.80	.001	27962.520
40.00	.001	27941.410	*	40.20	.001	27920.460
40.40	.001	27899.670	*	40.60	.001	27879.040
40.80	.001	27858.570	*	41.00	.001	27838.240
41.20	.001	27818.050	*	41.40	.001	27798.020
41.60	.001	27778.120	*	41.80	.001	27758.280
42.00	.001	27738.190	*	42.20	.001	27717.410
42.40	.001	27696.020	*	42.60	.001	27674.460
42.80	.001	27652.950	*	43.00	.001	27631.520
43.20	.001	27610.190	*	43.40	.001	27588.960
43.60	.001	27567.850	*	43.80	.001	27546.850
44.00	.001	27525.970	*	44.20	.001	27505.210
44.40	.001	27484.550	*	44.60	.001	27464.030
44.80	.001	27443.620	*	45.00	.001	27423.340

45.20	.001	27403.170	*	45.40	.001	27383.110
45.60	.001	27363.170	*	45.80	.001	27343.340
46.00	.001	27323.630	*	46.20	.001	27304.020
46.40	.001	27284.530	*	46.60	.001	27265.140
46.80	.001	27245.870	*	47.00	.001	27226.710
47.20	.001	27207.650	*	47.40	.001	27188.710
47.60	.001	27169.870	*	47.80	.001	27151.130
48.00	.001	27132.500	*	48.20	.001	27113.970
48.40	.001	27095.540	*	48.60	.001	27077.210
48.80	.001	27058.980	*	49.00	.001	27040.850
49.20	.001	27022.820	*	49.40	.001	27004.870
49.60	.001	26987.030	*	49.80	.001	26969.270

*** RUN COMPLETED ****

COARSE REFUSE TOE POND

25 YEAR, 6 HOUR STORM

PHASE ONE

July 11, 1994

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*****
*          (program name)          * SEDIMOT S/N   : 1353220014      *
*          (program description)   * HMVersion    : 3.20              *
*                                   * Date         : 5/25/94        *
*                                   * Time        : 16:06:52       *
*                                   * Input file   : crt256.in     *
*                                   * Output file  : crt256.out    *
*                                   *                   *
*                                   *                   *
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XXXXXX  XXXXXXXX  XXXXXXXX  XXXXXX  X      X      XXXXXX  XXXXXXXX
X      X  X      X      X      X      XX     XX     X      X      X
X      X      X      X      X      X      X     X     X      X      X
XXXXXX  XXXXXX  X      X      X      X      X     X     X      X      X
      X  X      X      X      X      X      X     X     X      X      X
X      X  X      X      X      X      X      X     X     X      X      X
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:::   Full Microcomputer Implementation   :::
:::                                   by   :::
:::   Haestad Methods, Inc.             :::
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37 Brookside Road * Waterbury, Connecticut 06708 * (203) 755-1666

UNIVERSITY OF KENTUCKY COMPUTER MODEL
OF SURFACE MINE HYDROLOGY AND SEDIMENTOLOGY
FOR MORE INFORMATION CONTACT THE AGRICULTURAL
ENGINEERING DEPARTMENT

THE UK MODEL IS A DESIGN MODEL DEVELOPED TO PREDICT
THE HYDRAULIC AND SEDIMENT RESPONSE FROM SURFACE
MINED LANDS FOR A SPECIFIED RAINFALL EVENT (SINGLE STORM)

VERSION DATE 5-25-83

DISCLAIMER: NEITHER THE UNIVERSITY NOR ANY OF ITS EMPLOYEES
ACCEPT ANY RESPONSIBILITY OR LEGAL LIABILITY FOR THE
CONCLUSIONS DRAWN FROM THE RESULTS OF THIS MODEL

WATERSHED IDENTIFICATION CODE

COARSE REFUSE TOE POND 25 YEAR, 6 HOUR STORM Phase 1 Reclam

===== STORM INPUT =====

QUESTION
NO.

1. STORM TYPE -	SCS'S TYPE 2
2. RAINFALL DEPTH -	1.62 INCHES
3. STORM DURATION -	6.00 HOURS
4. TIME INCREMENT -	.10 HOURS

=====

===== WATERSHED DATA =====

QUESTION
NO.

1. NUMBER OF JUNCTIONS -	2
2. JUNCTION	NUMBER OF BRANCHES

1
2

2
1

3. COMPUTATION - BOTH HYDROLOGY AND SEDIMENTOLOGY

===== SEDIMENTOLOGY INPUTS =====

QUESTION

NO.

1. SPECIFIC GRAVITY -	2.75
2. COEFFICIENT FOR DISTRIBUTING SEDIMENT LOAD -	1.50
3. SUBMERGED BULK SPECIFIC GRAVITY -	1.75
4. NUMBER OF PARTICLE SIZE DISTRIBUTIONS -	1
5. NUMBER OF DATA VALUES PER PARTICLE SIZE DISTRIBUTION -	15

===== INPUT PARTICLE SIZE DISTRIBUTIONS =====

VALUE NO.	SIZE, MM
1	13.0000
2	2.0000
3	.4250
4	.2500
5	.1500
6	.0750
7	.0500
8	.0300
9	.0200
10	.0100
11	.0080
12	.0060
13	.0040
14	.0020
15	.0001

===== PERCENT FINER DISTRIBUTIONS =====

VALUE NO.	PARTICLE SIZE #
1	1
1	94.30
2	83.70
3	78.00
4	73.30
5	66.30
6	45.00
7	34.00
8	26.30

9	20.30
10	15.00
11	13.80
12	12.30
13	11.00
14	10.00
15	.00

=====

===== STRUCTURE INPUT FOR JUNCTION #1 =====

BRANCH	NUMBER OF STRUCTURES
1	3
2	1

=====

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
1	PRIOR J OR S TO STRUCTURE 2	.05	.05	.35
1	PRIOR J OR S TO STRUCTURE 3	.03	.03	.35
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

=====

===== STRUCTURE INPUT FOR JUNCTION #2 =====

BRANCH	NUMBER OF STRUCTURES
1	1

=====

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

=====

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

NO.

1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

 JUNCTION 1, BRANCH 1, STRUCTURE 1

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	2.30	84.00	.140	.040	.040	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	38.00	.850	1.0	1.0
	2	.20	450.0	1.10	.850	1.0	1.0

*** COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS ***

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.61	.49	44.82	.020	.403	.994

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.62	INCHES
RUNOFF VOLUME	=	.0936	ACRE-FT
PEAK DISCHARGE	=	1.6140	CFS
AREA	=	2.3000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	24.10	EI UNIT
PEAK CONCENTRATION	=	462847.40	MG/L
PEAK SETTLEABLE CONCENTRATION	=	162.7314	ML/L
PEAK SETTLEABLE CONCENTRATION	=	284779.90	MG/L
TOTAL SEDIMENT YIELD	=	44.5728	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0194	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS

5

PERIOD OF SIGNIFICANT CONCENTRATION= 3.80 HRS
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 105.29 ML/L
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 105.29 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 68.26 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 10.81 ML/L

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION
 NO.

- 1. NUMBER OF SUBWATERSHEDS - 1
- 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

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* * * * *
 JUNCTION 1, BRANCH 1, STRUCTURE 2
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING K-HRS	COEFFICIENTS X,	UNIT HYDRO
1	2.50	84.00	.080	.020	.020	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	150.0	40.00	.850	1.0	1.0
	2	.20	250.0	5.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	2.09	.49	137.40	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.62	INCHES
RUNOFF VOLUME	=	.1017	ACRE-FT
PEAK DISCHARGE	=	2.0881	CFS
AREA	=	2.5000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	24.10	EI UNIT
PEAK CONCENTRATION	=	1033723.00	MG/L
PEAK SETTLEABLE CONCENTRATION	=	494.0934	ML/L
PEAK SETTLEABLE CONCENTRATION	=	864663.50	MG/L
TOTAL SEDIMENT YIELD	=	137.3912	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0882	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION=		3.30	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE			
CONCENTRATION DURING PERIOD OF			
SIGNIFICANT CONCENTRATION	=	338.03	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE			
CONCENTRATION DURING PEAK 24 HOUR			
PERIOD	=	338.03	ML/L
ARITHMETIC AVERAGE SETTLEABLE			
CONCENTRATION DURING PERIOD OF			
SIGNIFICANT CONCENTRATION	=	232.28	ML/L
ARITHMETIC AVERAGE SETTLEABLE			
CONCENTRATION DURING PEAK 24 HOUR			
PERIOD	=	31.94	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0500	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	1.61	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.10	HRS
TOTAL DRAINAGE AREA	=	4.80	ACRES
TOTAL RUNOFF VOLUME	=	.1953	AC-FT
PEAK RUNOFF DISCHARGE	=	3.43	CFS
TIME TO PEAK DISCHARGE	=	3.00	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0500	HRS
TOTAL SEDIMENT YIELD	=	181.9608	TONS
PEAK SEDIMENT CONCENTRATION	=	838921.80	MG/L
PEAK SETTLEABLE CONCENTRATION	=	373.7925	ML/L
PEAK SETTLEABLE CONCENTRATION	=	654136.90	MG/L
TIME TO PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE			
CONCENTRATION DURING PERIOD OF			
SIGNIFICANT CONCENTRATION	=	233.79	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE			

CONCENTRATION DURING PEAK 24 HOUR PERIOD = 233.79 ML/L
 ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION = 146.92 ML/L
 ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD = 23.87 ML/L

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

NO.
 1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

=====

* * * * *
 JUNCTION 1, BRANCH 1, STRUCTURE 3
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	.80	84.00	.060	.020	.020	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	70.0	40.00	.850	1.0	1.0
	2	.20	270.0	9.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.67	.49	25.56	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION = 6.00 HOURS
 PRECIPITATION DEPTH = 1.62 INCHES

RUNOFF VOLUME	=	.0326	ACRE-FT
PEAK DISCHARGE	=	.6682	CFS
AREA	=	.8000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	24.10	EI UNIT
PEAK CONCENTRATION	=	713350.30	MG/L
PEAK SETTLEABLE CONCENTRATION	=	340.9633	ML/L
PEAK SETTLEABLE CONCENTRATION	=	596685.80	MG/L
TOTAL SEDIMENT YIELD	=	25.5618	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0882	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.30	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	224.12	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	224.12	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	147.74	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	20.31	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0300	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	3.43	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.00	HRS
TOTAL DRAINAGE AREA	=	5.60	ACRES
TOTAL RUNOFF VOLUME	=	.2279	AC-FT
PEAK RUNOFF DISCHARGE	=	4.10	CFS
TIME TO PEAK DISCHARGE	=	3.00	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0300	HRS
TOTAL SEDIMENT YIELD	=	207.5096	TONS
PEAK SEDIMENT CONCENTRATION	=	819471.60	MG/L
PEAK SETTLEABLE CONCENTRATION	=	368.3504	ML/L
PEAK SETTLEABLE CONCENTRATION	=	644613.10	MG/L
TIME TO PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	232.64	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	232.64	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	144.67	ML/L

ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 23.51 ML/L

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

NO.
 1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

=====

* * * * *
 JUNCTION 1, BRANCH 2, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	.40	80.00	.040	.010	.010	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	65.0	40.00	.350	1.0	1.0
	2	.20	20.0	2.00	.350	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.25	.35	3.40	.075	.903	.997

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

 STORM DURATION = 6.00 HOURS
 PRECIPITATION DEPTH = 1.62 INCHES
 RUNOFF VOLUME = .0116 ACRE-FT
 PEAK DISCHARGE = .2470 CFS
 AREA = .4000 ACRES
 TIME OF PEAK DISCHARGE = 3.00 HRS
 LOAD RATE EXPONENT FACTOR = 1.50
 BETA = 1.0000
 SUBMERGE BULK SPECIFIC GRAVITY = 1.75

RAINFALL EROSITIVITY FACTOR = 24.10 EI UNIT
 PEAK CONCENTRATION = 332656.80 MG/L
 PEAK SETTLEABLE CONCENTRATION = 155.6723 ML/L
 PEAK SETTLEABLE CONCENTRATION = 272426.60 MG/L
 TOTAL SEDIMENT YIELD = 3.3945 TONS
 REPRESENTATIVE PARTICLE SIZE = .0750 MM
 TIME OF PEAK CONCENTRATION = 3.00 HRS

PERIOD OF SIGNIFICANT CONCENTRATION= 3.20 HRS
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 94.11 ML/L
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 94.11 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 62.70 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 8.36 ML/L

===== STRUCTURE DATA FOR JUNCTION #2 =====

QUESTION

- NO.
1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - POND

* * * * *
 JUNCTION 2, BRANCH 1, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	.80	80.00	.020	.000	.000	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	5.00	.850	1.0	.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED PEAK FLOW RUNOFF SEDIMENT DIAM DELIVERY DELIVERY

	(CFS)	(INCHES)	TONS	(MM)	RATIO 1	RATIO 2
1	.49	.35	.70	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.62	INCHES
RUNOFF VOLUME	=	.0231	ACRE-FT
PEAK DISCHARGE	=	.4941	CFS
AREA	=	.8000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	24.10	EI UNIT
PEAK CONCENTRATION	=	38670.91	MG/L
PEAK SETTLEABLE CONCENTRATION	=	18.4839	ML/L
PEAK SETTLEABLE CONCENTRATION	=	32346.87	MG/L
TOTAL SEDIMENT YIELD	=	.7036	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.20	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	10.82	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	10.82	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	7.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.93	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.00	
PREVIOUS MUSKINGUM ROUTING K	=	.0000	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	4.34	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.00	HRS
TOTAL DRAINAGE AREA	=	6.80	ACRES
TOTAL RUNOFF VOLUME	=	.2625	AC-FT
PEAK RUNOFF DISCHARGE	=	4.84	CFS
TIME TO PEAK DISCHARGE	=	3.00	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0000	HRS
TOTAL SEDIMENT YIELD	=	211.6077	TONS
PEAK SEDIMENT CONCENTRATION	=	739688.70	MG/L
PEAK SETTLEABLE CONCENTRATION	=	332.7762	ML/L
PEAK SETTLEABLE CONCENTRATION	=	582358.30	MG/L
TIME TO PEAK CONCENTRATION	=	3.00	HRS

PERIOD OF SIGNIFICANT CONCENTRATION = 3.90 HRS
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 212.29 ML/L
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 212.29 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 131.47 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 21.36 ML/L

===== POND INPUT =====

QUESTION

- NO.
1. TIME INCREMENT OF THE ROUTED HYDROGRAPH - .20 HOURS
 2. NON-IDEAL SETTLING CORRECTION FACTOR - 1.00
 3. PERCENT OF PERMANENT POOL THAT IS DEAD SPACE - 13.00
 4. OUTFLOW WITHDRAWAL OPTION - SURFACE
 5. INFLOW VERTICAL CONCENTRATION - COMP. MIXED
 6. NUMBER OF STAGE POINTS - 13
 7. NUMBER OF ROUTED HYDROGRAPH POINTS - 500
 8. STAGE-DISCHARGE OPTION - INPUT
 9. OUTPUT OPTION - GRAPHS
 10. NUMBER OF CONTINUOUS STIRRED REACTORS 2

POND RESULTS

***** BASIN GEOMETRY *****

STAGE (FT)	AREA (ACRES)	AVERAGE DEPTH (FT)	DISCHARGE (CFS)	CAPACITY (ACRES-FT)
.00	.001	.00	.00	.00
1.00	.050	.52	.00	.03
2.00	.080	1.35	.00	.09
3.00	.100	2.15	.00	.18
4.00	.130	2.90	.00	.30
5.00	.160	3.60	.00	.44
6.00	.200	4.25	.00	.62
7.00	.250	4.84	.00	.85
7.63	.280	5.19	.00	1.01
7.70	.285	5.23	.28	1.03
7.90	.295	5.34	2.81	1.09
8.10	.305	5.45	7.67	1.15

8.40

.320

5.62

19.70

1.24

***** STORM EVENT SUMMARY *****

TURBULENCE FACTOR	=	1.00	
PERMANENT POOL CAPACITY	=	.296	ACRE-FT
DEAD STORAGE	=	13.00	PERCENT
TIME INCREMENT OUTFLOW	=	.20	HRS
VISCOSITY	=	.009	CM**2/SEC
INFLOW RUNOFF VOLUME	=	.263	ACRE-FT
OUTFLOW ROUTED VOLUME	=	.004	ACRE-FT
STORM VOLUME DISCHARGED	=	.004	ACRE-FT
POND VOLUME AT PEAK STAGE	=	.556	ACRE-FT
PEAK STAGE	=	5.644	FT
PEAK INFLOW RATE	=	4.837	CFS
PEAK DISCHARGE RATE	=	.001	CFS
PEAK INFLOW SEDIMENT CONCENTRATION	=	739688.70	MG/L
PEAK EFFLUENT SEDIMENT CONCENTRATION	=	36842.38	MG/L
PEAK EFFLUENT SETTLEABLE CONCENTRATION	=	.0000	ML/L
PEAK EFFLUENT SETTLEABLE CONCENTRATION	=	.05	MG/L
STORM AVERAGE EFFLUENT CONCENTRATION	=	25719.91	MG/L
AVERAGE EFFLUENT SEDIMENT CONCENTRATION	=	25719.91	MG/L
BASIN TRAP EFFICIENCY	=	99.94	PERCENT
DETENTION TIME OF FLOW WITH SEDIMENT	=	22.88	HRS
DETENTION TIME FROM HYDROGRAPH CENTERS	=	22.88	HRS
DETENTION TIME INCLUDING STORED FLOW	=	22.88	HRS
SEDIMENT LOAD DISCHARGED	=	.13	TONS
PERIOD OF SIGNIFICANT CONCENTRATION	=	47.20	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L

*** PARTICLE SIZE DISTRIBUTION OF SEDIMENT ***

SIZE,MM	13.0000	2.0000	.4250	.2500	.1500	.0750
PERCENT FINER	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
SIZE,MM	.0500	.0300	.0200	.0100	.0080	.0060
PERCENT FINER	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
SIZE,MM	.0040	.0020	.0001			
PERCENT FINER	100.0000	100.0000	.0000			

*** HYDROGRAPH AND SEDIMENT GRAPH ***
(TWO CONSECUTIVE VALUES PER LINE)

14

TIME (HR)	DISCHARGE (CFS)	SED DISC (MG/L)	***** *	TIME (HR)	DISCHARGE (CFS)	SED DISC (MG/L)
.00	.000	.000	*	.20	.000	.000
.40	.000	.000	*	.60	.000	.000
.80	.000	.000	*	1.00	.000	.000
1.20	.000	.000	*	1.40	.000	.000
1.60	.000	.000	*	1.80	.000	.000
2.00	.000	.000	*	2.20	.000	.000
2.40	.000	.000	*	2.60	.000	.000
2.80	.000	2156.217	*	3.00	.000	22660.980
3.20	.001	35291.360	*	3.40	.001	36527.230
3.60	.001	36842.380	*	3.80	.001	36103.600
4.00	.001	35812.340	*	4.20	.001	35385.460
4.40	.001	35019.580	*	4.60	.001	34722.630
4.80	.001	34363.310	*	5.00	.001	34104.000
5.20	.001	33749.060	*	5.40	.001	33430.320
5.60	.001	33182.850	*	5.80	.001	32980.520
6.00	.001	32485.840	*	6.20	.001	32049.630
6.40	.001	31601.100	*	6.60	.001	31216.530
6.80	.001	30883.660	*	7.00	.001	30582.460
7.20	.001	30304.820	*	7.40	.001	30048.020
7.60	.001	29813.810	*	7.80	.001	29603.240
8.00	.001	29410.960	*	8.20	.001	29231.040
8.40	.001	29060.880	*	8.60	.001	28899.140
8.80	.001	28744.970	*	9.00	.001	28597.530
9.20	.001	28456.010	*	9.40	.001	28319.870
9.60	.001	28188.690	*	9.80	.001	28062.070
10.00	.001	27939.670	*	10.20	.001	27821.470
10.40	.001	27708.590	*	10.60	.001	27603.240
10.80	.001	27505.410	*	11.00	.001	27412.490
11.20	.001	27322.850	*	11.40	.001	27236.010
11.60	.001	27151.950	*	11.80	.001	27071.150
12.00	.001	26993.750	*	12.20	.001	26919.040
12.40	.001	26846.420	*	12.60	.001	26775.710
12.80	.001	26706.790	*	13.00	.001	26639.750
13.20	.001	26575.080	*	13.40	.001	26512.870
13.60	.001	26453.220	*	13.80	.001	26396.740
14.00	.001	26342.750	*	14.20	.001	26290.230
14.40	.001	26238.980	*	14.60	.001	26188.850
14.80	.001	26139.790	*	15.00	.001	26091.730
15.20	.001	26044.600	*	15.40	.001	25998.370
15.60	.001	25952.980	*	15.80	.001	25908.420
16.00	.001	25864.630	*	16.20	.001	25821.580
16.40	.001	25779.290	*	16.60	.001	25738.090
16.80	.001	25698.780	*	17.00	.001	25661.100
17.20	.001	25624.250	*	17.40	.001	25588.110
17.60	.001	25552.570	*	17.80	.001	25517.630
18.00	.001	25483.240	*	18.20	.001	25449.380
18.40	.001	25416.030	*	18.60	.001	25383.170
18.80	.001	25350.780	*	19.00	.001	25318.850
19.20	.001	25287.360	*	19.40	.001	25256.320
19.60	.001	25225.910	*	19.80	.001	25196.610
20.00	.001	25168.410	*	20.20	.001	25140.860
20.40	.001	25113.770	*	20.60	.001	25087.070
20.80	.001	25060.740	*	21.00	.001	25034.630
21.20	.001	25008.060	*	21.40	.001	24980.000
21.60	.001	24950.920	*	21.80	.001	24921.810
22.00	.001	24892.830	*	22.20	.001	24864.050

22.40	.001	24835.490	*	22.60	.001	24807.250
22.80	.001	24779.610	*	23.00	.001	24752.690
23.20	.001	24726.250	*	23.40	.001	24700.120
23.60	.001	24674.270	*	23.80	.001	24648.670
24.00	.001	24623.330	*	24.20	.001	24598.240
24.40	.001	24573.390	*	24.60	.001	24548.800
24.80	.001	24524.460	*	25.00	.001	24500.380
25.20	.001	24476.530	*	25.40	.001	24452.910
25.60	.001	24429.570	*	25.80	.001	24406.660
26.00	.001	24384.310	*	26.20	.001	24362.400
26.40	.001	24340.760	*	26.60	.001	24319.350
26.80	.001	24298.160	*	27.00	.001	24277.180
27.20	.001	24256.390	*	27.40	.001	24235.810
27.60	.001	24215.410	*	27.80	.001	24195.200
28.00	.001	24175.170	*	28.20	.001	24155.320
28.40	.001	24135.630	*	28.60	.001	24116.120
28.80	.001	24096.770	*	29.00	.001	24077.590
29.20	.001	24058.560	*	29.40	.001	24039.690
29.60	.001	24020.960	*	29.80	.001	24002.380
30.00	.001	23983.950	*	30.20	.001	23965.660
30.40	.001	23947.510	*	30.60	.001	23929.500
30.80	.001	23911.630	*	31.00	.001	23893.890
31.20	.001	23876.280	*	31.40	.001	23858.810
31.60	.001	23841.470	*	31.80	.001	23824.260
32.00	.001	23807.170	*	32.20	.001	23790.200
32.40	.001	23773.360	*	32.60	.001	23756.640
32.80	.001	23740.040	*	33.00	.001	23723.550
33.20	.001	23707.070	*	33.40	.001	23690.260
33.60	.001	23672.670	*	33.80	.001	23654.580
34.00	.001	23636.430	*	34.20	.001	23618.300
34.40	.001	23600.220	*	34.60	.001	23582.210
34.80	.001	23564.280	*	35.00	.001	23546.420
35.20	.001	23528.640	*	35.40	.001	23510.960
35.60	.001	23493.360	*	35.80	.001	23475.850
36.00	.001	23458.440	*	36.20	.001	23441.110
36.40	.001	23423.880	*	36.60	.001	23406.760
36.80	.001	23389.740	*	37.00	.001	23372.820
37.20	.001	23356.010	*	37.40	.001	23339.300
37.60	.001	23322.700	*	37.80	.001	23306.200
38.00	.001	23289.790	*	38.20	.001	23273.480
38.40	.001	23257.270	*	38.60	.001	23241.150
38.80	.001	23225.140	*	39.00	.001	23209.210
39.20	.001	23193.380	*	39.40	.001	23177.640
39.60	.001	23161.990	*	39.80	.001	23146.430
40.00	.001	23130.960	*	40.20	.001	23115.580
40.40	.001	23100.290	*	40.60	.001	23085.080
40.80	.001	23069.950	*	41.00	.001	23054.910
41.20	.001	23039.960	*	41.40	.001	23025.080
41.60	.001	23010.290	*	41.80	.001	22995.580
42.00	.001	22980.950	*	42.20	.001	22966.400
42.40	.001	22951.920	*	42.60	.001	22937.520
42.80	.001	22923.210	*	43.00	.001	22908.960
43.20	.001	22894.790	*	43.40	.001	22880.710
43.60	.001	22866.690	*	43.80	.001	22852.740
44.00	.001	22838.860	*	44.20	.001	22825.060
44.40	.001	22811.320	*	44.60	.001	22797.670
44.80	.001	22784.070	*	45.00	.001	22770.550
45.20	.001	22757.090	*	45.40	.001	22743.630
45.60	.001	22729.950	*	45.80	.001	22715.870
46.00	.001	22701.540	*	46.20	.001	22687.190

46.40	.001	22672.860	*	46.60	.001	22658.570
46.80	.001	22644.310	*	47.00	.001	22630.090
47.20	.001	22615.920	*	47.40	.001	22601.790
47.60	.001	22587.720	*	47.80	.001	22573.710
48.00	.001	22559.760	*	48.20	.001	22545.860
48.40	.001	22532.010	*	48.60	.001	22518.210
48.80	.001	22504.480	*	49.00	.001	22490.810
49.20	.001	22477.200	*	49.40	.001	22463.650
49.60	.001	22450.160	*	49.80	.001	22436.740

*** RUN COMPLETED ****

COARSE REFUSE TOE POND

10 YEAR, 6 HOUR STORM

PHASE TWO

July 11, 1994

UNIVERSITY OF KENTUCKY COMPUTER MODEL
OF SURFACE MINE HYDROLOGY AND SEDIMENTOLOGY
FOR MORE INFORMATION CONTACT THE AGRICULTURAL
ENGINEERING DEPARTMENT

THE UK MODEL IS A DESIGN MODEL DEVELOPED TO PREDICT
THE HYDRAULIC AND SEDIMENT RESPONSE FROM SURFACE
MINED LANDS FOR A SPECIFIED RAINFALL EVENT (SINGLE STORM)

VERSION DATE 5-25-83

DISCLAIMER: NEITHER THE UNIVERSITY NOR ANY OF ITS EMPLOYEES
ACCEPT ANY RESPONSIBILITY OR LEGAL LIABILITY FOR THE
CONCLUSIONS DRAWN FROM THE RESULTS OF THIS MODEL

WATERSHED IDENTIFICATION CODE

COARSE REFUSE TOE POND 10 YEAR, 6 HOUR STORM Phase 2 Recla

===== STORM INPUT =====

QUESTION
NO.

1. STORM TYPE -	SCS'S TYPE 2
2. RAINFALL DEPTH -	1.31 INCHES
3. STORM DURATION -	6.00 HOURS
4. TIME INCREMENT -	.10 HOURS

=====

===== WATERSHED DATA =====

QUESTION
NO.

1. NUMBER OF JUNCTIONS -	2
2. JUNCTION	NUMBER OF BRANCHES

1
2

2
1

3. COMPUTATION - BOTH HYDROLOGY AND SEDIMENTOLOGY

=====

===== SEDIMENTOLOGY INPUTS =====

QUESTION
NO.

1. SPECIFIC GRAVITY -	2.75
2. COEFFICIENT FOR DISTRIBUTING SEDIMENT LOAD -	1.50
3. SUBMERGED BULK SPECIFIC GRAVITY -	1.75
4. NUMBER OF PARTICLE SIZE DISTRIBUTIONS -	1
5. NUMBER OF DATA VALUES PER PARTICLE SIZE DISTRIBUTION -	15

=====

===== INPUT PARTICLE SIZE DISTRIBUTIONS =====

VALUE NO.	SIZE, MM
1	13.0000
2	2.0000
3	.4250
4	.2500
5	.1500
6	.0750
7	.0500
8	.0300
9	.0200
10	.0100
11	.0080
12	.0060
13	.0040
14	.0020
15	.0001

=====

===== PERCENT FINER DISTRIBUTIONS =====

VALUE NO.	PARTICLE SIZE #
	1
1	94.30
2	83.70
3	78.00
	73.30
	66.30
6	45.00
7	34.00
8	26.30

3

9	20.30
10	15.00
11	13.80
12	12.30
13	11.00
14	10.00
15	.00

=====

===== STRUCTURE INPUT FOR JUNCTION #1 =====

BRANCH	NUMBER OF STRUCTURES
1	2
2	1

=====

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
1	PRIOR J OR S TO STRUCTURE 2	.03	.03	.35
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

=====

===== STRUCTURE INPUT FOR JUNCTION #2 =====

BRANCH	NUMBER OF STRUCTURES
1	1

=====

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

=====

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

4

NO.

1. NUMBER OF SUBWATERSHEDS -

1

2. TYPE OF SEDIMENT CONTROL STRUCTURE -

NULL STRUC.

JUNCTION 1, BRANCH 1, STRUCTURE 1

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	2.50	69.00	.080	.020	.020	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	150.0	40.00	.2		

50 1.0 1.0
 2 .20 250.0 5.00 .250 1.0 1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.05	.03	2.73	.088	1.000	.994

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0072	ACRE-FT
PEAK DISCHARGE	=	.0521	CFS
AREA	=	2.5000	ACRES
TIME OF PEAK DISCHARGE	=	3.50	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	338058.40	MG/L
PEAK SETTLEABLE CONCENTRATION	=	161.4009	ML/L
PEAK SETTLEABLE CONCENTRATION	=	282451.60	MG/L
TOTAL SEDIMENT YIELD	=	2.7095	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0874	MM
TIME OF PEAK CONCENTRATION	=	3.50	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	2.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	125.83	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	125.83	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	122.21	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	14.77	ML/L

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

- NO.
 1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

=====

* * * * *
 JUNCTION 1, BRANCH 1, STRUCTURE 2
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING K-HRS	COEFFICIENTS X,	UNIT HYDRO
1	.80	69.00	.060	.020	.020	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	70.0	40.00	.250	1.0	1.0
	2	.20	270.0	9.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.02	.03	.85	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0023	ACRE-FT
PEAK DISCHARGE	=	.0167	CFS
AREA	=	.8000	ACRES
TIME OF PEAK DISCHARGE	=	3.50	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	679705.80	MG/L
PEAK SETTLEABLE CONCENTRATION	=	324.8821	ML/L
PEAK SETTLEABLE CONCENTRATION	=	568543.70	MG/L
TOTAL SEDIMENT YIELD	=	.8486	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0882	MM
TIME OF PEAK CONCENTRATION	=	3.50	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	.30	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	308.18	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	308.18	ML/L
ARITHMETIC AVERAGE SETTLEABLE			

2

CONCENTRATION DURING PERIOD OF
SIGNIFICANT CONCENTRATION = 306.10 ML/L
ARITHMETIC AVERAGE SETTLEABLE
CONCENTRATION DURING PEAK 24 HOUR
PERIOD = 3.83 ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0300	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	.05	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.50	HRS
TOTAL DRAINAGE AREA	=	3.30	ACRES
TOTAL RUNOFF VOLUME	=	.0095	AC-FT
PEAK RUNOFF DISCHARGE	=	.07	CFS
TIME TO PEAK DISCHARGE	=	3.50	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0300	HRS
TOTAL SEDIMENT YIELD	=	3.5579	TONS
PEAK SEDIMENT CONCENTRATION	=	430829.90	MG/L
PEAK SETTLEABLE CONCENTRATION	=	205.7460	ML/L
PEAK SETTLEABLE CONCENTRATION	=	360055.50	MG/L
TIME TO PEAK CONCENTRATION	=	3.50	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	2.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	144.70	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	144.70	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	133.06	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	16.08	ML/L

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

- NO.
- | | |
|---|-------------|
| 1. NUMBER OF SUBWATERSHEDS - | 1 |
| 2. TYPE OF SEDIMENT CONTROL STRUCTURE - | NULL STRUC. |

=====

* * * * *
JUNCTION 1, BRANCH 2, STRUCTURE 1
* * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	.40	69.00	.040	.010	.010	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	65.0	40.00	.250	1.0	1.0
	2	.20	20.0	2.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.00	.03	.00	.001	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0012	ACRE-FT
PEAK DISCHARGE	=	.0000	CFS
AREA	=	.4000	ACRES
TIME OF PEAK DISCHARGE	=	5.80	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	.00	MG/L
PEAK SETTLEABLE CONCENTRATION	=	.0000	ML/L
PEAK SETTLEABLE CONCENTRATION	=	.00	MG/L
TOTAL SEDIMENT YIELD	=	.0000	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0001	MM
TIME OF PEAK CONCENTRATION	=	.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L

===== STRUCTURE DATA FOR JUNCTION #2 =====

QUESTION

NO.

