

12-28-88 15:57:50

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SUMMARY OF ERRORS AND SPECIAL NOTES

CAUTION SECNO= 12312.000 PROFILE= 4 HYDRAULIC JUMP D.S.

HARRELL

SWAMP

\*\*\*\*\*  
 HEC2 RELEASE DATED NOV 76 UPDATED MAY 1984  
 ERROR CORR = Q1,02,03,04,05,06  
 MODIFICATION - 50,51,52,53,54,55,56  
 IBM-PC-XI VERSION AUGUST 1985  
 \*\*\*\*\*

THIS RUN EXECUTED 12-28-88 15:57:50

C							
J1	Hayes, Seay, Mattern & Mattern						
11	Filename:HS.HEC	Eng:FKL	ST:CB				
12	Harrell Swamp	Date: 12/28/88					
13							
J1	ICHECK	IND	NIN	IDIR	SPRT	METRIC	HYNS
	0.	2.	0.	0.	.000750	.00	.0
J2	NPROF	IPILOT	PRVS	XSECV	XSECH	FL	ALDC
	1.000	- .000	-1.000	.000	.000	.000	.000
J3 VARIABLE COEFES FOR SUMMARY PRINTOUT							
	150.300	.000	.000	.000	.000	.000	.000
NC	.150	.150	.070	.100	.300	.000	.000
NH	7.000	1.000	4057.000	.350	4470.000	.270	4790.000
NH	5016.000	.170	5200.000	1.000	5834.000	.000	.000
QT	5.000	1856.000	3411.000	4263.000	7154.000	4261.000	.000
ET	.000	.000	.000	.000	.000	10.410	.000
X1	10.000	23.000	4984.000	5016.000	10.000	10.000	.000
GR	22.000	4046.000	20.000	4057.000	18.000	4059.300	16.000
GR	13.720	4470.000	13.600	4632.000	13.510	4790.000	13.400
GR	11.800	4994.000	12.000	5009.000	13.450	5014.000	13.400
GR	13.310	5485.000	14.000	5710.000	16.000	5731.000	18.000
GR	22.000	5791.000	24.000	5807.000	25.990	5834.000	.000
NH	7.000	1.000	4055.000	.350	4465.000	.270	4790.000
NH	5038.000	.170	5038.000	103.000	5459.000	.000	.000

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===== HEC-2 Input file created with CodeH2 =====
===== Version: 3.40 =====
===== CodeH2 Copyrighted 1986, 1987, 1988 =====
===== Run Date: Wednesday December 28, 1988 =====
===== Run Time: 15:57:47 =====
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## Cross Section A

X1	1338.000	40.000	4952.000	5038.000	1228.000	1328.000	.000	.000	.000	.000
GR	25.000	3785.000	24.000	3868.000	22.000	5823.000	20.000	3838.000	18.000	3850.000
GR	16.000	3860.000	14.000	3880.000	13.900	3910.000	13.900	4055.000	13.900	4200.000
GR	13.800	4465.000	14.000	4567.000	14.000	4647.000	13.750	4790.000	13.700	4817.000
GR	13.700	4952.000	13.600	4984.000	12.300	4989.000	12.000	4994.000	12.200	5009.000
GR	13.650	5014.000	13.600	5016.000	13.700	5038.000	14.000	5048.000	16.000	5058.000
GR	18.000	5068.000	20.000	5080.000	21.000	5088.000	20.000	5103.000	18.000	5120.000
GR	16.000	5140.000	14.000	5160.000	13.400	5178.000	14.000	5195.000	16.000	5232.000
GR	18.000	5252.000	19.000	5262.000	20.000	5302.000	22.000	5384.000	22.800	5459.000
HC	.000	.000	.000	.000	.300	.500	.000	.000	.000	.000
NH	8.000	1.000	4230.000	350	4650.000	.270	4897.900	.175	4924.500	.070
NH	5058.100	.170	5180.000	.300	5467.000	1.000	5852.000	.000	.000	.300
X1	2259.000	.64.	4924.500	5058.100	921.000	921.000	.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
GR	26.000	3349.900	20.000	3509.000	18.000	3564.000	16.000	3602.000	15.930	3645.000
GR	15.100	4082.000	15.120	4230.000	15.160	4650.000	15.180	4815.000	15.190	4897.900
GR	15.900	4922.890	15.900	4922.900	15.900	4922.910	15.940	4924.500	15.940	4924.510
GR	16.140	4931.400	14.340	4944.400	14.240	4944.400	14.100	4942.900	13.650	4963.100
GR	13.430	4964.400	13.190	4968.500	13.190	4968.510	13.160	4969.000	13.040	4969.500
GR	13.040	4969.510	12.220	4972.900	9.560	4983.900	8.770	4997.900	8.710	4998.900
GR	11.240	5013.500	11.250	5013.510	11.350	5013.590	11.330	5014.000	11.340	5014.500
GR	11.340	5014.510	11.580	5028.400	13.430	5034.800	13.570	5036.900	14.080	5043.900
GR	14.740	5047.100	17.710	5052.100	17.740	5057.100	17.620	5058.070	17.620	5058.100
GR	17.390	5060.090	17.380	5060.100	17.380	5060.110	16.460	5067.900	17.570	5084.900
GR	16.800	5180.000	16.631	5200.000	16.000	5278.000	16.000	5306.000	16.000	5331.000
GR	18.000	5439.000	20.006	5467.000	22.000	5477.000	22.530	5485.000	24.000	5507.000
GR	25.000	5575.000	25.010	5577.000	25.370	5677.000	26.000	5852.000	.000	.000
SB	1.250	1.730	2.600	.000	80.160	.970	840.300	.010	8.710	8.710
NH	8.000	1.000	4230.000	.350	4650.000	.270	4897.900	.175	4924.500	.070
NH	5058.100	.170	5180.000	.300	5467.000	1.000	5852.000	.000	.000	.000
US 158										
X1	2296.000	64.000	4924.500	5058.100	37.000	37.000	.000	.000	.000	.000
X2	.000	.000	1.000	19.310	23.070	.000	.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
BT	-64.000	3349.900	26.020	3509.000	26.000	26.000	20.000	3564.000	23.070	3564.000
BT	.000	3602.000	26.000	3640.000	16.000	3640.000	15.930	4082.000	25.250	4100.000
BT	.900	4230.000	25.000	4650.000	15.120	4650.000	15.280	4815.000	15.160	4845.000
BT	.000	4897.900	23.070	4922.900	15.190	4922.910	23.110	4922.960	23.110	4922.960
BT	.000	4922.910	25.310	4924.500	15.200	4924.500	25.310	4924.510	19.310	4924.510
BT	.000	4931.400	25.310	4944.400	19.310	4944.400	25.310	4947.900	25.310	4947.900
BT	.000	4952.900	25.310	4963.100	19.310	4963.100	25.300	4964.400	25.300	4964.400
BT	.000	4968.500	25.300	4968.510	19.300	4968.510	25.300	4969.000	25.300	4969.000
BT	.000	4968.500	25.300	4969.510	13.040	4969.510	25.300	4972.900	25.300	4972.900
BT	.000	4983.900	25.300	4997.900	19.300	4997.900	25.290	4998.900	25.290	4998.900
BT	.000	5013.500	25.290	5013.510	19.290	5013.510	25.290	5013.900	11.350	5013.900
BT	.000	5014.000	25.290	5014.500	11.330	5014.500	25.290	5014.510	25.290	5014.510
BT	.000	5028.400	25.290	5034.800	19.290	5034.800	25.290	5036.900	25.290	5036.900
BT	.000	5043.900	25.290	5047.100	19.290	5047.100	25.290	5052.100	25.290	5052.100

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BT	.000	5057.100	25.290	5058.090	19.290	25.290	19.290	5056.100	25.290	17.620
BT	.000	5060.090	25.290	5060.100	17.390	25.290	17.380	5060.110	23.090	17.380
BT	.000	5067.900	23.120	5064.660	16.460	5084.900	23.170	17.570	5180.000	23.860
BT	.000	5200.000	26.000	5200.000	16.630	5278.000	24.270	16.000	5306.000	16.000
BT	.000	5331.000	24.460	5331.000	16.000	5439.000	24.840	18.000	5467.000	20.000
BT	.000	5477.000	24.970	5477.000	22.000	5485.000	25.000	22.530	5507.000	24.000
BT	.000	5575.000	25.100	5575.000	25.000	5577.000	25.100	25.010	5677.000	25.370
BT	.000	5852.000	26.020	5852.000	26.000	.000	.000	.000	.000	.000
GR	26,000	3349.900	20.000	3509.000	18.000	3564.000	16.000	3602.000	15.930	3640.000
GR	15,100	4082.000	15.120	4230.000	15.160	4650.000	15.180	4815.000	15.190	4897.900
GR	15,900	4922.890	15.900	4922.900	15.900	4922.910	15.940	4924.510	15.910	4924.510
GR	16,140	4931.400	14.340	4944.400	14.240	4947.910	14.100	4952.900	13.650	4963.100
GR	13,430	4964.400	13.190	4968.500	13.190	4968.510	13.160	4969.000	13.040	4969.500
GR	13,040	4969.510	12.220	4972.900	9.560	4983.900	8.770	4997.900	8.710	4993.900
GR	11,240	5013.500	11.250	5013.510	11.330	5013.990	11.330	5014.000	11.340	5014.500
GR	11,340	5016.510	11.580	5028.400	13.430	5034.800	13.570	5036.900	14.080	5043.900
GR	14,740	5042.100	17.710	5052.100	17.740	5057.100	17.290	5058.090	17.620	5058.100
GR	17,390	5060.090	17.380	5060.100	17.380	5060.110	16.460	5067.900	17.570	5084.900
GR	16,800	5180.000	16.630	5200.000	16.000	5278.000	16.000	5306.000	16.005	5331.000
GR	18,000	5439.000	20.000	5467.000	22.000	5477.000	22.530	5485.000	24.000	5507.000
GR	25,000	5575.000	25.010	5577.000	25.170	5677.000	26.000	5852.000	.000	.000
NC	.000	.000	1.000	3985.000	.000	.000	.000	.000	.000	.000
NC	6,000	NH	NH	NH	NH	3985.000	.350	4295.000	.075	5240.000
NC	5345.000	NH	NH	NH	NH	.000	.000	.000	.000	.000

Cross Section B

Cross Section

## Cross Section C-1

X1	5793.000	20.000	4946.900	5053.100	710.000	710.000	710.000	.000	.000
GR	26.250	4800.000	25.000	4851.000	24.000	4862.000	22.710	4880.000	22.000
GR	20.000	4910.000	18.910	4946.900	18.610	4975.220	15.410	4985.840	12.610
GR	15.210	5024.780	18.510	5042.480	19.510	5053.100	18.000	5065.000	18.550
GR	20.000	5120.000	22.000	5155.000	24.000	5190.000	25.000	5218.000	32.800
NH	7.000	1.000	4880.000	.300	4949.000	.180	4970.000	.075	5030.000
NH	5030.000	.300	5073.000	1.000	5494.000	.000	5000	.000	.190
ET	.000	.000	.000	.000	.000	3.410	.000	.000	.000

## Cross Section D

X1	6323.000	26.000	4970.000	5030.000	530.000	530.000	530.000	.000	.000
GR	34.600	4599.000	32.900	331.000	31.900	4811.000	28.290	4830.000	27.300
GR	25.000	4924.000	24.000	33.000	22.000	4949.000	20.000	4962.000	18.500
GR	18.200	4986.000	15.000	4992.000	12.200	5008.000	14.800	5014.000	18.100
GR	19.100	5030.000	19.500	5073.000	20.000	5098.000	20.300	5091.000	22.000
GR	24.000	5134.060	25.000	5146.000	25.700	5161.000	28.500	5281.000	31.700
GR	33.100	5494.000	.000	.000	.000	.000	.000	.000	.000
NH	7.000	1.000	4880.000	.300	4955.000	.180	4974.500	.075	5025.500
NH	5040.000	.300	5080.000	1.000	5360.000	.000	.000	.000	.190

## Cross Section D-1A

X1	6711.000	20.000	4974.500	5025.500	388.000	388.000	388.000	.000	.000
GR	26.250	4685.000	25.000	4760.000	24.000	4782.000	22.000	4802.000	20.000
GR	19.830	4880.000	19.600	4955.000	19.540	4974.500	19.240	4983.100	16.040
GR	14.240	5006.800	15.840	5011.900	19.140	5020.400	20.140	5025.500	20.000
GR	20.820	5080.000	22.000	5138.000	24.000	5188.000	25.000	5210.000	32.800
NH	7.000	1.000	4934.2.000	.300	4930.000	.170	4981.030	.065	5018.970
NH	5055.000	.300	5150.020	1.000	5183.000	.000	.000	.000	.150

## Cross Section D-1

X1	7248.000	18.000	4981.030	5018.970	537.000	537.000	537.000	.000	.000
GR	32.800	4775.000	25.000	4825.000	24.000	4832.000	22.000	4842.000	20.550
GR	20.000	4962.000	18.670	4981.030	17.250	4990.520	17.110	4998.650	17.070
GR	17.240	5012.200	18.220	5018.970	20.000	5025.000	22.000	5040.000	24.000
GR	25.000	5065.000	30.620	5150.000	32.800	5183.000	.000	.000	.000
NH	6.000	1.000	4840.000	.300	4930.000	.170	4986.490	.065	5013.510
NH	5051.000	.300	5117.000	.000	.000	.000	.000	.000	.150
ET	.000	.000	.000	.000	.000	10.410	.000	.000	.000

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Cross Section D-1E

X1	7650.000	23.000	4936.490	5013.510	442.000	442.000	442.000	.000
GR	35.000	46229.000	34.000	4669.000	32.000	4688.000	30.900	4701.000
GR	26.000	4744.000	24.000	4764.000	22.980	4840.000	22.000	4913.000
GR	21.000	4986.490	19.580	4993.250	19.440	4999.030	19.400	5062.900
GR	20.560	5013.510	24.000	5042.000	26.000	5051.000	28.000	5066.000
GR	32.000	5092.000	34.000	5109.000	35.000	5117.000	.000	.000
NH	7.000	1.000	4544.000	1.300	4922.000	.170	4993.000	.065
NH	5050.000	.300	5144.000	1.000	5374.000	.000	.000	.000
<b>Cross Section E</b>								
X1	8228.000	29.000	4993.000	5007.000	539.000	538.000	538.000	.000
GR	35.000	4832.000	34.000	4844.000	32.000	4856.000	30.000	4971.000
GR	26.000	4898.000	24.000	4944.000	23.600	4922.000	23.410	4968.000
GR	23.420	4988.000	23.830	4973.000	22.410	4996.500	22.270	4999.500
GR	22.400	5004.500	23.390	5007.000	23.400	5017.000	23.710	5027.000
GR	23.640	5047.000	26.000	5050.000	28.000	5075.000	30.000	5102.000
GR	33.900	5156.000	34.000	5164.000	35.000	5219.000	36.300	5374.000
NH	7.000	1.000	4850.000	1.300	4925.000	.150	4973.950	.665
NH	5100.000	.300	5250.000	1.000	5475.000	.000	.000	.000
<b>Cross Section E-1</b>								
X1	8838.000	22.000	4993.950	5006.050	610.000	610.000	610.000	.000
GR	35.000	4800.000	34.000	4812.500	32.000	4825.000	30.000	4837.500
GR	26.000	4862.500	24.000	4875.000	24.490	4925.000	25.160	4973.950
GR	23.330	5002.420	23.460	5005.450	25.050	5006.050	24.000	5050.000
GR	27.110	5100.000	28.000	5120.000	30.000	5165.000	31.790	5250.000
GR	34.000	5355.000	35.000	5475.000	.000	.000	.000	.000
NH	7.000	1.000	4855.000	.300	4925.000	.150	4995.000	.065
NH	5100.000	.300	5250.000	1.000	5274.000	.000	.000	.000
<b>Cross Section F</b>								
X1	9503.000	32.000	4995.000	5005.000	665.000	665.000	665.000	.000
GR	35.000	4564.000	34.800	4692.000	35.000	4789.000	35.130	4807.000
GR	34.000	4855.000	30.000	4870.000	28.000	4882.000	26.000	4900.000
GR	25.440	4925.000	25.880	4965.000	25.920	4975.000	26.010	4985.000
GR	24.700	5000.000	24.530	5002.000	24.660	5004.500	26.250	5005.000
GR	25.290	5025.000	25.360	5035.000	26.250	5045.000	25.000	5050.000
GR	28.280	5132.000	30.000	5150.000	31.600	5178.000	32.000	5218.000
GR	34.310	5250.000	35.000	5274.000	.000	.000	.000	.000
NH	6.000	1.000	4850.000	.300	4925.000	.150	4995.000	.065
NH	5100.000	.300	5205.000	.000	.000	.000	.000	.000

## Cross Section F-1

X1	10193.000	18.000	4995.000	5005.000	690.000	690.000	.000	.000	.000
GR	35.000	4828.000	34.630	4850.000	34.000	4888.000	32.000	4914.000	31.120
GR	30.000	4939.009	28.000	4967.009	27.190	4995.009	25.530	5000.000	25.360
GR	25.490	5004.500	21.080	5005.000	21.730	5100.000	28.000	5140.000	30.000
GR	32.006	5173.000	34.000	5188.000	35.000	5205.000	.000	.000	5148.000
NH	7.000	1.000	4850.000	1.000	4925.000	.150	4995.000	.065	5005.000
NH	5100.000	.300	5250.000	1.000	5285.000	.000	.000	.000	.150