1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

=====

* * * * *
 JUNCTION 2, BRANCH 1, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING K-HRS	COEFFICIENTS X,	UNIT HYDRO
1	.80	84.00	.020	.000	.000	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	5.00	.850	1.0	.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.43	.30	.61	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0203	ACRE-FT
PEAK DISCHARGE	=	.4308	CFS
AREA	=	.8000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	37467.07	MG/L
PEAK SETTLEABLE CONCENTRATION	=	17.9085	ML/L
PEAK SETTLEABLE CONCENTRATION	=	31339.89	MG/L
TOTAL SEDIMENT YIELD	=	.6062	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM

TIME OF PEAK CONCENTRATION = 3.00 HRS
 PERIOD OF SIGNIFICANT CONCENTRATION= 3.20 HRS
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 10.60 ML/L
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 10.60 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 6.79 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = .90 ML/L

*** PARTICLE SIZE DISTRIBUTION OF SEDIMENT ***

SIZE,MM	13.0000	2.0000	.4250	.2500	.1500	.0750
PERCENT FINER	94.3000	83.7000	78.0000	73.3000	66.3000	45.0000
SIZE,MM	.0500	.0300	.0200	.0100	.0080	.0060
PERCENT FINER	34.0000	26.3000	20.3000	15.0000	13.8000	12.3000
SIZE,MM	.0040	.0020	.0001			
PERCENT FINER	11.0000	10.0000	.0000			

*** HYDROGRAPH AND SEDIMENT GRAPH ***
(TWO CONSECUTIVE VALUES PER LINE)

TIME (HR)	DISCHARGE (CFS)	SED DISC (MG/L)	***** *	TIME (HR)	DISCHARGE (CFS)	SED DISC (MG/L)
.00	.000	.000	*	.10	.000	.000
.20	.000	.000	*	.30	.000	.000
.40	.000	.000	*	.50	.000	.000
.60	.000	.000	*	.70	.000	.000
.80	.000	.000	*	.90	.000	.000
1.00	.000	.000	*	1.10	.000	.000
1.20	.000	.000	*	1.30	.000	.000
1.40	.000	.000	*	1.50	.000	.000
1.60	.000	.000	*	1.70	.000	.000
1.80	.000	.000	*	1.90	.000	.000
2.00	.000	.000	*	2.10	.000	.000
2.20	.000	.000	*	2.30	.000	.000
2.40	.000	.000	*	2.50	.000	.000
2.60	.000	.000	*	2.70	.094	17639.530
2.80	.229	27414.320	*	2.90	.339	33303.280
3.00	.431	37467.070	*	3.10	.091	17316.720
3.20	.093	17567.130	*	3.30	.096	17806.280
3.40	.098	18034.950	*	3.50	.101	18253.160
3.60	.053	13224.900	*	3.70	.053	13300.800
3.80	.054	13375.050	*	3.90	.055	13447.740
4.00	.055	13518.700	*	4.10	.041	11608.370
4.20	.041	11651.320	*	4.30	.041	11693.490
4.40	.041	11735.130	*	4.50	.042	11775.930
4.60	.033	10422.690	*	4.70	.033	10450.060
4.80	.033	10477.260	*	4.90	.033	10503.960

5.00	.033	10530.340	*	5.10	.024	8924.313
5.20	.024	8940.079	*	5.30	.024	8955.769
5.40	.024	8971.184	*	5.50	.024	8986.597
5.60	.024	9001.921	*	5.70	.024	9017.010

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.00	
PREVIOUS MUSKINGUM ROUTING K	=	.0000	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	.07	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.50	HRS
TOTAL DRAINAGE AREA	=	4.50	ACRES
TOTAL RUNOFF VOLUME	=	.0309	AC-FT
PEAK RUNOFF DISCHARGE	=	.45	CFS
TIME TO PEAK DISCHARGE	=	3.00	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0000	HRS
TOTAL SEDIMENT YIELD	=	4.1641	TONS
PEAK SEDIMENT CONCENTRATION	=	202081.70	MG/L
PEAK SETTLEABLE CONCENTRATION	=	96.5180	ML/L
PEAK SETTLEABLE CONCENTRATION	=	168906.60	MG/L
TIME TO PEAK CONCENTRATION	=	3.50	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.20	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	50.44	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	50.45	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	57.31	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	7.64	ML/L

*** RUN COMPLETED ****

COARSE REFUSE TOE POND

100 YEAR, 6 HOUR STORM

PHASE TWO

July 11, 1994

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*****
*          (program name)          * SEDIMOT S/N   : 1353220014      *
*          (program description)   * HMVersion    : 3.20              *
*                                   * Date         : 5/05/94         *
*                                   * Time        : 15:50:56        *
*                                   * Input file   : CRT1006.IN      *
*                                   * Output file  : CRT1006.OUT     *
*                                   *                   *
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XXXXXX  XXXXXXXX  XXXXXXXX  XXXXXX  X      X      XXXXXX  XXXXXXXX
X      X  X      X      X      X      XX     XX     X      X      X
X      X  X      X      X      X      X X   X X   X      X      X
XXXXXX  XXXXXX  X      X      X      X      X   X   X      X      X
      X  X      X      X      X      X      X   X   X      X      X
X      X  X      X      X      X      X      X   X   X      X      X
XXXXXX  XXXXXXXX  XXXXXXXX  XXXXXX  X      X      XXXXXX  X

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::: Full Microcomputer Implementation :::
::: by :::
::: Haestad Methods, Inc. :::
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37 Brookside Road * Waterbury, Connecticut 06708 * (203) 755-1666

UNIVERSITY OF KENTUCKY COMPUTER MODEL
OF SURFACE MINE HYDROLOGY AND SEDIMENTOLOGY
FOR MORE INFORMATION CONTACT THE AGRICULTURAL
ENGINEERING DEPARTMENT

THE UK MODEL IS A DESIGN MODEL DEVELOPED TO PREDICT
THE HYDRAULIC AND SEDIMENT RESPONSE FROM SURFACE
MINED LANDS FOR A SPECIFIED RAINFALL EVENT (SINGLE STORM)

VERSION DATE 5-25-83

DISCLAIMER: NEITHER THE UNIVERSITY NOR ANY OF ITS EMPLOYEES
ACCEPT ANY RESPONSIBILITY OR LEGAL LIABILITY FOR THE
CONCLUSIONS DRAWN FROM THE RESULTS OF THIS MODEL

WATERSHED IDENTIFICATION CODE

COARSE REFUSE TOE POND 100 YEAR, 6 HOUR STORM Phase 2 Recl

===== STORM INPUT =====

QUESTION

NO.

1. STORM TYPE -	SCS'S TYPE 2
2. RAINFALL DEPTH -	2.05 INCHES
3. STORM DURATION -	6.00 HOURS
4. TIME INCREMENT -	.10 HOURS

=====

===== WATERSHED DATA =====

QUESTION

NO.

1. NUMBER OF JUNCTIONS -	2
2. JUNCTION	NUMBER OF BRANCHES

1
2

2
1

3. COMPUTATION - BOTH HYDROLOGY AND SEDIMENTOLOGY

=====

===== SEDIMENTOLOGY INPUTS =====

QUESTION
NO.

1. SPECIFIC GRAVITY -	2.75
2. COEFFICIENT FOR DISTRIBUTING SEDIMENT LOAD -	1.50
3. SUBMERGED BULK SPECIFIC GRAVITY -	1.75
4. NUMBER OF PARTICLE SIZE DISTRIBUTIONS -	1
5. NUMBER OF DATA VALUES PER PARTICLE SIZE DISTRIBUTION -	15

=====

===== INPUT PARTICLE SIZE DISTRIBUTIONS =====

VALUE NO.	SIZE, MM
1	13.0000
2	2.0000
3	.4250
4	.2500
5	.1500
6	.0750
7	.0500
8	.0300
9	.0200
10	.0100
11	.0080
12	.0060
13	.0040
14	.0020
15	.0001

=====

===== PERCENT FINER DISTRIBUTIONS =====

VALUE NO.	PARTICLE SIZE #
	1
1	94.30
2	83.70
3	78.00
4	73.30
5	66.30
6	45.00
7	34.00
8	26.30

9	20.30
10	15.00
11	13.80
12	12.30
13	11.00
14	10.00
15	.00

=====

===== STRUCTURE INPUT FOR JUNCTION #1 =====

BRANCH	NUMBER OF STRUCTURES
1	2
2	1

=====

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
1	PRIOR J OR S TO STRUCTURE 2	.03	.03	.35
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

=====

===== STRUCTURE INPUT FOR JUNCTION #2 =====

BRANCH	NUMBER OF STRUCTURES
1	1

=====

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

=====

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

4

NO.

1. NUMBER OF SUBWATERSHEDS -

1

2. TYPE OF SEDIMENT CONTROL STRUCTURE -

NULL STRUC.

JUNCTION 1, BRANCH 1, STRUCTURE 1

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	2.50	69.00	.080	.020	.020	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	150.0	40.00	.250	1.0	1.0
	2	.20	250.0	5.00	.250	1.0	1.0

*** COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS ***

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.05	.23	19.41	.088	1.000	.994

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	2.05	INCHES
RUNOFF VOLUME	=	.0489	ACRE-FT
PEAK DISCHARGE	=	1.0522	CFS
AREA	=	2.5000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	40.00	EI UNIT
PEAK CONCENTRATION	=	455902.80	MG/L
PEAK SETTLEABLE CONCENTRATION	=	217.6639	ML/L
PEAK SETTLEABLE CONCENTRATION	=	380911.90	MG/L
TOTAL SEDIMENT YIELD	=	19.2956	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0874	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS

5

PERIOD OF SIGNIFICANT CONCENTRATION= 3.10 HRS
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 125.96 ML/L
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 125.96 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 93.80 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 12.12 ML/L

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

NO.

1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

=====

* * * * *
 JUNCTION 1, BRANCH 1, STRUCTURE 2
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	.80	69.00	.060	.020	.020	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	70.0	40.00	.250	1.0	1.0
	2	.20	270.0	9.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.34	.23	4.32	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	2.05	INCHES
RUNOFF VOLUME	=	.0157	ACRE-FT
PEAK DISCHARGE	=	.3367	CFS
AREA	=	.8000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSIVITY FACTOR	=	40.00	EI UNIT
PEAK CONCENTRATION	=	335908.70	MG/L
PEAK SETTLEABLE CONCENTRATION	=	160.5558	ML/L
PEAK SETTLEABLE CONCENTRATION	=	280972.70	MG/L
TOTAL SEDIMENT YIELD	=	4.3231	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0882	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.10	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	91.39	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	91.39	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	67.37	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	8.70	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0300	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	1.05	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.00	HRS
TOTAL DRAINAGE AREA	=	3.30	ACRES
TOTAL RUNOFF VOLUME	=	.0646	AC-FT
PEAK RUNOFF DISCHARGE	=	1.39	CFS
TIME TO PEAK DISCHARGE	=	3.00	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0300	HRS
TOTAL SEDIMENT YIELD	=	23.6169	TONS
PEAK SEDIMENT CONCENTRATION	=	427896.90	MG/L
PEAK SETTLEABLE CONCENTRATION	=	204.3324	ML/L
PEAK SETTLEABLE CONCENTRATION	=	357581.60	MG/L
TIME TO PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.10	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	117.78	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR			

PERIOD = 117.78 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 87.51 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 11.30 ML/L

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

NO.

1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

=====

* * * * *
 JUNCTION 1, BRANCH 2, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING K-HRS	COEFFICIENTS X,	UNIT HYDRO
1	.40	69.00	.040	.010	.010	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	65.0	40.00	.250	1.0	1.0
	2	.20	20.0	2.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.17	.23	2.13	.080	.943	.997

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION = 6.00 HOURS
 PRECIPITATION DEPTH = 2.05 INCHES
 RUNOFF VOLUME = .0078 ACRE-FT
 PEAK DISCHARGE = .1683 CFS
 AREA = .4000 ACRES

TIME OF PEAK DISCHARGE = 3.00 HRS
 LOAD RATE EXPONENT FACTOR = 1.50
 BETA = 1.0000
 SUBMERGE BULK SPECIFIC GRAVITY = 1.75
 RAINFALL EROSITIVITY FACTOR = 40.00 EI UNIT
 PEAK CONCENTRATION = 331173.80 MG/L
 PEAK SETTLEABLE CONCENTRATION = 156.3681 ML/L
 PEAK SETTLEABLE CONCENTRATION = 273644.10 MG/L
 TOTAL SEDIMENT YIELD = 2.1269 TONS
 REPRESENTATIVE PARTICLE SIZE = .0800 MM
 TIME OF PEAK CONCENTRATION = 3.00 HRS

 PERIOD OF SIGNIFICANT CONCENTRATION= 3.10 HRS
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 88.95 ML/L
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 88.95 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 65.55 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 8.47 ML/L

===== STRUCTURE DATA FOR JUNCTION #2 =====

QUESTION NO.

1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

* * * * *
 JUNCTION 2, BRANCH 1, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	.80	84.00	.020	.000	.000	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	5.00	.850	1.0	.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.02	.78	1.67	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	2.05	INCHES
RUNOFF VOLUME	=	.0520	ACRE-FT
PEAK DISCHARGE	=	1.0246	CFS
AREA	=	.8000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	40.00	EI UNIT
PEAK CONCENTRATION	=	37419.92	MG/L
PEAK SETTLEABLE CONCENTRATION	=	17.8860	ML/L
PEAK SETTLEABLE CONCENTRATION	=	31300.46	MG/L
TOTAL SEDIMENT YIELD	=	1.6668	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.30	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	11.34	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	11.34	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	6.77	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.93	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.00	
PREVIOUS MUSKINGUM ROUTING K	=	.0000	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	1.56	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.00	HRS
TOTAL DRAINAGE AREA	=	4.50	ACRES
TOTAL RUNOFF VOLUME	=	.1244	AC-FT
PEAK RUNOFF DISCHARGE	=	2.58	CFS
TIME TO PEAK DISCHARGE	=	3.00	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0000	HRS
TOTAL SEDIMENT YIELD	=	27.4106	TONS

PEAK SEDIMENT CONCENTRATION	=	280382.10	MG/L
PEAK SETTLEABLE CONCENTRATION	=	133.7804	ML/L
PEAK SETTLEABLE CONCENTRATION	=	234115.80	MG/L
TIME TO PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.30	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	73.64	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	73.64	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	56.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	7.70	ML/L

*** RUN COMPLETED ****

RAIL CUT POND
10 YEAR, 6 HOUR STORM
PHASE ONE

July 11, 1994

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*****
*          (program name)          * SEDIMOT S/N   : 1353220014 *
*          (program description)   * HMVersion    : 3.20      *
*                                   * Date         : 5/25/94   *
*                                   * Time        : 9:29:35   *
*                                   * Input file   : rc106.in   *
*                                   * Output file  : rc106.out  *
*                                   *                *
*                                   *                *
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XXXXXX  XXXXXXXX  XXXXXXXX  XXXXXX  X      X      XXXXXX  XXXXXXXX
X      X  X      X      X      X      XX    XX    X      X      X
X      X  X      X      X      X      X  X  X  X    X      X      X
XXXXXX  XXXXXX  X      X      X      X      X  X  X  X    X      X
      X  X      X      X      X      X      X      X  X    X      X
X      X  X      X      X      X      X      X  X  X    X      X
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::: Full Microcomputer Implementation :::
::: by :::
::: Haestad Methods, Inc. :::
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37 Brookside Road * Waterbury, Connecticut 06708 * (203) 755-1666

UNIVERSITY OF KENTUCKY COMPUTER MODEL
OF SURFACE MINE HYDROLOGY AND SEDIMENTOLOGY
FOR MORE INFORMATION CONTACT THE AGRICULTURAL
ENGINEERING DEPARTMENT

THE UK MODEL IS A DESIGN MODEL DEVELOPED TO PREDICT
THE HYDRAULIC AND SEDIMENT RESPONSE FROM SURFACE
MINED LANDS FOR A SPECIFIED RAINFALL EVENT (SINGLE STORM)

VERSION DATE 5-25-83

DISCLAIMER: NEITHER THE UNIVERSITY NOR ANY OF ITS EMPLOYEES
ACCEPT ANY RESPONSIBILITY OR LEGAL LIABILITY FOR THE
CONCLUSIONS DRAWN FROM THE RESULTS OF THIS MODEL

WATERSHED IDENTIFICATION CODE

RAIL CUT POND 10 YEAR 6 HOUR STORM Phase 1 Reclamation

===== STORM INPUT =====

QUESTION
NO.

1. STORM TYPE -	SCS'S TYPE 2
2. RAINFALL DEPTH -	1.31 INCHES
3. STORM DURATION -	6.00 HOURS
4. TIME INCREMENT -	.10 HOURS

=====

===== WATERSHED DATA =====

QUESTION
NO.

1. NUMBER OF JUNCTIONS -	5
2. JUNCTION	NUMBER OF BRANCHES

1	2
2	2
3	2
4	2
5	1

3. COMPUTATION - BOTH HYDROLOGY AND SEDIMENTOLOGY

=====

===== SEDIMENTOLOGY INPUTS =====

QUESTION

NO.		
1.	SPECIFIC GRAVITY -	2.75
2.	COEFFICIENT FOR DISTRIBUTING SEDIMENT LOAD -	1.50
3.	SUBMERGED BULK SPECIFIC GRAVITY -	1.75
4.	NUMBER OF PARTICLE SIZE DISTRIBUTIONS -	1
5.	NUMBER OF DATA VALUES PER PARTICLE SIZE DISTRIBUTION -	15

=====

===== INPUT PARTICLE SIZE DISTRIBUTIONS =====

VALUE NO.	SIZE, MM
1	13.0000
2	2.0000
3	.4250
4	.2500
5	.1500
6	.0750
7	.0500
8	.0300
9	.0200
10	.0100
11	.0080
12	.0060
13	.0040
14	.0020
15	.0001

=====

===== PERCENT FINER DISTRIBUTIONS =====

VALUE NO.	PARTICLE SIZE #
1	94.30
2	83.70
3	78.00
4	73.30
5	66.30

6	45.00
7	34.00
8	26.30
9	20.30
10	15.00
11	13.80
12	12.30
13	11.00
14	10.00
15	.00

=====

===== STRUCTURE INPUT FOR JUNCTION #1 =====

BRANCH	NUMBER OF STRUCTURES
1	2
2	1

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
1	PRIOR J OR S TO STRUCTURE 2	.06	.06	.35
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

===== STRUCTURE INPUT FOR JUNCTION #2 =====

BRANCH	NUMBER OF STRUCTURES
1	1
2	2

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.05	.05	.40
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
2	PRIOR J OR S TO STRUCTURE 2	.15	.15	.35

===== STRUCTURE INPUT FOR JUNCTION #3 =====

BRANCH	NUMBER OF STRUCTURES
1	1
2	1

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.03	.03	.40
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

=====

===== STRUCTURE INPUT FOR JUNCTION #4 =====

BRANCH	NUMBER OF STRUCTURES
1	1
2	1

=====

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.04	.04	.40
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

=====

===== STRUCTURE INPUT FOR JUNCTION #5 =====

BRANCH	NUMBER OF STRUCTURES
1	3

=====

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.08	.08	.35
1	PRIOR J OR S TO STRUCTURE 2	.08	.08	.35
1	PRIOR J OR S TO STRUCTURE 3	.02	.02	.35

=====

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

NO.	
1. NUMBER OF SUBWATERSHEDS -	1
2. TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

=====

* * * * *
 JUNCTION 1, BRANCH 1, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	18.10	84.00	.320	.000	.200	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	1200.0	2.00	.850	1.0	1.0
	2	.20	300.0	1.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	5.53	.30	10.10	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.4594	ACRE-FT
PEAK DISCHARGE	=	5.5291	CFS
AREA	=	18.1000	ACRES
TIME OF PEAK DISCHARGE	=	3.40	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	24111.21	MG/L
PEAK SETTLEABLE CONCENTRATION	=	11.5247	ML/L
PEAK SETTLEABLE CONCENTRATION	=	20168.19	MG/L
TOTAL SEDIMENT YIELD	=	10.1001	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.40	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	4.10	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	7.64	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	7.64	ML/L

ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 5.12 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = .87 ML/L

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

NO.
 1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

=====

* * * * *
 JUNCTION 1, BRANCH 1, STRUCTURE 2
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	4.10	84.00	.130	.000	.100	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	300.0	3.00	.850	1.0	1.0
	2	.20	300.0	2.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.78	.30	2.92	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

 STORM DURATION = 6.00 HOURS
 PRECIPITATION DEPTH = 1.31 INCHES
 RUNOFF VOLUME = .1041 ACRE-FT
 PEAK DISCHARGE = 1.6482 CFS
 AREA = 4.1000 ACRES
 TIME OF PEAK DISCHARGE = 3.20 HRS

LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	32295.41	MG/L
PEAK SETTLEABLE CONCENTRATION	=	15.4366	ML/L
PEAK SETTLEABLE CONCENTRATION	=	27013.98	MG/L
TOTAL SEDIMENT YIELD	=	2.9165	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.20	HRS
PERIOD OF SIGNIFICANT CONCENTRATION=		3.80	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	9.57	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	9.57	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	6.27	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.99	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0600	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	5.20	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.40	HRS
TOTAL DRAINAGE AREA	=	22.20	ACRES
TOTAL RUNOFF VOLUME	=	.5635	AC-FT
PEAK RUNOFF DISCHARGE	=	5.99	CFS
TIME TO PEAK DISCHARGE	=	3.40	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	.98	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0600	HRS
TOTAL SEDIMENT YIELD	=	12.8381	TONS
PEAK SEDIMENT CONCENTRATION	=	22985.02	MG/L
PEAK SETTLEABLE CONCENTRATION	=	10.9572	ML/L
PEAK SETTLEABLE CONCENTRATION	=	19175.07	MG/L
TIME TO PEAK CONCENTRATION	=	3.40	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	4.20	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	7.88	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	7.88	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	5.51	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.96	ML/L

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

NO.

1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

 JUNCTION 1, BRANCH 2, STRUCTURE 1

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	5.60	84.00	.210	.000	.100	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	200.0	2.00	.850	1.0	1.0
	2	.20	800.0	1.00	.850	1.0	1.0

*** COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS ***

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	2.07	.30	2.22	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.1421	ACRE-FT
PEAK DISCHARGE	=	2.0676	CFS
AREA	=	5.6000	ACRES
TIME OF PEAK DISCHARGE	=	3.20	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	18202.77	MG/L
PEAK SETTLEABLE CONCENTRATION	=	8.7006	ML/L
PEAK SETTLEABLE CONCENTRATION	=	15225.98	MG/L

TOTAL SEDIMENT YIELD = 2.2164 TONS
 REPRESENTATIVE PARTICLE SIZE = .0883 MM
 TIME OF PEAK CONCENTRATION = 3.20 HRS
 PERIOD OF SIGNIFICANT CONCENTRATION= 3.90 HRS
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 5.47 ML/L
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 5.47 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 3.58 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = .58 ML/L

===== STRUCTURE DATA FOR JUNCTION #2 =====

QUESTION

NO.

1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

=====

* * * * *
 JUNCTION 2, BRANCH 1, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	1.80	84.00	.050	.000	.000	.00	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	250.0	3.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.97	.30	.96	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0457	ACRE-FT
PEAK DISCHARGE	=	.9693	CFS
AREA	=	1.8000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	26364.66	MG/L
PEAK SETTLEABLE CONCENTRATION	=	12.6018	ML/L
PEAK SETTLEABLE CONCENTRATION	=	22053.12	MG/L
TOTAL SEDIMENT YIELD	=	.9559	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION=		3.20	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE			
CONCENTRATION DURING PERIOD OF			
SIGNIFICANT CONCENTRATION	=	7.45	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE			
CONCENTRATION DURING PEAK 24 HOUR			
PERIOD	=	7.45	ML/L
ARITHMETIC AVERAGE SETTLEABLE			
CONCENTRATION DURING PERIOD OF			
SIGNIFICANT CONCENTRATION	=	4.77	ML/L
ARITHMETIC AVERAGE SETTLEABLE			
CONCENTRATION DURING PEAK 24 HOUR			
PERIOD	=	.64	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.40	
PREVIOUS MUSKINGUM ROUTING K	=	.0500	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	7.06	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.40	HRS
TOTAL DRAINAGE AREA	=	29.60	ACRES
TOTAL RUNOFF VOLUME	=	.7513	AC-FT
PEAK RUNOFF DISCHARGE	=	7.28	CFS
TIME TO PEAK DISCHARGE	=	3.40	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	.99	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0500	HRS
TOTAL SEDIMENT YIELD	=	15.7906	TONS
PEAK SEDIMENT CONCENTRATION	=	20922.23	MG/L
PEAK SETTLEABLE CONCENTRATION	=	9.9522	ML/L
PEAK SETTLEABLE CONCENTRATION	=	17416.39	MG/L
TIME TO PEAK CONCENTRATION	=	3.40	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	4.20	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE			
CONCENTRATION DURING PERIOD OF			
SIGNIFICANT CONCENTRATION	=	7.28	ML/L

VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 7.28 ML/L

ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 5.36 ML/L

ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = .94 ML/L

===== STRUCTURE DATA FOR JUNCTION #2 =====

QUESTION
 NO.

- 1. NUMBER OF SUBWATERSHEDS - 1
- 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

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* * * * *
 JUNCTION 2, BRANCH 2, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	11.60	84.00	.220	.000	.100	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	150.0	20.00	.850	1.0	1.0
	2	.20	1000.0	2.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	4.51	.30	73.23	.086	.983	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION = 6.00 HOURS
 PRECIPITATION DEPTH = 1.31 INCHES
 RUNOFF VOLUME = .2944 ACRE-FT

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PEAK DISCHARGE = 4.2338 CFS
AREA = 11.6000 ACRES
TIME OF PEAK DISCHARGE = 3.20 HRS
LOAD RATE EXPONENT FACTOR = 1.50
BETA = 1.0000
SUBMERGE BULK SPECIFIC GRAVITY = 1.75
RAINFALL EROSITIVITY FACTOR = 15.26 EI UNIT
PEAK CONCENTRATION = 261770.30 MG/L
PEAK SETTLEABLE CONCENTRATION = 124.7147 ML/L
PEAK SETTLEABLE CONCENTRATION = 218250.70 MG/L
TOTAL SEDIMENT YIELD = 73.2310 TONS
REPRESENTATIVE PARTICLE SIZE = .0859 MM
TIME OF PEAK CONCENTRATION = 3.20 HRS

PERIOD OF SIGNIFICANT CONCENTRATION= 3.90 HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE
CONCENTRATION DURING PERIOD OF
SIGNIFICANT CONCENTRATION = 80.78 ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE
CONCENTRATION DURING PEAK 24 HOUR
PERIOD = 80.78 ML/L
ARITHMETIC AVERAGE SETTLEABLE
CONCENTRATION DURING PERIOD OF
SIGNIFICANT CONCENTRATION = 54.20 ML/L
ARITHMETIC AVERAGE SETTLEABLE
CONCENTRATION DURING PEAK 24 HOUR
PERIOD = 8.81 ML/L

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===== STRUCTURE DATA FOR JUNCTION #2 =====

QUESTION

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NO.
1. NUMBER OF SUBWATERSHEDS - 1
2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

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* * * * *
JUNCTION 2, BRANCH 2, STRUCTURE 2
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*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	3.50	84.00	.200	.000	.100	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	30.00	.850	1.0	1.0

2 .20 1000.0 1.00 .850 1.0 1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.41	.30	20.03	.019	.396	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0888	ACRE-FT
PEAK DISCHARGE	=	1.3174	CFS
AREA	=	3.5000	ACRES
TIME OF PEAK DISCHARGE	=	3.20	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	240972.00	MG/L
PEAK SETTLEABLE CONCENTRATION	=	84.0305	ML/L
PEAK SETTLEABLE CONCENTRATION	=	147053.50	MG/L
TOTAL SEDIMENT YIELD	=	20.0328	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0187	MM
TIME OF PEAK CONCENTRATION	=	3.20	HRS
PERIOD OF SIGNIFICANT CONCENTRATION=		3.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE			
CONCENTRATION DURING PERIOD OF			
SIGNIFICANT CONCENTRATION	=	53.87	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE			
CONCENTRATION DURING PEAK 24 HOUR			
PERIOD	=	53.87	ML/L
ARITHMETIC AVERAGE SETTLEABLE			
CONCENTRATION DURING PERIOD OF			
SIGNIFICANT CONCENTRATION	=	35.77	ML/L
ARITHMETIC AVERAGE SETTLEABLE			
CONCENTRATION DURING PEAK 24 HOUR			
PERIOD	=	5.81	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.1500	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	3.84	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.30	HRS
TOTAL DRAINAGE AREA	=	15.10	ACRES
TOTAL RUNOFF VOLUME	=	.3833	AC-FT
PEAK RUNOFF DISCHARGE	=	4.84	CFS
TIME TO PEAK DISCHARGE	=	3.30	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	

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PREVIOUS STRUCTURE TRAVEL TIME           =          .1500 HRS
TOTAL SEDIMENT YIELD                     =          93.2316 TONS
PEAK SEDIMENT CONCENTRATION              =       245742.00 MG/L
PEAK SETTLEABLE CONCENTRATION            =         110.0024 ML/L
PEAK SETTLEABLE CONCENTRATION            =       192504.20 MG/L
TIME TO PEAK CONCENTRATION               =           3.30 HRS

PERIOD OF SIGNIFICANT CONCENTRATION      =           3.90 HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE
  CONCENTRATION DURING PERIOD OF
  SIGNIFICANT CONCENTRATION              =           74.50 ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE
  CONCENTRATION DURING PEAK 24 HOUR
  PERIOD                                 =           74.50 ML/L
ARITHMETIC AVERAGE SETTLEABLE
  CONCENTRATION DURING PERIOD OF
  SIGNIFICANT CONCENTRATION              =           51.63 ML/L
ARITHMETIC AVERAGE SETTLEABLE
  CONCENTRATION DURING PEAK 24 HOUR
  PERIOD                                 =           8.39 ML/L

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===== STRUCTURE DATA FOR JUNCTION #3 =====

QUESTION
NO.

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1. NUMBER OF SUBWATERSHEDS -                1
2. TYPE OF SEDIMENT CONTROL STRUCTURE -      NULL STRUC.