## Cross Section G-1

X1	10903.000	18.000	4795.000	5005.000	710.000	710.000	.000	.000	.000
GR	35.000	4461.000	34.000	4561.000	32.000	4678.000	30.000	4745.000	28.000
GR	28.010	4850.000	28.030	4925.000	28.040	4995.000	26.380	5000.000	26.210
GR	26.340	5004.500	27.950	5005.000	28.000	5100.000	30.000	5120.000	32.000
GR	34.000	5147.000	34.750	5250.000	35.000	5285.000	.000	.000	.000
NH	6.000	1.000	4962.000	.270	4995.000	.075	5005.000	.200	5028.000
NH	5120.000	1.000	5383.000	.000	.000	.000	.000	.000	.300

## Cross Section G

X1	11591.000	20.000	4995.000	5005.000	688.000	688.000	.000	.000	.000
GR	53.000	4898.000	44.100	4920.000	35.000	4942.000	34.000	4954.000	32.000
GR	30.030	4965.000	28.000	4973.000	28.860	4995.000	27.200	5000.000	27.030
GR	27.160	5004.500	28.750	5005.000	28.000	5028.000	30.000	5043.000	32.000
GR	34.000	5073.000	34.430	5120.000	.35.000	5183.000	35.700	5228.000	36.300
NH	7.000	1.000	4840.000	.300	4950.000	.200	4986.500	.075	5013.500
NH	5130.000	.300	5220.000	1.000	6922.000	.000	.000	.000	.000
QT	5.000	142.000	321.000	434.000	877.000	434.000	.000	.000	.000
ET	.000	.000	.000	.000	.000	.000	.000	.000	.000
X1	12161.000	54.000	4986.500	5013.500	570.000	570.000	.000	.000	.000
GR	37.740	2764.000	35.070	4018.000	34.800	4146.000	34.140	4454.000	34.010
GR	32.790	4636.000	32.010	4712.000	31.980	4718.000	31.390	4840.000	31.010
GR	31.420	4950.000	31.650	4966.470	31.650	4966.500	31.620	4986.470	31.620
GR	30.520	4990.000	30.320	4990.630	30.130	4991.250	29.930	4991.880	29.740
GR	29.540	4993.130	29.350	4993.750	29.150	4994.380	28.950	4995.000	28.490
GR	28.500	4996.490	28.510	4996.500	28.020	4997.130	29.520	4997.750	30.030
GR	30.130	4998.500	29.420	4999.000	28.540	4999.630	27.660	5000.250	27.310
GR	27.260	5000.880	27.190	5001.000	27.070	5002.500	26.960	5004.990	26.360
GR	27.070	5237.500	31.300	5013.490	31.300	5013.500	31.760	5046.490	31.760
GR	32.010	5051.000	33.410	5130.000	36.010	5145.000	35.010	5185.000	35.080
GR	35.680	5525.000	36.040	5705.000	36.160	5765.000	38.450	6925.000	.000
NC	.000	.000	.000	.300	.500	.000	.000	.000	.000
NH	7.000	1.000	4840.000	.300	4950.000	.200	4986.500	.075	5013.500
NH	5130.000	.300	5220.000	1.000	6925.000	.000	.000	.000	.200

15:57:50 86-28-88

PAGEL

12-28-88 15:57:50

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THIS RUN EXECUTED 12-28-88 15:59:29

HEC2 RELEASE DATED NOV 76 UPDATED MAY 1984  
ERROR CORR - 01,02,03,04,05,06  
MODIFICATION - 50,51,52,53,54,55,56  
IBM-PC-XT VERSION AUGUST 1985

T1 Hayes, Seay, Mattern & Mattern Gates Co. NC FIS  
T2 Filename:HS.HEC Eng:EKL ET:CJB Comm. No. 2353C  
T3 Harrell Swamp Date: 12/28/88 50-Year Event

THIS RUN EXECUTED 12-28-88 16:00:17

HEC2 RELEASE DATED NOV 76 UPDATED MAY 1984  
ERROR CORR - 01,02,03,04,05,06  
MODIFICATION - 50,51,52,53,54,55,56  
IBM-PC-XI VERSION AUGUST 1985

T1 Hayes, Seay, Mattern & Mattern Gates Co. NC FIS  
T2 Filename:HS.HEC Eng:EKL ET:CJB Comm. No. 2353C  
T3 Harrell Swamp Date: 12/28/88 100-Year Event

THIS RUN EXECUTED 12-28-88 16:01:05

HEC2 RELEASE DATED NOV 76 UPDATED MAY 1984  
ERROR CORR - 01,02,03,04,05,06  
MODIFICATION - 50,51,52,53,54,55,56  
IBM-PC-XT VERSION AUGUST 1985

THIS RUN EXECUTED 12-28-88 16:01:56

\*\*\*\*\*  
 HEC2 RELEASE DATED NOV 76 (UPDATED MAY 1984)  
 ERROR CORP - 01,02,03,04,05,06  
 MODIFICATION - 50,51,52,53,54,55,56  
 IBM-PC-XT VERSION AUGUST 1985  
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NOTE- ASTERISK (\*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

Harrell Swamp

## SUMMARY PRINTOUT TABLE 150

SECNO	XLCN	ELTFD	ELLC	ELMIN	O	CWSEL	CRWS	EG	10K*S	VCH	AREA	.01K
10.000	.00	.00	.00	11.80	1856.00	17.05	.00	17.05	7.40	1.52	5784.59	682.38
10.000	.00	.00	.00	11.80	3411.00	18.61	.00	18.62	7.49	1.84	8415.01	1246.43
10.000	.00	.00	.00	11.80	4263.00	19.35	.00	19.36	7.48	1.98	9668.91	1558.71
10.000	.00	.00	.00	11.80	7154.00	21.45	.00	21.46	7.61	2.38	13271.68	2593.40
1338.000	1328.00	.00	.00	12.00	1856.00	17.91	.00	17.92	5.73	1.33	5233.33	775.60
1338.000	1328.00	.00	.00	12.00	3411.00	19.53	.00	19.55	6.47	1.72	7469.89	1340.62
1338.000	1328.00	.00	.00	12.00	4263.00	20.29	.00	20.31	6.72	1.89	8554.01	1644.57
1338.000	1328.00	.00	.00	12.00	7154.00	22.43	.00	22.46	7.33	2.35	11829.50	2643.15
2259.000	921.00	.00	.00	8.71	1856.00	18.62	.00	18.70	12.42	2.39	775.76	526.74
2259.000	921.00	.00	.00	8.71	3411.00	20.37	.00	20.55	17.37	3.38	1010.46	818.32
2259.000	921.00	.00	.00	8.71	4263.00	21.17	.00	21.39	19.46	3.82	1116.53	966.43
2259.000	921.00	.00	.00	8.71	7154.00	23.07	.00	23.13	6.92	2.61	12243.59	2718.89
2296.000	37.00	23.07	19.31	8.71	1856.00	18.62	.00	18.71	12.56	2.39	775.32	523.62
2296.000	37.00	23.07	19.31	8.71	3411.00	20.65	.00	20.81	17.10	3.30	1034.62	824.83
2296.000	37.00	23.07	19.31	8.71	4263.00	21.65	.00	21.86	17.79	3.65	1168.88	1010.83
2296.000	37.00	23.07	19.31	8.71	7154.00	24.52	.00	24.54	2.97	1.80	17804.87	4149.74
2803.000	507.00	.00	.00	12.80	1856.00	18.86	.00	18.86	1.26	.60	6046.90	1656.59
2803.000	507.00	.00	.00	12.80	3411.00	20.97	.00	20.97	1.10	.73	9525.79	3255.89
2803.000	507.00	.00	.00	12.80	4263.00	22.01	.00	22.01	1.03	.78	11263.03	4198.88
2803.000	507.00	.00	.00	12.80	7154.00	24.61	.00	24.62	1.05	.96	15695.86	6974.34
5083.000	2280.00	.00	.00	13.15	301.00	19.15	.00	19.15	1.38	.51	741.49	256.15
5083.000	2280.00	.00	.00	13.15	640.00	21.22	.00	21.22	1.07	.63	1428.62	617.54
5083.000	2280.00	.00	.00	13.15	845.00	22.24	.00	22.25	1.00	.68	1797.33	844.93
5083.000	2280.00	.00	.00	13.15	1613.00	24.85	.00	24.86	1.07	.88	2833.43	1560.93
5793.000	710.00	.00	.00	12.61	301.00	19.32	.00	19.34	6.55	1.01	329.42	117.61
5793.000	710.00	.00	.00	12.61	640.00	21.34	.00	21.36	4.53	1.19	764.09	300.80
5793.000	710.00	.00	.00	12.61	845.00	22.35	.00	22.38	4.01	1.27	1028.14	422.23
5793.000	710.00	.00	.00	12.61	1613.00	24.97	.00	25.00	3.87	1.60	1856.86	820.24

SECNO	XLCN	ELPC	ELLC	ELMIN	C	CSEL	CRUS	EG	10K-S	VCH	AREA	.01K
6323.000	530.00	.00	.00	12.20	391.00	19.72	.00	19.75	9.33	1.39	238.57	98.57
6323.000	530.00	.00	.00	12.20	640.00	21.65	.00	21.70	9.00	1.81	503.34	213.38
6323.000	530.00	.00	.00	12.20	825.00	22.63	.00	22.69	8.60	1.98	663.50	288.13
6323.000	530.00	.00	.00	12.20	1613.00	25.23	.00	25.32	8.95	2.52	1188.46	539.06
6711.000	388.00	.00	.00	14.24	391.00	20.26	.00	20.32	24.54	1.95	226.29	60.76
6711.000	388.00	.00	.00	14.24	640.00	22.09	.00	22.14	14.72	2.09	748.06	166.80
6711.000	388.00	.00	.00	14.24	845.00	23.03	.00	23.08	12.07	2.13	1082.05	243.18
6711.000	388.00	.00	.00	14.24	1613.00	25.62	.00	25.68	9.55	2.44	2181.06	521.92
7248.000	537.00	.00	.00	17.07	391.00	21.16	.00	21.21	12.11	1.90	234.44	86.48
7248.000	537.00	.00	.00	17.07	640.00	22.79	.00	22.86	11.98	2.41	535.90	184.89
7248.000	537.00	.00	.00	17.07	845.00	23.63	.00	23.71	11.08	2.55	716.12	253.89
7248.000	537.00	.00	.00	17.07	1613.00	26.11	.00	26.20	8.64	2.93	1309.04	519.48
7690.000	442.00	.00	.00	19.40	391.00	22.21	.00	22.41	98.87	3.91	130.61	31.58
7690.000	442.00	.00	.00	19.40	640.00	23.68	.00	23.84	49.16	3.94	410.13	91.28
7690.000	442.00	.00	.00	19.40	845.00	24.42	.00	24.56	38.56	3.92	612.72	136.07
7690.000	442.00	.00	.00	19.40	1613.00	26.72	.00	26.85	23.63	4.02	1307.30	331.84
8228.000	538.00	.00	.00	22.23	391.00	25.41	.00	25.46	38.38	2.75	276.97	48.59
8228.000	538.00	.00	.00	22.23	640.00	26.39	.00	26.47	48.54	3.77	425.01	91.86
8228.000	538.00	.00	.00	22.23	845.00	26.86	.00	26.96	52.10	4.23	502.46	117.07
8228.000	538.00	.00	.00	22.23	1613.00	28.51	.00	28.65	50.78	5.19	807.09	226.35
8838.000	610.00	.00	.00	23.33	391.00	26.85	.00	26.87	15.30	1.71	488.02	76.96
8838.000	610.00	.00	.00	23.33	640.00	28.04	.00	28.06	16.13	2.21	791.09	159.34
8838.000	610.00	.00	.00	23.33	845.00	28.60	.00	28.62	16.61	2.44	946.52	207.34
8838.000	610.00	.00	.00	23.33	1613.00	30.30	.00	30.34	17.20	3.04	1475.79	388.90
9503.000	665.00	.00	.00	24.53	391.00	27.87	.00	27.88	15.11	1.60	485.12	77.44
9503.000	665.00	.00	.00	24.53	640.00	29.09	.00	29.10	15.21	2.05	798.95	164.10
9503.000	665.00	.00	.00	24.53	845.00	27.51	.00	29.69	15.45	2.26	956.79	215.01
9503.000	665.00	.00	.00	24.53	1613.00	31.41	.00	31.44	16.06	2.86	1465.08	402.55
10193.000	690.00	.00	.00	25.36	391.00	29.30	.00	29.33	31.16	2.62	331.01	53.92
10193.000	690.00	.00	.00	25.36	640.00	30.48	.00	30.53	29.10	3.09	576.26	118.63
10193.000	690.00	.00	.00	25.36	845.00	31.06	.00	31.10	28.18	3.29	707.83	159.18
10193.000	690.00	.00	.00	25.36	1613.00	32.79	.00	32.84	26.13	3.85	1150.64	315.55
10903.000	710.00	.00	.00	26.21	391.00	30.34	.00	30.34	8.08	1.38	815.47	105.92
10903.000	710.00	.00	.00	26.21	640.00	31.58	.00	31.59	9.07	1.79	1331.01	212.49
10903.000	710.00	.00	.00	26.21	845.00	32.18	.00	32.19	9.51	1.98	1599.08	274.03
10903.000	710.00	.00	.00	26.21	1613.00	33.94	.00	33.96	10.42	2.50	2529.63	499.68
11591.000	688.00	.00	.00	27.03	391.00	31.44	.00	31.52	53.37	3.24	240.62	41.20
11591.000	688.00	.00	.00	27.03	640.00	32.84	.00	32.97	68.98	4.53	377.29	77.06
11591.000	688.00	.00	.00	27.03	845.00	33.50	.00	33.66	75.46	5.12	448.11	97.27
11591.000	688.00	.00	.00	27.03	1613.00	35.37	.00	35.61	87.53	6.64	780.94	172.41

SEENO	XLCN	ELTPD	ELLC	ELMIN	G	CSEL	CRWS	EG	10K-S	VCH	AREA	.01K
12161.000	570.00	.00	.00	26.96	142.00	32.59	.00	32.60	5.44	1.00	489.34	60.88
12161.000	570.00	.00	.00	26.96	321.00	33.98	.00	33.99	6.46	1.13	1240.75	152.00
12161.000	570.00	.00	.00	26.96	434.00	36.64	.00	36.65	5.16	1.18	1757.60	212.66
12161.000	570.00	.00	.00	26.96	874.00	36.48	.00	36.49	3.45	1.30	4886.36	470.62
12269.000	108.00	.00	.00	26.95	142.00	32.64	.00	32.65	4.90	.96	519.88	64.15
12269.000	108.00	.00	.00	26.95	321.00	34.02	.00	34.03	4.20	1.10	1275.11	156.54
12269.000	108.00	.00	.00	26.95	434.00	36.68	.00	36.69	3.97	1.16	1806.56	217.86
12269.000	108.00	.00	.00	26.95	874.00	36.52	.00	36.53	3.34	1.28	4994.49	478.38
12312.000	43.00	32.00	32.17	26.95	142.00	32.67	.00	32.68	4.19	.88	566.23	69.37
12312.000	43.00	32.00	32.17	26.95	321.00	34.04	.00	34.04	3.98	1.04	1298.41	160.87
12312.000	43.00	32.00	32.17	26.95	434.00	34.69	.00	34.70	3.83	1.10	1835.10	221.78
12312.000	43.00	32.00	32.17	26.95	874.00	36.52	.00	36.53	3.31	1.21	5039.50	480.44
12340.000	28.00	.00	.00	27.02	142.00	32.68	.00	32.69	5.14	.98	505.84	62.64
12340.000	28.00	.00	.00	27.02	321.00	34.05	.00	34.06	4.42	1.12	1265.90	152.68
12340.000	28.00	.00	.00	27.02	434.00	34.70	.00	34.71	4.16	1.18	1759.95	212.91
12340.000	28.00	.00	.00	27.02	874.00	36.53	.00	36.54	3.48	1.30	4853.47	468.26