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 JUNCTION 3, BRANCH 1, STRUCTURE 1

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	.40	84.00	.020	.000	.100	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	3.00	.850	1.0	1.0

*** COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS ***

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
			16			

 1 .22 .30 .22 .088 1.000 1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0102	ACRE-FT
PEAK DISCHARGE	=	.1871	CFS
AREA	=	.4000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	26229.30	MG/L
PEAK SETTLEABLE CONCENTRATION	=	12.5371	ML/L
PEAK SETTLEABLE CONCENTRATION	=	21939.90	MG/L
TOTAL SEDIMENT YIELD	=	.2177	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.20	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	7.72	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	7.72	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	5.08	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.68	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.40	
PREVIOUS MUSKINGUM ROUTING K	=	.0300	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	11.88	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.30	HRS
TOTAL DRAINAGE AREA	=	45.10	ACRES
TOTAL RUNOFF VOLUME	=	1.1447	AC-FT
PEAK RUNOFF DISCHARGE	=	11.93	CFS
TIME TO PEAK DISCHARGE	=	3.30	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	.99	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0300	HRS
TOTAL SEDIMENT YIELD	=	108.4325	TONS
PEAK SEDIMENT CONCENTRATION	=	115594.60	MG/L
PEAK SETTLEABLE CONCENTRATION	=	52.1175	ML/L
PEAK SETTLEABLE CONCENTRATION	=	91205.68	MG/L
TIME TO PEAK CONCENTRATION	=	3.30	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	4.20	HRS

VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 30.41 ML/L
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 30.41 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 19.75 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 3.46 ML/L

===== STRUCTURE DATA FOR JUNCTION #3 =====

QUESTION

NO.
 1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

 JUNCTION 3, BRANCH 2, STRUCTURE 1

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	4.30	84.00	.220	.150	.150	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	150.0	25.00	.850	1.0	1.0
	2	.20	1000.0	1.00	.850	1.0	1.0

*** COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS ***

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.67	.30	28.55	.018	.392	.942

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION = 6.00 HOURS
 PRECIPITATION DEPTH = 1.31 INCHES
 RUNOFF VOLUME = .1091 ACRE-FT
 PEAK DISCHARGE = 1.5011 CFS
 AREA = 4.3000 ACRES
 TIME OF PEAK DISCHARGE = 3.20 HRS
 LOAD RATE EXPONENT FACTOR = 1.50
 BETA = 2.9420
 SUBMERGE BULK SPECIFIC GRAVITY = 1.75
 RAINFALL EROSITIVITY FACTOR = 15.26 EI UNIT
 PEAK CONCENTRATION = 256775.40 MG/L
 PEAK SETTLEABLE CONCENTRATION = 85.8736 ML/L
 PEAK SETTLEABLE CONCENTRATION = 150278.80 MG/L
 TOTAL SEDIMENT YIELD = 26.8998 TONS
 REPRESENTATIVE PARTICLE SIZE = .0158 MM
 TIME OF PEAK CONCENTRATION = 3.20 HRS

PERIOD OF SIGNIFICANT CONCENTRATION= 3.80 HRS
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 56.29 ML/L
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 56.29 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 39.02 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 6.18 ML/L

===== STRUCTURE DATA FOR JUNCTION #4 =====

QUESTION

NO.
 1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

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 JUNCTION 4, BRANCH 1, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	3.70	84.00	.200	.050	.050	.40	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER	SEG	SOIL	LENGTH	SLOPE	CP	PART	SURF
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SHED	NUM	K	FEET	PCT	VALUE	OPT	COND
1	1	.20	130.0	30.00	.850	1.0	1.0
	2	.20	1000.0	2.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.49	.30	39.81	.042	.630	.990

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0939	ACRE-FT
PEAK DISCHARGE	=	1.4920	CFS
AREA	=	3.7000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	424158.80	MG/L
PEAK SETTLEABLE CONCENTRATION	=	180.2866	ML/L
PEAK SETTLEABLE CONCENTRATION	=	315501.60	MG/L
TOTAL SEDIMENT YIELD	=	39.4043	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0414	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	115.66	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	115.66	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	76.65	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	12.46	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.40	
PREVIOUS MUSKINGUM ROUTING K	=	.0400	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	13.24	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.30	HRS
TOTAL DRAINAGE AREA	=	53.10	ACRES
TOTAL RUNOFF VOLUME	=	1.3478	AC-FT

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PEAK RUNOFF DISCHARGE           =      13.92   CFS
TIME TO PEAK DISCHARGE          =       3.30   HRS
PREVIOUS STRUCTURE DELIVERY RATIO =       .99
PREVIOUS STRUCTURE TRAVEL TIME   =      .0400 HRS
TOTAL SEDIMENT YIELD            =    173.6242 TONS
PEAK SEDIMENT CONCENTRATION      =   160465.10 MG/L
PEAK SETTLEABLE CONCENTRATION   =    68.2851 ML/L
PEAK SETTLEABLE CONCENTRATION   =   119498.90 MG/L
TIME TO PEAK CONCENTRATION      =       3.10   HRS

PERIOD OF SIGNIFICANT CONCENTRATION =    4.20   HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE
  CONCENTRATION DURING PERIOD OF
  SIGNIFICANT CONCENTRATION      =    38.62   ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE
  CONCENTRATION DURING PEAK 24 HOUR
  PERIOD                        =    38.62   ML/L
ARITHMETIC AVERAGE SETTLEABLE
  CONCENTRATION DURING PERIOD OF
  SIGNIFICANT CONCENTRATION      =    25.60   ML/L
ARITHMETIC AVERAGE SETTLEABLE
  CONCENTRATION DURING PEAK 24 HOUR
  PERIOD                        =     4.48   ML/L

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===== STRUCTURE DATA FOR JUNCTION #4 =====

QUESTION
NO.

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1. NUMBER OF SUBWATERSHEDS - 1
2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

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 JUNCTION 4, BRANCH 2, STRUCTURE 1

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	1.60	84.00	.100	.050	.050	.40	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	30.00	.850	1.0	1.0
	2	.20	500.0	5.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.86	.30	23.21	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0406	ACRE-FT
PEAK DISCHARGE	=	.8616	CFS
AREA	=	1.6000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	574913.60	MG/L
PEAK SETTLEABLE CONCENTRATION	=	274.7894	ML/L
PEAK SETTLEABLE CONCENTRATION	=	480881.50	MG/L
TOTAL SEDIMENT YIELD	=	23.2054	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0882	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION=		3.20	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	172.76	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	172.76	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	116.78	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	15.57	ML/L

===== STRUCTURE DATA FOR JUNCTION #5 =====

QUESTION

NO.

- | | |
|---|-------------|
| 1. NUMBER OF SUBWATERSHEDS - | 1 |
| 2. TYPE OF SEDIMENT CONTROL STRUCTURE - | NULL STRUC. |

 JUNCTION 5, BRANCH 1, STRUCTURE 1

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	4.30	76.00	.100	.050	.050	.40	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	200.0	50.00	.350	1.0	1.0
	2	.20	500.0	1.00	.350	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.89	.12	13.84	.019	.398	.999

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0430	ACRE-FT
PEAK DISCHARGE	=	.8938	CFS
AREA	=	4.3000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.1708	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	388450.40	MG/L
PEAK SETTLEABLE CONCENTRATION	=	135.9211	ML/L
PEAK SETTLEABLE CONCENTRATION	=	237861.80	MG/L
TOTAL SEDIMENT YIELD	=	13.8284	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0190	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION=		3.10	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	77.21	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	77.21	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	58.89	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	7.61	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0800	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	13.74	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.40	HRS
TOTAL DRAINAGE AREA	=	59.00	ACRES
TOTAL RUNOFF VOLUME	=	1.4314	AC-FT
PEAK RUNOFF DISCHARGE	=	14.00	CFS
TIME TO PEAK DISCHARGE	=	3.40	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0800	HRS
TOTAL SEDIMENT YIELD	=	210.0822	TONS
PEAK SEDIMENT CONCENTRATION	=	229611.70	MG/L
PEAK SETTLEABLE CONCENTRATION	=	97.7379	ML/L
PEAK SETTLEABLE CONCENTRATION	=	171041.40	MG/L
TIME TO PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	4.20	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	43.79	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	43.79	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	33.15	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	5.80	ML/L

===== STRUCTURE DATA FOR JUNCTION #5 =====

QUESTION

NO.

- | | |
|---|-------------|
| 1. NUMBER OF SUBWATERSHEDS - | 1 |
| 2. TYPE OF SEDIMENT CONTROL STRUCTURE - | NULL STRUC. |

* * * * *
 JUNCTION 5, BRANCH 1, STRUCTURE 2
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	12.10	76.00	.150	.050	.050	.40	1.0

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*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATERSHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	130.0	40.00	.350	1.0	1.0
	2	.20	20.0	.50	.850	1.0	1.0
	3	.20	400.0	40.00	.350	1.0	1.0
	4	.20	200.0	1.00	.350	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.67	.12	27.50	.018	.391	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.1210	ACRE-FT
PEAK DISCHARGE	=	1.6652	CFS
AREA	=	12.1000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	244647.70	MG/L
PEAK SETTLEABLE CONCENTRATION	=	84.7282	ML/L
PEAK SETTLEABLE CONCENTRATION	=	148274.40	MG/L
TOTAL SEDIMENT YIELD	=	27.4939	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0181	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.60	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	52.95	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	52.95	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	41.16	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	6.17	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

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PREVIOUS MUSKINGUM ROUTING X,           =          .35
PREVIOUS MUSKINGUM ROUTING K           =          .0800 HRS
PREVIOUS ROUTED PEAK DISCHARGE         =         13.66 CFS
TIME OF ROUTED PEAK DISCHARGE          =          3.50 HRS
TOTAL DRAINAGE AREA                     =         71.10 ACRES
TOTAL RUNOFF VOLUME                     =         1.5524 AC-FT
PEAK RUNOFF DISCHARGE                   =         14.40 CFS
TIME TO PEAK DISCHARGE                  =          3.50 HRS
PREVIOUS STRUCTURE DELIVERY RATIO       =          1.00
PREVIOUS STRUCTURE TRAVEL TIME          =          .0800 HRS
TOTAL SEDIMENT YIELD                    =        237.5417 TONS
PEAK SEDIMENT CONCENTRATION              =       222184.50 MG/L
PEAK SETTLEABLE CONCENTRATION           =         92.4821 ML/L
PEAK SETTLEABLE CONCENTRATION           =       161843.70 MG/L
TIME TO PEAK CONCENTRATION              =          3.10 HRS

PERIOD OF SIGNIFICANT CONCENTRATION     =          4.20 HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE
  CONCENTRATION DURING PERIOD OF
  SIGNIFICANT CONCENTRATION              =         44.53 ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE
  CONCENTRATION DURING PEAK 24 HOUR
  PERIOD                                 =         44.53 ML/L
ARITHMETIC AVERAGE SETTLEABLE
  CONCENTRATION DURING PERIOD OF
  SIGNIFICANT CONCENTRATION              =         34.81 ML/L
ARITHMETIC AVERAGE SETTLEABLE
  CONCENTRATION DURING PEAK 24 HOUR
  PERIOD                                 =          6.09 ML/L

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===== STRUCTURE DATA FOR JUNCTION #5 =====

QUESTION

NO.

- 1. NUMBER OF SUBWATERSHEDS - 1
- 2. TYPE OF SEDIMENT CONTROL STRUCTURE - POND

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* * * * *
 JUNCTION 5, BRANCH 1, STRUCTURE 3
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	1.40	80.00	.020	.100	.100	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND

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 1 1 .20 100.0 10.00 .350 1.0 1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.50	.20	1.07	.088	1.000	.971

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0231	ACRE-FT
PEAK DISCHARGE	=	.4309	CFS
AREA	=	1.4000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	57470.51	MG/L
PEAK SETTLEABLE CONCENTRATION	=	27.3116	ML/L
PEAK SETTLEABLE CONCENTRATION	=	47795.33	MG/L
TOTAL SEDIMENT YIELD	=	1.0396	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0841	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.10	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	16.10	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	16.10	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	11.43	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	1.48	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0200	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	14.40	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.50	HRS
TOTAL DRAINAGE AREA	=	72.50	ACRES
TOTAL RUNOFF VOLUME	=	1.5755	AC-FT
PEAK RUNOFF DISCHARGE	=	14.52	CFS
TIME TO PEAK DISCHARGE	=	3.50	HRS

PREVIOUS STRUCTURE DELIVERY RATIO = 1.00
 PREVIOUS STRUCTURE TRAVEL TIME = .0200 HRS
 TOTAL SEDIMENT YIELD = 237.6750 TONS
 PEAK SEDIMENT CONCENTRATION = 213078.60 MG/L
 PEAK SETTLEABLE CONCENTRATION = 88.6282 ML/L
 PEAK SETTLEABLE CONCENTRATION = 155099.40 MG/L
 TIME TO PEAK CONCENTRATION = 3.10 HRS

PERIOD OF SIGNIFICANT CONCENTRATION = 4.20 HRS
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 43.94 ML/L
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 43.94 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 34.08 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 5.96 ML/L

===== POND INPUT =====

QUESTION

- NO.
1. TIME INCREMENT OF THE ROUTED HYDROGRAPH - .20 HOURS
 2. NON-IDEAL SETTLING CORRECTION FACTOR - 1.00
 3. PERCENT OF PERMANENT POOL THAT IS DEAD SPACE - 20.00
 4. OUTFLOW WITHDRAWAL OPTION - SURFACE
 5. INFLOW VERTICAL CONCENTRATION - COMP. MIXED
 6. NUMBER OF STAGE POINTS - 13
 7. NUMBER OF ROUTED HYDROGRAPH POINTS - 500
 8. STAGE-DISCHARGE OPTION - INPUT
 9. OUTPUT OPTION - GRAPHS
 10. NUMBER OF CONTINUOUS STIRRED REACTORS 2

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* * * * *

POND RESULTS

* * * * *

***** BASIN GEOMETRY *****

STAGE (FT)	AREA (ACRES)	AVERAGE DEPTH (FT)	DISCHARGE (CFS)	CAPACITY (ACRES-FT)
.00	.000	.00	.00	.00
1.00	.170	.50	.00	.09
2.00	.340	1.25	.00	.34
3.00	.460	1.99	.00	.74

4.00	.590	2.73	.00	1.26
5.00	.700	3.45	.00	1.91
5.34	.760	3.70	.00	2.16
5.40	.770	3.74	.57	2.20
5.50	.790	3.81	2.49	2.28
5.60	.800	3.87	5.16	2.36
6.00	.870	4.14	20.89	2.70
7.00	1.040	4.79	25.00	3.65
8.00	1.270	5.38	30.00	4.81

***** STORM EVENT SUMMARY *****

TURBULENCE FACTOR	=	1.00	
PERMANENT POOL CAPACITY	=	.340	ACRE-FT
DEAD STORAGE	=	20.00	PERCENT
TIME INCREMENT OUTFLOW	=	.20	HRS
VISCOSITY	=	.009	CM**2/SEC
INFLOW RUNOFF VOLUME	=	1.575	ACRE-FT
OUTFLOW ROUTED VOLUME	=	.004	ACRE-FT
STORM VOLUME DISCHARGED	=	.004	ACRE-FT
POND VOLUME AT PEAK STAGE	=	1.916	ACRE-FT
PEAK STAGE	=	5.008	FT
PEAK INFLOW RATE	=	14.525	CFS
PEAK DISCHARGE RATE	=	.001	CFS
PEAK INFLOW SEDIMENT CONCENTRATION	=	213078.60	MG/L
PEAK EFFLUENT SEDIMENT CONCENTRATION	=	39138.49	MG/L
PEAK EFFLUENT SETTLEABLE CONCENTRATION	=	.0000	ML/L
PEAK EFFLUENT SETTLEABLE CONCENTRATION	=	.06	MG/L
STORM AVERAGE EFFLUENT CONCENTRATION	=	15905.83	MG/L
AVERAGE EFFLUENT SEDIMENT CONCENTRATION	=	15905.83	MG/L
BASIN TRAP EFFICIENCY	=	99.97	PERCENT
DETENTION TIME OF FLOW WITH SEDIMENT	=	22.46	HRS
DETENTION TIME FROM HYDROGRAPH CENTERS	=	22.46	HRS
DETENTION TIME INCLUDING STORED FLOW	=	22.46	HRS
SEDIMENT LOAD DISCHARGED	=	.08	TONS
PERIOD OF SIGNIFICANT CONCENTRATION	=	47.20	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L

*** PARTICLE SIZE DISTRIBUTION OF SEDIMENT ***

SIZE,MM	13.0000	2.0000	.4250	.2500	.1500	.0750
PERCENT FINER	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
SIZE,MM	.0500	.0300	.0200	.0100	.0080	.0060

PERCENT FINER 100.0000 100.0000 100.0000 100.0000 100.0000 100.0000

SIZE,MM .0040 .0020 .0001

PERCENT FINER 100.0000 100.0000 .0000

*** HYDROGRAPH AND SEDIMENT GRAPH ***
 (TWO CONSECUTIVE VALUES PER LINE)

TIME (HR)	DISCHARGE (CFS)	SED DISC (MG/L)	***** *	TIME (HR)	DISCHARGE (CFS)	SED DISC (MG/L)
.00	.000	.000	*	.20	.000	.000
.40	.000	.000	*	.60	.000	.000
.80	.000	.000	*	1.00	.000	.000
1.20	.000	.000	*	1.40	.000	.000
1.60	.000	.000	*	1.80	.000	.000
2.00	.000	.000	*	2.20	.000	.000
2.40	.000	.000	*	2.60	.000	.000
2.80	.000	4.659	*	3.00	.000	1941.526
3.20	.000	17527.680	*	3.40	.001	34699.430
3.60	.001	39138.490	*	3.80	.001	35932.800
4.00	.001	32380.030	*	4.20	.001	29727.800
4.40	.001	27763.990	*	4.60	.001	26286.150
4.80	.001	25087.240	*	5.00	.001	24100.540
5.20	.001	23253.040	*	5.40	.001	22517.000
5.60	.001	21877.010	*	5.80	.001	21315.020
6.00	.001	20810.160	*	6.20	.001	20349.330
6.40	.001	19934.610	*	6.60	.001	19542.330
6.80	.001	19191.080	*	7.00	.001	18902.520
7.20	.001	18684.940	*	7.40	.001	18495.630
7.60	.001	18327.370	*	7.80	.001	18175.170
8.00	.001	18035.430	*	8.20	.001	17905.740
8.40	.001	17784.430	*	8.60	.001	17670.280
8.80	.001	17562.330	*	9.00	.001	17459.860
9.20	.001	17362.380	*	9.40	.001	17269.950
9.60	.001	17183.020	*	9.80	.001	17101.730
10.00	.001	17025.600	*	10.20	.001	16953.690
10.40	.001	16885.250	*	10.60	.001	16819.920
10.80	.001	16757.510	*	11.00	.001	16697.760
11.20	.001	16640.350	*	11.40	.001	16585.000
11.60	.001	16531.600	*	11.80	.001	16480.140
12.00	.001	16430.810	*	12.20	.001	16383.850
12.40	.001	16339.270	*	12.60	.001	16296.840
12.80	.001	16256.120	*	13.00	.001	16216.760
13.20	.001	16178.560	*	13.40	.001	16141.410
13.60	.001	16105.210	*	13.80	.001	16069.910
14.00	.001	16035.440	*	14.20	.001	16001.750
14.40	.001	15968.850	*	14.60	.001	15936.870
14.80	.001	15905.980	*	15.00	.001	15876.230
15.20	.001	15847.500	*	15.40	.001	15819.600
15.60	.001	15792.360	*	15.80	.001	15765.710
16.00	.001	15739.590	*	16.20	.001	15713.970
16.40	.001	15688.820	*	16.60	.001	15664.120
16.80	.001	15639.860	*	17.00	.001	15616.070
17.20	.001	15592.900	*	17.40	.001	15570.460
17.60	.001	15548.750	*	17.80	.001	15527.680
18.00	.001	15507.110	*	18.20	.001	15486.890
18.40	.001	15466.760	*	18.60	.001	15446.400
18.80	.001	15425.680	*	19.00	.001	15404.660

19.20	.001	15383.570	*	19.40	.001	15362.540
19.60	.001	15341.710	*	19.80	.001	15321.190
20.00	.001	15301.050	*	20.20	.001	15281.300
20.40	.001	15261.870	*	20.60	.001	15242.710
20.80	.001	15223.770	*	21.00	.001	15205.060
21.20	.001	15186.540	*	21.40	.001	15168.230
21.60	.001	15150.120	*	21.80	.001	15132.220
22.00	.001	15114.530	*	22.20	.001	15097.090
22.40	.001	15079.960	*	22.60	.001	15063.160
22.80	.001	15046.670	*	23.00	.001	15030.440
23.20	.001	15014.420	*	23.40	.001	14998.610
23.60	.001	14982.970	*	23.80	.001	14967.510
24.00	.001	14952.230	*	24.20	.001	14937.100
24.40	.001	14922.140	*	24.60	.001	14907.330
24.80	.001	14892.670	*	25.00	.001	14878.160
25.20	.001	14863.790	*	25.40	.001	14849.560
25.60	.001	14835.460	*	25.80	.001	14821.500
26.00	.001	14807.660	*	26.20	.001	14793.950
26.40	.001	14780.350	*	26.60	.001	14766.880
26.80	.001	14753.530	*	27.00	.001	14740.290
27.20	.001	14727.160	*	27.40	.001	14714.150
27.60	.001	14701.250	*	27.80	.001	14688.450
28.00	.001	14675.760	*	28.20	.001	14663.170
28.40	.001	14650.640	*	28.60	.001	14638.040
28.80	.001	14625.230	*	29.00	.001	14612.160
29.20	.001	14598.900	*	29.40	.001	14585.560
29.60	.001	14572.210	*	29.80	.001	14558.890
30.00	.001	14545.600	*	30.20	.001	14532.370
30.40	.001	14519.200	*	30.60	.001	14506.090
30.80	.001	14493.050	*	31.00	.001	14480.080
31.20	.001	14467.190	*	31.40	.001	14454.360
31.60	.001	14441.610	*	31.80	.001	14428.940
32.00	.001	14416.350	*	32.20	.001	14403.850
32.40	.001	14391.430	*	32.60	.001	14379.090
32.80	.001	14366.850	*	33.00	.001	14354.680
33.20	.001	14342.600	*	33.40	.001	14330.600
33.60	.001	14318.680	*	33.80	.001	14306.850
34.00	.001	14295.090	*	34.20	.001	14283.400
34.40	.001	14271.800	*	34.60	.001	14260.270
34.80	.001	14248.820	*	35.00	.001	14237.440
35.20	.001	14226.130	*	35.40	.001	14214.890
35.60	.001	14203.720	*	35.80	.001	14192.630
36.00	.001	14181.600	*	36.20	.001	14170.640
36.40	.001	14159.750	*	36.60	.001	14148.920
36.80	.001	14138.160	*	37.00	.001	14127.470
37.20	.001	14116.840	*	37.40	.001	14106.270
37.60	.001	14095.770	*	37.80	.001	14085.330
38.00	.001	14074.950	*	38.20	.001	14064.630
38.40	.001	14054.360	*	38.60	.001	14044.120
38.80	.001	14033.800	*	39.00	.001	14023.320
39.20	.001	14012.670	*	39.40	.001	14001.910
39.60	.001	13991.090	*	39.80	.001	13980.270
40.00	.001	13969.450	*	40.20	.001	13958.660
40.40	.001	13947.900	*	40.60	.001	13937.170
40.80	.001	13926.480	*	41.00	.001	13915.830
41.20	.001	13905.210	*	41.40	.001	13894.640
41.60	.001	13884.110	*	41.80	.001	13873.630
42.00	.001	13863.190	*	42.20	.001	13852.800
42.40	.001	13842.470	*	42.60	.001	13832.180
42.80	.001	13821.950	*	43.00	.001	13811.770

43.20	.001	13801.640	*	43.40	.001	13791.570
43.60	.001	13781.540	*	43.80	.001	13771.570
44.00	.001	13761.640	*	44.20	.001	13751.770
44.40	.001	13741.940	*	44.60	.001	13732.160
44.80	.001	13722.430	*	45.00	.001	13712.750
45.20	.001	13703.110	*	45.40	.001	13693.520
45.60	.001	13683.980	*	45.80	.001	13674.470
46.00	.001	13665.020	*	46.20	.001	13655.610
46.40	.001	13646.250	*	46.60	.001	13636.930
46.80	.001	13627.650	*	47.00	.001	13618.410
47.20	.001	13609.220	*	47.40	.001	13600.070
47.60	.001	13590.960	*	47.80	.001	13581.900
48.00	.001	13572.870	*	48.20	.001	13563.890
48.40	.001	13554.940	*	48.60	.001	13546.040
48.80	.001	13537.140	*	49.00	.001	13528.180
49.20	.001	13519.140	*	49.40	.001	13509.990
49.60	.001	13500.780	*	49.80	.001	13491.550

*** RUN COMPLETED ***

RAIL CUT POND
10 YEAR, 24 HOUR STORM
PHASE ONE

July 11, 1994

```

*****
*          (program name)          * SEDIMOT S/N   : 1353220014 *
*          (program description)   * HMVersion    : 3.20      *
*                                   * Date         : 5/25/94   *
*                                   * Time        : 9:29:57   *
*                                   * Input file   : rc1024.in  *
*                                   * Output file  : rc1024.out *
*                                   *                *
*****

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XXXXX  XXXXXXXX  XXXXXXXX  XXXXXX  X      X      XXXXXX  XXXXXXXX
X      X  X      X      X      X      XX     XX     X      X      X
X      X      X      X      X      X  X  X  X  X      X      X
XXXXX  XXXXXX  X      X      X      X  X  X  X  X      X      X
      X  X      X      X      X      X      X  X  X      X      X
X      X  X      X      X      X      X      X  X  X      X      X
XXXXX  XXXXXXXX  XXXXXXXX  XXXXXX  X      X      XXXXXX  X

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::::::::::::::::::::::::::::::::::::::::::::::::::
::::::::::::::::::::::::::::::::::::::::::::::::::
:::
::: Full Microcomputer Implementation :::
::: by :::
::: Haestad Methods, Inc. :::
:::
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::::::::::::::::::::::::::::::::::::::::::::::::::

```

37 Brookside Road * Waterbury, Connecticut 06708 * (203) 755-1666

1	2
2	2
3	2
4	2
5	1

3. COMPUTATION - BOTH HYDROLOGY AND SEDIMENTOLOGY

=====

===== SEDIMENTOLOGY INPUTS =====

QUESTION

NO.

1. SPECIFIC GRAVITY -	2.75
2. COEFFICIENT FOR DISTRIBUTING SEDIMENT LOAD -	1.50
3. SUBMERGED BULK SPECIFIC GRAVITY -	1.75
4. NUMBER OF PARTICLE SIZE DISTRIBUTIONS -	1
5. NUMBER OF DATA VALUES PER PARTICLE SIZE DISTRIBUTION -	15

=====

===== INPUT PARTICLE SIZE DISTRIBUTIONS =====

VALUE NO.	SIZE, MM
1	13.0000
2	2.0000
3	.4250
4	.2500
5	.1500
6	.0750
7	.0500
8	.0300
9	.0200
10	.0100
11	.0080
12	.0060
13	.0040
14	.0020
15	.0001

=====

===== PERCENT FINER DISTRIBUTIONS =====

VALUE NO.	PARTICLE SIZE #
1	94.30
2	83.70
3	78.00
4	73.30
5	66.30

6	45.00
7	34.00
8	26.30
9	20.30
10	15.00
11	13.80
12	12.30
13	11.00
14	10.00
15	.00

=====

===== STRUCTURE INPUT FOR JUNCTION #1 =====

BRANCH	NUMBER OF STRUCTURES
1	2
2	1

=====

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
1	PRIOR J OR S TO STRUCTURE 2	.06	.06	.35
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

=====

===== STRUCTURE INPUT FOR JUNCTION #2 =====

BRANCH	NUMBER OF STRUCTURES
1	1
2	2

=====

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.05	.05	.40
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
2	PRIOR J OR S TO STRUCTURE 2	.15	.15	.35

=====

===== STRUCTURE INPUT FOR JUNCTION #3 =====

BRANCH	NUMBER OF STRUCTURES
1	1
2	1

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.03	.03	.40
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

===== STRUCTURE INPUT FOR JUNCTION #4 =====

BRANCH	NUMBER OF STRUCTURES
1	1
2	1

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.04	.04	.40
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

===== STRUCTURE INPUT FOR JUNCTION #5 =====

BRANCH	NUMBER OF STRUCTURES
1	3

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1	2	3
1	PRIOR J OR S TO STRUCTURE 1	TIME	MUSK. K	MUSK. X,
1	PRIOR J OR S TO STRUCTURE 2	.08	.08	.35
1	PRIOR J OR S TO STRUCTURE 3	.08	.08	.35
1	PRIOR J OR S TO STRUCTURE 3	.02	.02	.35

STRUCTURE DATA FOR JUNCTION #1

QUESTION

- NO.
1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

 JUNCTION 1, BRANCH 1, STRUCTURE 1

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	18.10	84.00	.320	.000	.200	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	1200.0	2.00	.850	1.0	1.0
	2	.20	300.0	1.00	.850	1.0	1.0

*** COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS ***

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	9.11	.63	17.49	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION = 24.00 HOURS
 PRECIPITATION DEPTH = 1.84 INCHES

RUNOFF VOLUME = .9546 ACRE-FT
 PEAK DISCHARGE = 8.5768 CFS
 AREA = 18.1000 ACRES
 TIME OF PEAK DISCHARGE = 12.30 HRS
 LOAD RATE EXPONENT FACTOR = 1.50
 BETA = 1.0000
 SUBMERGE BULK SPECIFIC GRAVITY = 1.75
 RAINFALL EROSITIVITY FACTOR = 18.15 EI UNIT
 PEAK CONCENTRATION = 24564.52 MG/L
 PEAK SETTLEABLE CONCENTRATION = 11.7413 ML/L
 PEAK SETTLEABLE CONCENTRATION = 20547.36 MG/L
 TOTAL SEDIMENT YIELD = 17.4858 TONS
 REPRESENTATIVE PARTICLE SIZE = .0883 MM
 TIME OF PEAK CONCENTRATION = 12.30 HRS

PERIOD OF SIGNIFICANT CONCENTRATION= 13.90 HRS
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 6.36 ML/L
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 6.36 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 3.11 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 1.80 ML/L

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

NO.
 1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

* * * * *
 JUNCTION 1, BRANCH 1, STRUCTURE 2
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	4.10	84.00	.130	.000	.100	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
------------	---------	--------	-------------	-----------	----------	----------	-----------

1	1	.20	300.0	3.00	.850	1.0	1.0
	2	.20	300.0	2.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	2.51	.63	5.01	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	24.00	HOURS
PRECIPITATION DEPTH	=	1.84	INCHES
RUNOFF VOLUME	=	.2162	ACRE-FT
PEAK DISCHARGE	=	2.3552	CFS
AREA	=	4.1000	ACRES
TIME OF PEAK DISCHARGE	=	12.20	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	31747.23	MG/L
PEAK SETTLEABLE CONCENTRATION	=	15.1745	ML/L
PEAK SETTLEABLE CONCENTRATION	=	26555.45	MG/L
TOTAL SEDIMENT YIELD	=	5.0126	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	12.20	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	13.50	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	7.91	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	7.91	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	3.74	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	2.10	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0600	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	8.18	CFS
TIME OF ROUTED PEAK DISCHARGE	=	12.40	HRS
TOTAL DRAINAGE AREA	=	22.20	ACRES
TOTAL RUNOFF VOLUME	=	1.1708	AC-FT
PEAK RUNOFF DISCHARGE	=	9.71	CFS
TIME TO PEAK DISCHARGE	=	12.30	HRS

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PREVIOUS STRUCTURE DELIVERY RATIO      =      1.00
PREVIOUS STRUCTURE TRAVEL TIME         =      .0600 HRS
TOTAL SEDIMENT YIELD                   =      22.4952 TONS
PEAK SEDIMENT CONCENTRATION            =      24511.14 MG/L
PEAK SETTLEABLE CONCENTRATION          =      11.7155 ML/L
PEAK SETTLEABLE CONCENTRATION          =      20502.16 MG/L
TIME TO PEAK CONCENTRATION             =      12.20 HRS

PERIOD OF SIGNIFICANT CONCENTRATION     =      13.90 HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE
CONCENTRATION DURING PERIOD OF
SIGNIFICANT CONCENTRATION               =      6.65 ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE
CONCENTRATION DURING PEAK 24 HOUR
PERIOD                                  =      6.65 ML/L
ARITHMETIC AVERAGE SETTLEABLE
CONCENTRATION DURING PERIOD OF
SIGNIFICANT CONCENTRATION               =      3.28 ML/L
ARITHMETIC AVERAGE SETTLEABLE
CONCENTRATION DURING PEAK 24 HOUR
PERIOD                                  =      1.90 ML/L

```

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

NO.
1. NUMBER OF SUBWATERSHEDS - 1
2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

JUNCTION 1, BRANCH 2, STRUCTURE 1

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	5.60	84.00	.210	.000	.100	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	200.0	2.00	.850	1.0	1.0
	2	.20	800.0	1.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	3.20	.63	3.34	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	24.00	HOURS
PRECIPITATION DEPTH	=	1.84	INCHES
RUNOFF VOLUME	=	.2953	ACRE-FT
PEAK DISCHARGE	=	3.0786	CFS
AREA	=	5.6000	ACRES
TIME OF PEAK DISCHARGE	=	12.20	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	15828.86	MG/L
PEAK SETTLEABLE CONCENTRATION	=	7.5659	ML/L
PEAK SETTLEABLE CONCENTRATION	=	13240.29	MG/L
TOTAL SEDIMENT YIELD	=	3.3380	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	12.20	HRS
PERIOD OF SIGNIFICANT CONCENTRATION=		13.60	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE			
CONCENTRATION DURING PERIOD OF			
SIGNIFICANT CONCENTRATION	=	3.95	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE			
CONCENTRATION DURING PEAK 24 HOUR			
PERIOD	=	3.95	ML/L
ARITHMETIC AVERAGE SETTLEABLE			
CONCENTRATION DURING PERIOD OF			
SIGNIFICANT CONCENTRATION	=	1.87	ML/L
ARITHMETIC AVERAGE SETTLEABLE			
CONCENTRATION DURING PEAK 24 HOUR			
PERIOD	=	1.06	ML/L

===== STRUCTURE DATA FOR JUNCTION #2 =====

QUESTION

NO.

- | | |
|---|-------------|
| 1. NUMBER OF SUBWATERSHEDS - | 1 |
| 2. TYPE OF SEDIMENT CONTROL STRUCTURE - | NULL STRUC. |

 JUNCTION 2, BRANCH 1, STRUCTURE 1

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	1.80	84.00	.050	.000	.000	.00	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	250.0	3.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.25	.63	1.60	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	24.00	HOURS
PRECIPITATION DEPTH	=	1.84	INCHES
RUNOFF VOLUME	=	.0949	ACRE-FT
PEAK DISCHARGE	=	1.2489	CFS
AREA	=	1.8000	ACRES
TIME OF PEAK DISCHARGE	=	12.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	24561.10	MG/L
PEAK SETTLEABLE CONCENTRATION	=	11.7397	ML/L
PEAK SETTLEABLE CONCENTRATION	=	20544.50	MG/L
TOTAL SEDIMENT YIELD	=	1.6026	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	12.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	12.80	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	5.94	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	5.94	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	2.65	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	1.42	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

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-----
PREVIOUS MUSKINGUM ROUTING X,           =          .40
PREVIOUS MUSKINGUM ROUTING K           =          .0500 HRS
PREVIOUS ROUTED PEAK DISCHARGE         =          12.42 CFS
TIME OF ROUTED PEAK DISCHARGE          =          12.30 HRS
TOTAL DRAINAGE AREA                     =          29.60 ACRES
TOTAL RUNOFF VOLUME                     =          1.5611 AC-FT
PEAK RUNOFF DISCHARGE                   =          12.68 CFS
TIME TO PEAK DISCHARGE                  =          12.30 HRS
PREVIOUS STRUCTURE DELIVERY RATIO       =           .99
PREVIOUS STRUCTURE TRAVEL TIME          =           .0500 HRS
TOTAL SEDIMENT YIELD                    =          27.0550 TONS
PEAK SEDIMENT CONCENTRATION             =       21773.76 MG/L
PEAK SETTLEABLE CONCENTRATION           =          10.3792 ML/L
PEAK SETTLEABLE CONCENTRATION           =       18163.57 MG/L
TIME TO PEAK CONCENTRATION              =           12.20 HRS

PERIOD OF SIGNIFICANT CONCENTRATION     =          13.90 HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE
  CONCENTRATION DURING PERIOD OF
  SIGNIFICANT CONCENTRATION              =           6.00 ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE
  CONCENTRATION DURING PEAK 24 HOUR
  PERIOD                                  =           6.00 ML/L
ARITHMETIC AVERAGE SETTLEABLE
  CONCENTRATION DURING PERIOD OF
  SIGNIFICANT CONCENTRATION              =           3.00 ML/L
ARITHMETIC AVERAGE SETTLEABLE
  CONCENTRATION DURING PEAK 24 HOUR
  PERIOD                                  =           1.74 ML/L

```

===== STRUCTURE DATA FOR JUNCTION #2 =====

QUESTION

- NO.
- 1. NUMBER OF SUBWATERSHEDS - 1
 - 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

=====

* * * * *
 JUNCTION 2, BRANCH 2, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	11.60	84.00	.220	.000	.100	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	150.0	20.00	.850	1.0	1.0
	2	.20	1000.0	2.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	6.58	.63	150.24	.081	.947	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	24.00	HOURS
PRECIPITATION DEPTH	=	1.84	INCHES
RUNOFF VOLUME	=	.6118	ACRE-FT
PEAK DISCHARGE	=	6.3302	CFS
AREA	=	11.6000	ACRES
TIME OF PEAK DISCHARGE	=	12.20	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	305357.80	MG/L
PEAK SETTLEABLE CONCENTRATION	=	144.3906	ML/L
PEAK SETTLEABLE CONCENTRATION	=	252683.60	MG/L
TOTAL SEDIMENT YIELD	=	150.2365	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0809	MM
TIME OF PEAK CONCENTRATION	=	12.20	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	13.70	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	78.08	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	78.08	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	38.38	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	21.91	ML/L

===== STRUCTURE DATA FOR JUNCTION #2 =====

QUESTION

NO.