Harrell Sharp

## SUMMARY PRINTOUT TABLE 150

SEENO	Q	CUSEL	DIFWSP	DIFWSX	DIFWSY	TOFLD	XLCN
10.000	1856.00	17.05	.00	.00	-2.95	1666.77	.00
10.000	3411.00	18.61	1.57	.00	-1.39	1691.83	.00
10.000	4263.00	19.55	.74	.00	-.65	1703.65	.00
10.000	7154.00	21.45	2.09	.00	1.45	1736.44	.00
1338.000	1856.00	17.91	.00	.86	.00	1347.20	1328.00
1338.000	3411.00	19.53	1.63	.92	.00	1412.79	1328.00
1338.000	4263.00	20.29	.75	.94	.00	1461.63	1328.00
1338.000	7154.00	22.43	2.14	.98	.00	1604.55	1328.00
2259.000	1856.00	18.62	.00	.71	.00	133.60	921.00
2259.000	3411.00	20.37	1.76	.84	.00	133.60	921.00
2259.000	4263.00	21.17	.79	.88	.00	133.60	921.00
2259.000	7154.00	23.07	1.91	.64	.00	1630.81	921.00
2296.000	1856.00	18.62	.00	.00	.00	133.16	37.00
2296.000	3411.00	20.65	2.03	.27	.00	133.60	37.00
2296.000	4263.00	21.65	1.00	.48	.00	133.60	37.00
2296.000	7154.00	24.52	2.87	1.45	.00	2153.09	37.00
2803.000	1856.00	18.86	.00	.24	.00	1625.79	507.00
2803.000	3411.00	20.97	2.11	.32	.00	1665.13	507.00
2803.000	4263.00	22.01	1.04	.36	.00	1676.07	507.00
2803.000	7154.00	24.61	2.61	.09	.00	1731.08	507.00
5083.000	301.00	19.15	.00	.29	.00	316.07	2280.00
5083.000	640.00	21.22	2.07	.25	.03	350.50	2280.00
5083.000	845.00	22.24	1.02	.23	.00	369.81	2280.00
5083.000	1613.00	24.85	2.61	.24	.00	424.65	2280.00
5793.000	301.00	19.32	.00	.18	.00	165.00	710.00
5793.000	640.00	21.34	2.02	.13	.07	246.95	710.00
5793.000	845.00	22.35	1.01	.11	.00	276.21	710.00
5793.000	1613.00	24.97	2.61	.11	.00	357.98	710.00
6323.000	301.00	19.72	.00	.40	.00	116.26	530.00
6323.000	640.00	21.65	1.93	.31	.00	154.07	530.00
6323.000	845.00	22.63	.95	.28	.00	174.23	530.00
6323.000	1613.00	25.23	2.60	.26	.00	229.46	530.00
6711.000	301.00	20.26	.00	.54	.00	229.90	388.00
6711.000	640.00	22.09	1.83	.44	.00	339.11	388.00
6711.000	845.00	23.03	.94	.40	.00	371.99	388.00
6711.000	1613.00	25.62	2.50	.39	.00	498.93	388.00

SECNO	Q	CUSEL	DIFUSP	DIFWSX	DIFWUS	TOPWID	XLCN
7248.000	301.00	21.16	.00	.90	.00	142.02	537.00
7248.000	640.00	22.79	1.62	.70	.00	207.87	537.00
7248.000	845.00	23.63	.85	.61	.03	218.44	537.00
7248.000	1613.00	26.11	2.48	.50	.00	264.00	537.00
7690.000	301.00	22.21	.00	1.04	.00	129.86	442.00
7690.000	640.00	23.68	1.47	.89	.00	251.28	442.00
7690.000	845.00	24.42	.74	.78	.00	284.05	442.00
7690.000	1613.00	26.72	2.31	.61	.00	320.02	442.00
8228.000	301.00	25.41	.00	3.20	.00	147.74	538.00
8228.000	640.00	26.39	.98	2.71	.00	159.73	538.00
8228.000	845.00	26.86	.47	2.44	.00	169.15	538.00
8228.000	1613.00	28.51	1.65	1.78	.00	201.74	538.00
8838.000	301.00	26.85	.00	1.44	.00	237.03	610.00
8838.000	640.00	28.04	1.19	1.65	.00	271.29	610.00
8838.000	845.00	28.60	.56	1.74	.00	287.29	610.00
8838.000	1613.00	30.30	1.70	1.80	.00	343.42	610.00
9503.000	301.00	27.87	.00	1.01	.00	246.69	665.00
9503.000	640.00	29.09	1.22	1.05	.00	266.33	665.00
9503.000	845.00	29.67	.58	1.07	.00	275.07	665.00
9503.000	1613.00	31.41	1.74	1.11	.00	310.04	665.00
10193.000	301.00	29.30	.00	1.43	.00	195.66	690.00
10193.000	640.00	30.48	1.18	1.39	.00	221.00	690.00
10193.000	845.00	31.06	.58	1.39	.00	235.41	690.00
10193.000	1613.00	32.79	1.73	1.37	.00	275.09	690.00
10903.000	301.00	30.34	.00	1.04	.00	389.20	710.00
10903.000	640.00	31.58	1.24	1.10	.00	441.35	710.00
10903.000	845.00	32.18	.60	1.12	.00	469.78	710.00
10903.000	1613.00	33.94	1.76	1.16	.00	582.13	710.00
11591.000	301.00	31.44	.00	1.10	.00	90.97	688.00
11591.000	640.00	32.84	1.40	1.26	.00	107.63	688.00
11591.000	845.00	33.50	.66	1.32	.00	113.08	688.00
11591.000	1613.00	35.37	1.87	1.43	.00	265.56	688.00
12161.000	142.00	32.59	.00	1.14	.00	453.44	570.00
12161.000	321.00	33.98	1.39	1.14	.00	624.30	570.00
12161.000	434.00	34.54	.66	1.14	.00	949.76	570.00
12161.000	874.00	36.48	1.84	1.11	.00	2577.17	570.00
12269.000	142.00	32.64	.00	.06	.00	461.61	108.00
12269.000	321.00	34.02	1.38	.05	.00	640.76	108.00
12269.000	434.00	34.68	.66	.04	.00	975.52	108.00
12269.000	874.00	36.52	1.84	.04	.00	2617.81	108.00

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SECNO	O	DSEL	DFWSP	DFWSX	DFKWS	TOPWID	XLCH
12312.000	142.00	32.67	.00	.03	.00	66.91	43.00
12312.000	321.00	34.04	1.37	.01	.00	651.49	43.00
12312.000	434.00	34.53	.65	.01	.00	985.06	43.00
12312.000	874.00	36.52	1.83	.01	.00	2630.80	43.00
12340.000	142.00	32.68	.00	.01	.00	557.88	28.00
12340.000	321.00	34.05	1.37	.01	.00	625.31	28.00
12340.000	434.00	34.70	.65	.01	.00	951.00	28.00
12340.000	874.00	36.53	1.83	.01	.00	2564.69	28.00

THIS RUN EXECUTED 12-28-88 14:52:08

\*\*\*\*\*  
 HEC2 RELEASE DATED NOV 76 UPDATED MAY 1984  
 ERROR CORR - 01,02,03,04,05,06  
 MODIFICATION - 50,51,52,53,54,55,56  
 IBM-PC-XT VERSION AUGUST 1985  
 \*\*\*\*\*

C  
 T1 Hayes, Seay, Mattern & Mattern  
 T2 Filename:HS.hec Eng:EKL ET:CJB  
 T3 Harrell Swamp Date: 12/28/88 Gates Co. NC FIS  
 Comm. No. 2353C  
 100-Year Event

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	O	WSEL	FQ
	0.	4.	0.	0.	.000750	.00	.0	0.	20.000	.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLOC	IBW	CHNIN	ITRACE
	1.000	.000	-1.000	.000	.000	.000	.000	.000	.000	.000
J3	VARIABLE CODES FOR SUMMARY PRINTOUT									
	110.000	290.000	.000	.000	.000	.000	.000	.000	.000	.000
NC	.150	.150	.070	.100	.300	.000	.000	.000	.000	.000
NH	7.000	1.000	4057.000	.350	4470.000	.270	4790.000	.175	4984.000	.075
NH	5016.000	.170	5200.000	1.000	5834.000	.000	.000	.000	.000	.000
QT	5.000	1856.000	3411.000	4263.000	7154.000	4263.000	.000	.000	.000	.000
ET	.000	.000	.000	.000	.000	10.410	.000	.000	.000	.000
X1	10.000	23.000	4984.000	5016.000	10.000	10.000	10.000	.000	.000	.000
GR	22.000	4046.000	20.000	4057.000	18.000	4069.000	16.000	4081.000	14.000	4092.000
GR	13.720	4470.000	13.600	4632.000	13.510	4790.000	13.400	4984.000	12.100	4989.000
GR	11.800	4994.000	12.000	5009.000	13.450	5014.000	13.400	5016.000	13.380	5200.000
GR	13.310	5685.000	14.000	5710.000	16.000	5731.000	18.000	5751.000	20.000	5771.000
GR	22.000	5791.000	24.000	5807.000	25.990	5834.000	.000	.000	.000	.000
NH	7.000	1.000	4055.000	.350	4465.000	.270	4790.000	.175	4952.000	.075
NH	5038.000	.170	5088.000	100.000	5459.000	.000	.000	.000	.000	.000

=====  
 ===== HEC-2 Input file created with CodeH2  
 ===== Version: 3.49  
 ===== CodeH2 Copyrighted 1986, 1987, 1988  
 ===== Run Date: Wednesday December 28, 1988  
 ===== Run Time: 14:52:00  
 =====

Cross Section A

12-38.98 \$6.52.77

11

Cross Species 55

Cross Section C									
x1	2803.000	39.000	4702.000	5240.000	507.000	507.000	507.000	.000	.000
GR	25.000	3707.000	22.000	3707.000	22.000	3714.000	20.000	3717.000	18.000
GR	16.000	3745.000	15.600	3755.000	15.410	3785.000	15.300	4112.000	15.370
GR	15.400	4392.000	16.200	4580.000	16.800	4700.000	16.700	4910.000	13.100
GR	12.800	5044.000	12.800	5052.000	12.900	5058.000	13.000	5054.000	12.000
GR	14.700	5100.000	14.800	5240.000	16.000	5252.000	17.400	5312.000	18.000
GR	18.580	5345.000	20.000	5372.000	22.000	5350.000	22.000	5218.000	25.000
GR	7.000	1.000	7.200	7.000	.350	.615.000	.190	.615.500	.190
GR	1005.000	1.550	573.000	1.000	510.000	510.000	.000	.000	.000
GR	5.000	301.000	455.000	845.000	1635.000	855.000	.000	.000	.000
x1	5083.000	17.000	4316.500	5083.500	2289.000	2289.000	2289.000	.000	.000
GR	25.000	4763.000	25.000	4778.000	22.000	4808.000	20.000	4830.000	18.000
GR	17.550	4916.500	12.800	5016.500	13.100	5032.500	15.550	5458.500	15.850
GR	17.550	5083.500	17.430	5095.000	18.000	5125.000	20.000	5158.000	22.000
GR	26.000	5183.000	25.000	5161.000	.000	.000	.000	.000	.000
GR	5.000	1.010	4956.500	.000	.000	.000	.000	.000	.000
GR	5250.000	0.000	0.000	0.000	.000	.000	.000	.000	.000

## Cross Section C-1

X1	5793.000	20.000	45.6.000	5053.100	710.000	710.000	.000
GR	26.250	4800.000	25.000	4851.000	24.000	4862.000	22.000
GR	20.000	4610.000	18.910	4526.900	18.610	4975.220	15.410
GR	15.210	5024.782	18.510	5022.480	19.510	5053.100	18.000
GP	20.000	5120.000	22.000	5155.000	24.000	5190.000	25.000
NH	7.000	1.000	4820.000	5000	4972.000	4970.000	.075
NH	5030.000	.300	5033.000	.000	5030.000	5030.000	.190
E1	.000	.000	.000	.000	.000	.000	.000

## Cross Section C-1A

X1	6323.000	26.000	4970.000	5030.000	510.000	510.000	.000
GR	34.600	4599.000	32.910	4701.000	31.200	4811.000	28.220
GR	25.000	4924.000	24.000	4929.000	22.000	4944.000	20.000
GR	18.200	4986.000	15.000	4992.000	12.200	5008.000	11.800
GR	19.100	5030.000	19.510	5073.000	20.000	5098.000	20.500
GR	24.000	5134.000	25.200	5176.000	25.700	5161.000	26.200
GR	33.100	5494.000	.000	5494.000	.000	5494.000	.000
NH	7.000	1.000	4868.000	.500	4955.000	.180	.075
NH	5040.000	.300	5050.000	.000	5360.000	.000	.000

## Cross Section D-1A

X1	6711.000	20.000	4974.500	5025.500	368.000	388.000	.000
GR	26.250	4685.000	25.000	4760.000	24.000	4782.000	22.000
GR	19.830	4880.000	15.610	4955.000	15.540	4972.500	15.240
GR	14.240	5006.800	15.810	5011.900	19.120	5020.400	20.140
GR	20.820	5080.000	22.000	5138.000	24.000	5183.000	25.000
NH	7.000	1.000	4842.000	.300	4910.000	.170	.065
NH	5055.000	.300	5150.000	1.000	5083.000	.000	.000
E1	.000	.000	.000	.000	.000	.000	.000

## Cross Section E-1

X1	7248.000	18.000	4981.000	5018.970	.532.000	.532.000	.000
GR	32.800	4775.000	25.000	4825.000	24.010	4832.000	22.030
GR	20.000	4962.000	18.670	4981.030	17.250	4920.520	17.110
GR	17.240	5012.200	18.230	5018.970	20.010	5025.000	22.000
GP	25.000	5065.000	30.620	5150.000	32.810	5183.000	.000
NH	56.000	1.000	4940.000	.500	4939.000	.170	.065
NH	5051.000	.300	5117.000	.000	.000	.000	.000
E1	.000	.000	.000	.000	.000	.000	.000

## Cross Section F-1

12-28-88 14-52-07

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Gross Section D-1B

X1	7690.000	23.000	4986.490	5013.510	442.000	442.000	442.000	.000	.000	.000
GR	35.000	4629.000	34.000	4669.000	32.000	4686.000	30.000	4701.000	28.000	4723.000
GR	26.000	4744.000	24.000	4764.000	22.980	4840.000	22.000	4913.000	21.770	4930.000
GR	21.000	4986.490	19.580	4993.250	19.440	4999.030	19.400	5002.900	19.570	5008.680
GR	20.560	5013.510	24.000	5042.000	26.000	5051.000	28.000	5066.000	30.000	5079.000
GR	32.000	5092.000	34.000	5109.000	35.000	5117.000	.000	.000	.000	.000
NH	7.000	1.000	4844.000	.300	4922.000	.170	4993.000	.065	5007.000	.150
NH	5050.000	.300	5144.000	1.000	5374.000	.000	.000	.000	.000	.000

Cross Section E

X1	B228.000	29.000	4993.000	5007.000	538.000	538.000	538.000	.000	.000	.000
GR	35.000	4932.000	34.000	4844.000	32.000	4856.000	30.000	4871.000	28.000	4883.000
GR	26.000	4898.000	24.000	4910.000	23.600	4922.000	23.410	4938.000	23.360	4978.000
GR	23.420	4988.000	23.830	4993.000	22.410	4996.500	22.270	4999.500	22.230	5001.500
GR	22.400	5004.500	23.320	5007.000	23.490	5017.000	23.710	5027.000	23.630	5037.000
GR	23.640	5047.000	26.000	5050.000	28.000	5075.000	30.000	5102.000	32.000	5144.000
GR	33.900	5156.000	34.000	5164.000	35.000	5219.000	36.300	5374.000	.000	.000
NH	7.000	1.000	4850.000	.300	4925.000	.150	4993.950	.065	5006.050	.150
NH	5100.000	.300	5250.000	1.000	5475.000	.000	.000	.000	.000	.000

### Cross Section t-1

X1	8838.000	22.000	4993.950	5006.050	610.000	610.000	610.000	.000	.000	.000
GR	35.000	4800.000	34.000	4812.500	32.000	4825.000	30.000	4837.500	28.000	4850.000
GR	26.000	4862.500	24.000	4875.000	24.490	4925.000	25.160	4993.950	23.500	5000.000
GR	23.339	5002.420	23.450	5005.450	25.050	5006.050	24.000	5050.000	26.000	5075.000
GR	27.110	5100.000	28.000	5120.000	30.000	5165.000	31.790	5250.000	32.000	5260.000
GR	34.000	5355.000	35.000	5475.000	.000	.000	.000	.000	.000	.000
NH	7.000	1.000	4855.000	.300	4925.000	.150	4995.000	.065	5005.000	.150
NH	5100.000	.300	5250.000	1.000	5274.000	.000	.000	.000	.000	.000

### Cross Section F

	X1	10193.000	18.000	4935.000	5005.000	690.000	690.000	690.000	690.000	690.000	690.000	690.000	690.000
GR	35.000	4828.000	34.630	4850.000	34.000	4888.000	32.000	4914.000	31.120	4925.000	31.000	4925.000	31.000
GR	30.000	4939.000	28.000	4969.000	27.190	4995.000	25.530	5000.000	25.360	5002.000	25.000	5002.000	25.000
GR	25.400	5004.500	27.030	5005.000	27.750	5100.000	28.000	5142.000	30.000	5148.000	.000	5148.000	.000
GR	32.000	5173.000	34.000	5188.000	35.000	5205.000	.000	.000	.000	.000	.000	.000	.000
MH	7.000	1.000	4850.000	1.300	4925.000	.150	4995.000	.065	5005.000	.150	.000	.000	.000
NH	5100.000	.300	5250.000	1.000	5285.000	.000	.000	.000	.000	.000	.000	.000	.000

Cross Section F-1

	X1	10903.000	18.000	4995.000	5005.000	710.000	710.000	710.000	710.000	710.000	710.000	710.000	710.000
GR	35.000	4461.000	34.000	4561.000	32.000	4678.000	30.000	4775.000	28.000	4800.000	26.210	4802.000	26.000
GR	28.010	4850.000	28.030	4925.000	28.040	4925.000	26.180	5000.000	26.210	5002.000	26.000	5002.000	26.000
GR	26.340	4704.500	27.930	5005.000	28.000	5005.000	30.000	5120.000	32.000	5137.000	.000	5137.000	.000
GR	34.000	4147.000	34.750	5250.000	35.000	5285.000	.000	.000	.000	.000	.000	.000	.000
NH	6.000	1.000	4962.000	.270	4995.000	.075	5005.000	.200	5028.000	.300	.000	.000	.000
NH	5120.000	1.000	5388.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Cross Section G-1