- 1. NUMBER OF SUBWATERSHEDS - 1
- 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

* * * * *
 JUNCTION 2, BRANCH 2, STRUCTURE 2
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	3.50	84.00	.200	.000	.100	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	30.00	.850	1.0	1.0
	2	.20	1000.0	1.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	2.03	.63	42.57	.018	.392	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	24.00	HOURS
PRECIPITATION DEPTH	=	1.84	INCHES
RUNOFF VOLUME	=	.1846	ACRE-FT
PEAK DISCHARGE	=	1.9512	CFS
AREA	=	3.5000	ACRES
TIME OF PEAK DISCHARGE	=	12.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.1651	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	289156.90	MG/L
PEAK SETTLEABLE CONCENTRATION	=	100.2772	ML/L
PEAK SETTLEABLE CONCENTRATION	=	175485.10	MG/L
TOTAL SEDIMENT YIELD	=	42.5701	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0182	MM
TIME OF PEAK CONCENTRATION	=	12.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	13.60	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	53.92	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR			

PERIOD	=	53.92	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	26.42	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	14.97	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.1500	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	5.83	CFS
TIME OF ROUTED PEAK DISCHARGE	=	12.30	HRS
TOTAL DRAINAGE AREA	=	15.10	ACRES
TOTAL RUNOFF VOLUME	=	.7963	AC-FT
PEAK RUNOFF DISCHARGE	=	6.92	CFS
TIME TO PEAK DISCHARGE	=	12.30	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	.99	
PREVIOUS STRUCTURE TRAVEL TIME	=	.1500	HRS
TOTAL SEDIMENT YIELD	=	191.7521	TONS
PEAK SEDIMENT CONCENTRATION	=	283834.40	MG/L
PEAK SETTLEABLE CONCENTRATION	=	125.7645	ML/L
PEAK SETTLEABLE CONCENTRATION	=	220087.90	MG/L
TIME TO PEAK CONCENTRATION	=	12.30	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	13.60	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	71.94	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	71.94	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	36.46	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	20.66	ML/L

===== STRUCTURE DATA FOR JUNCTION #3 =====

QUESTION

- | | | |
|-----|--------------------------------------|-------------|
| NO. | | |
| 1. | NUMBER OF SUBWATERSHEDS - | 1 |
| 2. | TYPE OF SEDIMENT CONTROL STRUCTURE - | NULL STRUC. |

 JUNCTION 3, BRANCH 1, STRUCTURE 1

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	.40	84.00	.020	.000	.100	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	3.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.28	.63	.32	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	24.00	HOURS
PRECIPITATION DEPTH	=	1.84	INCHES
RUNOFF VOLUME	=	.0211	ACRE-FT
PEAK DISCHARGE	=	.2443	CFS
AREA	=	.4000	ACRES
TIME OF PEAK DISCHARGE	=	12.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	23488.49	MG/L
PEAK SETTLEABLE CONCENTRATION	=	11.2270	ML/L
PEAK SETTLEABLE CONCENTRATION	=	19647.30	MG/L
TOTAL SEDIMENT YIELD	=	.3247	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	12.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	4.70	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	7.11	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	7.11	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	4.01	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.78	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.40	
PREVIOUS MUSKINGUM ROUTING K	=	.0300	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	19.61	CFS
TIME OF ROUTED PEAK DISCHARGE	=	12.30	HRS
TOTAL DRAINAGE AREA	=	45.10	ACRES
TOTAL RUNOFF VOLUME	=	2.3785	AC-FT
PEAK RUNOFF DISCHARGE	=	19.67	CFS
TIME TO PEAK DISCHARGE	=	12.30	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	.99	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0300	HRS
TOTAL SEDIMENT YIELD	=	217.5611	TONS
PEAK SEDIMENT CONCENTRATION	=	122391.70	MG/L
PEAK SETTLEABLE CONCENTRATION	=	54.6337	ML/L
PEAK SETTLEABLE CONCENTRATION	=	95608.92	MG/L
TIME TO PEAK CONCENTRATION	=	12.40	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	13.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	28.95	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	28.95	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	14.08	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	8.15	ML/L

===== STRUCTURE DATA FOR JUNCTION #3 =====

QUESTION

NO.	
1. NUMBER OF SUBWATERSHEDS -	1
2. TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

* * * * *
 JUNCTION 3, BRANCH 2, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATERSHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	4.30	84.00	.220	.150	.150	.35	1.0

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*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	150.0	25.00	.850	1.0	1.0
	2	.20	1000.0	1.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	2.44	.63	61.81	.018	.388	.951

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	24.00	HOURS
PRECIPITATION DEPTH	=	1.84	INCHES
RUNOFF VOLUME	=	.2268	ACRE-FT
PEAK DISCHARGE	=	2.2271	CFS
AREA	=	4.3000	ACRES
TIME OF PEAK DISCHARGE	=	12.20	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	2.5097	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	315310.30	MG/L
PEAK SETTLEABLE CONCENTRATION	=	105.3763	ML/L
PEAK SETTLEABLE CONCENTRATION	=	184408.60	MG/L
TOTAL SEDIMENT YIELD	=	58.7758	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0157	MM
TIME OF PEAK CONCENTRATION	=	12.20	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	13.50	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	58.04	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	58.04	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	29.19	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	16.42	ML/L

===== STRUCTURE DATA FOR JUNCTION #4 =====

QUESTION

NO.

- | | |
|---|-------------|
| 1. NUMBER OF SUBWATERSHEDS - | 1 |
| 2. TYPE OF SEDIMENT CONTROL STRUCTURE - | NULL STRUC. |

 JUNCTION 4, BRANCH 1, STRUCTURE 1

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	3.70	84.00	.200	.050	.050	.40	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	130.0	30.00	.850	1.0	1.0
	2	.20	1000.0	2.00	.850	1.0	1.0

*** COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS ***

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	2.15	.63	84.85	.040	.614	.990

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	24.00	HOURS
PRECIPITATION DEPTH	=	1.84	INCHES
RUNOFF VOLUME	=	.1951	ACRE-FT
PEAK DISCHARGE	=	2.1455	CFS
AREA	=	3.7000	ACRES
TIME OF PEAK DISCHARGE	=	12.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	498514.50	MG/L
PEAK SETTLEABLE CONCENTRATION	=	210.2106	ML/L
PEAK SETTLEABLE CONCENTRATION	=	367868.50	MG/L
TOTAL SEDIMENT YIELD	=	84.0063	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0394	MM
TIME OF PEAK CONCENTRATION	=	12.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	13.60	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF			

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SIGNIFICANT CONCENTRATION	=	114.95	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	114.95	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	57.42	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	32.54	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.40	
PREVIOUS MUSKINGUM ROUTING K	=	.0400	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	21.86	CFS
TIME OF ROUTED PEAK DISCHARGE	=	12.30	HRS
TOTAL DRAINAGE AREA	=	53.10	ACRES
TOTAL RUNOFF VOLUME	=	2.8004	AC-FT
PEAK RUNOFF DISCHARGE	=	22.67	CFS
TIME TO PEAK DISCHARGE	=	12.30	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	.99	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0400	HRS
TOTAL SEDIMENT YIELD	=	358.1572	TONS
PEAK SEDIMENT CONCENTRATION	=	165948.10	MG/L
PEAK SETTLEABLE CONCENTRATION	=	69.8364	ML/L
PEAK SETTLEABLE CONCENTRATION	=	122213.60	MG/L
TIME TO PEAK CONCENTRATION	=	12.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	13.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	37.67	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	37.67	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	18.86	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	10.92	ML/L

===== STRUCTURE DATA FOR JUNCTION #4 =====

QUESTION

- NO.
- | | |
|---|-------------|
| 1. NUMBER OF SUBWATERSHEDS - | 1 |
| 2. TYPE OF SEDIMENT CONTROL STRUCTURE - | NULL STRUC. |

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JUNCTION 4, BRANCH 2, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	1.60	84.00	.100	.050	.050	.40	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	30.00	.850	1.0	1.0
	2	.20	500.0	5.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.11	.63	48.31	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	24.00	HOURS
PRECIPITATION DEPTH	=	1.84	INCHES
RUNOFF VOLUME	=	.0844	ACRE-FT
PEAK DISCHARGE	=	1.1102	CFS
AREA	=	1.6000	ACRES
TIME OF PEAK DISCHARGE	=	12.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	643484.90	MG/L
PEAK SETTLEABLE CONCENTRATION	=	307.5642	ML/L
PEAK SETTLEABLE CONCENTRATION	=	538237.40	MG/L
TOTAL SEDIMENT YIELD	=	48.3000	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0882	MM
TIME OF PEAK CONCENTRATION	=	12.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	12.80	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	167.44	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	167.43	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	82.59	ML/L

ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 44.05 ML/L

===== STRUCTURE DATA FOR JUNCTION #5 =====

QUESTION

- NO.
 1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

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* * * * *
 JUNCTION 5, BRANCH 1, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	4.30	76.00	.100	.050	.050	.40	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	200.0	50.00	.350	1.0	1.0
	2	.20	500.0	1.00	.350	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.59	.33	40.52	.018	.393	.998

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

 STORM DURATION = 24.00 HOURS
 PRECIPITATION DEPTH = 1.84 INCHES
 RUNOFF VOLUME = .1198 ACRE-FT
 PEAK DISCHARGE = 1.5875 CFS
 AREA = 4.3000 ACRES
 TIME OF PEAK DISCHARGE = 12.00 HRS
 LOAD RATE EXPONENT FACTOR = 1.50
 BETA = .3589
 SUBMERGE BULK SPECIFIC GRAVITY = 1.75

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RAINFALL EROSITIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	469514.20	MG/L
PEAK SETTLEABLE CONCENTRATION	=	162.8424	ML/L
PEAK SETTLEABLE CONCENTRATION	=	284974.10	MG/L
TOTAL SEDIMENT YIELD	=	40.4260	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0182	MM
TIME OF PEAK CONCENTRATION	=	12.00	HRS

PERIOD OF SIGNIFICANT CONCENTRATION	=	12.30	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	76.91	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	76.91	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	44.52	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	22.82	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0800	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	22.33	CFS
TIME OF ROUTED PEAK DISCHARGE	=	12.30	HRS
TOTAL DRAINAGE AREA	=	59.00	ACRES
TOTAL RUNOFF VOLUME	=	3.0046	AC-FT
PEAK RUNOFF DISCHARGE	=	22.69	CFS
TIME TO PEAK DISCHARGE	=	12.30	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	.99	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0800	HRS
TOTAL SEDIMENT YIELD	=	444.4704	TONS
PEAK SEDIMENT CONCENTRATION	=	245526.90	MG/L
PEAK SETTLEABLE CONCENTRATION	=	102.9193	ML/L
PEAK SETTLEABLE CONCENTRATION	=	180108.80	MG/L
TIME TO PEAK CONCENTRATION	=	11.90	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	13.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	43.05	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	43.05	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	22.58	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	13.08	ML/L

QUESTION

NO.

- 1. NUMBER OF SUBWATERSHEDS - 1
- 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

 JUNCTION 5, BRANCH 1, STRUCTURE 2

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	12.10	76.00	.150	.050	.050	.40	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	130.0	40.00	.350	1.0	1.0
	2	.20	20.0	.50	.850	1.0	1.0
	3	.20	400.0	40.00	.350	1.0	1.0
	4	.20	200.0	1.00	.350	1.0	1.0

*** COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS ***

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	3.57	.33	83.13	.017	.382	.993

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	24.00	HOURS
PRECIPITATION DEPTH	=	1.84	INCHES
RUNOFF VOLUME	=	.3372	ACRE-FT
PEAK DISCHARGE	=	3.5714	CFS
AREA	=	12.1000	ACRES
TIME OF PEAK DISCHARGE	=	12.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	333404.50	MG/L
PEAK SETTLEABLE CONCENTRATION	=	113.4195	ML/L
PEAK SETTLEABLE CONCENTRATION	=	198484.20	MG/L
TOTAL SEDIMENT YIELD	=	82.5927	TONS

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REPRESENTATIVE PARTICLE SIZE	=	.0168	MM
TIME OF PEAK CONCENTRATION	=	12.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	12.80	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	55.28	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	55.28	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	33.13	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	17.67	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0800	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	22.36	CFS
TIME OF ROUTED PEAK DISCHARGE	=	12.40	HRS
TOTAL DRAINAGE AREA	=	71.10	ACRES
TOTAL RUNOFF VOLUME	=	3.3419	AC-FT
PEAK RUNOFF DISCHARGE	=	23.63	CFS
TIME TO PEAK DISCHARGE	=	12.40	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	.98	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0800	HRS
TOTAL SEDIMENT YIELD	=	520.1817	TONS
PEAK SEDIMENT CONCENTRATION	=	252848.40	MG/L
PEAK SETTLEABLE CONCENTRATION	=	102.2912	ML/L
PEAK SETTLEABLE CONCENTRATION	=	179009.70	MG/L
TIME TO PEAK CONCENTRATION	=	12.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	13.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	43.55	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	43.55	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	23.53	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	13.63	ML/L

===== STRUCTURE DATA FOR JUNCTION #5 =====

STATION
NO.

- | | |
|---|------|
| 1. NUMBER OF SUBWATERSHEDS - | 1 |
| 2. TYPE OF SEDIMENT CONTROL STRUCTURE - | POND |

 JUNCTION 5, BRANCH 1, STRUCTURE 3

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	1.40	80.00	.020	.100	.100	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	10.00	.350	1.0	1.0

*** COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS ***

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.73	.47	2.05	.088	1.000	.971

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	24.00	HOURS
PRECIPITATION DEPTH	=	1.84	INCHES
RUNOFF VOLUME	=	.0546	ACRE-FT
PEAK DISCHARGE	=	.6385	CFS
AREA	=	1.4000	ACRES
TIME OF PEAK DISCHARGE	=	12.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	53647.32	MG/L
PEAK SETTLEABLE CONCENTRATION	=	25.4947	ML/L
PEAK SETTLEABLE CONCENTRATION	=	44615.78	MG/L
TOTAL SEDIMENT YIELD	=	1.9872	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0841	MM
TIME OF PEAK CONCENTRATION	=	12.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	12.30	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	12.66	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE			

CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	12.66	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	6.46	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	3.31	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0200	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	23.63	CFS
TIME OF ROUTED PEAK DISCHARGE	=	12.40	HRS
TOTAL DRAINAGE AREA	=	72.50	ACRES
TOTAL RUNOFF VOLUME	=	3.3964	AC-FT
PEAK RUNOFF DISCHARGE	=	23.78	CFS
TIME TO PEAK DISCHARGE	=	12.40	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0200	HRS
TOTAL SEDIMENT YIELD	=	520.3244	TONS
PEAK SEDIMENT CONCENTRATION	=	243351.30	MG/L
PEAK SETTLEABLE CONCENTRATION	=	98.3798	ML/L
PEAK SETTLEABLE CONCENTRATION	=	172164.70	MG/L
TIME TO PEAK CONCENTRATION	=	12.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	13.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	42.89	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	42.89	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	23.09	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	13.37	ML/L

===== POND INPUT =====
QUESTION

- | | | |
|-----|--|-------------|
| NO. | | |
| 1. | TIME INCREMENT OF THE ROUTED HYDROGRAPH - | .20 HOURS |
| 2. | NON-IDEAL SETTLING CORRECTION FACTOR - | 1.00 |
| 3. | PERCENT OF PERMANENT POOL THAT IS DEAD SPACE - | 20.00 |
| 4. | OUTFLOW WITHDRAWAL OPTION - | SURFACE |
| 5. | INFLOW VERTICAL CONCENTRATION - | COMP. MIXED |
| 6. | NUMBER OF STAGE POINTS - | 13 |
| 7. | NUMBER OF ROUTED HYDROGRAPH POINTS - | 500 |
| 8. | STAGE-DISCHARGE OPTION - | INPUT |
| 9. | OUTPUT OPTION - | GRAPHS |
| 10. | NUMBER OF CONTINUOUS STIRRED REACTORS | 2 |

* * * * *

POND RESULTS

* * * * *

***** BASIN GEOMETRY *****

STAGE (FT)	AREA (ACRES)	AVERAGE DEPTH (FT)	DISCHARGE (CFS)	CAPACITY (ACRES-FT)
.00	.000	.00	.00	.00
1.00	.170	.50	.00	.09
2.00	.340	1.25	.00	.34
3.00	.460	1.99	.00	.74
4.00	.590	2.73	.00	1.26
5.00	.700	3.45	.00	1.91
5.34	.760	3.70	.00	2.16
5.40	.770	3.74	.57	2.20
5.50	.790	3.81	2.49	2.28
5.60	.800	3.87	5.16	2.36
6.00	.870	4.14	20.89	2.70
7.00	1.040	4.79	25.00	3.65
8.00	1.270	5.38	30.00	4.81

***** STORM EVENT SUMMARY *****

TURBULENCE FACTOR	=	1.00	
PERMANENT POOL CAPACITY	=	.340	ACRE-FT
DEAD STORAGE	=	20.00	PERCENT
TIME INCREMENT OUTFLOW	=	.20	HRS
VISCOSITY	=	.009	CM**2/SEC
INFLOW RUNOFF VOLUME	=	3.396	ACRE-FT
OUTFLOW ROUTED VOLUME	=	1.589	ACRE-FT
STORM VOLUME DISCHARGED	=	1.589	ACRE-FT
POND VOLUME AT PEAK STAGE	=	2.306	ACRE-FT
PEAK STAGE	=	5.531	FT
PEAK INFLOW RATE	=	23.785	CFS
PEAK DISCHARGE RATE	=	3.306	CFS
PEAK INFLOW SEDIMENT CONCENTRATION	=	243351.30	MG/L
PEAK EFFLUENT SEDIMENT CONCENTRATION	=	67181.47	MG/L
PEAK EFFLUENT SETTLEABLE CONCENTRATION	=	.0001	ML/L
PEAK EFFLUENT SETTLEABLE CONCENTRATION	=	.10	MG/L
STORM AVERAGE EFFLUENT CONCENTRATION	=	26116.23	MG/L
AVERAGE EFFLUENT SEDIMENT CONCENTRATION	=	26116.23	MG/L
BASIN TRAP EFFICIENCY	=	89.13	PERCENT
DETENTION TIME OF FLOW WITH SEDIMENT	=	3.44	HRS

DETENTION TIME FROM HYDROGRAPH CENTERS	=	3.44	HRS
DETENTION TIME INCLUDING STORED FLOW	=	3.44	HRS
SEDIMENT LOAD DISCHARGED	=	56.56	TONS
PERIOD OF SIGNIFICANT CONCENTRATION	=	38.80	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L

*** PARTICLE SIZE DISTRIBUTION OF SEDIMENT ***

SIZE,MM	13.0000	2.0000	.4250	.2500	.1500	.0750
PERCENT FINER	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
SIZE,MM	.0500	.0300	.0200	.0100	.0080	.0060
PERCENT FINER	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
SIZE,MM	.0040	.0020	.0001			
PERCENT FINER	100.0000	100.0000	.0000			

*** HYDROGRAPH AND SEDIMENT GRAPH ***
(TWO CONSECUTIVE VALUES PER LINE)

TIME (HR)	DISCHARGE (CFS)	SED DISC (MG/L)	***** *	TIME (HR)	DISCHARGE (CFS)	SED DISC (MG/L)
.00	.000	.000	*	.20	.000	.000
.40	.000	.000	*	.60	.000	.000
.80	.000	.000	*	1.00	.000	.000
1.20	.000	.000	*	1.40	.000	.000
1.60	.000	.000	*	1.80	.000	.000
2.00	.000	.000	*	2.20	.000	.000
2.40	.000	.000	*	2.60	.000	.000
2.80	.000	.000	*	3.00	.000	.000
3.20	.000	.000	*	3.40	.000	.000
3.60	.000	.000	*	3.80	.000	.000
4.00	.000	.000	*	4.20	.000	.000
4.40	.000	.000	*	4.60	.000	.000
4.80	.000	.000	*	5.00	.000	.000
5.20	.000	.000	*	5.40	.000	.000
5.60	.000	.000	*	5.80	.000	.000
6.00	.000	.000	*	6.20	.000	.000
6.40	.000	.000	*	6.60	.000	.000
6.80	.000	.000	*	7.00	.000	.000
7.20	.000	.000	*	7.40	.000	.000
7.60	.000	.000	*	7.80	.000	.000
8.00	.000	.000	*	8.20	.000	.000
8.40	.000	.000	*	8.60	.000	.000
8.80	.000	.000	*	9.00	.000	.000
9.20	.000	.000	*	9.40	.000	.000

9.60	.000	.000	*	9.80	.000	.000
10.00	.000	.000	*	10.20	.000	.000
10.40	.000	.000	*	10.60	.000	.000
10.80	.000	.000	*	11.00	.000	.000
11.20	.000	.068	*	11.40	.000	2.399
11.60	.000	27.538	*	11.80	.000	1447.064
12.00	.000	22157.440	*	12.20	.001	58575.420
12.40	.001	67181.470	*	12.60	.001	61302.360
12.80	.001	52838.130	*	13.00	.001	46913.960
13.20	.001	43005.220	*	13.40	.056	40251.750
13.60	1.405	38226.880	*	13.80	2.441	36595.220
14.00	3.072	35251.380	*	14.20	3.299	34093.380
14.40	3.262	33074.820	*	14.60	3.103	32182.610
14.80	2.894	31389.710	*	15.00	2.686	30689.790
15.20	2.531	30060.280	*	15.40	2.448	29479.010
15.60	2.401	28933.080	*	15.80	2.374	28416.720
16.00	2.359	27927.250	*	16.20	2.351	27451.520
16.40	2.303	26989.890	*	16.60	2.206	26557.980
16.80	2.059	26157.650	*	17.00	1.891	25798.600
17.20	1.748	25471.360	*	17.40	1.644	25163.610
17.60	1.573	24868.790	*	17.80	1.527	24583.700
18.00	1.497	24307.570	*	18.20	1.479	24040.440
18.40	1.468	23781.910	*	18.60	1.462	23531.020
18.80	1.459	23286.550	*	19.00	1.458	23047.530
19.20	1.459	22813.460	*	19.40	1.461	22583.970
19.60	1.463	22358.710	*	19.80	1.466	22137.300
20.00	1.469	21919.480	*	20.20	1.471	21701.120
20.40	1.449	21485.040	*	20.60	1.401	21279.830
20.80	1.326	21087.350	*	21.00	1.239	20912.150
21.20	1.165	20750.180	*	21.40	1.110	20596.010
21.60	1.073	20446.730	*	21.80	1.049	20300.900
22.00	1.033	20157.830	*	22.20	1.023	20017.110
22.40	1.017	19878.440	*	22.60	1.013	19741.620
22.80	1.011	19606.600	*	23.00	1.011	19473.460
23.20	1.011	19342.230	*	23.40	1.011	19212.810
23.60	1.012	19085.020	*	23.80	1.013	18958.640
24.00	1.011	18829.190	*	24.20	.986	18700.460
24.40	.931	18575.650	*	24.60	.835	18456.560
24.80	.679	18348.530	*	25.00	.525	18264.650
25.20	.428	18203.250	*	25.40	.348	18148.250
25.60	.284	18097.850	*	25.80	.231	18051.100
26.00	.188	18007.360	*	26.20	.153	17966.050
26.40	.125	17926.640	*	26.60	.102	17888.580
26.80	.083	17851.450	*	27.00	.068	17815.100
27.20	.055	17779.530	*	27.40	.045	17744.790
27.60	.037	17710.990	*	27.80	.030	17678.170
28.00	.024	17646.350	*	28.20	.020	17615.470
28.40	.016	17585.450	*	28.60	.013	17556.170
28.80	.011	17527.560	*	29.00	.009	17499.570
29.20	.007	17472.180	*	29.40	.006	17445.350
29.60	.005	17419.060	*	29.80	.004	17393.300
30.00	.003	17368.040	*	30.20	.003	17343.330
30.40	.002	17319.160	*	30.60	.002	17295.520
30.80	.001	17272.360	*	31.00	.001	17249.630
31.20	.001	17227.300	*	31.40	.001	17205.330
31.60	.001	17183.710	*	31.80	.001	17162.420
32.00	.001	17141.450	*	32.20	.001	17120.790
32.40	.001	17100.430	*	32.60	.001	17080.350
32.80	.001	17060.540	*	33.00	.001	17040.980
33.20	.001	17021.670	*	33.40	.001	17002.590

33.60	.001	16983.740	*	33.80	.001	16965.110
34.00	.001	16946.700	*	34.20	.001	16928.490
34.40	.001	16910.480	*	34.60	.001	16892.680
34.80	.001	16875.060	*	35.00	.001	16857.640
35.20	.001	16840.400	*	35.40	.001	16823.350
35.60	.001	16806.470	*	35.80	.001	16789.760
36.00	.001	16773.150	*	36.20	.001	16756.510
36.40	.001	16739.720	*	36.60	.001	16722.790
36.80	.001	16705.750	*	37.00	.001	16688.710
37.20	.001	16671.730	*	37.40	.001	16654.850
37.60	.001	16638.070	*	37.80	.001	16621.400
38.00	.001	16604.840	*	38.20	.001	16588.400
38.40	.001	16572.050	*	38.60	.001	16555.830
38.80	.001	16539.720	*	39.00	.001	16523.720
39.20	.001	16507.840	*	39.40	.001	16492.080
39.60	.001	16476.440	*	39.80	.001	16460.920
40.00	.001	16445.500	*	40.20	.001	16430.190
40.40	.001	16414.990	*	40.60	.001	16399.890
40.80	.001	16384.900	*	41.00	.001	16370.010
41.20	.001	16355.230	*	41.40	.001	16340.550
41.60	.001	16325.980	*	41.80	.001	16311.510
42.00	.001	16297.130	*	42.20	.001	16282.850
42.40	.001	16268.670	*	42.60	.001	16254.570
42.80	.001	16240.570	*	43.00	.001	16226.660
43.20	.001	16212.830	*	43.40	.001	16199.080
43.60	.001	16185.420	*	43.80	.001	16171.840
44.00	.001	16158.350	*	44.20	.001	16144.930
44.40	.001	16131.590	*	44.60	.001	16118.330
44.80	.001	16105.150	*	45.00	.001	16092.050
45.20	.001	16079.030	*	45.40	.001	16066.080
45.60	.001	16053.180	*	45.80	.001	16040.230
46.00	.001	16027.150	*	46.20	.001	16013.930
46.40	.001	16000.610	*	46.60	.001	15987.240
46.80	.001	15973.890	*	47.00	.001	15960.570
47.20	.001	15947.290	*	47.40	.001	15934.060
47.60	.001	15920.890	*	47.80	.001	15907.760
48.00	.001	15894.690	*	48.20	.001	15881.680
48.40	.001	15868.730	*	48.60	.001	15855.830
48.80	.001	15843.000	*	49.00	.001	15830.230
49.20	.001	15817.520	*	49.40	.001	15804.870
49.60	.001	15792.290	*	49.80	.001	15779.750

*** RUN COMPLETED ****

RAIL CUT POND
25 YEAR, 6 HOUR STORM
PHASE ONE

July 11, 1994

UNIVERSITY OF KENTUCKY COMPUTER MODEL
OF SURFACE MINE HYDROLOGY AND SEDIMENTOLOGY
FOR MORE INFORMATION CONTACT THE AGRICULTURAL
ENGINEERING DEPARTMENT

THE UK MODEL IS A DESIGN MODEL DEVELOPED TO PREDICT
THE HYDRAULIC AND SEDIMENT RESPONSE FROM SURFACE
MINED LANDS FOR A SPECIFIED RAINFALL EVENT (SINGLE STORM)

VERSION DATE 5-25-83

DISCLAIMER: NEITHER THE UNIVERSITY NOR ANY OF ITS EMPLOYEES
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CONCLUSIONS DRAWN FROM THE RESULTS OF THIS MODEL

WATERSHED IDENTIFICATION CODE

RAIL CUT POND 25 YEAR 6 HOUR STORM Phase 1 Reclamation

===== STORM INPUT =====

QUESTION
NO.

1. STORM TYPE -	SCS'S TYPE 2
2. RAINFALL DEPTH -	1.62 INCHES
3. STORM DURATION -	6.00 HOURS
4. TIME INCREMENT -	.10 HOURS

=====

===== WATERSHED DATA =====

QUESTION
NO.

1. NUMBER OF JUNCTIONS -	5
2. JUNCTION	NUMBER OF BRANCHES

1	2
2	2
3	2
4	2
5	1

3. COMPUTATION - BOTH HYDROLOGY AND SEDIMENTOLOGY

=====

===== SEDIMENTOLOGY INPUTS =====

QUESTION

NO.		
1.	SPECIFIC GRAVITY -	2.75
2.	COEFFICIENT FOR DISTRIBUTING SEDIMENT LOAD -	1.50
3.	SUBMERGED BULK SPECIFIC GRAVITY -	1.75
4.	NUMBER OF PARTICLE SIZE DISTRIBUTIONS -	1
5.	NUMBER OF DATA VALUES PER PARTICLE SIZE DISTRIBUTION -	15

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===== INPUT PARTICLE SIZE DISTRIBUTIONS =====

VALUE NO.	SIZE, MM
1	13.0000
2	2.0000
3	.4250
4	.2500
5	.1500
6	.0750
7	.0500
8	.0300
9	.0200
10	.0100
11	.0080
12	.0060
13	.0040
14	.0020
15	.0001

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===== PERCENT FINER DISTRIBUTIONS =====

VALUE NO.	PARTICLE SIZE #
1	94.30
2	83.70
3	78.00
4	73.30
5	66.30

6	45.00
7	34.00
8	26.30
9	20.30
10	15.00
11	13.80
12	12.30
13	11.00
14	10.00
15	.00

=====

===== STRUCTURE INPUT FOR JUNCTION #1 =====

BRANCH	NUMBER OF STRUCTURES
1	2
2	1

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
1	PRIOR J OR S TO STRUCTURE 2	.06	.06	.35
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

===== STRUCTURE INPUT FOR JUNCTION #2 =====

BRANCH	NUMBER OF STRUCTURES
1	1
2	2

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.05	.05	.40
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
2	PRIOR J OR S TO STRUCTURE 2	.15	.15	.35

===== STRUCTURE INPUT FOR JUNCTION #3 =====

BRANCH	NUMBER OF STRUCTURES
1	1
2	1

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.03	.03	.40
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

===== STRUCTURE INPUT FOR JUNCTION #4 =====

BRANCH	NUMBER OF STRUCTURES
1	1
2	1

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.04	.04	.40
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

===== STRUCTURE INPUT FOR JUNCTION #5 =====

BRANCH	NUMBER OF STRUCTURES
1	3

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.08	.08	.35
1	PRIOR J OR S TO STRUCTURE 2	.08	.08	.35
1	PRIOR J OR S TO STRUCTURE 3	.02	.02	.35

STRUCTURE DATA FOR JUNCTION #1

QUESTION

- NO.
 1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

 JUNCTION 1, BRANCH 1, STRUCTURE 1

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	18.10	84.00	.320	.000	.200	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	1200.0	2.00	.850	1.0	1.0
	2	.20	300.0	1.00	.850	1.0	1.0

*** COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS ***

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	9.90	.49	17.38	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION = 6.00 HOURS
 PRECIPITATION DEPTH = 1.62 INCHES

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RUNOFF VOLUME = .7366 ACRE-FT
PEAK DISCHARGE = 9.2124 CFS
AREA = 18.1000 ACRES
TIME OF PEAK DISCHARGE = 3.30 HRS
LOAD RATE EXPONENT FACTOR = 1.50
BETA = 1.0000
SUBMERGE BULK SPECIFIC GRAVITY = 1.75
RAINFALL EROSITIVITY FACTOR = 24.10 EI UNIT
PEAK CONCENTRATION = 25691.51 MG/L
PEAK SETTLEABLE CONCENTRATION = 12.2800 ML/L
PEAK SETTLEABLE CONCENTRATION = 21490.05 MG/L
TOTAL SEDIMENT YIELD = 17.3842 TONS
REPRESENTATIVE PARTICLE SIZE = .0883 MM
TIME OF PEAK CONCENTRATION = 3.30 HRS

PERIOD OF SIGNIFICANT CONCENTRATION= 4.20 HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE
CONCENTRATION DURING PERIOD OF
SIGNIFICANT CONCENTRATION = 8.18 ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE
CONCENTRATION DURING PEAK 24 HOUR
PERIOD = 8.18 ML/L
ARITHMETIC AVERAGE SETTLEABLE
CONCENTRATION DURING PERIOD OF
SIGNIFICANT CONCENTRATION = 5.20 ML/L
ARITHMETIC AVERAGE SETTLEABLE
CONCENTRATION DURING PEAK 24 HOUR
PERIOD = .91 ML/L

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===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

NO.

- | | |
|---|-------------|
| 1. NUMBER OF SUBWATERSHEDS - | 1 |
| 2. TYPE OF SEDIMENT CONTROL STRUCTURE - | NULL STRUC. |

JUNCTION 1, BRANCH 1, STRUCTURE 2

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	4.10	84.00	.130	.000	.100	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
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1	1	.20	300.0	3.00	.850	1.0	1.0
	2	.20	300.0	2.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	2.88	.49	5.02	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.62	INCHES
RUNOFF VOLUME	=	.1668	ACRE-FT
PEAK DISCHARGE	=	2.6806	CFS
AREA	=	4.1000	ACRES
TIME OF PEAK DISCHARGE	=	3.20	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSIVITY FACTOR	=	24.10	EI UNIT
PEAK CONCENTRATION	=	34005.43	MG/L
PEAK SETTLEABLE CONCENTRATION	=	16.2539	ML/L
PEAK SETTLEABLE CONCENTRATION	=	28444.35	MG/L
TOTAL SEDIMENT YIELD	=	5.0159	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.20	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.80	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	10.26	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	10.26	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	6.52	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	1.03	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0600	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	8.91	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.40	HRS
TOTAL DRAINAGE AREA	=	22.20	ACRES
TOTAL RUNOFF VOLUME	=	.9034	AC-FT
PEAK RUNOFF DISCHARGE	=	10.18	CFS
TIME TO PEAK DISCHARGE	=	3.30	HRS

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PREVIOUS STRUCTURE DELIVERY RATIO      =          .98
PREVIOUS STRUCTURE TRAVEL TIME         =          .0600 HRS
TOTAL SEDIMENT YIELD                   =         22.0930 TONS
PEAK SEDIMENT CONCENTRATION            =        24980.43  MG/L
PEAK SETTLEABLE CONCENTRATION          =         11.9084 ML/L
PEAK SETTLEABLE CONCENTRATION          =        20839.71  MG/L
TIME TO PEAK CONCENTRATION             =           3.20  HRS

PERIOD OF SIGNIFICANT CONCENTRATION    =           4.20  HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE
  CONCENTRATION DURING PERIOD OF
  SIGNIFICANT CONCENTRATION             =           8.44  ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE
  CONCENTRATION DURING PEAK 24 HOUR
  PERIOD                                =           8.44  ML/L
ARITHMETIC AVERAGE SETTLEABLE
  CONCENTRATION DURING PERIOD OF
  SIGNIFICANT CONCENTRATION             =           5.58  ML/L
ARITHMETIC AVERAGE SETTLEABLE
  CONCENTRATION DURING PEAK 24 HOUR
  PERIOD                                =           .98  ML/L

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===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

NO.

1. NUMBER OF SUBWATERSHEDS - 1
2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

 JUNCTION 1, BRANCH 2, STRUCTURE 1

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	5.60	84.00	.210	.000	.100	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	200.0	2.00	.850	1.0	1.0
	2	.20	800.0	1.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	3.60	.49	3.69	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.62	INCHES
RUNOFF VOLUME	=	.2279	ACRE-FT
PEAK DISCHARGE	=	3.3799	CFS
AREA	=	5.6000	ACRES
TIME OF PEAK DISCHARGE	=	3.20	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSIVITY FACTOR	=	24.10	EI UNIT
PEAK CONCENTRATION	=	18588.72	MG/L
PEAK SETTLEABLE CONCENTRATION	=	8.8850	ML/L
PEAK SETTLEABLE CONCENTRATION	=	15548.81	MG/L
TOTAL SEDIMENT YIELD	=	3.6854	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.20	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	5.67	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	5.67	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	3.60	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.58	ML/L

===== STRUCTURE DATA FOR JUNCTION #2 =====

QUESTION

NO.

1. NUMBER OF SUBWATERSHEDS - 1
2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

 JUNCTION 2, BRANCH 1, STRUCTURE 1

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	1.80	84.00	.050	.000	.000	.00	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	250.0	3.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.50	.49	1.63	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.62	INCHES
RUNOFF VOLUME	=	.0733	ACRE-FT
PEAK DISCHARGE	=	1.5034	CFS
AREA	=	1.8000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	24.10	EI UNIT
PEAK CONCENTRATION	=	27034.57	MG/L
PEAK SETTLEABLE CONCENTRATION	=	12.9220	ML/L
PEAK SETTLEABLE CONCENTRATION	=	22613.47	MG/L
TOTAL SEDIMENT YIELD	=	1.6298	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.30	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	7.90	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	7.90	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	4.83	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.66	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

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PREVIOUS MUSKINGUM ROUTING X,           =          .40
PREVIOUS MUSKINGUM ROUTING K           =          .0500 HRS
PREVIOUS ROUTED PEAK DISCHARGE         =          12.70 CFS
TIME OF ROUTED PEAK DISCHARGE          =           3.30 HRS
TOTAL DRAINAGE AREA                     =          29.60 ACRES
TOTAL RUNOFF VOLUME                     =          1.2046 AC-FT
PEAK RUNOFF DISCHARGE                   =          13.02 CFS
TIME TO PEAK DISCHARGE                  =           3.30 HRS
PREVIOUS STRUCTURE DELIVERY RATIO       =           .99
PREVIOUS STRUCTURE TRAVEL TIME          =           .0500 HRS
TOTAL SEDIMENT YIELD                    =          27.0318 TONS
PEAK SEDIMENT CONCENTRATION             =        22612.80 MG/L
PEAK SETTLEABLE CONCENTRATION           =          10.7563 ML/L
PEAK SETTLEABLE CONCENTRATION           =        18823.45 MG/L
TIME TO PEAK CONCENTRATION              =           3.20 HRS

PERIOD OF SIGNIFICANT CONCENTRATION     =           4.30 HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE
  CONCENTRATION DURING PERIOD OF
  SIGNIFICANT CONCENTRATION              =           7.76 ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE
  CONCENTRATION DURING PEAK 24 HOUR
  PERIOD                                  =           7.76 ML/L
ARITHMETIC AVERAGE SETTLEABLE
  CONCENTRATION DURING PERIOD OF
  SIGNIFICANT CONCENTRATION              =           5.34 ML/L
ARITHMETIC AVERAGE SETTLEABLE
  CONCENTRATION DURING PEAK 24 HOUR
  PERIOD                                  =           .96 ML/L

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===== STRUCTURE DATA FOR JUNCTION #2 =====

QUESTION

- NO.
- 1. NUMBER OF SUBWATERSHEDS - 1
 - 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

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* * * * *
 JUNCTION 2, BRANCH 2, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	11.60	84.00	.220	.000	.100	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	150.0	20.00	.850	1.0	1.0
	2	.20	1000.0	2.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	7.35	.49	121.99	.075	.897	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.62	INCHES
RUNOFF VOLUME	=	.4721	ACRE-FT
PEAK DISCHARGE	=	6.9281	CFS
AREA	=	11.6000	ACRES
TIME OF PEAK DISCHARGE	=	3.20	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	24.10	EI UNIT
PEAK CONCENTRATION	=	267386.80	MG/L
PEAK SETTLEABLE CONCENTRATION	=	125.0180	ML/L
PEAK SETTLEABLE CONCENTRATION	=	218781.50	MG/L
TOTAL SEDIMENT YIELD	=	121.9945	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0745	MM
TIME OF PEAK CONCENTRATION	=	3.20	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	4.00	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	82.10	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	82.10	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	52.18	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	8.70	ML/L

===== STRUCTURE DATA FOR JUNCTION #2 =====

QUESTION

NO.

- 1. NUMBER OF SUBWATERSHEDS - 1
- 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

* * * * *
 JUNCTION 2, BRANCH 2, STRUCTURE 2
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING K-HRS	COEFFICIENTS X,	UNIT HYDRO
1	3.50	84.00	.200	.000	.100	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	30.00	.850	1.0	1.0
	2	.20	1000.0	1.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	2.29	.49	36.06	.018	.389	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.62	INCHES
RUNOFF VOLUME	=	.1424	ACRE-FT
PEAK DISCHARGE	=	2.1515	CFS
AREA	=	3.5000	ACRES
TIME OF PEAK DISCHARGE	=	3.20	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	24.10	EI UNIT
PEAK CONCENTRATION	=	263830.80	MG/L
PEAK SETTLEABLE CONCENTRATION	=	91.0354	ML/L
PEAK SETTLEABLE CONCENTRATION	=	159312.00	MG/L
TOTAL SEDIMENT YIELD	=	36.0552	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0178	MM
TIME OF PEAK CONCENTRATION	=	3.20	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	59.34	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	59.34	ML/L

ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 38.29 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 6.22 ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.1500	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	6.44	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.30	HRS
TOTAL DRAINAGE AREA	=	15.10	ACRES
TOTAL RUNOFF VOLUME	=	.6145	AC-FT
PEAK RUNOFF DISCHARGE	=	8.03	CFS
TIME TO PEAK DISCHARGE	=	3.30	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.1500	HRS
TOTAL SEDIMENT YIELD	=	157.9998	TONS
PEAK SEDIMENT CONCENTRATION	=	255756.50	MG/L
PEAK SETTLEABLE CONCENTRATION	=	112.1203	ML/L
PEAK SETTLEABLE CONCENTRATION	=	196210.50	MG/L
TIME TO PEAK CONCENTRATION	=	3.30	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	76.77	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	76.77	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	51.75	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	8.41	ML/L

===== STRUCTURE DATA FOR JUNCTION #3 =====

QUESTION

- NO.
- | | |
|---|-------------|
| 1. NUMBER OF SUBWATERSHEDS - | 1 |
| 2. TYPE OF SEDIMENT CONTROL STRUCTURE - | NULL STRUC. |

 JUNCTION 3, BRANCH 1, STRUCTURE 1

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	.40	84.00	.020	.000	.100	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	3.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.33	.49	.36	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.62	INCHES
RUNOFF VOLUME	=	.0163	ACRE-FT
PEAK DISCHARGE	=	.2920	CFS
AREA	=	.4000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	24.10	EI UNIT
PEAK CONCENTRATION	=	26126.13	MG/L
PEAK SETTLEABLE CONCENTRATION	=	12.4878	ML/L
PEAK SETTLEABLE CONCENTRATION	=	21853.59	MG/L
TOTAL SEDIMENT YIELD	=	.3608	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION=		3.30	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	7.95	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	7.95	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	4.97	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.68	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.40	
PREVIOUS MUSKINGUM ROUTING K	=	.0300	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	21.05	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.30	HRS
TOTAL DRAINAGE AREA	=	45.10	ACRES
TOTAL RUNOFF VOLUME	=	1.8353	AC-FT
PEAK RUNOFF DISCHARGE	=	21.12	CFS
TIME TO PEAK DISCHARGE	=	3.30	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	.99	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0300	HRS
TOTAL SEDIMENT YIELD	=	184.0953	TONS
PEAK SEDIMENT CONCENTRATION	=	115358.70	MG/L
PEAK SETTLEABLE CONCENTRATION	=	51.0998	ML/L
PEAK SETTLEABLE CONCENTRATION	=	89424.66	MG/L
TIME TO PEAK CONCENTRATION	=	3.30	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	4.30	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	31.56	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	31.56	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	19.40	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	3.48	ML/L

===== STRUCTURE DATA FOR JUNCTION #3 =====

QUESTION

NO.

- | | |
|---|-------------|
| 1. NUMBER OF SUBWATERSHEDS - | 1 |
| 2. TYPE OF SEDIMENT CONTROL STRUCTURE - | NULL STRUC. |

* * * * *
 JUNCTION 3, BRANCH 2, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER ED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	4.30	84.00	.220	.150	.150	.35	1.0

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*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	150.0	25.00	.850	1.0	1.0
	2	.20	1000.0	1.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	2.72	.49	51.69	.018	.386	.955

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.62	INCHES
RUNOFF VOLUME	=	.1750	ACRE-FT
PEAK DISCHARGE	=	2.5054	CFS
AREA	=	4.3000	ACRES
TIME OF PEAK DISCHARGE	=	3.20	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	2.3343	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	24.10	EI UNIT
PEAK CONCENTRATION	=	288697.80	MG/L
PEAK SETTLEABLE CONCENTRATION	=	96.3026	ML/L
PEAK SETTLEABLE CONCENTRATION	=	168529.60	MG/L
TOTAL SEDIMENT YIELD	=	49.3514	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0156	MM
TIME OF PEAK CONCENTRATION	=	3.20	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.80	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	63.57	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	63.57	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	42.84	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	6.78	ML/L

===== STRUCTURE DATA FOR JUNCTION #4 =====

QUESTION

NO.

- | | |
|---|-------------|
| 1. NUMBER OF SUBWATERSHEDS - | 1 |
| 2. TYPE OF SEDIMENT CONTROL STRUCTURE - | NULL STRUC. |

 JUNCTION 4, BRANCH 1, STRUCTURE 1

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	3.70	84.00	.200	.050	.050	.40	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	130.0	30.00	.850	1.0	1.0
	2	.20	1000.0	2.00	.850	1.0	1.0

*** COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS ***

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	2.42	.49	70.48	.039	.605	.990

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.62	INCHES
RUNOFF VOLUME	=	.1506	ACRE-FT
PEAK DISCHARGE	=	2.4242	CFS
AREA	=	3.7000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	24.10	EI UNIT
PEAK CONCENTRATION	=	454257.80	MG/L
PEAK SETTLEABLE CONCENTRATION	=	190.5902	ML/L
PEAK SETTLEABLE CONCENTRATION	=	333532.80	MG/L
TOTAL SEDIMENT YIELD	=	69.7855	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0382	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	124.58	ML/L

VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 124.58 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 80.32 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 13.05 ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X, = .40
 PREVIOUS MUSKINGUM ROUTING K = .0400 HRS
 PREVIOUS ROUTED PEAK DISCHARGE = 23.26 CFS
 TIME OF ROUTED PEAK DISCHARGE = 3.30 HRS
 TOTAL DRAINAGE AREA = 53.10 ACRES
 TOTAL RUNOFF VOLUME = 2.1609 AC-FT
 PEAK RUNOFF DISCHARGE = 24.31 CFS
 TIME TO PEAK DISCHARGE = 3.30 HRS
 PREVIOUS STRUCTURE DELIVERY RATIO = .99
 PREVIOUS STRUCTURE TRAVEL TIME = .0400 HRS
 TOTAL SEDIMENT YIELD = 301.4193 TONS
 PEAK SEDIMENT CONCENTRATION = 162890.20 MG/L
 PEAK SETTLEABLE CONCENTRATION = 68.1437 ML/L
 PEAK SETTLEABLE CONCENTRATION = 119251.40 MG/L
 TIME TO PEAK CONCENTRATION = 3.10 HRS

PERIOD OF SIGNIFICANT CONCENTRATION = 4.30 HRS
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 40.97 ML/L
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 40.97 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 25.68 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 4.60 ML/L

===== STRUCTURE DATA FOR JUNCTION #4 =====

QUESTION

- NO. 1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

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 JUNCTION 4, BRANCH 2, STRUCTURE 1

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*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
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 1 1.60 84.00 .100 .050 .050 .40 .0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	30.00	.850	1.0	1.0
	2	.20	500.0	5.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.34	.49	42.00	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.62	INCHES
RUNOFF VOLUME	=	.0651	ACRE-FT
PEAK DISCHARGE	=	1.3364	CFS
AREA	=	1.6000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSIVITY FACTOR	=	24.10	EI UNIT
PEAK CONCENTRATION	=	614417.90	MG/L
PEAK SETTLEABLE CONCENTRATION	=	293.6711	ML/L
PEAK SETTLEABLE CONCENTRATION	=	513924.50	MG/L
TOTAL SEDIMENT YIELD	=	41.9914	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0882	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION=		3.30	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	190.84	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING			

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PEAK 24 HOUR PERIOD = 190.84 ML/L
 ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION = 124.31 ML/L
 ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD = 17.09 ML/L

===== STRUCTURE DATA FOR JUNCTION #5 =====

QUESTION

NO.
 1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

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* * * * *
 JUNCTION 5, BRANCH 1, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	4.30	76.00	.100	.050	.050	.40	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	200.0	50.00	.350	1.0	1.0
	2	.20	500.0	1.00	.350	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.84	.24	31.56	.018	.391	.993

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION = 6.00 HOURS
 PRECIPITATION DEPTH = 1.62 INCHES
 RUNOFF VOLUME = .0844 ACRE-FT
 PEAK DISCHARGE = 1.8364 CFS

AREA	=	4.3000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	24.10	EI UNIT
PEAK CONCENTRATION	=	423866.10	MG/L
PEAK SETTLEABLE CONCENTRATION	=	146.0949	ML/L
PEAK SETTLEABLE CONCENTRATION	=	255666.00	MG/L
TOTAL SEDIMENT YIELD	=	31.3519	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0178	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS

PERIOD OF SIGNIFICANT CONCENTRATION=	3.20	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION =	85.94	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD =	85.94	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION =	60.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD =	8.00	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0800	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	24.07	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.30	HRS
TOTAL DRAINAGE AREA	=	59.00	ACRES
TOTAL RUNOFF VOLUME	=	2.3104	AC-FT
PEAK RUNOFF DISCHARGE	=	24.52	CFS
TIME TO PEAK DISCHARGE	=	3.30	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	.98	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0800	HRS
TOTAL SEDIMENT YIELD	=	369.1997	TONS
PEAK SEDIMENT CONCENTRATION	=	232214.00	MG/L
PEAK SETTLEABLE CONCENTRATION	=	96.6821	ML/L
PEAK SETTLEABLE CONCENTRATION	=	169193.70	MG/L
TIME TO PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	4.30	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION =	46.42	ML/L	
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD =	46.42	ML/L	
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION =	33.53	ML/L	
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD =	6.01	ML/L	

===== STRUCTURE DATA FOR JUNCTION #5 =====

QUESTION

- | | |
|---|-------------|
| NO. | |
| 1. NUMBER OF SUBWATERSHEDS - | 1 |
| 2. TYPE OF SEDIMENT CONTROL STRUCTURE - | NULL STRUC. |

* * * * *
 JUNCTION 5, BRANCH 1, STRUCTURE 2
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	12.10	76.00	.150	.050	.050	.40	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	130.0	40.00	.350	1.0	1.0
	2	.20	20.0	.50	.850	1.0	1.0
	3	.20	400.0	40.00	.350	1.0	1.0
	4	.20	200.0	1.00	.350	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	3.79	.24	63.46	.017	.380	.994

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.62	INCHES
RUNOFF VOLUME	=	.2376	ACRE-FT
PEAK DISCHARGE	=	3.7907	CFS
AREA	=	12.1000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	24.10	EI UNIT
PEAK CONCENTRATION	=	288065.90	MG/L
PEAK SETTLEABLE CONCENTRATION	=	97.6571	ML/L
PEAK SETTLEABLE CONCENTRATION	=	170899.80	MG/L
TOTAL SEDIMENT YIELD	=	63.0454	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0166	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION=		3.70	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF			

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SIGNIFICANT CONCENTRATION	=	60.02	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	60.02	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	42.93	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	6.62	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0800	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	24.03	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.40	HRS
TOTAL DRAINAGE AREA	=	71.10	ACRES
TOTAL RUNOFF VOLUME	=	2.5480	AC-FT
PEAK RUNOFF DISCHARGE	=	25.55	CFS
TIME TO PEAK DISCHARGE	=	3.40	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	.98	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0800	HRS
TOTAL SEDIMENT YIELD	=	426.6385	TONS
PEAK SEDIMENT CONCENTRATION	=	232555.80	MG/L
PEAK SETTLEABLE CONCENTRATION	=	93.6861	ML/L
PEAK SETTLEABLE CONCENTRATION	=	163950.70	MG/L
TIME TO PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	4.30	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	46.90	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	46.90	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	34.68	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	6.21	ML/L

===== STRUCTURE DATA FOR JUNCTION #5 =====

QUESTION

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|-----|--------------------------------------|------|
| NO. | | |
| 1. | NUMBER OF SUBWATERSHEDS - | 1 |
| 2. | TYPE OF SEDIMENT CONTROL STRUCTURE - | POND |

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JUNCTION 5, BRANCH 1, STRUCTURE 3
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	1.40	80.00	.020	.100	.100	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	10.00	.350	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.86	.35	1.96	.088	1.000	.971

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.62	INCHES
RUNOFF VOLUME	=	.0404	ACRE-FT
PEAK DISCHARGE	=	.7492	CFS
AREA	=	1.4000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	24.10	EI UNIT
PEAK CONCENTRATION	=	57581.78	MG/L
PEAK SETTLEABLE CONCENTRATION	=	27.3645	ML/L
PEAK SETTLEABLE CONCENTRATION	=	47887.87	MG/L
TOTAL SEDIMENT YIELD	=	1.9027	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0841	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.20	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	16.71	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	16.71	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	11.14	ML/L
ARITHMETIC AVERAGE SETTLEABLE			

CONCENTRATION DURING PEAK 24 HOUR PERIOD = 1.49 ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0200	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	25.55	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.40	HRS
TOTAL DRAINAGE AREA	=	72.50	ACRES
TOTAL RUNOFF VOLUME	=	2.5885	AC-FT
PEAK RUNOFF DISCHARGE	=	25.75	CFS
TIME TO PEAK DISCHARGE	=	3.40	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0200	HRS
TOTAL SEDIMENT YIELD	=	427.0432	TONS
PEAK SEDIMENT CONCENTRATION	=	224518.40	MG/L
PEAK SETTLEABLE CONCENTRATION	=	90.3956	ML/L
PEAK SETTLEABLE CONCENTRATION	=	158192.40	MG/L
TIME TO PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	4.30	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	46.27	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	46.27	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	33.81	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	6.06	ML/L

===== POND INPUT =====

QUESTION

- | | | |
|-----|--|-------------|
| NO. | | |
| 1. | TIME INCREMENT OF THE ROUTED HYDROGRAPH - | .20 HOURS |
| 2. | NON-IDEAL SETTLING CORRECTION FACTOR - | 1.00 |
| 3. | PERCENT OF PERMANENT POOL THAT IS DEAD SPACE - | 20.00 |
| 4. | OUTFLOW WITHDRAWAL OPTION - | SURFACE |
| 5. | INFLOW VERTICAL CONCENTRATION - | COMP. MIXED |
| 6. | NUMBER OF STAGE POINTS - | 13 |
| 7. | NUMBER OF ROUTED HYDROGRAPH POINTS - | 500 |
| 8. | STAGE-DISCHARGE OPTION - | INPUT |
| 9. | OUTPUT OPTION - | GRAPHS |
| 10. | NUMBER OF CONTINUOUS STIRRED REACTORS | 2 |

=====

* * * * *

29

POND RESULTS

* * * * *

***** BASIN GEOMETRY *****

STAGE (FT)	AREA (ACRES)	AVERAGE DEPTH (FT)	DISCHARGE (CFS)	CAPACITY (ACRES-FT)
.00	.000	.00	.00	.00
1.00	.170	.50	.00	.09
2.00	.340	1.25	.00	.34
3.00	.460	1.99	.00	.74
4.00	.590	2.73	.00	1.26
5.00	.700	3.45	.00	1.91
5.34	.760	3.70	.00	2.16
5.40	.770	3.74	.57	2.20
5.50	.790	3.81	2.49	2.28
5.60	.800	3.87	5.16	2.36
6.00	.870	4.14	20.89	2.70
7.00	1.040	4.79	25.00	3.65
8.00	1.270	5.38	30.00	4.81

***** STORM EVENT SUMMARY *****

TURBULENCE FACTOR	=	1.00	
PERMANENT POOL CAPACITY	=	.340	ACRE-FT
DEAD STORAGE	=	20.00	PERCENT
TIME INCREMENT OUTFLOW	=	.20	HRS
VISCOSITY	=	.009	CM**2/SEC
INFLOW RUNOFF VOLUME	=	2.588	ACRE-FT
OUTFLOW ROUTED VOLUME	=	.776	ACRE-FT
STORM VOLUME DISCHARGED	=	.776	ACRE-FT
POND VOLUME AT PEAK STAGE	=	2.339	ACRE-FT
PEAK STAGE	=	5.572	FT
PEAK INFLOW RATE	=	25.750	CFS
PEAK DISCHARGE RATE	=	4.417	CFS
PEAK INFLOW SEDIMENT CONCENTRATION	=	224518.40	MG/L
PEAK EFFLUENT SEDIMENT CONCENTRATION	=	68226.86	MG/L
PEAK EFFLUENT SETTLEABLE CONCENTRATION	=	.0001	ML/L
PEAK EFFLUENT SETTLEABLE CONCENTRATION	=	.10	MG/L
STORM AVERAGE EFFLUENT CONCENTRATION	=	30045.88	MG/L
AVERAGE EFFLUENT SEDIMENT CONCENTRATION	=	30045.88	MG/L
BASIN TRAP EFFICIENCY	=	92.58	PERCENT
DETENTION TIME OF FLOW WITH SEDIMENT	=	1.94	HRS
DETENTION TIME FROM HYDROGRAPH CENTERS	=	1.94	HRS
DETENTION TIME INCLUDING STORED FLOW	=	1.94	HRS
SEDIMENT LOAD DISCHARGED	=	31.67	TONS
PERIOD OF SIGNIFICANT CONCENTRATION	=	47.20	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L

VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = .00 ML/L

ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = .00 ML/L

ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = .00 ML/L

*** PARTICLE SIZE DISTRIBUTION OF SEDIMENT ***

SIZE,MM	13.0000	2.0000	.4250	.2500	.1500	.0750
PERCENT FINER	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
SIZE,MM	.0500	.0300	.0200	.0100	.0080	.0060
PERCENT FINER	100.0000	100.0000	100.0000	100.0000	100.0000	100.0000
SIZE,MM	.0040	.0020	.0001			
PERCENT FINER	100.0000	100.0000	.0000			

*** HYDROGRAPH AND SEDIMENT GRAPH ***
 (TWO CONSECUTIVE VALUES PER LINE)

TIME (HR)	DISCHARGE (CFS)	SED DISC (MG/L)	***** *	TIME (HR)	DISCHARGE (CFS)	SED DISC (MG/L)
0.00	.000	.000	*	.20	.000	.000
.40	.000	.000	*	.60	.000	.000
.80	.000	.000	*	1.00	.000	.000
1.20	.000	.000	*	1.40	.000	.000
1.60	.000	.000	*	1.80	.000	.000
2.00	.000	.000	*	2.20	.000	.000
2.40	.000	.000	*	2.60	.000	.000
2.80	.000	92.334	*	3.00	.000	11118.240
3.20	.001	52606.290	*	3.40	.001	68226.860
3.60	.001	62090.230	*	3.80	.001	52562.430
4.00	.001	46048.090	*	4.20	.001	41747.520
4.40	.525	38736.910	*	4.60	2.487	36508.670
4.80	3.828	34698.640	*	5.00	4.320	33196.820
5.20	4.417	31901.990	*	5.40	4.269	30770.390
5.60	4.010	29781.940	*	5.80	3.709	28911.450
6.00	3.420	28126.860	*	6.20	3.125	27414.140
6.40	2.808	26757.820	*	6.60	2.414	26147.470
6.80	1.937	25623.820	*	7.00	1.381	25216.840
7.20	.918	24910.930	*	7.40	.610	24644.320
7.60	.480	24408.140	*	7.80	.391	24196.460
8.00	.318	24004.190	*	8.20	.259	23827.120
8.40	.211	23662.340	*	8.60	.172	23507.880
8.80	.140	23362.350	*	9.00	.114	23224.660
9.20	.093	23093.910	*	9.40	.076	22969.310
9.60	.062	22850.230	*	9.80	.050	22736.650
10.00	.041	22629.240	*	10.20	.033	22528.490
10.40	.027	22434.070	*	10.60	.022	22344.910
10.80	.018	22259.870	*	11.00	.015	22178.360
11.20	.012	22100.240	*	11.40	.010	22025.390
11.60	.008	21953.520	*	11.80	.006	21884.220
12.00	.005	21817.200	*	12.20	.004	21752.360

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12.40	.004	21689.730	*	12.60	.003	21629.490
12.80	.002	21571.890	*	13.00	.002	21517.010
13.20	.002	21464.620	*	13.40	.001	21414.280
13.60	.001	21365.580	*	13.80	.001	21318.240
14.00	.001	21272.130	*	14.20	.001	21227.150
14.40	.001	21183.220	*	14.60	.001	21140.280
14.80	.001	21098.260	*	15.00	.001	21057.130
15.20	.001	21016.830	*	15.40	.001	20977.540
15.60	.001	20939.520	*	15.80	.001	20902.890
16.00	.001	20867.540	*	16.20	.001	20833.190
16.40	.001	20799.650	*	16.60	.001	20766.790
16.80	.001	20734.550	*	17.00	.001	20702.910
17.20	.001	20671.820	*	17.40	.001	20641.270
17.60	.001	20611.220	*	17.80	.001	20581.670
18.00	.001	20552.630	*	18.20	.001	20524.260
18.40	.001	20496.730	*	18.60	.001	20470.070
18.80	.001	20444.200	*	19.00	.001	20418.920
19.20	.001	20394.110	*	19.40	.001	20369.600
19.60	.001	20345.040	*	19.80	.001	20320.120
20.00	.001	20294.760	*	20.20	.001	20269.120
20.40	.001	20243.440	*	20.60	.001	20217.870
20.80	.001	20192.530	*	21.00	.001	20167.540
21.20	.001	20143.000	*	21.40	.001	20118.910
21.60	.001	20095.220	*	21.80	.001	20071.840
22.00	.001	20048.720	*	22.20	.001	20025.850
22.40	.001	20003.210	*	22.60	.001	19980.800
22.80	.001	19958.620	*	23.00	.001	19936.680
23.20	.001	19914.970	*	23.40	.001	19893.510
23.60	.001	19872.330	*	23.80	.001	19851.510
24.00	.001	19831.070	*	24.20	.001	19810.990
24.40	.001	19791.220	*	24.60	.001	19771.700
24.80	.001	19752.410	*	25.00	.001	19733.320
25.20	.001	19714.440	*	25.40	.001	19695.760
25.60	.001	19677.270	*	25.80	.001	19658.950
26.00	.001	19640.820	*	26.20	.001	19622.860
26.40	.001	19605.080	*	26.60	.001	19587.460
26.80	.001	19570.000	*	27.00	.001	19552.700
27.20	.001	19535.550	*	27.40	.001	19518.540
27.60	.001	19501.680	*	27.80	.001	19484.960
28.00	.001	19468.380	*	28.20	.001	19451.930
28.40	.001	19435.620	*	28.60	.001	19419.440
28.80	.001	19403.390	*	29.00	.001	19387.460
29.20	.001	19371.670	*	29.40	.001	19356.000
29.60	.001	19340.440	*	29.80	.001	19325.010
30.00	.001	19309.690	*	30.20	.001	19294.490
30.40	.001	19279.290	*	30.60	.001	19263.900
30.80	.001	19248.180	*	31.00	.001	19232.130
31.20	.001	19215.890	*	31.40	.001	19199.570
31.60	.001	19183.250	*	31.80	.001	19166.960
32.00	.001	19150.720	*	32.20	.001	19134.540
32.40	.001	19118.420	*	32.60	.001	19102.370
32.80	.001	19086.390	*	33.00	.001	19070.480
33.20	.001	19054.650	*	33.40	.001	19038.900
33.60	.001	19023.240	*	33.80	.001	19007.660
34.00	.001	18992.170	*	34.20	.001	18976.780
34.40	.001	18961.480	*	34.60	.001	18946.290
34.80	.001	18931.200	*	35.00	.001	18916.200
35.20	.001	18901.300	*	35.40	.001	18886.490
35.60	.001	18871.770	*	35.80	.001	18857.150
36.00	.001	18842.620	*	36.20	.001	18828.180

36.40	.001	18813.820	*	36.60	.001	18799.560
36.80	.001	18785.380	*	37.00	.001	18771.280
37.20	.001	18757.270	*	37.40	.001	18743.350
37.60	.001	18729.510	*	37.80	.001	18715.740
38.00	.001	18702.060	*	38.20	.001	18688.460
38.40	.001	18674.940	*	38.60	.001	18661.490
38.80	.001	18648.120	*	39.00	.001	18634.830
39.20	.001	18621.610	*	39.40	.001	18608.470
39.60	.001	18595.390	*	39.80	.001	18582.400
40.00	.001	18569.470	*	40.20	.001	18556.610
40.40	.001	18543.830	*	40.60	.001	18531.120
40.80	.001	18518.470	*	41.00	.001	18505.890
41.20	.001	18493.370	*	41.40	.001	18480.830
41.60	.001	18468.150	*	41.80	.001	18455.250
42.00	.001	18442.170	*	42.20	.001	18428.990
42.40	.001	18415.790	*	42.60	.001	18402.600
42.80	.001	18389.430	*	43.00	.001	18376.280
43.20	.001	18363.170	*	43.40	.001	18350.110
43.60	.001	18337.070	*	43.80	.001	18324.090
44.00	.001	18311.140	*	44.20	.001	18298.250
44.40	.001	18285.400	*	44.60	.001	18272.600
44.80	.001	18259.850	*	45.00	.001	18247.160
45.20	.001	18234.530	*	45.40	.001	18221.960
45.60	.001	18209.450	*	45.80	.001	18197.000
46.00	.001	18184.610	*	46.20	.001	18172.280
46.40	.001	18160.000	*	46.60	.001	18147.790
46.80	.001	18135.620	*	47.00	.001	18123.520
47.20	.001	18111.470	*	47.40	.001	18099.470
47.60	.001	18087.540	*	47.80	.001	18075.650
48.00	.001	18063.820	*	48.20	.001	18052.040
48.40	.001	18040.320	*	48.60	.001	18028.650
48.80	.001	18017.030	*	49.00	.001	18005.460
49.20	.001	17993.940	*	49.40	.001	17982.470
49.60	.001	17971.050	*	49.80	.001	17959.680

*** RUN COMPLETED ****

RAIL CUT POND
10 YEAR, 6 HOUR STORM
PHASE TWO

July 11, 1994

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*****
*          (program name)          * SEDIMOT S/N : *
*          (program description)   * HMVersion  : 3.20 *
*                                   * Date       : 5/27/94 *
*                                   * Time      : 14:38:43 *
*                                   * Input file : RC1062.IN *
*                                   * Output file: RC1062.OUT *
*                                   * * *
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:::
::: Full Microcomputer Implementation :::
::: by :::
::: Haestad Methods, Inc. :::
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37 Brookside Road * Waterbury, Connecticut 06708 * (203) 755-1666

UNIVERSITY OF KENTUCKY COMPUTER MODEL
OF SURFACE MINE HYDROLOGY AND SEDIMENTOLOGY
FOR MORE INFORMATION CONTACT THE AGRICULTURAL
ENGINEERING DEPARTMENT

THE UK MODEL IS A DESIGN MODEL DEVELOPED TO PREDICT
THE HYDRAULIC AND SEDIMENT RESPONSE FROM SURFACE
MINED LANDS FOR A SPECIFIED RAINFALL EVENT (SINGLE STORM)

VERSION DATE 5-25-83

DISCLAIMER: NEITHER THE UNIVERSITY NOR ANY OF ITS EMPLOYEES
ACCEPT ANY RESPONSIBILITY OR LEGAL LIABILITY FOR THE
CONCLUSIONS DRAWN FROM THE RESULTS OF THIS MODEL

WATERSHED IDENTIFICATION CODE

RAIL CUT POND 10 YEAR 6 HOUR STORM Phase 2 Reclamation

===== STORM INPUT =====

QUESTION
NO.