	X1	11591.000	20.000	4995.000	5005.000	688.000	688.000	688.000	688.000	688.000	688.000	688.000	688.000
GR	53.000	4898.000	44.100	4920.000	35.000	4942.000	34.000	4954.000	32.000	4962.000	30.000	4962.000	30.000
GR	30.000	4965.000	28.750	4973.000	28.860	4995.000	27.200	5000.000	27.030	5002.000	26.960	5002.000	26.960
GR	27.160	5004.500	34.430	5005.000	30.000	5028.000	30.000	5033.000	32.000	5058.000	32.000	5058.000	32.000
GR	34.000	5073.000	34.430	5120.000	35.000	5183.000	35.700	5228.000	36.300	5358.000	.000	5358.000	.000
NH	7.000	1.000	4840.000	.300	4950.000	.200	4986.500	.075	5013.500	.200	.000	.000	.000
NH	5130.000	.300	5220.000	1.000	6925.000	.000	.000	.000	.000	.000	.000	.000	.000
OI	5.000	4142.000	321.000	434.000	874.000	.434.000	.000	.000	.000	.000	.000	.000	.000
EI	.000	.000	.000	.000	.000	.840	.000	.000	.000	.000	.000	.000	.000
X1	12161.000	54.000	4266.500	5013.500	570.000	570.000	570.000	570.000	570.000	570.000	570.000	570.000	570.000
GR	37.740	2764.000	35.070	4019.000	34.800	4146.000	34.140	4254.000	34.010	4517.000	.000	.000	.000
GR	32.790	4636.000	32.010	4712.000	31.980	4718.000	31.390	4818.000	31.010	4930.000	.000	.000	.000
GR	31.420	4950.000	31.650	4956.400	31.650	4966.500	31.620	4986.400	31.620	4986.500	.000	.000	.000
GR	30.520	4990.000	30.320	4970.630	30.130	4991.250	29.930	4991.880	29.740	4992.500	.000	.000	.000
GR	29.540	4993.130	29.350	4993.750	29.150	4994.380	28.950	4995.000	28.490	4996.480	.000	.000	.000
GR	28.500	4996.490	28.510	4996.500	29.020	4997.130	29.520	4997.750	30.030	4998.380	.000	.000	.000
GR	30.130	4998.500	29.420	4999.000	28.540	4999.630	27.660	5000.250	27.310	5000.500	.000	.000	.000
GR	27.260	5000.880	27.190	5001.500	27.070	5002.500	26.960	5004.990	26.960	5005.000	.000	.000	.000
GR	27.070	5002.500	31.300	5013.490	31.300	5013.500	31.760	5046.500	31.760	5046.500	.000	.000	.000
GR	32.010	5095.000	33.410	5150.000	34.010	5145.000	35.010	5185.000	35.080	5220.000	.000	.000	.000
GR	35.680	5525.000	36.040	5705.000	36.160	5785.000	38.450	6925.000	.000	.000	.000	.000	.000
MC	.000	.000	4840.000	.300	.500	.000	.000	.000	.000	.000	.000	.000	.000
NH	5130.000	.300	5220.000	1.000	6925.000	.000	4986.500	.075	5013.500	.200	.000	.000	.000

Cross Section G

12-28-88 14:52:07

Page i

X1	12269.000	56.000	4986.500	5013.500	105.000	108.000	.000	.000	.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
GR	37.730	2764.000	35.060	4018.000	34.750	4146.000	34.130	4454.000	34.000	4920.000	4517.000	4920.000
GR	32.780	4636.000	32.000	4712.000	31.970	4718.000	31.380	4840.000	31.000	4986.500	4992.500	4996.500
GR	31.410	4950.000	31.640	4966.450	31.640	4966.500	31.610	4986.500	31.610	4986.500	4992.500	4996.500
GR	30.510	4970.000	30.310	4990.650	30.120	4991.250	29.920	4991.880	29.730	4992.500	4996.480	4996.480
GR	29.530	4993.130	29.340	4993.750	29.140	4994.380	28.940	4995.000	28.480	4995.000	4996.480	4996.480
GR	28.490	4996.490	28.500	4996.500	27.010	4997.130	27.510	4997.750	30.020	4998.380	5000.500	5000.500
GR	30.120	4978.500	29.410	4999.000	28.530	4999.630	27.650	5000.250	27.300	5000.500	5000.500	5000.500
GR	27.250	5000.880	27.180	5001.500	27.060	5002.500	26.950	5004.990	26.950	5005.000	5046.500	5046.500
GR	27.060	5007.500	31.290	5013.490	31.290	5013.500	31.750	5046.490	31.750	5046.500	5195.000	5195.000
GR	32.000	5095.000	33.460	5130.000	34.000	5145.000	35.000	5195.000	35.070	5220.000	5220.000	5220.000
GR	35.670	5525.000	36.030	5705.000	36.150	5765.000	36.440	6925.000	.000	.000	.000	.000
SP	1320											
X1	12312.000	56.000	4986.500	5013.500	43.000	43.000	.000	.000	.000	.000	.000	.000
X2	.000	.000	1.000	32.170	.000	.000	.000	.000	.000	.000	.000	.000
X3	10.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
BT	-54.000	2764.000	17.750	37.750	4018.000	35.070	4146.000	34.800	4636.000	34.790	4636.000	4636.000
BT	.000	4456.000	34.140	34.150	4517.000	34.010	4636.000	34.000	4636.000	32.780	4636.000	4636.000
BT	.000	4712.000	32.020	32.000	4719.000	32.000	4840.000	31.970	4840.000	31.380	4840.000	4840.000
BT	.000	4920.000	32.510	31.000	4950.000	32.550	4986.490	31.410	4986.490	31.640	4986.500	4986.500
BT	.000	4986.500	32.630	31.640	4986.490	32.670	4986.500	31.610	4986.500	31.610	4986.500	4986.500
BT	.000	4990.000	32.670	30.170	4990.630	32.670	4991.250	31.490	4991.250	32.670	4991.250	4991.250
BT	.000	4991.880	32.660	32.110	4992.500	32.680	4993.130	32.170	4993.130	32.660	4993.130	4993.130
BT	.000	4993.750	32.560	31.900	4994.380	32.660	4995.000	31.490	4995.000	30.170	4995.000	4995.000
BT	.000	4996.490	32.660	28.480	4995.490	32.680	4996.500	32.660	4996.500	32.660	4996.500	4996.500
BT	.000	4997.130	32.660	30.270	4997.750	32.680	4998.380	30.580	4998.380	30.890	4998.380	4998.380
BT	.000	4998.500	32.660	30.900	4999.000	32.650	4999.630	30.950	4999.630	32.650	4999.630	4999.630
BT	.000	5000.250	32.650	30.680	5000.500	32.650	5000.880	30.520	5000.880	32.650	5000.880	5000.880
BT	.000	5001.500	32.650	30.000	5002.500	32.650	5004.990	27.060	5004.990	32.640	5004.990	5004.990
BT	.000	5005.000	32.640	26.950	5002.500	32.640	5013.490	27.060	5013.490	32.650	5013.490	5013.490
BT	.000	5013.500	32.630	31.290	5046.490	32.650	5046.500	31.750	5046.500	32.650	5046.500	5046.500
BT	.000	5025.000	32.760	32.000	5130.000	33.410	5145.000	31.410	5145.000	34.010	5145.000	5145.000
BT	.000	5185.000	35.010	35.000	5220.000	35.080	5525.000	35.070	5525.000	35.670	5525.000	5525.000
BT	.000	5705.000	36.040	36.030	5765.000	36.160	6925.000	36.150	6925.000	38.440	6925.000	6925.000
BT	.000	2764.000	35.050	4018.000	34.790	4146.000	34.130	4454.000	34.000	4517.000	4517.000	4517.000
BT	.000	4993.750	32.000	4712.000	31.970	4718.000	31.380	4840.000	31.000	4840.000	4840.000	4840.000
BT	.000	4995.000	31.640	4966.490	31.640	4966.500	31.610	4986.490	31.610	4986.500	4992.500	4992.500
BT	.000	4997.130	28.850	4970.610	28.480	4971.250	28.230	4991.880	28.170	4992.500	5005.000	5005.000
BT	.000	4998.500	28.440	4993.750	28.850	4994.380	30.170	4995.000	28.480	4996.480	4996.480	4996.480
BT	.000	4999.000	32.000	4636.000	31.290	5046.490	27.220	4997.750	27.010	4998.380	5000.500	5000.500
BT	.000	4995.000	31.640	4966.490	31.640	4966.500	31.610	4986.490	31.610	4986.500	4992.500	4992.500
BT	.000	5000.250	35.010	5000.880	35.000	5002.500	35.050	5004.990	35.070	5013.500	5046.500	5046.500
BT	.000	5007.500	31.290	5013.490	31.290	5013.500	31.750	5046.490	31.750	5046.500	5185.000	5185.000
BT	.000	5005.000	33.400	5130.000	34.000	5145.000	35.000	5145.000	35.000	5185.000	5220.000	5220.000
BT	.000	5705.000	36.030	5705.000	36.150	5765.000	38.440	6925.000	.000	.000	.000	.000