1. STORM TYPE -	SCS'S TYPE 2
2. RAINFALL DEPTH -	1.31 INCHES
3. STORM DURATION -	6.00 HOURS
4. TIME INCREMENT -	.10 HOURS

=====

===== WATERSHED DATA =====

QUESTION
NO.

1. NUMBER OF JUNCTIONS -	1
2. JUNCTION	NUMBER OF BRANCHES

10 15.00
 11 13.80
 12 12.30
 13 11.00
 14 10.00
 15 .00

=====

===== STRUCTURE INPUT FOR JUNCTION #1 =====

BRANCH	NUMBER OF STRUCTURES
1	3

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
1	PRIOR J OR S TO STRUCTURE 2	.08	.08	.35
1	PRIOR J OR S TO STRUCTURE 3	.05	.05	.35

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

NO.
 1. NUMBER OF SUBWATERSHEDS - 2
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

 JUNCTION 1, BRANCH 1, STRUCTURE 1

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	1.60	69.00	.100	.080	.080	.40	.0
2	4.30	69.00	.100	.050	.050	.40	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER ID	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	30.00	.250	1.0	1.0
	2	.20	500.0	5.00	.250	1.0	1.0
2	1	.20	200.0	50.00	.250	1.0	1.0
	2	.20	500.0	1.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.03	.03	1.36	.088	1.000	1.000
2	.09	.03	3.13	.021	.426	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0170	ACRE-FT
PEAK DISCHARGE	=	.1193	CFS
AREA	=	5.9000	ACRES
TIME OF PEAK DISCHARGE	=	3.50	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	243565.90	MG/L
PEAK SETTLEABLE CONCENTRATION	=	96.7091	ML/L
PEAK SETTLEABLE CONCENTRATION	=	169240.80	MG/L
TOTAL SEDIMENT YIELD	=	4.4885	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0290	MM
TIME OF PEAK CONCENTRATION	=	3.50	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	2.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	76.06	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	76.06	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	73.89	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	8.93	ML/L

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

9

NO.

1. NUMBER OF SUBWATERSHEDS -

1

2. TYPE OF SEDIMENT CONTROL STRUCTURE -

NULL STRUC.

JUNCTION 1, BRANCH 1, STRUCTURE 2

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	12.10	69.00	.150	.050	.050	.40	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	130.0	40.00	.250	1.0	1.0
	2	.20	20.0	.50	.250	1.0	1.0
	3	.20	400.0	40.00	.250	1.0	1.0
	4	.20	200.0	1.00	.250	1.0	1.0

*** COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS ***

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.23	.03	6.85	.021	.419	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0348	ACRE-FT
PEAK DISCHARGE	=	.2254	CFS
AREA	=	12.1000	ACRES
TIME OF PEAK DISCHARGE	=	3.60	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	168245.20	MG/L
PEAK SETTLEABLE CONCENTRATION	=	60.6294	ML/L
PEAK SETTLEABLE CONCENTRATION	=	106101.50	MG/L

TOTAL SEDIMENT YIELD	=	6.8488	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0209	MM
TIME OF PEAK CONCENTRATION	=	3.60	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.40	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	48.51	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	48.51	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	44.91	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	6.36	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0800	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	.11	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.60	HRS
TOTAL DRAINAGE AREA	=	18.00	ACRES
TOTAL RUNOFF VOLUME	=	.0518	AC-FT
PEAK RUNOFF DISCHARGE	=	.33	CFS
TIME TO PEAK DISCHARGE	=	3.60	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0800	HRS
TOTAL SEDIMENT YIELD	=	11.3367	TONS
PEAK SEDIMENT CONCENTRATION	=	191502.80	MG/L
PEAK SETTLEABLE CONCENTRATION	=	71.7765	ML/L
PEAK SETTLEABLE CONCENTRATION	=	125608.90	MG/L
TIME TO PEAK CONCENTRATION	=	3.60	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.50	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	57.14	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	57.14	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	52.55	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	7.66	ML/L

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

NO.

- | | |
|---|-------------|
| 1. NUMBER OF SUBWATERSHEDS - | 1 |
| 2. TYPE OF SEDIMENT CONTROL STRUCTURE - | NULL STRUC. |

2

 JUNCTION 1, BRANCH 1, STRUCTURE 3

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	1.40	84.00	.020	.100	.100	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	10.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.75	.30	3.56	.088	1.000	.887

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0355	ACRE-FT
PEAK DISCHARGE	=	.6548	CFS
AREA	=	1.4000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	4.0362	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	105598.60	MG/L
PEAK SETTLEABLE CONCENTRATION	=	49.2599	ML/L
PEAK SETTLEABLE CONCENTRATION	=	86204.74	MG/L
TOTAL SEDIMENT YIELD	=	3.1598	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0732	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.20	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	30.56	ML/L

VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	30.56	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	20.24	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	2.70	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0500	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	.33	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.60	HRS
TOTAL DRAINAGE AREA	=	19.40	ACRES
TOTAL RUNOFF VOLUME	=	.0873	AC-FT
PEAK RUNOFF DISCHARGE	=	.74	CFS
TIME TO PEAK DISCHARGE	=	3.10	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	.97	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0500	HRS
TOTAL SEDIMENT YIELD	=	14.1516	TONS
PEAK SEDIMENT CONCENTRATION	=	143637.90	MG/L
PEAK SETTLEABLE CONCENTRATION	=	56.0521	ML/L
PEAK SETTLEABLE CONCENTRATION	=	98091.22	MG/L
TIME TO PEAK CONCENTRATION	=	3.60	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.80	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	45.15	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	45.15	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	42.18	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	6.68	ML/L

*** RUN COMPLETED ****

RAIL CUT POND
100 YEAR, 6 HOUR STORM
PHASE TWO

July 11, 1994

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*****
*          (program name)          * SEDIMOT S/N   : 1353220014      *
*          (program description)   * HMVersion    : 3.20              *
*                                   * Date         : 5/25/94         *
*                                   * Time        : 9:30:40        *
*                                   * Input file   : rc1006.in      *
*                                   * Output file  : rc1006.out     *
*                                   *                    *
*                                   *                    *
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XXXXXX  XXXXXXXX  XXXXXXXX  XXXXXX  X      X      XXXXXX  XXXXXXXX
X      X  X      X      X      X      XX    XX  X      X      X
X      X  X      X      X      X      X  X  X  X  X      X      X
XXXXXX  XXXXXX  X      X      X      X      X  X  X  X      X      X
      X  X      X      X      X      X      X      X      X      X
X      X  X      X      X      X      X      X      X      X      X
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::: Full Microcomputer Implementation :::
::: by :::
::: Haestad Methods, Inc. :::
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VERSION DATE 5-25-83

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WATERSHED IDENTIFICATION CODE

RAIL CUT POND 100 YEAR 6 HOUR STORM Phase 2 Reclamation

===== STORM INPUT =====

QUESTION

NO.

1. STORM TYPE -	SCS'S TYPE 2
2. RAINFALL DEPTH -	2.05 INCHES
3. STORM DURATION -	6.00 HOURS
4. TIME INCREMENT -	.10 HOURS

=====

===== WATERSHED DATA =====

QUESTION

NO.

1. NUMBER OF JUNCTIONS -	1
2. JUNCTION	NUMBER OF BRANCHES

10 15.00
 11 13.80
 12 12.30
 13 11.00
 14 10.00
 15 .00

=====

===== STRUCTURE INPUT FOR JUNCTION #1 =====

BRANCH	NUMBER OF STRUCTURES
1	3

=====

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1	2	3
		TIME	MUSK. K	MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
1	PRIOR J OR S TO STRUCTURE 2	.08	.08	.35
1	PRIOR J OR S TO STRUCTURE 3	.05	.05	.35

=====

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION NO.
 1. NUMBER OF SUBWATERSHEDS - 2
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

=====

* * * * *
 JUNCTION 1, BRANCH 1, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	1.60	69.00	.100	.080	.080	.40	.0
2	4.30	69.00	.100	.050	.050	.40	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

u

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	30.00	.250	1.0	1.0
	2	.20	500.0	5.00	.250	1.0	1.0
2	1	.20	200.0	50.00	.250	1.0	1.0
	2	.20	500.0	1.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.67	.23	7.04	.088	1.000	1.000
2	1.81	.23	24.54	.019	.395	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	2.05	INCHES
RUNOFF VOLUME	=	.1155	ACRE-FT
PEAK DISCHARGE	=	2.2616	CFS
AREA	=	5.9000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	40.00	EI UNIT
PEAK CONCENTRATION	=	332151.00	MG/L
PEAK SETTLEABLE CONCENTRATION	=	124.9396	ML/L
PEAK SETTLEABLE CONCENTRATION	=	218644.30	MG/L
TOTAL SEDIMENT YIELD	=	31.5718	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0237	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.10	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	71.55	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	71.55	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	53.89	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	6.96	ML/L

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION NO.

1. NUMBER OF SUBWATERSHEDS -

5

1

2. TYPE OF SEDIMENT CONTROL STRUCTURE -

NULL STRUC.

 JUNCTION 1, BRANCH 1, STRUCTURE 2

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	12.10	69.00	.150	.050	.050	.40	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	130.0	40.00	.250	1.0	1.0
	2	.20	20.0	.50	.250	1.0	1.0
	3	.20	400.0	40.00	.250	1.0	1.0
	4	.20	200.0	1.00	.250	1.0	1.0

*** COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS ***

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	3.52	.23	49.34	.018	.388	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	2.05	INCHES
RUNOFF VOLUME	=	.2369	ACRE-FT
PEAK DISCHARGE	=	3.5212	CFS
AREA	=	12.1000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	40.00	EI UNIT
PEAK CONCENTRATION	=	230169.90	MG/L
PEAK SETTLEABLE CONCENTRATION	=	79.2831	ML/L
PEAK SETTLEABLE CONCENTRATION	=	138745.40	MG/L
TOTAL SEDIMENT YIELD	=	49.3322	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0177	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS

PERIOD OF SIGNIFICANT CONCENTRATION=	3.60	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	= 48.71	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	= 48.71	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	= 36.73	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	= 5.51	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0800	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	1.76	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.10	HRS
TOTAL DRAINAGE AREA	=	18.00	ACRES
TOTAL RUNOFF VOLUME	=	.3524	AC-FT
PEAK RUNOFF DISCHARGE	=	5.29	CFS
TIME TO PEAK DISCHARGE	=	3.10	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0800	HRS
TOTAL SEDIMENT YIELD	=	80.9002	TONS
PEAK SEDIMENT CONCENTRATION	=	263685.70	MG/L
PEAK SETTLEABLE CONCENTRATION	=	94.0771	ML/L
PEAK SETTLEABLE CONCENTRATION	=	164634.90	MG/L
TIME TO PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.70	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	56.15	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	56.15	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	41.71	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	6.43	ML/L

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

NO.

- | | |
|---|-------------|
| 1. NUMBER OF SUBWATERSHEDS - | 1 |
| 2. TYPE OF SEDIMENT CONTROL STRUCTURE - | NULL STRUC. |

7

* * * * *
 JUNCTION 1, BRANCH 1, STRUCTURE 3
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING K-HRS	COEFFICIENTS X,	UNIT HYDRO
1	1.40	84.00	.020	.100	.100	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	10.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.79	.78	11.11	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	2.05	INCHES
RUNOFF VOLUME	=	.0909	ACRE-FT
PEAK DISCHARGE	=	1.5752	CFS
AREA	=	1.4000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	40.00	EI UNIT
PEAK CONCENTRATION	=	133259.60	MG/L
PEAK SETTLEABLE CONCENTRATION	=	63.6918	ML/L
PEAK SETTLEABLE CONCENTRATION	=	111460.70	MG/L
TOTAL SEDIMENT YIELD	=	11.1061	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0882	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.30	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	42.30	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	42.30	ML/L
ARITHMETIC AVERAGE SETTLEABLE			

CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	26.16	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	3.60	ML/L

*** PARTICLE SIZE DISTRIBUTION OF SEDIMENT ***

SIZE,MM	13.0000	2.0000	.4250	.2500	.1500	.0750
PERCENT FINER	94.3280	83.7249	78.0232	73.3218	66.3197	45.0134
SIZE,MM	.0500	.0300	.0200	.0100	.0080	.0060
PERCENT FINER	34.0101	26.3078	20.3060	15.0045	13.8041	12.3037
SIZE,MM	.0040	.0020	.0001			
PERCENT FINER	11.0033	10.0030	.0000			

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0500	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	5.29	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.10	HRS
TOTAL DRAINAGE AREA	=	19.40	ACRES
TOTAL RUNOFF VOLUME	=	.4433	AC-FT
PEAK RUNOFF DISCHARGE	=	6.86	CFS
TIME TO PEAK DISCHARGE	=	3.10	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0500	HRS
TOTAL SEDIMENT YIELD	=	92.0005	TONS
PEAK SEDIMENT CONCENTRATION	=	234889.80	MG/L
PEAK SETTLEABLE CONCENTRATION	=	87.1071	ML/L
PEAK SETTLEABLE CONCENTRATION	=	152437.40	MG/L
TIME TO PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	53.39	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	53.39	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	38.46	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	6.25	ML/L

CARBON COUNTY RAILROAD CULVERT

10 YEAR, 6 HOUR STORM

PHASE TWO

July 11, 1994

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VERSION DATE 5-25-83

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WATERSHED IDENTIFICATION CODE

CARBON CNTY RR CULVERT 10 YEAR 6 HOUR STORM Phase 2 Reclam

===== STORM INPUT =====

QUESTION

NO.

1. STORM TYPE -	SCS'S TYPE 2
2. RAINFALL DEPTH -	1.31 INCHES
3. STORM DURATION -	6.00 HOURS
4. TIME INCREMENT -	.10 HOURS

=====

===== WATERSHED DATA =====

QUESTION

NO.

1. NUMBER OF JUNCTIONS -	5
2. JUNCTION	NUMBER OF BRANCHES

1	2
2	2
3	2
4	1
5	1

3. COMPUTATION - BOTH HYDROLOGY AND SEDIMENTOLOGY

=====

===== SEDIMENTOLOGY INPUTS =====

QUESTION

NO.		
1.	SPECIFIC GRAVITY -	2.75
2.	COEFFICIENT FOR DISTRIBUTING SEDIMENT LOAD -	1.50
3.	SUBMERGED BULK SPECIFIC GRAVITY -	1.75
4.	NUMBER OF PARTICLE SIZE DISTRIBUTIONS -	1
5.	NUMBER OF DATA VALUES PER PARTICLE SIZE DISTRIBUTION -	15

=====

===== INPUT PARTICLE SIZE DISTRIBUTIONS =====

VALUE NO.	SIZE, MM
1	13.0000
2	2.0000
3	.4250
4	.2500
5	.1500
6	.0750
7	.0500
8	.0300
9	.0200
10	.0100
11	.0080
12	.0060
13	.0040
14	.0020
15	.0001

=====

===== PERCENT FINER DISTRIBUTIONS =====

VALUE NO.	PARTICLE SIZE #
1	94.30
2	83.70
3	78.00
4	73.30
5	66.30

6	45.00
7	34.00
8	26.30
9	20.30
10	15.00
11	13.80
12	12.30
13	11.00
14	10.00
15	.00

=====

===== STRUCTURE INPUT FOR JUNCTION #1 =====

BRANCH	NUMBER OF STRUCTURES
1	2
2	1

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
1	PRIOR J OR S TO STRUCTURE 2	.06	.06	.35
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

===== STRUCTURE INPUT FOR JUNCTION #2 =====

BRANCH	NUMBER OF STRUCTURES
1	1
2	2

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.05	.05	.40
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
2	PRIOR J OR S TO STRUCTURE 2	.15	.15	.35

===== STRUCTURE INPUT FOR JUNCTION #3 =====

BRANCH	NUMBER OF STRUCTURES
1	1
2	1

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.03	.03	.40
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

===== STRUCTURE INPUT FOR JUNCTION #4 =====

BRANCH	NUMBER OF STRUCTURES
1	2

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.04	.04	.40
1	PRIOR J OR S TO STRUCTURE 2	.15	.15	.35

===== STRUCTURE INPUT FOR JUNCTION #5 =====

BRANCH	NUMBER OF STRUCTURES
1	1

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.15	.15	.35

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION
NO.

1. NUMBER OF SUBWATERSHEDS -	1
2. TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

 JUNCTION 1, BRANCH 1, STRUCTURE 1

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER	AREA	CURVE	TC
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SHED	TT	ROUTING ACRES	COEFFICIENTS NUMBER	UNIT HR	K-HRS	X,	HYDRO
1		18.10	69.00	.320	.200	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	1200.0	2.00	.250	1.0	1.0
	2	.20	300.0	1.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.29	.03	1.68	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0521	ACRE-FT
PEAK DISCHARGE	=	.2811	CFS
AREA	=	18.1000	ACRES
TIME OF PEAK DISCHARGE	=	3.90	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	27826.99	MG/L
PEAK SETTLEABLE CONCENTRATION	=	13.3007	ML/L
PEAK SETTLEABLE CONCENTRATION	=	23276.30	MG/L
TOTAL SEDIMENT YIELD	=	1.6812	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.90	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.70	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	11.21	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	11.21	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	9.99	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	1.54	ML/L

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

NO.

1. NUMBER OF SUBWATERSHEDS -

1

2. TYPE OF SEDIMENT CONTROL STRUCTURE -

NULL STRUC.

 JUNCTION 1, BRANCH 1, STRUCTURE 2

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	4.10	69.00	.130	.000	.100	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	300.0	3.00	.250	1.0	1.0
	2	.20	300.0	2.00	.250	1.0	1.0

*** COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS ***

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.08	.03	.48	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0118	ACRE-FT
PEAK DISCHARGE	=	.0737	CFS
AREA	=	4.1000	ACRES
TIME OF PEAK DISCHARGE	=	3.70	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	35777.39	MG/L
PEAK SETTLEABLE CONCENTRATION	=	17.1009	ML/L
PEAK SETTLEABLE CONCENTRATION	=	29926.54	MG/L
TOTAL SEDIMENT YIELD	=	.4759	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM

TIME OF PEAK CONCENTRATION	=	3.70	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.40	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	13.77	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	13.77	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	12.74	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	1.80	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0600	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	.28	CFS
TIME OF ROUTED PEAK DISCHARGE	=	4.00	HRS
TOTAL DRAINAGE AREA	=	22.20	ACRES
TOTAL RUNOFF VOLUME	=	.0639	AC-FT
PEAK RUNOFF DISCHARGE	=	.33	CFS
TIME TO PEAK DISCHARGE	=	4.00	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0600	HRS
TOTAL SEDIMENT YIELD	=	2.1567	TONS
PEAK SEDIMENT CONCENTRATION	=	28285.22	MG/L
PEAK SETTLEABLE CONCENTRATION	=	13.5194	ML/L
PEAK SETTLEABLE CONCENTRATION	=	23658.97	MG/L
TIME TO PEAK CONCENTRATION	=	4.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.80	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	11.70	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	11.70	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	10.62	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	1.68	ML/L

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

NO.

- | | |
|---|-------------|
| 1. NUMBER OF SUBWATERSHEDS - | 1 |
| 2. TYPE OF SEDIMENT CONTROL STRUCTURE - | NULL STRUC. |

* * * * *
 JUNCTION 1, BRANCH 2, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	5.60	69.00	.210	.000	.100	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	200.0	2.00	.250	1.0	1.0
	2	.20	800.0	1.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.10	.03	.48	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0161	ACRE-FT
PEAK DISCHARGE	=	.0957	CFS
AREA	=	5.6000	ACRES
TIME OF PEAK DISCHARGE	=	3.70	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	26936.51	MG/L
PEAK SETTLEABLE CONCENTRATION	=	12.8751	ML/L
PEAK SETTLEABLE CONCENTRATION	=	22531.45	MG/L
TOTAL SEDIMENT YIELD	=	.4815	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.70	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.50	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	10.45	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE			

CONCENTRATION DURING PEAK 24 HOUR PERIOD = 10.45 ML/L
 ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION = 9.53 ML/L
 ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD = 1.39 ML/L

===== STRUCTURE DATA FOR JUNCTION #2 =====

QUESTION

NO.
 1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

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* * * * *
 JUNCTION 2, BRANCH 1, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	1.80	69.00	.050	.000	.000	.00	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	250.0	3.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.04	.03	.16	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

 STORM DURATION = 6.00 HOURS
 PRECIPITATION DEPTH = 1.31 INCHES
 RUNOFF VOLUME = .0052 ACRE-FT

PEAK DISCHARGE	=	.0375	CFS
AREA	=	1.8000	ACRES
TIME OF PEAK DISCHARGE	=	3.50	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	30918.60	MG/L
PEAK SETTLEABLE CONCENTRATION	=	14.7785	ML/L
PEAK SETTLEABLE CONCENTRATION	=	25862.33	MG/L
TOTAL SEDIMENT YIELD	=	.1583	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.50	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	2.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	11.22	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	11.22	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	10.87	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	1.31	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.40	
PREVIOUS MUSKINGUM ROUTING K	=	.0500	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	.41	CFS
TIME OF ROUTED PEAK DISCHARGE	=	4.00	HRS
TOTAL DRAINAGE AREA	=	29.60	ACRES
TOTAL RUNOFF VOLUME	=	.0851	AC-FT
PEAK RUNOFF DISCHARGE	=	.44	CFS
TIME TO PEAK DISCHARGE	=	4.00	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0500	HRS
TOTAL SEDIMENT YIELD	=	2.7961	TONS
PEAK SEDIMENT CONCENTRATION	=	27422.40	MG/L
PEAK SETTLEABLE CONCENTRATION	=	13.1067	ML/L
PEAK SETTLEABLE CONCENTRATION	=	22936.79	MG/L
TIME TO PEAK CONCENTRATION	=	4.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	11.44	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	11.44	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	10.56	ML/L
ARITHMETIC AVERAGE SETTLEABLE			

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CONCENTRATION DURING PEAK 24 HOUR PERIOD = 1.72 ML/L

===== STRUCTURE DATA FOR JUNCTION #2 =====

QUESTION

NO.
 1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

 JUNCTION 2, BRANCH 2, STRUCTURE 1

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING K-HRS	COEFFICIENTS X,	UNIT HYDRO
1	11.60	69.00	.220	.000	.100	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	150.0	20.00	.250	1.0	1.0
	2	.20	1000.0	2.00	.250	1.0	1.0

*** COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS ***

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.20	.03	4.94	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

 STORM DURATION = 6.00 HOURS
 PRECIPITATION DEPTH = 1.31 INCHES
 RUNOFF VOLUME = .0334 ACRE-FT
 PEAK DISCHARGE = .1978 CFS
 AREA = 11.6000 ACRES
 TIME OF PEAK DISCHARGE = 3.70 HRS
 LOAD RATE EXPONENT FACTOR = 1.50
 BETA = 1.0000
 SUBMERGE BULK SPECIFIC GRAVITY = 1.75
 RAINFALL EROSITIVITY FACTOR = 15.26 EI UNIT

PEAK CONCENTRATION = 127611.40 MG/L
 PEAK SETTLEABLE CONCENTRATION = 60.9957 ML/L
 PEAK SETTLEABLE CONCENTRATION = 106742.50 MG/L
 TOTAL SEDIMENT YIELD = 4.9425 TONS
 REPRESENTATIVE PARTICLE SIZE = .0883 MM
 TIME OF PEAK CONCENTRATION = 3.70 HRS

PERIOD OF SIGNIFICANT CONCENTRATION= 3.50 HRS
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 49.98 ML/L
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 49.98 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 45.65 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 6.66 ML/L

===== STRUCTURE DATA FOR JUNCTION #2 =====

QUESTION
 NO.

- 1. NUMBER OF SUBWATERSHEDS - 1
- 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

=====

* * * * *
 JUNCTION 2, BRANCH 2, STRUCTURE 2
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	3.50	69.00	.200	.000	.100	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	30.00	.250	1.0	1.0
	2	.20	1000.0	1.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.06	.03	1.41	.024	.458	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0101	ACRE-FT
PEAK DISCHARGE	=	.0605	CFS
AREA	=	3.5000	ACRES
TIME OF PEAK DISCHARGE	=	3.70	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	121208.00	MG/L
PEAK SETTLEABLE CONCENTRATION	=	45.6860	ML/L
PEAK SETTLEABLE CONCENTRATION	=	79950.43	MG/L
TOTAL SEDIMENT YIELD	=	1.4095	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0239	MM
TIME OF PEAK CONCENTRATION	=	3.70	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.50	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	37.24	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	37.24	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	33.96	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	4.95	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.1500	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	.19	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.80	HRS
TOTAL DRAINAGE AREA	=	15.10	ACRES
TOTAL RUNOFF VOLUME	=	.0434	AC-FT
PEAK RUNOFF DISCHARGE	=	.24	CFS
TIME TO PEAK DISCHARGE	=	3.80	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.1500	HRS
TOTAL SEDIMENT YIELD	=	6.3498	TONS
PEAK SEDIMENT CONCENTRATION	=	122973.20	MG/L
PEAK SETTLEABLE CONCENTRATION	=	55.9036	ML/L
PEAK SETTLEABLE CONCENTRATION	=	97831.34	MG/L

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TIME TO PEAK CONCENTRATION = 3.80 HRS
 PERIOD OF SIGNIFICANT CONCENTRATION = 3.50 HRS
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 47.08 ML/L
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 47.08 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 43.56 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 6.35 ML/L

===== STRUCTURE DATA FOR JUNCTION #3 =====

QUESTION

NO.

1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

* * * * *
 JUNCTION 3, BRANCH 1, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	.40	69.00	.020	.000	.100	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	3.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.00	.03	.00	.001	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0012	ACRE-FT
PEAK DISCHARGE	=	.0000	CFS
AREA	=	.4000	ACRES
TIME OF PEAK DISCHARGE	=	5.80	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	.00	MG/L
PEAK SETTLEABLE CONCENTRATION	=	.0000	ML/L
PEAK SETTLEABLE CONCENTRATION	=	.00	MG/L
TOTAL SEDIMENT YIELD	=	.0000	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0001	MM
TIME OF PEAK CONCENTRATION	=	.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION=		.00	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.00	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.40	
PREVIOUS MUSKINGUM ROUTING K	=	.0300	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	.66	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.90	HRS
TOTAL DRAINAGE AREA	=	45.10	ACRES
TOTAL RUNOFF VOLUME	=	.1297	AC-FT
PEAK RUNOFF DISCHARGE	=	.66	CFS
TIME TO PEAK DISCHARGE	=	3.90	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0300	HRS
TOTAL SEDIMENT YIELD	=	9.1452	TONS
PEAK SEDIMENT CONCENTRATION	=	63193.19	MG/L
PEAK SETTLEABLE CONCENTRATION	=	29.1713	ML/L
PEAK SETTLEABLE CONCENTRATION	=	51049.73	MG/L
TIME TO PEAK CONCENTRATION	=	3.80	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.90	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	23.68	ML/L

VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 23.68 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 20.61 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 3.35 ML/L

===== STRUCTURE DATA FOR JUNCTION #3 =====

QUESTION

NO.
 1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

=====

* * * * *
 JUNCTION 3, BRANCH 2, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	4.30	69.00	.220	.150	.150	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	150.0	25.00	.250	1.0	1.0
	2	.20	1000.0	1.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.08	.03	1.78	.024	.465	.977

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

 STORM DURATION = 6.00 HOURS
 PRECIPITATION DEPTH = 1.31 INCHES
 RUNOFF VOLUME = .0124 ACRE-FT

```

PEAK DISCHARGE = .0713 CFS
AREA = 4.3000 ACRES
TIME OF PEAK DISCHARGE = 3.70 HRS
LOAD RATE EXPONENT FACTOR = 1.50
BETA = 1.0000
SUBMERGE BULK SPECIFIC GRAVITY = 1.75
RAINFALL EROSITIVITY FACTOR = 15.26 EI UNIT
PEAK CONCENTRATION = 120414.40 MG/L
PEAK SETTLEABLE CONCENTRATION = 45.2205 ML/L
PEAK SETTLEABLE CONCENTRATION = 79135.91 MG/L
TOTAL SEDIMENT YIELD = 1.7429 TONS
REPRESENTATIVE PARTICLE SIZE = .0236 MM
TIME OF PEAK CONCENTRATION = 3.70 HRS

PERIOD OF SIGNIFICANT CONCENTRATION= 3.40 HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE
CONCENTRATION DURING PERIOD OF
SIGNIFICANT CONCENTRATION = 37.49 ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE
CONCENTRATION DURING PEAK 24 HOUR
PERIOD = 37.49 ML/L
ARITHMETIC AVERAGE SETTLEABLE
CONCENTRATION DURING PERIOD OF
SIGNIFICANT CONCENTRATION = 35.13 ML/L
ARITHMETIC AVERAGE SETTLEABLE
CONCENTRATION DURING PEAK 24 HOUR
PERIOD = 4.98 ML/L

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===== STRUCTURE DATA FOR JUNCTION #4 =====

QUESTION
NO.

1. NUMBER OF SUBWATERSHEDS - 1
2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

JUNCTION 4, BRANCH 1, STRUCTURE 1

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	3.70	69.00	.200	.050	.050	.40	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
------------	---------	--------	-------------	-----------	----------	----------	-----------

1	1	.20	130.0	30.00	.250	1.0	1.0
	2	.20	1000.0	1.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.07	.03	1.46	.024	.454	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0106	ACRE-FT
PEAK DISCHARGE	=	.0661	CFS
AREA	=	3.7000	ACRES
TIME OF PEAK DISCHARGE	=	3.60	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	120662.60	MG/L
PEAK SETTLEABLE CONCENTRATION	=	45.2886	ML/L
PEAK SETTLEABLE CONCENTRATION	=	79255.09	MG/L
TOTAL SEDIMENT YIELD	=	1.4644	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0235	MM
TIME OF PEAK CONCENTRATION	=	3.60	HRS
PERIOD OF SIGNIFICANT CONCENTRATION-		3.50	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE			
CONCENTRATION DURING PERIOD OF			
SIGNIFICANT CONCENTRATION	=	36.43	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE			
CONCENTRATION DURING PEAK 24 HOUR			
PERIOD	=	36.43	ML/L
ARITHMETIC AVERAGE SETTLEABLE			
CONCENTRATION DURING PERIOD OF			
SIGNIFICANT CONCENTRATION	=	33.09	ML/L
ARITHMETIC AVERAGE SETTLEABLE			
CONCENTRATION DURING PEAK 24 HOUR			
PERIOD	=	4.83	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.40	
PREVIOUS MUSKINGUM ROUTING K	=	.0400	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	.72	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.90	HRS
TOTAL DRAINAGE AREA	=	53.10	ACRES
TOTAL RUNOFF VOLUME	=	.1527	AC-FT
PEAK RUNOFF DISCHARGE	=	.77	CFS

TIME TO PEAK DISCHARGE = 3.90 HRS
 PREVIOUS STRUCTURE DELIVERY RATIO = 1.00
 PREVIOUS STRUCTURE TRAVEL TIME = .0400 HRS
 TOTAL SEDIMENT YIELD = 12.3514 TONS
 PEAK SEDIMENT CONCENTRATION = 71250.92 MG/L
 PEAK SETTLEABLE CONCENTRATION = 31.2436 ML/L
 PEAK SETTLEABLE CONCENTRATION = 54676.29 MG/L
 TIME TO PEAK CONCENTRATION = 3.70 HRS

PERIOD OF SIGNIFICANT CONCENTRATION = 3.90 HRS
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 25.69 ML/L
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 25.69 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 22.51 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 3.66 ML/L

===== STRUCTURE DATA FOR JUNCTION #4 =====

QUESTION

NO.

1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

=====

* * * * *
 JUNCTION 4, BRANCH 1, STRUCTURE 2
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	2.30	69.00	.140	.040	.040	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	38.00	.250	1.0	1.0
	2	.20	450.0	1.10	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.04	.03	1.48	.025	.476	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0066	ACRE-FT
PEAK DISCHARGE	=	.0428	CFS
AREA	=	2.3000	ACRES
TIME OF PEAK DISCHARGE	=	3.60	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	190704.20	MG/L
PEAK SETTLEABLE CONCENTRATION	=	73.1511	ML/L
PEAK SETTLEABLE CONCENTRATION	=	128014.50	MG/L
TOTAL SEDIMENT YIELD	=	1.4800	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0253	MM
TIME OF PEAK CONCENTRATION	=	3.60	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.30	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	58.88	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	58.88	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	54.91	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	7.55	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.1500	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	.77	CFS
TIME OF ROUTED PEAK DISCHARGE	=	4.10	HRS
TOTAL DRAINAGE AREA	=	55.40	ACRES
TOTAL RUNOFF VOLUME	=	.1594	AC-FT
PEAK RUNOFF DISCHARGE	=	.80	CFS
TIME TO PEAK DISCHARGE	=	4.10	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.1500	HRS
TOTAL SEDIMENT YIELD	=	13.8272	TONS

PEAK SEDIMENT CONCENTRATION	=	75062.56	MG/L
PEAK SETTLEABLE CONCENTRATION	=	32.4595	ML/L
PEAK SETTLEABLE CONCENTRATION	=	56804.13	MG/L
TIME TO PEAK CONCENTRATION	=	3.90	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.80	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	27.19	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	27.19	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	25.31	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	4.01	ML/L

===== STRUCTURE DATA FOR JUNCTION #5 =====

QUESTION

NO.
 1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

=====

* * * * *
 JUNCTION 5, BRANCH 1, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	15.00	69.00	.130	.050	.050	.40	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	500.0	45.00	.250	1.0	1.0
	2	.20	400.0	6.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2

 1 .28 .03 26.65 .088 1.000 1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0431	ACRE-FT
PEAK DISCHARGE	=	.2794	CFS
AREA	=	15.0000	ACRES
TIME OF PEAK DISCHARGE	=	3.60	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	466936.00	MG/L
PEAK SETTLEABLE CONCENTRATION	=	223.1797	ML/L
PEAK SETTLEABLE CONCENTRATION	=	390564.50	MG/L
TOTAL SEDIMENT YIELD	=	26.6489	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0882	MM
TIME OF PEAK CONCENTRATION	=	3.60	HRS
PERIOD OF SIGNIFICANT CONCENTRATION=		3.40	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE			
CONCENTRATION DURING PERIOD OF			
SIGNIFICANT CONCENTRATION	=	182.50	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE			
CONCENTRATION DURING PEAK 24 HOUR			
PERIOD	=	182.50	ML/L
ARITHMETIC AVERAGE SETTLEABLE			
CONCENTRATION DURING PERIOD OF			
SIGNIFICANT CONCENTRATION	=	169.73	ML/L
ARITHMETIC AVERAGE SETTLEABLE			
CONCENTRATION DURING PEAK 24 HOUR			
PERIOD	=	24.04	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.1500	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	.79	CFS
TIME OF ROUTED PEAK DISCHARGE	=	4.20	HRS
TOTAL DRAINAGE AREA	=	70.40	ACRES
TOTAL RUNOFF VOLUME	=	.2025	AC-FT
PEAK RUNOFF DISCHARGE	=	.99	CFS
TIME TO PEAK DISCHARGE	=	4.10	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.1500	HRS
TOTAL SEDIMENT YIELD	=	40.4716	TONS
PEAK SEDIMENT CONCENTRATION	=	319918.50	MG/L
PEAK SETTLEABLE CONCENTRATION	=	147.8378	ML/L
PEAK SETTLEABLE CONCENTRATION	=	258716.20	MG/L
TIME TO PEAK CONCENTRATION	=	3.20	HRS

PERIOD OF SIGNIFICANT CONCENTRATION	=	3.80	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	64.45	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	64.45	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	67.33	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	10.66	ML/L

*** RUN COMPLETED ***

CARBON COUNTY RAILROAD CULVERT

100 YEAR, 6 HOUR STORM

PHASE TWO

July 11, 1994

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*****
*          (program name)          * SEDIMOT S/N : 1353220014 *
*          (program description)   * HMVersion  : 3.20      *
*                                   * Date       : 5/25/94   *
*                                   * Time      : 10:05:20  *
*                                   * Input file  : ccrr1006.in  *
*                                   * Output file : ccrr1006.out *
*                                   *                *
*                                   *                *
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X      X  X      X      X      X      XX    XX    X      X      X
X      X      X      X      X      X  X  X  X  X      X      X
      XXXXX  XXXXXX  X      X      X      X  X  X  X      X      X
      X      X      X      X      X      X      X  X      X      X
X      X  X      X      X      X      X      X  X      X      X
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::: Full Microcomputer Implementation :::
::: by :::
::: Haestad Methods, Inc. :::
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37 Brookside Road * Waterbury, Connecticut 06708 * (203) 755-1666

UNIVERSITY OF KENTUCKY COMPUTER MODEL
OF SURFACE MINE HYDROLOGY AND SEDIMENTOLOGY
FOR MORE INFORMATION CONTACT THE AGRICULTURAL
ENGINEERING DEPARTMENT

THE UK MODEL IS A DESIGN MODEL DEVELOPED TO PREDICT
THE HYDRAULIC AND SEDIMENT RESPONSE FROM SURFACE
MINED LANDS FOR A SPECIFIED RAINFALL EVENT (SINGLE STORM)

VERSION DATE 5-25-83

DISCLAIMER: NEITHER THE UNIVERSITY NOR ANY OF ITS EMPLOYEES
ACCEPT ANY RESPONSIBILITY OR LEGAL LIABILITY FOR THE
CONCLUSIONS DRAWN FROM THE RESULTS OF THIS MODEL

WATERSHED IDENTIFICATION CODE

CARBON CNTY RR CULVERT 100 YEAR 6 HOUR STORM Phase 2 Recla

===== STORM INPUT =====

QUESTION
NO.

1. STORM TYPE -	SCS'S TYPE 2
2. RAINFALL DEPTH -	2.05 INCHES
3. STORM DURATION -	6.00 HOURS
4. TIME INCREMENT -	.10 HOURS

=====

===== WATERSHED DATA =====

QUESTION
NO.

1. NUMBER OF JUNCTIONS -	5
2. JUNCTION	NUMBER OF BRANCHES

1	2
2	2
3	2
4	1
5	1

3. COMPUTATION - BOTH HYDROLOGY AND SEDIMENTOLOGY

===== SEDIMENTOLOGY INPUTS =====

QUESTION

NO.		
1.	SPECIFIC GRAVITY -	2.75
2.	COEFFICIENT FOR DISTRIBUTING SEDIMENT LOAD -	1.50
3.	SUBMERGED BULK SPECIFIC GRAVITY -	1.75
4.	NUMBER OF PARTICLE SIZE DISTRIBUTIONS -	1
5.	NUMBER OF DATA VALUES PER PARTICLE SIZE DISTRIBUTION -	15

===== INPUT PARTICLE SIZE DISTRIBUTIONS =====

VALUE NO.	SIZE, MM
1	13.0000
2	2.0000
3	.4250
4	.2500
5	.1500
6	.0750
7	.0500
8	.0300
9	.0200
10	.0100
11	.0080
12	.0060
13	.0040
14	.0020
15	.0001

===== PERCENT FINER DISTRIBUTIONS =====

VALUE NO.	PARTICLE SIZE #
1	94.30
2	83.70
3	78.00
4	73.30
5	66.30

6	45.00
7	34.00
8	26.30
9	20.30
10	15.00
11	13.80
12	12.30
13	11.00
14	10.00
15	.00

=====

===== STRUCTURE INPUT FOR JUNCTION #1 =====

BRANCH	NUMBER OF STRUCTURES
1	2
2	1

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
1	PRIOR J OR S TO STRUCTURE 2	.06	.06	.35
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

===== STRUCTURE INPUT FOR JUNCTION #2 =====

BRANCH	NUMBER OF STRUCTURES
1	1
2	2

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.05	.05	.40
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
2	PRIOR J OR S TO STRUCTURE 2	.15	.15	.35

===== STRUCTURE INPUT FOR JUNCTION #3 =====

BRANCH	NUMBER OF STRUCTURES
1	1
2	1

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.03	.03	.40
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

===== STRUCTURE INPUT FOR JUNCTION #4 =====

BRANCH	NUMBER OF STRUCTURES
1	2

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.04	.04	.40
1	PRIOR J OR S TO STRUCTURE 2	.15	.15	.35

===== STRUCTURE INPUT FOR JUNCTION #5 =====

BRANCH	NUMBER OF STRUCTURES
1	1

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1	2	3
1	PRIOR J OR S TO STRUCTURE 1	TIME .15	MUSK. K .15	MUSK. X, .35

STRUCTURE DATA FOR JUNCTION #1

QUESTION

NO:
 1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

 JUNCTION 1, BRANCH 1, STRUCTURE 1

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	18.10	69.00	.320	.000	.200	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	1200.0	2.00	.250	1.0	1.0
	2	.20	300.0	1.00	.250	1.0	1.0

*** COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS ***

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	3.89	.23	5.16	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	2.05	INCHES
RUNOFF VOLUME	=	.3543	ACRE-FT
PEAK DISCHARGE	=	3.5345	CFS
AREA	=	18.1000	ACRES

TIME OF PEAK DISCHARGE = 3.40 HRS
 LOAD RATE EXPONENT FACTOR = 1.50
 BETA = 1.0000
 SUBMERGE BULK SPECIFIC GRAVITY = 1.75
 RAINFALL EROSITIVITY FACTOR = 40.00 EI UNIT
 PEAK CONCENTRATION = 15628.85 MG/L
 PEAK SETTLEABLE CONCENTRATION = 7.4703 ML/L
 PEAK SETTLEABLE CONCENTRATION = 13072.98 MG/L
 TOTAL SEDIMENT YIELD = 5.1580 TONS
 REPRESENTATIVE PARTICLE SIZE = .0883 MM
 TIME OF PEAK CONCENTRATION = 3.40 HRS

PERIOD OF SIGNIFICANT CONCENTRATION= 4.10 HRS
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 5.06 ML/L
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 5.06 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 3.71 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = .63 ML/L

===== STRUCTURE DATA FOR JUNCTION #1 =====

STATION
NO.

1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

=====

* * * * *
 JUNCTION 1, BRANCH 1, STRUCTURE 2
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	4.10	69.00	.130	.000	.100	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	300.0	3.00	.250	1.0	1.0
	2	.20	300.0	2.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.19	.23	1.47	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	2.05	INCHES
RUNOFF VOLUME	=	.0803	ACRE-FT
PEAK DISCHARGE	=	1.0841	CFS
AREA	=	4.1000	ACRES
TIME OF PEAK DISCHARGE	=	3.20	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	40.00	EI UNIT
PEAK CONCENTRATION	=	21305.30	MG/L
PEAK SETTLEABLE CONCENTRATION	=	10.1835	ML/L
PEAK SETTLEABLE CONCENTRATION	=	17821.14	MG/L
TOTAL SEDIMENT YIELD	=	1.4745	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.20	HRS
PERIOD OF SIGNIFICANT CONCENTRATION=		3.60	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	6.30	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	6.30	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	4.79	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.72	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0600	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	3.30	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.40	HRS
TOTAL DRAINAGE AREA	=	22.20	ACRES
TOTAL RUNOFF VOLUME	=	.4346	AC-FT
PEAK RUNOFF DISCHARGE	=	3.92	CFS
TIME TO PEAK DISCHARGE	=	3.40	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	.98	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0600	HRS
TOTAL SEDIMENT YIELD	=	6.5413	TONS

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PEAK SEDIMENT CONCENTRATION           = 15266.23  MG/L
PEAK SETTLEABLE CONCENTRATION         = 7.2775  ML/L
PEAK SETTLEABLE CONCENTRATION         = 12735.66  MG/L
TIME TO PEAK CONCENTRATION           = 3.20  HRS

PERIOD OF SIGNIFICANT CONCENTRATION   = 4.00  HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE
  CONCENTRATION DURING PERIOD OF
  SIGNIFICANT CONCENTRATION           = 5.21  ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE
  CONCENTRATION DURING PEAK 24 HOUR
  PERIOD                               = 5.21  ML/L
ARITHMETIC AVERAGE SETTLEABLE
  CONCENTRATION DURING PERIOD OF
  SIGNIFICANT CONCENTRATION           = 4.06  ML/L
ARITHMETIC AVERAGE SETTLEABLE
  CONCENTRATION DURING PEAK 24 HOUR
  PERIOD                               = .68  ML/L

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===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

NO.
 1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

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* * * * *
 JUNCTION 1, BRANCH 2, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	5.60	69.00	.210	.000	.100	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	200.0	2.00	.250	1.0	1.0
	2	.20	800.0	1.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
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1 1.47 .23 1.36 .088 1.000 1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

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-----
STORM DURATION = 6.00 HOURS
PRECIPITATION DEPTH = 2.05 INCHES
RUNOFF VOLUME = .1096 ACRE-FT
PEAK DISCHARGE = 1.3478 CFS
AREA = 5.6000 ACRES
TIME OF PEAK DISCHARGE = 3.20 HRS
LOAD RATE EXPONENT FACTOR = 1.50
BETA = 1.0000
SUBMERGE BULK SPECIFIC GRAVITY = 1.75
RAINFALL EROSITIVITY FACTOR = 40.00 EI UNIT
PEAK CONCENTRATION = 14471.86 MG/L
PEAK SETTLEABLE CONCENTRATION = 6.9173 ML/L
PEAK SETTLEABLE CONCENTRATION = 12105.21 MG/L
TOTAL SEDIMENT YIELD = 1.3629 TONS
REPRESENTATIVE PARTICLE SIZE = .0883 MM
TIME OF PEAK CONCENTRATION = 3.20 HRS

PERIOD OF SIGNIFICANT CONCENTRATION= 3.70 HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE
CONCENTRATION DURING PERIOD OF
SIGNIFICANT CONCENTRATION = 4.37 ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE
CONCENTRATION DURING PEAK 24 HOUR
PERIOD = 4.37 ML/L
ARITHMETIC AVERAGE SETTLEABLE
CONCENTRATION DURING PERIOD OF
SIGNIFICANT CONCENTRATION = 3.31 ML/L
ARITHMETIC AVERAGE SETTLEABLE
CONCENTRATION DURING PEAK 24 HOUR
PERIOD = .51 ML/L

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===== STRUCTURE DATA FOR JUNCTION #2 =====

QUESTION

NO.

- 1. NUMBER OF SUBWATERSHEDS - 1
- 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

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*****
JUNCTION 2, BRANCH 1, STRUCTURE 1
*****

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*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
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1 1.80 69.00 .050 .000 .000 .00 .0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	250.0	3.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.76	.23	.49	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	2.05	INCHES
RUNOFF VOLUME	=	.0352	ACRE-FT
PEAK DISCHARGE	=	.7576	CFS
AREA	=	1.8000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	40.00	EI UNIT
PEAK CONCENTRATION	=	19250.94	MG/L
PEAK SETTLEABLE CONCENTRATION	=	9.2016	ML/L
PEAK SETTLEABLE CONCENTRATION	=	16102.74	MG/L
TOTAL SEDIMENT YIELD	=	.4928	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.10	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	5.03	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	5.03	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	3.61	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.47	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X, = .40

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PREVIOUS MUSKINGUM ROUTING K           =          .0500 HRS
PREVIOUS ROUTED PEAK DISCHARGE         =          4.74  CFS
TIME OF ROUTED PEAK DISCHARGE          =          3.40  HRS
TOTAL DRAINAGE AREA                     =          29.60  ACRES
TOTAL RUNOFF VOLUME                     =          .5794 AC-FT
PEAK RUNOFF DISCHARGE                   =          4.94  CFS
TIME TO PEAK DISCHARGE                  =          3.40  HRS
PREVIOUS STRUCTURE DELIVERY RATIO       =          .99
PREVIOUS STRUCTURE TRAVEL TIME          =          .0500 HRS
TOTAL SEDIMENT YIELD                    =          8.2815 TONS
PEAK SEDIMENT CONCENTRATION              =       14502.70  MG/L
PEAK SETTLEABLE CONCENTRATION           =          6.8990 ML/L
PEAK SETTLEABLE CONCENTRATION           =       12073.19  MG/L
TIME TO PEAK CONCENTRATION              =          3.20  HRS

PERIOD OF SIGNIFICANT CONCENTRATION     =          4.10  HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE
  CONCENTRATION DURING PERIOD OF
  SIGNIFICANT CONCENTRATION              =          4.96  ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE
  CONCENTRATION DURING PEAK 24 HOUR
  PERIOD                                 =          4.96  ML/L
ARITHMETIC AVERAGE SETTLEABLE
  CONCENTRATION DURING PERIOD OF
  SIGNIFICANT CONCENTRATION              =          4.01  ML/L
ARITHMETIC AVERAGE SETTLEABLE
  CONCENTRATION DURING PEAK 24 HOUR
  PERIOD                                 =          .68  ML/L

```

===== STRUCTURE DATA FOR JUNCTION #2 =====

QUESTION

NO.

- 1. NUMBER OF SUBWATERSHEDS - 1
- 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

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* * * * *
  JUNCTION 2, BRANCH 2, STRUCTURE 1
* * * * *

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*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING K-HRS	COEFFICIENTS X,	UNIT HYDRO
1	11.60	69.00	.220	.000	.100	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
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1	1	.20	150.0	20.00	.250	1.0	1.0
	2	.20	1000.0	2.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	2.99	.23	22.97	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

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-----
STORM DURATION = 6.00 HOURS
PRECIPITATION DEPTH = 2.05 INCHES
RUNOFF VOLUME = .2271 ACRE-FT
PEAK DISCHARGE = 2.7523 CFS
AREA = 11.6000 ACRES
TIME OF PEAK DISCHARGE = 3.20 HRS
LOAD RATE EXPONENT FACTOR = 1.50
BETA = 1.0000
SUBMERGE BULK SPECIFIC GRAVITY = 1.75
RAINFALL EROSITIVITY FACTOR = 40.00 EI UNIT
PEAK CONCENTRATION = 112156.10 MG/L
PEAK SETTLEABLE CONCENTRATION = 53.6084 ML/L
PEAK SETTLEABLE CONCENTRATION = 93814.66 MG/L
TOTAL SEDIMENT YIELD = 22.9683 TONS
REPRESENTATIVE PARTICLE SIZE = .0883 MM
TIME OF PEAK CONCENTRATION = 3.20 HRS

PERIOD OF SIGNIFICANT CONCENTRATION= 3.80 HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE
CONCENTRATION DURING PERIOD OF
SIGNIFICANT CONCENTRATION = 34.46 ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE
CONCENTRATION DURING PEAK 24 HOUR
PERIOD = 34.46 ML/L
ARITHMETIC AVERAGE SETTLEABLE
CONCENTRATION DURING PERIOD OF
SIGNIFICANT CONCENTRATION = 25.71 ML/L
ARITHMETIC AVERAGE SETTLEABLE
CONCENTRATION DURING PEAK 24 HOUR
PERIOD = 4.07 ML/L

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===== STRUCTURE DATA FOR JUNCTION #2 =====

QUESTION

NO.	
1.	NUMBER OF SUBWATERSHEDS - 1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

* * * * *
 JUNCTION 2, BRANCH 2, STRUCTURE 2
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	3.50	69.00	.200	.000	.100	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	30.00	.250	1.0	1.0
	2	.20	1000.0	1.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.94	.23	6.90	.024	.458	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	2.05	INCHES
RUNOFF VOLUME	=	.0685	ACRE-FT
PEAK DISCHARGE	=	.8604	CFS
AREA	=	3.5000	ACRES
TIME OF PEAK DISCHARGE	=	3.20	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	40.00	EI UNIT
PEAK CONCENTRATION	=	112750.50	MG/L
PEAK SETTLEABLE CONCENTRATION	=	42.4843	ML/L
PEAK SETTLEABLE CONCENTRATION	=	74347.51	MG/L
TOTAL SEDIMENT YIELD	=	6.8968	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0238	MM
TIME OF PEAK CONCENTRATION	=	3.20	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.70	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	27.01	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	27.01	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF			

SIGNIFICANT CONCENTRATION	=	20.49	ML/L
ARITHMETIC AVERAGE SETTLEABLE			
CONCENTRATION DURING PEAK 24 HOUR			
PERIOD	=	3.16	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.1500	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	2.33	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.40	HRS
TOTAL DRAINAGE AREA	=	15.10	ACRES
TOTAL RUNOFF VOLUME	=	.2956	AC-FT
PEAK RUNOFF DISCHARGE	=	3.01	CFS
TIME TO PEAK DISCHARGE	=	3.30	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.1500	HRS
TOTAL SEDIMENT YIELD	=	29.8549	TONS
PEAK SEDIMENT CONCENTRATION	=	105129.40	MG/L
PEAK SETTLEABLE CONCENTRATION	=	47.6894	ML/L
PEAK SETTLEABLE CONCENTRATION	=	83456.48	MG/L
TIME TO PEAK CONCENTRATION	=	3.30	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.70	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE			
CONCENTRATION DURING PERIOD OF			
SIGNIFICANT CONCENTRATION	=	32.74	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE			
CONCENTRATION DURING PEAK 24 HOUR			
PERIOD	=	32.74	ML/L
ARITHMETIC AVERAGE SETTLEABLE			
CONCENTRATION DURING PERIOD OF			
SIGNIFICANT CONCENTRATION	=	25.85	ML/L
ARITHMETIC AVERAGE SETTLEABLE			
CONCENTRATION DURING PEAK 24 HOUR			
PERIOD	=	3.99	ML/L

===== STRUCTURE DATA FOR JUNCTION #3 =====

QUESTION
NO.

- | | |
|---|-------------|
| 1. NUMBER OF SUBWATERSHEDS - | 1 |
| 2. TYPE OF SEDIMENT CONTROL STRUCTURE - | NULL STRUC. |

 JUNCTION 3, BRANCH 1, STRUCTURE 1

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

15

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	.40	69.00	.020	.000	.100	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	3.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.17	.23	.13	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	2.05	INCHES
RUNOFF VOLUME	=	.0078	ACRE-FT
PEAK DISCHARGE	=	.1425	CFS
AREA	=	.4000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSIVITY FACTOR	=	40.00	EI UNIT
PEAK CONCENTRATION	=	22656.26	MG/L
PEAK SETTLEABLE CONCENTRATION	=	10.8292	ML/L
PEAK SETTLEABLE CONCENTRATION	=	18951.17	MG/L
TOTAL SEDIMENT YIELD	=	.1334	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION=		3.10	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	6.21	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	6.21	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	4.60	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	.59	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

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-----
PREVIOUS MUSKINGUM ROUTING X,           =           .40
PREVIOUS MUSKINGUM ROUTING K           =           .0300 HRS
PREVIOUS ROUTED PEAK DISCHARGE         =           7.79 CFS
TIME OF ROUTED PEAK DISCHARGE          =           3.40 HRS
TOTAL DRAINAGE AREA                    =           45.10 ACRES
TOTAL RUNOFF VOLUME                    =           .8828 AC-FT
PEAK RUNOFF DISCHARGE                  =           7.83 CFS
TIME TO PEAK DISCHARGE                 =           3.40 HRS
PREVIOUS STRUCTURE DELIVERY RATIO      =           .99
PREVIOUS STRUCTURE TRAVEL TIME         =           .0300 HRS
TOTAL SEDIMENT YIELD                   =           37.9798 TONS
PEAK SEDIMENT CONCENTRATION            =           50100.80 MG/L
PEAK SETTLEABLE CONCENTRATION          =           22.9288 ML/L
PEAK SETTLEABLE CONCENTRATION          =           40125.41 MG/L
TIME TO PEAK CONCENTRATION             =           3.30 HRS

PERIOD OF SIGNIFICANT CONCENTRATION    =           4.10 HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE
  CONCENTRATION DURING PERIOD OF
  SIGNIFICANT CONCENTRATION            =           14.27 ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE
  CONCENTRATION DURING PEAK 24 HOUR
  PERIOD                                =           14.27 ML/L
ARITHMETIC AVERAGE SETTLEABLE
  CONCENTRATION DURING PERIOD OF
  SIGNIFICANT CONCENTRATION            =           10.52 ML/L
ARITHMETIC AVERAGE SETTLEABLE
  CONCENTRATION DURING PEAK 24 HOUR
  PERIOD                                =           1.80 ML/L

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===== STRUCTURE DATA FOR JUNCTION #3 =====

QUESTION

NO.

1. NUMBER OF SUBWATERSHEDS - 1

2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

 JUNCTION 3, BRANCH 2, STRUCTURE 1

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	4.30	69.00	.220	.150	.150	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

17

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	150.0	25.00	.250	1.0	1.0
	2	.20	1000.0	1.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.11	.23	9.34	.024	.457	.899

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	2.05	INCHES
RUNOFF VOLUME	=	.0842	ACRE-FT
PEAK DISCHARGE	=	.9085	CFS
AREA	=	4.3000	ACRES
TIME OF PEAK DISCHARGE	=	3.20	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	4.6245	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	40.00	EI UNIT
PEAK CONCENTRATION	=	105496.10	MG/L
PEAK SETTLEABLE CONCENTRATION	=	37.6081	ML/L
PEAK SETTLEABLE CONCENTRATION	=	65814.13	MG/L
TOTAL SEDIMENT YIELD	=	8.3926	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0203	MM
TIME OF PEAK CONCENTRATION	=	3.20	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.60	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	25.39	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	25.39	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	20.00	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	3.00	ML/L

===== STRUCTURE DATA FOR JUNCTION #4 =====

QUESTION

NO.

1. NUMBER OF SUBWATERSHEDS - 1
2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

* * * * *
 JUNCTION 4, BRANCH 1, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING K-HRS	COEFFICIENTS X,	UNIT HYDRO
1	3.70	69.00	.200	.050	.050	.40	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	130.0	30.00	.250	1.0	1.0
	2	.20	1000.0	1.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.99	.23	7.78	.023	.443	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	2.05	INCHES
RUNOFF VOLUME	=	.0724	ACRE-FT
PEAK DISCHARGE	=	.9938	CFS
AREA	=	3.7000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	40.00	EI UNIT
PEAK CONCENTRATION	=	123418.00	MG/L
PEAK SETTLEABLE CONCENTRATION	=	45.7718	ML/L
PEAK SETTLEABLE CONCENTRATION	=	80100.64	MG/L
TOTAL SEDIMENT YIELD	=	7.7782	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0227	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.70	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	28.28	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE			

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CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	28.28	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	21.04	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	3.24	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.40	
PREVIOUS MUSKINGUM ROUTING K	=	.0400	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	8.57	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.30	HRS
TOTAL DRAINAGE AREA	=	53.10	ACRES
TOTAL RUNOFF VOLUME	=	1.0394	AC-FT
PEAK RUNOFF DISCHARGE	=	9.09	CFS
TIME TO PEAK DISCHARGE	=	3.30	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0400	HRS
TOTAL SEDIMENT YIELD	=	54.1464	TONS
PEAK SEDIMENT CONCENTRATION	=	57942.22	MG/L
PEAK SETTLEABLE CONCENTRATION	=	24.8318	ML/L
PEAK SETTLEABLE CONCENTRATION	=	43455.61	MG/L
TIME TO PEAK CONCENTRATION	=	3.20	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	4.10	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	16.14	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	16.14	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	11.94	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	2.04	ML/L

===== STRUCTURE DATA FOR JUNCTION #4 =====

QUESTION

- | | | |
|-----|--------------------------------------|-------------|
| NO. | | |
| 1. | NUMBER OF SUBWATERSHEDS - | 1 |
| 2. | TYPE OF SEDIMENT CONTROL STRUCTURE - | NULL STRUC. |

 JUNCTION 4, BRANCH 1, STRUCTURE 2

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	2.30	69.00	.140	.040	.040	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	100.0	38.00	.250	1.0	1.0
	2	.20	450.0	1.10	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.67	.23	7.74	.024	.459	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	2.05	INCHES
RUNOFF VOLUME	=	.0450	ACRE-FT
PEAK DISCHARGE	=	.6693	CFS
AREA	=	2.3000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSIVITY FACTOR	=	40.00	EI UNIT
PEAK CONCENTRATION	=	192861.70	MG/L
PEAK SETTLEABLE CONCENTRATION	=	72.7544	ML/L
PEAK SETTLEABLE CONCENTRATION	=	127320.30	MG/L
TOTAL SEDIMENT YIELD	=	7.7425	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0239	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.60	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	44.49	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	44.49	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	33.48	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR			

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PERIOD = 5.02 ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.1500	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	8.77	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.50	HRS
TOTAL DRAINAGE AREA	=	55.40	ACRES
TOTAL RUNOFF VOLUME	=	1.0845	AC-FT
PEAK RUNOFF DISCHARGE	=	9.04	CFS
TIME TO PEAK DISCHARGE	=	3.50	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.1500	HRS
TOTAL SEDIMENT YIELD	=	61.8720	TONS
PEAK SEDIMENT CONCENTRATION	=	82850.62	MG/L
PEAK SETTLEABLE CONCENTRATION	=	34.9607	ML/L
PEAK SETTLEABLE CONCENTRATION	=	61181.20	MG/L
TIME TO PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	4.00	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	17.38	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	17.38	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	14.51	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	2.42	ML/L

===== STRUCTURE DATA FOR JUNCTION #5 =====

QUESTION NO.