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5

THIS RUN EXECUTED 12-28-88 14:53:42

HEC2 RELEASE DATED NOV 76 UPDATED MAY 1984  
ERROR CORR - 01,02,03,04,05,06  
MODIFICATION - 50,51,52,53,54,55,56  
IBM-PC-XT VERSION AUGUST 1985

T1 Heyes, Seay, Mattern & Mattern  
T2 Filename:HS.MEC Eng:EKL ET:CJB  
T3 Harrell Swano Date: 12/28/88  
Gates Co. NC FIS  
Comm. No. 2353C  
Floodway Event

THIS RUN EXECUTED 12-28-88 14:54:37

\*\*\*\*\*  
 NEC2 RELEASE DATED NOV 76 UPDATED MAY 1984  
 ERROR CORR - 01,02,03,04,05,06  
 MODIFICATION - 50,51,52,53,54,55,56  
 IBM-PC-XT VERSION AUGUST 1985  
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NOTE- ASTERISK (\*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

## Harrell Swamp

## SUMMARY PRINTOUT TABLE 110

SECONO	CWSEL	DIFMWS	EG	TOPWID	GLCS	CCW	GRCS	PERENC	STENCL	STCHL	STCHR	STENCR
10.000	19.35	.65	19.36	1703.65	2526.91	450.01	1286.08	.00	.00	4984.00	5016.00	.00
10.000	19.35	.00	19.37	868.06	2648.50	581.75	1032.75	.23	4322.26	4984.00	5016.00	5190.32
1338.000	20.29	.00	20.31	1461.63	3005.86	1149.55	107.58	.00	.00	4952.00	5038.00	.00
1338.000	20.72	.43	20.75	734.71	2821.07	1441.93	.00	.21	4303.30	4952.00	5038.00	5038.00
2259.000	21.17	.00	21.39	133.60	.00	4263.00	.00	.00	.00	4924.50	5058.10	.00
2259.000	21.69	.53	21.89	133.60	.00	4263.00	.00	.00	4924.50	4924.50	5058.10	5058.10
2296.000	21.65	.00	21.86	133.60	.00	4263.00	.00	.00	.00	4924.50	5058.10	.00
2296.000	22.20	.55	22.38	133.60	.00	4263.00	.00	.00	4924.50	4924.50	5058.10	5058.10
2803.000	22.01	.00	22.01	1676.07	955.75	5221.05	86.20	.03	.00	4700.00	5240.00	.00
2803.000	22.54	.53	22.55	717.83	306.70	3956.30	.00	.19	4522.17	4700.00	5240.00	5240.00
5083.000	22.24	.00	22.25	369.81	77.32	725.91	41.78	.09	.00	4916.50	5083.50	.00
5083.000	22.82	.58	22.83	167.00	.00	845.00	.00	.16	4916.50	4916.50	5083.50	5083.50
5793.000	22.35	.00	22.38	276.21	24.87	785.23	34.90	.00	.00	4946.90	5053.10	.00
5793.000	22.93	.58	22.96	106.20	.00	845.00	.00	.09	4946.90	4946.90	5053.10	5053.10
6323.000	22.63	.00	22.69	174.23	21.80	770.79	52.41	.00	.00	4970.00	5030.00	.00
6323.000	23.18	.55	23.24	71.96	.00	830.55	14.45	.08	4970.00	4970.00	5030.00	5041.96
6711.000	23.05	.00	23.08	371.99	162.01	617.61	65.38	.00	.00	4974.50	5025.50	.00
6711.000	23.55	.52	23.61	151.12	144.60	668.57	31.83	.10	4891.95	4974.50	5025.50	5043.07
7248.000	23.63	.00	23.71	218.44	124.75	598.76	51.48	.00	.00	4981.03	5018.97	.00
7248.000	24.09	.46	24.17	121.85	184.52	644.60	15.88	.10	4902.21	4981.03	5018.97	5024.06
7690.000	24.42	.00	24.56	284.05	292.57	490.50	61.93	.00	.00	4986.49	5013.51	.00
7690.000	24.81	.39	25.14	57.30	158.46	686.54	.00	.36	4956.21	4986.49	5013.51	5013.51

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SEENO	CWSEL	DIFKWS	EG	TOPWID	QLCS	QCH	QROS	PERENC	STENCL	STCHL	STCHR	STENCR
8228.000	26.86	.00	26.95	169.15	380.68	251.13	213.18	.00	.00	4993.00	5007.00	.00
8228.000	27.88	1.02	28.06	82.02	373.24	356.44	115.32	.35	4940.45	4993.00	5007.00	5022.47
8838.000	28.60	.00	28.62	287.29	398.92	138.30	307.78	.00	.00	4993.95	5006.05	.00
8838.000	29.65	1.05	29.69	128.23	382.76	191.78	270.47	.33	4922.96	4993.95	5006.05	5051.19
9503.000	29.67	.00	29.69	275.07	330.97	103.04	410.99	.00	.00	4995.00	5005.00	.00
9.03.000	30.70	1.03	30.73	144.97	293.08	142.81	409.11	.32	4936.59	4995.00	5005.00	5081.56
10193.000	31.06	.00	31.10	235.41	163.06	168.53	513.41	.00	.00	4995.00	5005.00	.00
10193.000	32.06	1.00	32.14	104.48	57.09	226.95	560.95	.35	4984.54	4995.00	5005.00	5089.02
10903.000	32.18	.00	32.19	469.78	396.47	106.44	342.09	.00	.00	4995.00	5005.00	.00
10903.010	33.19	1.02	33.21	178.74	391.42	141.40	312.18	.31	4894.61	4995.00	5005.00	5073.35
11591.000	33.50	.00	33.66	113.08	208.54	300.99	335.47	.00	.00	4995.00	5005.00	.00
11591.000	34.44	.95	34.71	53.54	132.59	393.28	319.13	.27	4977.69	4995.00	5005.00	5031.23
12161.000	34.64	.00	34.65	947.76	161.41	182.02	90.57	.00	.00	4986.50	5013.50	.00
12161.000	35.63	.99	35.64	194.02	158.84	223.70	51.46	.30	4855.17	4986.50	5013.50	5049.19
12269.000	34.68	.00	34.69	975.52	162.29	180.32	91.39	.00	.00	4986.50	5013.50	.00
12269.000	35.67	.98	35.68	196.49	159.85	221.73	52.42	.30	4853.71	4986.50	5013.50	5050.21
12312.000	34.69	.00	34.70	985.06	161.16	181.96	90.88	.00	.00	4986.50	5013.50	.00
12312.000	35.71	1.02	35.72	196.49	159.90	221.61	52.49	.30	4853.71	4986.50	5013.50	5050.21
12340.000	34.70	.00	34.71	951.00	161.45	181.93	90.61	.00	.00	4986.50	5013.50	.00
12340.000	35.72	1.02	35.73	193.75	159.14	223.37	51.48	.30	4855.29	4986.50	5013.50	5049.05

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FLOODWAY DATA, Harrel Swamp  
PROFILE NO. 2

STATION	WIDTH	FLOODWAY			WATER SURFACE ELEVATION		
		SECTION	MEAN AREA	VELOCITY	WITH FLOODWAY	WITHOUT FLOODWAY	Difference
10.000	868.	8070.	.8	.8	19.4	19.4	.0
1338.000	735.	5107.	.8	.8	20.7	20.3	.4
2257.000	136.	1187.	3.6	21.7	21.2	.5	
2296.000	135.	1242.	3.4	22.2	21.7	.5	
2803.000	718.	5754.	.7	22.5	22.0	.5	
5083.000	167.	1162.	.7	22.8	22.2	.6	
5793.000	106.	679.	1.2	23.0	22.4	.6	
6323.000	72.	471.	1.8	23.2	22.6	.6	
6711.000	151.	112	1.2	23.5	23.0	.5	
7248.000	122.	583.	1.5	24.1	23.6	.5	
7690.000	57.	245.	3.5	26.8	26.4	.4	
8228.000	82.	375.	2.3	27.9	26.9	1.0	
8838.000	128.	645.	1.3	29.6	28.6	1.0	
9503.000	165.	719.	1.2	30.7	29.7	1.0	
10193.000	104.	504.	1.7	35.1	31.1	1.0	
10903.000	179.	940.	.9	33.2	32.2	1.0	
11591.000	54.	331.	2.6	36.4	33.5	.9	
12161.000	194.	895.	.5	35.6	34.6	1.0	
12269.000	196.	913.	.5	35.7	34.7	1.0	
12312.000	196.	934.	.5	35.7	34.7	1.0	
12340.000	194.	900.	.5	35.7	34.7	1.0	