- 1. NUMBER OF SUBWATERSHEDS - 1
- 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

 JUNCTION 5, BRANCH 1, STRUCTURE 1

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
------------	------------	--------------	-------	-------	----------------------------	----	------------

1 15.00 69.00 .130 .050 .050 .40 1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	500.0	45.00	.250	1.0	1.0
	2	.20	400.0	6.00	.250	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	4.37	.23	248.60	.088	1.000	.970

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	2.05	INCHES
RUNOFF VOLUME	=	.2936	ACRE-FT
PEAK DISCHARGE	=	4.3652	CFS
AREA	=	15.0000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	2.0678	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	40.00	EI UNIT
PEAK CONCENTRATION	=	727936.00	MG/L
PEAK SETTLEABLE CONCENTRATION	=	345.8671	ML/L
PEAK SETTLEABLE CONCENTRATION	=	605267.40	MG/L
TOTAL SEDIMENT YIELD	=	241.0804	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0840	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION=		3.70	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	226.82	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	226.82	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	172.69	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	26.62	ML/L

*** PARTICLE SIZE DISTRIBUTION OF SEDIMENT ***

SIZE,MM	13.0000	2.0000	.4250	.2500	.1500	.0750
PERCENT FINER	97.2413	86.3107	80.4329	75.5863	68.3680	46.4036

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SIZE,MM	.0500	.0300	.0200	.0100	.0080	.0060
PERCENT FINER	35.0605	27.1203	20.9332	15.4679	14.2304	12.6836
SIZE,MM	.0040	.0020	.0001			
PERCENT FINER	11.3431	10.3119	.0000			

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.1500	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	8.68	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.70	HRS
TOTAL DRAINAGE AREA	=	70.40	ACRES
TOTAL RUNOFF VOLUME	=	1.3781	AC-FT
PEAK RUNOFF DISCHARGE	=	10.27	CFS
TIME TO PEAK DISCHARGE	=	3.60	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	.94	
PREVIOUS STRUCTURE TRAVEL TIME	=	.1500	HRS
TOTAL SEDIMENT YIELD	=	299.2493	TONS
PEAK SEDIMENT CONCENTRATION	=	669911.20	MG/L
PEAK SETTLEABLE CONCENTRATION	=	309.9913	ML/L
PEAK SETTLEABLE CONCENTRATION	=	542484.80	MG/L
TIME TO PEAK CONCENTRATION	=	3.10	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	4.10	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	65.99	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	65.99	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	59.04	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	10.09	ML/L

*** RUN COMPLETED ****

OLD COARSE REFUSE ROAD POND

10 YEAR, 6 HOUR STORM

PHASE ONE

July 11, 1994

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*****
*          (program name)          * SEDIMOT S/N : 1353220014 *
*          (program description)   * HMVersion  : 3.20      *
*                                   * Date       : 5/25/94   *
*                                   * Time      : 9:31:21   *
*                                   * Input file : ocr106.in  *
*                                   * Output file: ocr106.out *
*                                   *                *
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:::
::: Full Microcomputer Implementation :::
::: by :::
::: Haestad Methods, Inc. :::
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37 Brookside Road * Waterbury, Connecticut 06708 * (203) 755-1666

UNIVERSITY OF KENTUCKY COMPUTER MODEL
OF SURFACE MINE HYDROLOGY AND SEDIMENTOLOGY
FOR MORE INFORMATION CONTACT THE AGRICULTURAL
ENGINEERING DEPARTMENT

THE UK MODEL IS A DESIGN MODEL DEVELOPED TO PREDICT
THE HYDRAULIC AND SEDIMENT RESPONSE FROM SURFACE
MINED LANDS FOR A SPECIFIED RAINFALL EVENT (SINGLE STORM)

VERSION DATE 5-25-83

DISCLAIMER: NEITHER THE UNIVERSITY NOR ANY OF ITS EMPLOYEES
ACCEPT ANY RESPONSIBILITY OR LEGAL LIABILITY FOR THE
CONCLUSIONS DRAWN FROM THE RESULTS OF THIS MODEL

WATERSHED IDENTIFICATION CODE

OLD COARSE REFUSE ROAD POND 10 YEAR, 6 HOUR STORM, PHASE 1 R

===== STORM INPUT =====

QUESTION

NO.

1. STORM TYPE -	SCS'S TYPE 2
2. RAINFALL DEPTH -	1.31 INCHES
3. STORM DURATION -	6.00 HOURS
4. TIME INCREMENT -	.10 HOURS

=====

===== WATERSHED DATA =====

QUESTION

NO.

1. NUMBER OF JUNCTIONS -	2
2. JUNCTION	NUMBER OF BRANCHES

1
2

2
1

3. COMPUTATION - BOTH HYDROLOGY AND SEDIMENTOLOGY

=====

===== SEDIMENTOLOGY INPUTS =====

QUESTION

NO.		
1.	SPECIFIC GRAVITY -	2.75
2.	COEFFICIENT FOR DISTRIBUTING SEDIMENT LOAD -	1.50
3.	SUBMERGED BULK SPECIFIC GRAVITY -	1.75
4.	NUMBER OF PARTICLE SIZE DISTRIBUTIONS -	1
5.	NUMBER OF DATA VALUES PER PARTICLE SIZE DISTRIBUTION -	15

=====

===== INPUT PARTICLE SIZE DISTRIBUTIONS =====

VALUE NO.	SIZE, MM
1	13.0000
2	2.0000
3	.4250
4	.2500
5	.1500
6	.0750
7	.0500
8	.0300
9	.0200
10	.0100
11	.0080
12	.0060
13	.0040
14	.0020
15	.0001

=====

===== PERCENT FINER DISTRIBUTIONS =====

VALUE NO.	PARTICLE SIZE #
	1
1	94.30
2	83.70
3	78.00
	73.30
5	66.30
6	45.00
7	34.00
8	26.30

9	20.30
10	15.00
11	13.80
12	12.30
13	11.00
14	10.00
15	.00

=====

===== STRUCTURE INPUT FOR JUNCTION #1 =====

BRANCH	NUMBER OF STRUCTURES
1	2
2	1

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00
1	PRIOR J OR S TO STRUCTURE 2	.08	.08	.35
2	PRIOR J OR S TO STRUCTURE 1	.00	.00	.00

===== STRUCTURE INPUT FOR JUNCTION #2 =====

BRANCH	NUMBER OF STRUCTURES
1	2

===== BETWEEN STRUCTURE ROUTING PARAMETERS =====

BRANCH NO.	BETWEEN	PARAMETERS		
		1 TIME	2 MUSK. K	3 MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.03	.03	.35
1	PRIOR J OR S TO STRUCTURE 2	.01	.01	.35

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

NO.

1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

 JUNCTION 1, BRANCH 1, STRUCTURE 1

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	8.60	84.00	.150	.000	.000	.00	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	400.0	1.00	.850	1.0	1.0
	2	.20	400.0	1.00	.850	1.0	1.0

*** COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS ***

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	3.73	.30	2.40	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.2183	ACRE-FT
PEAK DISCHARGE	=	3.7296	CFS
AREA	=	8.6000	ACRES
TIME OF PEAK DISCHARGE	=	3.10	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	1.0000	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	13069.63	MG/L
PEAK SETTLEABLE CONCENTRATION	=	6.2470	ML/L
PEAK SETTLEABLE CONCENTRATION	=	10932.29	MG/L
TOTAL SEDIMENT YIELD	=	2.4043	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.10	HRS

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PERIOD OF SIGNIFICANT CONCENTRATION= 3.80 HRS
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 3.78 ML/L
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 3.78 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 2.43 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = .38 ML/L

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

NO.
 1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

=====

* * * * *
 JUNCTION 1, BRANCH 1, STRUCTURE 2
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	3.60	84.00	.100	.010	.010	.35	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	200.0	20.00	.850	1.0	1.0
	2	.20	400.0	4.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	1.94	.30	55.36	.088	1.000	.986

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0914	ACRE-FT
PEAK DISCHARGE	=	1.9387	CFS
AREA	=	3.6000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	4.8420	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	595214.40	MG/L
PEAK SETTLEABLE CONCENTRATION	=	283.7125	ML/L
PEAK SETTLEABLE CONCENTRATION	=	496496.80	MG/L
TOTAL SEDIMENT YIELD	=	54.5656	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0862	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION=		3.20	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE			
CONCENTRATION DURING PERIOD OF			
SIGNIFICANT CONCENTRATION	=	178.81	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE			
CONCENTRATION DURING PEAK 24 HOUR			
PERIOD	=	178.81	ML/L
ARITHMETIC AVERAGE SETTLEABLE			
CONCENTRATION DURING PERIOD OF			
SIGNIFICANT CONCENTRATION	=	121.14	ML/L
ARITHMETIC AVERAGE SETTLEABLE			
CONCENTRATION DURING PEAK 24 HOUR			
PERIOD	=	16.15	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0800	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	3.28	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.20	HRS
TOTAL DRAINAGE AREA	=	12.20	ACRES
TOTAL RUNOFF VOLUME	=	.3097	AC-FT
PEAK RUNOFF DISCHARGE	=	3.89	CFS
TIME TO PEAK DISCHARGE	=	3.00	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	.89	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0800	HRS
TOTAL SEDIMENT YIELD	=	56.7085	TONS
PEAK SEDIMENT CONCENTRATION	=	398871.90	MG/L
PEAK SETTLEABLE CONCENTRATION	=	189.9769	ML/L
PEAK SETTLEABLE CONCENTRATION	=	332459.50	MG/L
TIME TO PEAK CONCENTRATION	=	2.80	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.80	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE			
CONCENTRATION DURING PERIOD OF			
SIGNIFICANT CONCENTRATION	=	57.75	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE			
CONCENTRATION DURING PEAK 24 HOUR			

PERIOD = 57.75 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 38.97 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 6.17 ML/L

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

NO.

1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

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* * * * *
 JUNCTION 1, BRANCH 2, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	6.70	84.00	.250	.000	.000	.00	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	150.0	30.00	.850	1.0	1.0
	2	.20	1500.0	4.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	2.48	.30	139.70	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION = 6.00 HOURS
 PRECIPITATION DEPTH = 1.31 INCHES
 RUNOFF VOLUME = .1701 ACRE-FT
 PEAK DISCHARGE = 2.4842 CFS
 AREA = 6.7000 ACRES

TIME OF PEAK DISCHARGE = 3.10 HRS
 LOAD RATE EXPONENT FACTOR = 1.50
 BETA = 1.0000
 SUBMERGE BULK SPECIFIC GRAVITY = 1.75
 RAINFALL EROSIVITY FACTOR = 15.26 EI UNIT
 PEAK CONCENTRATION = 705763.50 MG/L
 PEAK SETTLEABLE CONCENTRATION = 337.3409 ML/L
 PEAK SETTLEABLE CONCENTRATION = 590346.50 MG/L
 TOTAL SEDIMENT YIELD = 139.6996 TONS
 REPRESENTATIVE PARTICLE SIZE = .0883 MM
 TIME OF PEAK CONCENTRATION = 3.10 HRS

PERIOD OF SIGNIFICANT CONCENTRATION= 4.00 HRS
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 228.97 ML/L
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 228.97 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 156.44 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 26.07 ML/L

===== STRUCTURE DATA FOR JUNCTION #2 =====

STATION
NO.

- 1. NUMBER OF SUBWATERSHEDS - 1
- 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

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* * * * *
 JUNCTION 2, BRANCH 1, STRUCTURE 1
 * * * * *

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	1.60	78.00	.040	.000	.000	.00	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	200.0	30.00	.800	1.0	1.0
	2	.20	400.0	2.00	.800	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	.45	.16	10.80	.046	.655	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0208	ACRE-FT
PEAK DISCHARGE	=	.4487	CFS
AREA	=	1.6000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	568736.10	MG/L
PEAK SETTLEABLE CONCENTRATION	=	245.5349	ML/L
PEAK SETTLEABLE CONCENTRATION	=	429686.10	MG/L
TOTAL SEDIMENT YIELD	=	10.7993	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0461	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	3.10	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	144.76	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	144.76	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	108.27	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	13.99	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0300	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	6.00	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.00	HRS
TOTAL DRAINAGE AREA	=	20.50	ACRES
TOTAL RUNOFF VOLUME	=	.5005	AC-FT
PEAK RUNOFF DISCHARGE	=	6.45	CFS
TIME TO PEAK DISCHARGE	=	3.00	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0300	HRS

TOTAL SEDIMENT YIELD = 207.1900 TONS
 PEAK SEDIMENT CONCENTRATION = 470112.20 MG/L
 PEAK SETTLEABLE CONCENTRATION = 223.3072 ML/L
 PEAK SETTLEABLE CONCENTRATION = 390787.60 MG/L
 TIME TO PEAK CONCENTRATION = 3.00 HRS

PERIOD OF SIGNIFICANT CONCENTRATION = 4.00 HRS
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 126.67 ML/L
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 126.67 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 85.68 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 14.28 ML/L

===== STRUCTURE DATA FOR JUNCTION #2 =====

QUESTION

NO.

1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - POND

 JUNCTION 2, BRANCH 1, STRUCTURE 2

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	.30	84.00	.030	.000	.000	.00	.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	150.0	1.00	.850	1.0	.0

*** COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS ***

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
-----	-----	-----	-----	-----	-----	-----

1 .16 .30 .06 .088 1.000 1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	6.00	HOURS
PRECIPITATION DEPTH	=	1.31	INCHES
RUNOFF VOLUME	=	.0076	ACRE-FT
PEAK DISCHARGE	=	.1616	CFS
AREA	=	.3000	ACRES
TIME OF PEAK DISCHARGE	=	3.00	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSIVITY FACTOR	=	15.26	EI UNIT
PEAK CONCENTRATION	=	9476.32	MG/L
PEAK SETTLEABLE CONCENTRATION	=	4.5295	ML/L
PEAK SETTLEABLE CONCENTRATION	=	7926.61	MG/L
TOTAL SEDIMENT YIELD	=	.0551	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION=		2.40	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE			
CONCENTRATION DURING PERIOD OF			
SIGNIFICANT CONCENTRATION	=	2.81	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE			
CONCENTRATION DURING PEAK 24 HOUR			
PERIOD	=	2.81	ML/L
ARITHMETIC AVERAGE SETTLEABLE			
CONCENTRATION DURING PERIOD OF			
SIGNIFICANT CONCENTRATION	=	1.92	ML/L
ARITHMETIC AVERAGE SETTLEABLE			
CONCENTRATION DURING PEAK 24 HOUR			
PERIOD	=	.19	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0100	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	6.45	CFS
TIME OF ROUTED PEAK DISCHARGE	=	3.00	HRS
TOTAL DRAINAGE AREA	=	20.80	ACRES
TOTAL RUNOFF VOLUME	=	.5081	AC-FT
PEAK RUNOFF DISCHARGE	=	6.61	CFS
TIME TO PEAK DISCHARGE	=	3.00	HRS
PREVIOUS STRUCTURE DELIVERY RATIO	=	1.00	
PREVIOUS STRUCTURE TRAVEL TIME	=	.0100	HRS
TOTAL SEDIMENT YIELD	=	207.2391	TONS
PEAK SEDIMENT CONCENTRATION	=	460695.80	MG/L
PEAK SETTLEABLE CONCENTRATION	=	218.8335	ML/L
PEAK SETTLEABLE CONCENTRATION	=	382958.60	MG/L
TIME TO PEAK CONCENTRATION	=	3.00	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	4.00	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE			

CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 125.26 ML/L
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 125.26 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 84.57 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 14.10 ML/L

===== POND INPUT =====
 QUESTION

- NO.
1. TIME INCREMENT OF THE ROUTED HYDROGRAPH - .20 HOURS
 2. NON-IDEAL SETTLING CORRECTION FACTOR - 1.00
 3. PERCENT OF PERMANENT POOL THAT IS DEAD SPACE - 20.00
 4. OUTFLOW WITHDRAWAL OPTION - SURFACE
 5. INFLOW VERTICAL CONCENTRATION - COMP. MIXED
 6. NUMBER OF STAGE POINTS - 10
 7. NUMBER OF ROUTED HYDROGRAPH POINTS - 500
 8. STAGE-DISCHARGE OPTION - INPUT
 9. OUTPUT OPTION - GRAPHS
 10. NUMBER OF CONTINUOUS STIRRED REACTORS 2

POND RESULTS

***** BASIN GEOMETRY *****

STAGE (FT)	AREA (ACRES)	AVERAGE DEPTH (FT)	DISCHARGE (CFS)	CAPACITY (ACRES-FT)
.00	.050	.00	.00	.00
2.00	.120	1.59	.00	.17
2.40	.160	1.89	.00	.23
5.00	.210	3.92	.00	.71
5.40	.218	4.25	.00	.79
5.50	.220	4.33	.57	.81
5.60	.222	4.41	1.41	.84
5.70	.224	4.50	2.50	.86
5.80	.226	4.58	3.80	.88
6.00	.230	4.75	6.70	.93

***** STORM EVENT SUMMARY *****

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TURBULENCE FACTOR = 1.00
PERMANENT POOL CAPACITY = .226 ACRE-FT
DEAD STORAGE = 20.00 PERCENT
TIME INCREMENT OUTFLOW = .20 HRS
VISCOSITY = .009 CM**2/SEC
INFLOW RUNOFF VOLUME = .508 ACRE-FT
OUTFLOW ROUTED VOLUME = .004 ACRE-FT
STORM VOLUME DISCHARGED = .004 ACRE-FT
POND VOLUME AT PEAK STAGE = .737 ACRE-FT
PEAK STAGE = 5.140 FT
PEAK INFLOW RATE = 6.609 CFS
PEAK DISCHARGE RATE = .001 CFS
PEAK INFLOW SEDIMENT CONCENTRATION = 460695.80 MG/L
PEAK EFFLUENT SEDIMENT CONCENTRATION = 42671.59 MG/L
PEAK EFFLUENT SETTLEABLE CONCENTRATION = .0000 ML/L
PEAK EFFLUENT SETTLEABLE CONCENTRATION = .06 MG/L
STORM AVERAGE EFFLUENT CONCENTRATION = 20818.18 MG/L
AVERAGE EFFLUENT SEDIMENT CONCENTRATION = 20818.18 MG/L
BASIN TRAP EFFICIENCY = 99.95 PERCENT
DETENTION TIME OF FLOW WITH SEDIMENT = 23.00 HRS
DETENTION TIME FROM HYDROGRAPH CENTERS = 23.00 HRS
DETENTION TIME INCLUDING STORED FLOW = 23.00 HRS
SEDIMENT LOAD DISCHARGED = .11 TONS
PERIOD OF SIGNIFICANT CONCENTRATION = 47.20 HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE
  CONCENTRATION DURING PERIOD OF
  SIGNIFICANT CONCENTRATION = .00 ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE
  CONCENTRATION DURING PEAK 24 HOUR
  PERIOD = .00 ML/L
ARITHMETIC AVERAGE SETTLEABLE
  CONCENTRATION DURING PERIOD OF
  SIGNIFICANT CONCENTRATION = .00 ML/L
ARITHMETIC AVERAGE SETTLEABLE
  CONCENTRATION DURING PEAK 24 HOUR
  PERIOD = .00 ML/L

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*** PARTICLE SIZE DISTRIBUTION OF SEDIMENT ***

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SIZE,MM      13.0000   2.0000   .4250   .2500   .1500   .0750
PERCENT FINER 100.0000 100.0000 100.0000 100.0000 100.0000 100.0000

SIZE,MM      .0500   .0300   .0200   .0100   .0080   .0060
PERCENT FINER 100.0000 100.0000 100.0000 100.0000 100.0000 100.0000

SIZE,MM      .0040   .0020   .0001
PERCENT FINER 100.0000 100.0000 .0000

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*** HYDROGRAPH AND SEDIMENT GRAPH ***
(TWO CONSECUTIVE VALUES PER LINE)

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-----
TIME      DISCHARGE      SED DISC *****      TIME      DISCHARGE      SED DISC
(HR)      (CFS)          (MG/L)      *          (HR)      (CFS)          (MG/L)
-----
.00      .000          .000      *          .20      .000          .000

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.40	.000	.000	*	.60	.000	.000
.80	.000	.000	*	1.00	.000	.000
1.20	.000	.000	*	1.40	.000	.000
1.60	.000	.000	*	1.80	.000	.000
2.00	.000	.000	*	2.20	.000	.000
2.40	.000	.000	*	2.60	.000	.000
2.80	.000	715.196	*	3.00	.000	19064.530
3.20	.000	42142.160	*	3.40	.000	42671.590
3.60	.001	39735.010	*	3.80	.001	37063.610
4.00	.001	35138.770	*	4.20	.001	33681.650
4.40	.001	32465.150	*	4.60	.001	31471.520
4.80	.001	30577.070	*	5.00	.001	29808.580
5.20	.001	29093.930	*	5.40	.001	28444.900
5.60	.001	27897.120	*	5.80	.001	27422.180
6.00	.001	26913.870	*	6.20	.001	26449.880
6.40	.001	25945.300	*	6.60	.001	25538.780
6.80	.001	25219.640	*	7.00	.001	24942.240
7.20	.001	24691.470	*	7.40	.001	24461.670
7.60	.001	24252.160	*	7.80	.001	24062.710
8.00	.001	23889.590	*	8.20	.001	23728.730
8.40	.001	23577.670	*	8.60	.001	23434.850
8.80	.001	23299.290	*	9.00	.001	23170.440
9.20	.001	23047.850	*	9.40	.001	22930.820
9.60	.001	22818.630	*	9.80	.001	22710.710
10.00	.001	22606.660	*	10.20	.001	22506.380
10.40	.001	22410.920	*	10.60	.001	22321.590
10.80	.001	22237.670	*	11.00	.001	22157.530
11.20	.001	22080.370	*	11.40	.001	22005.780
11.60	.001	21933.760	*	11.80	.001	21864.560
12.00	.001	21798.020	*	12.20	.001	21733.630
12.40	.001	21671.120	*	12.60	.001	21610.310
12.80	.001	21551.120	*	13.00	.001	21493.790
13.20	.001	21438.530	*	13.40	.001	21385.380
13.60	.001	21334.900	*	13.80	.001	21286.990
14.00	.001	21240.830	*	14.20	.001	21196.030
14.40	.001	21152.380	*	14.60	.001	21109.760
14.80	.001	21068.110	*	15.00	.001	21027.350
15.20	.001	20987.420	*	15.40	.001	20948.290
15.60	.001	20909.900	*	15.80	.001	20872.220
16.00	.001	20835.230	*	16.20	.001	20798.910
16.40	.001	20763.510	*	16.60	.001	20729.660
16.80	.001	20697.380	*	17.00	.001	20666.110
17.20	.001	20635.580	*	17.40	.001	20605.680
17.60	.001	20576.330	*	17.80	.001	20547.500
18.00	.001	20519.160	*	18.20	.001	20491.280
18.40	.001	20463.840	*	18.60	.001	20436.830
18.80	.001	20410.220	*	19.00	.001	20383.990
19.20	.001	20358.160	*	19.40	.001	20332.840
19.60	.001	20308.360	*	19.80	.001	20284.700
20.00	.001	20261.580	*	20.20	.001	20238.890
20.40	.001	20216.550	*	20.60	.001	20194.540
20.80	.001	20172.740	*	21.00	.001	20150.640
21.20	.001	20127.960	*	21.40	.001	20104.980
21.60	.001	20081.980	*	21.80	.001	20059.080
22.00	.001	20036.320	*	22.20	.001	20013.750
22.40	.001	19991.460	*	22.60	.001	19969.650
22.80	.001	19948.300	*	23.00	.001	19927.280
23.20	.001	19906.510	*	23.40	.001	19885.970
23.60	.001	19865.630	*	23.80	.001	19845.510
24.00	.001	19825.590	*	24.20	.001	19805.860

24.40	.001	19786.330	*	24.60	.001	19767.000
24.80	.001	19747.870	*	25.00	.001	19728.920
25.20	.001	19710.180	*	25.40	.001	19691.710
25.60	.001	19673.660	*	25.80	.001	19656.020
26.00	.001	19638.660	*	26.20	.001	19621.520
26.40	.001	19604.570	*	26.60	.001	19587.800
26.80	.001	19571.210	*	27.00	.001	19554.770
27.20	.001	19538.490	*	27.40	.001	19522.370
27.60	.001	19506.390	*	27.80	.001	19490.560
28.00	.001	19474.870	*	28.20	.001	19459.310
28.40	.001	19443.900	*	28.60	.001	19428.610
28.80	.001	19413.440	*	29.00	.001	19398.390
29.20	.001	19383.470	*	29.40	.001	19368.660
29.60	.001	19353.960	*	29.80	.001	19339.390
30.00	.001	19324.920	*	30.20	.001	19310.560
30.40	.001	19296.300	*	30.60	.001	19282.160
30.80	.001	19268.110	*	31.00	.001	19254.170
31.20	.001	19240.340	*	31.40	.001	19226.600
31.60	.001	19212.960	*	31.80	.001	19199.430
32.00	.001	19185.980	*	32.20	.001	19172.640
32.40	.001	19159.380	*	32.60	.001	19146.220
32.80	.001	19133.070	*	33.00	.001	19119.610
33.20	.001	19105.700	*	33.40	.001	19091.570
33.60	.001	19077.370	*	33.80	.001	19063.170
34.00	.001	19049.000	*	34.20	.001	19034.860
34.40	.001	19020.780	*	34.60	.001	19006.750
34.80	.001	18992.780	*	35.00	.001	18978.870
35.20	.001	18965.020	*	35.40	.001	18951.240
35.60	.001	18937.540	*	35.80	.001	18923.890
36.00	.001	18910.310	*	36.20	.001	18896.810
36.40	.001	18883.400	*	36.60	.001	18870.070
36.80	.001	18856.810	*	37.00	.001	18843.640
37.20	.001	18830.540	*	37.40	.001	18817.520
37.60	.001	18804.590	*	37.80	.001	18791.720
38.00	.001	18778.930	*	38.20	.001	18766.220
38.40	.001	18753.580	*	38.60	.001	18741.010
38.80	.001	18728.510	*	39.00	.001	18716.090
39.20	.001	18703.730	*	39.40	.001	18691.450
39.60	.001	18679.230	*	39.80	.001	18667.090
40.00	.001	18655.000	*	40.20	.001	18642.980
40.40	.001	18631.040	*	40.60	.001	18619.150
40.80	.001	18607.330	*	41.00	.001	18595.580
41.20	.001	18583.880	*	41.40	.001	18572.250
41.60	.001	18560.680	*	41.80	.001	18549.180
42.00	.001	18537.730	*	42.20	.001	18526.350
42.40	.001	18515.020	*	42.60	.001	18503.750
42.80	.001	18492.540	*	43.00	.001	18481.380
43.20	.001	18470.280	*	43.40	.001	18459.240
43.60	.001	18448.260	*	43.80	.001	18437.330
44.00	.001	18426.460	*	44.20	.001	18415.640
44.40	.001	18404.870	*	44.60	.001	18394.150
44.80	.001	18383.420	*	45.00	.001	18372.420
45.20	.001	18361.080	*	45.40	.001	18349.610
45.60	.001	18338.080	*	45.80	.001	18326.540
46.00	.001	18315.010	*	46.20	.001	18303.500
46.40	.001	18292.010	*	46.60	.001	18280.550
46.80	.001	18269.120	*	47.00	.001	18257.730
47.20	.001	18246.370	*	47.40	.001	18235.040
47.60	.001	18223.760	*	47.80	.001	18212.520
48.00	.001	18201.320	*	48.20	.001	18190.160

48.40	.001	18179.060	*	48.60	.001	18168.000
48.80	.001	18156.990	*	49.00	.001	18146.030
49.20	.001	18135.120	*	49.40	.001	18124.250
49.60	.001	18113.440	*	49.80	.001	18102.670

*** RUN COMPLETED ****

BRANCH NO.	BETWEEN	PARAMETERS		
		1	2	3
		TIME	MUSK. K	MUSK. X,
1	PRIOR J OR S TO STRUCTURE 1	.08	.08	.35
1	PRIOR J OR S TO STRUCTURE 2	.08	.08	.35
1	PRIOR J OR S TO STRUCTURE 3	.02	.02	.35

STRUCTURE DATA FOR JUNCTION #1

QUESTION

NO.		
1.	NUMBER OF SUBWATERSHEDS -	1
2.	TYPE OF SEDIMENT CONTROL STRUCTURE -	NULL STRUC.

 JUNCTION 1, BRANCH 1, STRUCTURE 1

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	18.10	84.00	.320	.000	.200	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
1	1	.20	1200.0	2.00	.850	1.0	1.0
	2	.20	300.0	1.00	.850	1.0	1.0

*** COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS ***

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	9.11	.63	17.49	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION = 24.00 HOURS
 PRECIPITATION DEPTH = 1.84 INCHES

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RUNOFF VOLUME = .9546 ACRE-FT
 PEAK DISCHARGE = 8.5768 CFS
 AREA = 18.1000 ACRES
 TIME OF PEAK DISCHARGE = 12.30 HRS
 LOAD RATE EXPONENT FACTOR = 1.50
 BETA = 1.0000
 SUBMERGE BULK SPECIFIC GRAVITY = 1.75
 RAINFALL EROSITIVITY FACTOR = 18.15 EI UNIT
 PEAK CONCENTRATION = 24564.52 MG/L
 PEAK SETTLEABLE CONCENTRATION = 11.7413 ML/L
 PEAK SETTLEABLE CONCENTRATION = 20547.36 MG/L
 TOTAL SEDIMENT YIELD = 17.4858 TONS
 REPRESENTATIVE PARTICLE SIZE = .0883 MM
 TIME OF PEAK CONCENTRATION = 12.30 HRS

PERIOD OF SIGNIFICANT CONCENTRATION= 13.90 HRS
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 6.36 ML/L
 VOLUME WEIGHTED AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 6.36 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PERIOD OF
 SIGNIFICANT CONCENTRATION = 3.11 ML/L
 ARITHMETIC AVERAGE SETTLEABLE
 CONCENTRATION DURING PEAK 24 HOUR
 PERIOD = 1.80 ML/L

===== STRUCTURE DATA FOR JUNCTION #1 =====

QUESTION

NO.
 1. NUMBER OF SUBWATERSHEDS - 1
 2. TYPE OF SEDIMENT CONTROL STRUCTURE - NULL STRUC.

 JUNCTION 1, BRANCH 1, STRUCTURE 2

*** HYDRAULIC INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	AREA ACRES	CURVE NUMBER	TC HR	TT HR	ROUTING COEFFICIENTS K-HRS	X,	UNIT HYDRO
1	4.10	84.00	.130	.000	.100	.35	1.0

*** SEDIMENT INPUT VALUES FOR SUBWATERSHEDS ***

WATER SHED	SEG NUM	SOIL K	LENGTH FEET	SLOPE PCT	CP VALUE	PART OPT	SURF COND
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1	1	.20	300.0	3.00	.850	1.0	1.0
	2	.20	300.0	2.00	.850	1.0	1.0

* * * COMPUTED VALUES FOR INDIVIDUAL WATERSHEDS * * *

WATERSHED	PEAK FLOW (CFS)	RUNOFF (INCHES)	SEDIMENT TONS	DIAM (MM)	DELIVERY RATIO 1	DELIVERY RATIO 2
1	2.51	.63	5.01	.088	1.000	1.000

***** SUMMARY TABLE FOR TOTAL WATERSHED *****

STORM DURATION	=	24.00	HOURS
PRECIPITATION DEPTH	=	1.84	INCHES
RUNOFF VOLUME	=	.2162	ACRE-FT
PEAK DISCHARGE	=	2.3552	CFS
AREA	=	4.1000	ACRES
TIME OF PEAK DISCHARGE	=	12.20	HRS
LOAD RATE EXPONENT FACTOR	=	1.50	
BETA	=	.0100	
SUBMERGE BULK SPECIFIC GRAVITY	=	1.75	
RAINFALL EROSITIVITY FACTOR	=	18.15	EI UNIT
PEAK CONCENTRATION	=	31747.23	MG/L
PEAK SETTLEABLE CONCENTRATION	=	15.1745	ML/L
PEAK SETTLEABLE CONCENTRATION	=	26555.45	MG/L
TOTAL SEDIMENT YIELD	=	5.0126	TONS
REPRESENTATIVE PARTICLE SIZE	=	.0883	MM
TIME OF PEAK CONCENTRATION	=	12.20	HRS
PERIOD OF SIGNIFICANT CONCENTRATION	=	13.50	HRS
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	7.91	ML/L
VOLUME WEIGHTED AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	7.91	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PERIOD OF SIGNIFICANT CONCENTRATION	=	3.74	ML/L
ARITHMETIC AVERAGE SETTLEABLE CONCENTRATION DURING PEAK 24 HOUR PERIOD	=	2.10	ML/L

SUMMARY TABLE OF COMBINED HYDROGRAPH AND SEDIGRAPH VALUES

PREVIOUS MUSKINGUM ROUTING X,	=	.35	
PREVIOUS MUSKINGUM ROUTING K	=	.0600	HRS
PREVIOUS ROUTED PEAK DISCHARGE	=	8.18	CFS
TIME OF ROUTED PEAK DISCHARGE	=	12.40	HRS
TOTAL DRAINAGE AREA	=	22.20	ACRES
TOTAL RUNOFF VOLUME	=	1.1708	AC-FT
PEAK RUNOFF DISCHARGE	=	9.71	CFS
TIME TO PEAK DISCHARGE	=	12.30	HRS